

BENCH MARK:

ALL ELEVATIONS ARE BASED UPON THE EXISTING BRIDGE HAVING AN ELEVATION OF 526.10 AT CENTERLINE TRUNNION AS SHOWN ON THE PLANS FOR THE EXISTING BRIDGE DATED 1931.

DESIGN DATA (FOR BRIDGE UPGRADING & REHABILITATION)

DESIGN SPECIFICATIONS:

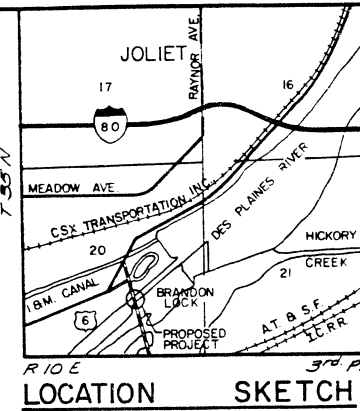
A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES - 1983 & INTERIM SPECIFICATIONS BRIDGES 1984, THRU 1988; A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR MOVABLE HIGHWAY BRIDGES - 1976; IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JULY 1, 1988.

DESIGN LOAD:

A HS 20-44

DESIGN STRESSES:

STRUCTURAL STEEL (EXIST.): F_y Allow = 19,500 PSI
 STRUCTURAL STEEL (NEW): F_y Allow = 20,000 PSI
 CAST IN PLACE CONCRETE: F_c Allow = 3,500 PSI
 REINFORCEMENT BARS: f_y = 60,000 PSI



ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU-0341	*	WILL	64	5
STA	TO STA			
FED. ROAD DIST NO 7	ILLINOIS PROJECT			

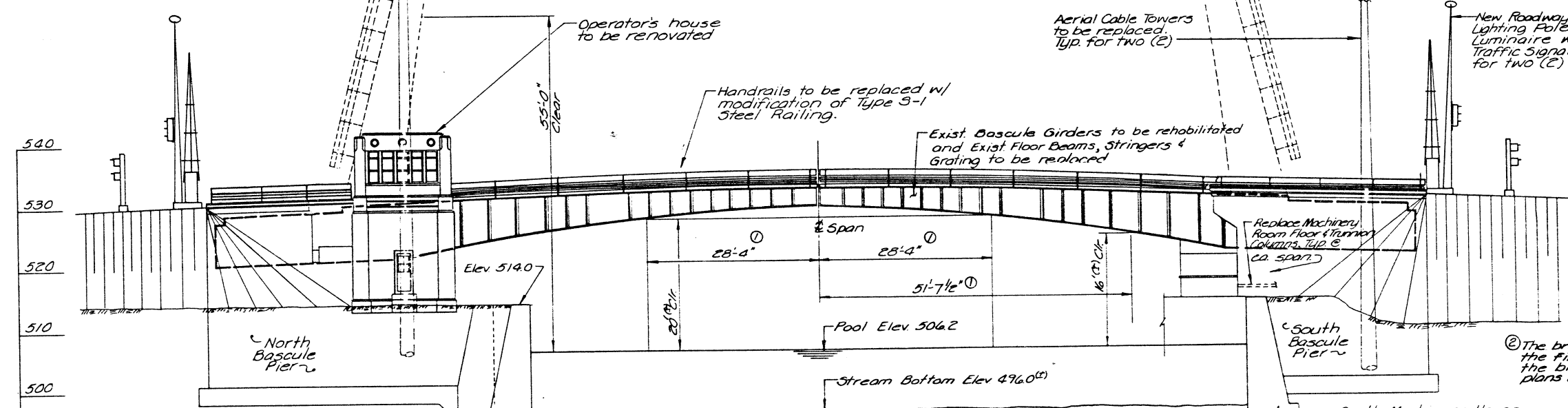
*1981-0828-1

TOTAL BILL OF MATERIAL

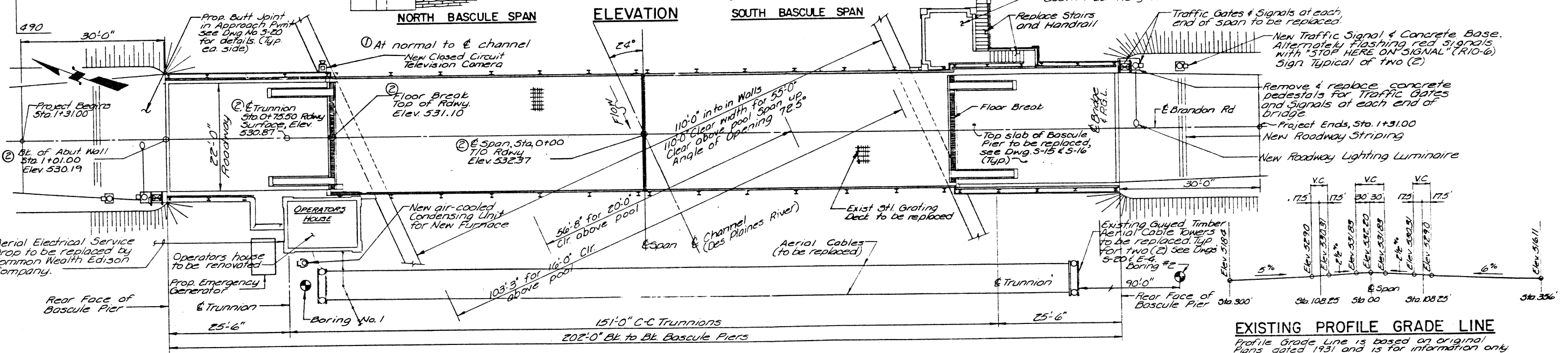
PAY ITEM	UNIT	SUPER	SUB	TOTAL
CONCRETE REMOVAL	CU. YD.	54.6	45.4	100.0
EXPANSION BOLTS (SPECIAL)	EACH	--	22	22
STRUCTURE EXCAVATION	CU. YD.	--	98	98
ROCK EXCAVATION FOR STRUCTURES	CU. YD.	--	3	3
CLASS X CONCRETE - SUPERSTRUCTURE	CU. YD.	52.8	62.8	115.6
PROTECTIVE COAT	SQ. YD.	198	132	330
CLASS X CONCRETE	CU. YD.	--	38.8	38.8
CLASS X CONCRETE (SPECIAL)	CU. YD.	--	9.7	9.7
FURNISHING AND ERECTING STRUCTURAL STEEL	LUMP SUM	1	--	1
STRUCTURAL STEEL REMOVAL	POUND	128,000	--	128,000
REMOVAL OF EXISTING HANDRAIL	LIN. FT.	385	--	385
STEEL RAILING TYPE S-1 MODIFIED	LIN. FT.	385	--	385
REINFORCEMENT BARS	POUND	--	8,090	8,090
REINFORCEMENT BARS (EPOXY COATED)	POUND	7,910	10,870	18,780
EPOXY CRACK SEALING	LIN. FT.	--	75	75
EPOXY MORTAR REPAIR	CU. FT.	--	55	55
RIVET REMOVAL AND REPLACEMENT	EACH	7,366	--	7,366
MACHINERY PIT ENCLOSURE	LUMP SUM	1	--	1
BRIDGE BALANCING	LUMP SUM	1	--	1
OPERATORS HOUSE RENOVATION	LUMP SUM	1	--	1
OPEN STEEL FLOOR	SQ. FT.	3004	--	3004
REMOVAL OF EXISTING STEEL DECK GRATING	SQ. FT.	3004	--	3004
ALUMINUM FLOOR DOOR AND LADDER	EACH	2	--	2
ADHESIVE ANCHORS	EACH	--	133	133
TEMPORARY SUPPORT SYSTEM	LUMP SUM	1	--	1
ALUMINUM RAILINGS	LUMP SUM	1	--	1



APPROVED
 FOR STATE OF ILLINOIS
 Ralph E. Anderson



② The bridge is to be raised O.T. All elevations are for the final configuration obtained after raising the bridge. Elevations are based upon the existing plans dated 1931 and are symmetrical about @ span.



EXISTING PROFILE GRADE LINE

Profile Grade Line is based on original Plans dated 1931 and is for information only. See Plan View for proposed change in elevation.

PLAN

	DESIGNED BY: G.G.	DATE: 1/87	SCALE: None	DRAWING NO. S-1	PLAN AND ELEVATION BRANDON ROAD (FAU-0341) OVER DES PLAINES RIVER SN099-9903 SEC. 981-0828-1 WILL COUNTY Rev. 5-30-90
	DRAWN BY: M.E.W.	DATE: 1/87	DATE: Mar. 1990	JOB NO. 102010	
DATE: _____	TO: _____	FOR: _____	REGISTRATION NO. _____	NO. _____ DATE _____	REVISION _____
PROJECT CONTROL			APPROVED BY: G.G.	DATE: 4/87	APPROVED _____

BENCH MARK:

ALL ELEVATIONS ARE BASED UPON THE EXISTING BRIDGE HAVING AN ELEVATION OF 526.10 AT CENTERLINE TRUNNION AS SHOWN ON THE PLANS FOR THE EXISTING BRIDGE DATED 1931.

DESIGN DATA (FOR BRIDGE UPGRADING & REHABILITATION)

DESIGN SPECIFICATIONS:

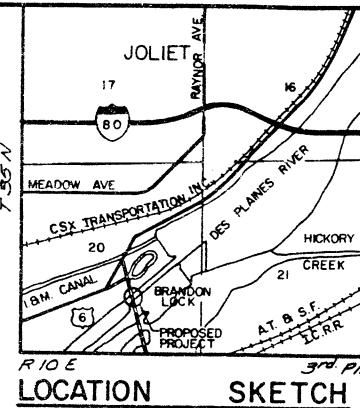
A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES - 1983 & INTERIM SPECIFICATIONS BRIDGES 1984, THRU 1988; A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR MOVABLE HIGHWAY BRIDGES - 1978; I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JULY 1, 1988.

DESIGN LOAD:

A. HS 20-44

DESIGN STRESSES:

STRUCTURAL STEEL (EXIST.): $F_u = 19500$ PSI
 STRUCTURAL STEEL (NEW): $F_u = 20000$ PSI
 CAST IN PLACE CONCRETE: $F'_c = 3500$ PSI
 REINFORCEMENT BARS: $f_y = 60,000$ PSI



ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU-0341	*	WILL	64	5
STA	TO STA			
FED. ROAD DIST. NO. 7	ILLINOIS		PROJECT	

*1981-082B-1

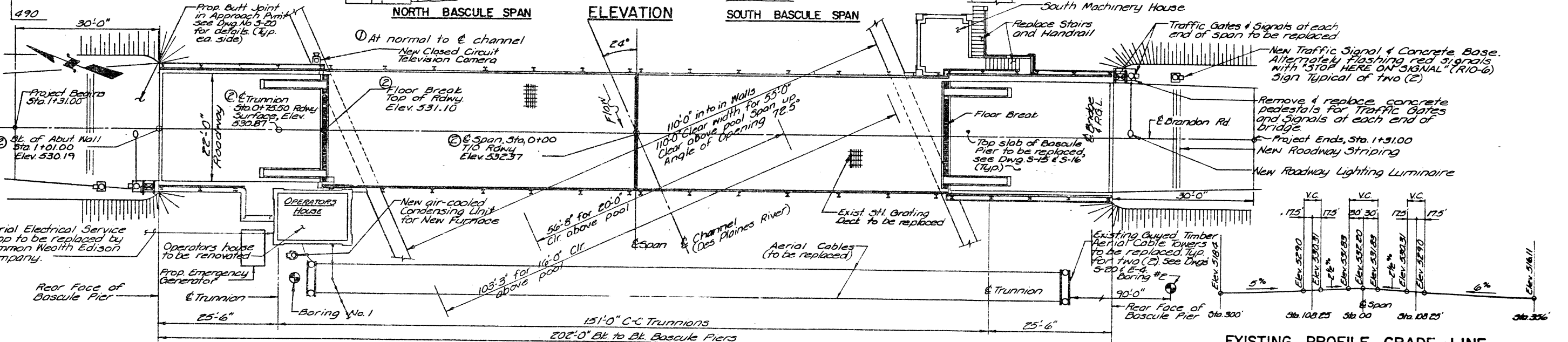
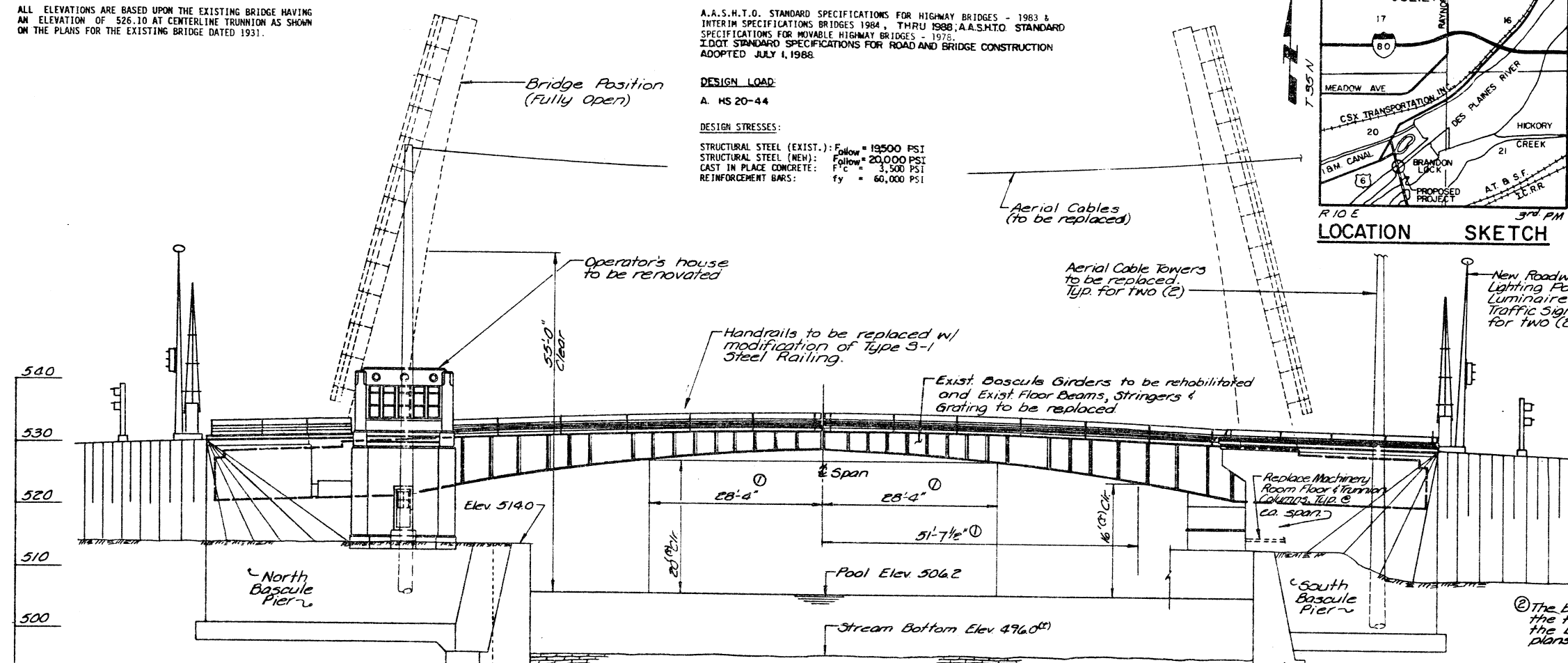
TOTAL BILL OF MATERIAL

PAY ITEM	UNIT	SUPER	SUB	TOTAL
CONCRETE REMOVAL	CU. YD.	54.6	45.4	100.0
EXPANSION BOLTS (SPECIAL)	EACH	--	22	22
STRUCTURE EXCAVATION	CU. YD.	--	98	98
ROCK EXCAVATION FOR STRUCTURES	CU. YD.	--	3	3
CLASS X CONCRETE - SUPERSTRUCTURE	CU. YD.	52.8	62.8	115.6
PROTECTIVE COAT	SQ. YD.	198	132	330
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CLASS X CONCRETE CONCRETE (SPECIAL)	CU. YD.	--	9.7	9.7
FURNISHING AND ERECTING STRUCTURAL STEEL	LUMP SUM	1	--	1
STRUCTURAL STEEL REMOVAL	POUND	128,000	--	128,000
REMOVAL OF EXISTING HANDRAIL	LIN. FT.	385	--	385
STEEL RAILING TYPE S-1 MODIFIED	LIN. FT.	385	--	385
REINFORCEMENT BARS	POUND	--	8,090	8,090
REINFORCEMENT BARS (EPOXY COATED)	POUND	7,910	10,870	18,780
EPOXY CRACK SEALING	LIN. FT.	--	75	75
EPOXY MORTAR REPAIR	EACH	--	55	55
RIVET REMOVAL AND REPLACEMENT	LUMP SUM	1	--	1
MACHINERY PIT ENCLOSURE	LUMP SUM	1	--	1
BRIDGE BALANCING	LUMP SUM	1	--	1
OPERATORS HOUSE RENOVATION	LUMP SUM	1	--	1
OPEN STEEL FLOOR	CU. FT.	3004	--	3004
REMOVAL OF EXISTING STEEL DECK GRATING	SQ. FT.	3004	--	3004
ALUMINUM FLOOR DOOR AND LADDER	EACH	2	--	2
ADHESIVE ANCHORS	EACH	--	133	133
TEMPORARY FALSEWORK	LUMP SUM	1	--	1
ALUMINUM RAILINGS	LUMP SUM	1	--	1



APPROVED
 FOR STRUCTURAL ADEQUACY
 Ralph E. Anderson

② The bridge is to be raised 0.7'. All elevations are for the final configuration obtained after raising the bridge. Elevations are based upon the existing plans dated 1931 and are symmetrical about @ span.



EXISTING PROFILE GRADE LINE

Profile Grade Line is based on original Plans dated 1931 and is for information only. See Plan View for proposed change in elevation.

CRSS CRS SIRRINE
 CLARK DIETZ DIVISION

DATE	TO	PROJECT CONTROL	FOR

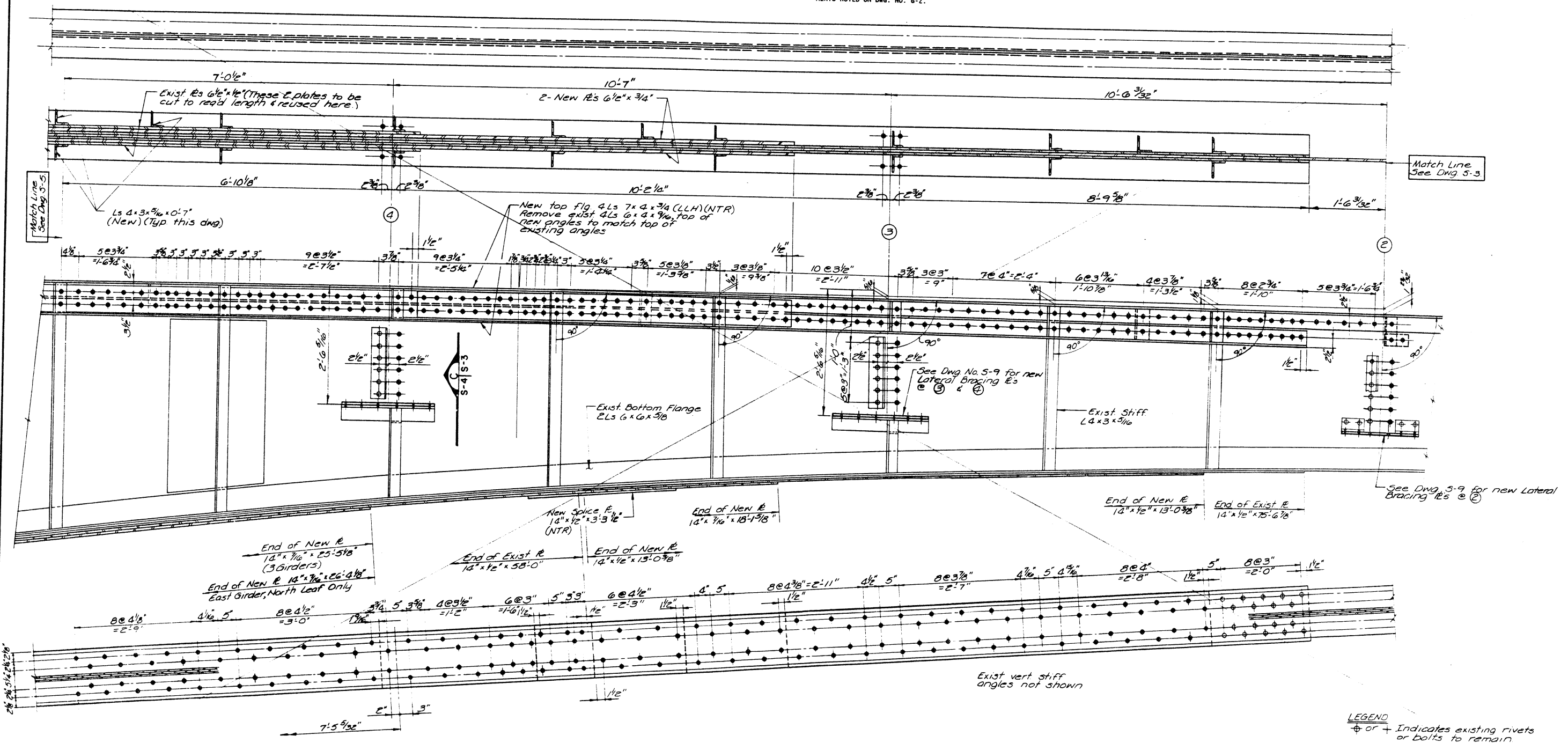
ACTIVITY	NAME	DATE	SCALE	DRAWING NO.
DESIGNED BY:	G.G.	1/87	None	S-1
DRAWN BY:	M.E.W.	1/87		
CHECKED BY:	G.G.	1/87		
APPROVED BY:	G.G.	4/87		
REGISTRATION NO.:				

PLAN AND ELEVATION
 BRANDON ROAD (FAU-0341) OVER
 DES PLAINES RIVER
 SNO99-9903
 SEC. 1981-082B-1 WILL COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU-0341	*	WILL	64	8
STA	TO STA			
FED ROAD DIST. NO. 7	ILLINOIS	PROJECT		

*1981-082B-I

- NOTES:
- NUMBERS SHOWN IN CIRCLE REPRESENT PANEL POINTS ALONG THE LENGTH OF THE BASCULE GIRDER.
 - REHABILITATION WORK SHOWN ON THIS DRAWING IS TYPICAL FOR ALL FOUR BASCULE GIRDERS UNLESS OTHERWISE SHOWN.
 - HOLES IN NEW MEMBERS SHALL BE DRILLED OR SUBDRILLED AND REAMED TO MATCH THE CONNECTING HOLES IN THE EXISTING MEMBERS.
 - MEMBERS SHOWN WITH (NTR) SHALL MEET THE NOTCH TOUGHNESS REQUIREMENTS NOTED ON DWG. NO. 6-2.



LEGEND
 ⊕ or ⊕ Indicates existing rivets or bolts to remain
 ◆ Indicates new bolts in existing or new steel. Knock out existing rivet or bolt and replace with new 7/8 Dia H.S. Bolts, UNC

CRSS
 CRS SIRRINE
 CLARK DIETZ DIVISION

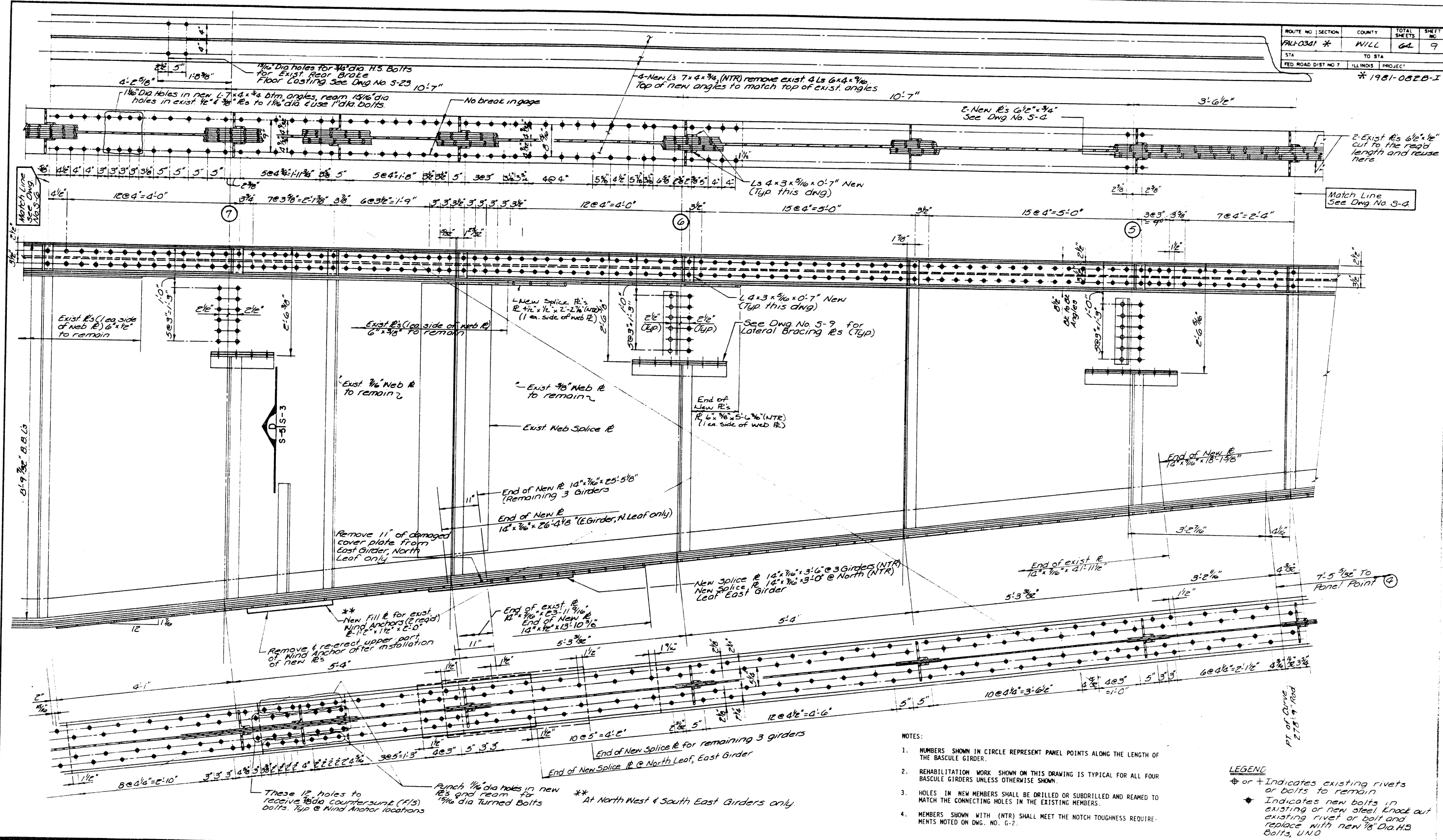
DATE	TO	PROJECT CONTROL	FOR
------	----	-----------------	-----

ACTIVITY	NAME	DATE
DESIGNED BY	S.C.J	
DRAWN BY	M.W	
CHECKED BY	G.G	
APPROVED BY	G.G	
REGISTRATION NO.		

SCALE None
 DATE Mar 1990
 JOB NO 102010

DRAWING NO.
 S-4

BASCULE GIRDER DETAILS
 BRANDON ROAD (FAU-0341) OVER
 DES PLAINES RIVER
 SN099-9903
 SEC. 1981-082B-I WILL COUNTY



- NOTES:
- NUMBERS SHOWN IN CIRCLE REPRESENT PANEL POINTS ALONG THE LENGTH OF THE BASCULE GIRDER.
 - REHABILITATION WORK SHOWN ON THIS DRAWING IS TYPICAL FOR ALL FOUR BASCULE GIRDERS UNLESS OTHERWISE SHOWN.
 - HOLES IN NEW MEMBERS SHALL BE DRILLED OR SUBDRILLED AND REAMED TO MATCH THE CONNECTING HOLES IN THE EXISTING MEMBERS.
 - MEMBERS SHOWN WITH (NTR) SHALL MEET THE NOTCH TOUGHNESS REQUIREMENTS NOTED ON DNG. NO. G-2.

LEGEND

- ⊕ or + Indicates existing rivets or bolts to remain
- ◆ Indicates new bolts in existing or new steel. Knock out existing rivet or bolt and replace with new 3/8 Dia. H.S. Bolts, UNO

CRSS CRS SIRRINE
CLARK DIETZ DIVISION

DATE	TO	FOR
		PROJECT CONTROL

ACTIVITY	NAME	DATE
DESIGNED BY	JCV	
DRAWN BY	MW	
CHECKED BY	GG	
APPROVED BY	GG	
REGISTRATION NO.		

SCALE	None
DATE	Mar. 1990
JOB NO.	202010

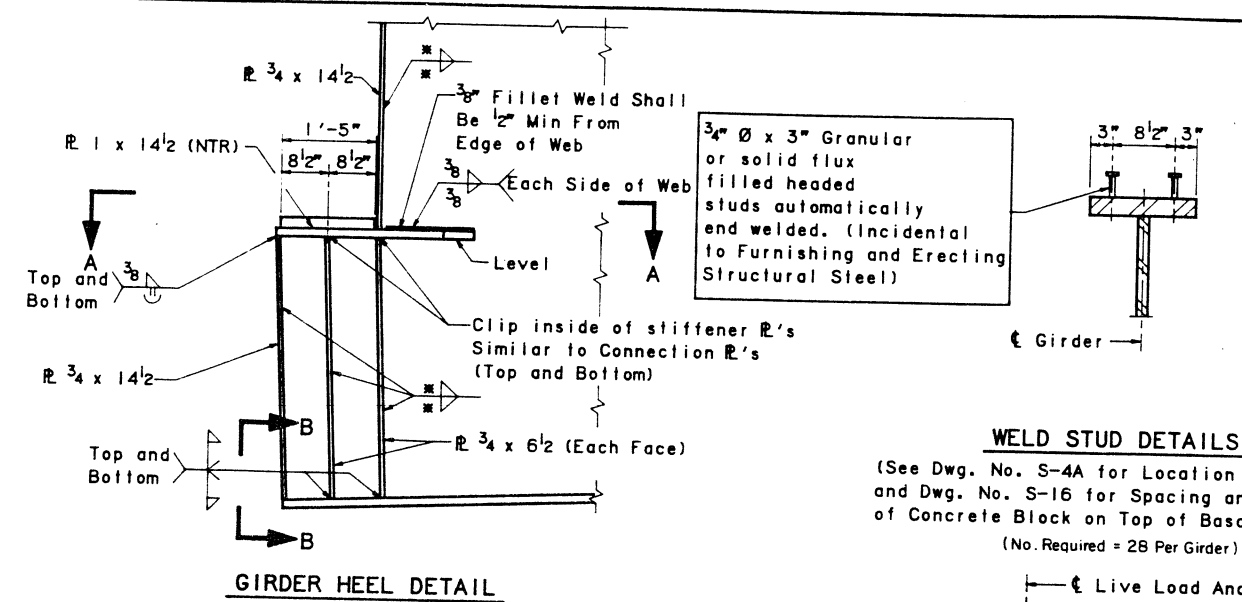
DRAWING NO.
S-5

BASCULE GIRDER DETAILS
BRANDON ROAD (FAU-0341) OVER
DES PLAINES RIVER
SN099-9903
SEC. 1981-082B-I WILL COUNTY

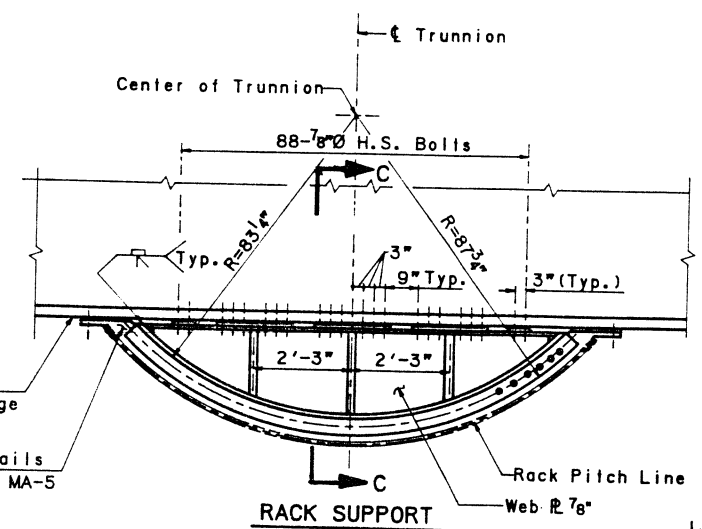
***MINIMUM FILLET WELD SIZES**

Material Thickness of Thicker Part Joined (Inches)	Minimum Size of Fillet Weld (Inches) ***
To 3/4 Inclusive	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 to 6	1/2

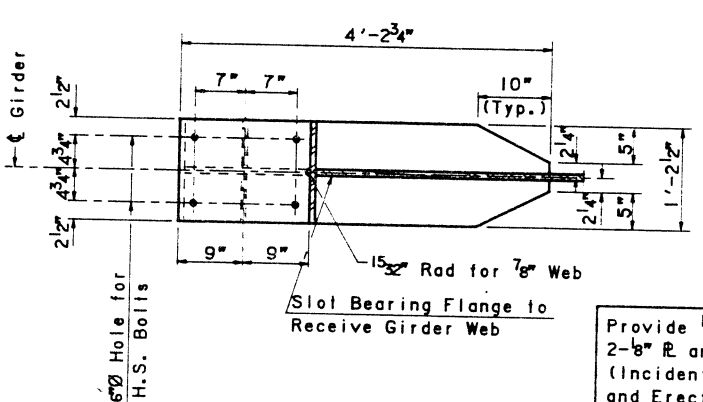
*** Except the weld need not exceed the thickness of the thinner part joined.



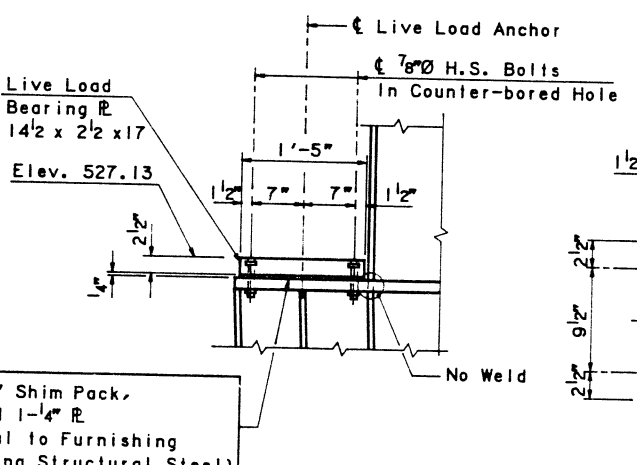
GIRDER HEEL DETAIL



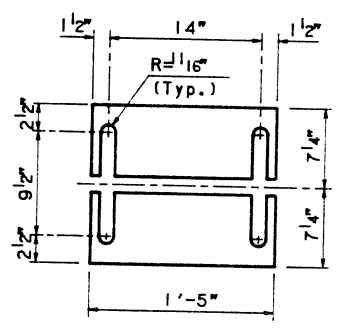
RACK SUPPORT



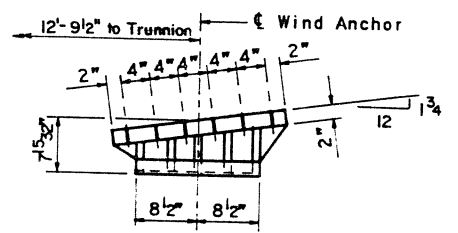
SECTION A-A



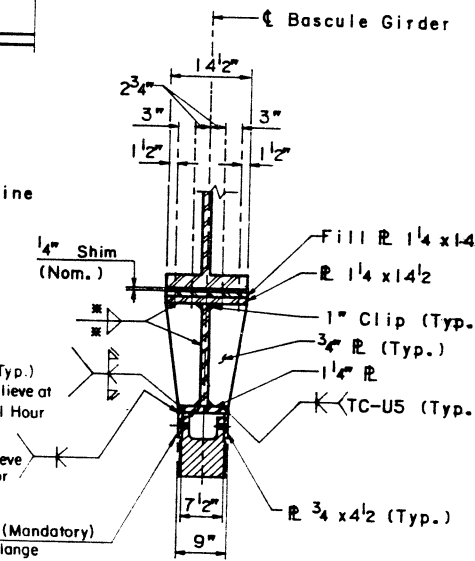
LIVE LOAD BEARING PLATE



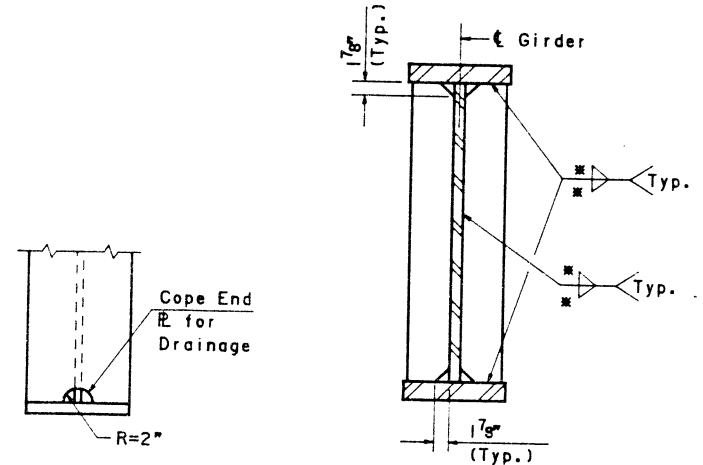
SHIM PLATE DETAIL



WIND ANCHOR DETAIL

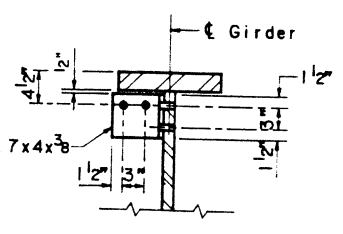


SECTION C-C

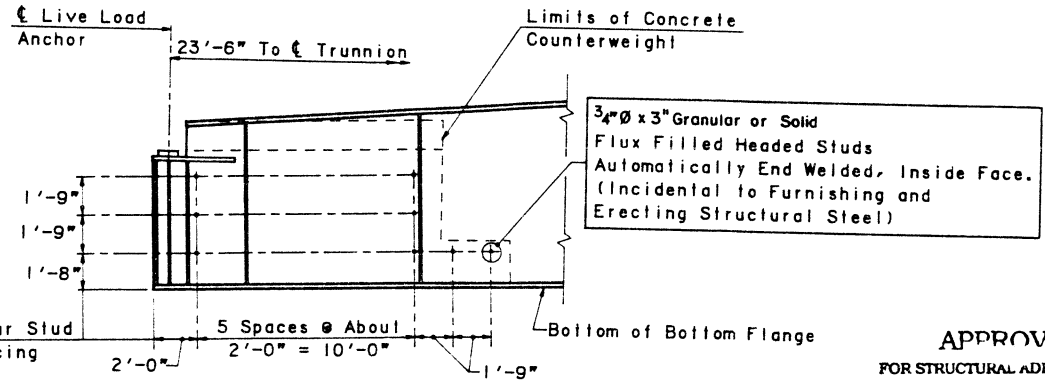


SECTION B-B

CANTILEVER BRACKET, FLOORBEAM & COUNTERWEIGHT

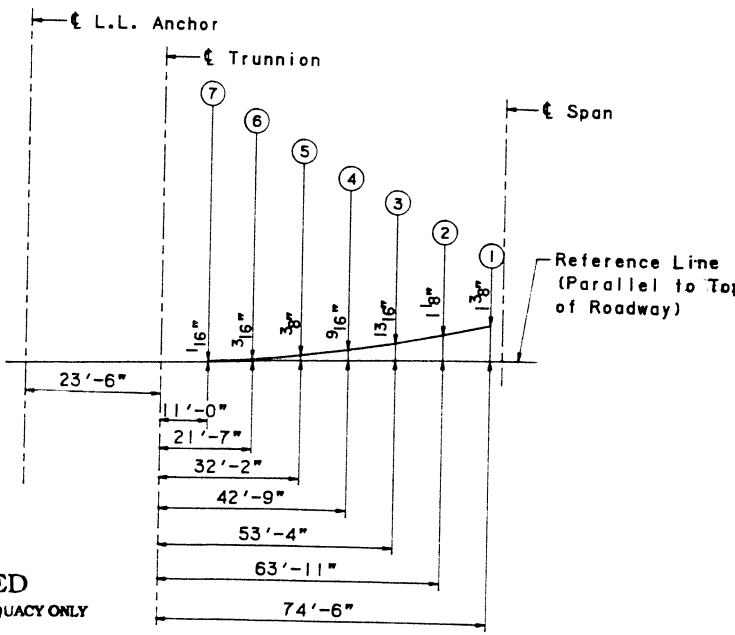


DIAPHRAGM



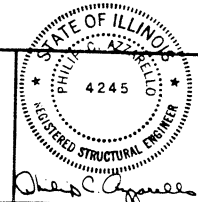
PARTIAL GIRDER ELEVATION FOR COUNTERWEIGHT SHEAR STUDS

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
No. Hoop Sp 4/2/92
Licensed Structural Engineer



DEAD LOAD CAMBER DIAGRAM
(Distances are Horizontal)

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS



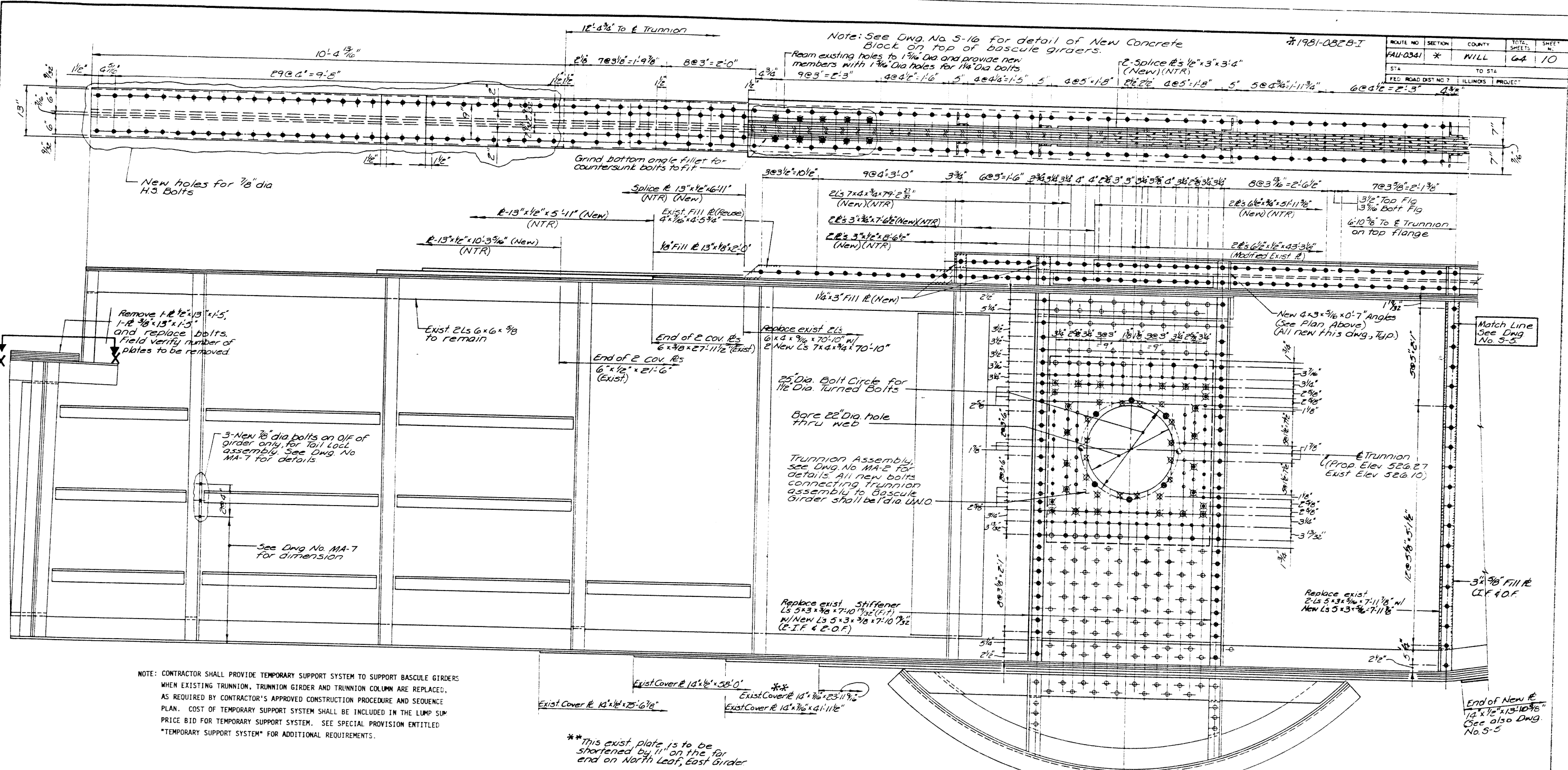
ACTIVITY	NAME	DATE
DESIGNED BY:	TMP	11-26-90
DRAWN BY:	QWH	11-26-90
CHECKED BY:	QCA	12-13-90
APPROVED BY:	QCA	2-27-91
REGISTRATION NO.:	081-004245	

SCALE	None
DATE	MAY, 1991
JOB NO.	14387-31-00

DRAWING NO. **S-5A**
BASCULE GIRDER DETAILS
BRANDON ROAD (FAU-0341) OVER
DES PLAINES RIVER
SNO99-9903
SEC. 1981-082B-1 WILL COUNTY

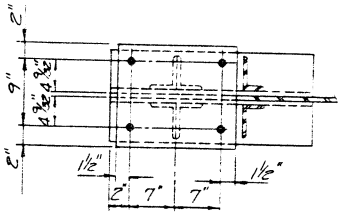
FILE ID: CHIGRAPH.14387 BD2Z
DWG NAME: BD2Z
PLOTS REQUIRED:
PLOTS COMPLETED:

Note: See Dwg. No. S-16 for detail of New Concrete Block on top of bascule girders.



NOTE: CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT SYSTEM TO SUPPORT BASCULE GIRDERS WHEN EXISTING TRUNNION, TRUNNION GIRDER AND TRUNNION COLUMN ARE REPLACED. AS REQUIRED BY CONTRACTOR'S APPROVED CONSTRUCTION PROCEDURE AND SEQUENCE PLAN. COST OF TEMPORARY SUPPORT SYSTEM SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR TEMPORARY SUPPORT SYSTEM. SEE SPECIAL PROVISION ENTITLED "TEMPORARY SUPPORT SYSTEM" FOR ADDITIONAL REQUIREMENTS.

** This exist. plate is to be shortened by 11" on the far end on North Leaf, east girder



LEGEND
 * or + = Indicates existing rivets or bolts to remain
 * = Indicates new bolts or new holes in existing or new steel. Knock out existing rivet or bolt and replace with new 7/8" dia H.S. Bolts, U.N.O.
 * = New Countersunk Hd. Bolts (NIB) in place of existing rivets
 * = Exist. Countersunk Hd
 I/F = Inside Face
 O/F = Outside Face

PARTIAL ELEVATION BASCULE GIRDER
 (View from E Bridge)

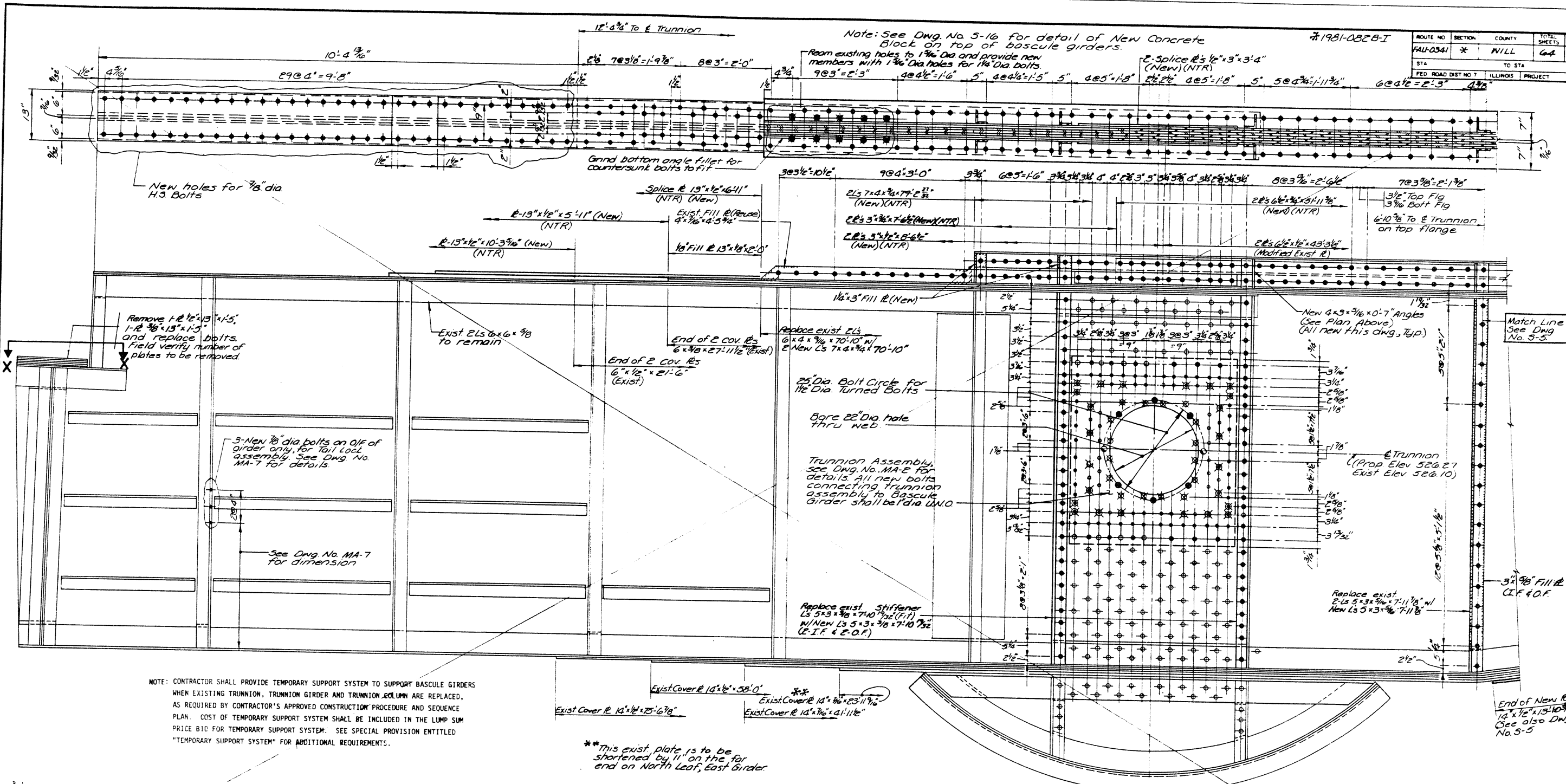
- NOTES:
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CRSS CRS SIRRINE
 CLARK DIETZ DIVISION

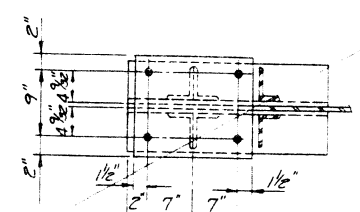
DATE	TO	FOR
		PROJECT CONTROL

ACTIVITY	NAME	DATE
DESIGNED BY	S.C.V.	
DRAWN BY	M.W.	
CHECKED BY	G.G.	
APPROVED BY	G.G.	
REGISTRATION NO.		

SCALE None	DRAWING NO.	BASCULE GIRDER DETAILS
DATE Mar. 1990	S-6	BRANDON ROAD (FAU-0341) OVER DES PLAINES RIVER
JOB NO. 102010		SNO99-9903
		SEC. 1981-082B-1 WILL COUNTY



NOTE: CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT SYSTEM TO SUPPORT BASCULE GIRDERS WHEN EXISTING TRUNNION, TRUNNION GIRDER AND TRUNNION COLUMN ARE REPLACED, AS REQUIRED BY CONTRACTOR'S APPROVED CONSTRUCTION PROCEDURE AND SEQUENCE PLAN. COST OF TEMPORARY SUPPORT SYSTEM SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR TEMPORARY SUPPORT SYSTEM. SEE SPECIAL PROVISION ENTITLED "TEMPORARY SUPPORT SYSTEM" FOR ADDITIONAL REQUIREMENTS.



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- ⊠ = New Countersunk Hd. Bolts (N.B) in place of existing rivets
- ⊞ = Exist Countersunk Hd
- I/F = Inside Face
- O/F = Outside Face

PARTIAL ELEVATION BASCULE GIRDER
(View from E Bridge)

VOID this sheet See
S-4A, 5A, and 6A

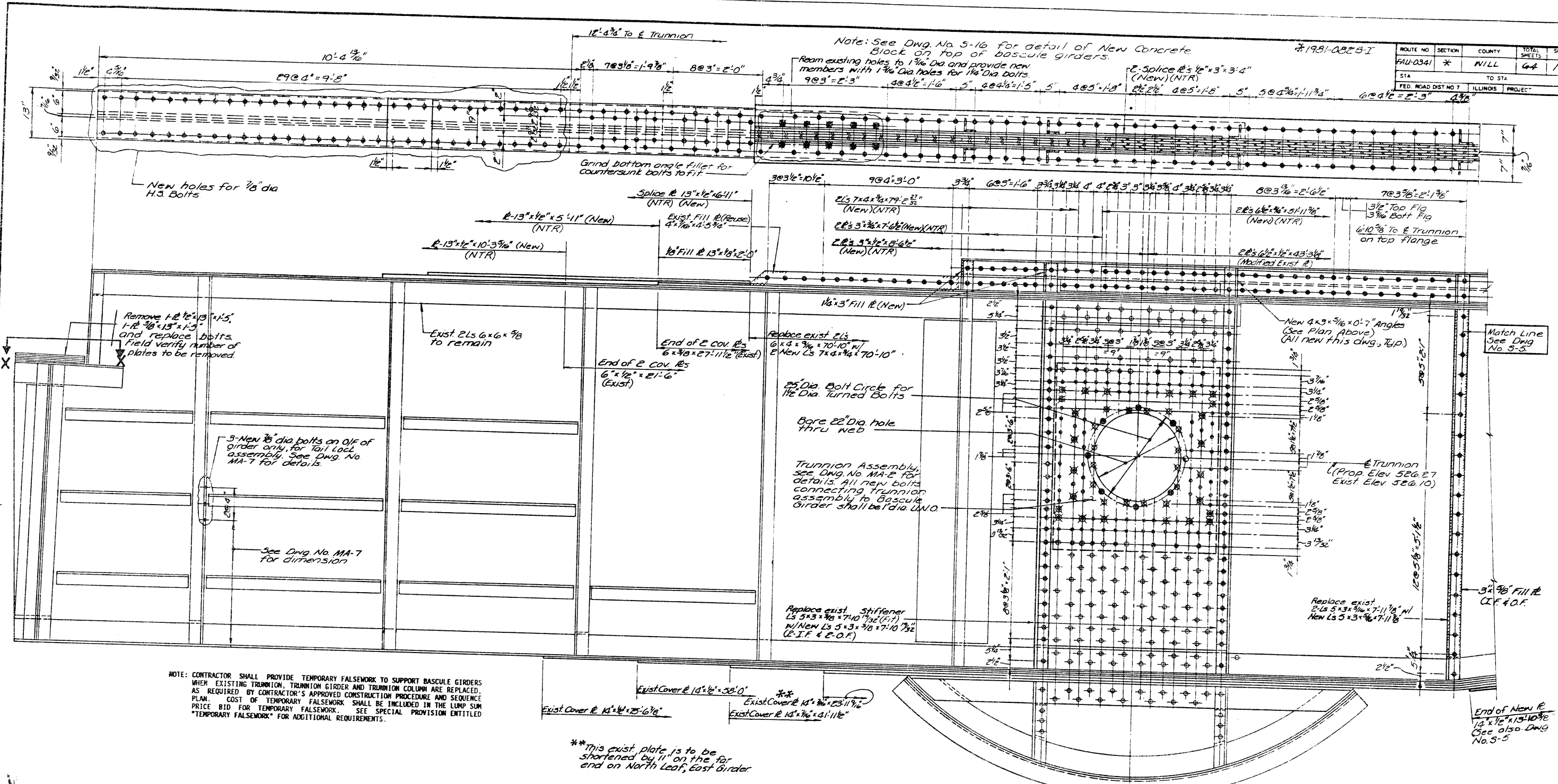
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CRSS CRS SIRRINE
CLARK DIETZ DIVISION

DATE	TO	FOR
		PROJECT CONTROL

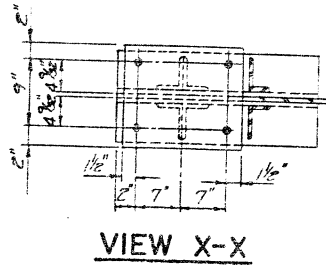
ACTIVITY	NAME	DATE
DESIGNED BY	S.C.J.	
DRAWN BY	M.W.	
CHECKED BY	G.G.	
APPROVED BY	G.G.	
REGISTRATION NO		

SCALE None	DRAWING NO.	BASCULE GIRDER DETAILS
DATE Mar 1990	S-6	BRANDON ROAD (FAU-0341) OVER DES PLAINES RIVER SNO99-9903
JOB NO. ID2010		SEC. 1981-082B-1 WILL COUNTY



NOTE: CONTRACTOR SHALL PROVIDE TEMPORARY FALSEWORK TO SUPPORT BASCULE GIRDERS WHEN EXISTING TRUNNION, TRUNNION GIRDER AND TRUNNION COLUMN ARE REPLACED. AS REQUIRED BY CONTRACTOR'S APPROVED CONSTRUCTION PROCEDURE AND SEQUENCE PLAN. COST OF TEMPORARY FALSEWORK SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR TEMPORARY FALSEWORK. SEE SPECIAL PROVISION ENTITLED "TEMPORARY FALSEWORK" FOR ADDITIONAL REQUIREMENTS.

**This exist. plate is to be shortened by 11\"/>



LEGEND
 + or + = Indicates existing rivets or bolts to remain
 * = Indicates new bolts or new holes in existing or new steel. Knock out existing rivet or bolt and replace with new 3/8\"/>

PARTIAL ELEVATION BASCULE GIRDER
 (View from E Bridge)

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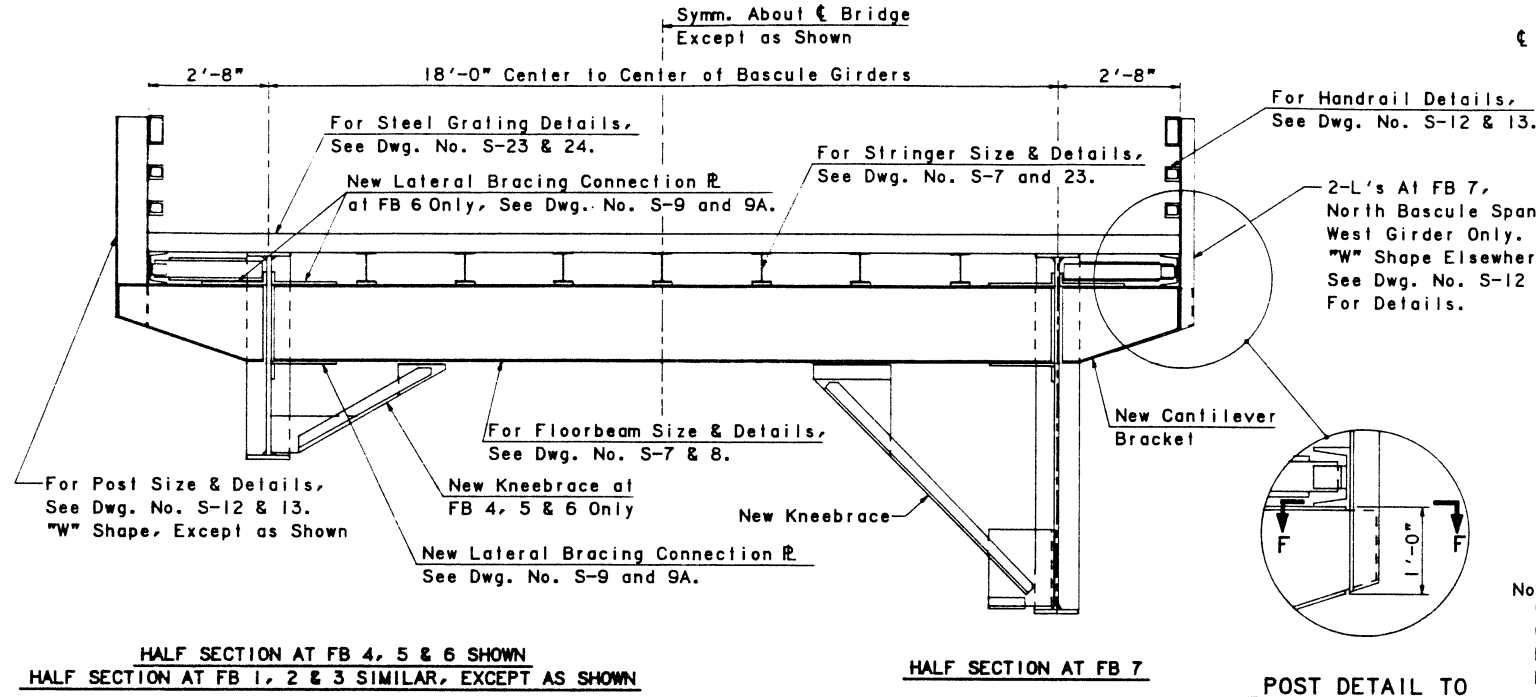
CRSS CRSS SERRINE
 CLARK DIETZ DIVISION

DATE	TO	FOR
		PROJECT CONTROL

ACTIVITY	NAME	DATE
DESIGNED BY:	G.C.J.	
DRAWN BY:	M.W.	
CHECKED BY:	G.G.	
APPROVED BY:	G.G.	
REGISTRATION NO.		

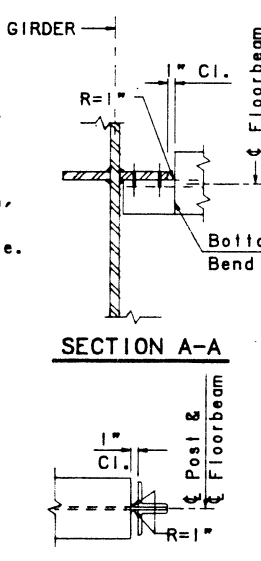
SCALE None	DRAWING NO.	BASCULE GIRDER DETAILS
DATE Mar 1990	S-6	BRANDON ROAD (FAU-0341) OVER DES PLAINES RIVER SN099-9903
JOB NO. 102010		SEC. 1981-082B-1 WILL COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU-0341	III	WILL	64	1
STATION		TO STATION		
FED. RD. DIST. NO. 7		ILLINOIS PROJECT		
1981-082B-1				



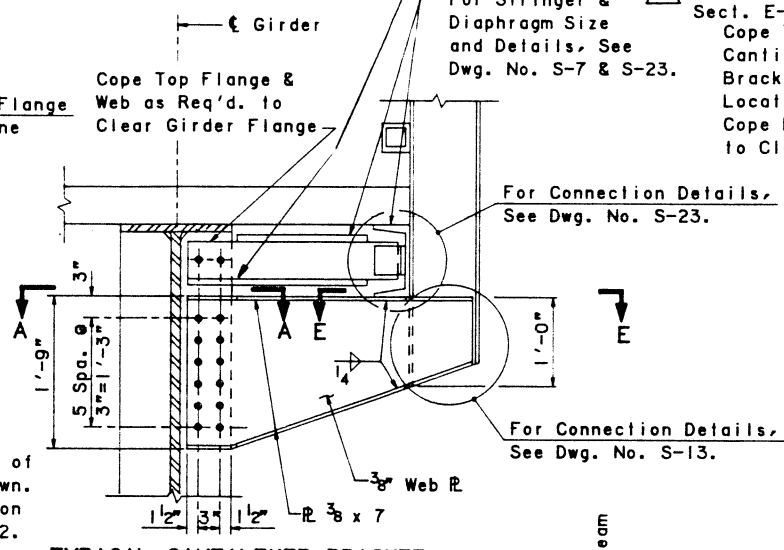
HALF SECTION AT FB 4, 5 & 6 SHOWN
HALF SECTION AT FB 1, 2 & 3 SIMILAR, EXCEPT AS SHOWN

TYPICAL CROSS SECTION AT FLOORBEAM



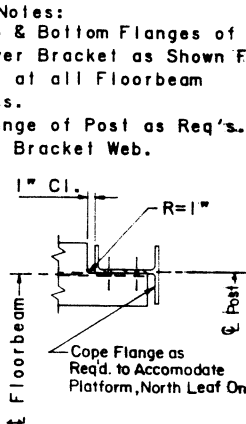
SECTION A-A

Sec. A-A Note:
Cope Top & Bottom Flanges of Cantilever Bracket as Shown For Brackets at all Floorbeam Locations.



TYPICAL CANTILEVER BRACKET CONNECTION DETAIL

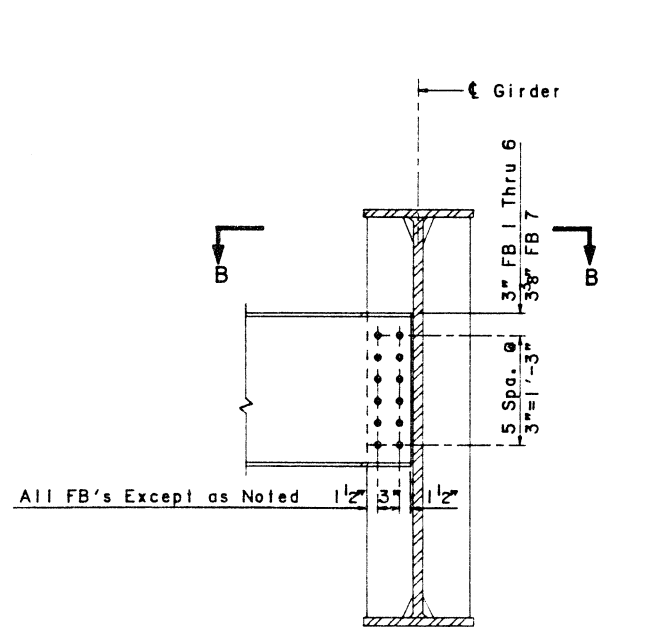
Note: Floorbeam not Shown. See Dwg. S-14 C for Bracket at FB 1 & 2, North Leaf Only.



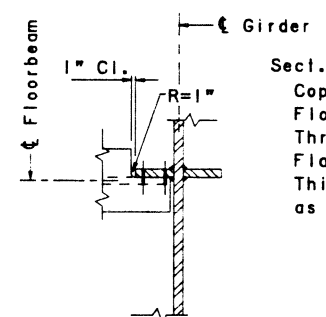
SECTION E-E

Sec. E-E Notes:
Cope Top & Bottom Flanges of Cantilever Bracket as Shown For Brackets at all Floorbeam Locations.
Cope Flange of Post as Req'd. to Clear Bracket Web.

POST DETAIL TO CANTILEVER BRACKET AT FB 7 (North Span West Girder Only)

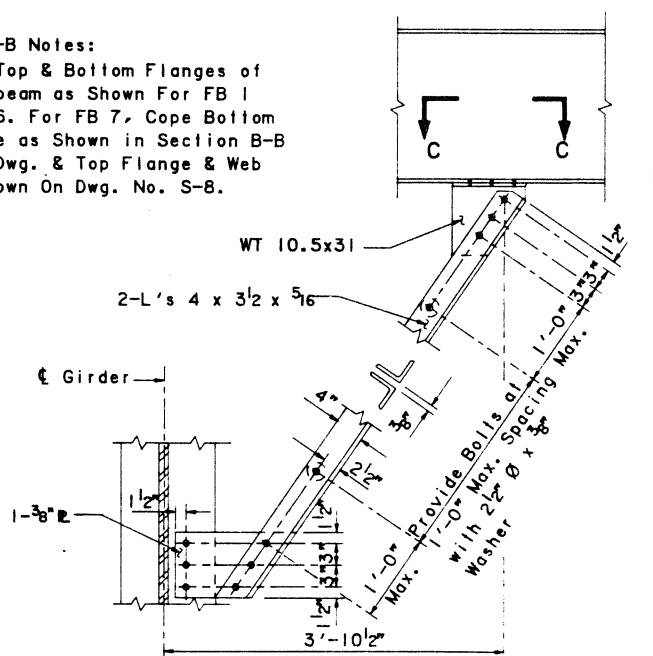


TYPICAL FLOORBEAM CONNECTION DETAIL
Note: Cantilever Bracket not Shown.



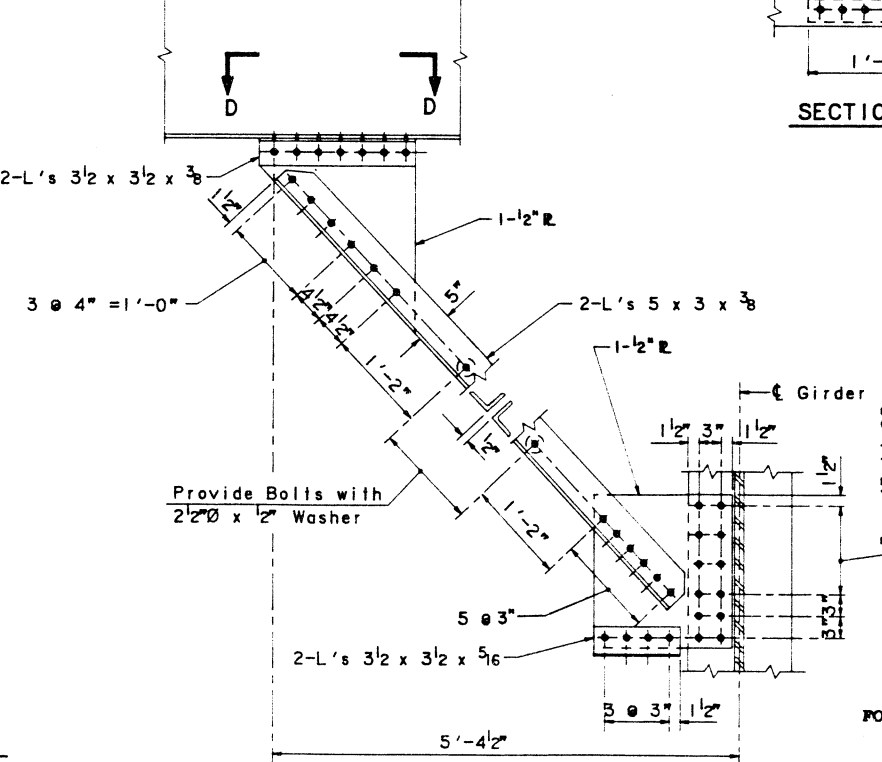
SECTION B-B

Sec. B-B Notes:
Cope Top & Bottom Flanges of Floorbeam as Shown For FB 1 Thru 6. For FB 7, Cope Bottom Flange as Shown in Section B-B This Dwg. & Top Flange & Web as Shown On Dwg. No. S-8.



FLOORBEAM 4, 5, 6 & 7 KNEEBRACE DETAILS

(East Girder North Leaf & West Girder South Leaf For Floorbeam 7 Only)



FLOORBEAM 7 KNEEBRACE DETAIL

(West Girder North Leaf & East Girder South Leaf Only)

APPROVED FOR STRUCTURAL ADEQUACY ONLY

Wei Hong Esp. 11/91
Licensed Structural Engineer

PLOTS REQUIRED:
PLOTS COMPLETED:

FILE ID: CH1GRAPH.14387 BDETS
DWG NAME: BDETS

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS



ACTIVITY	NAME	DATE	SCALE
DESIGNED BY:	QCA / JMP	11-26-90	None
DRAWN BY:	GW H	11-26-90	DATE
CHECKED BY:	HJE	2-18-91	MAY, 1991
APPROVED BY:	QCA	2-27-91	JOB NO.
REGISTRATION NO:	081-004245	NO. DATE	14387-31-00

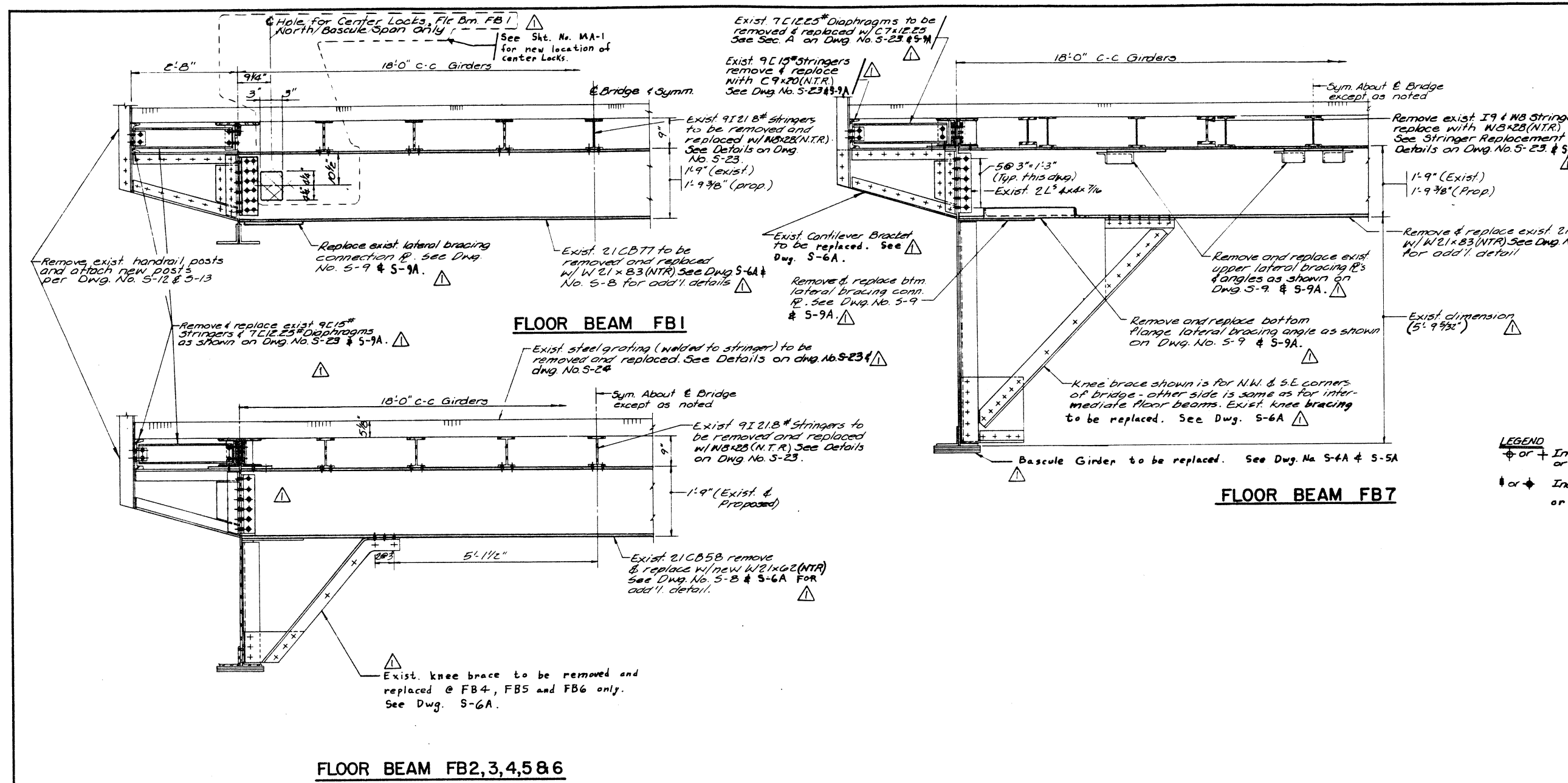
DRAWING NO.	S-6A
APPROVED	14387-31-00

CANTILEVER BRACKET AND KNEEBRACE REPLACEMENT
BRANDON ROAD (FAU-0341) OVER DES PLAINES RIVER
SN099-9903
SEC. 1981-082B-1 WILL COUNTY

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FALL-0341	*	WILL	64	111
STA	TO STA			
FED ROAD DIST NO 7	ILLINOIS	PROJECT		

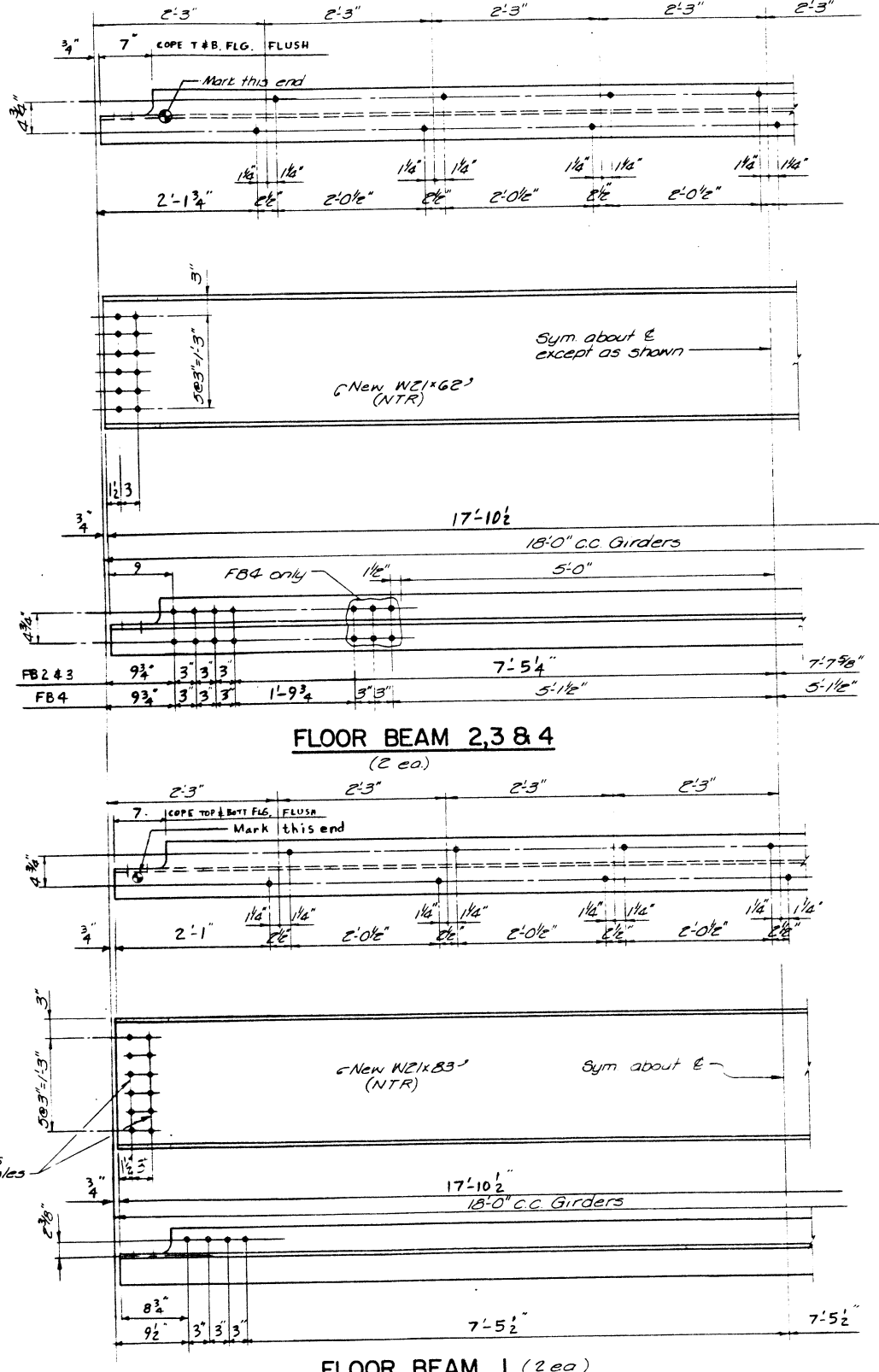
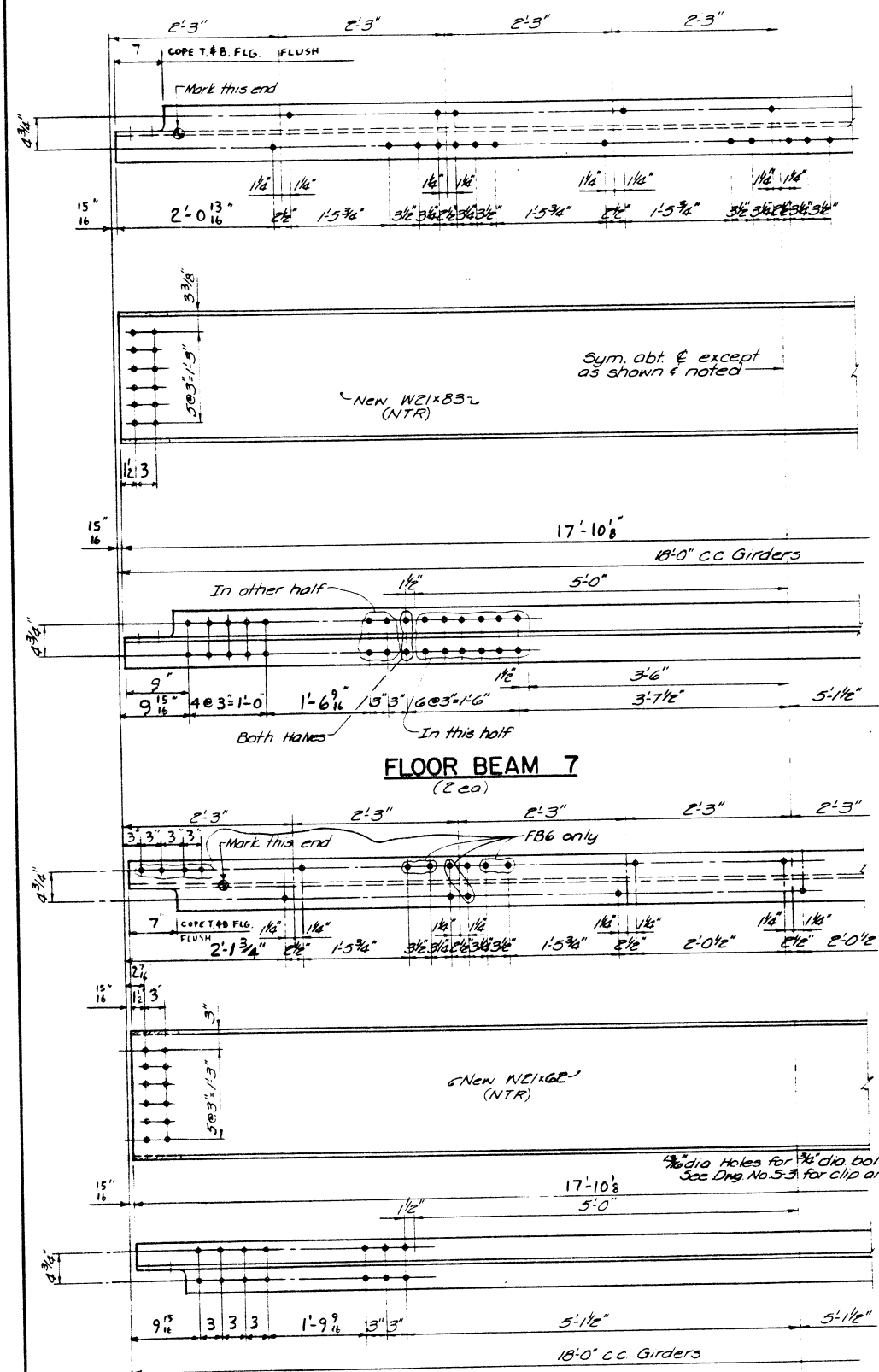
* 1981-082B-I

Notes:
 1. For additional Floor Beam details see Dwg No. S-5-B & S-6-A.
 2. Members shown with (NTR) shall meet the notch toughness requirements of Dwg No. G-2.



LEGEND
 + or + Indicates existing rivets or bolts.
 # or # Indicates Existing rivets or bolts.

CRSS	CRS SIRRINE CLARK DIETZ DIVISION	DATE	TO	FOR	ACTIVITY	NAME	DATE	SCALE: None	DRAWING NO. S-7	STRINGER & FLOOR BEAM REPLACEMENT BRANDON ROAD (FAU-0341) OVER DES PLAINES RIVER SN099-9903 SEC. 1981-082B-1 WILL COUNTY
		PROJECT CONTROL			DESIGNED BY: SCJ			DATE: Mar 1990		
					DRAWN BY: MAN					
					CHECKED BY: GG					
					APPROVED BY: GG					
					REGISTRATION NO:					



NOTE
MEMBERS SHOWN WITH (NTR) SHALL MEET THE NOTCH TOUGHNESS REQUIREMENTS NOTED ON DWG. NO. G-2.

◆ Indicates new bolts in new steel, 7/8" Dia H.S. Bolts

AS BUILT

REVISOR END CONNECTIONS FOR ALL FLOOR BEAMS

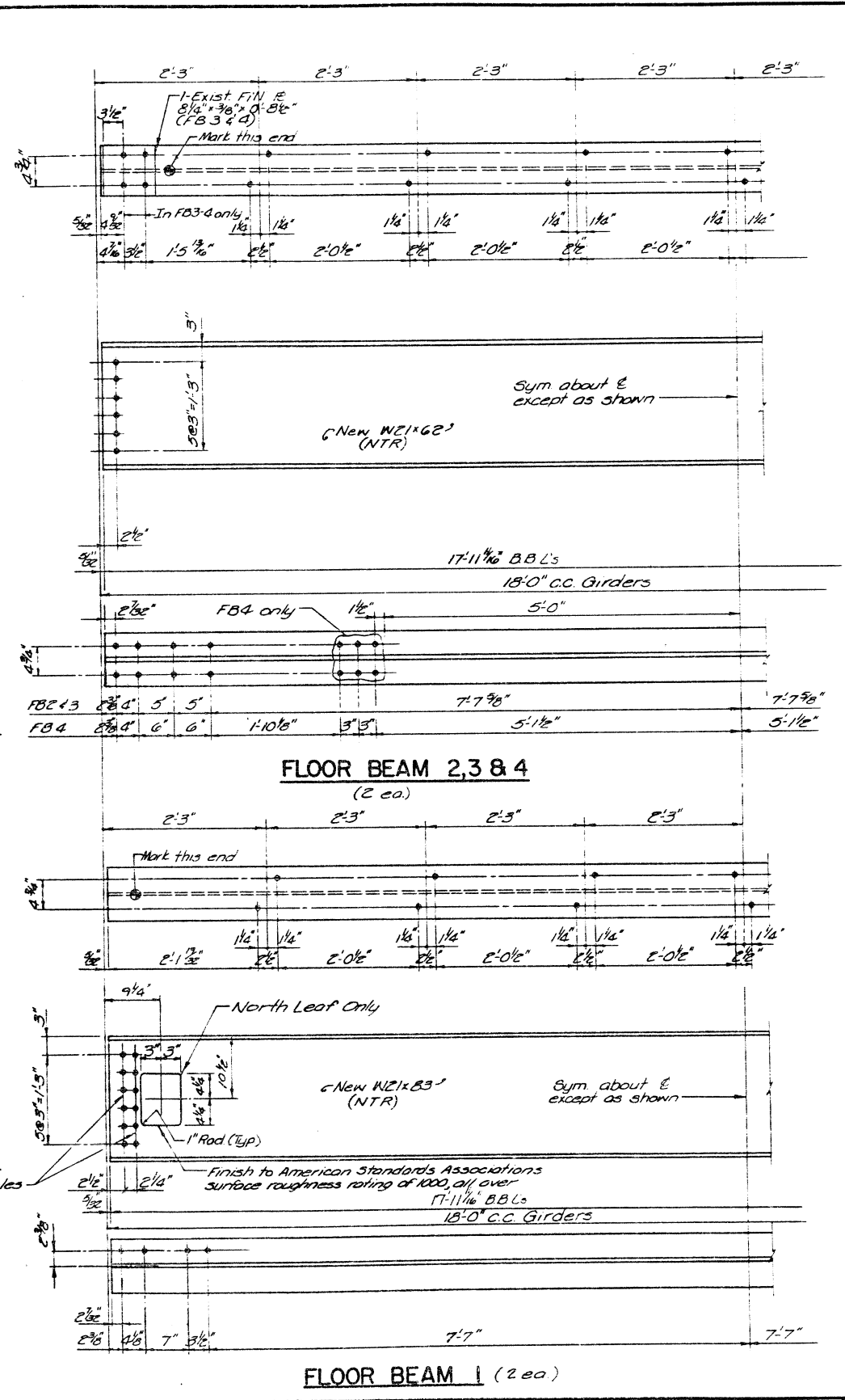
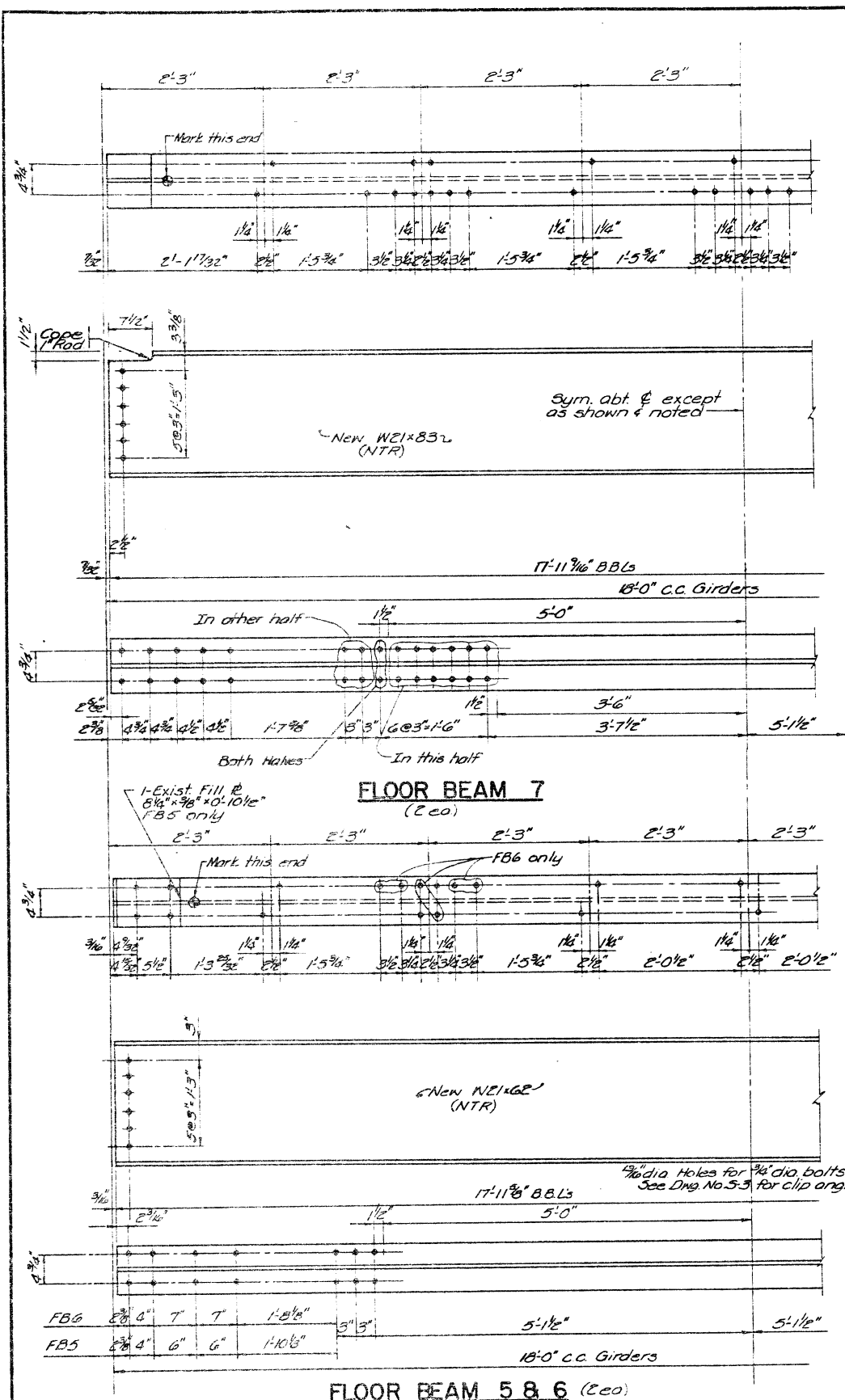
CRSS CRSS SIRRINE
CLARK DIETZ DIVISION

DATE	TO	FOR
	PROJECT CONTROL	

ACTIVITY	NAME	DATE
DESIGNED BY	SCJ	
DRAWN BY	MW	
CHECKED BY	SCJ/AD	
APPROVED BY	GG	
REGISTRATION NO.		

SCALE	None
DATE	Mar. 1990
JOB NO.	102010

DRAWING NO.	STRINGER & FLOOR BEAM REPLACEMENT
S-8	BRANDON ROAD (FAU-0341) OVER DES PLAINES RIVER SN099-9903
	SEC. 1981-0828-1 WILL COUNTY



NOTE
MEMBERS SHOWN WITH (NTR) SHALL MEET THE NOTCH TOUGHNESS REQUIREMENTS NOTED ON DWG. NO. G-2.

Note: Layout of all proposed bolt holes in the new floor beams has been taken from the shop drawing details of the existing floor beams. This layout to be field verified to match the corresponding rivet holes of existing, new, left in place or removed and reused bridge members before proceeding with fabrication. Layout of holes for web connection of Floor Beam 1 has been modified to suit new centerline.

* Indicates new bolts in new steel, 7/8" Dia. H.S. Bolts UNO (See Note)

CRSS CRS SIRAINE
CLARK DIETZ DIVISION

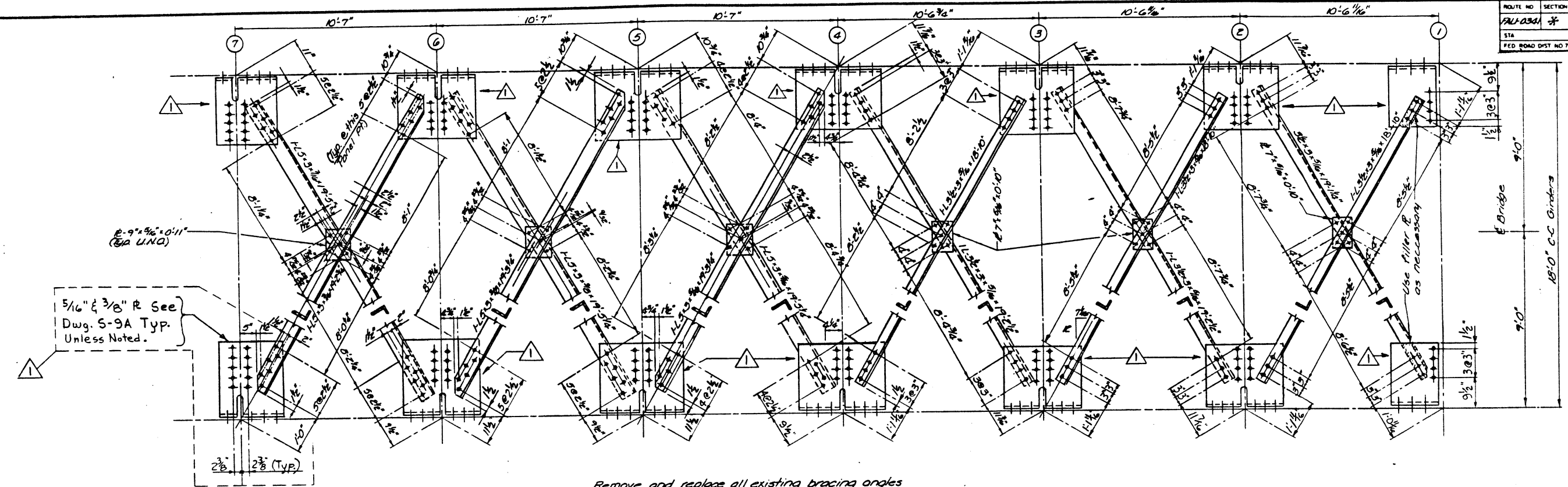
DATE	TO	PROJECT CONTROL	FOR
------	----	-----------------	-----

ACTIVITY	NAME	DATE
DESIGNED BY	SCJ	
DRAWN BY	MW	
CHECKED BY	SCJ/AD	
APPROVED BY	G.G.	
REGISTRATION NO.		

SCALE	None
DATE	Mar. 1990
JOB NO.	102010

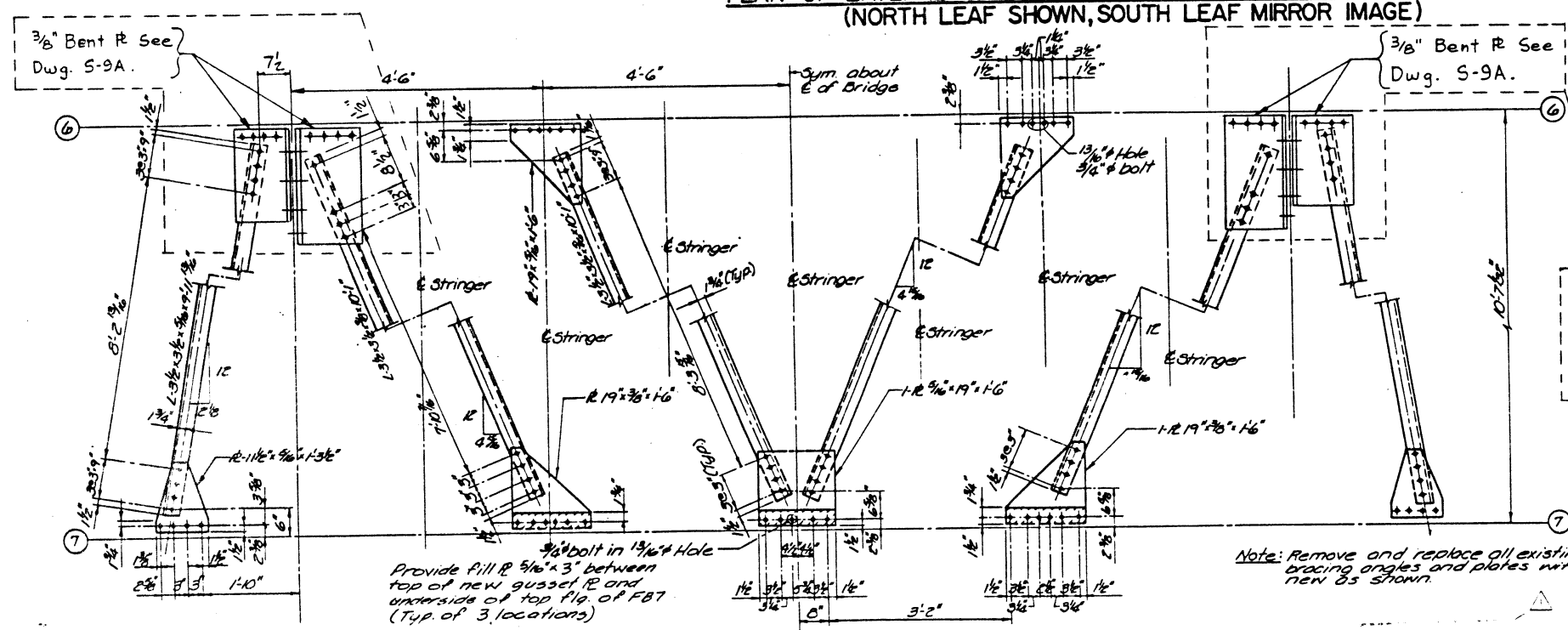
DRAWING NO.	S-8
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STRINGER & FLOOR BEAM REPLACEMENT
BRANDON ROAD (FAU-0341) OVER
DES PLAINES RIVER
SN099-9903
SEC. 1981-0828-1 WILL COUNTY



Remove and replace all existing bracing angles and plates with new as shown.

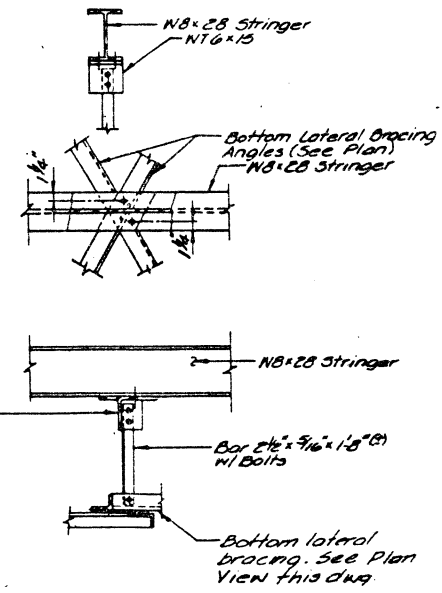
PLAN OF LATERAL BRACINGS AT BOTTOM FLANGE OF FLOOR BEAMS
(NORTH LEAF SHOWN, SOUTH LEAF MIRROR IMAGE)



PLAN OF LATERAL BRACINGS AT TOP FLANGE OF FLOOR BEAMS
(TYPICAL OF 2 LEAVES)

LEGEND
◆ or — Indicates New Bolt.

Note:
Layout of all proposed bolt holes in the new lateral bracing angles has been taken from the shop drawing details of the existing lateral bracing. Verify that this layout works with all new conditions before proceeding with fabrication. See Dwg. S-9A for additional information.



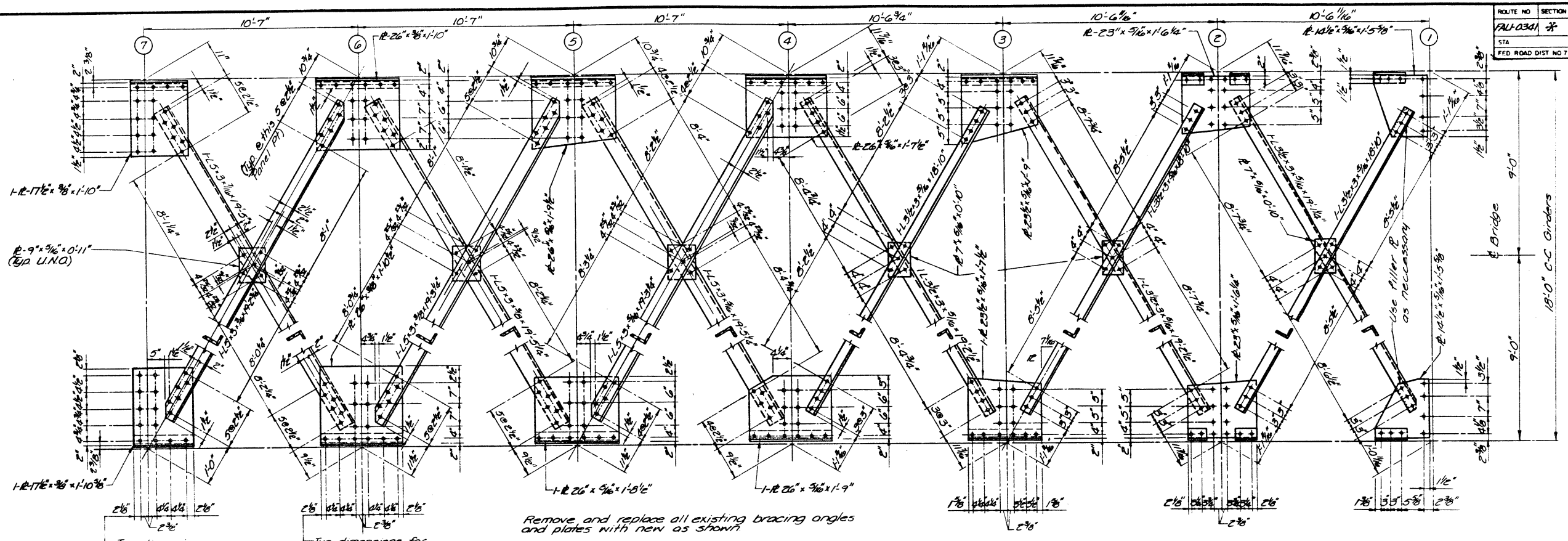
NEW HANGER DETAIL
(Typ for Lateral Bracing @ Bottom Flange of Floor Beams) Typ for both leaves

CRSS
CRS SIRRINE
CLARK DIETZ DIVISION

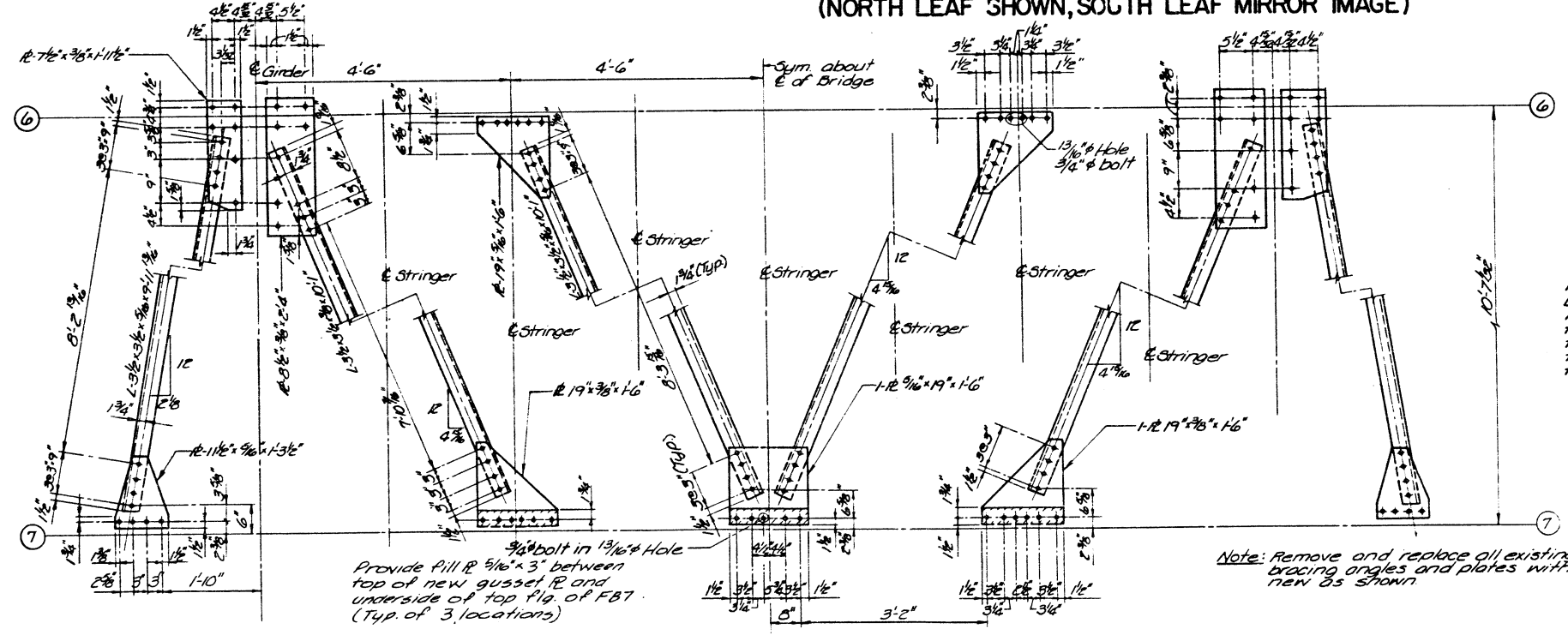
DATE	TO	FOR
		PROJECT CONTROL

ACTIVITY	NAME	DATE	REVISION	APPROVED
DESIGNED BY	SCJ			
DRAWN BY	M.W.			
CHECKED BY	GG			
APPROVED BY	GG	2/7/01		
REGISTRATION NO.		NO DATE		

SCALE	None	DRAWING NO.	S-9	REPLACE LATERAL BRACINGS
DATE	Mr. 1990			BRANDON ROAD (FAU-0341) OVER
				DES PLAINES RIVER
				SN099-9903
				SEC. 1981-082B-1 WILL COUNTY.



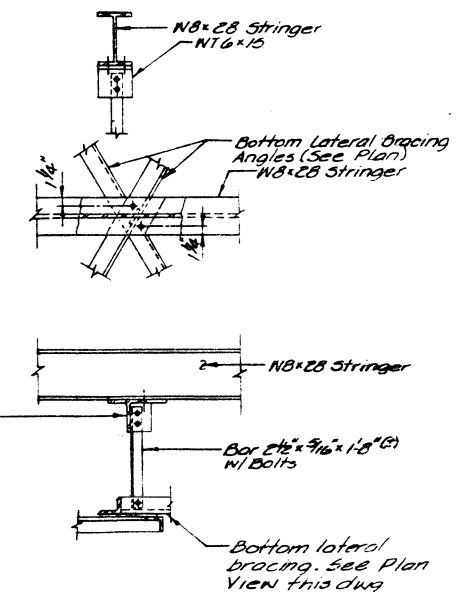
**PLAN OF LATERAL BRACINGS AT BOTTOM FLANGE OF FLOOR BEAMS
(NORTH LEAF SHOWN, SOUTH LEAF MIRROR IMAGE)**



**PLAN OF LATERAL BRACINGS AT TOP FLANGE OF FLOOR BEAMS
(TYPICAL OF 2 LEAVES)**

LEGEND
 ♦ or + : Indicates existing rivets or bolts to remain.
 ◆ Indicates new bolt in existing or new steel. Knock out existing rivet or bolt and replace with a new 1/2" Dia H.S. bolt, UNO.

Note: Layout of all proposed bolt holes in the new lateral bracing angles & plates has been taken from the shop drawing details of the existing lateral bracing. This layout to be field verified before proceeding with fabrication.



NEW HANGER DETAIL
 (Typ. for Lateral Bracing @ Bottom Flange of Floor Beams) Typ for both leaves

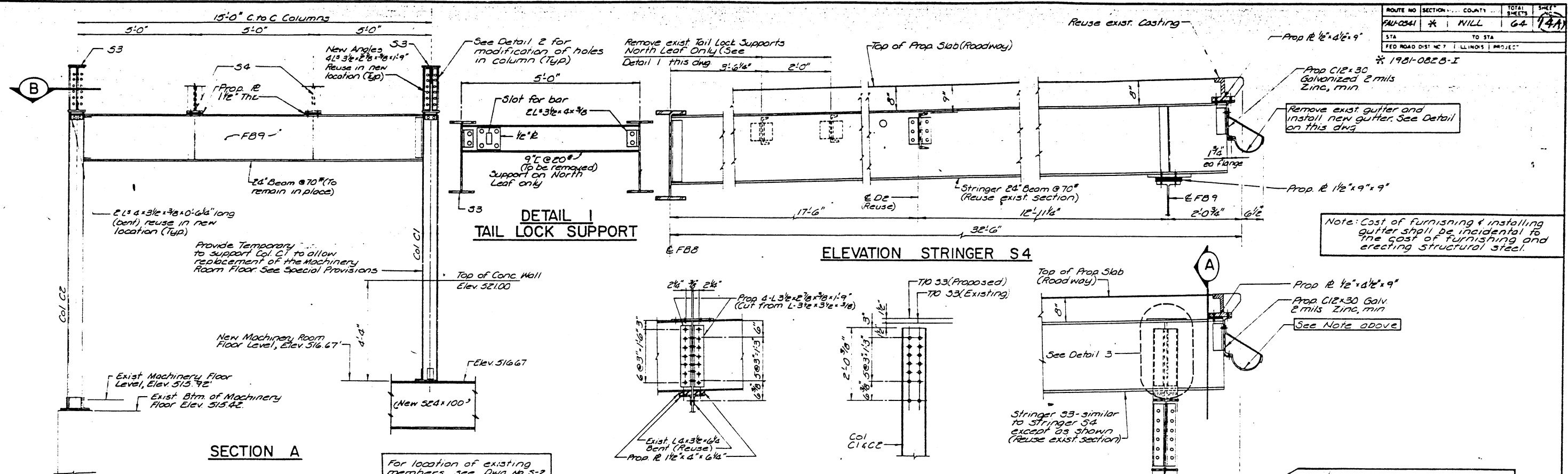
CRSS
CLARK DIETZ DIVISION

DATE	TO	FOR
		PROJECT CONTROL

ACTIVITY	NAME	DATE
DESIGNED BY	SCJ	
DRAWN BY	MW	
CHECKED BY	GG	
APPROVED BY	GG	
REGISTRATION NO.		

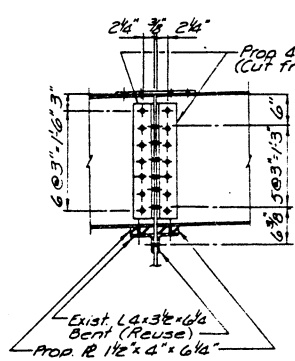
SCALE: None
 DRAWING NO. S-9
 DATE: Mar. 1990
 JOB NO: I02010

REPLACE LATERAL BRACINGS
 BRANDON ROAD (FAU-0341) OVER
 DES PLAINES RIVER
 SNO99-9903
 SEC. 1981-082B-I WILL COUNTY.

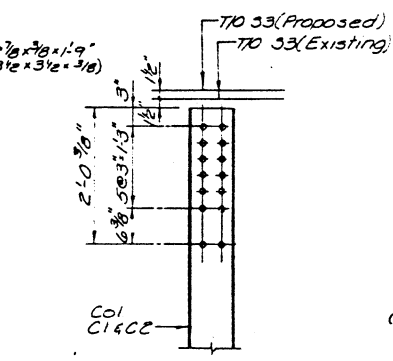


**DETAIL I
TAIL LOCK SUPPORT**

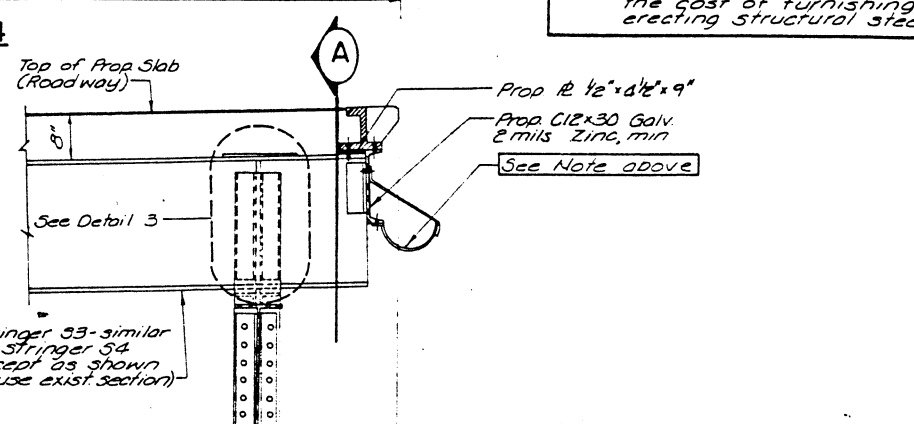
ELEVATION STRINGER S4



DETAIL 3



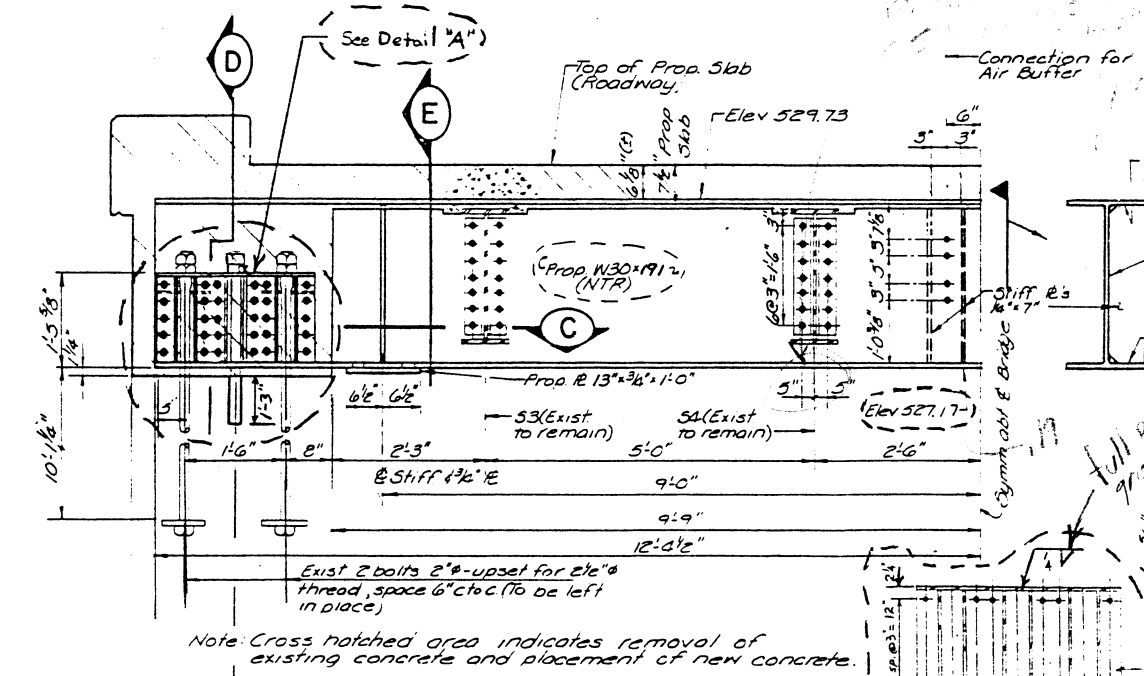
DETAIL 2



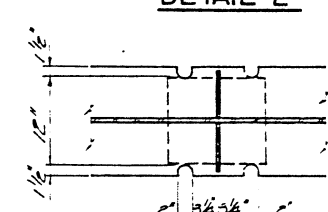
**PARTIAL ELEVATION
STRINGER S3**

GUTTER DETAIL

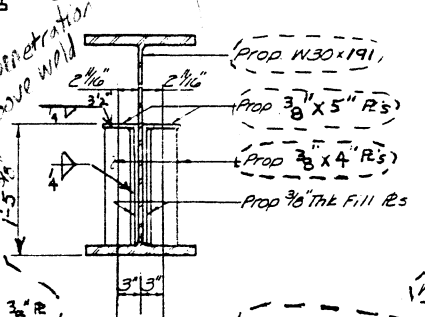
LEGEND
 + Indicates existing rivets or bolts to remain
 * Indicates new bolts in existing or new steel. Knock out existing rivets or bolts and replace with a new 1/2\"/>



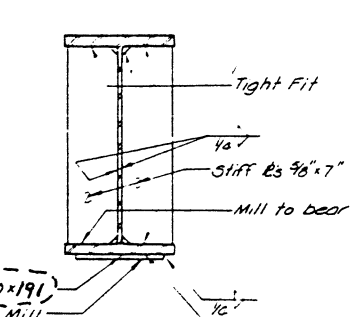
SECTION B



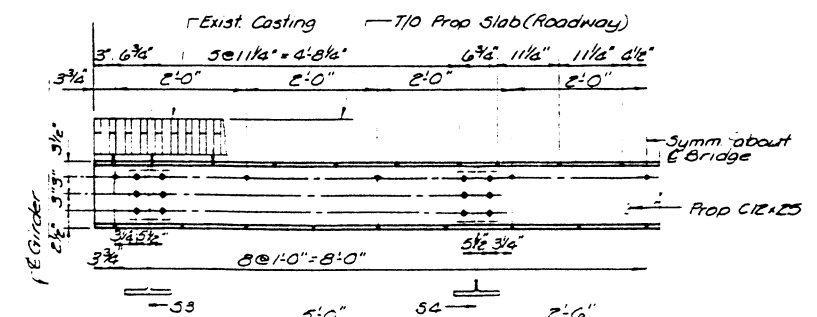
SECTION C



SECTION D



SECTION E



ELEVATION DIAPHRAGM D3
(Gutter not shown for clarity)

ELEVATION FLOORBEAM FB 8
 Note: Cross hatched area indicates removal of existing concrete and placement of new concrete.
 1/2\"/>

AS REVISED

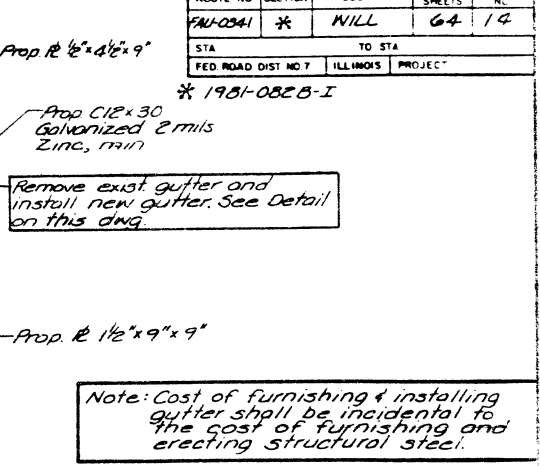
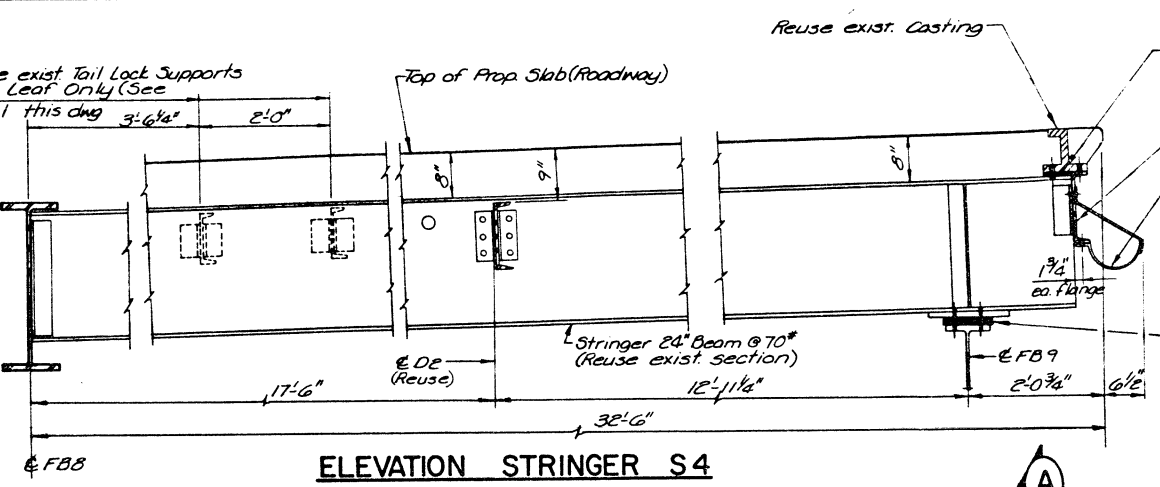
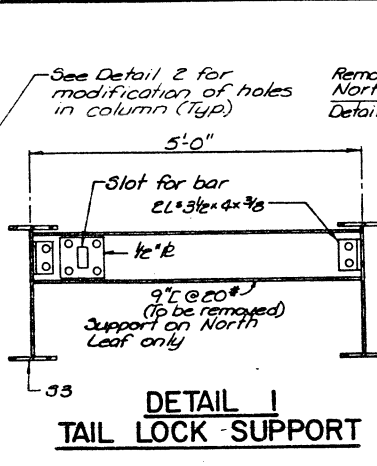
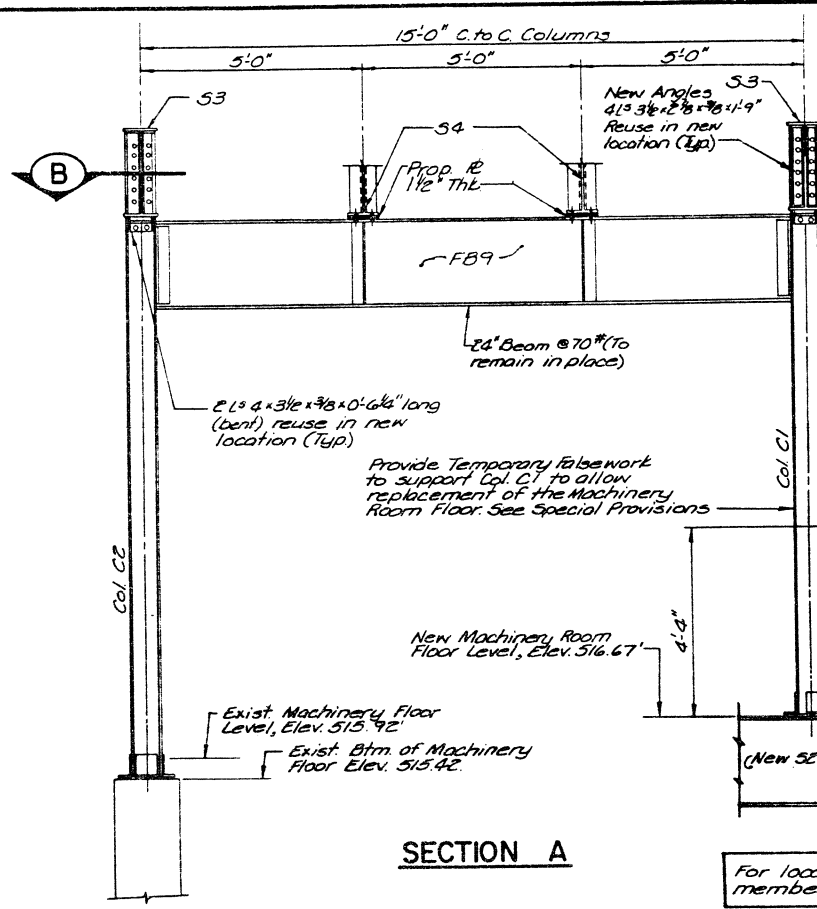


CRS SIRRINE
 CLARK DIETZ DIVISION

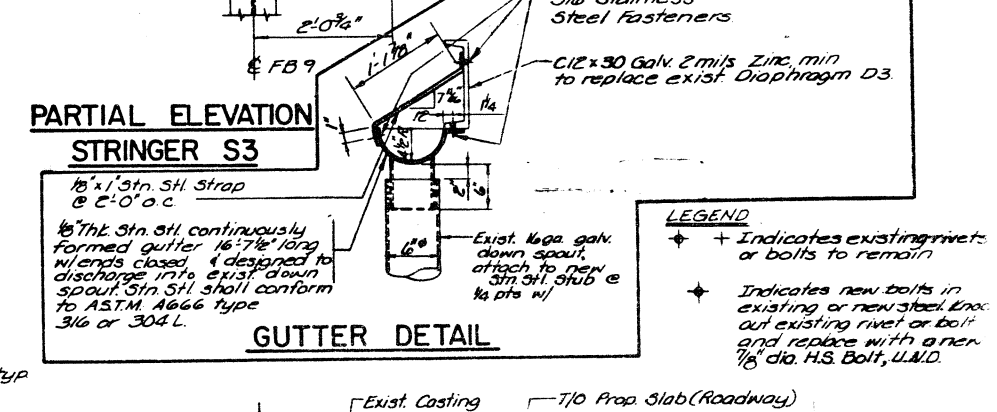
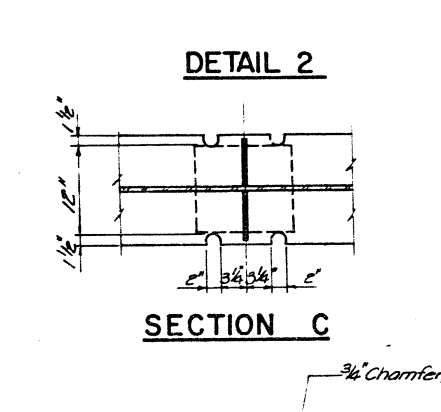
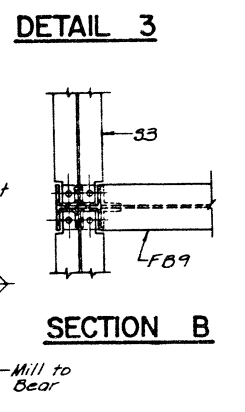
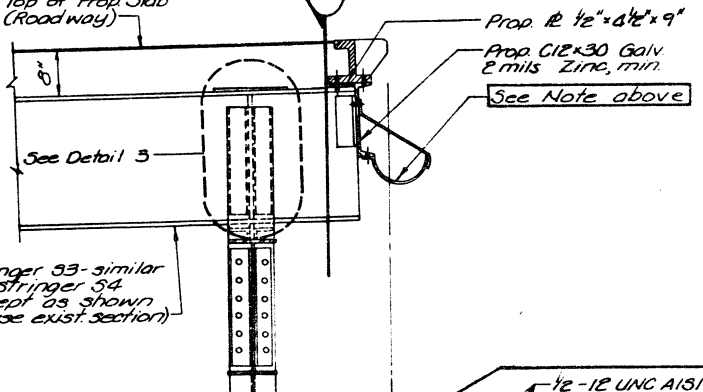
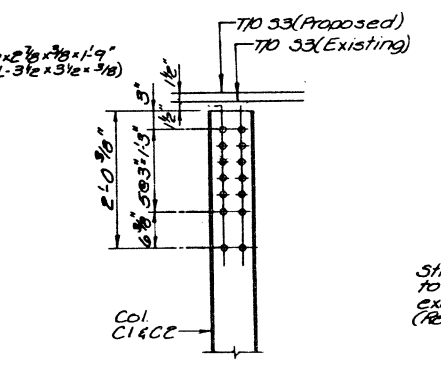
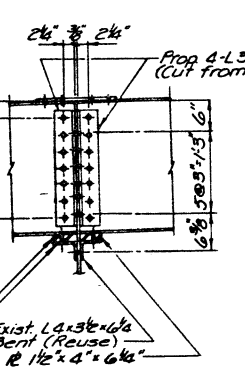
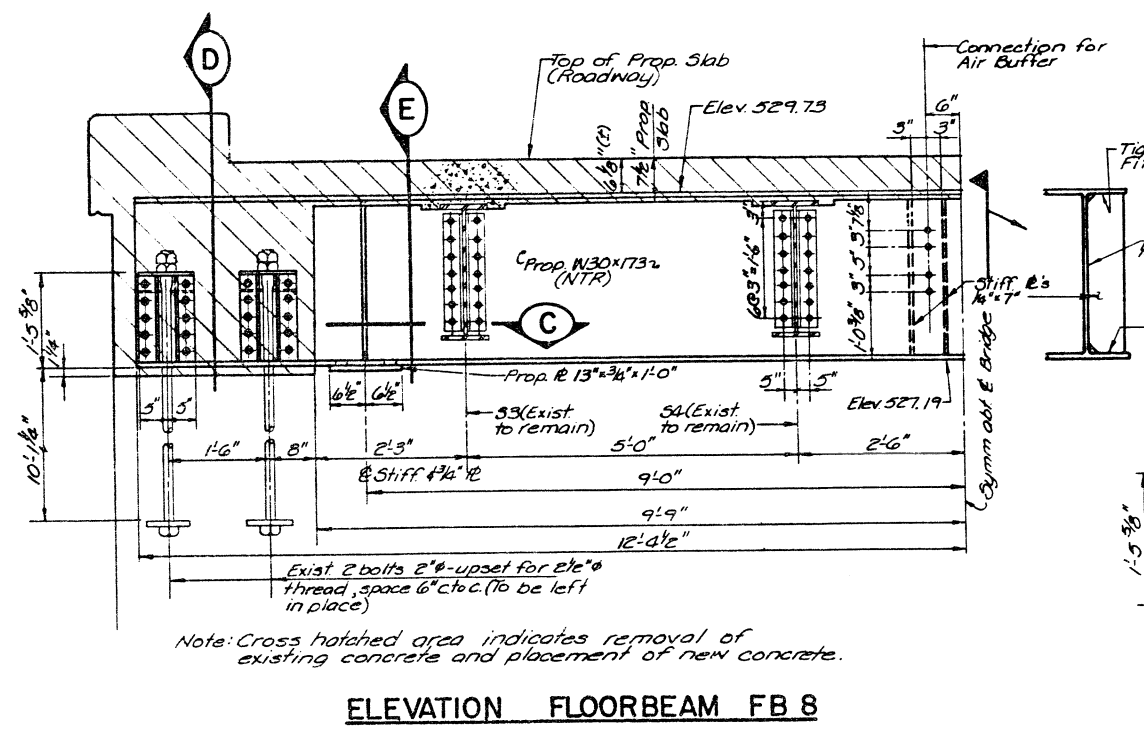
DATE	TC	FOR
PROJECT CONTROL		

ACTIVITY	NAME	DATE
DESIGNED BY	GG	
DRAWN BY	MN	
CHECKED BY	GG	
APPROVED BY	GG	
REGISTRATION NO	NO	DATE
	REVISION	APPROVED

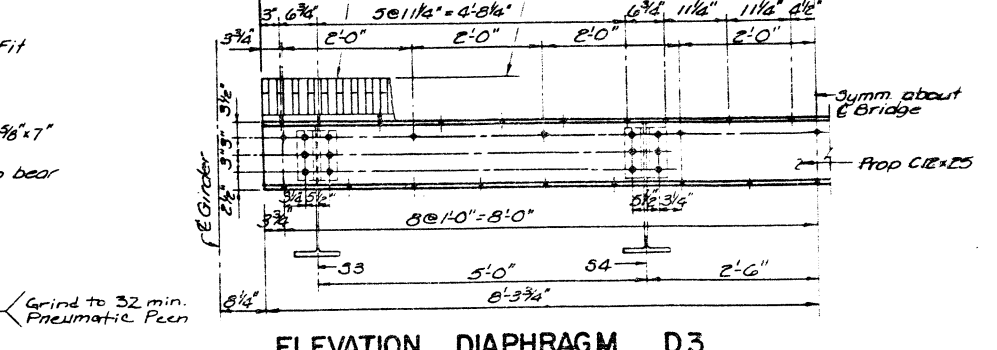
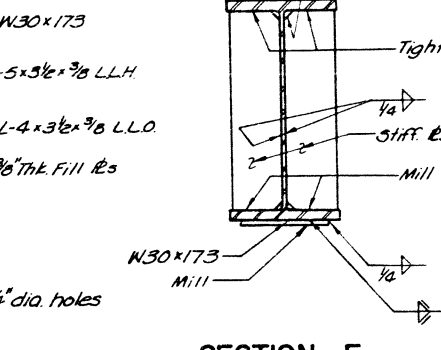
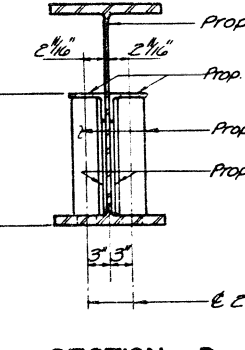
SCALE	DRAWING NO.	STRUCTURAL STEEL IN BASCULE PIERS
None	S-10	BRANDON ROAD (FAU-0341) OVER DES PLAINES RIVER SN099-9903
		SEC. 1981-082B-1 WILL COUNTY



Note: Cost of furnishing & installing gutter shall be incidental to the cost of furnishing and erecting structural steel.



LEGEND
 + Indicates existing rivets or bolts to remain
 * Indicates new bolts in existing or new steel. Knock out existing rivet or bolt and replace with a new 7/8\"/>



DATE	TO	FOR
	PROJECT CONTROL	

ACTIVITY	NAME	DATE
DESIGNED BY: G.G.		
DRAWN BY: M.H.		
CHECKED BY: G.G.		
APPROVED BY: G.G.		
REGISTRATION NO.		

SCALE None	DRAWING NO. S-10	STRUCTURAL STEEL IN BASCULE PIERS
DATE Mar. 1990		BRANDON ROAD (FAU-0341) OVER DES PLAINES RIVER
JOB NO. 102010		SN099-9903
		SEC. 1981-082B-I WILL COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1981-082B-I	4	WILL	64	15
STA	TO STA			
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

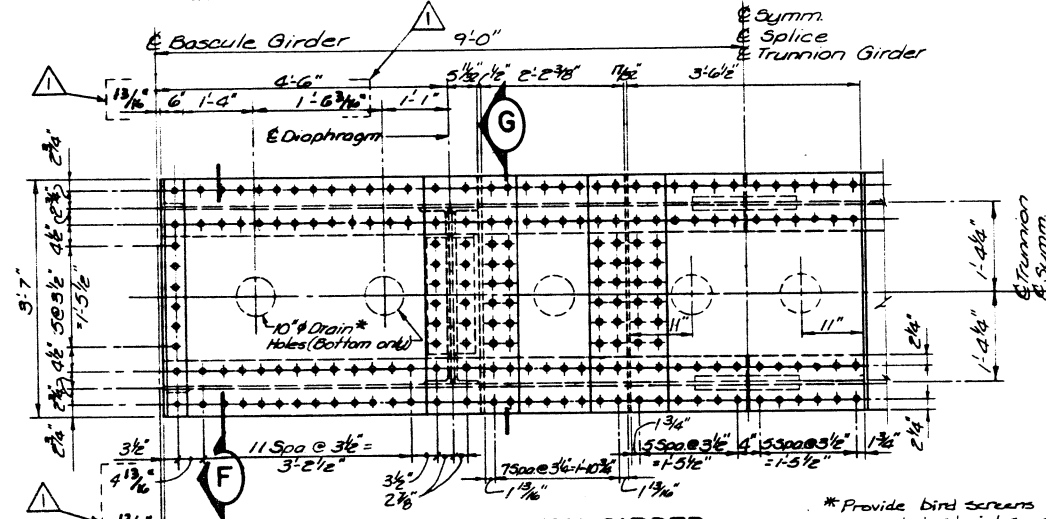
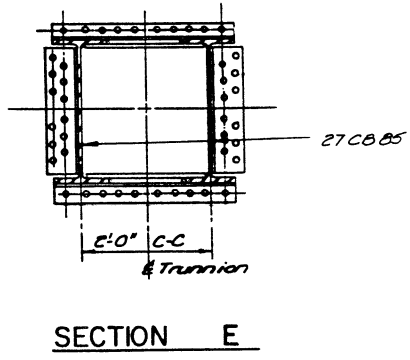
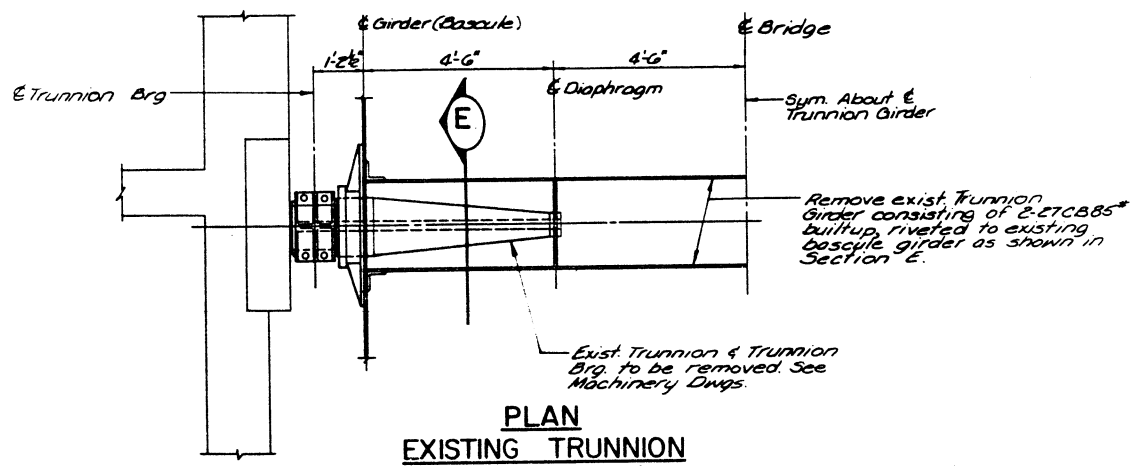
NOTES

- MEMBERS SHOWN WITH (NTR) WILL MEET THE NOTCH TOUGHNESS REQUIREMENTS OF DWG. NO. G-2.
- UNLESS OTHERWISE NOTED ON THE DWG., ALL CONNECTIONS SHALL BE MADE WITH 1" DIA. H.S. BOLTS (AASHTO M164).
- FOR ADDITIONAL BOLTS REQUIRED TO FASTEN THE OUTER TRUNNION COLLAR TO THE BASCULE GIRDER, SEE MACHINERY DRAWINGS.

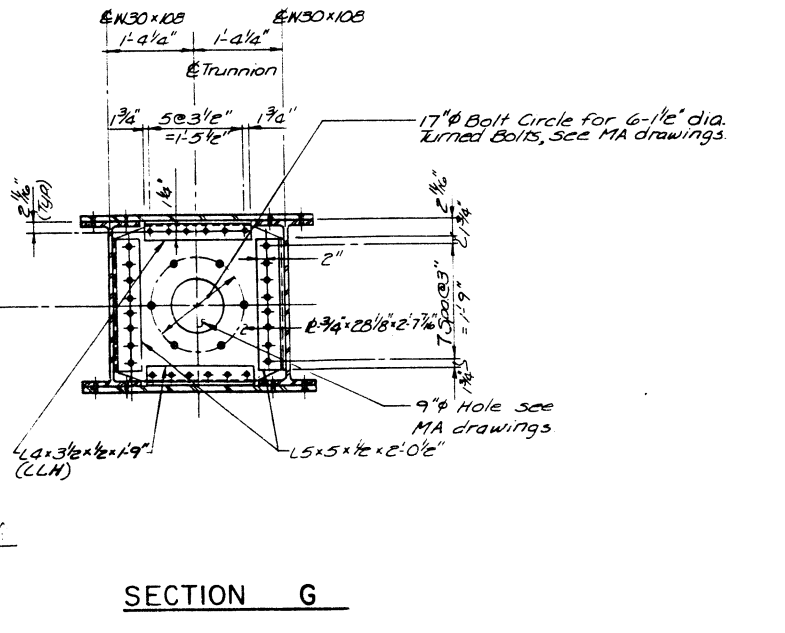
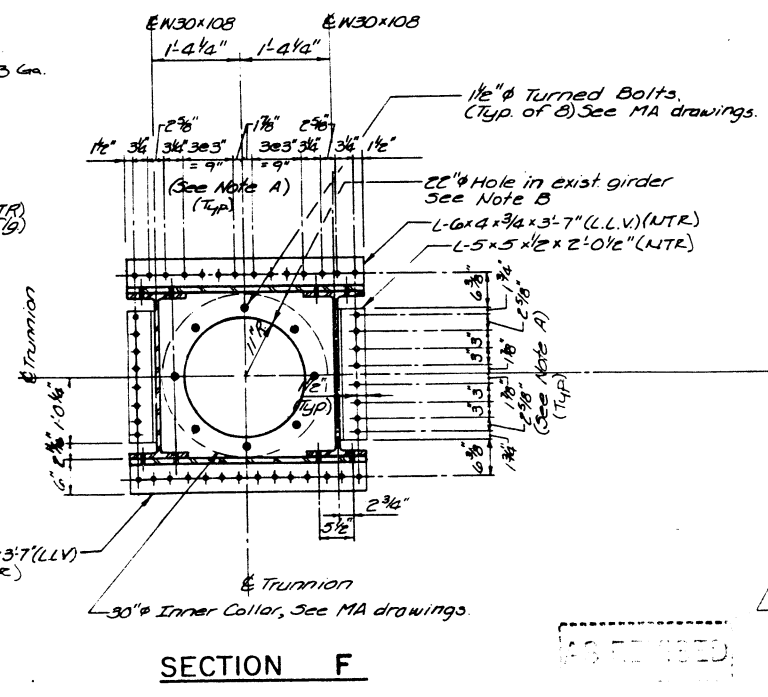
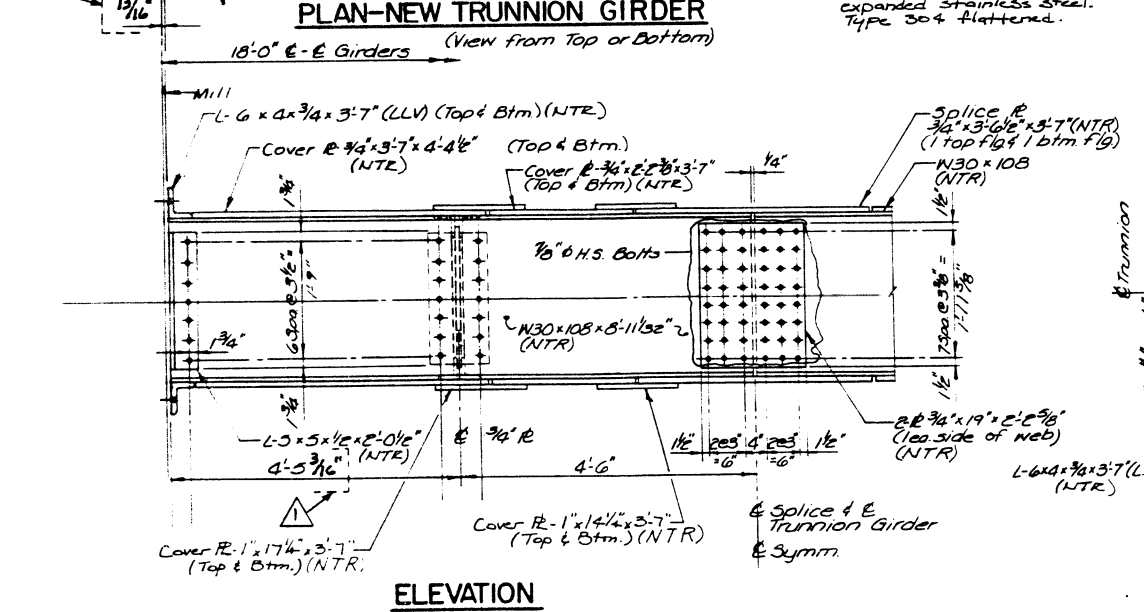
LEGEND

◆ NEW BOLTS IN PLACE OF EXISTING 7/8" Ø RIVETS OR IN A COMPLETELY NEW LOCATION.

Note
Contractor shall provide detailed instructions regarding temporary girder connections when existing trunnion is removed, how trunnion is to be inserted, cooled, clamped, and aligned, in the construction sequence and procedure plan, see Special Provision entitled "Construction Procedure and Sequence."



- Note A:**
1. Hole spacing shown on girder web is taken from the existing shop drawings.
3. Only bolts pertaining to Trunnion Girder Connection are shown on this section. For remainder of bolts for Collar Connection see Section C-C on Dwg. MA-2.
- Note B:**
1. See Dwg. 5-6 and coordinate with Machinery (MA) drawings.



CRS SIRRINE
CLARK DIETZ DIVISION

DATE	TO	FOR
		PROJECT CONTROL

ACTIVITY	NAME	DATE
DESIGNED BY	JCV	
DRAWN BY	MEN	
CHECKED BY	GG	
APPROVED BY	GG	
REGISTRATION NO.		

SCALE None
DATE Mar 1990
JOB NO. 102010

DRAWING NO.
S-11

TRUNNION GIRDER REPLACEMENT
BRANDON ROAD (FAU-0341) OVER
DES PLAINES RIVER
SN099-9903
SEC. 1981-082B-I WILL COUNTY

