

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

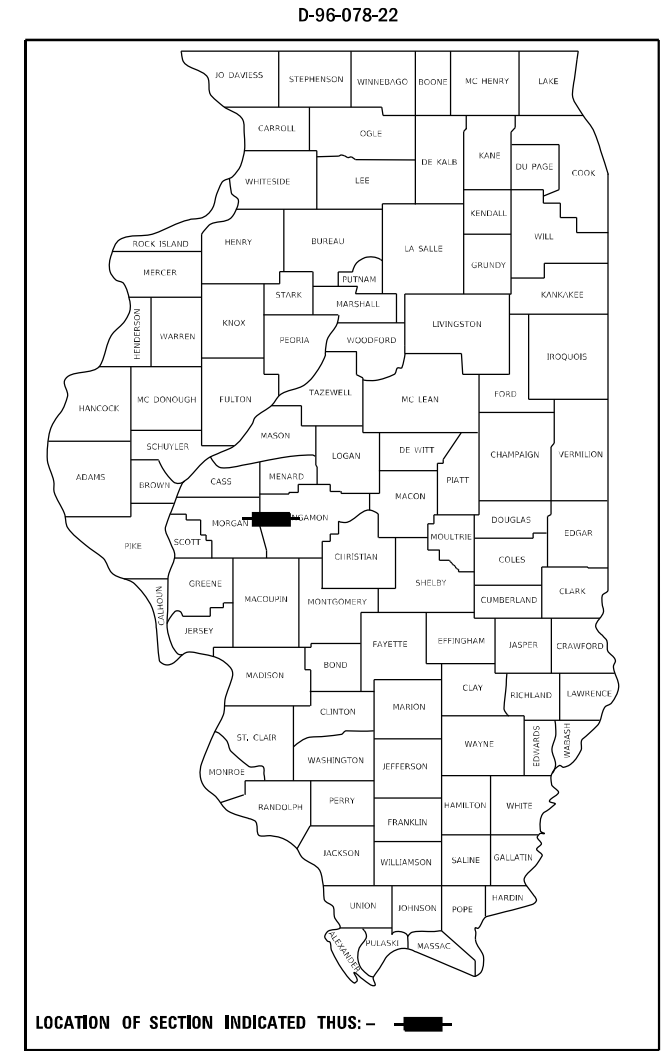
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(84-9-2HB-1)BP	SANGAMON	6	1
		ILLINOIS	CONTRACT NO. 72111	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

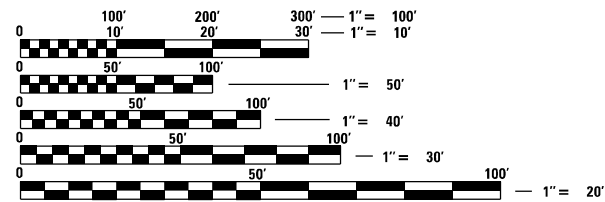
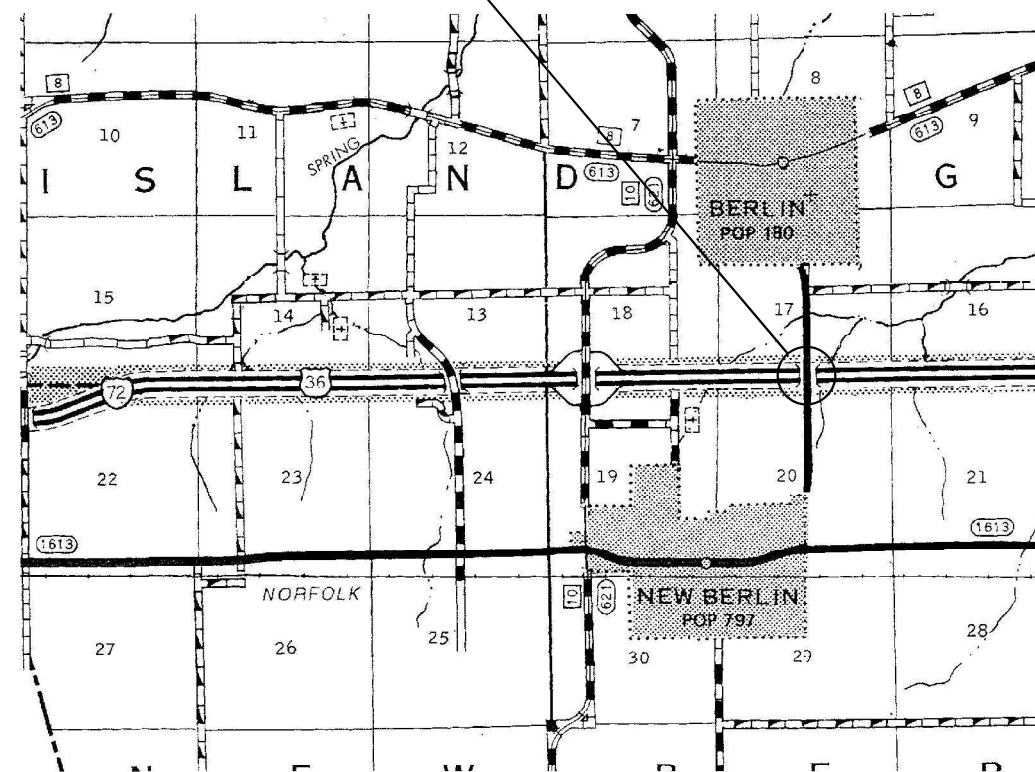
PROPOSED HIGHWAY PLANS

FAI ROUTE 72 (I-72)
SECTION (84-9-2HB-1)BP
PROJECT NHPP-G54S(523)
BRIDGE PAINTING
SANGAMON COUNTY

C-96-021-23



PROJECT LOCATION
SN 084-0143
LINK ROAD OVER I-72
1.2 MI E NEW BERLIN INT.



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 EXCAVATORS
1-800-892-0123
OR 811

BRIDGE MAINTENANCE ENGINEER: BRANDON DUDLEY - (217) 785-9290

GROSS LENGTH = 246 FT. = 0.05 MILE
NET LENGTH = 246 FT. = 0.05 MILE

CONTRACT NO. 72111

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED December 13, 2022

John P. Meyer
REGIONAL ENGINEER

March 24, 2023
Scott A. Etkin
ENGINEER OF DESIGN AND ENVIRONMENT

March 24, 2023
Stephen M. Smith
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

HIGHWAY STANDARDS

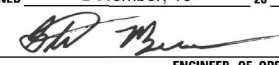


INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX, STANDARDS, GENERAL NOTES, & SIGNATURES
- 3 SUMMARY OF QUANTITIES
- 4-6 EXISTING BRIDGE PLANS, SN 084-0143

- 000001-08
- 001006
- 701101-05
- 701106-02
- 701400-11
- 701402-12
- 701901-08
- 704001-08
- 782006-01

GENERAL NOTES:

1. WORK SHALL CONSIST OF BLASTING AND PAINTING STRUCTURAL STEEL AT LOCATIONS DESCRIBED IN THE SPECIAL PROVISIONS. CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES". ALL AREAS TO BE PAINTED SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING PER SSPC SP 10. ALL EXISTING STEEL CLEANED SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 - OZ/E/U. THE COLOR OF THE FINAL FINISH COATS SHALL BE AS DESCRIBED IN THE SPECIAL PROVISIONS.
2. THE USE OF AIR MONITORS WILL BE REQUIRED AT LOCATIONS AS CALLED OUT IN THE SPECIAL PROVISIONS.
3. THE SSPC-QP-1 AND SSPC-QP2 PAINTING CONTRACTOR CERTIFICATIONS WILL BE REQUIRED.
4. CARE SHALL BE TAKEN NOT TO DAMAGE RUBBER BEARING OR JOINT COMPONENTS DURING BLASTING AND CLEANING OPERATIONS. ANY DAMAGE TO THESE COMPONENTS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. RUBBER COMPONENTS SHALL NOT BE PAINTED.
5. UPON COMPLETION OF PAINTING OPERATIONS, THE CONTRACTOR SHALL REMOVE ALL DEBRIS FROM PIER OR ABUTMENT CAPS UPON WHICH PAINTING OPERATIONS TOOK PLACE. FINAL CLEANUP SHALL BE CONSIDERED INCIDENTAL TO THE PAINT PAY ITEM FOR THE RESPECTIVE LOCATION. THE ENGINEER SHALL HAVE THE RIGHT TO WITHHOLD PAYMENT UNTIL SATISFACTORY CLEANUP IS ACHIEVED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS DISTRICT 6	
EXAMINED	December, 13 20 22
 ENGINEER OF OPERATIONS	
EXAMINED	December, 12 20 22
 ENGINEER OF PROJECT IMPLEMENTATION	
EXAMINED	December, 13 20 22
 ENGINEER OF PROGRAM DEVELOPMENT	

MODEL Path: S:\Addresses\Bridges\Standards_CAD\72111 - 0840-013\main\indexsheet.dgn

USER NAME = Brandon.Dudley	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 12/13/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, STANDARDS,
GENERAL NOTES, & SIGNATURES**

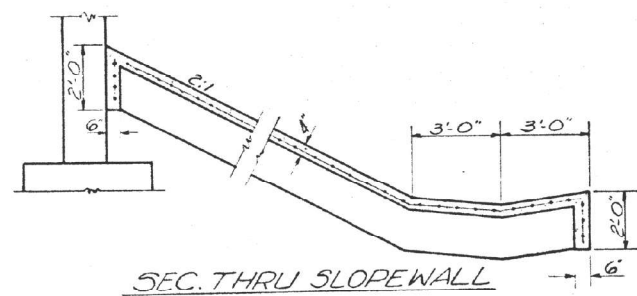
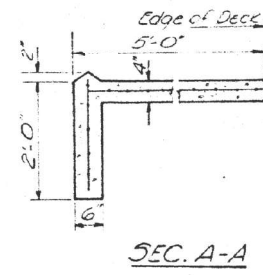
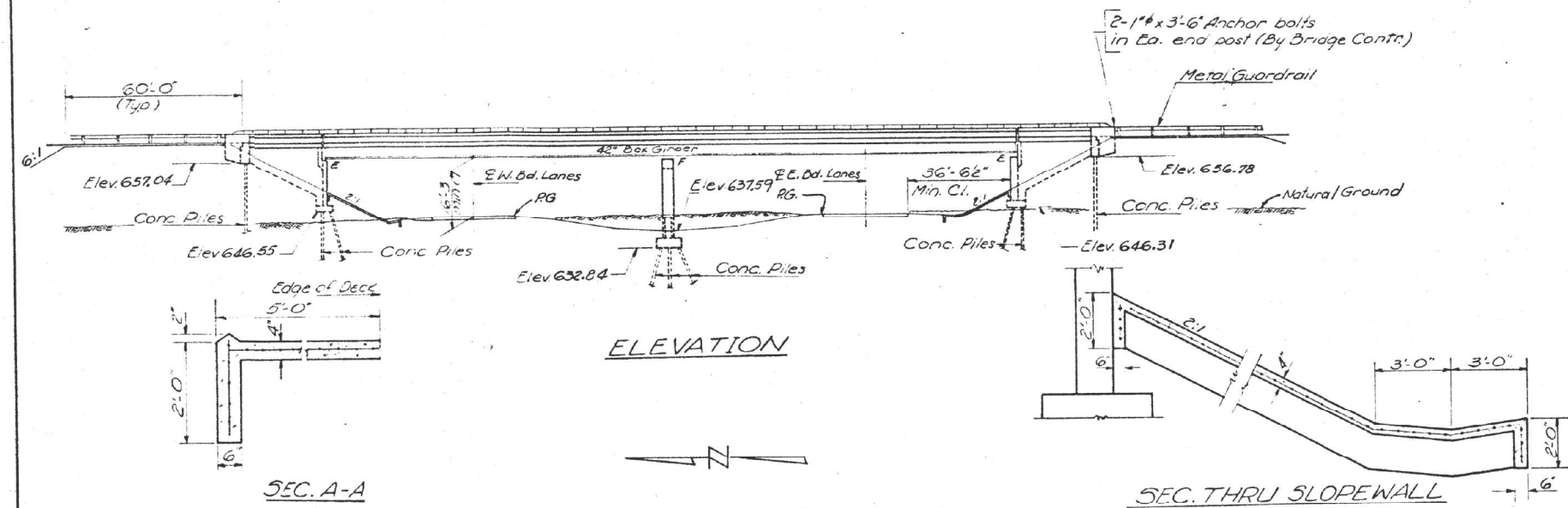
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(84-9-2HB-1)BP	SANGAMON	6	2
CONTRACT NO. 72111				
ILLINOIS FED. AID PROJECT				

B.M. #9, R.R. Spike in fence post 26' Rt. Sta. 101+55 Elev. 643.23
No Existing Structure

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

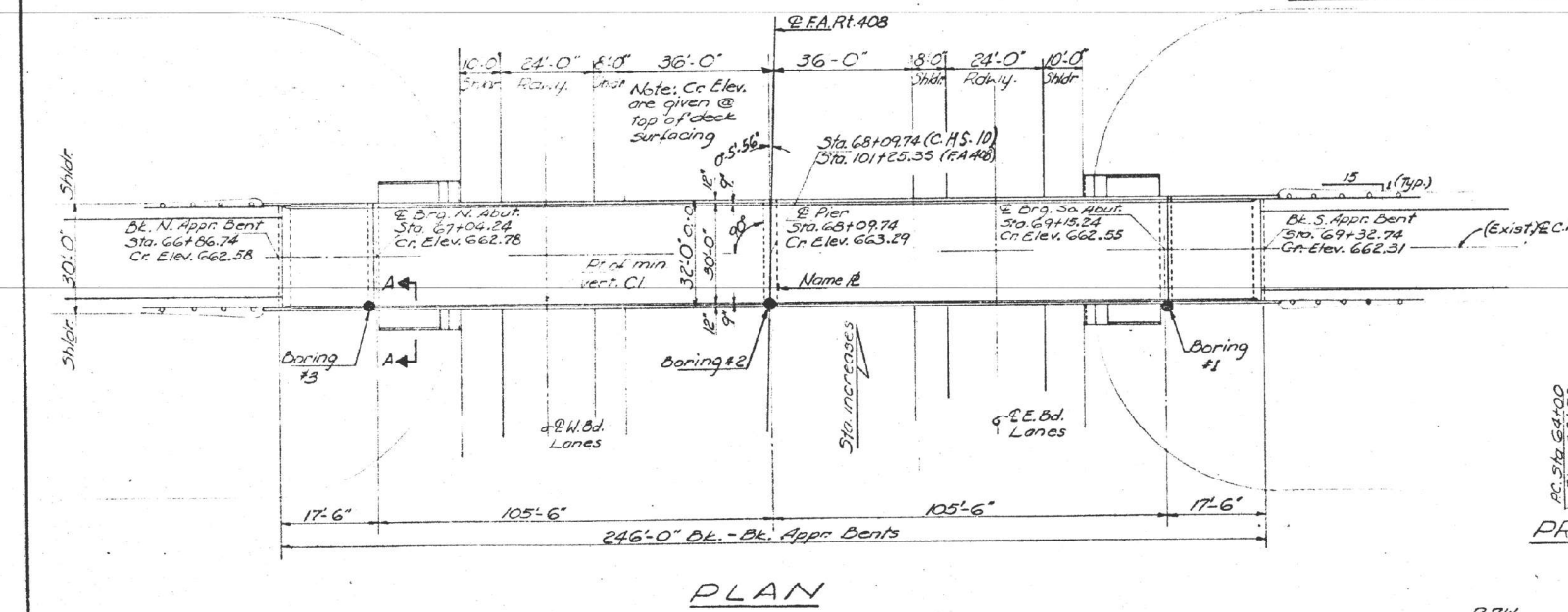
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
84-9-2HB-1	1	SANGAMON	42	13
SHEET NO. 12 SHEETS				



GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " open holes $\frac{1}{16}$ ", unless otherwise noted.
Calculated weight of Structural Steel = 210,700 pounds.
The basic lead silico chromate paint system shall be used for shop and field painting of Structural Steel.
Field welding of construction accessories will not be permitted to the bottom flange of beams or girders 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.

Slope wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 58# per 100sq. ft.
The Contractor shall drive one (1) concrete test pile in a permanent location at Pier as directed by the Engineer before ordering the remainder of piles.
The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.
The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.
Protective Coat shall not be applied to surfaces to which Coat for Inter-layer Protective Coat is applied.
All interior surfaces of Box Girders shall be given two shop coats of paint and spot painted in the field after cross frames and forms are removed. No additional field coat will be required for interior surfaces.
Concrete piles at bents shall be driven in holes precored through the embankment in accordance with Art. 513.09(c) of the Std. Specifications.

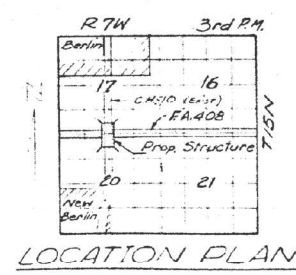
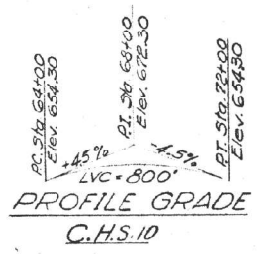


STATION 101+25.35
BUILT 197
BY
STATE OF ILLINOIS
FA. RTE. 408 SEC. 84-9-2HB-1
PROJ. EBF-408-2(11)
LOADING HS 15

NAME PLATE
See Std. 2113

TOTAL BILL OF MATERIAL

Item	Unit	Super.	Sub.	Total
Structure Excavation	Cu Yd.		75	75
Bank Backfill	Cu Yd.		140	140
Bituminous Concrete Surface				
Course Class I	Ton	66		66
Protective Coat	Sq Yd.	191		191
Class X Concrete	Cu Yd.	2549	160.6	415.7
Structural Steel	Wt. (lb)			
Steel Shear Connectors	EA.	1650		1650
Aluminum Framing	Lb Ft	506		506
Reinforcement Bars	Lb	61130	19150	80280
Concrete Piles	Lb Ft		1364	1364
Test Piles Concrete	EA.		1	1
Name Plates	EA.		1	1
Slope Wall (4')	Sq Yd.		335	335
Coat for Inter-layer Protective Coat	Sq Yd.	776		776
Preformed Joint Sealer	Lb Ft	64		64



DESIGN STRESSES

$f_c = 1200$ psi Deck Slab
 $f_c = 1400$ psi Curb Parapet, Sub & Appr Slab
 $f_s = 20,000$ psi Reinf
 $f_s = 20,000$ psi Structural
 $v_c = 75$ psi Frqs.
 $n = 10$
 Design Specifications 1969 AASHTO
 (as applicable)
 Allow for 25% S.F. for future W.S.
 LOADING HS 15-44

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PASSED	<i>[Signature]</i>
APPROVED	<i>[Signature]</i>

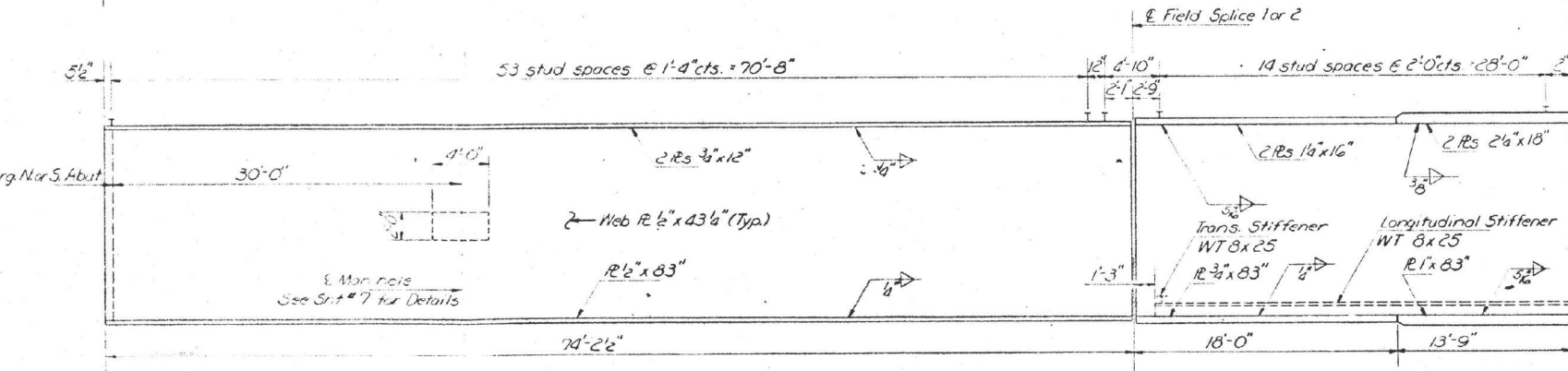
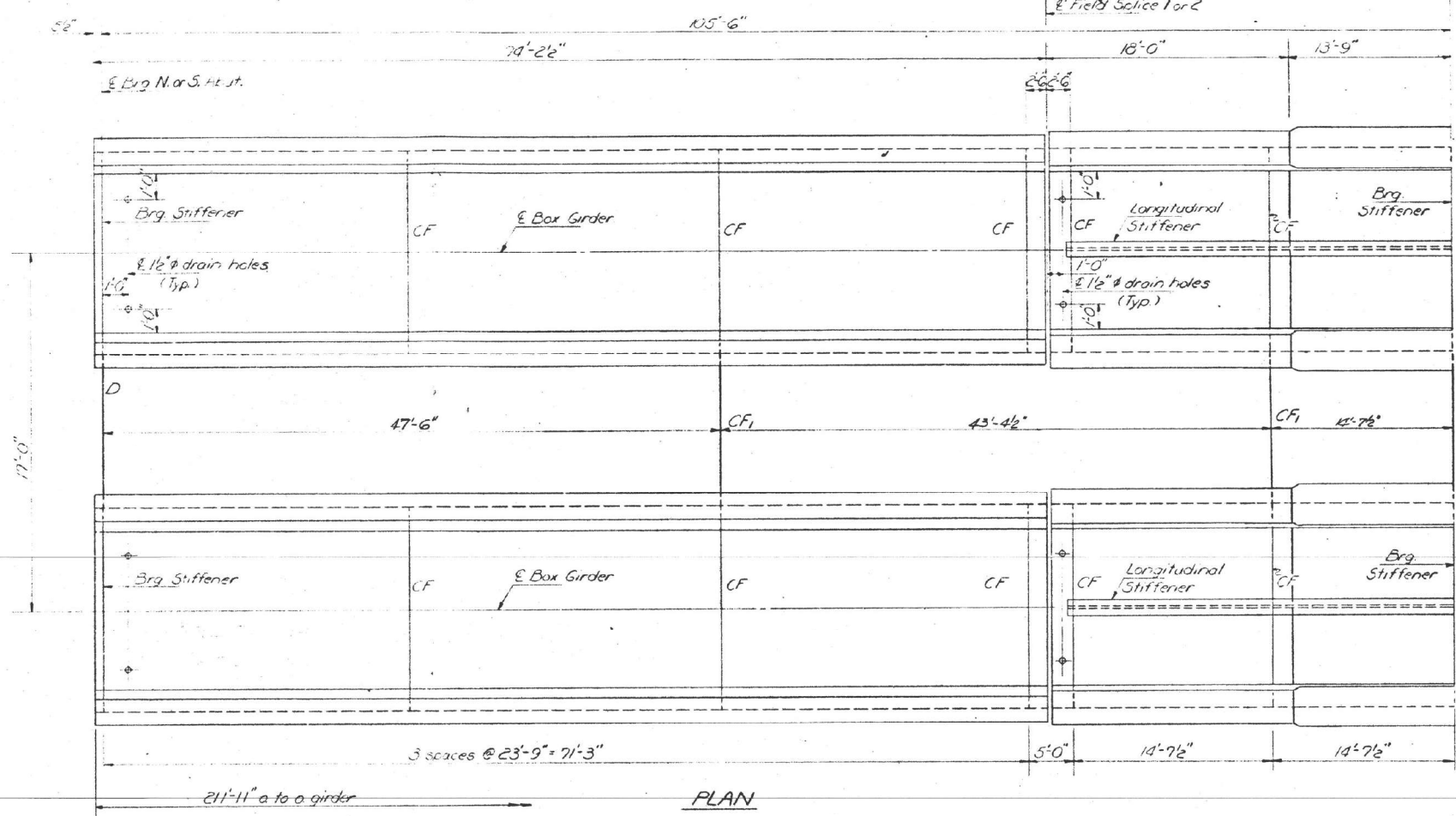
FAS 619
6-81
GENERAL PLAN & ELEVATION
PROJECT EBF-408-2(11)
C.H. 10 OVER FA. RTE. 408
FA. RTE. 408 SEC. 84-9-2HB-1
SANGAMON COUNTY
STA 101+25.35

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USER NAME = Brandon.Dudley	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SN 084-0143 EXISTING BRIDGE PLANS (FOR INFORMATION ONLY)	F.A.I. RTE. 72	SECTION (84-9-2HB-1)BP	COUNTY SANGAMON	TOTAL SHEETS 6	SHEET NO. 4
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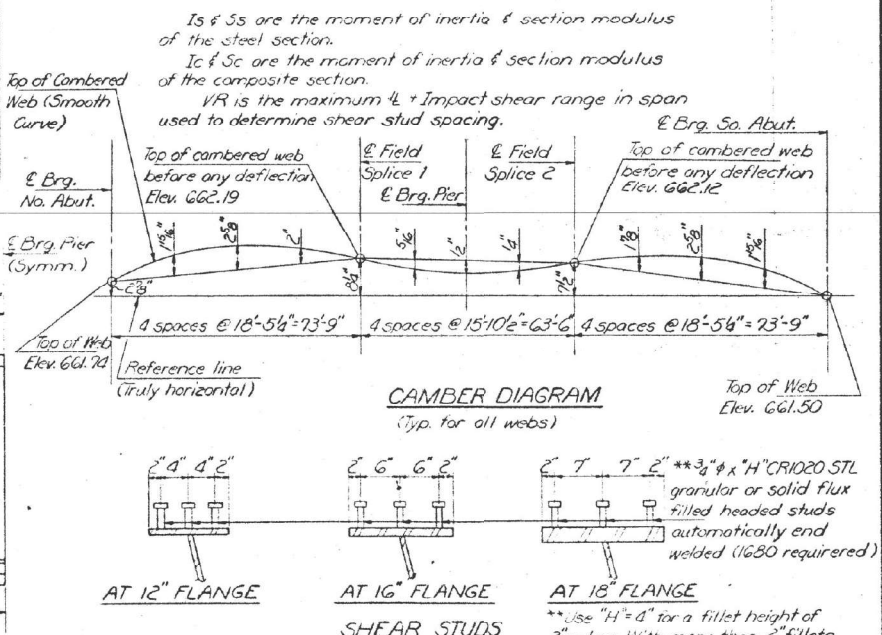
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
408	84-9-2HB-1	SANGAMON	42	18	12 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



GIRDER MOMENT TABLE		
	0+50.1	Pier
I_s (in ⁴)	55,902	85,960
I_c (in ⁴)	66,690	98,687
S_s Top (in ³)	1162	3622
S_s Bott (in ³)	1855	3994
S_c Top (in ³)	8059	4571
S_c Bott (in ³)	2507	4171
I_x (in ⁴)	2,053	2,053
M_x (k)	13.75	3589
S_x (in ³)	8.45	11.89
S_y (in ³)	1052	1052
M_y (k)	811	1485
M_z (k)	1095	1062
M Imp. (k)	238	231
Total (k)	2144	2798
$V_s + S_x$ (ksi)	10.26	7.29
V_s total (ksi)	18.71	19.18
V_R (k)	71.9	69.4

GIRDER REACTION TABLE		
	Abut.	Pier
R_x (k)	115.7	223.7
R_y (k)	33.5	92.3
Imp. (k)	11.6	20.0
R Total (k)	160.8	336.0



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 PASSED: [Signature]
 APPROVED: [Signature]

DATE: 12/13/2022

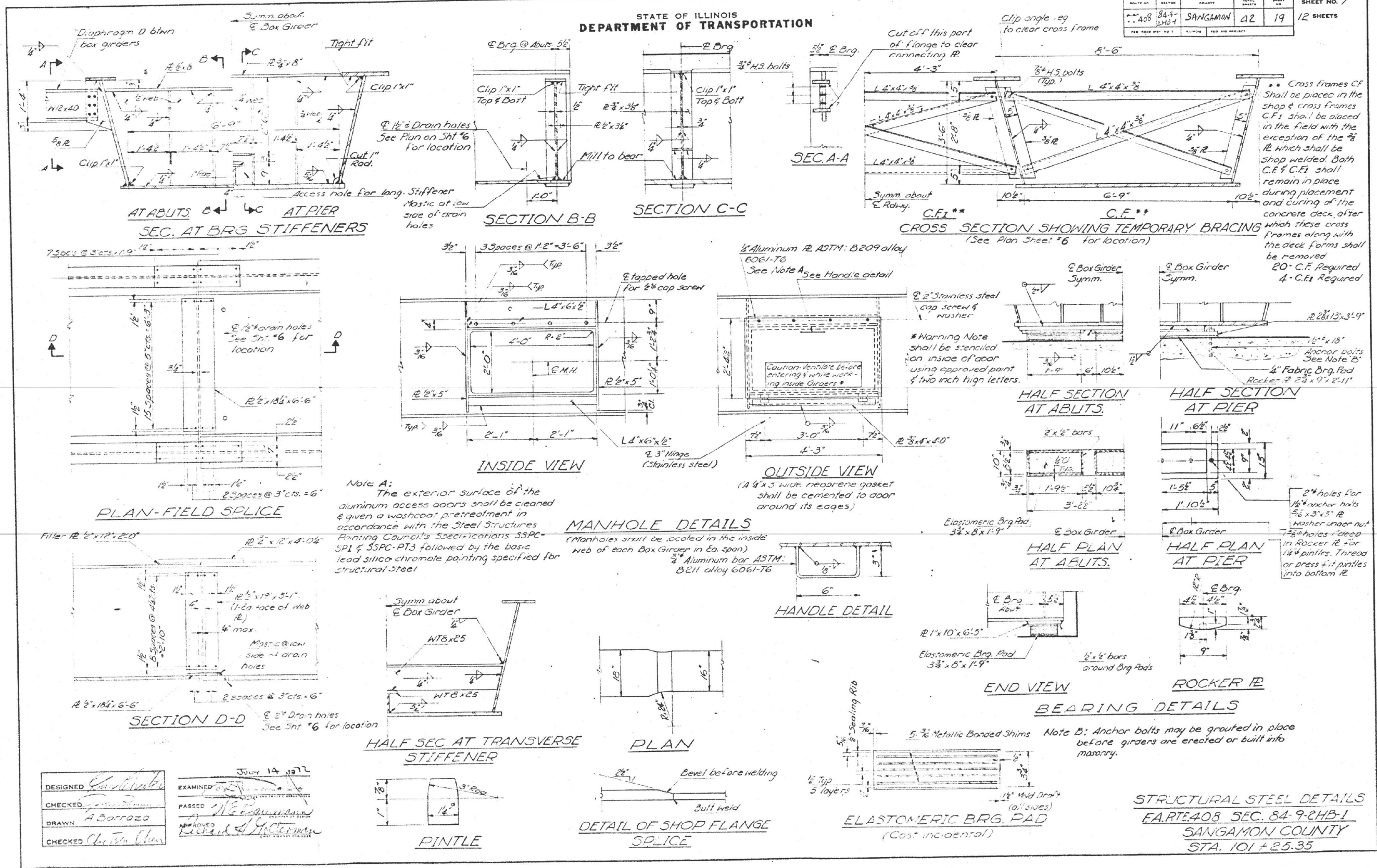
TOP OF WEB ELEVATIONS	
Box 1+2	
E Brg. North Abut.	661.74
E Splice 1	662.19
E Brg. Pier	662.12
E Splice 2	662.12
E Brg. South Abut.	661.50

(for fabrication only)

STRUCTURAL STEEL
F.A. RT. 408 SEC. 84-9-2HB-1
SANGAMON COUNTY
STATION 101+25.35

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



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DRAWN: A Borrozo
CHECKED: [Signature]

EXAMINED: [Signature]
PASSED: [Signature]
DATE: July 14 1977

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DATE: 12/13/2022