

FOR INFORMATION ONLY

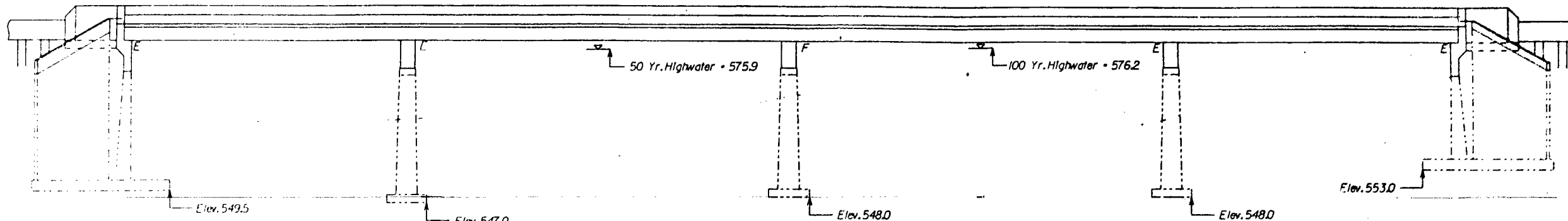
037-0080

Benchmark: Cut to West Side Center IL 84
On Green River Bridge Sta. 277+95/22' Cr.
Elev. - 580.68

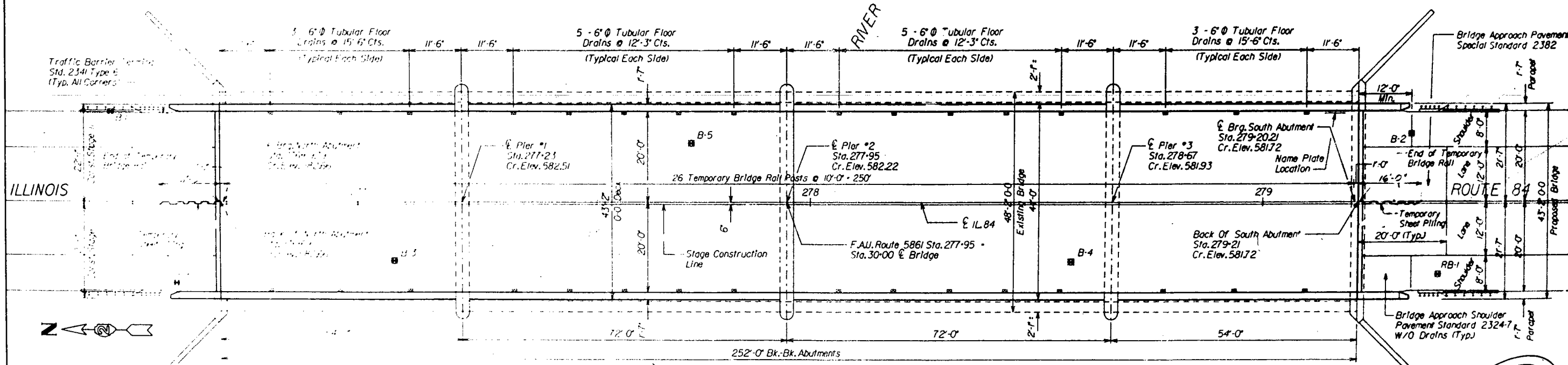
Existing Structure:
A 4-Span Reinforced Concrete Slab On Haunched
Concrete Beams, 2 Spans @ 72' And 2 Spans @ 53'-3"
With Concrete Piers And Abutments. Contractor To Remove
The Existing Superstructure (Deck And Beams) And Use
The Existing Substructure.
Traffic Is To Be Maintained At All Times.
Use Stage Construction

ROUTE NO.	SECTION	COUNT	SPAN	TYPE
5861	2X BR	HENRY	49	17

SHEET NO. 1
SHEETS 24



WEST ELEVATION (LOOKING EAST)



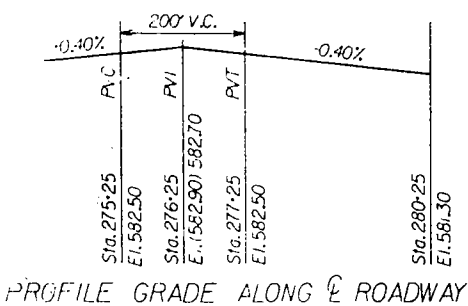
PLAN

Sealed on 11/10/92
FRANKLIN M. WALTERS
ILLINOIS STRUCTURAL ENGINEER
NO. 081-004877
Exp. Date 11/30/92



WATERWAY INFORMATION

Flood	Frea. Yr.	Q	Opening Sq. Ft.		Vel. (ft/s)	Headwater El.	Tidegate El.
			Exist.	Prop.			
Design	50	12900	2850	3030	5.53	576.0	576.0
Base	100	13900	2900	3100	5.76	576.3	576.3
Overtopping	500	8400	2785	2985	5.75	575.3	575.3
Max. Calc.	500						



DESIGN SPECIFICATIONS

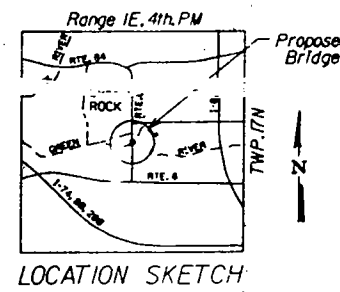
AASHTO (1989)
AASHTO 1990 Interim and
1983 Seismic Retrofitting Guidelines for Highway Bridges

LOADING HS20-44

(New Construction)
Allow 25' / sq. ft. for future wearing surface.

APPROVED FOR STRUCTURAL ADEQUACY ONLY

[Signature]
Licensed Structural Engineer



LOCATION SKETCH

Note:
See Sheet No. 3 for general notes & total bill of material.

USE H&U
23 H&U

GENERAL PLAN & ELEVATION

ILLINOIS 84 OVER
GREEN RIVER
F. A. U. ROUTE 5861
SECTION 2X-BR
STA. 277+95
HENRY COUNTY
STRUCTURE NUMBER 037-0080

Farnsworth & Wyllie, P.C.
2709 McGraw Drive
Bloomington, IL 61704

Revised: 2-10-92
Date: 5-9-91

File No. 24-4189

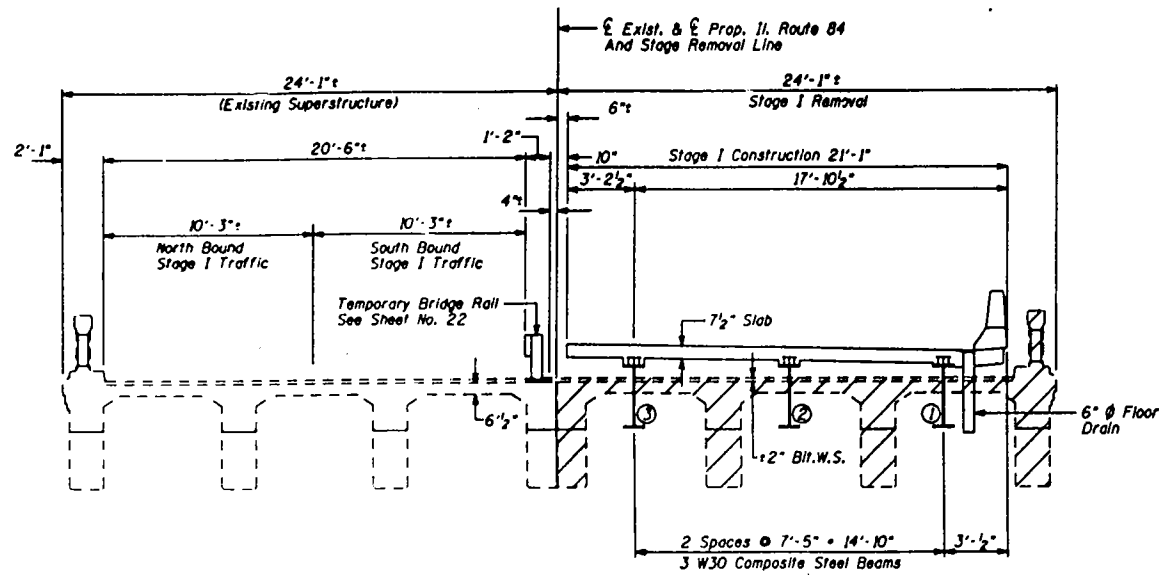
23.8

21.66

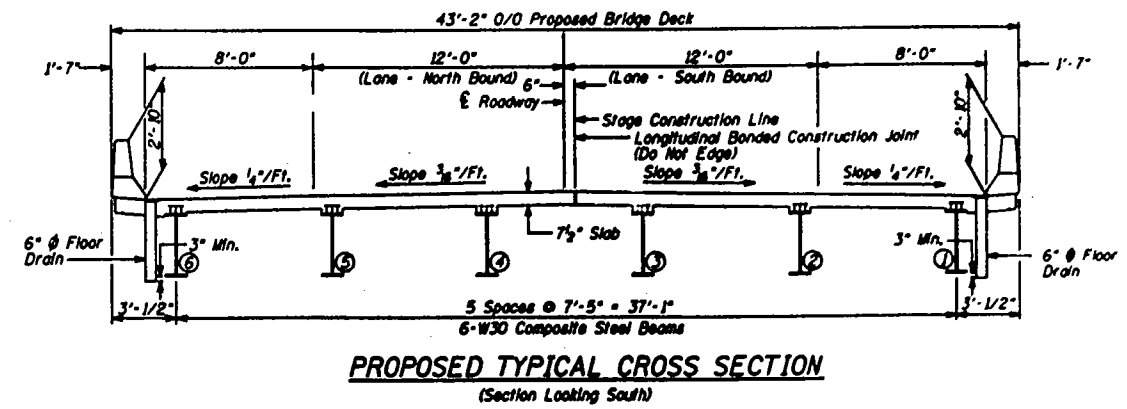
22.9
1/11

FOR INFORMATION ONLY

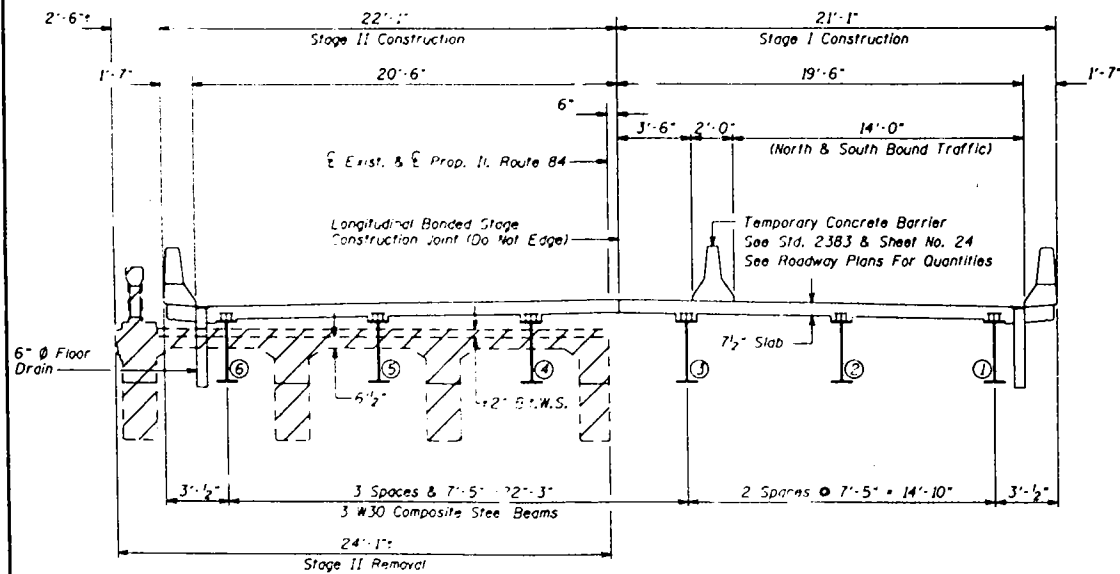
DATE	BY	CHKD	APP'D	SHEET NO.
5/86	2X BR	HENRY	49	18
PROJECT NO. 037-0080				SHEETS 24



CONSTRUCTION STAGE I
(Section Looking South)



PROPOSED TYPICAL CROSS SECTION
(Section Looking South)



CONSTRUCTION STAGE II
(Section Looking South)

Note: Hatched Area Indicates "Removal Of Existing Superstructure".
Removal Of Existing Blt. W.S. In Hatched Area Shall Be Incidental To
"Removal Of Existing Superstructure"

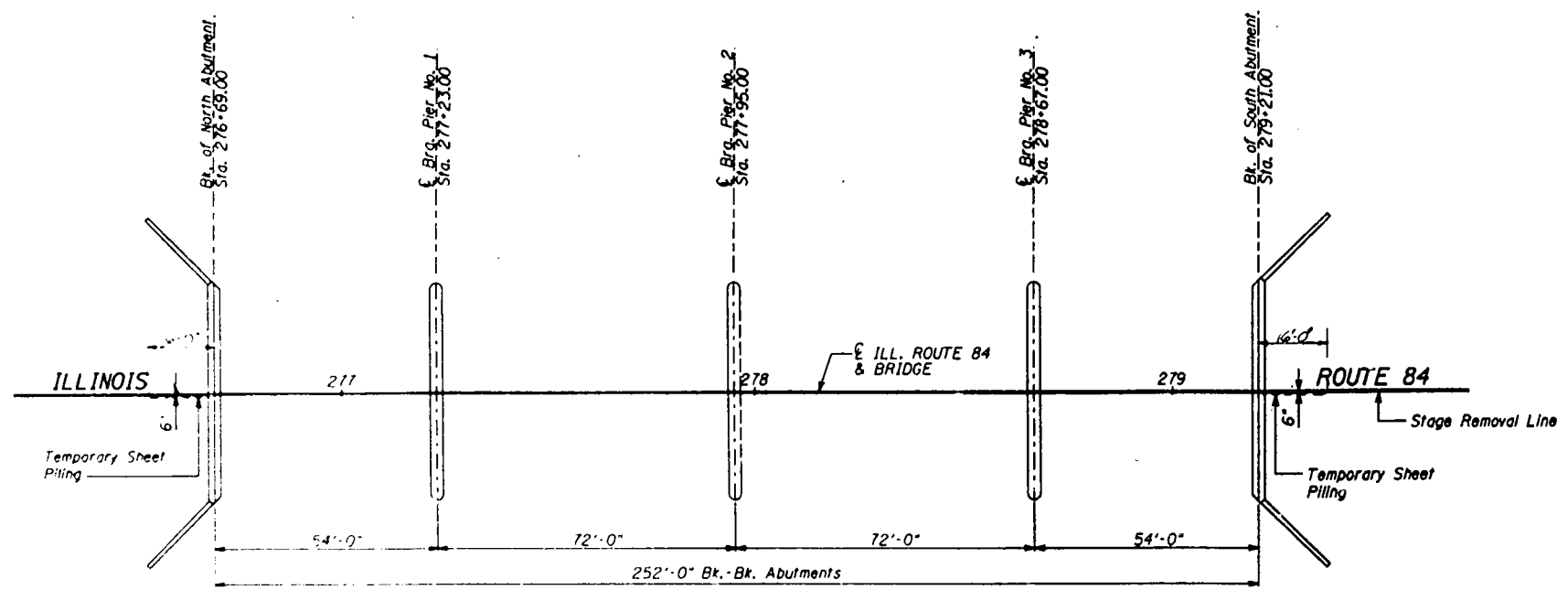
CONSTRUCTION STAGES
ILLINOIS 84 OVER
GREEN RIVER
F. A. U. ROUTE 586I
SECTION 2X-BR
STA. 277-95
HENRY COUNTY
STRUCTURE NUMBER 037-0080

Farnsworth & Wylie, P.C.
2709 McGraw Drive
Bloomington, IL 6704

File No. 24-489

FOR INFORMATION ONLY

PROJECT NO.	SECTION	DATE	BY	NO.	SHEET NO.
5861	2X BR	HENRY	49	19	3
					SHEETS 24



CONSTRUCTION LAYOUT PLAN

NOTES:

The information shown for the temporary sheet piling is estimated.

It is the contractor's responsibility to provide a design and computations of the temporary sheet piling and associated members, if required, subject to the approval of the engineer.

North Abutment	South Abutment
Drive sheet piling to Top Elev. = 558.0	557.4
Top Elev. = 583.0	582.0

Contractor to attach Temporary Bridge Roll to Temporary Sheet Piling.

TOTAL BILL OF MATERIAL - BRIDGE

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructure	Each	1		1
Floor Drains	Each	32		32
Class X Concrete	Cu. Yd.		173.5	173.5
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	906		906
Reinforcement Bars, Epoxy Coated	Lbs.	84,850	15,880	100,730
Name Plate	Each	1		1
Neoprene Expansion Joint 2"	Lin. Ft.	37		37
Elastomeric Bearing Assembly Type I	Each	12		12
Elastomeric Bearing Assembly Type II	Each	12		12
Class X Concrete Superstructure	Cu. Yd.	318.9		318.9
Temporary Bridge Roll	Lin. Ft.	268		268
Epoxy Crack Sealing	Lin. Ft.		87	87
*Protective Coat	Sq. Yd.	1234		1234
Bridge Deck Grooving	Sq. Yd.	1062		1062
Bridge Seat Sealer	L. Sum		1	1
Concrete Removal	Cu. Yd.		44.6	44.6
Structure Excavation	Cu. Yd.		114	114
Temporary Sheet Piling	Sq. Ft.		788	788

*Quantity is for top surface of deck and parapets.

STATION 277+95
BUILT 199- BY
STATE OF ILLINOIS
F.A.U. ROUTE 5861
SEC. 2X-BR
LOADING HS20
STR. NO. 037-0080
NAME PLATE
See Std. 2113
Locate on South End of East Parapet

*PROJECT BHM-STPM-5047(56)

BILL OF MATERIAL AND GENERAL NOTES

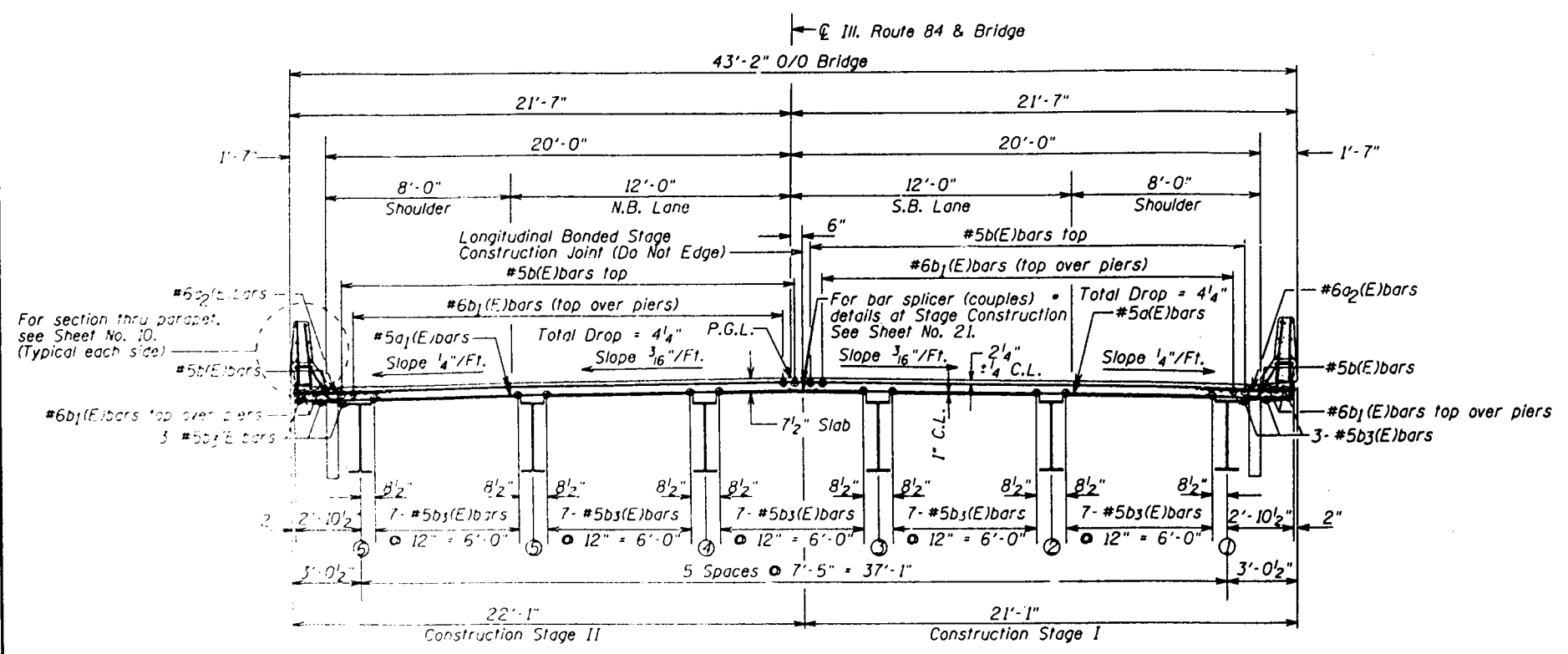
ILLINOIS 84 OVER
GREEN RIVER
F. A. U. ROUTE 5861
SECTION 2X-BR
STA. 277-95
HENRY COUNTY
STRUCTURE NUMBER 037-0080

Farnsworth & Wylie, P.C.
2709 McGraw Drive
Bloomington, IL 61704

- GENERAL NOTES**
1. See Sheet 24A for Boring Data.
 2. Fasteners shall be high strength bolts. Bolts 1/2"-9, open holes 15/16"-9, unless otherwise noted.
 3. Calculated weight of Structural Steel M270, Gr 50 = 171,450 Lbs.
M270, Gr 38 = 23,480 Lbs.
 4. The Zinc-silicate and vinyl paint system shall be used for shop and field painting of Structural Steel except where otherwise noted. The color of vinyl finish coat shall be Munsell No. 10B 3/16 (Blue).
 5. All structural steel for the beams shall be AASHTO M 270 Gr. 50. Expansion joint plates, attached bars and diaphragms shall be AASHTO M270, Gr. 38.
 6. Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.
 7. Anchor bolts shall be set before bolting diaphragms over supports.
 8. The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.
 9. The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material of the wide flange beams.
 10. Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.
 11. 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.
 12. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/8" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, shims of the dimensions of top plate shall be provided and placed as detailed.
 13. Floor drains shall be located clear of all diaphragms.
 14. All top surface of the abutments shall receive "Bridge Seat Sealer". Estimated quantity = 187 Sq. Ft.
 15. The contractor shall not place or drive any heavy equipment behind the abutments until the bridge approach pavement is constructed.

FOR INFORMATION ONLY

PROJECT NO.	SECTION	DATE	DATE	SHEET NO.
5861	2X BR	HENRY	49 25	9
SHEETS 24				



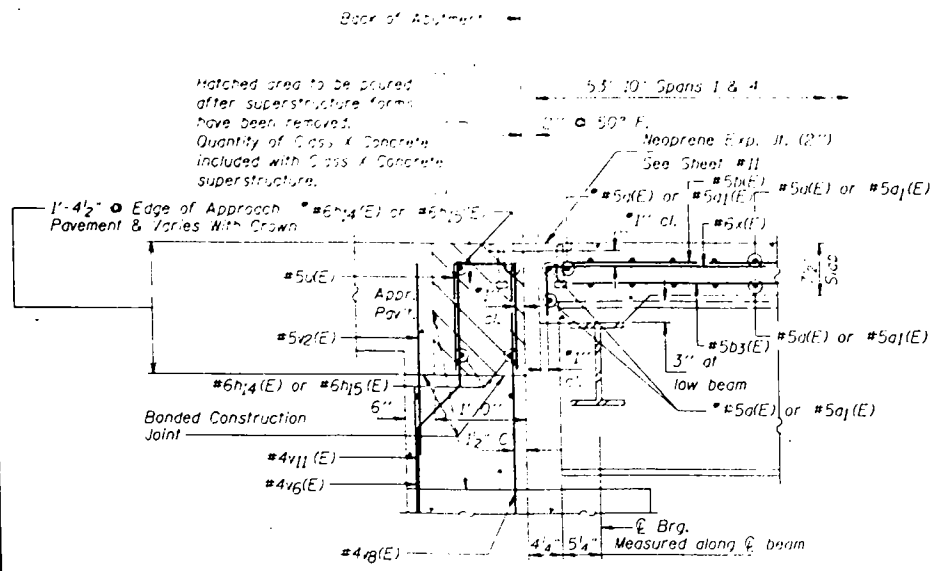
TYPICAL CROSS SECTION
(Section Looking South)

* Tie bars @ this location with double the number ties normally used.

BILL OF MATERIAL

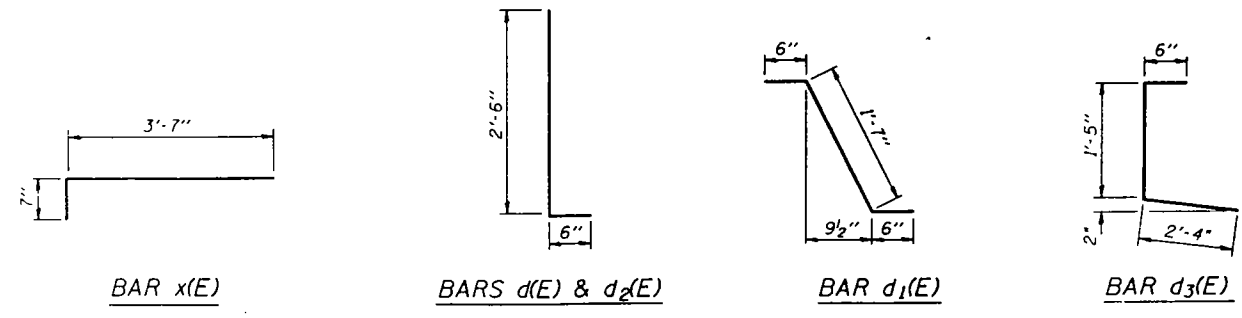
Bar	No.	Size	Length	Shape
a(E)	862	#5	20'-7"	—
a ₁ (E)	839	#5	21'-7"	—
a ₂ (E)	506	#6	4'-0"	—
a ₃ (E)	18	#5	24'-3"	—
b(E)	470	#5	26'-8"	—
b ₁ (E)	86	#6	35'-6"	—
b ₂ (E)	43	#6	38'-2"	—
b ₃ (E)	451	#5	24'-3"	—
c(E)	550	#5	3'-0"	—
d ₁ (E)	550	#5	2'-7"	⌒
d ₂ (E)	504	#4	3'-0"	—
d ₃ (E)	504	#4	4'-3"	⌒
e(E)	72	#4	14'-5"	—
e ₁ (E)	48	#4	9'-3"	—
e ₂ (E)	48	#4	10'-4"	—
e ₃ (E)	72	#4	16'-11"	—
e ₄ (E)	16	#8	23'-10"	—
e ₅ (E)	16	#8	9'-3"	—
e ₆ (E)	8	#8	10'-4"	—
e ₇ (E)	16	#8	27'-7"	—
e ₈ (E)	16	#5	22'-10"	—
e ₉ (E)	16	#5	9'-3"	—
e ₁₀ (E)	8	#5	10'-4"	—
e ₁₁ (E)	8	#5	26'-7"	—
x(E)	160	#6	4'-2"	—
Reinforcement Bars, Epoxy Coated			Lbs.	84,850
Class X Concrete Superstructure			Cu. Yds.	318.9
Floor Drains			Each	32

NOTES:
For Superstructure Plan & Elevations See Sheet Nos. 7 & 8.
Reinforcement Bars Designated (E) Shall Be Epoxy Coated.
Bill Of Material Shown Includes SB And NB Lanes.
Work This Sheet With Sheet Nos. 7, 8, 10 & 11.
Bars indicated thus 1 x 10-#5 etc. indicates 1 line of bars with 10 lengths per line.



SECTION C-C

*Place #5a(E) or #5a₁(E) and #6h₁(E) or #6h₁₅(E) bars in back of anchor bolts as shown if required to maintain 1" cl. (-0-1/8"). Anchor bolts should be tied to #5a(E) or #5a₁(E) and #6h₁(E) or #6h₁₅(E) bars.



SUPERSTRUCTURE CROSS SECTION & DETAILS

ILLINOIS 84 OVER GREEN RIVER
F. A. U. ROUTE 5861
SECTION 2X-BR
STA. 277-95
HENRY COUNTY
STRUCTURE NUMBER 037-0080

Farnsworth & Wylie, P.C.
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File No. 24-4189