

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

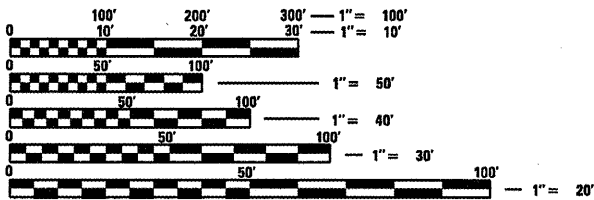
FAI ROUTE 255 (I-255)
SECTION 82-6B-1

BRIDGE PREVENTATIVE MAINTENANCE
ST. CLAIR COUNTY

C-98-037-12

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
255	82-6B-1	ST. CLAIR	18	1
ILLINOIS CONTRACT NO. 76F44				

FOR INDEX OF SHEETS, SEE SHEET NO. 2



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
OR 811

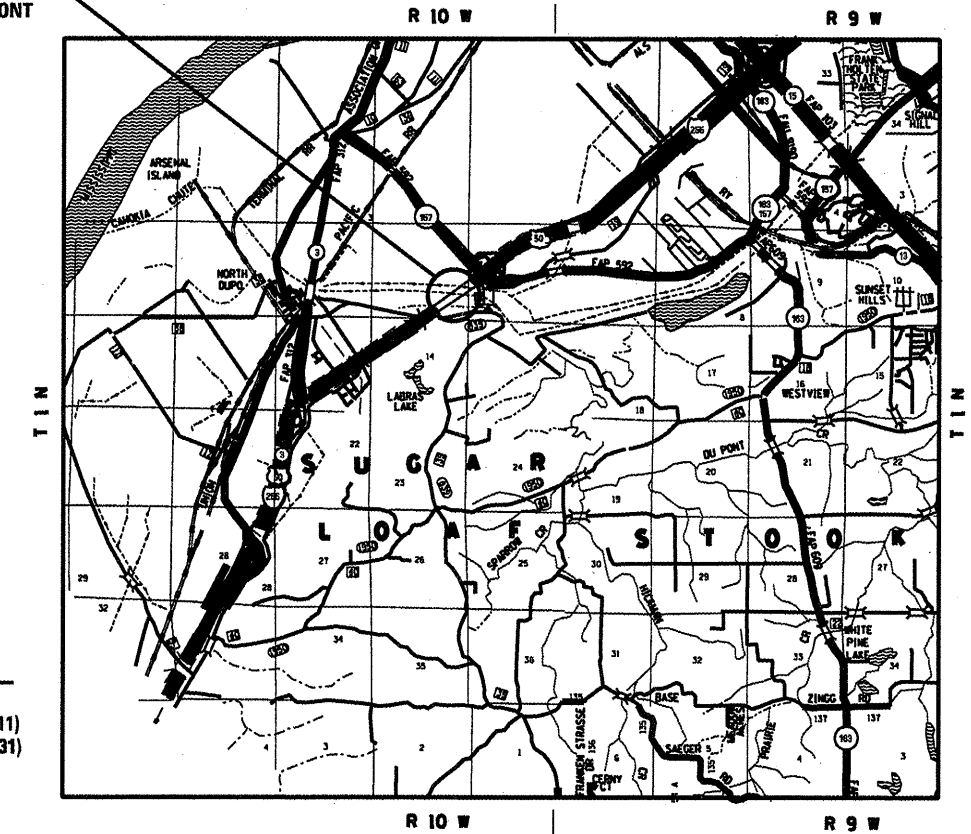
PROJECT ENGINEER: PATTI LeBEAU (618) 346-3179
PROJECT MANAGER: REBECCA THARP (618) 346-3323

CONTRACT NO. 76F44

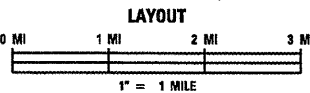
PROJECT LOCATION
I-255 OVER
PRAIRIE DU PONT
STA 556+80
SN 082-0221

TRAFFIC DATA

ADT: 36600 (2011)
44700 (2031)
SU: 3.0%
MU: 14.1%



DESIGN DESIGNATION
N/A



GROSS LENGTH = 0.451 MILES
NET LENGTH = 0.451 MILES

LATITUDE: 38.5456 LONGITUDE: -90.1700

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *December 20 20 11*
Don M. Cannon
ACTING DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER

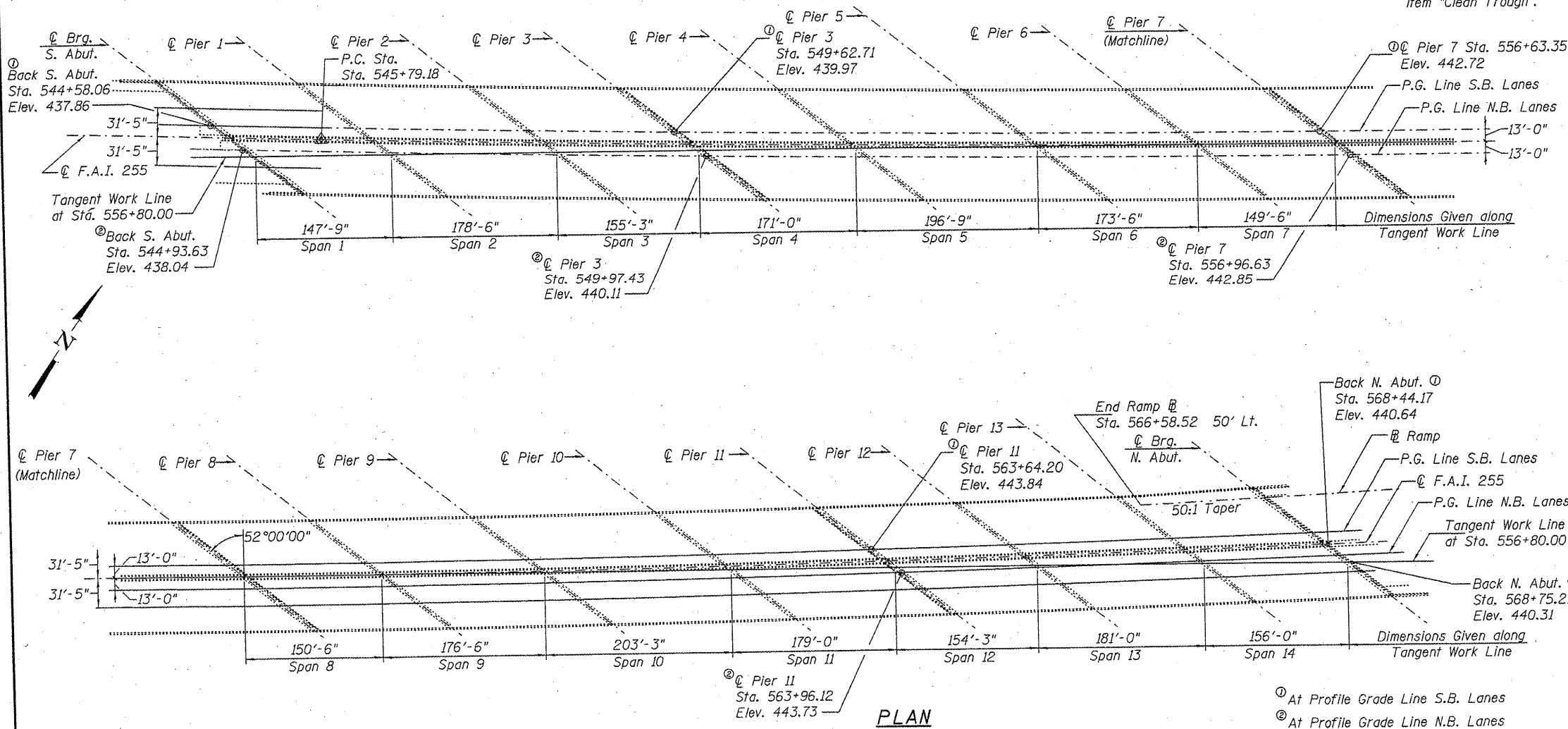
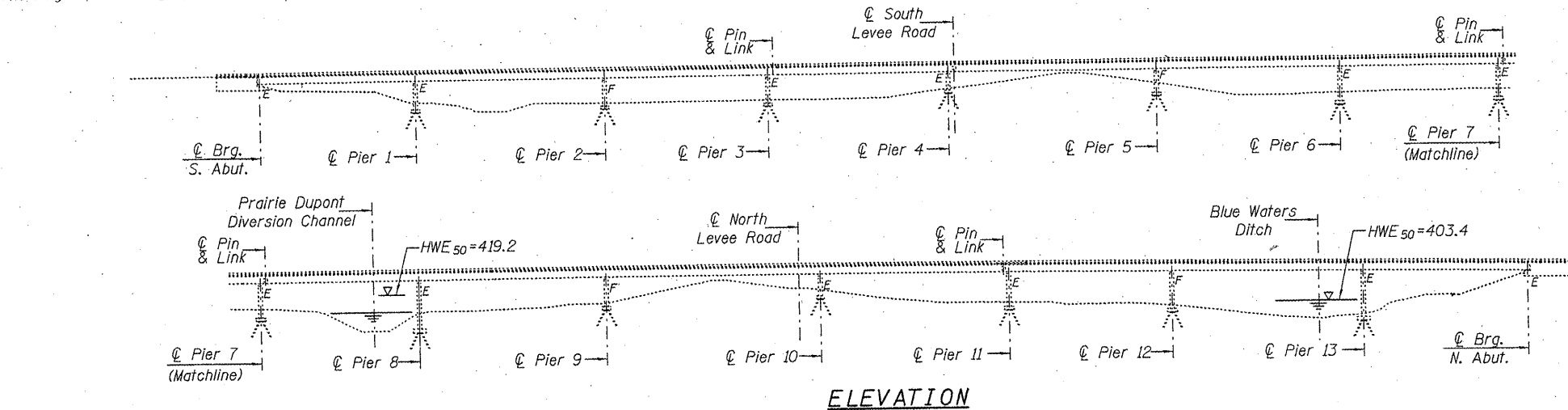
Feb 3 20 12
John D. Baranzelli, P.E.
ACTING ENGINEER OF DESIGN AND ENVIRONMENT

Feb 3 20 12
William R. Frey, Jr.
ACTING DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

FILE NAME =	USER NAME = nieveso	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, COMMITMENTS AND SUMMARY OF QUANTITIES	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwwork\pmdot\nieveso\d0286201\08764	44-sht-S00.dgn	DRAWN - _____	REVISED - _____			255	82-6B-1	ST. CLAIR	18	2	
	PLOT SCALE = 100.0000' / in.	CHECKED - _____	REVISED - _____			CONTRACT NO. 76F44					
	PLOT DATE = 12/28/2011	DATE - _____	REVISED - _____			SCALE: _____	SHEET NO. ____ OF _____ SHEETS	STA. _____ TO STA. _____	FED. ROAD DIST. NO. 8 IN ILLINOIS AND PROJECT		

SN 082-0221 was originally built in 1981 as FAI 270 Section 82-6B-1(B);(FE);(D);(P). It consists of 14 plate girder spans on pile bent abutments and multi-column piers, with joints at both abutments, and at the pin and links adjacent to piers 3, 7, and 11. In 2004 the original neoprene joints were replaced with finger plates with troughs. The beam ends, bearings, pin and links, and crossframes at each joint shall be cleaned and painted. The finger plate trough plates shall be repaired.



GENERAL NOTES

All new fasteners shall be high strength bolts. Bolts $\frac{3}{8}$ " ϕ , open holes $\frac{7}{16}$ " ϕ , unless otherwise noted.

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 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.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Location 1 is SN 082-0221. There are no other bridges on this contract.

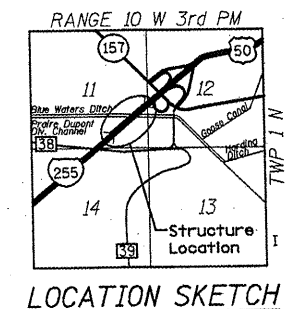
At location 1, cleaning and painting of the existing structural steel and bearings shall be as specified in the special provisions for "Cleaning and Painting Existing Steel Structures." All plate girders within 5' of ϕ bearings at abutments and within 10' of ϕ pin and links at piers 3, 7, and 11 shall be painted (measured along girder). All bearings at abutments and piers 3, 7, and 11 shall be cleaned and painted. All crossframes parallel, and adjacent to the joints shall be cleaned and painted. All pin and links shall also be cleaned and painted. The existing steel and bearings shall be cleaned per "Near White Metal Blast Cleaning SSPC-SP10". The existing steel and bearings shall be painted according to the requirements of "Paint system 1 - OZ/E/U". The color of the final finish coat for all surfaces shall be similar to the existing color, and will be at the discretion of the Engineer.

A minimum of two air monitors will be required to monitor abrasive blasting operation. See special provisions for "Containment and Disposal of Lead Paint Cleaning Residues".

The SSPC-QP1 and SSPC-QP2 certifications will be required.

All trough repairs specified with Details A-H on sheet 3 shall be included with the pay item "Clean Trough".

Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Clean Trough.



TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Cleaning and Painting Steel Bridge No. 1	L. Sum	1
C & D of Lead Paint Cleaning Residues No. 1	L. Sum	1
Clean Trough	Each	5

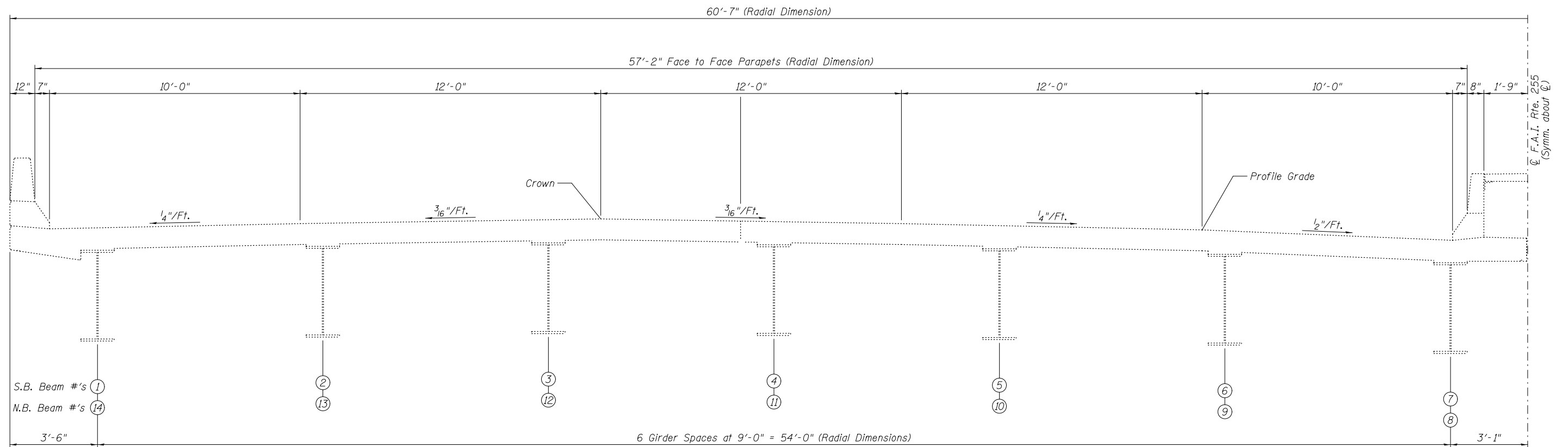
DESIGNED - J. Uehle	EXAMINED	DATE - March 9, 2012
CHECKED - B. Williams	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - J. Uehle	PASSED	
CHECKED - B. Williams	ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

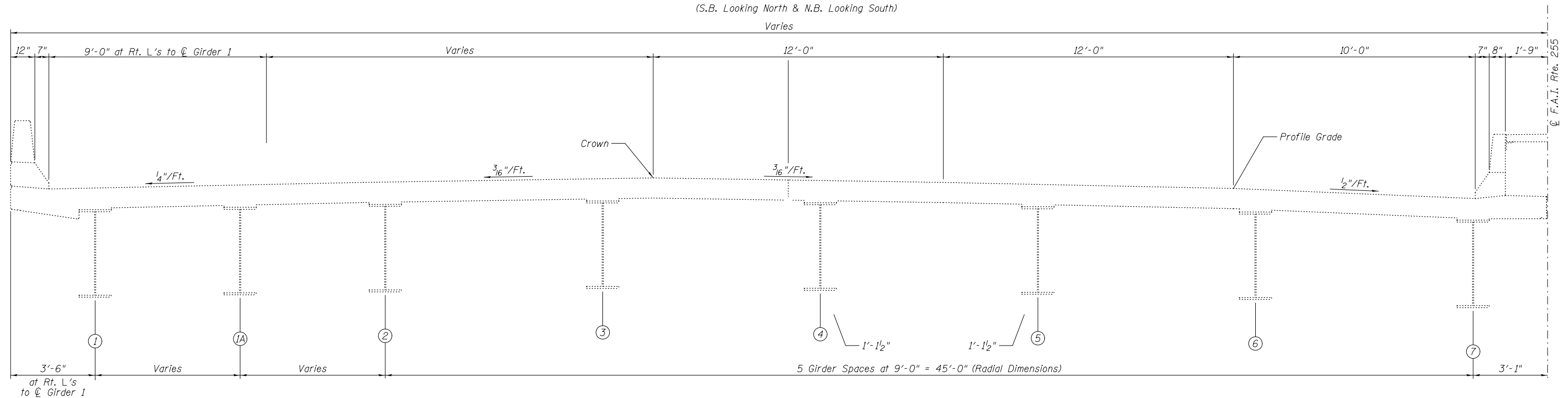
GENERAL PLAN AND ELEVATION
SN 082-0221

SHEET NO. 1 OF 16 SHEETS

F.A.I. RTE. 255	SECTION 82-6B-1	COUNTY ST. CLAIR	TOTAL SHEETS 18	SHEET NO. 3
CONTRACT NO. 76F44				
ILLINOIS FED. AID PROJECT				

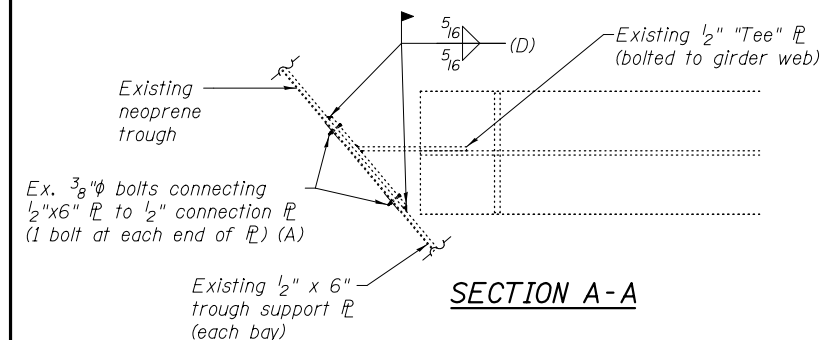
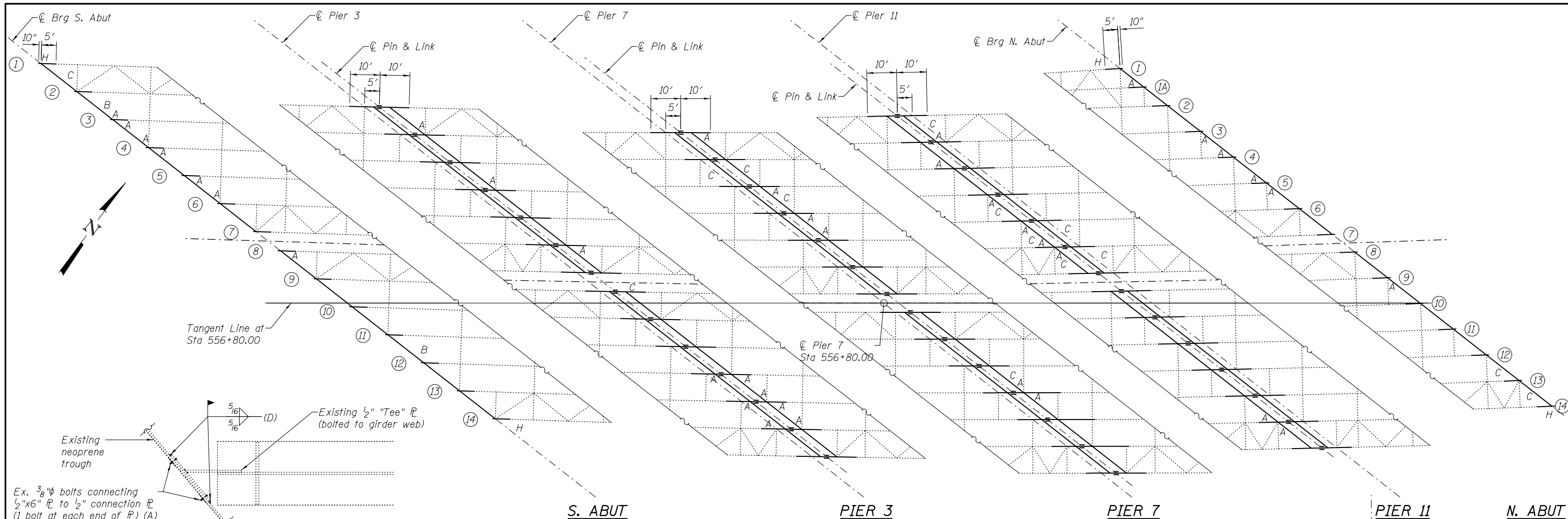


TYPICAL DECK CROSS SECTION
(S.B. Looking North & N.B. Looking South)



DECK CROSS SECTION THRU S.B. LANES (SPAN 14 & NORTH ABUTMENT)
(S.B. Looking North)

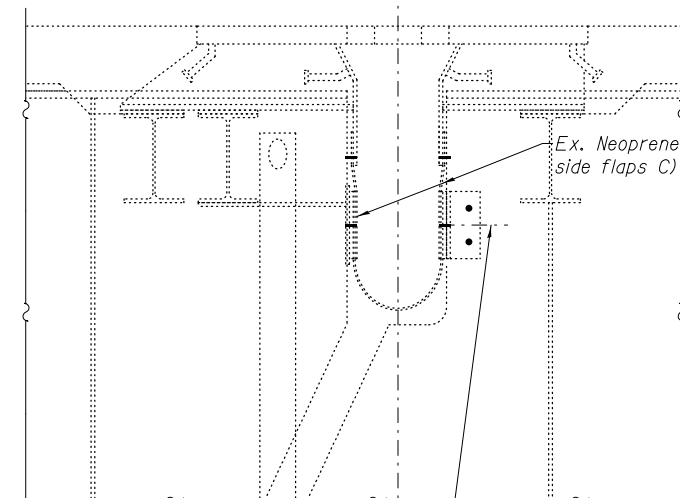
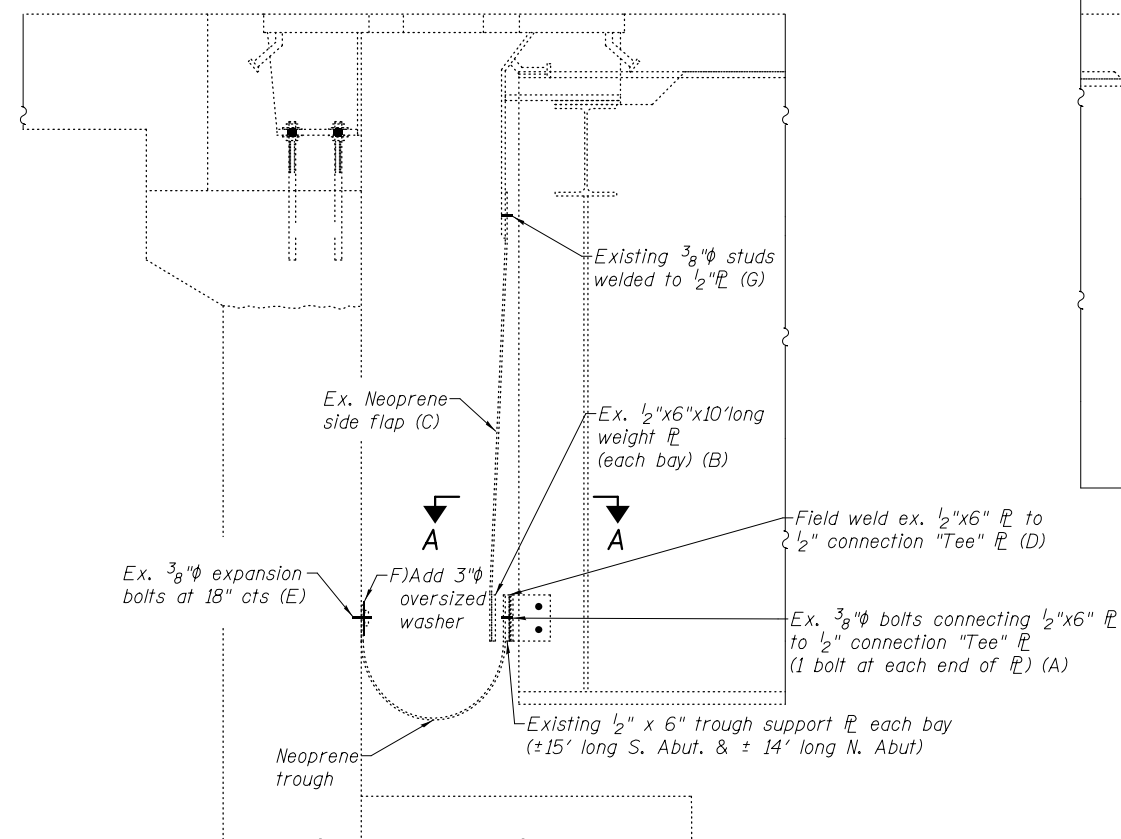
DESIGNED - J. Uehle	EXAMINED	DATE - March 9, 2012	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK CROSS SECTIONS SN 082-0221	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - B. Williams	PASSED	ENGINEER OF STRUCTURAL SERVICES			255	82-6B-1	ST. CLAIR	18	4
DRAWN - J. Uehle		CONTRACT NO. 76F44							
CHECKED - B. Williams		ENGINEER OF BRIDGES AND STRUCTURES			ILLINOIS FED. AID PROJECT				
		SHEET NO. 2 OF 16 SHEETS							



REPAIRS

- Replace all missing or loose 3/8" bolts connecting 1/2"x6" PL to the 1/2" connection "Tee" PL's. (7 bolts at N. abutment & 6 bolts at S. abutment & 23 bolts at piers are missing)
- Re-attach 1/2"x6"x10' long weight PL to bottom of neoprene side flap with 20-3/8" bolts at 6" cts. and 3" oversized washers in contact with the neoprene. (2 locations at S. abutment only)
- Lift neoprene side flap back into neoprene trough. (3 locations at abutments & 11 locations at piers)
- Field weld existing 1/2"x6" PL to the existing 1/2" connection "Tee" PL's at both abutments. The existing neoprene shall be shielded to prevent burning, melting, or damaging the neoprene. (28 locations at S. abutment & 30 locations at N. Abutment)
- Replace loose or missing 3/8" expansion bolts connecting 1/4" x 2" full length PL to the abutment backwall. (3 locations at S. abutment & 3 locations at N. abutment)
- Remove all nuts and washers from the existing 3/8" expansion bolts in both abutment backwalls. Re-attach the nuts and washers with new oversized 3" washers in contact with the neoprene. All expansion bolts shall be cut off flush with the nut. (130 locations at S. abutment & 130 locations at N. abutment)
- Remove all nuts and washers from the existing 3/8" studs welded to the 1/2" PL. Re-attach the nuts and washers with new oversized 3" washers in contact with the neoprene. The washers shall have an inner hole diameter larger than the weld diameter, to allow full contact. (130 locations at S. abutment & 130 locations at N. abutment)
- Remove outer 40" of "bent back" portion of 1/2"x6" trough support PL at the outer 2 corners of each abutment, to allow cleaning and better tough drainage. See the detail on the next sheet. (2 locations at S. abutment & 2 locations at N. abutment)

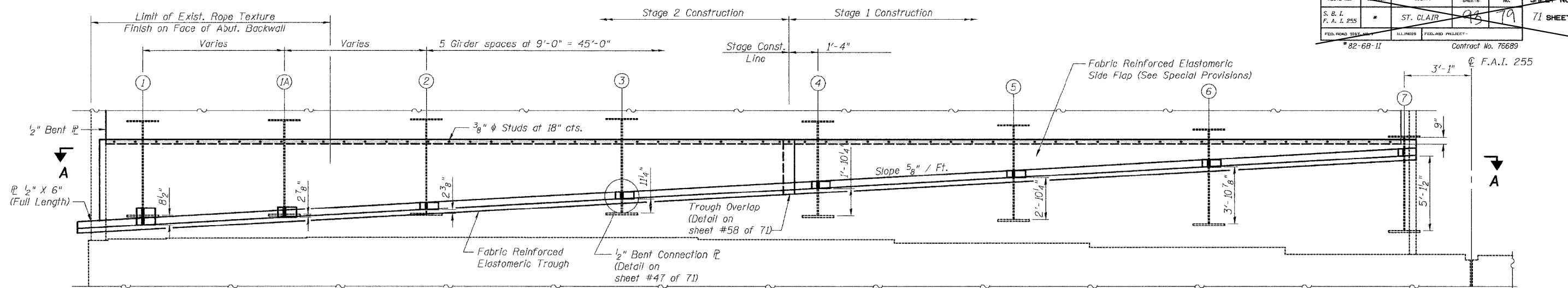
— Locations of cleaning and painting.



PIER SECTION

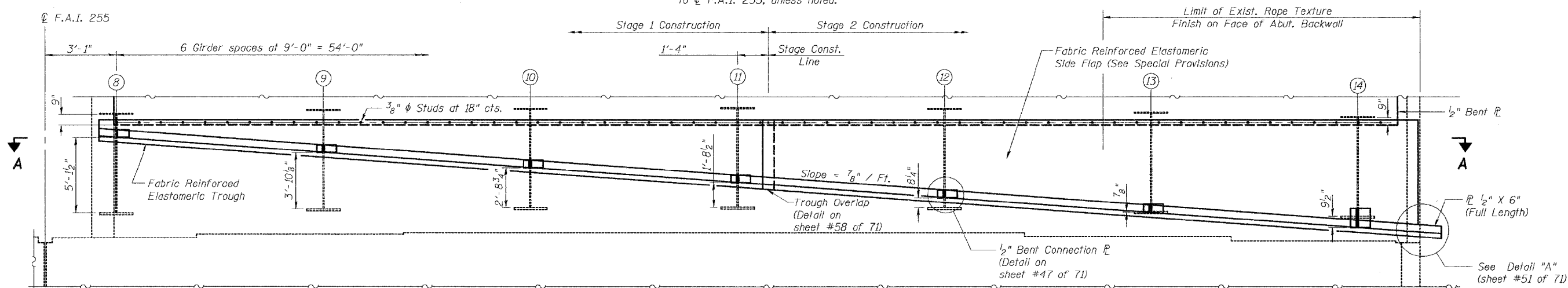
DESIGNED - J. Uehle	EXAMINED	DATE - March 9, 2012	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAINTING AND TROUGH REPAIR LOCATIONS SN 082-0221	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
CHECKED - B. Williams					ENGINEER OF STRUCTURAL SERVICES	255	82-6B-1	ST. CLAIR	18	5
DRAWN - J. Uehle					PASSED	CONTRACT NO. 76F44				
CHECKED - B. Williams					ENGINEER OF BRIDGES AND STRUCTURES	ILLINOIS FED. AID PROJECT				
SHEET NO. 3 OF 16 SHEETS										

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
S. B. I.	#	ST. CLAIR	93	71	71 SHEETS
F.A.I. RTE. 255		ILLINOIS	FED. AID PROJECT -		
# 82-6B-11			Contract No. 76689		



VIEW G-G

Looking South
Horizontal Dimensions at Rt. L's
to C.F.A.I. 255, unless noted.



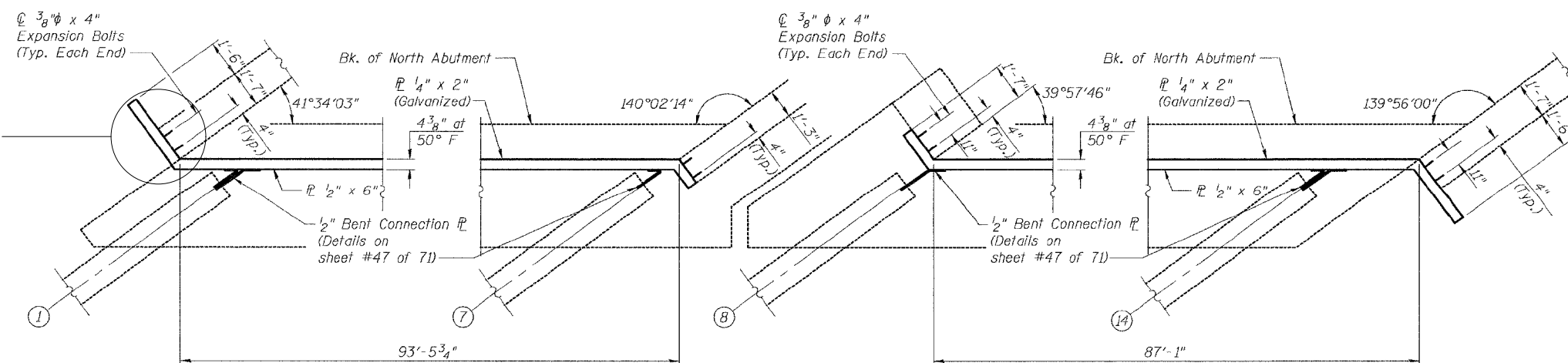
VIEW G-G

Looking South
Horizontal Dimensions at Rt. L's
to C.F.A.I. 255, unless noted.

FOR INFORMATION ONLY

REPAIR DETAIL "H"

Remove outer 40" of the
"bent back" portion of the 1/2"x6"
trough support plate.
(outer corner of each abutment)



SECTION A-A

**TROUGH DETAILS AT
NORTH ABUTMENT
F.A.I. RTE. 255
SECTION 82-6B-11
STATION 556+80.00
ST. CLAIR COUNTY
SN 082-0221**

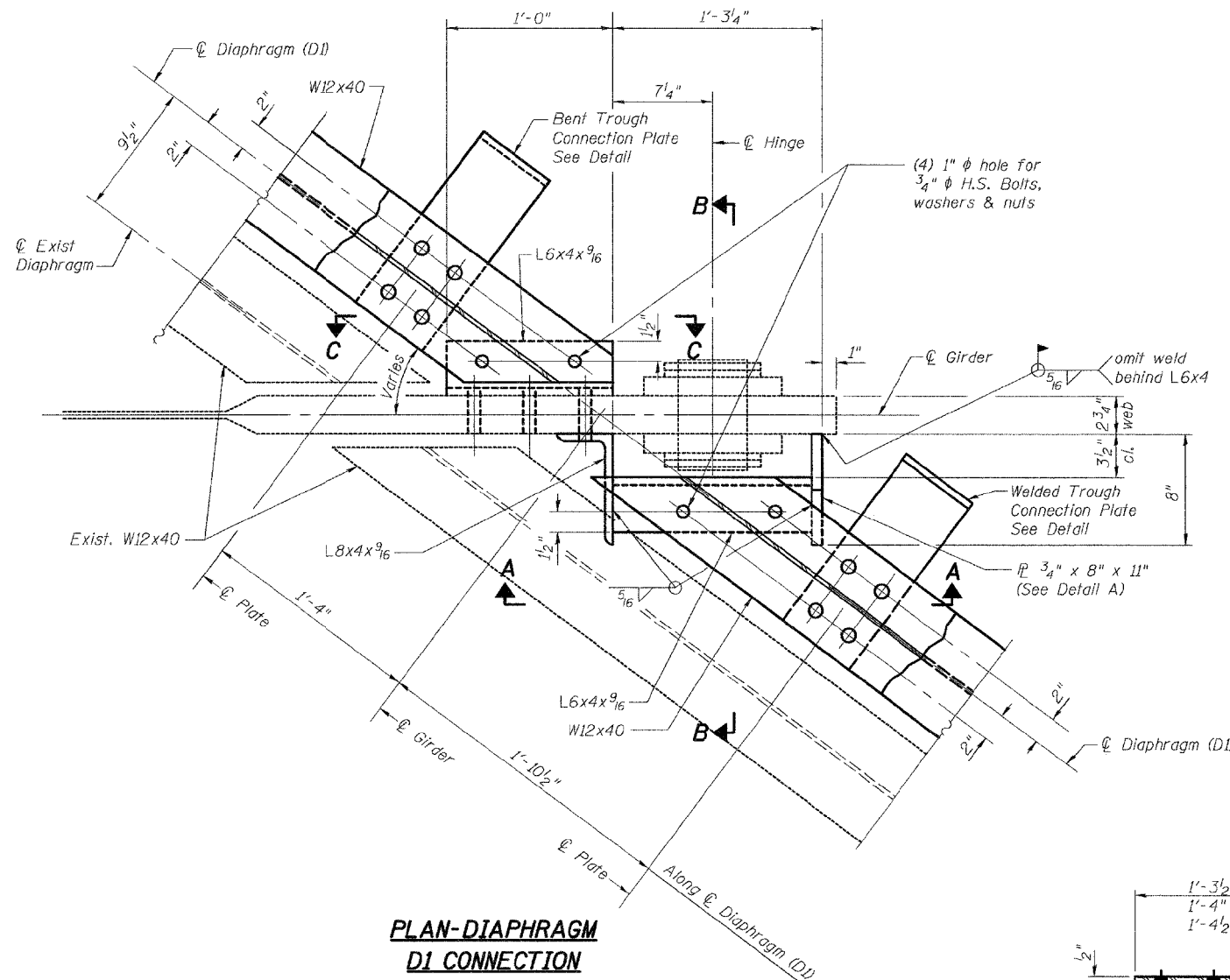
DESIGNED - J. Uehle	EXAMINED	DATE - March 9, 2012
CHECKED - B. Williams	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - J. Uehle	PASSED	
CHECKED - B. Williams	ENGINEER OF BRIDGES AND STRUCTURES	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

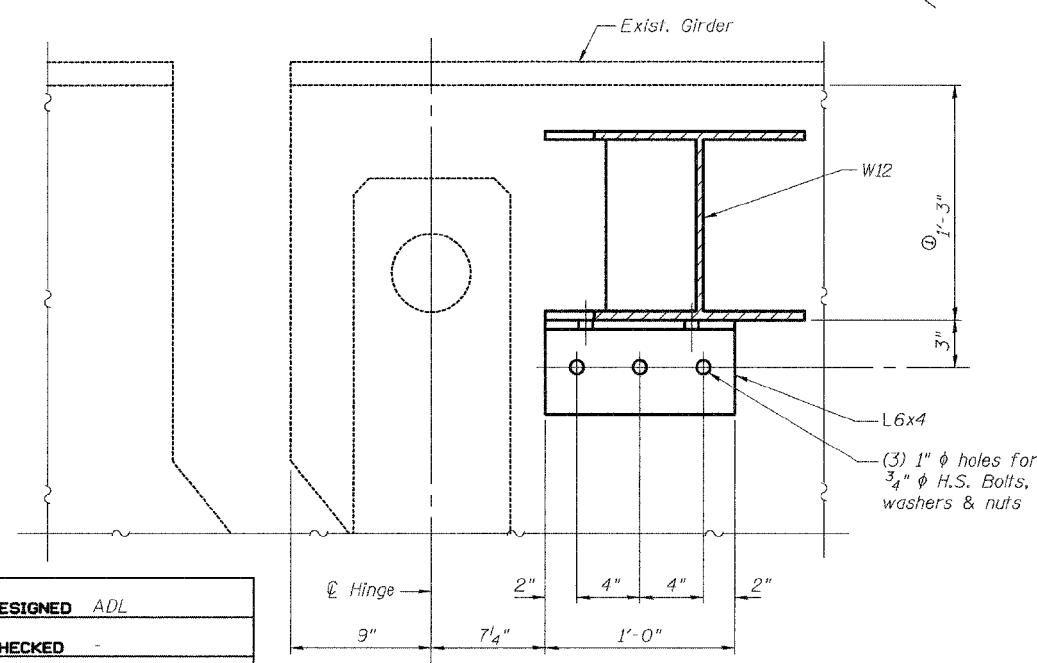
**FOR INFORMATION - 2004 PLANS - NORTH ABUTMENT TROUGH DETAILS
SN 082-0221**

SHEET NO. 4 OF 16 SHEETS

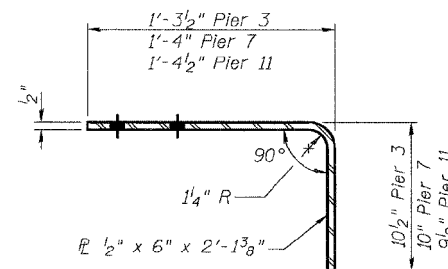
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
255	82-6B-1	ST. CLAIR	18	6
CONTRACT NO. 76F44				
ILLINOIS FED. AID PROJECT				



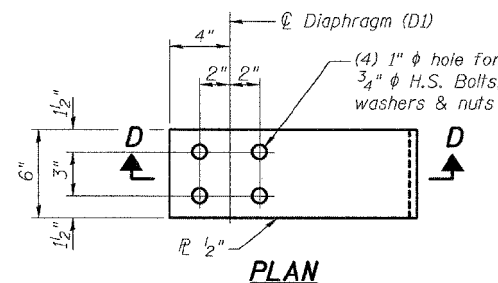
**PLAN-DIAPHRAGM
D1 CONNECTION**



SECTION C-C

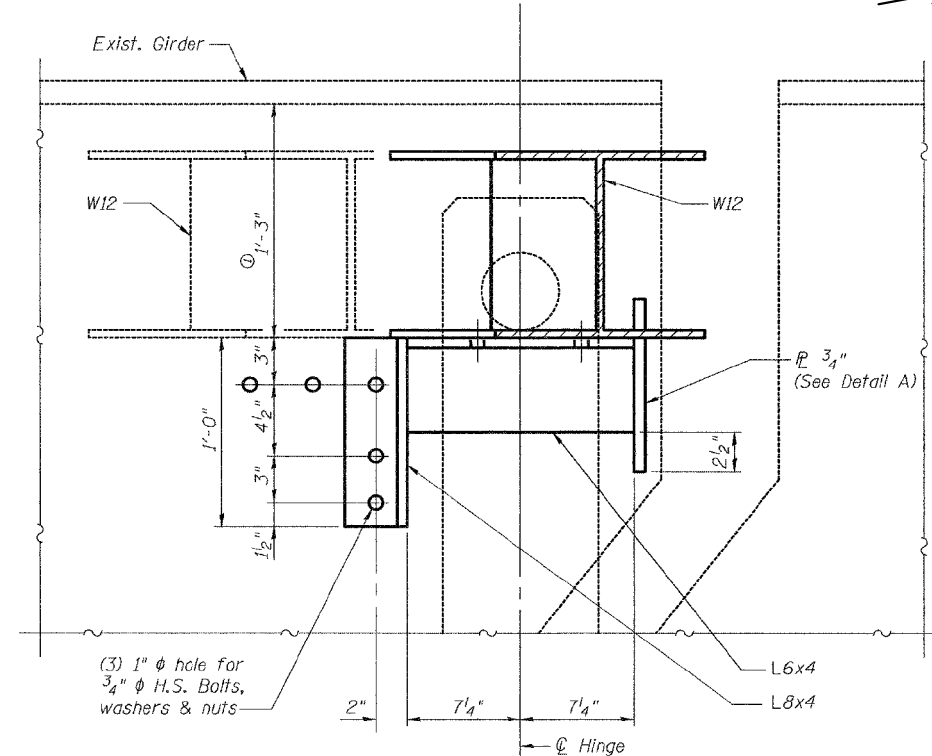


SECTION D-D



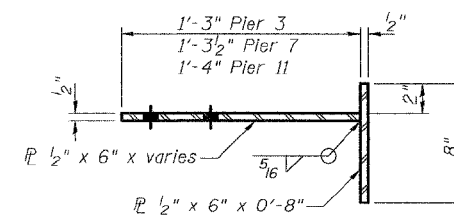
PLAN

BENT TROUGH CONNECTION PLATE DETAIL

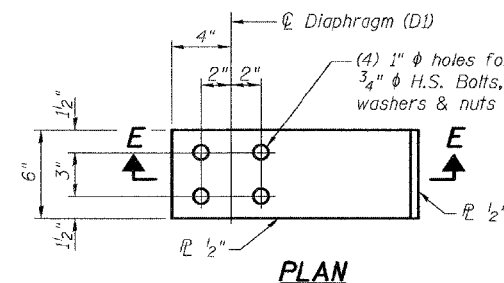


SECTION A-A

(Welded trough connection plate not shown for clarity)

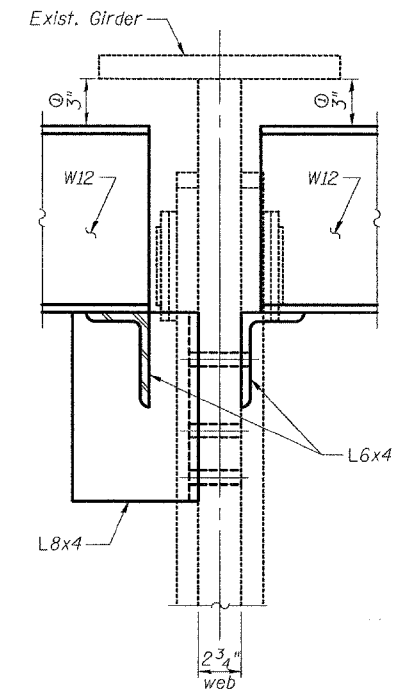


SECTION E-E



PLAN

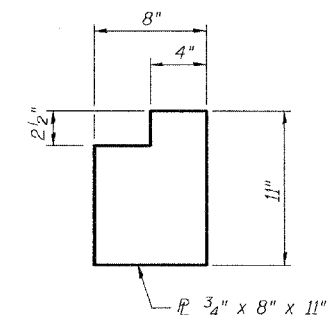
WELDED TROUGH CONNECTION PLATE DETAIL



SECTION B-B

① Adjust dimension so that top of diaphragm (D1) matches top of existing diaphragm.

Notes:
Two hardened washers shall be required for all oversized holes.



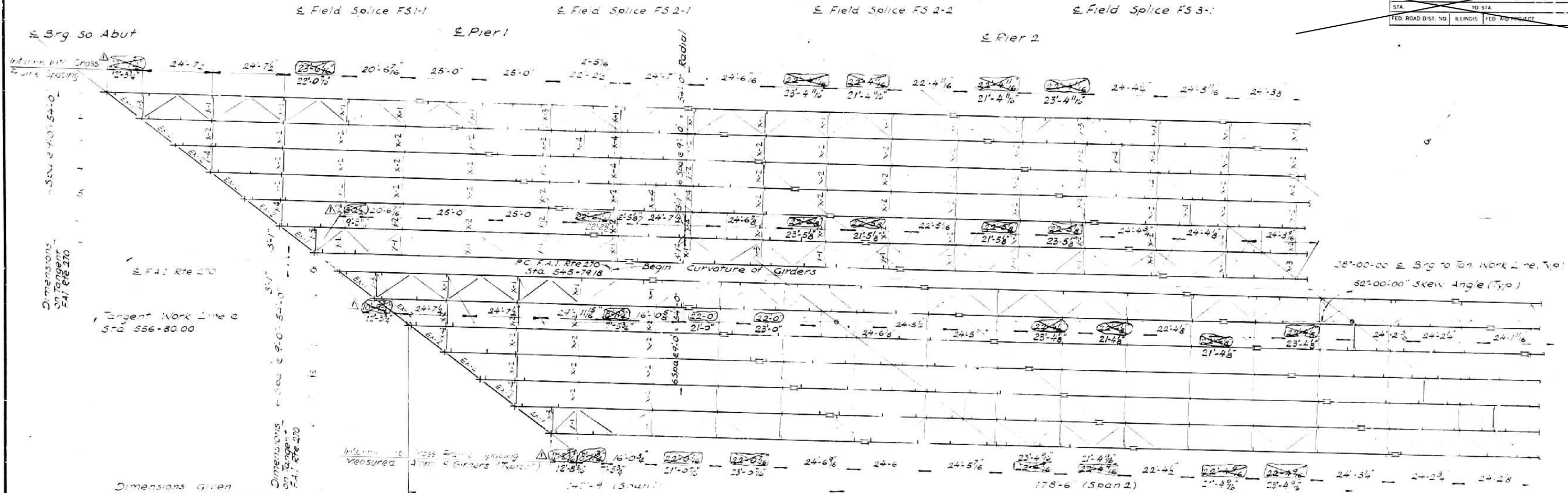
DETAIL A

STRUCTURAL STEEL DETAILS
F.A.I. RTE. 255
SECTION 82-6B-11
STATION 556+80.00
ST. CLAIR COUNTY
SN 082-0221

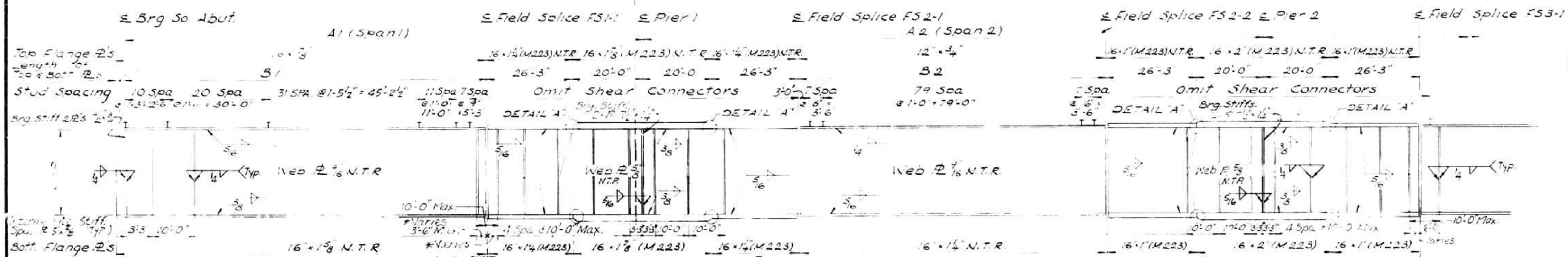
FOR INFORMATION ONLY

Sta. 5470+51.6

FED. AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 270	82-6B-1	ST. CLAIR	141	674
STA.	TO STA.	ILLINOIS	FED. AID PROJECT	



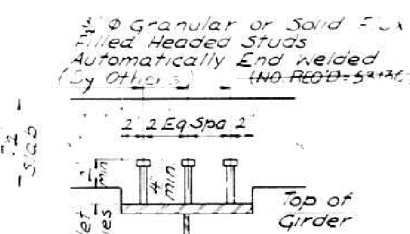
FRAMING PLAN



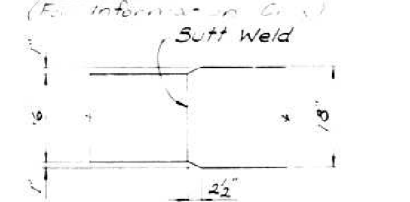
ELEVATION (GIRDER 1 SHOWN)

GIRDER	GIRDER			DIMENSIONS			TOP OF WEB ELEVATIONS							
	A1	B1	C1	A2	B2	RADIUS	FS-1	FS-1	FS-1	FS-1	FS-1	FS-1	FS-1	
1	107-10.8	172-1.3	185-8.7	93-2.7	34320.3344	436.896	437.453	437.372	437.866	438.262	438.336			
2	107-10.8	164-0.3	185-7.3	93-1.3	34329.3844	437.144	437.613	437.811	438.102	438.497	438.566			
3	107-10.3	151-8.3	185-6.2	93-0.4	34338.3844	437.349	437.893	438.007	438.295	438.686	438.755			
4	107-10.1	139-4.8	185-5.4	92-11.3	34347.3844	437.337	437.874	437.985	438.271	438.659	438.727			
5	107-10.1	127-1.8	185-4.6	92-10.6	34356.3844	437.238	437.770	437.879	438.161	438.546	438.614			
6	107-10.3	114-9.3	185-3.7	92-9.1	34365.3844	437.093	437.619	437.723	438.004	438.387	438.455			
7	107-10.6	102-5.3	185-2.2	92-8.8	34374.3844	436.779	437.324	437.401	437.678	438.053	438.127			
8	107-10.8	94-0.8	185-1.4	92-7.4	34380.3510	436.798	437.361	437.437	437.711	438.092	438.159			
9	107-10.8	81-8.3	185-0.3	92-6.3	34389.3510	437.237	437.790	437.863	438.135	438.515	438.582			
10	107-10.6	69-4.8	184-11.6	92-5.6	34398.3510	437.500	438.050	438.120	438.389	438.769	438.836			
11	107-10.3	57-1.8	184-10.6	92-4.6	34407.3510	437.721	438.263	438.330	438.598	438.978	439.045			
12	107-10.3	44-9.3	184-9.1	92-3.8	34416.3510	437.855	438.390	438.455	438.721	439.101	439.167			
13	107-10.3	32-5.3	184-7.8	92-2.8	34425.3510	437.773	438.300	438.362	438.628	439.008	439.074			
14	107-10.3	20-1.3	184-6.8	92-0.8	34434.3510	437.647	438.167	438.227	438.493	438.873	438.939			

NOTES:
N.T.R. INDICATES PLATES THAT SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS (ZONE 2).
UNLESS OTHERWISE NOTED DIMENSIONS ARE SHOWN ALONG THE CENTERLINE OF THE MEMBER.
① FOR FABRICATION ONLY.
FOR COORDINATES OF X-Y OFFSETS SEE SHEET 59.
ALL STRUCTURAL STEEL SHALL BE AASHTO M183 UNLESS NOTED.
INTERIOR CROSS FRAMES, END CROSS FRAMES AND DIAPHRAGMS FOR SOUTH BOUND LANES AS SHOWN, NORTH BOUND LANES SIMILAR UNLESS NOTED.
* SEE FRAMING PLAN
△ Delocate Cross Frames Marked Thus



SHEAR STUDS



PLAN OF FLANGE WELD

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	
FAI ROUTE 270	
SECTION 82-6B-1	
FAI ROUTE 270 OVER PRAIRIE DUPONT DIVERSION CHANNEL AND BLUE WATERS DITCH	
STEEL FRAMING PLAN-SPAN 1 & SPAN 2	
County: St. Clair	Drawn By: Y Y
Date:	Checked By:
ENVIRODYNE ENGINEERS INC.	
Chicago, Illinois	

REVISIONS	
Name	Date
△ Cross Frames	10-25-93

DESIGNED - J. Uehle	EXAMINED	DATE - March 9, 2012
CHECKED - B. Williams	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - J. Uehle	PASSED	
CHECKED - B. Williams	ENGINEER OF BRIDGES AND STRUCTURES	

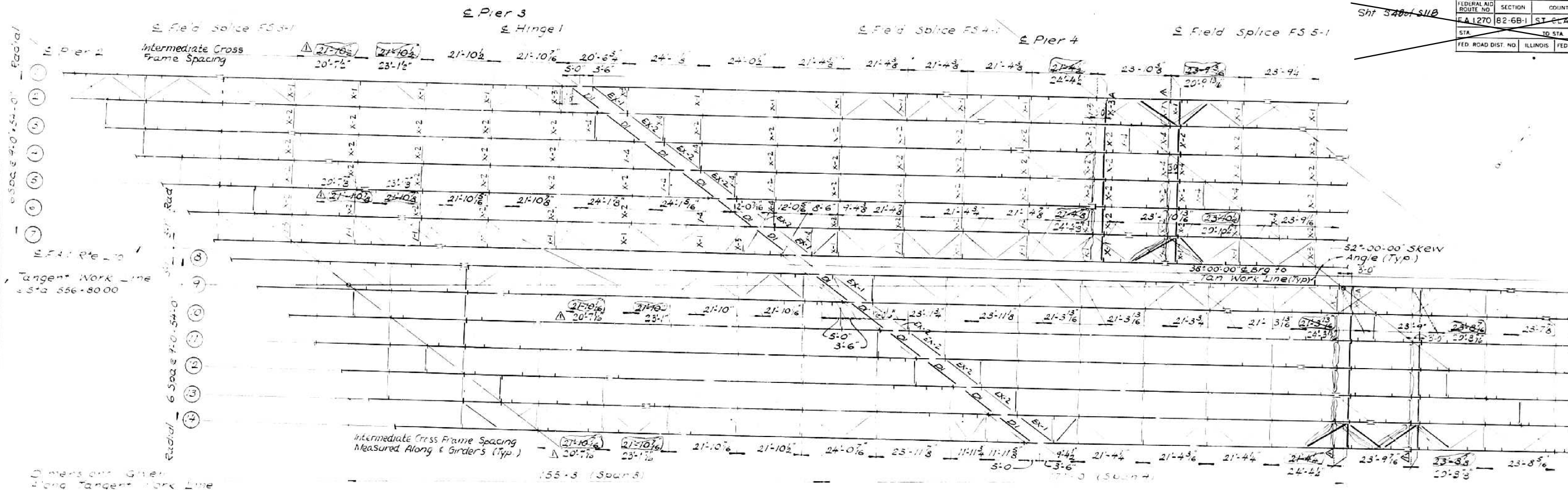
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION - 1984 PLANS - FRAMING SPANS 1-2
SN 082-0221

SHEET NO. 7 OF 16 SHEETS

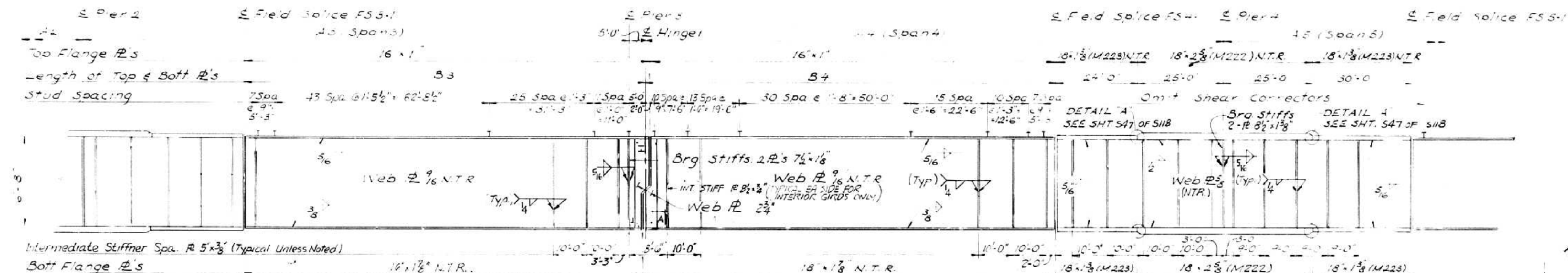
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
255	82-6B-1	ST. CLAIR	18	9
CONTRACT NO. 76F44				
ILLINOIS FED. AID PROJECT				

FOR INFORMATION ONLY



FRAMING PLAN

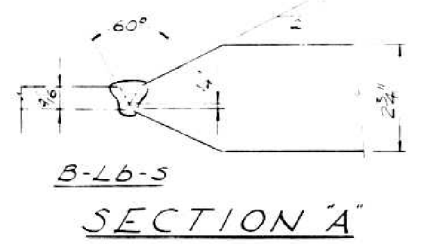
FOR INFORMATION ONLY



ELEVATION (GIRDER SHOWN)

GIRDER DIMENSIONS					TOP OF WEB ELEVATION [Ⓢ]				
GIRDER	A3	B3	A4	B4	RADIUS	FS 3-1	PIER 3	HINGE	FS 4-1
1	160'-3"	119'-2"	171'-6 3/8"	121'-6 3/8"	34320.3844	438.645	439.007	438.982	439.535
2	160'-4 1/8"	119'-1 1/8"	171'-5 3/8"	121'-5 3/8"	34329.3844	438.876	439.237	439.212	439.765
3	160'-3 3/8"	119'-0 3/8"	171'-4 3/8"	121'-4 3/8"	34338.3844	439.064	439.425	439.400	439.953
4	160'-2 1/2"	118'-11 1/2"	171'-3 3/8"	121'-3 3/8"	34347.3844	439.036	439.396	439.372	439.924
5	160'-1 5/8"	118'-10 5/8"	171'-2 3/8"	121'-2 3/8"	34356.3844	438.922	439.283	439.258	439.871
6	160'-0 7/8"	118'-9 7/8"	171'-1 3/8"	121'-1 3/8"	34365.3844	438.763	439.123	439.099	439.651
7	159'-11 1/2"	118'-8 1/2"	171'-0 3/8"	121'-0 3/8"	34374.3844	438.435	438.795	438.770	439.322
8	159'-10 3/8"	118'-7 3/8"	170'-11 3/8"	120'-11 3/8"	34380.5510	438.467	438.827	438.803	439.419
9	159'-10"	118'-7"	170'-10 3/8"	120'-10 3/8"	34389.5510	438.890	439.249	439.225	439.776
10	159'-9 1/2"	118'-6 1/2"	170'-9 3/8"	120'-9 3/8"	34398.5510	439.144	439.503	439.478	440.030
11	159'-8 3/8"	118'-5 3/8"	169'-9"	120'-9"	34407.5510	439.352	439.711	439.686	440.237
12	159'-7 5/8"	118'-4 5/8"	169'-8"	120'-8"	34416.5510	439.475	439.833	439.809	440.360
13	159'-6 3/8"	118'-3 3/8"	169'-7 1/8"	120'-7 1/8"	34425.5510	439.381	439.740	439.715	440.266
14	159'-5 1/2"	118'-2 1/2"	169'-6 1/8"	120'-6 1/8"	34434.5510	439.246	439.604	439.579	440.129

NOTES:
N.T.R. INDICATES PLATES THAT SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS (ZONE 2).
UNLESS OTHERWISE NOTED DIMENSIONS ARE SHOWN ALONG THE CENTERLINE OF THE MEMBER.
Ⓢ FOR FABRICATION ONLY.
FOR COORDINATES OF KEY OFFSETS SEE SHEET 59.
ALL STRUCTURAL STEEL SHALL BE AASHTO M183 UNLESS NOTED.
INTERIOR CROSS FRAMES, END CROSS FRAMES AND DIAPHRAGMS FOR SOUTH BOUND LANES AS SHOWN, NORTH BOUND LANES SIMILAR UNLESS NOTED.



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
FAI ROUTE 270

SECTION 82-6B-1
FAI ROUTE 270 OVER PRAIRIE DUPONT
DIVERSION CHANNEL AND BLUE WATERS DITCH

STEEL FRAMING PLAN SPAN 3 & SPAN 4

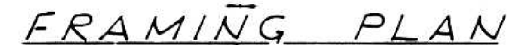
County: St. Clair
Date:

ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

REVISIONS

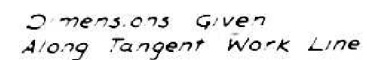
Name	Date
1	10/25/00

Drawn By: ☒ Y
Checked By:



AS REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
FAI ROUTE 270
SECTION 82-68-1-1
FAI ROUTE 270 OVER PRAIRIE DUPONT
DIVERSION CHANNEL AND BLUE WATERS DITCH
STEEL FRAMING PLAN SPAN 5 & SPAN 6
County: ST CLAIR
Date: _____
Drawn By: Y Y
Checked By: _____
VVIRODYNE ENGINEERS INC.
Chicago, Illinois

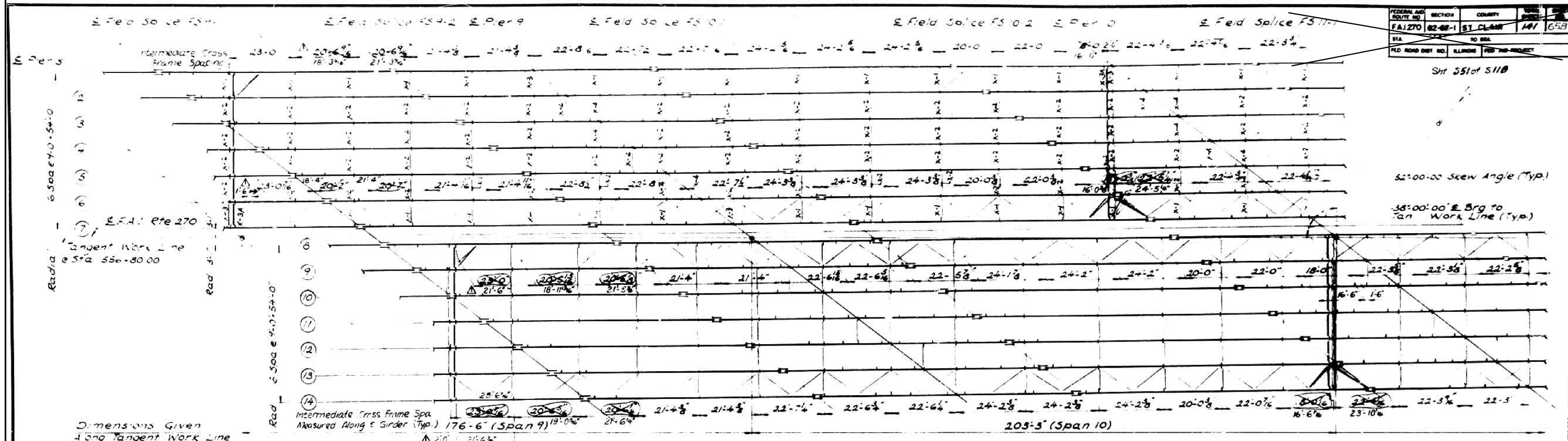
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ELEVATION (GIRDER 1 SHOWN)

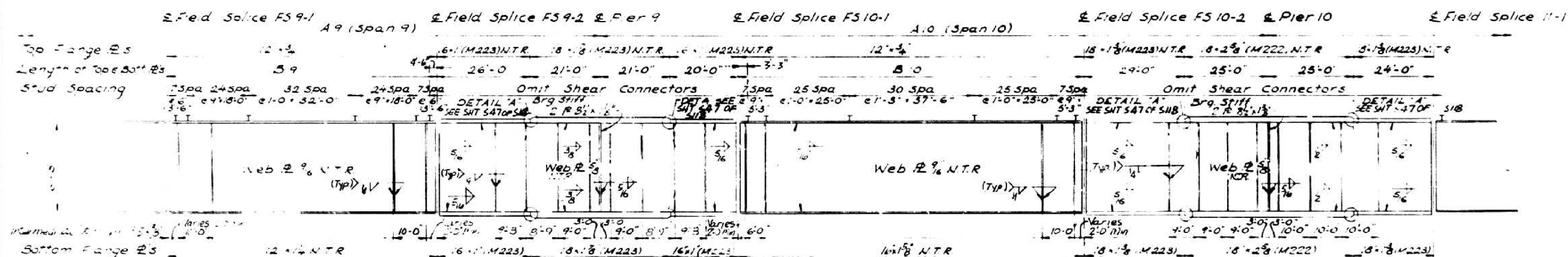
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 270
SECTION 02-68-1
F.A.I. ROUTE 270 OVER PRAIRIE DUPONT
DIVERSION CHANNEL AND BLUE WATERS DITCH
STEEL FRAMING PLAN SPAN 7 & SPAN 8
County: St. Clair
Date:
Drawn By: YY
Checked By:
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

AS REVISED



FRAMING PLAN



ELEVATION (GIRDER 1 SHOWN)

GIRDER	GIRDER DIMENSIONS				TOP OF WEB ELEVATION ^①				
	A9	9-1	10-1	10-2	RADIUS	FS 9-2	PIER 9	FS 10-1	FS 10-2
1	5'-11"	53'-10 1/2"	200'-1 1/2"	105'-6 1/2"	34320.3844	442.105	442.000	443.254	443.120
2	5'-11"	53'-10 1/2"	200'-1 1/2"	105'-6 1/2"	34329.3844	443.31	443.220	443.469	443.506
3	5'-11"	53'-9 3/4"	200'-5 1/2"	105'-5 1/2"	34338.3844	443.31	443.396	443.638	443.674
4	5'-11"	53'-9 3/4"	200'-4 1/2"	105'-4 1/2"	34347.3844	443.284	443.355	443.590	443.626
5	5'-11"	53'-7 3/4"	200'-3 1/2"	105'-3 1/2"	34356.3844	443.63	443.425	443.453	443.577
6	5'-11"	53'-6 1/2"	200'-2 1/2"	105'-2 1/2"	34365.3844	442.995	443.049	443.270	443.376
7	5'-11"	53'-5 1/2"	200'-1 1/2"	105'-1 1/2"	34374.3844	442.656	442.702	442.915	443.064
8	5'-11"	53'-5 1/2"	200'-0 1/2"	105'-0 1/2"	34380.5510	442.680	442.720	442.929	443.005
9	5'-11"	53'-4 3/4"	199'-11 1/2"	104'-11 1/2"	34389.5510	443.080	443.150	443.323	443.479
10	5'-11"	53'-3 3/4"	199'-10 1/2"	104'-10 1/2"	34398.5510	443.325	443.349	443.544	443.685
11	5'-11"	53'-2 3/4"	199'-9 1/2"	104'-9 1/2"	34407.5510	443.515	443.531	443.719	443.843
12	5'-11"	53'-1 3/4"	199'-8 1/2"	104'-8 1/2"	34416.5510	443.618	443.626	443.806	443.914
13	5'-11"	53'-0 3/4"	199'-7 1/2"	104'-7 1/2"	34425.5510	443.502	443.502	443.676	443.766
14	5'-11"	53'-0"	199'-7"	104'-7"	34434.5510	443.323	443.334	443.501	443.574

NOTES:
N.T.R. INDICATES PLATES THAT SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS (ZONE 2).
UNLESS OTHERWISE NOTED DIMENSIONS ARE SHOWN ALONG THE CENTERLINE OF THE MEMBER.
① FOR FABRICATION ONLY.
FOR COORDINATES OF KEY OFFSETS SEE SHEET 59.
ALL STRUCTURAL STEEL SHALL BE AASHTO M183 UNLESS NOTED.
INTERIOR CROSS FRAMES, END CROSS FRAMES AND DIAPHRAGMS FOR SOUTH BOUND LANES AS SHOWN, NORTH BOUND LANES SIMILAR UNLESS NOTED.

△ RELOCATE CROSS FRAMES AND BRACINGS MARKED THIS X

FOR INFORMATION ONLY

REVISIONS	
Name	Date
△ CROSS-FRAMES	10-25-82

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 270
SECTION 82-6B-1 (F&D)
F.A.I. ROUTE 270 OVER PRAIRIE DUPONT
DIVERSION CHANNEL AND BLUE WATERS DITCH
STEEL FRAMING PLAN SPAN 9 & SPAN 10
County: St. Clair
Date:
Drawn By: Y Y
Checked By:
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

DESIGNED - J. Uehle
CHECKED - B. Williams
DRAWN - J. Uehle
CHECKED - B. Williams

EXAMINED
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

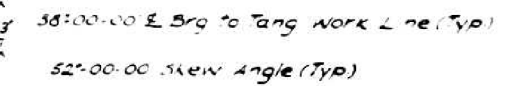
DATE - March 9, 2012

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

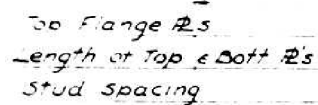
FOR INFORMATION - 1984 PLANS - FRAMING SPANS 9-10
SN 082-0221

SHEET NO. 11 OF 16 SHEETS

F.A.I. RTE. 255
SECTION 82-6B-1
COUNTY ST. CLAIR
TOTAL SHEETS 18
SHEET NO. 13
CONTRACT NO. 76F44
ILLINOIS FED. AID PROJECT



Dimensions Given Along Tangent Work Line



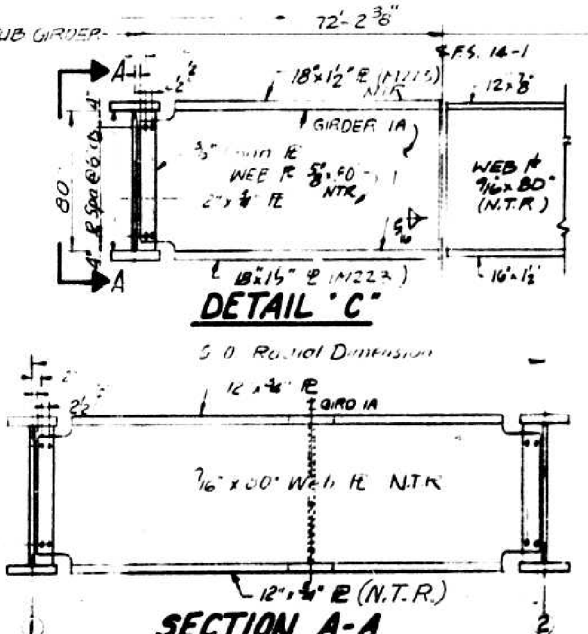
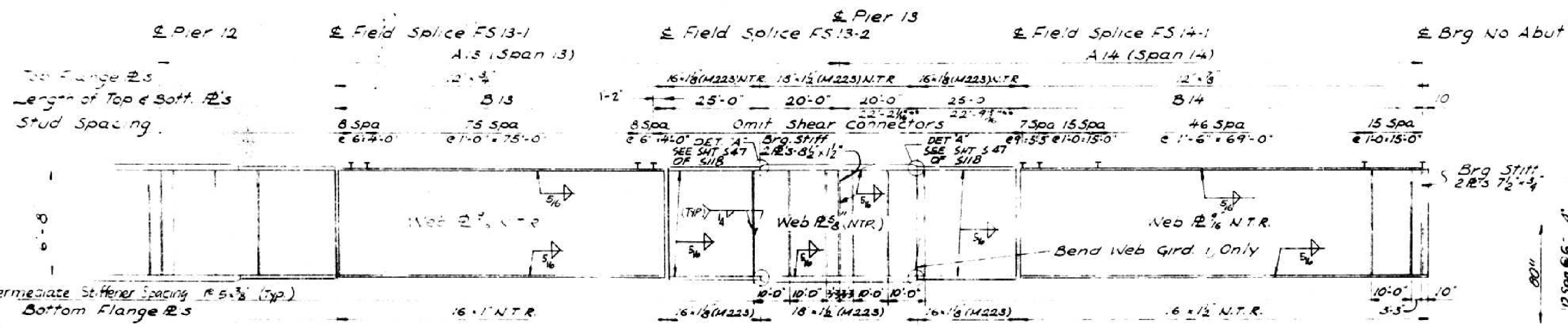
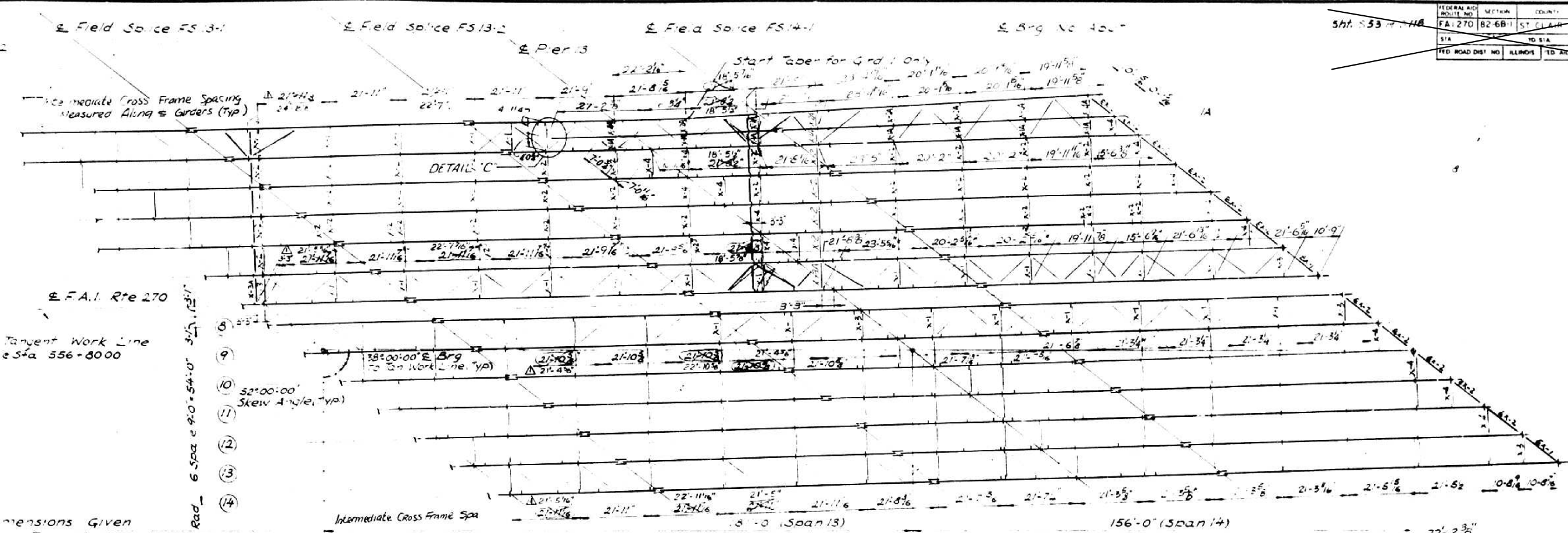
ELEVATION (GIRDER 1 SHOWN)

△ RELOCATE CROSS-FRAMES AND BRACINGS MARKED THUS

AS REVISED

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 270
SECTION 82-68-1/2
F.A.I. ROUTE 270 OVER PRAIRIE DUPONT
DIVERSION CHANNEL AND BLUE WATERS DITCH
STEEL FRAMING PLAN SPAN II & SPAN III
County: St. Clair
Date:
Drawn By: Y Y
Checked By:
ENGINEERING INC.
Chicago, Illinois



FOR INFORMATION ONLY

GIRDER	DIMENSIONS				TOP OF WEB ELEVATION ^①				
	A13	B13	A14	B14	RADIUS	FS 13-1	FS 13-2	PIER 13	FS 14-1
1	145'-7 3/8"	100'-7 3/8"	147'-10 1/8"	102'-10 1/8"	3432.3344	442.368	442.048	441.510	440.596
2	150'-2 3/8"	105'-2 3/8"	150'-2 3/8"	105'-2 3/8"	3432.3344	442.712	442.40	441.510	440.596
3	175'-3"	105'-3"	150'-2 3/8"	105'-2 3/8"	3432.3344	442.712	442.40	441.510	440.596
4	175'-3"	105'-3"	150'-2 3/8"	105'-2 3/8"	3432.3344	442.712	442.40	441.510	440.596
5	175'-3"	105'-3"	150'-2 3/8"	105'-2 3/8"	3432.3344	442.712	442.40	441.510	440.596
6	175'-3"	105'-3"	150'-2 3/8"	105'-2 3/8"	3432.3344	442.712	442.40	441.510	440.596
7	175'-3"	105'-3"	150'-2 3/8"	105'-2 3/8"	3432.3344	442.712	442.40	441.510	440.596
8	175'-3"	105'-3"	150'-2 3/8"	105'-2 3/8"	3432.3344	442.712	442.40	441.510	440.596
9	175'-3"	105'-3"	150'-2 3/8"	105'-2 3/8"	3432.3344	442.712	442.40	441.510	440.596
10	175'-3"	105'-3"	150'-2 3/8"	105'-2 3/8"	3432.3344	442.712	442.40	441.510	440.596
11	175'-3"	105'-3"	150'-2 3/8"	105'-2 3/8"	3432.3344	442.712	442.40	441.510	440.596
12	175'-3"	105'-3"	150'-2 3/8"	105'-2 3/8"	3432.3344	442.712	442.40	441.510	440.596
13	175'-3"	105'-3"	150'-2 3/8"	105'-2 3/8"	3432.3344	442.712	442.40	441.510	440.596
14	175'-3"	105'-3"	150'-2 3/8"	105'-2 3/8"	3432.3344	442.712	442.40	441.510	440.596

NOTES:

N.T.R. INDICATES PLATES THAT SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS (ZONE 2), UNLESS OTHERWISE NOTED DIMENSIONS ARE SHOWN ALONG THE CENTERLINE OF THE MEMBER.

① FOR FABRICATION ONLY.

FOR COORDINATES OF KEY OFFSETS SEE SHEET 59

ALL STRUCTURAL STEEL SHALL BE AASHTO M183 UNLESS NOTED.

INTERIOR CROSS FRAMES, END CROSS FRAMES AND DIAPHRAGMS FOR SOUTH BOUND LANES AS SHOWN, NORTH BOUND LANES SIMILAR UNLESS NOTED.

FOR GIRDER 1 AND 1A.

RELOCATE CROSS-FRAMES AND BRACINGS MARKED THUS X

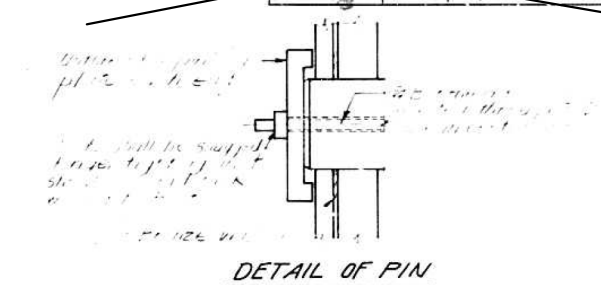
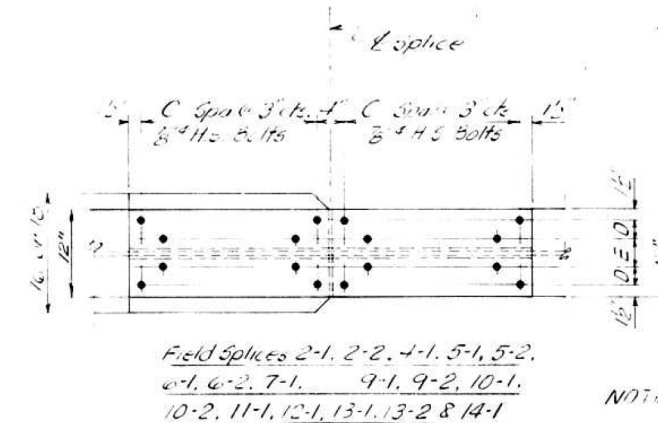
AS REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 270

SECTION 82-6B-1 (1-2)
F.A.I. ROUTE 270 OVER FRAME DUPONT
DIVERSION CHANNEL AND BLUE WATERS DITCH
STEEL FRAMING PLAN SPANS 13 & 14

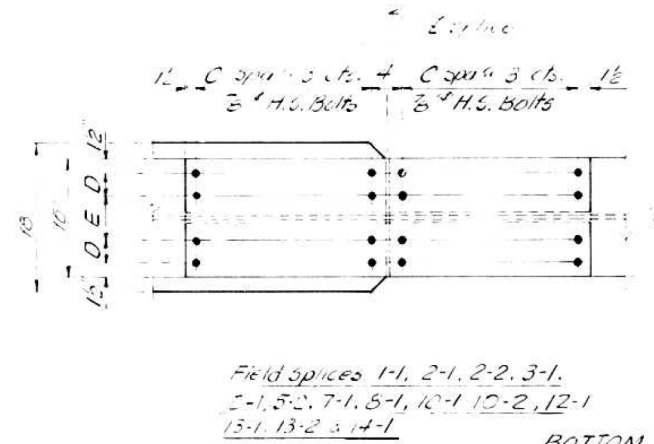
County: St. Clair
Date: 10-28-82

Checked By: [Signature]
Designed By: [Signature]

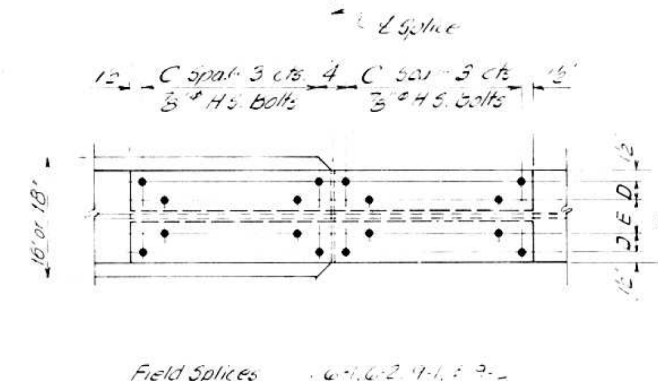


DETAIL OF PIN

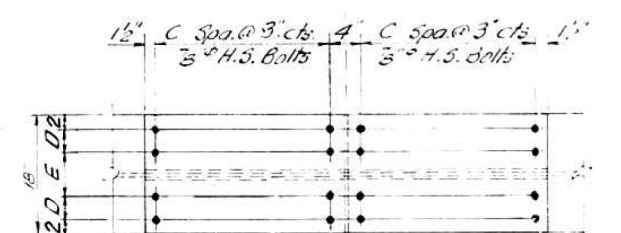
NOTE: Steep for 5" Plus



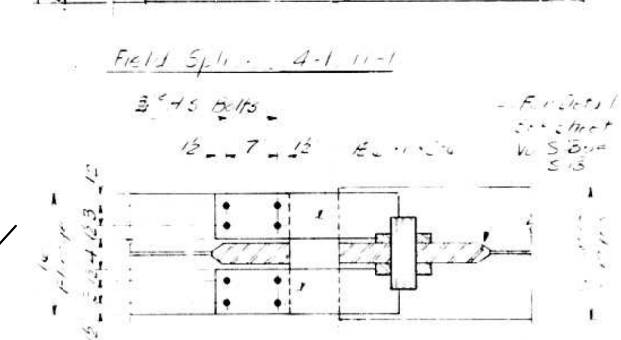
TOP FLANGE SPLICES



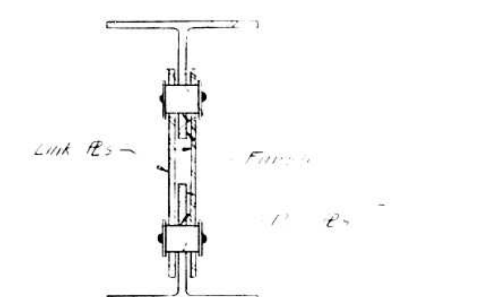
BOTTOM FLANGE SPLICES



Field Spl. - 4-1 11-1

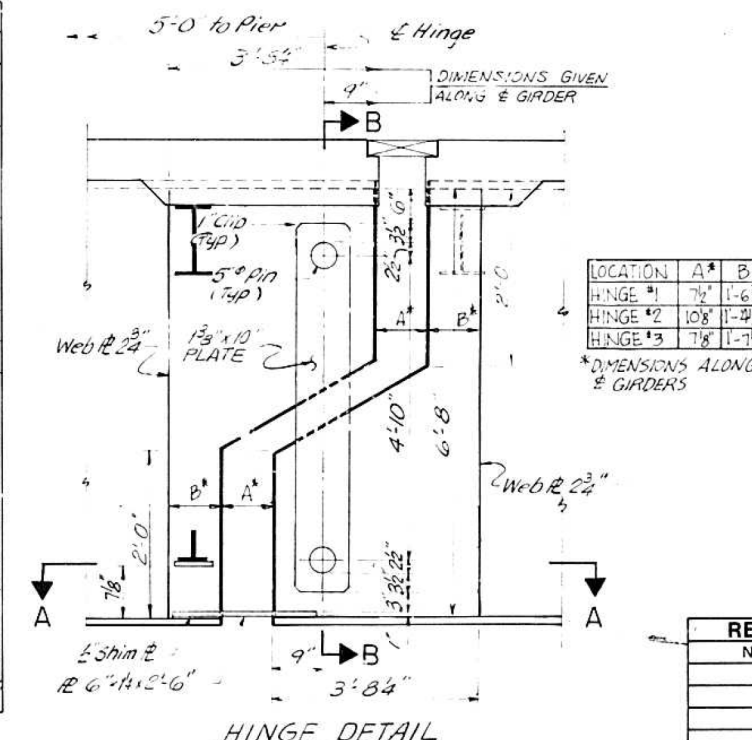


SECTION A-A



EC⁻ 11. H-B

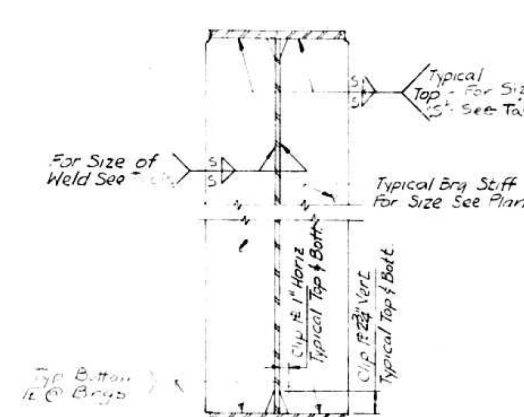
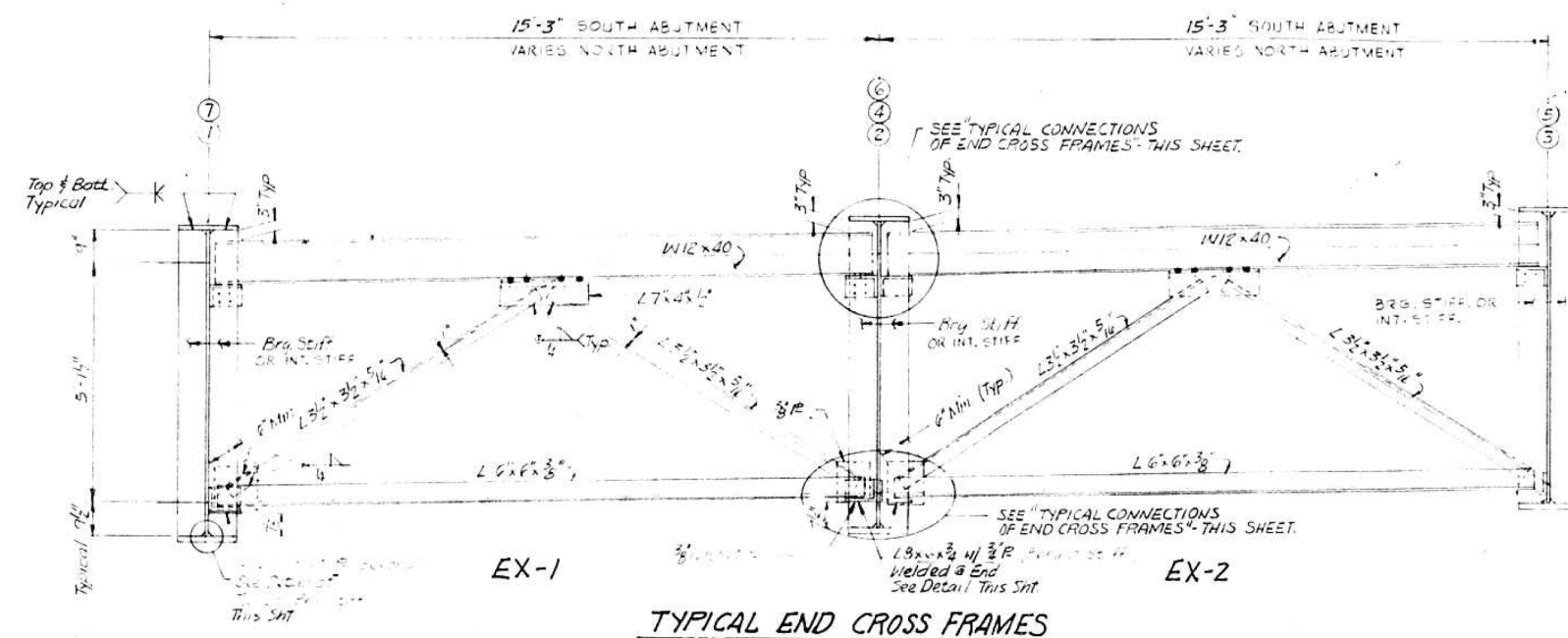
FIELD SPUR LOCATION	WEB SPLICE			TOP FLANGE SPLICE						BOTTOM FLANGE SPLICE					
	PLATE SIZE	A	E	PLATE SIZE	BAR SIZE	C	D	E	FILL #	PLATE SIZE	BAR SIZE	C	D	E	FILL #
FS 1-1	10" x 3/8" x 6'-4 1/2"	21	3 1/2"	12" x 3/8" x 2'-1"	7" x 5/8" x 2'-1"	3	3 1/2"	5"	2-4 x 1/2"	10" x 3/8" x 2'-1"	7" x 5/8" x 2'-1"	4	3 1/2"	5 1/2"	2-4 x 1/2"
FS 2-1	5" x 3/8" x 6'-2"	19	3 3/4"	12" x 3/8" x 2'-1"	5" x 3/4" x 2'-1"	3	2"	5"	2-4 x 1/2"	6" x 3/8" x 2'-1"	7" x 5/8" x 2'-1"	3	3 1/2"	5 1/2"	—
FS 2-2	18" x 3/8" x 6'-2 1/2"	13	3 3/4"	12" x 3/8" x 2'-1"	5" x 3/4" x 2'-1"	2	—	5"	2-4 x 1/2"	10" x 3/8" x 2'-1"	7" x 5/8" x 2'-1"	3	3 1/2"	5 1/2"	2-4 x 1/2"
FS 3-1	15" x 3/8" x 6'-4 1/2"	21	3 1/2"	12" x 3/8" x 2'-1"	7" x 1/2" x 2'-1"	3	3 1/2"	5"	2-4 x 1/2"	10" x 3/8" x 2'-1"	7" x 5/8" x 2'-1"	4	3 1/2"	5"	2-4 x 1/2"
FS 4-1	18" x 3/8" x 6'-4 1/2"	21	3 1/2"	10" x 3/8" x 2'-1"	7" x 3/4" x 2'-1"	3	1 1/2"	5"	2-4 x 1/2"	15" x 3/8" x 3'-7"	5" x 3/4" x 3'-7"	6	4"	5"	2-4 x 1/2"
FS 5-1	18" x 3/8" x 6'-4 1/2"	21	4 1/8"	5" x 3/8" x 2'-7"	5" x 7/8" x 2'-7"	4	2"	5"	2-4 x 1/2"	10" x 3/8" x 3'-1"	7" x 3/4" x 3'-1"	5	3 1/2"	5"	2-4 x 1/2"
FS 5-2	18" x 3/8" x 6'-4 1/2"	19	3 3/4"	5" x 3/8" x 2'-7"	5" x 1" x 2'-7"	4	2"	5"	2-4 x 1/2"	10" x 3/8" x 2'-1"	7" x 3/4" x 2'-1"	1	3 1/2"	5"	2-4 x 1/2"
FS 6-1	5" x 3/8" x 6'-2 1/2"	19	3 3/4"	5" x 3/8" x 2'-7"	5" x 7/8" x 2'-7"	4	2"	5"	2-4 x 1/2"	12" x 1/2" x 3'-1"	5" x 3/4" x 3'-1"	2	2"	5"	2-4 x 1/2"
FS 6-2	18" x 3/8" x 6'-2 1/2"	13	3 3/4"	12" x 3/8" x 2'-7"	5" x 3/4" x 2'-1"	—	2"	5"	2-4 x 1/2"	12" x 1/2" x 3'-1"	5" x 3/4" x 3'-1"	5	2"	5"	2-4 x 1/2"
FS 7-1	5" x 3/8" x 6'-2 1/2"	17	3 3/4"	5" x 3/8" x 2'-7"	5" x 3/4" x 2'-7"	4	2"	5"	2-4 x 1/2"	10" x 3/8" x 2'-7"	7" x 1/2" x 2'-7"	4	3 1/2"	5"	2-4 x 1/2"
FS 8-1	18" x 3/8" x 6'-2 1/2"	13	3 3/4"	16" x 1/2" x 2'-7"	7" x 5/8" x 2'-7"	4	3 1/2"	5 1/2"	—	10" x 3/8" x 2'-7"	7" x 1/2" x 2'-7"	4	3 1/2"	5 1/2"	2-4 x 1/2"
FS 9-1	18" x 3/8" x 6'-4 1/2"	17	3 3/4"	5" x 3/8" x 2'-7"	5" x 7/8" x 2'-7"	4	—	5"	2-4 x 1/2"	12" x 1/2" x 3'-1"	5" x 3/4" x 3'-1"	2	2"	5"	2-4 x 1/2"
FS 9-2	18" x 3/8" x 6'-2 1/2"	17	5 1/4"	5" x 3/8" x 2'-1"	5" x 3/4" x 2'-1"	3	2"	5"	2-4 x 1/2"	12" x 1/2" x 3'-1"	5" x 3/4" x 3'-1"	5	2"	5"	2-4 x 1/2"
FS 10-1	18" x 3/8" x 6'-2 1/2"	13	3 3/4"	12" x 3/8" x 2'-1"	5" x 3/4" x 2'-1"	3	2"	5"	2-4 x 1/2"	10" x 3/8" x 2'-7"	7" x 3/4" x 2'-7"	4	3 1/2"	5"	2-4 x 1/2"
FS 10-2	18" x 3/8" x 6'-4 1/2"	21	3 1/2"	12" x 3/8" x 2'-7"	5" x 3/4" x 2'-7"	4	—	5"	2-4 x 1/2"	10" x 3/8" x 2'-7"	7" x 3/4" x 2'-7"	4	3 1/2"	5"	2-4 x 1/2"
FS 11-1	18" x 3/8" x 6'-4 1/2"	21	3 1/2"	10" x 3/8" x 2'-1"	7" x 1/2" x 2'-1"	3	—	5"	2-4 x 1/2"	18" x 3/8" x 3'-7"	8" x 3/4" x 3'-7"	6	4"	5"	2-4 x 1/2"
FS 12-1	18" x 3/8" x 6'-4 1/2"	21	3 1/2"	5" x 3/8" x 3'-1"	5" x 1/2" x 3'-1"	5	2"	5"	2-4 x 1/2"	10" x 3/8" x 2'-7"	7" x 1/2" x 2'-7"	4	3 1/2"	5"	2-4 x 1/2"
FS 13-1	18" x 3/8" x 6'-2 1/2"	19	3 3/4"	12" x 3/8" x 2'-7"	5" x 1/2" x 2'-7"	4	—	5"	2-4 x 1/2"	10" x 3/8" x 2'-1"	7" x 1/2" x 2'-1"	3	3 1/2"	5"	2-4 x 1/2"
FS 13-2	18" x 3/8" x 6'-2 1/2"	13	3 3/4"	12" x 3/8" x 2'-7"	5" x 7/8" x 2'-7"	4	—	5"	2-4 x 1/2"	10" x 3/8" x 2'-1"	7" x 1/2" x 2'-1"	3	3 1/2"	5"	2-4 x 1/2"
FS 14-1	5" x 3/8" x 6'-4 1/2"	21	3 1/2"	12" x 3/8" x 3'-1"	5" x 1/2" x 3'-1"	5	—	5"	2-4 x 1/2"	10" x 3/8" x 2'-7"	7" x 1/2" x 2'-7"	4	3 1/2"	5"	2-4 x 1/2"
GIAD 1-A	18" x 3/8" x 6'-4 1/2"	21	3 1/2"	12" x 3/8" x 3'-1"	5" x 1/2" x 3'-1"	5	2"	5"	2-4 x 1/2"	10" x 3/8" x 2'-7"	7" x 1/2" x 2'-7"	4	3 1/2"	5 1/2"	2-4 x 1/2"



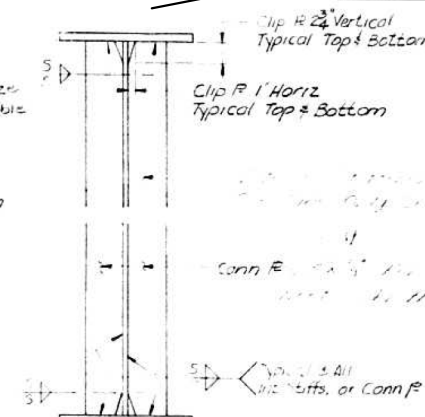
HINGE DETAIL

REVISIONS	
Name	Date

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
FAI ROUTE 270
SECTION 82-6B-1
FAI ROUTE 270 OVER PRAIRIE DUPOIN
DIVERSION CHANNEL AND BLUE WATER DITCH
STEEL DETAILS-FIELD SPLICE & HINGE
County: St Clair
Date _____ Drawn: E. J. [initials]
Checked: Jy
ENVIRODYNE ENGINEERS INC.
(U)



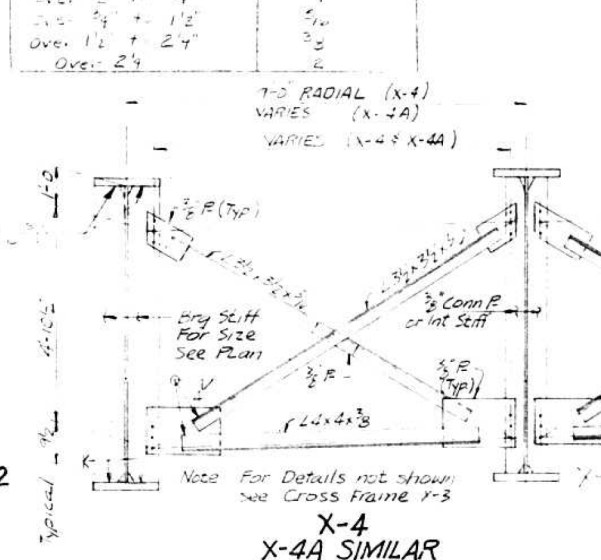
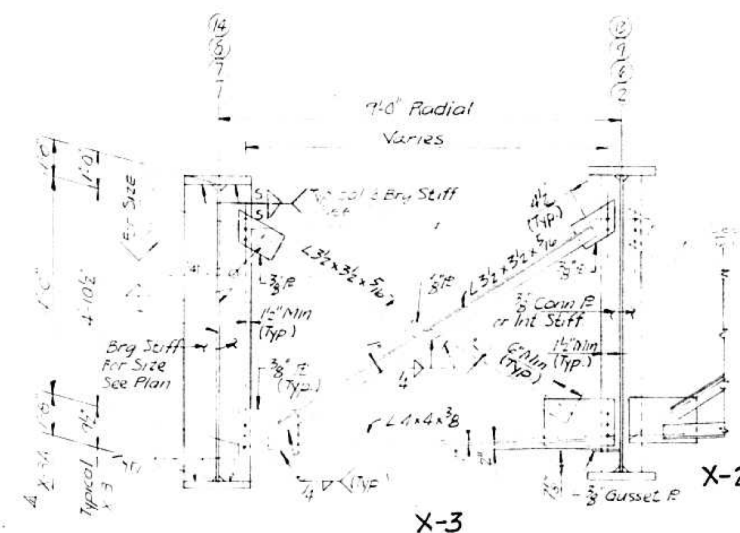
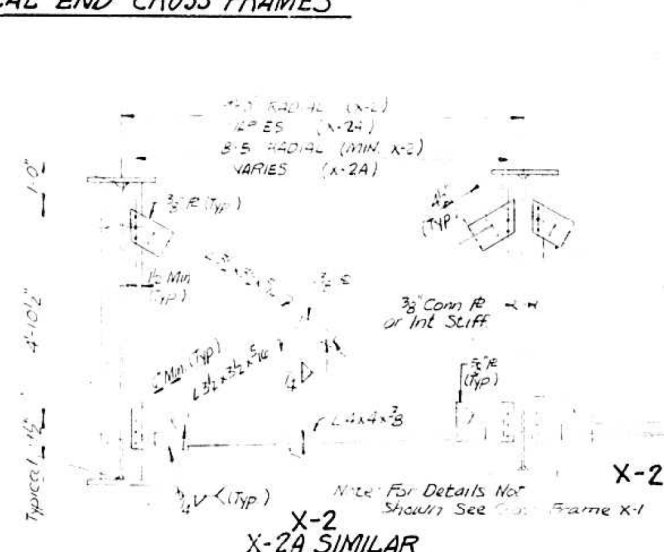
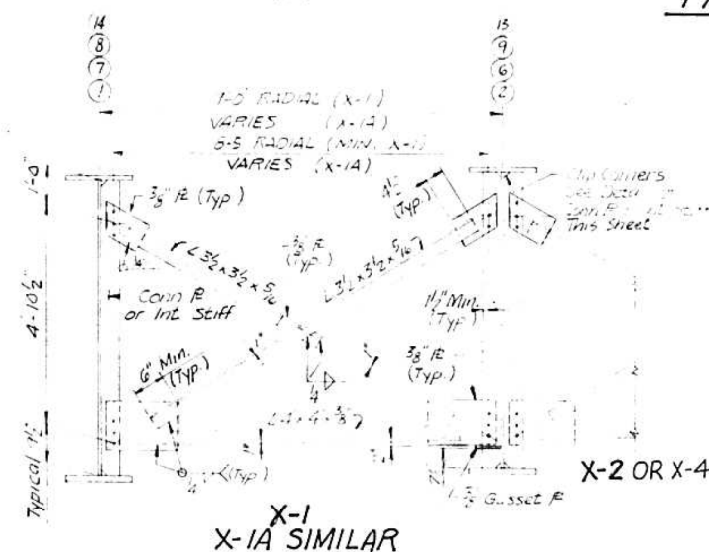
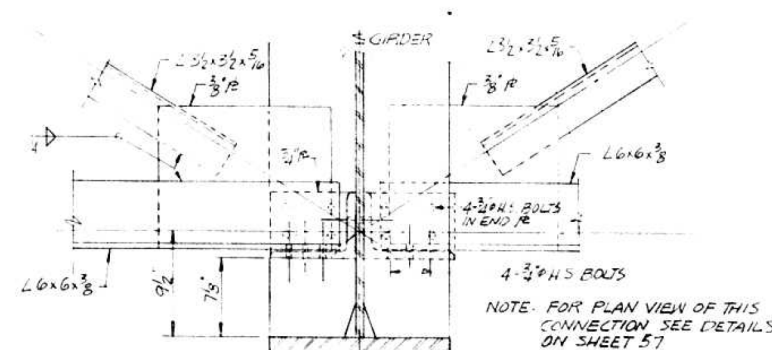
TYPICAL BEARING STIFFENER



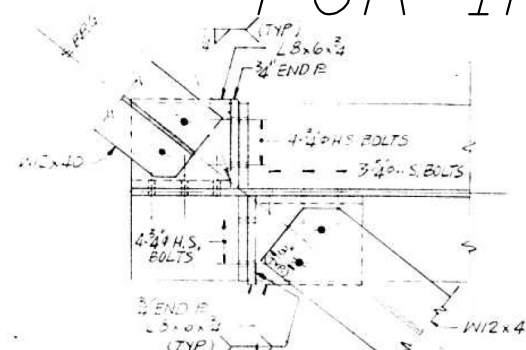
TYPICAL CONNECTION ~~TO~~
OR INTERMEDIATE STIFFENER

Table of Fillet Weld Size "S"

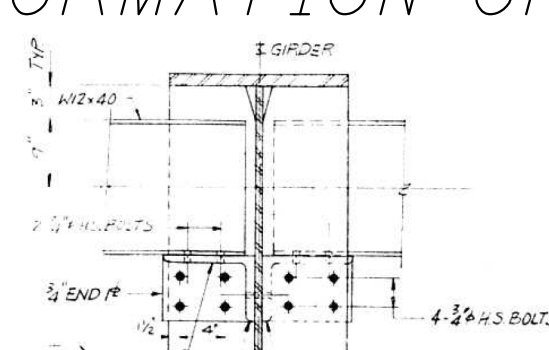
Thickness of the part joined	Weld Size
Over 1/4" to 3/4"	1/4"
Over 3/4" to 1 1/2"	5/16"
Over 1 1/2" to 2 1/4"	3/8"
Over 2 1/4"	1/2"

[illegible]

VIEW AT BOTTOM FLANGE



PLAN VIEW AT TOP FLANGE



VIEW AT TOP FLANGE

TYPICAL CONNECTIONS OF END CROSS FRAMES
(DETAILS FOR TYPICAL INTERIOR GIRDERS ARE AS SHOWN, THE REMAINING GIRDER DETAILS ARE SIMILAR)

REVISIONS	
Name	Date
Cross Frame	10-26-84
X-3A Added	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
F.A.I. ROUTE 270
SECTION 82-6B-1 (100)
F.A.I. ROUTE 270 OVER PRAIRIE DUFONT
DIVERSION CHANNEL AND BLUE WATERS DITCH
STEEL DETAILS-CROSS FRAMES
County: St. Clair
Date: _____
Drawn By: _____
Checked By: _____
ENVIRODYNE ENGINEERS INC.
Chicago, Illinois

DESIGNED	-	J. Uehle
CHECKED	-	B. Williams
DRAWN	-	J. Uehle
CHECKED	-	B. Williams

EXAMINED	_____
PASSED	_____

ENGINEER OF STRUCTURAL SERVICES

ENGINEER OF BRIDGES AND STRUCTURES

DATE - March 9, 2012

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION - 1984 PLANS - CROSSFRAMES
SN 082-0221

SHEET NO. 16 OF 16 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
255	82-6B-1	ST. CLAIR	18	18
		CONTRACT NO. 76F4		
ILLINOIS		FED. AID PROJECT		

		CONT
ILLINOIS	FED. AID PROJECT	