

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INDEX OF SHEETS, SEE SHEET NO. 2.
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 5-6.

PROPOSED HIGHWAY PLANS

**VARIOUS ROUTES
SECTION D5 BRIDGE PAINTING 2025-2
BRIDGE PAINTING
VARIOUS COUNTIES**

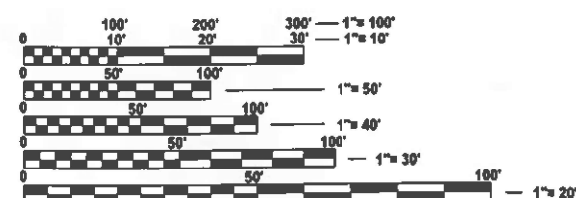
C-95-031-25

VARIOUS LOCATIONS IN DEWITT, DOUGLAS, MCLEAN & PIATT COUNTIES

CURRENT TRAFFIC DATA

<u>LOC. #1</u>	<u>LOC. #2</u>	<u>LOC. #3</u>	<u>LOC. #4</u>
I-55 Busn = 21,300	US 45 = 2,500	US 150 = 1,400	IL 54 = 1100
Old US Rt 66 = 3100	(2024)	(2024)	(2024)
(2024)			

LOC #1: S.N. 057-0069 - I-55 Busn Loop / Veterans Pkwy (FAP 704) over UPRR & Old 66
LOC #2: S.N. 021-0060 - US 45 (FAS 1671) over UPRR & Decatur & Eastern RR @ Tuscola
LOC #3: S.N. 074-0086 - US 150 (FAS 1517) over NSRR @ Mansfield
LOC #4: S.N. 020-0020 - IL 54 (FAP 71) over Salt Creek @ Kenney

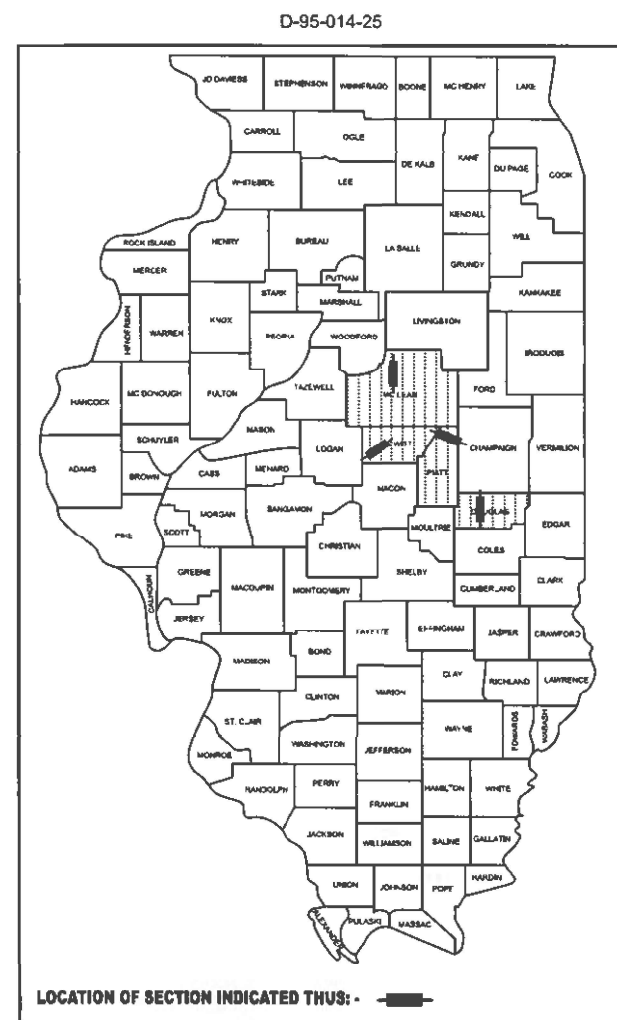


**FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.**

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: JASON STULTS
SQUAD LEADER: GREG EAGLIN
DESIGNER: JASON LEE
PHONE NUMBER: (217) 465-4181

CONTRACT NO. 70H47



FOR LOCATION MAPS, SEE SHEET 3 & 4

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED 1/22 20 25
Kennil A. Gantt Jas
REGIONAL ENGINEER

March 21, 20 25
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

March 21, 20 25
[Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STDS, & GENERAL NOTES
3	LOCATION MAP - LOCATIONS 1-2 - MCLEAN & DOUGLAS CO
4	LOCATION MAP - LOCATIONS 3-4 - DEWITT & PIATT CO
5-6	SUMMARY OF QUANTITIES
7-8	DESCRIPTIONS OF WORK FOR LOCATIONS 1-4
9-23	LOCATION #1 STRUCTURE DETAILS
24-29	LOCATION #2 STRUCTURE DETAILS
30-35	LOCATION #3 STRUCTURE DETAILS
36-43	LOCATION #4 STRUCTURE DETAILS

HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701321-19	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701901-10	TRAFFIC CONTROL DEVICES

GENERAL NOTES

G.N.-100A
ELECTRONIC FILES AND/OR ELECTRONIC SURVEY INFORMATION
INCLUDING CADD FILES WILL NOT BE AVAILABLE TO THE CONTRACTOR.

G.N.-107.12 - GENERAL
FLAGGING MAY OR MAY NOT BE REQUIRED BASED ON PROXIMITY OF WORK
TO THE TRACKS AND WHERE THE CONTRACTOR WANTS TO STORE / STAGE
EQUIPMENT. COORDINATE WITH EACH RAILROAD FOR EACH LOCATION.

WHEN DEEMED NECESSARY, FLAGGING WILL BE ASSIGNED BY THE INDIVIDUAL
RAILROAD ONCE THE RIGHT OF ENTRY AND RAILROAD PROTECTIVE LIABILITY
INSURANCE REQUIREMENTS HAVE BEEN MET.

SOME RAILROADS REQUIRE CONTRACTORS TO OBTAIN A RIGHT OF ENTRY
PERMIT BEFORE ENTERING UPON RAILROAD RIGHT OF WAY. IT IS THE
RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A RAILROAD RIGHT OF
ENTRY PERMIT FROM THE RAILROAD IF REQUIRED BY THE RAILROAD.

G.N.-107.12 - U.P.R.R. - LOCATION #1 - S.N. 057-0069
THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE LOCAL RAILROAD
CONTACT IS:

Mr. Chris T. Keckeisen
Union Pacific Railroad - Engineering Design - Public Projects
1400 Douglas, MS 0910
Omaha, NE 68179
402-544-5131
ctkecke@up.com

SPECIAL ATTENTION IS CALLED TO ARTICLE 107.12 REGARDING RAILROAD
FLAGGERS. THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE
RAILROAD CONTACT PERSON FOR FLAGGERS IS:

Leo Craig
Associate Project Manager / Rail
250 Commerce Suite 220
Irvine, CA 92602
lcraig@olsson.com

G.N.-107.12 - D.E.I.R.R. - LOCATION #2 - S.N. 021-0060
THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE LOCAL RAILROAD
CONTACT IS:

Mr. Bobby Harvey
Road Master
Decatur & Eastern Illinois Railroad
WATCO Companies, LLC
C-217-853-5468

SPECIAL ATTENTION IS CALLED TO ARTICLE 107.12 REGARDING RAILROAD
FLAGGERS. THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE
RAILROAD CONTACT PERSON FOR FLAGGERS IS:

Cody McGee
Road Master
Decatur & Eastern Illinois Railroad
WATCO Companies, LLC
C-217-853-5468

RAILROAD FLAGGING TO BE PAID THRU ARTICLE 109.05

G.N.-107.12 - C.N.R.R. - LOCATION #2 - 021-0061 - SOUTH OF 021-0060
IN CASE ACCESS IS NEEDED
THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE LOCAL RAILROAD
CONTACT IS:

Diane Lewis
Manager, Public Projects
CN Railroad
1006 E 4th Street
Waterloo, IA 50703
(319) 472-1031

SPECIAL ATTENTION IS CALLED TO ARTICLE 107.12 REGARDING RAILROAD
FLAGGERS. THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE
RAILROAD CONTACT PERSON FOR FLAGGERS IS:

U.S. Flagging Desk
17641 South Ashland Avenue
Homewood, Illinois 60430
(682) 316-5097

G.N.-107.12 - N.S.R.R. - LOCATION #3 - 074-0086
THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE LOCAL RAILROAD
CONTACT IS:

George Taylor
Engineer - Public Improvements
Norfolk Southern Corporation
650 West Peachtree Street NW Box 45
Atlanta, GA 30308

SPECIAL ATTENTION IS CALLED TO ARTICLE 107.12 REGARDING RAILROAD
FLAGGERS. THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE
RAILROAD CONTACT PERSON FOR FLAGGERS IS:

George Taylor
Engineer - Public Improvements
Norfolk Southern Corporation
650 West Peachtree Street NW Box 45
Atlanta, GA 30308

G.N.-501A
THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR
SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT
AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE

G.N.-506 (SPL.)
ALL FINAL SURFACES OF THE BEAMS SHALL BE PAINTED GRAY (MUNSELL COLOR
STANDARD - 5B 7/1). IN SOME CASES THE EXTERIOR SURFACES OF THE EXTERIOR
BEAMS SHALL BE PAINTED WITH EITHER INTERSTATE GREEN (MUNSELL COLOR
STANDARD 7.5G 4/8) OR REDDISH BROWN (MUNSELL COLOR STANDARD 2.5YR 3/4)
AS SPECIFIED UNDER THE DESCRIPTION FOR EACH STRUCTURE.

ONLY STRUCTURAL STEEL AND OTHER DESIGNATED SURFACES SHALL BE PAINTED.
ALL OTHER SURFACES SHALL BE PROTECTED FROM CONTRACTORS BLASTING AND
PAINTING OPERATIONS. ANY AREAS DAMAGED BY BLASTING OR OVERSPRAY WILL BE
REMOVED OR REPAIRED AT THE CONTRACTOR'S EXPENSE AND NO ADDITIONAL
COMPENSATION WILL BE ALLOWED.

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 CONTRACTORS EXPENSE.

THE SSPC-QP1 AND QP2 PAINTING CONTRACTOR CERTIFICATIONS WILL BE
REQUIRED FOR THIS CONTRACT.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL-OFF
DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER
LOCATION.

COMMITMENTS
THERE ARE NO COMMITMENTS ON THIS PROJECT

Containment of cleaning residue is required to control nuisance dust. See special provisions.

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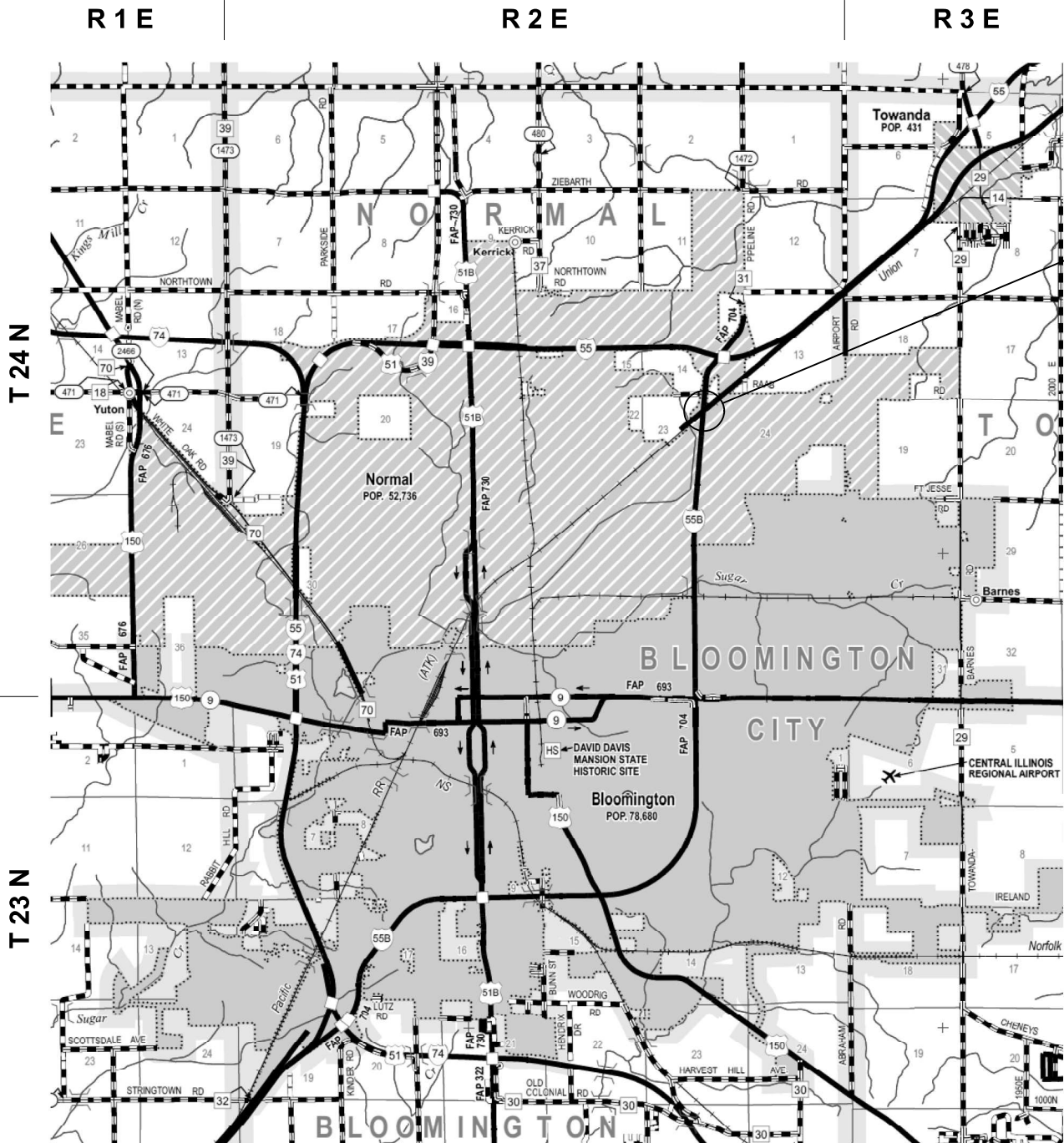
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		DRAWN -	REVISED -						VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	2	
		CHECKED -	REVISED -				CONTRACT NO. 70H47							
	PLOT DATE = 12/3/2024	DATE -	REVISED -		SCALE:		SHEET 1	OF 1	SHEETS	STA.	TO STA.			ILLINOIS FED. AID PROJECT

MCLEAN COUNTY

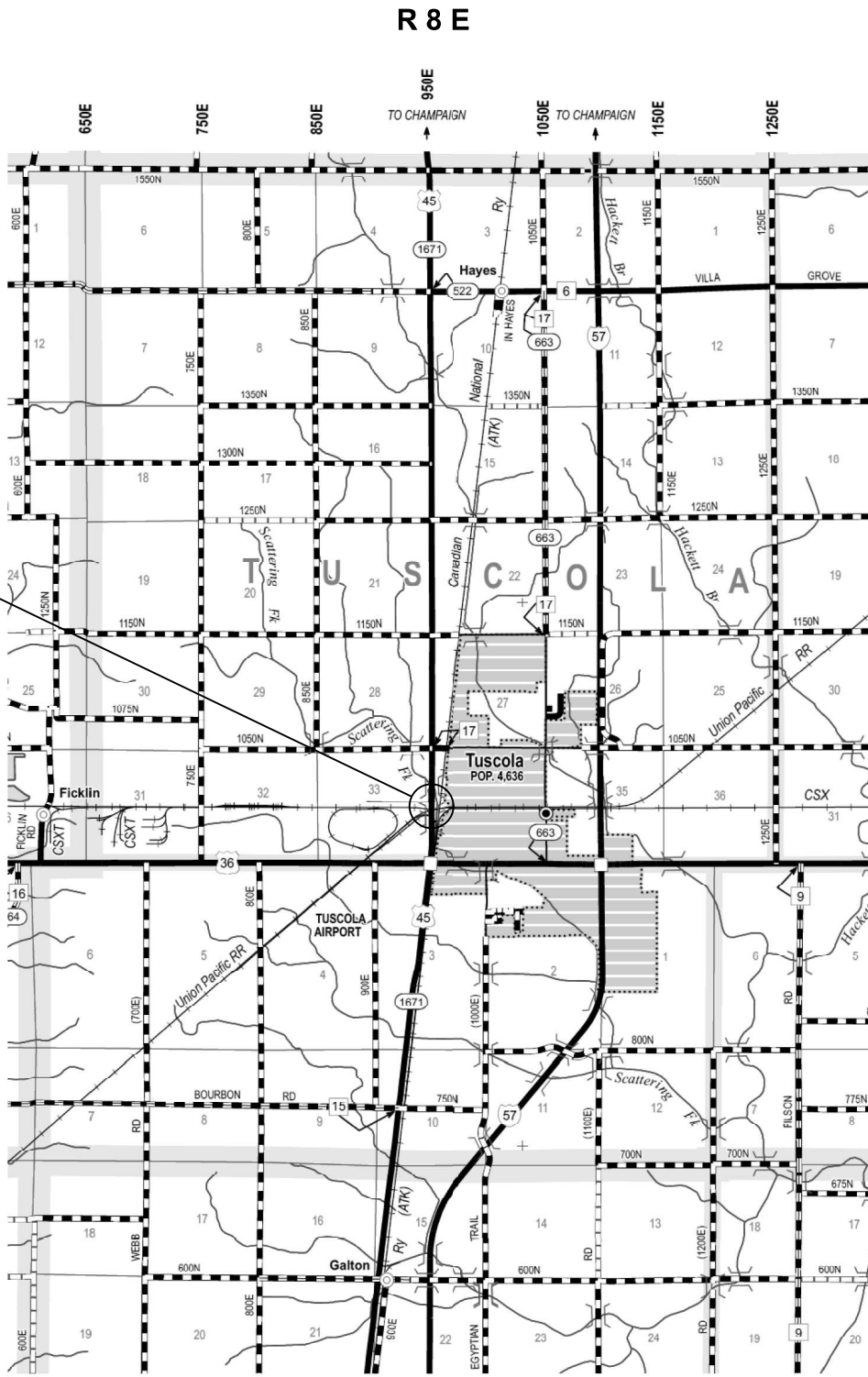
TOWNSHIP
NORMAL

DOUGLAS COUNTY

TOWNSHIP
TUSCOLA



LOCATION #1
S.N. 057-0069



LOCATION #2
S.N. 021-0060

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PLOT DATE = 12/2/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION MAP
MCLEAN COUNTY - DOUGLAS COUNTY

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

DEWITT COUNTY

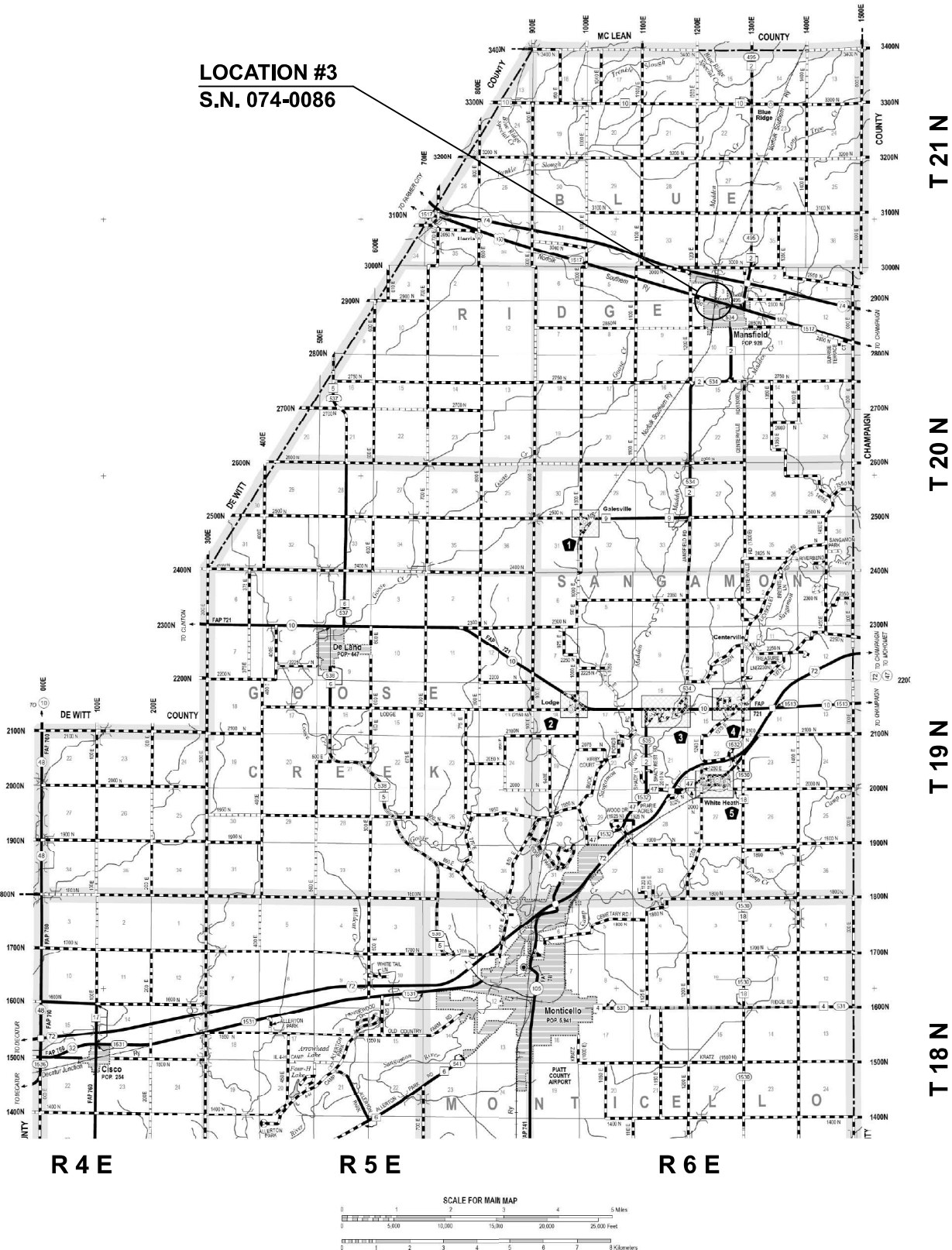
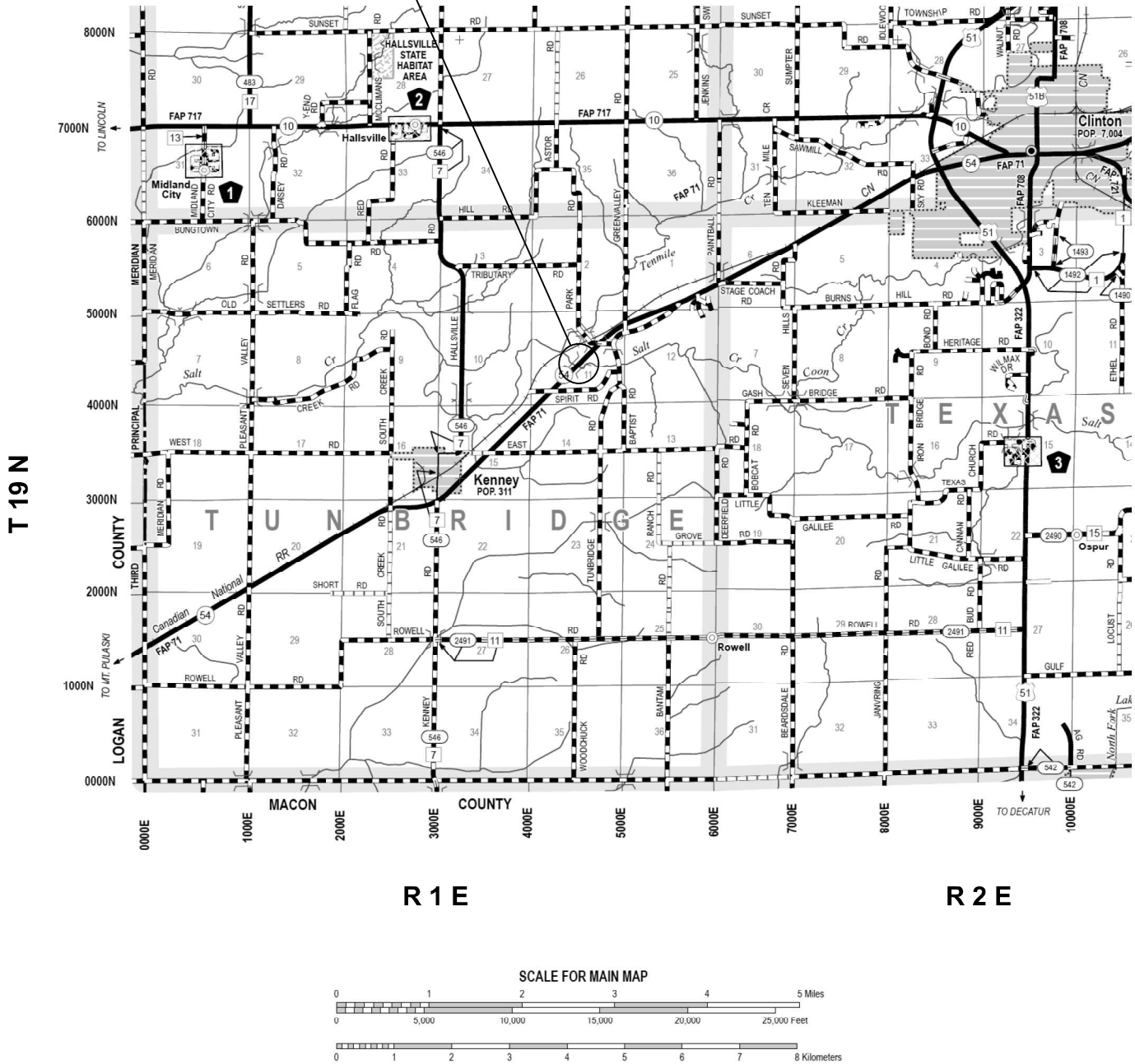
TOWNSHIP
TUNBRIDGE

TOWNSHIP
BLUE RIDGE
GOOSE CREEK

PIATT COUNTY

LOCATION #4
S.N. 020-0020

LOCATION #3
S.N. 074-0086



USER NAME	= Justin.Cearlock	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	= 12/2/2024	DATE	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION MAP
DEWITT COUNTY - PIATT COUNTY

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	4
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

LOCATION OF WORK:	LOC. #1	LOC. #2	LOC. #3	LOC. #4
	FAP 704	FAS 1671	FAS 1517	FAP 71
	S.N.	S.N.	S.N.	S.N.
	057-0069	021-0060	074-0086	020-0020
COUNTY:	MCLEAN	DOUGLAS	PIATT	DEWITT
	URBAN	RURAL	RURAL	RURAL
FUNDING BREAKOUT:	100% STATE	100% STATE	100% STATE	100% STATE
CONSTRUCTION TYPE CODE:	0047	0047	0047	0047

	CODE NO.		ITEM	UNIT	TOTAL QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
	67100100		MOBILIZATION	L SUM	1.00	0.25	0.25	0.25	0.25
	70100450		TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1.00	0.25	0.25	0.25	0.25
	70102630		TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1.0	1.0			
	X5060601		CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1.0	1.0			
	X5060602		CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1.0		1.0		
	X5060603		CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 3	L SUM	1.0			1.0	
^ DENOTES SPECIALTY ITEM									

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SUMMARY OF QUANTITIES

LOCATION OF WORK:	LOC. #1	LOC. #2	LOC. #3	LOC. #4
	FAP 704	FAS 1671	FAS 1517	FAP 71
	S.N.	S.N.	S.N.	S.N.
	057-0069	021-0060	074-0086	020-0020
COUNTY:	MCLEAN	DOUGLAS	PIATT	DEWITT
	URBAN	RURAL	RURAL	RURAL
FUNDING BREAKOUT:	100% STATE	100% STATE	100% STATE	100% STATE
CONSTRUCTION TYPE CODE:	0047	0047	0047	0047

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
	Z0007104	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 4	L SUM	1.0				1.0
	Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1.0	1.0			
	Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1.0		1.0		
	Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	L SUM	1.0			1.0	
	Z0010504	CLEANING AND PAINTING STEEL BRIDGE NO. 4	L SUM	1.0				1.0
	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1.00	0.34	0.33	0.33	
* DENOTES SPECIALTY ITEM								

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LOCATION #1

(Beam Ends Only)

DESCRIPTION: I-55 BUSN LOOP (Veterans Pkwy) OVER UPRR & Old Rt 66 - 2.8 mi. N of IL 9
COUNTY: MCLEAN
ROUTE: I-55 BUSN LOOP (FAP 704) (Veterans Pkwy)
MARKED ROUTE: I-55 BUSN LOOP (Veterans Pkwy)
SECTION: 2VBR
STRUCTURE NO.: 057-0069
TYPE OF STRUCTURE: 6 SPAN CONTINUOUS STEEL
14 BEAM LINES - 10 Beam lines from 1985 + 4 Beam lines from 2002

ZONE PAINTING LIMITS

- SPAN 1 - Clean & Paint 6' from the South Abutment Joint - W33x130 (1985) & W690x265 = W27x178 (2003)
- SPAN 2 - No Work
- SPAN 3 - No Work
- SPAN 4 - Clean & Paint 6' South of Pier 4 Joint - W33x130 (1985) & W690x265 = W27x178 (2003)
- SPAN 5 - Clean & Paint 6' North of Pier 4 Joint - W30x108 (1985) & W760x161 = W30x108 (2003)
- SPAN 6 - Clean & Paint 6' from the North Abutment Joint - W30x108 (1985) & W760x161 = W30x108 (2003)

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS, DIAPHRAGMS AND OTHER STRUCTURAL STEEL IN SPANS 1,4,5 & 6 MEASURED SIX (6) FT. ALONG THE BEAM LINES FROM EACH EXPANSION JOINT SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL STEEL SURFACES SHALL BE GREY, MUNSELL NO. 5B 7/1.

THE 2002 SUPERSTRUCTURE HAS AN EXISTING INORGANIC ZINC / ACRYLIC / ACRYLIC PAINT SYSTEM. THE 1985 SUPERSTRUCTURE HAS AN EXISITNG ZINC-SILICATE AND VINYL PAINT SYSTEM. CONTAINMENT OF CLEANING RESIDUE IS REQUIRED TO CONTROL NUISANCE DUST. THE CONTRACTOR SHALL FOLLOW THE SPECIFICATIONS FOR CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES.

NOTE: DECK DRAINS WITHIN THE PAINTING LIMITS DESCRIBED ABOVE ARE TO BE PAINTED AT NO ADDITIONAL COST.

NOTE: WHEN WORKING IN SPAN 4, THE CONTRACTOR SHALL MAINTAIN A CONTINUOUS MULTI-USE PATH. CA-6 MAY BE USED TO DRESS UP THE ROCK SHOULDER BETWEEN THE MULTI-USE PATH AND R.O.W. FENCING.

TRAFFIC CONTROL AND PROTECTION

IT IS ANTICIPATED THAT THE CONTRACTOR WILL BE ABLE TO COORDINATE WITH PROPERTY OWNERS AND PAINT AT THE ABUTMENTS IN SPANS 1 & 6 FROM BELOW. TRAFFIC CONTROL AND PROTECTION STANDARD 701601 - is provided for Veterans Pkwy if working from a lane closure is necessary. TRAFFIC CONTROL AND PROTECTION STANDARD 701201 - for work in Span 5 along Old Rt 66

LOCATION #2

(Beam Ends Only)

DESCRIPTION: US 45 (FAS 1671) OVER UPRR & Decatur & Eastern RR - TUSCOLA
COUNTY: DOUGLAS
ROUTE: US 45 (FAS 1671)
MARKED ROUTE: US 45
SECTION: (22VBR)BR
STRUCTURE NO.: 021-0060
TYPE OF STRUCTURE: 3 SPAN CONTINUOUS WEATHERING STEEL
6 BEAM LINES - BEAM SIZE = W33x118

ONLY PAINTING BEAM ENDS AT ABUTMENTS

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS, DIAPHRAGMS AND OTHER STRUCTURAL STEEL IN SPANS 1 AND 3 MEASURED SIX (6) FT. ALONG THE BEAM LINES FROM EACH END OF THE STRUCTURE SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL STEEL SURFACES SHALL BE GREY, MUNSELL NO. 5B 7/1.

THE STRUCTURE HAS EXISTING WEATHERING STEEL. CONTAINMENT OF CLEANING RESIDUE IS REQUIRED TO CONTROL NUISANCE DUST. THE CONTRACTOR SHALL FOLLOW THE SPECIFICATIONS FOR CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES.

NOTE: NO DECK DRAINS WITHIN THE PAINTING LIMITS
NOTE: INTEGRAL ABUTMENTS - NO BEARNGS
NOTE: W16x36 DIAPHRAGMS APPROX 4 FT FROM ABUT CAP - TO BE CLEANED & PAINTED

TRAFFIC CONTROL AND PROTECTION

IT IS ANTICIPATED THAT THE CONTRACTOR WILL BE ABLE TO COORDINATE WITH PROPERTY OWNERS AND PAINT LOCATION #2 FROM THE NW & SE QUADRANTS TO MINIMIZE TIME ON THE ROAD. TRAFFIC CONTROL AND PROTECTION STANDARD 701201 IS PROVIDED AND WILL BE PAID FOR IF LANE CLOSURES ARE NECESSARY.

	USER NAME = Steven.Wood		DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DESCRIPTION OF WORK LOCATION #1 & #2			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			DRAWN -	REVISED -					VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	7
			CHECKED -	REVISED -					CONTRACT NO. 70H47				
	PLOT DATE = 12/3/2024	DATE -	REVISED -			SCALE:	SHEET 1	OF 2 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

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LOCATION #3

(Beam Ends Only)

DESCRIPTION: US 150 (FAS 1517) OVER NSRR - MANSFIELD
COUNTY: PIATT
ROUTE: US 150 (FAS 1517)
MARKED ROUTE: US 150
SECTION: 12VBR-1
STRUCTURE NO.: 074-0086
TYPE OF STRUCTURE: 3 SPAN CONTINUOUS WEATHERING STEEL
6 BEAM LINES - BEAM SIZE = W27x94

ONLY PAINTING BEAM ENDS AT ABUTMENTS

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS, DIAPHRAGMS AND OTHER STRUCTURAL STEEL IN SPANS 1 AND 3 MEASURED SIX (6) FT. ALONG THE BEAM LINES FROM EACH END OF THE STRUCTURE SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL STEEL SURFACES SHALL BE GREY, MUNSELL NO. 5B 7/1.

THE STRUCTURE HAS EXISTING WEATHERING STEEL.
CONTAINMENT OF CLEANING RESIDUE IS REQUIRED TO CONTROL NUISANCE DUST.
THE CONTRACTOR SHALL FOLLOW THE SPECIFICATIONS FOR CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES.

NOTE: NO DECK DRAINS WITHIN THE PAINTING LIMITS
NOTE: INTEGRAL ABUTMENTS - NO BEARNGS
NOTE: C12x30 DIAPHRAGMS APPROX 3.5 FT FROM ABUT CAP - TO BE CLEANED & PAINTED

TRAFFIC CONTROL AND PROTECTION

IT IS ANTICIPATED THAT THE CONTRACTOR WILL BE ABLE TO COORDINATE WITH PROPERTY OWNERS AND PAINT LOCATION #3 FROM THE NE, NW, SE & SW QUADRANTS TO MINIMIZE TIME ON THE ROAD. TRAFFIC CONTROL AND PROTECTION STANDARD 701201 IS PROVIDED AND WILL BE PAID FOR IF LANE CLOSURES ARE NECESSARY.

LOCATION #4

(Beam Ends Only)

DESCRIPTION: IL 54 (FAP 71) OVER SALT CREEK - 2 mi. E of KENNEY
COUNTY: DEWITT
ROUTE: IL 54 (FAP 71)
MARKED ROUTE: IL 54
SECTION: 12BR
STRUCTURE NO.: 020-0020
TYPE OF STRUCTURE: 4 SPAN CONTINUOUS WEATHERING STEEL
5 BEAM LINES - 40" PLATE GIRDERS

ONLY PAINTING BEAM ENDS AT ABUTMENTS

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS, DIAPHRAGMS AND OTHER STRUCTURAL STEEL IN SPANS 1 AND 4 MEASURED TEN (10) FT. ALONG THE BEAM LINES FROM EACH END OF THE STRUCTURE SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL STEEL SURFACES SHALL BE GREY, MUNSELL NO. 5B 7/1.

A MINIMUM OF ONE (1) HIGH VOLUME AIR MONITOR WILL BE REQUIRED TO MONITOR AIR QUALITY DURING DUST PRODUCING OPERATIONS AT THIS SITE. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES" TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

NOTE: NO DECK DRAINS WITHIN THE PAINTING LIMITS
NOTE: ELASTOMERIC BEARINGS AT ABUTMENTS

TRAFFIC CONTROL AND PROTECTION

TRAFFIC CONTROL AND PROTECTION STANDARD 701201

	USER NAME = Justin.Cearlock	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DESCRIPTION OF WORK LOCATIONS #3 & #4		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -				VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	8
		CHECKED -	REVISED -				CONTRACT NO. 70H47				
	PLOT DATE = 12/2/2024	DATE -	REVISED -				ILLINOIS FED. AID PROJECT				
SCALE:		SHEET 2	OF 2	SHEETS	STA.	TO STA.					

AS-BUILT PLANS FOR S.N. 057-0069
FOR INFORMATION ONLY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
704	(2)VBRYBY	McLEAN	776	452
FED. ROAD DIST. NO. 7 ILLINOIS FAP				

BENCH MARKS:

B.M. 66A Chiseled "X" cut on center of headwall
Sta. 15+945.647 West side of Old Business U.S. 66
El. 245.934

B.M. 66F Chiseled "X" cut on center of headwall
East side of Veterans Parkway exit ramp to Old
Business U.S. 66 El. 245.974

Existing Bench marks will be removed during median
construction. A new bench mark will be established
during construction.

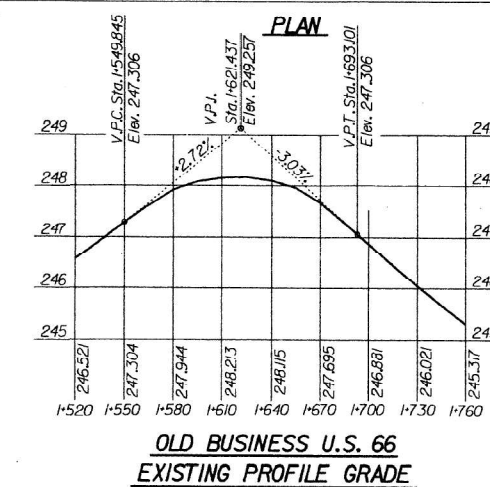
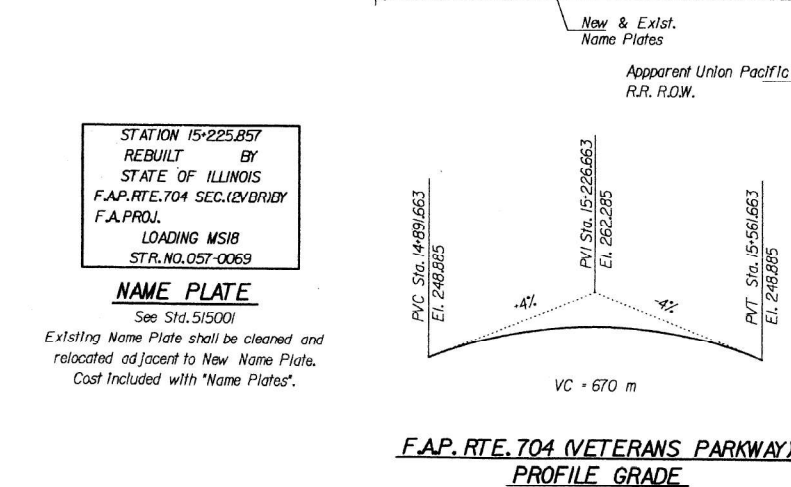
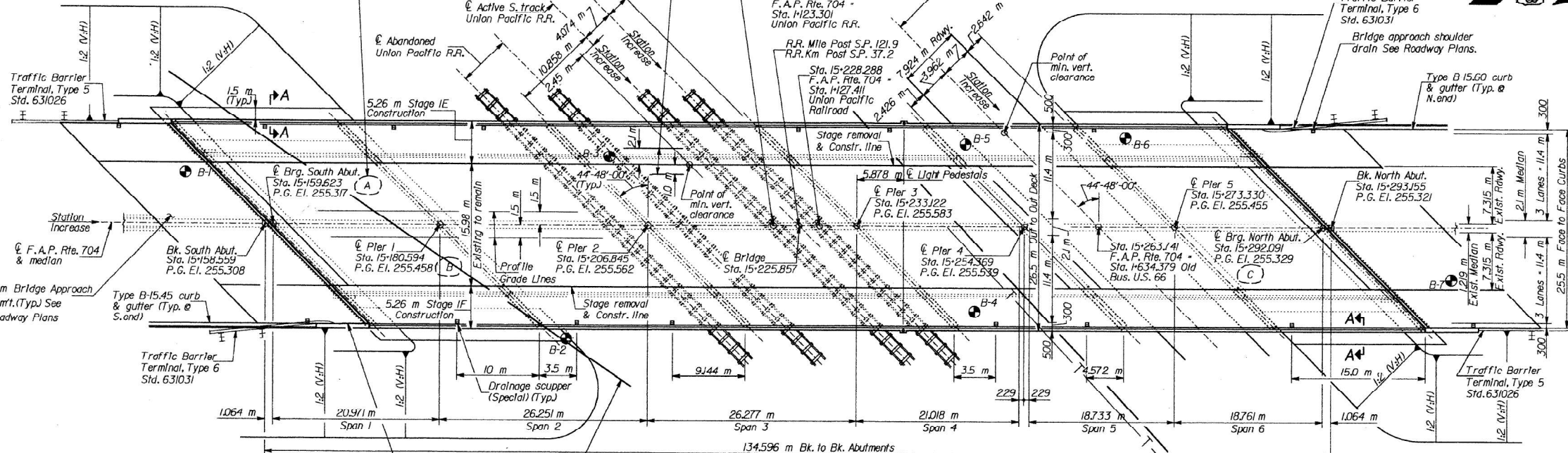
EXISTING STRUCTURE:

Sta. 15+225.857, F.A.P. Rte. 704 over Union Pacific R.R. and
Old Business U.S. 66, four span and two span cant.
composite steel stringer structure, originally constructed
in 1939. Sections 2-V-FR-1 and 2-V-FR-1, modified in
1985. Section 2VBR. Length of structure 134.596 m bk. to bk.
of abuts. Structure roadway width 17.069 m. Substructure
consists of five reinforced concrete piers, piers 1-3 on
crossed timber piles, piers 4 & 5 are on spread footings
and two reinforced concrete abuts. supported on concrete piles.

PROPOSED IMPROVEMENT:

Existing structure to be widened on each side. Existing
parapet and deck portion to be removed, replaced and
widened w/ four span and two span continuous composite
steel stringers. Existing substructure to be widened.
Traffic to be maintained utilizing stage construction.
Partial depth deck patching will be performed as necessary.
No Salvage

Void in existing slope wall to be filled with Stone
Dumped Riprap, Class A3 (Typ. at 3 corners)
Location A: 4.2 m ϕ x 750 mm deep
Location B: 4.2 m ϕ x 10 m deep
Location C: 1.8 m ϕ x 300 mm deep
Bedding material is already in place at Location C.



TOP OF ACTIVE RAIL ELEV.

STATION	N. TRACK PASSING	S. TRACK MAINLINE
0+080	247.807	247.749
0+090	247.793	247.743
1+100	247.774	247.734
1+110	247.755	247.724
1+120	247.742	247.716
1+130	247.718	247.708
1+140	247.698	247.701
1+150	247.696	247.697
1+160	247.690	247.698

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



LOCATION PLAN
Mary H. Bloxdorf
Illinois Structural No. 4859
(expires 11-30-02)
Dated: 11/8/01

DESIGN STRESSES
NEW CONSTRUCTION
fy = 345 MPa (Structural Steel, M270M, Grade 345)
fc = 24 MPa
fy = 400 MPa (rein. bars)
EXISTING CONSTRUCTION
fy = 344.75 MPa (Beams)
fy = 248.22 MPa (Diaphragms, Brgs., Brg. Plates and Splice Plates)
fc = 24.13 MPa
fy = 413.7 MPa (Rein. bars)

DESIGN SPECIFICATIONS
1996 AASHTO Specifications

LOADING MS18
Allow 1.2 kN/m² for future wearing surface.

SEISMIC DATA
S.P.C. = A
A = 0.044g
S = 1.0

Notes:
Traffic Control Std. 701006 and 701201 shall be used during
widening of piers 4 & 5 and until new guardrail on Old U.S. 66 is
in place. See Roadway Plans.
See Sheet 2 of 36 for Section A-A and Section through Slope Wall.
All dimensions are in millimeters (mm) except as noted.

SHEET TITLE	
GENERAL PLAN	
PROJECT F.A.P. RTE. 704 (VETERANS PARKWAY) OVER UNION PACIFIC R.R. & OLD BUS. U.S. 66 SECTION (2)VBRYBY STATION 15+225.857 McLEAN COUNTY STRUCTURE NUMBER 057-0069	PROJECT NO. 9450 SCALE DATE DRAWN BY CFC CHECKED BY MCB/CME DRAWING NO.
COOMBE-BLOXDORF P.C. Engineers / Land Surveyors Springfield, Illinois	
1 OF 36 SHTS	

gen-pin

MODEL: AsBuilt Loc 1 (Sheet)
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USER NAME = Steven.Wood	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	AS-BUILT PLANS LOCATION #1 S.N. 057-0069	F.A. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO. VAR. D5 BRIDGE PAINTING 2025-2 VARIOUS 43 9 CONTRACT NO. 70H47
PLOT DATE = 12/3/2024	DRAWN -	REVISI -		SCALE: SHEET 1 OF 15 SHEETS STA. TO STA.	ILLINOIS FED. AID PROJECT
	CHECKED -	REVISI -			
	DATE -	REVISI -			

MODEL: AsBuilt Loc 1 2 (Sheet)
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AS-BUILT PLANS FOR S.N. 057-0069
FOR INFORMATION ONLY

BRIDGE CONSTRUCTION SEQUENCE***

1. Install protective shield within limits shown above and on Sheet 1 of 36.
2. Proceed with Stage 1 superstructure removal.
3. Remove portions of existing abutments and widen substructure units as shown on Sheets 18 through 28 of 36.
4. Proceed with Stage 1 superstructure construction.
5. Remove and replace the existing expansion joints at the abutments and Pier 4 within the Stage 5C Removal and Construction limits.

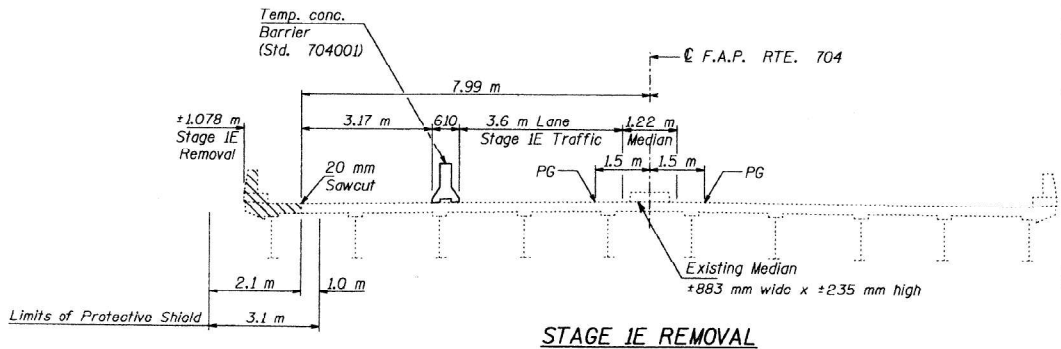
STAGE 5C REMOVAL NOTES

Cross hatched areas indicate concrete removal in Stage 5C. Longitudinal and transverse reinforcement extending into removed areas shall be cleaned and straightened and incorporated into the new construction. Existing reinforcement along skew shown shall be cut at the Stage Line and removed from the new construction.

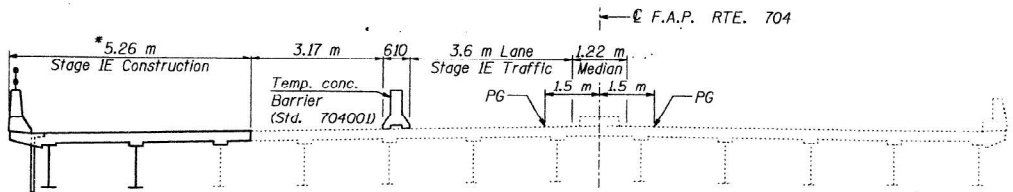
*** See Maintenance of Traffic Construction Sequence Notes and drawings for Traffic Staging.

STAGE 1 REMOVAL NOTES

Hatched areas indicate concrete removal in Stage 1. Reinforcement extending into removed areas shall be cleaned and straightened and incorporated into the new construction. Cost included with "Concrete Removal".

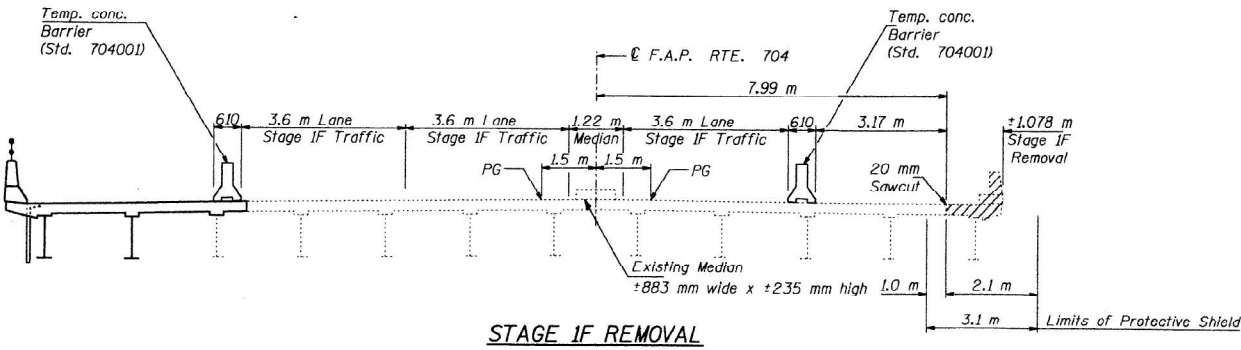


STAGE 1E REMOVAL

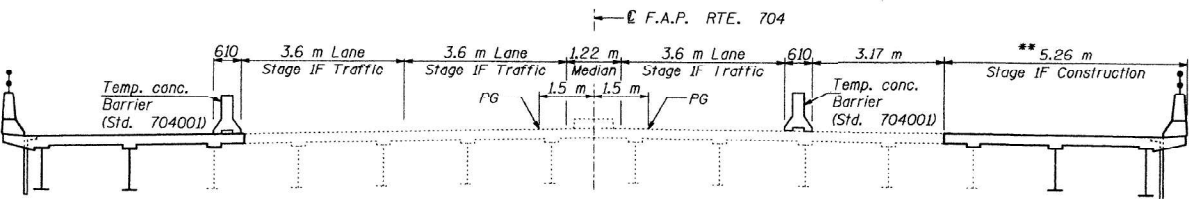


STAGE 1E CONSTRUCTION

* Width of Stage 1E Construction = 5.11 m at expansion joints. See Sheets 7 & 8 of 36.

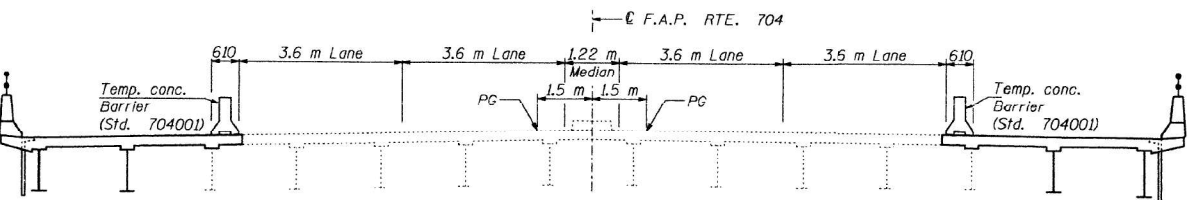


STAGE 1F REMOVAL

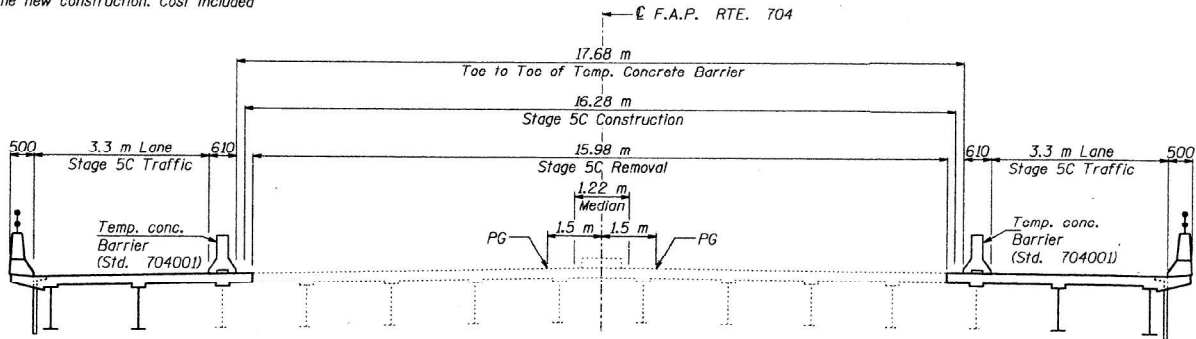


STAGE 1F CONSTRUCTION

** Width of Stage 1F Construction = 5.11 m at expansion joints. See Sheets 7 & 8 of 36.

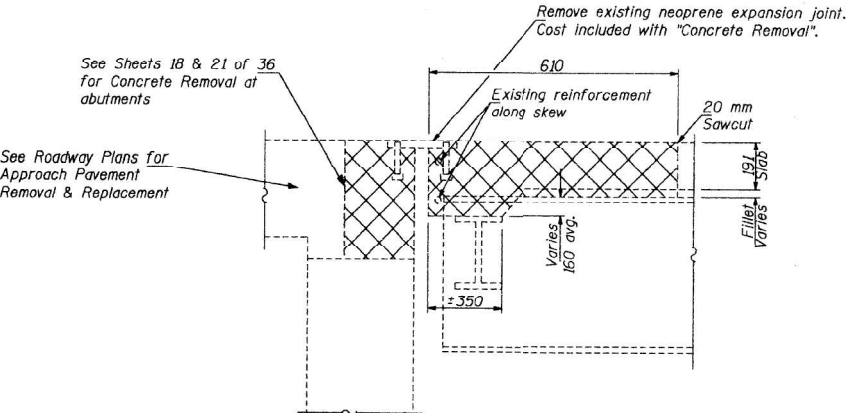


STAGE 2 RELOCATE TCB

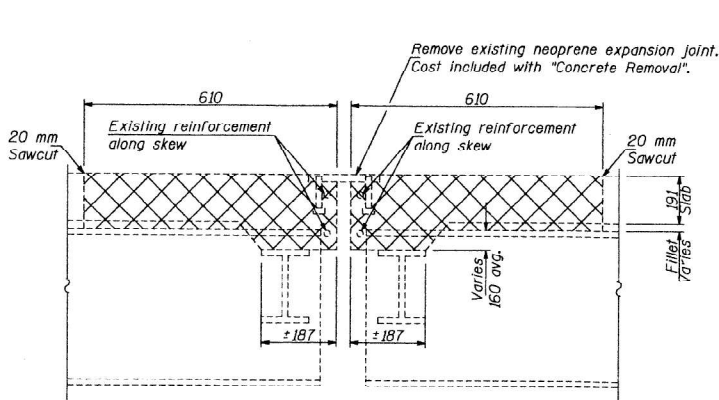


STAGE 5C REMOVAL AND CONSTRUCTION

Stage 5C Removal and Construction is limited to the work required to remove and replace the existing expansion joints at the abutments and Pier 4 only. See Stage 5C Concrete Removal details.



STAGE 5C CONCRETE REMOVAL



STAGE 5C CONCRETE REMOVAL

Note: All dimensions are in millimeters (mm) except as noted.

SHEET TITLE			
STAGED CONSTRUCTION DETAILS			
PROJECT	F.A.P. RTE. 704 (VETERANS PARKWAY) OVER UNION PACIFIC R.R. & OLD BUS. U.S. 66	PROJECT NO.	9450
SECTION	SECTION 15+225.857	SCALE	
MCLEAN COUNTY	STATION 15+225.857	DATE	
STRUCTURE NUMBER 057-0069		DRAWN BY	CFC
		CHECKED BY	MCB/CME
		DRAWING NO.	
COOMBE-BLOXDORF P.C. Engineers / Land Surveyors Springfield, Illinois			3
			OF 36 SHTS

USER NAME	= Steven.Wood	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	= 12/3/2024	DATE	-	REVISED	-

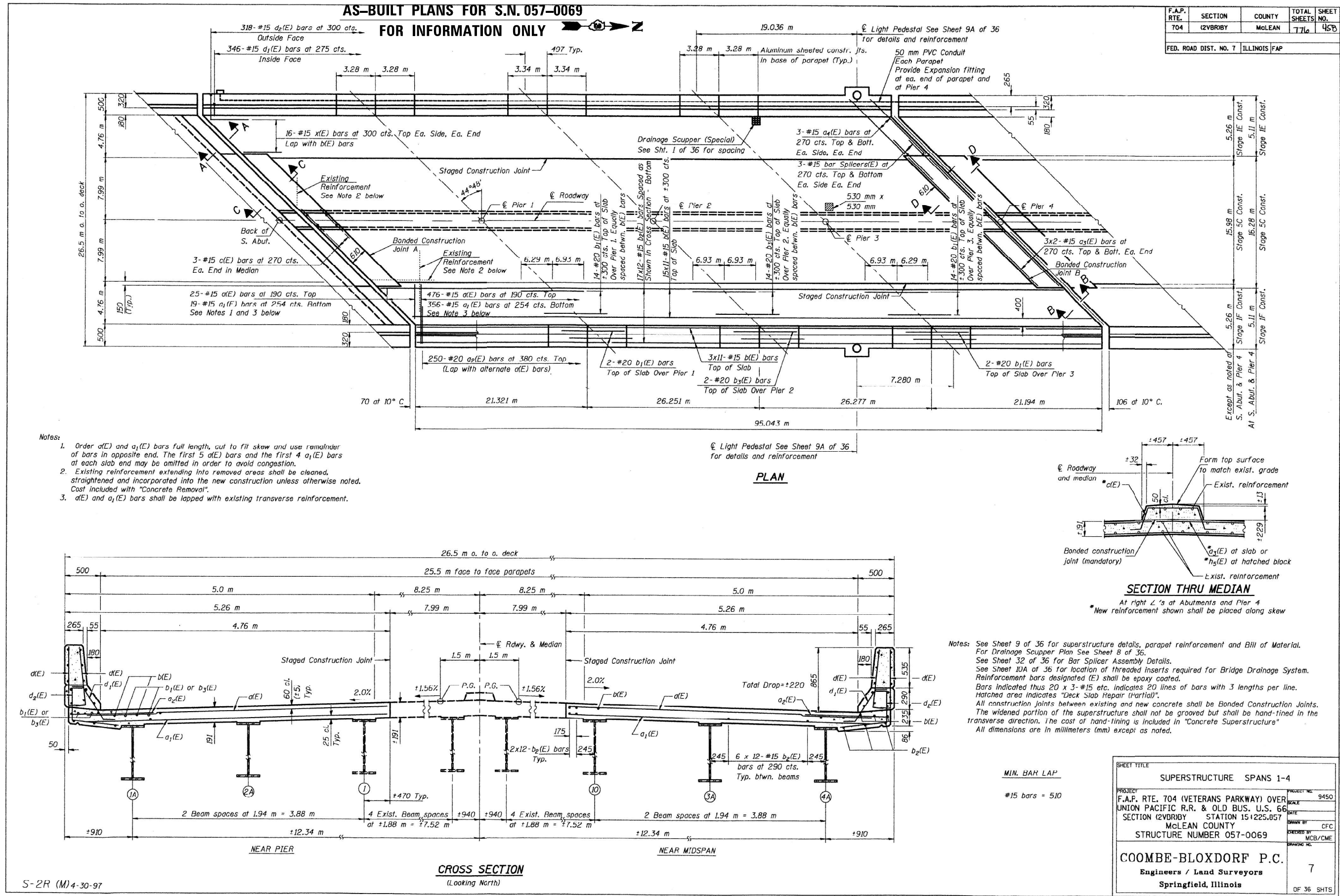
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #1 S.N. 057-0069

SCALE: SHEET 2 OF 15 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	10
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

MODEL: As-Built Loc 1 3 (Sheet)
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USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

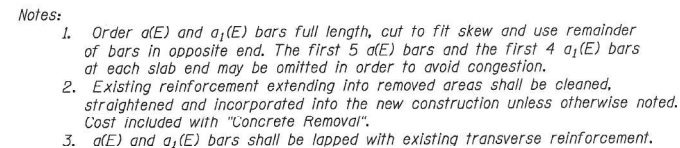
AS-BUILT PLANS
LOCATION #1 S.N. 057-0069

SCALE: SHEET 3 OF 15 SHEETS STA. TO STA.

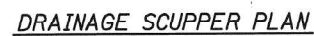
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	11
CONTRACT NO. 70H47				
ILLINOIS / FED. AID PROJECT				

FOR INFORMATION ONLY

FED. ROAD DIST. NO. 7	ILLINOIS	FAP
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PLAN



Notes: See Sheet 9 of 36 for superstructure details, parapet reinforcement and Bill of Material.
See Sheet 7 of 36 for Section thru Median.
See Sheet 32 of 36 for Bar Splice Assembly Details.
See Sheet 10A of 36 for location of threaded Inserts required for Bridge Drainage System.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#15 etc. indicates 20 lines of bars with 3 lengths per line.
Hatched areas indicate "Deck Slab Repair (Partial)".
All construction joints between existing and new concrete shall be Bonded Construction Joints.
The widened portion of the superstructure shall not be grooved but shall be hand-tined in the transverse direction. The cost of hand-tining is included in "Concrete Superstructure".
All dimensions are in millimeters (mm) except as noted.

MIN. BAR LAP

#15 bars = 510

SHEET TITLE			
SUPERSTRUCTURE SPANS 5-6			
PROJECT	F.A.P. RTE. 704 (VETERANS PARKWAY) OVER UNION PACIFIC R.R. & OLD BUS. U.S. 66 SECTION (2VBR) STATION 15+225.857 McLEAN COUNTY STRUCTURE NUMBER 057-0069	PROJECT NO.	9450
		SCALE	
		DATE	
		DRAWN BY	CFC
		CHECKED BY	MCB/CME
		DRAWING NO.	8
COOMBE-BLOXDORF P.C. Engineers / Land Surveyors Springfield, Illinois		OF 36 SHEETS	

USER NAME = Steven,Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #1 S.N. 057-0069

SCALE:	SHEET 4	OF 15	SHEETS	STA.	TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	12
		CONTRACT NO. 70H47		
		ILLINOIS	FED. AID PROJECT	

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
704	(2VBR)BY	MCLEAN	776	466
FED. ROAD DIST. NO. 7 ILLINOIS FAP				

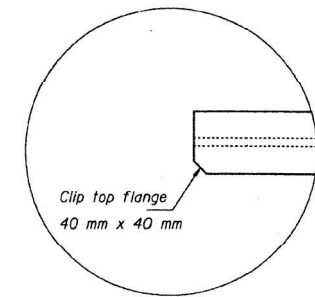


Diagram illustrating the assembly of the top flange. A circular flange is shown with a rectangular clip attached to its top edge. The clip is labeled "Clip top flange" and "40 mm x 40 mm".

SHEET TITLE		PROJECT NO.	
STRUCTURAL STEEL		9450	
PROJECT		SCALE	
F.A.P. RTE. 704 (VETERANS PARKWAY) OVER SECTION 12VBVBRY STATION 15+225.857		DATE	
McLEAN COUNTY		DRAWN BY CFC	
STRUCTURE NUMBER 057-0069		CHECKED BY MCB/CME	
COOMBE-BLOXDORF P.C.		DRAWING NO.	
Engineers / Land Surveyors		13	
Springfield, Illinois		OF 36 SHTS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
704	(2VBR)BY	McLEAN	77	467
FED. ROAD DIST. NO. 7 ILLINOIS FAP				

AS-BUILT PLANS FOR S.N. 057-0069
FOR INFORMATION ONLY

INTERIOR BEAM MOMENT TABLE						
SPANS 1-4				SPANS 5-6		
	0.4 Sp. 1 0.6 Sp. 4	Pier 1 Pier 3	0.5 Sp. 2 0.5 Sp. 3	Pier 2	0.4 Sp. 5 0.6 Sp. 6	Pier 5
Is (10 ⁶ mm ⁴)	2900	2900	2900	2900	1860	1860
Ic (n) (10 ⁶ mm ⁴)	6750	-	6750	-	5061	-
Ic (3n) (10 ⁶ mm ⁴)	4910	-	4910	-	3748	-
Ss (10 ³ mm ³)	8220	8220	8220	8220	4910	4910
Sc (n) (10 ³ mm ³)	11270	-	11270	-	7277	-
Sc (3n) (10 ³ mm ³)	10160	-	10160	-	6588	-
Q (kN/m)	12.04	16.13	12.04	16.13	10.80	14.89
M _l (kN-m)	367	879	350	914	266	619
s _l (kN/m)	4.09	-	4.09	-	4.09	-
Ms _l (kN-m)	136	-	145	-	115	-
M _t (kN-m)	650	425	718	465	561	290
M (Imp) (kN-m)	168	106	170	110	150	78
S ₂ [(M _t +M(Imp))](kN-m)	1363	885	1480	958	1185	613
Ma (kN-m)	2426	2293	2568	2434	2036	1602
Mu (kN-m)	3690	-	3721	-	2327	-
fs _l non-comp (MPa)	45	107	43	111	54	126
fs _l (comp) (MPa)	13	-	14	-	18	-
fs ₂ [(L+Imp) (MPa)	121	108	131	117	163	125
fs (Overload) (MPa)	179	215	188	228	235	251
fs (Total) (MPa)	-	280	-	296	-	326
VR (kN)	216	-	192	-	210	-

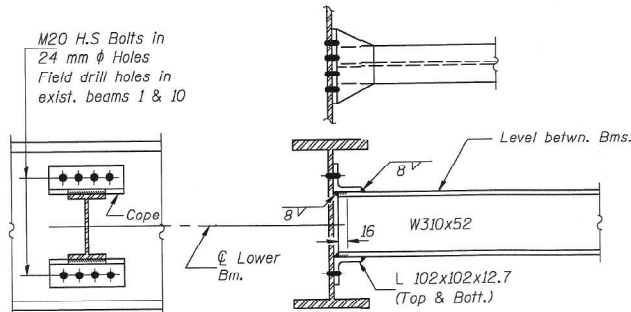
INTERIOR BEAM REACTION TABLE					
SPANS 1-4			SPANS 5-6		
	S. Abut & S. Brg. Pier 4	Pier 1 Pier 3	Pier 2	N. Abut & N. Brg. Pier 4	Pier 5
R _l (kN)	128	422	426	107	345
R _t (kN)	157	214	223	153	187
Imp. (kN)	41	53	53	41	50
R (Total) (kN)	326	689	702	301	582

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).
I_{cn} and S_{cn} are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
I_{csn} and S_{csn} are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.58)
VR is the maximum Live Load + Impact shear range in span.
Ma (Applied Moment)=1.3(M_l + Ms_l + S₂(M_t + M_{imp})).
The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.
fs (Overload) is the sum of the stresses due to M_l + Ms_l + S₂(M_t + M_{imp}).
fs (Total) (Non-compact section) is the sum of the stresses due to 1.3(M_l + Ms_l + S₂(M_t + M_{imp})).

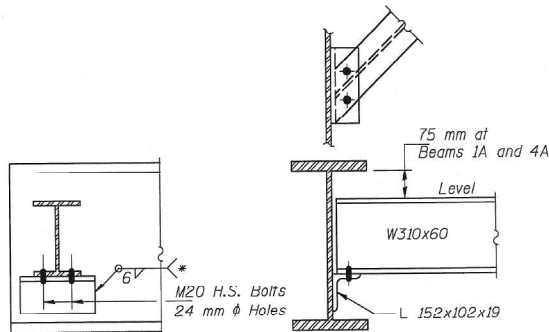
TOP OF BEAM ELEVATIONS

	1A	2A	3A	4A
Brq. S. Abut.	254.817	254.873	255.039	255.013
Brq. Pier 1	254.959	255.010	255.124	255.093
Splice 1	254.988	255.039	255.142	255.110
Brq. Pier 2	255.095	255.141	255.190	255.153
Splice 2	255.116	255.161	255.199	255.161
Splice 3	255.156	255.197	255.191	255.150
Brq. Pier 3	255.160	255.200	255.183	255.141
S. Brg. Pier 4	255.178	255.213	255.145	255.098
N. Brg. Pier 4	255.177	255.212	255.143	255.095
Splice 4	255.114	255.145	255.038	254.987
Brq. Pier 5	255.101	255.131	255.016	254.964
Brq. N. Abut.	255.023	255.049	254.888	254.832

For Fabrication Only

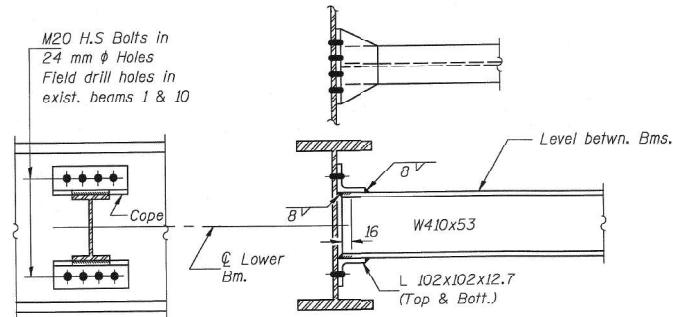


DIAPHRAGM D₁
(52 Required)



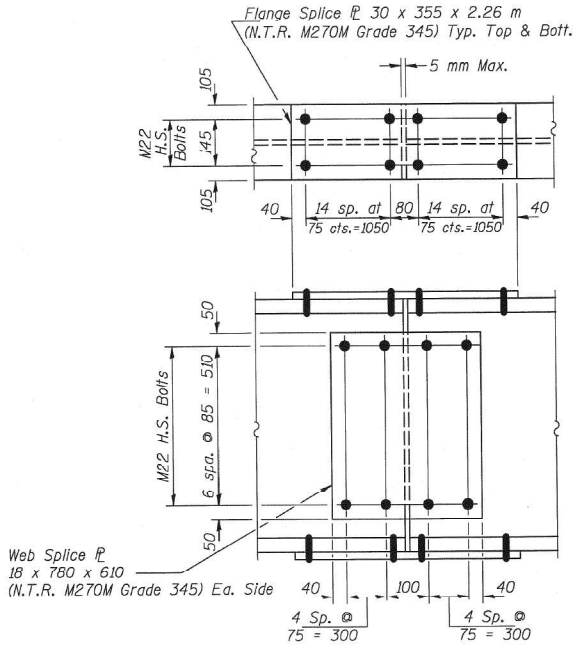
DIAPHRAGM D
(16 Required)

* Field weld at existing beams 1 and 10

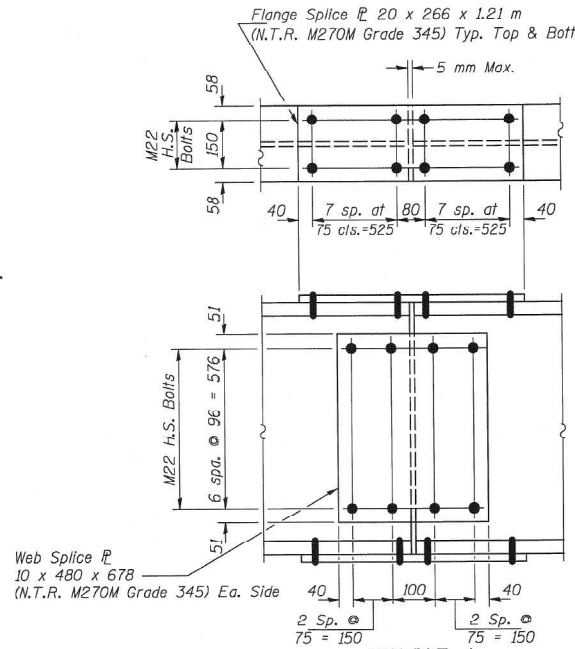


DIAPHRAGM D₂
(20 Required)

Notes:
All dimensions are in millimeters (mm)
except as noted.
Two hardened washers shall be required
over all oversized holes for diaphragms.



SPLICES 1 THROUGH 3
(12 Required)



SPLICE 4
(4 Required)

STRUCTURAL STEEL			
PROJECT	F.A.P. RTE. 704 (VETERANS PARKWAY) OVER UNION PACIFIC R.R. & OLD BUS, U.S. 66	PROJECT NO.	9450
SECTION	SECTION (2VBR)BY STATION 15+225.857	SCALE	
McLEAN COUNTY	STRUCTURE NUMBER 057-0069	DRAWN BY	CFC
COOMBE-BLOXDORF P.C.	Engineers / Land Surveyors	CHECKED BY	MCB/CME
Springfield, Illinois		DRAWING NO.	14
		OF 36 SHTS	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

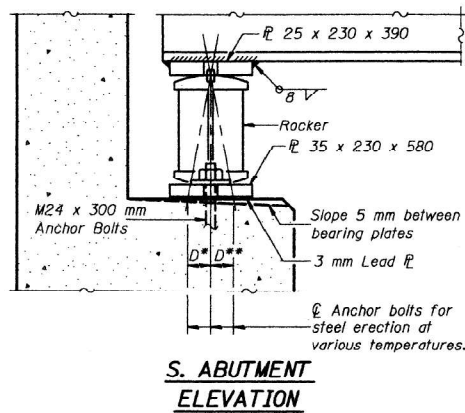
AS-BUILT PLANS
LOCATION #1 S.N. 057-0069

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	14
ILLINOIS FED. AID PROJECT				

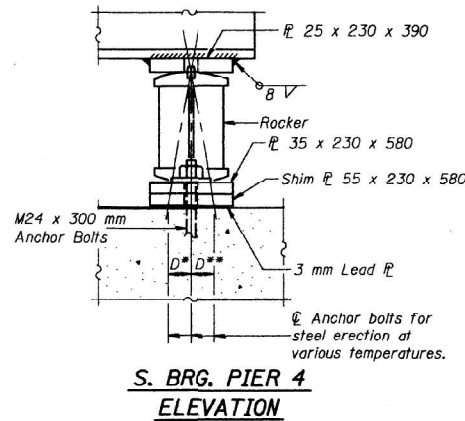
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AS-BUILT PLANS FOR S.N. 057-0069
FOR INFORMATION ONLY

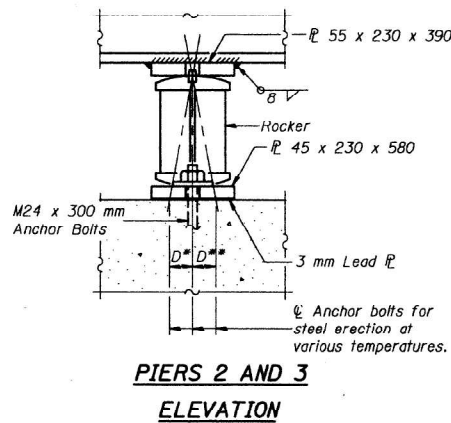
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
704	(2VBR)BY	McLEAN	77	46
FED. ROAD DIST. NO. 7 ILLINOIS FAP				



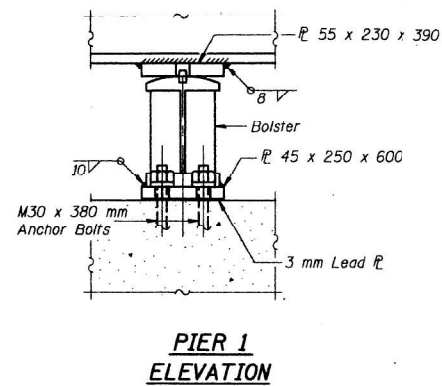
S. ABUTMENT
ELEVATION



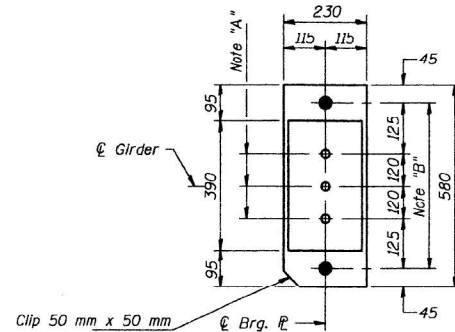
S. BRG. PIER 4
ELEVATION



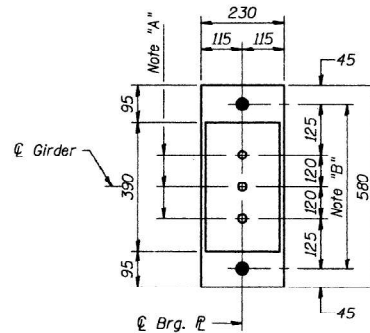
PIERS 2 AND 3
ELEVATION



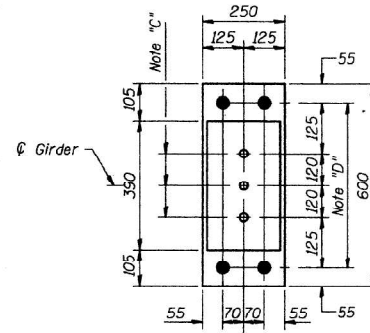
PIER 1
ELEVATION



PLAN
AT S. ABUTMENT
AND S. BRG. PIER 4



PLAN
AT PIERS 2 AND 3

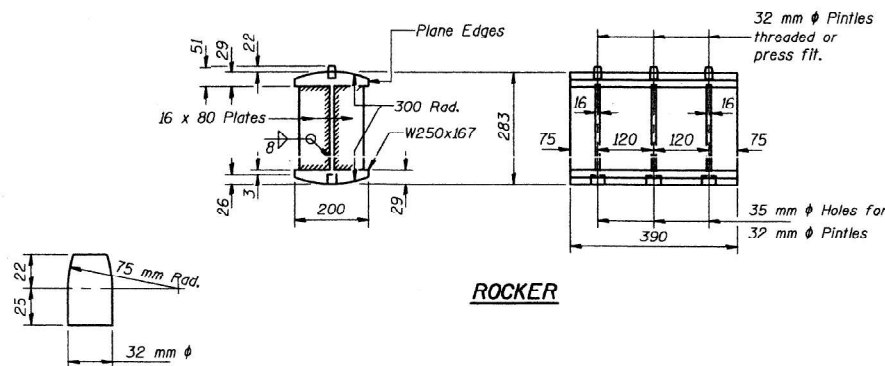


PLAN
AT PIER 1

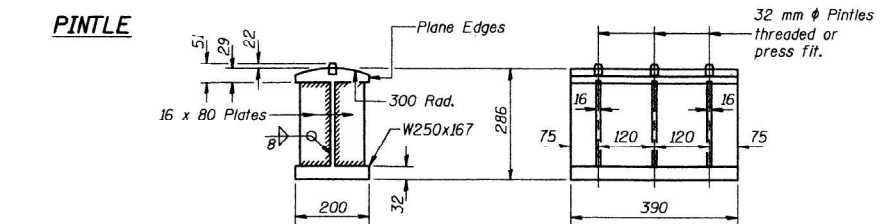
NOTES FOR SETTING OF ANCHOR BOLTS
AT EXPANSION BEARINGS

- a.) D* (Side of brg. away from fixed brg.)
D*=1 mm per each 10 m of expansion for every 8 °C fall below the normal temp. of 10 °C.
- D** (Side of brg. toward fixed brg.)
D**=1 mm per each 10 m of expansion for every 8 °C rise above the normal temp. of 10 °C.

- b.) After girders have been erected and dimensions D* & D** determined, holes shall be drilled and anchor bolts shall be installed as shown on Sheet 11 of 36. All fixed anchor bolts may be built into the masonry.



ROCKER



BOLSTER

Notes: All dimensions are in millimeters (mm) except as noted.
Bearing details shown are to be used at new beam locations only.

SHEET TITLE			
BEARING DETAILS SPANS 1-4			
PROJECT	F.A.P. RTE. 704 (VETERANS PARKWAY) OVER UNION PACIFIC R.R. & OLD BUS. U.S. 66	SCALE	9450
SECTION	(2VBR)BY McLEAN COUNTY	DATE	
STRUCTURE NUMBER	057-0069	CHECKED BY	CFC
DRAWING NO.		CHECKED BY	MCB/CME
COOMBE-BLOXDORF P.C.		15	
Engineers / Land Surveyors		OF 36 SHTS	
Springfield, Illinois			

I-2-B (M) 4-30-97

USER NAME	= Steven.Wood	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	= 12/3/2024	DATE	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

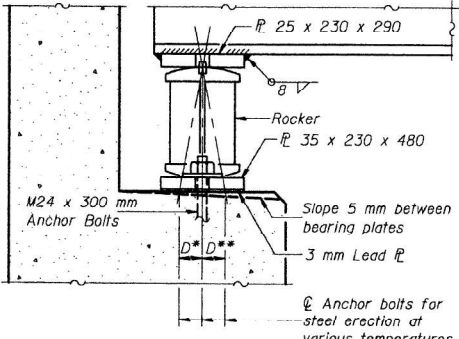
AS-BUILT PLANS
LOCATION #1 S.N. 057-0069

SCALE: SHEET 7 OF 15 SHEETS STA. TO STA.

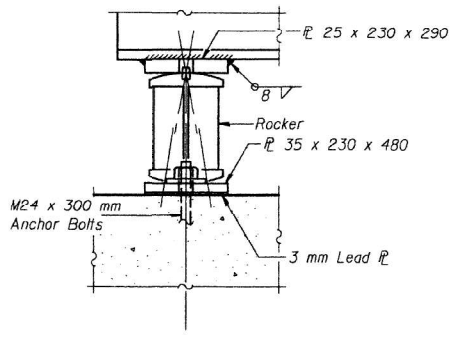
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	15
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

AS-BUILT PLANS FOR S.N. 057-0069
FOR INFORMATION ONLY

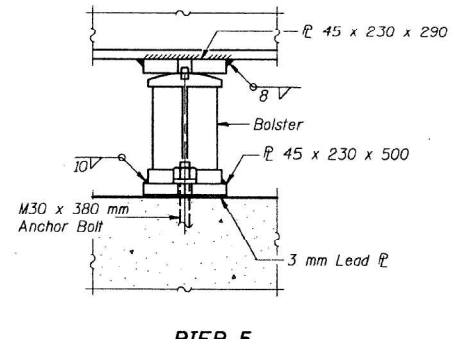
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
704	(2VBR)BY	McLEAN	776	469
FED. ROAD DIST. NO. 7 ILLINOIS FAP				



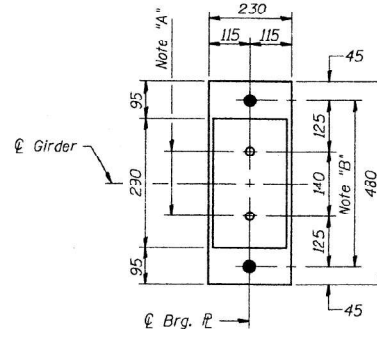
N. ABUTMENT
ELEVATION



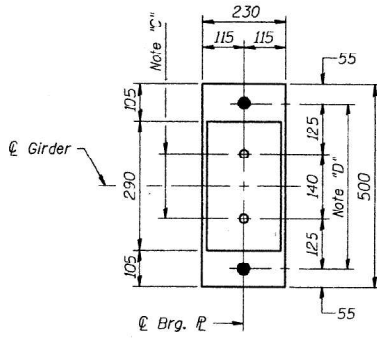
N. BRG. PIER 4
ELEVATION



PIER 5
ELEVATION



PLAN
AT N. ABUTMENT
AND N. BRG. PIER 4



PLAN
AT PIER 5

Note "A"
35 mm ϕ Holes-25 mm deep in
top $\bar{r}$ for 32 mm ϕ pintles.
Thread or press fit
pintles in bottom $\bar{r}$.

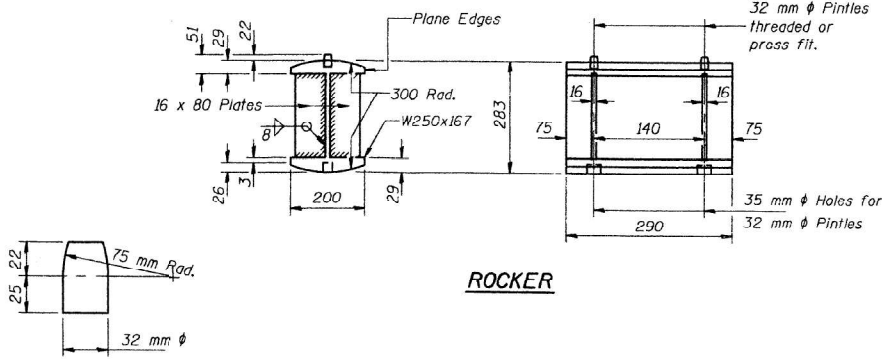
Note "B"
40 mm ϕ Holes for M24 Anchor
Bolts - 8 x 65 x 65 $\bar{r}$ washer
under nut.

Note "C"
35 mm ϕ Holes-25 mm deep in
top $\bar{r}$ for 32 mm ϕ pintles.

Note "D"
46 mm ϕ Holes for M30 Anchor
Bolts - 8 x 70 x 70 $\bar{r}$ washer
under nut.

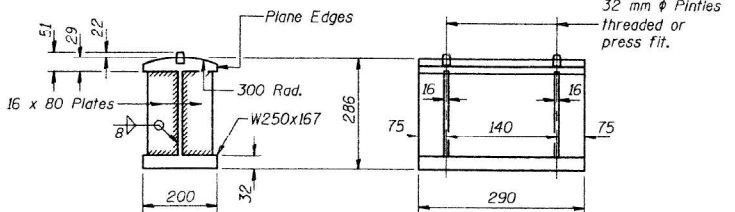
NOTES FOR SETTING OF ANCHOR BOLTS
AT EXPANSION BEARINGS

- a.) D* (Side of brg. away from fixed brg.)
D*=1 mm per each 10 m of expansion for
every 8 °C fall below the normal temp.
of 10 °C.
D** (Side of brg. toward fixed brg.)
D**=1 mm per each 10 m of expansion for
every 8 °C rise above the normal temp.
of 10 °C.
- b.) After girders have been erected and dimensions
D* & D** determined, holes shall be drilled and
anchor bolts shall be installed as shown on
Sheet 17 of 36. All fixed anchor bolts may be
built into the masonry.



ROCKER

PINLE



BOLSTER

Notes: All dimensions are in millimeters (mm)
except as noted.
Detailing details shown are to be used
at new beam locations only.

I-2-B (M) 4-30-97

SHEET TITLE	
BEARING DETAILS SPANS 5-6	
PROJECT	PROJECT NO.
F.A.P. RTE. 704 (VETERANS PARKWAY) OVER	9450
UNION PACIFIC R.R. & OLD BUS. U.S. 66	SCALE
SECTION (2VBR)BY STATION 15+225.857	DATE
McLEAN COUNTY	DRAWN BY
STRUCTURE NUMBER 057-0069	CFC
	CHECKED BY
	MCB/CME
DRAWING NO.	
COOMBE-BLOXDORF P.C.	
Engineers / Land Surveyors	
Springfield, Illinois	
16	
OF 36 SHTS	

USER NAME	= Steven.Wood	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	= 12/3/2024	DATE	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #1 S.N. 057-0069

SCALE: SHEET 8 OF 15 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	16
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

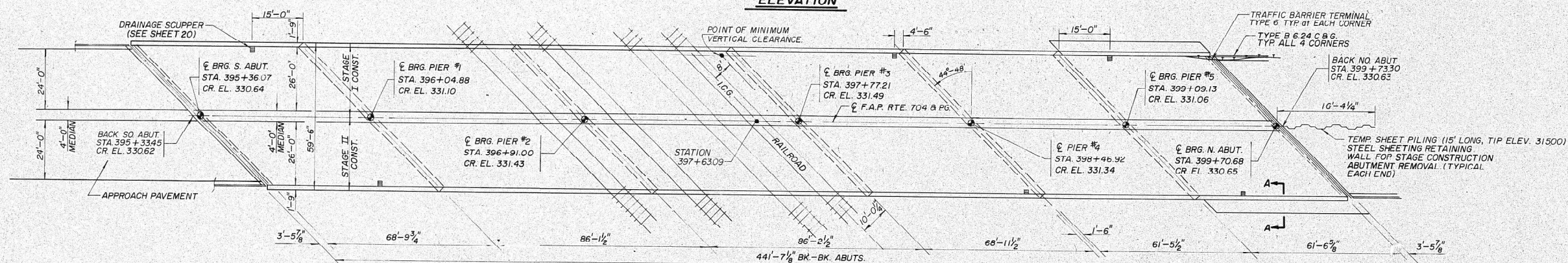
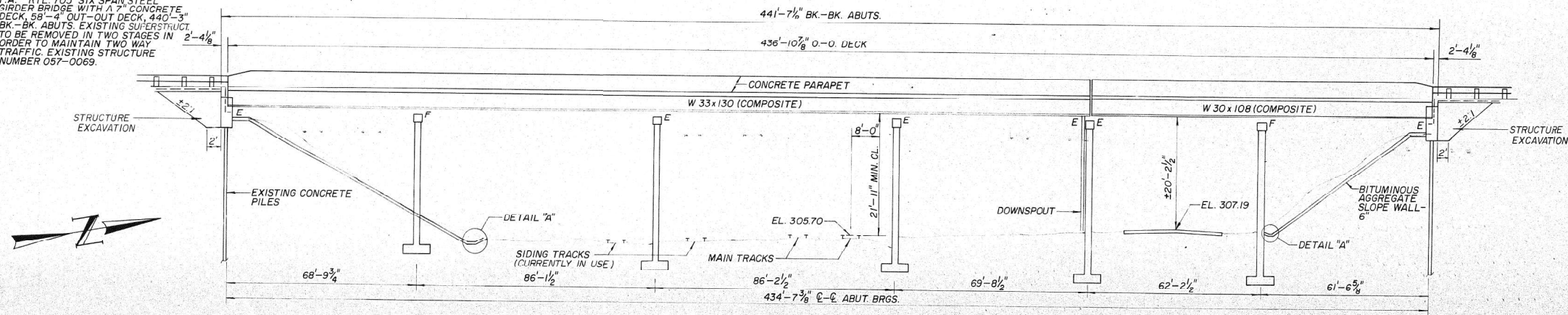
BENCHMARK: CHISELED SQUARE IN SIDEWALK
ON N.E. CORNER OF BRIDGE.
ELEV. 331.03.

EXISTING STRUCT.: BUILT IN 1939 AS SEC. 2VB,
F.A. RTE. 704 SIX SPAN STEEL
GIRDER BRIDGE WITH A 7" CONCRETE
DECK, 58'-4" OUT-OUT DECK, 440'-3"
BK-BK ABUTS. EXISTING SUPERSTRUCTURE
TO BE REMOVED IN TWO STAGES IN
ORDER TO MAINTAIN TWO WAY
TRAFFIC. EXISTING STRUCTURE
NUMBER 057-0069.

AS-BUILT PLANS FOR S.N. 057-0069 FOR INFORMATION ONLY

F.A.S. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
704	2VB	MCLEAN	32	13

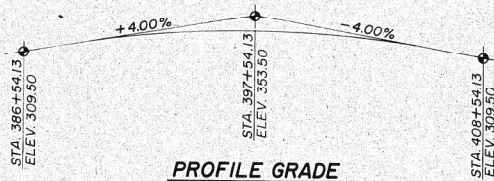
BRIDGE SHT. NO. 1 OF 20 SHTS.



STATION 397+53.38
BUILT 1995 BY
STATE OF ILLINOIS
F.A.P. RTE. 704 SECTION 2VBR
LOADING HS 20
STR. NO. 057-0069

PROJECT BHF-704(5)

LETTERING FOR NAMEPLATE
(SEE STD. 2113)



CURVE DATA

P.I. STA. 397+54.13
ELEV. 353.50
V.C. 2200'
X -22.00'
K 2.75

GENERAL NOTES

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 3/4" Ø, OPEN HOLES 7/8" Ø, UNLESS OTHERWISE NOTED.

CALCULATED WEIGHT OF STRUCTURAL STEEL = 538,160 LBS. #23, GRADE 50, 100% 70 LBS. #183.

THE ZINC-SILICATE AND VINYL PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL EXCEPT WHERE OTHERWISE NOTED.

ALL STRUCTURAL STEEL SHALL BE AASHTO #23, GRADE 50 EXCEPT BEARINGS, BEARING PLATES, DIAPHRAGMS, AND CONNECTIONS WHICH SHALL BE AASHTO #183.

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.

ANCHOR BOLTS SHALL BE SET BEFORE BOLLING DIAPHRAGMS OVER SUPPORTS.

THE MAIN LOAD CARRYING MEMBER COMPONENTS SUBJECT TO TENSILE STRESS SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS ZONE 2. THESE COMPONENTS ARE SPLICE PLATE MATERIAL AND THE WIDE FLANGE BEAMS.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31 OR M-53 GRADE 60.

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS. SPAN LENGTHS ARE ACTUAL FIELD MEASUREMENTS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD 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 FOR THE WORK.

EXPANSION BOLTS SHALL CONSIST OF APPROVED EXPANSION ANCHORS, PROVIDING MINIMUM CERTIFIED PROOF LOAD = 4,080 LBS., AND 3/4" Ø X 12" HOOKED BOLTS.

BEARING SEAT SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATIONS WITHIN A TOLERANCE OF 1/8" INCH. ADJUSTING 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 PLATES, SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS.

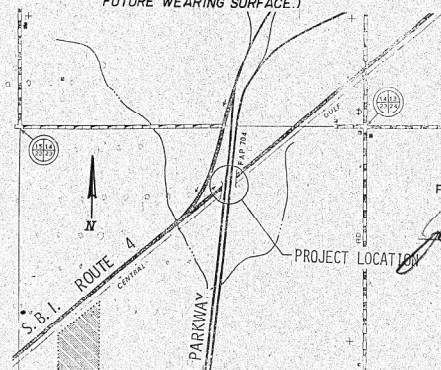
PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT DETAIL PLANS OF THE TEMPORARY PILING TO THE ENGINEER FOR APPROVAL.

DESIGN STRESSES

$f'_c = 3500$ PSI
 $f_y = 60,000$ PSI (REINFORCEMENT)
 $f_y = 50,000$ PSI (STRUCTURAL STEEL M 223, GRADE 50)
 $f_y = 36,000$ PSI (STRUCTURAL STEEL M 183)

DESIGN SPECIFICATIONS

1977 AASHTO, 1978, 1979, 1980, 1981, 1982, & 1983
INTERIMS, (ALLOW 25 LBS./SQ. FT. FOR
FUTURE WEARING SURFACE.)



LOADING HS 20-44

BILL OF MATERIAL-BRIDGE

ITEM	UNIT	SUPER	SUB	TOTAL
REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1
CONCRETE REMOVAL	CU. YD.		115.8	115.8
EXPANSION BOLTS 3/4" Ø	EACH		320	320
PROTECTIVE COAT	SQ. YD.	3170		3170
CLASS X CONCRETE	CU. YD.	7272	133.8	8610
STRUCTURAL STEEL	LUMP SUM	1		1
STUD SHEAR CONNECTORS	EACH	9920		9920
REINFORCEMENT BARS	LBS.		18,230	18,230
REINFORCEMENT BARS (EPOXY COATED)	LBS.	171,910		171,910
NAME PLATES	EACH			1
TEMPORARY CONCRETE BARRIER	LIN. FT.	442		442
DRAINAGE SCUPPERS (SPECIAL)	EACH	6		6
NEOPRENE EXPANSION JOINT 2"	LIN. FT.	164		164
NEOPRENE EXPANSION JOINT 4"	LIN. FT.	86		86
BITUMINOUS COATED AGGREGATE SLOPEWALL 6"	SQ. YD.			726
EPOXY CRACK SEALING	LIN. FT.		255	255
TEMPORARY SHEET PILING	SQ. FT.		491	491
STRUCTURE EXCAVATION	CU. YD.		284	284
TEMPORARY SUPPORT SYSTEM	EACH		5	5
THREADED BARS AND INSERTS 3/4" Ø	EACH	874		874
RELOCATE TEMPORARY CONCRETE BARRIER	LIN. FT.	442		442

APPROVED
FOR STRUCTURAL RESURFACING ONLY

James J. Hubert
Engineer of Bridges and Structures

GENERAL PLAN AND ELEVATION
F.A.P. RTE. 704
SECTION 2VBR
MCLEAN COUNTY
STATION 397+53.38

MODEL: AsBuilt Loc1 9 Sheet
FILE NAME: c:\p\work\p\wood\stevens.wood\illinois\gov\1022604\057047-sh-As_Built_Loc1.dgn

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #1 S.N. 057-0069

SCALE: SHEET 9 OF 15 SHEETS STA. TO STA.

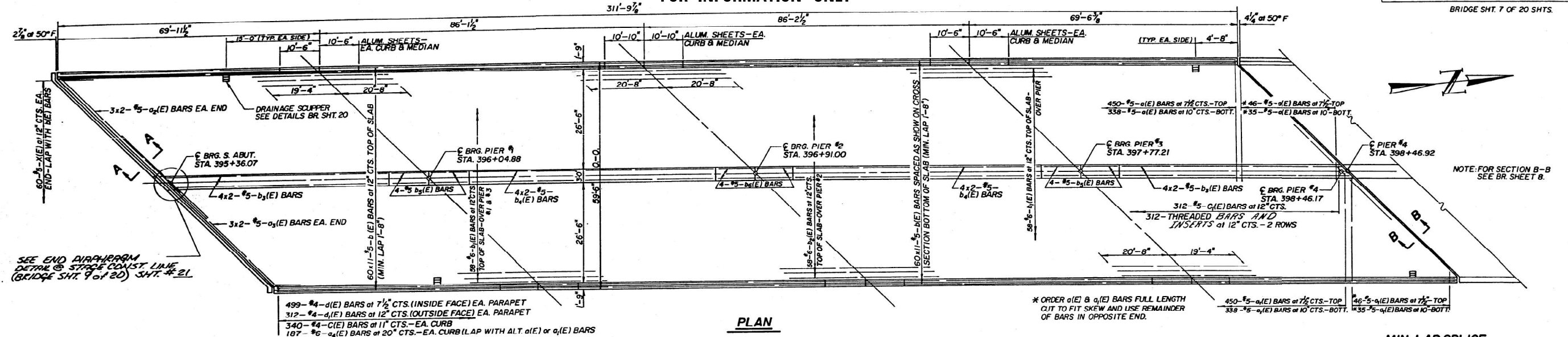
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	17
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

AS-BUILT PLANS FOR S.N. 057-0069
FOR INFORMATION ONLY

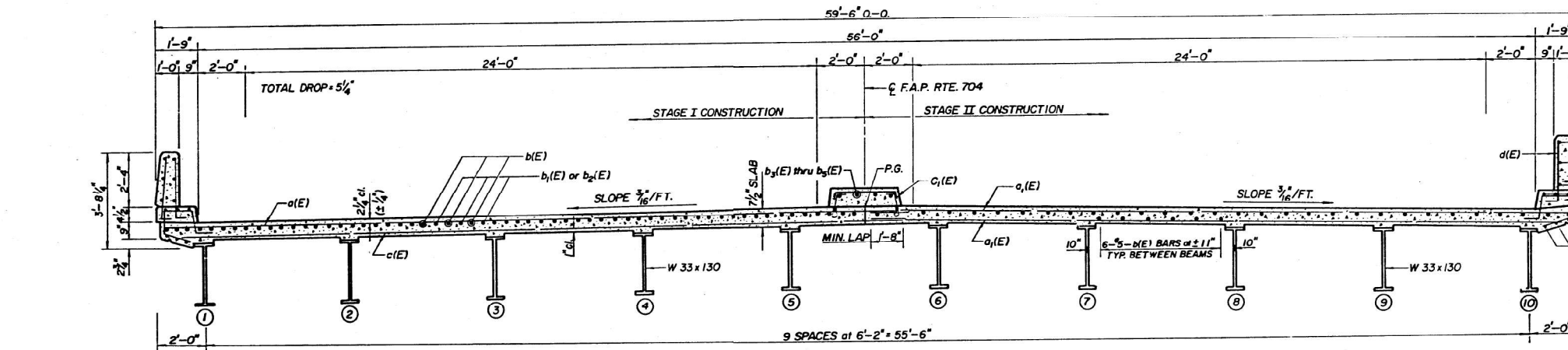
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
704	2VBR	MCLEAN	32	19

ILLINOIS PROJECT

BRIDGE SHT. 7 OF 20 SHTS.



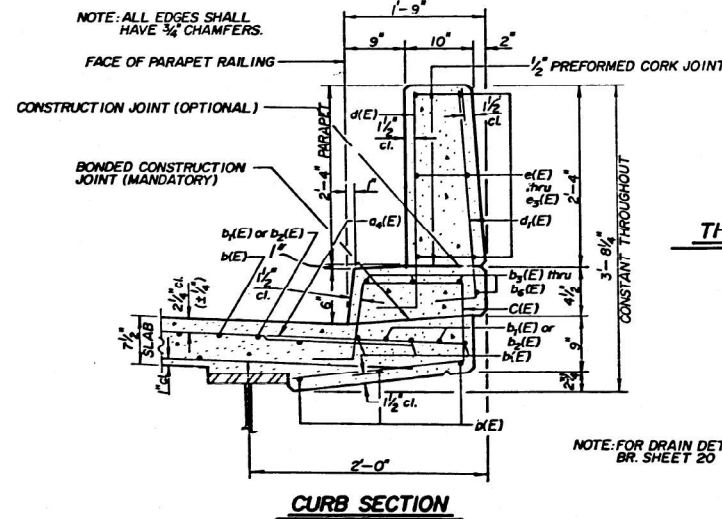
PLAN



NEAR PIER

CROSS SECTION
(LOOKING NORTH)

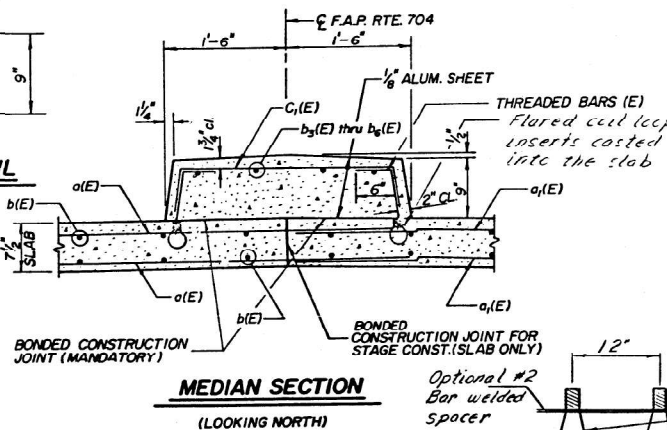
NEAR ABUTMENT



CURB SECTION

THREADED BAR DETAIL

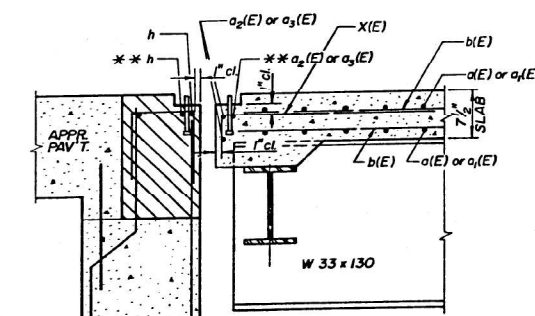
THREADED BARS AND
INSERTS SHALL BE
EPOXY COATED.



MEDIAN SECTION
(LOOKING NORTH)

FLARED COIL LOOP INSERTS

NOTE: FOR NEOPRENE JOINT
DETAILS SEE BR. SHEET 9.



SECTION A-A

** PLACE a(E) and h BARS
IN BACK OF ANCHOR BOLT AS
SHOWN IF REQUIRED TO MAIN-
TAIN 1" CL. (+0-1/2") ANCHOR
BOLTS SHOULD BE TIED TO
a2(E) or a3(E) and h BARS.

MIN. LAP SPLICE

a(E) = 1'-4"
b(E) = 1'-8"
c(E) = 2'-0"

BAR d(E), d(E), X(E)

BILL OF MATERIAL-SUPERSTRUCTURE
SPANS 1 THRU 4

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	869	#5	31'-9"	
a2(E)	869	#5	29'-3"	
a3(E)	12	#5	23'-3"	
a4(E)	12	#5	21'-6"	
a5(E)	374	#6	4'-0"	
b(E)	1320	#5	29'-10"	
b2(E)	116	#6	40'-0"	
b3(E)	58	#6	41'-4"	
b4(E)	48	#5	31'-6"	
b5(E)	48	#5	33'-0"	
b6(E)	48	#5	10'-3"	
b7(E)	24	#5	10'-6"	
c(E)	680	#4	4'-7"	
c2(E)	312	#5	3'-7"	
d(E)	998	#4	3'-4"	
d2(E)	624	#4	2'-11"	
e(E)	96	#4	14'-6"	
e2(E)	96	#4	16'-0"	
e3(E)	48	#4	10'-3"	
e4(E)	24	#4	10'-6"	
x(E)	120	#5	4'-1"	
CLASS X CONCRETE		CU. YDS.	516.8	
REINFORCEMENT BARS (EPOXY COATED)		LBS.	123,390	
NEOPRENE EXPANSION JT. (2")		LIN. FT.	82	
NEOPRENE EXPANSION JT. (4")		LIN. FT.	86	
DRAINAGE SCUPPERS		EACH	2250	
PROTECTIVE COAT		SS YD.	624	
1" X 8" THREADED BARS & INSERTS		EACH	624	

BARS INDICATED THUS: 60x11-5 ETC. INDICATES 60 LINES
OF BARS WITH 11 LENGTHS PER LINE.

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY
COATED.

SUPERSTRUCTURE-SPANS 1-4
F.A.P. RTE. 704
SECTION 2VBR
MCLEAN COUNTY
STATION 397+53.38

USER NAME	Steven.Wood	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	12/3/2024	DATE	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

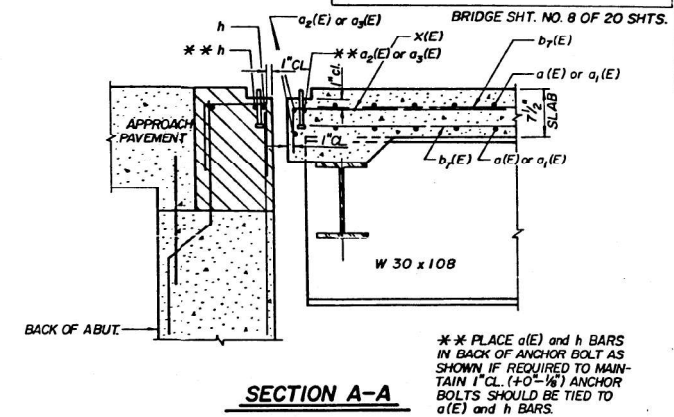
AS-BUILT PLANS
LOCATION #1 S.N. 057-0069

SCALE: SHEET 10 OF 15 SHEETS STA. TO STA.

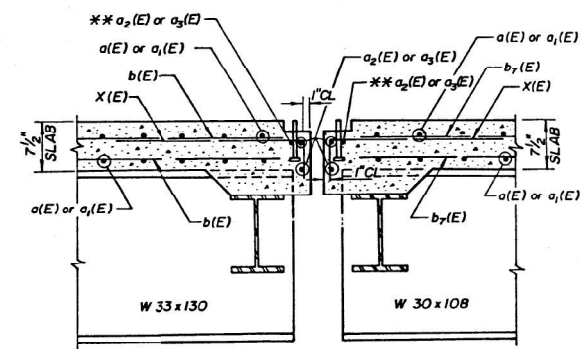
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	18

CONTRACT NO. 70H47
ILLINOIS FED. AID PROJECT

F A S ROUTE NO	SEC	COUNTY	TOTAL SHEETS	SHEET NO
704	2VBR	MCLEAN	32	20
ILLINOIS PROJECT				



NOTE: FOR NEOPRENE JOINT DETAILS SEE BR.SHEET 9

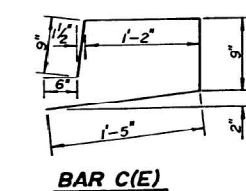


**BILL OF MATERIAL-SUPERSTRUCTURE
SPANS 5 & 6**

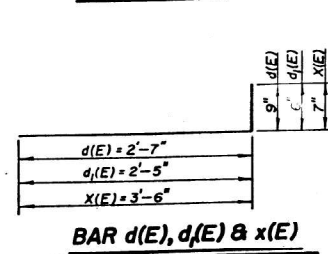
BARS INDICATED THUS: 60x5-5 ETC. INDICATES 60 LINES
OF BARS WITH 5 LENGTHS PER LINE.
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY
COATED.
FOR FLARED COIL LOOP INSERT DETAIL
SEE SHEET 7.



NEAR ABUTMENT



BAR C(E)

MIN. LAP SPLICE

BAR $d(E)$, $d_s(E)$ & $x(E)$

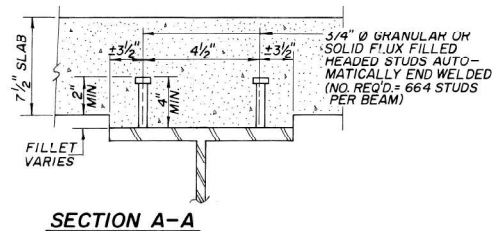
AS-BUILT PLANS
LOCATION #1 S.N. 057-0069

SCALE:	SHEET 11	OF 15 SHEETS	STA.	TO STA.
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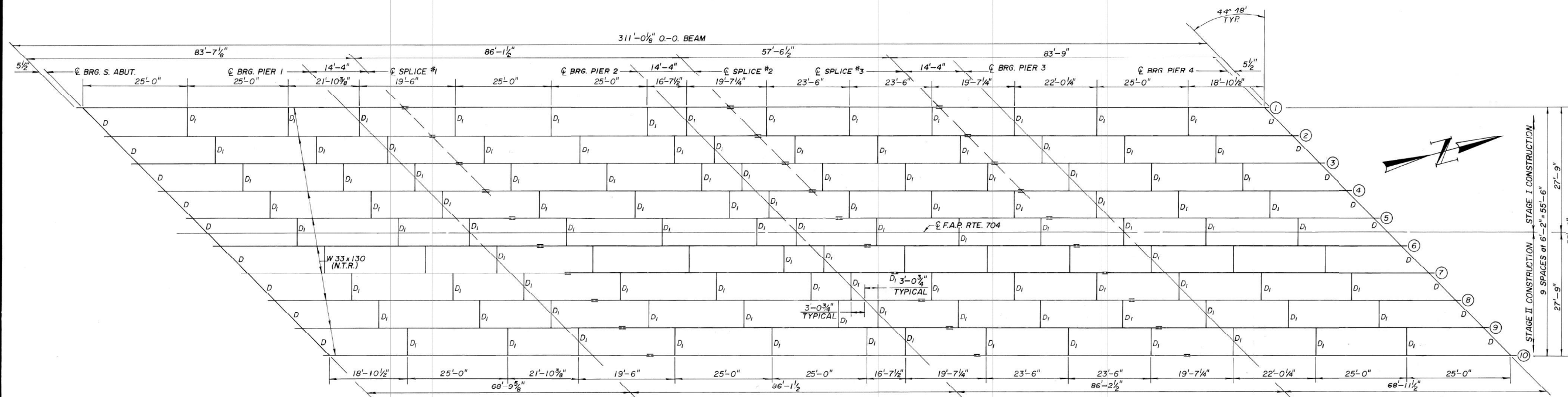
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	19
		CONTRACT NO. 70H47		
ILLINOIS		FED AID PROJECT		

F. A. S. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
704	2VBR	MCLEAN	32	22
ILLINOIS PROJECT				

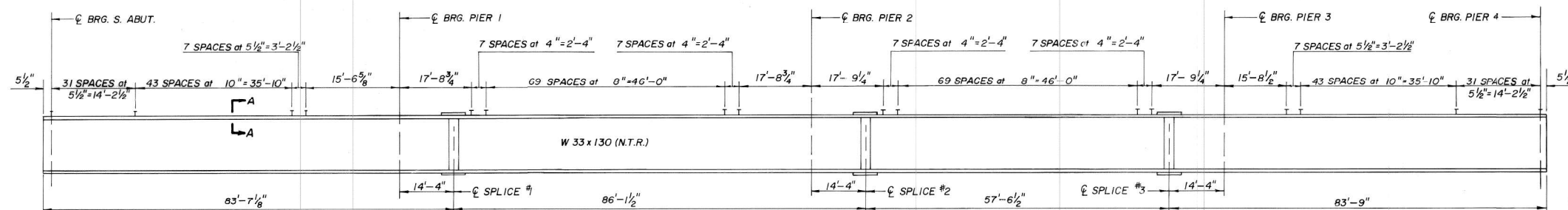
BRIDGE SHT. NO. 10 OF 20 SHTS.



DETAIL OF SPLICE
(ALL SPLICE PLATES=N.T.R.)



FRAMING PLAN
(N.T.R. INDICATES NOTCH TOUGHNESS REQUIREMENTS)

BEAM ELEVATION

STRUCTURAL STEEL-SPANS 1-4
F.A.P. RTE. 704
SECTION 2VBR
MCLEAN COUNTY
STATION 397+53.38

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #1 S.N. 057-0069

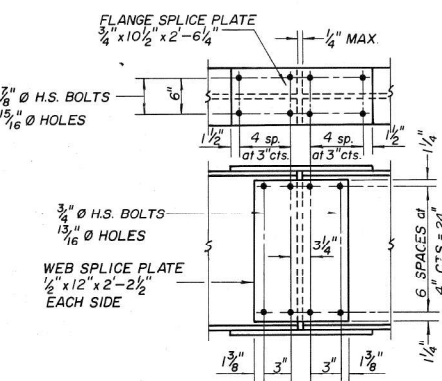
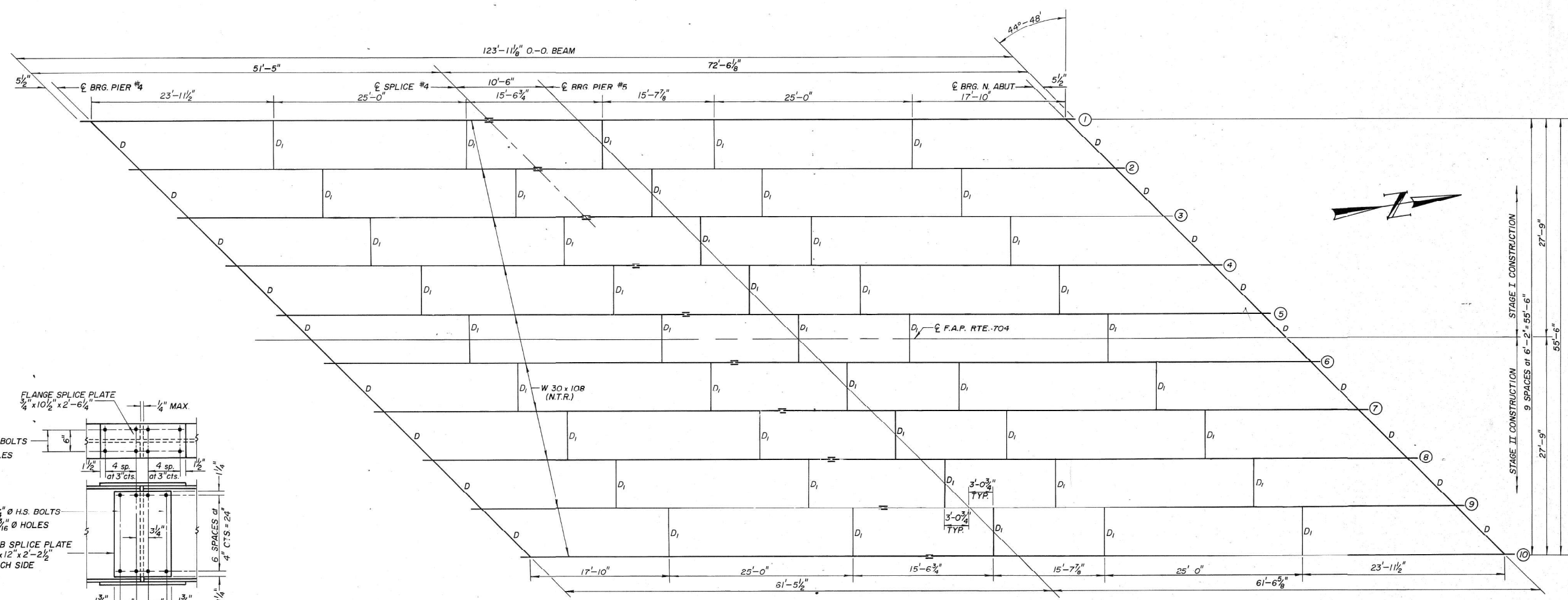
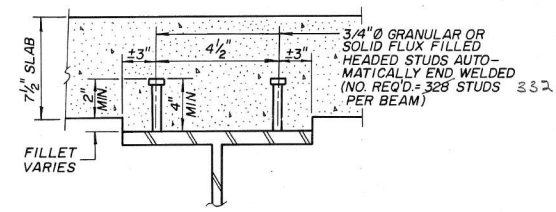
SCALE:	SHEET 12	OF 15	SHEETS	STA.	TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	20
		CONTRACT NO. 70H47		
ILLINOIS		FED. AID PROJECT		

MODEL: AsBuilt_Loc1_12 [Sheet]
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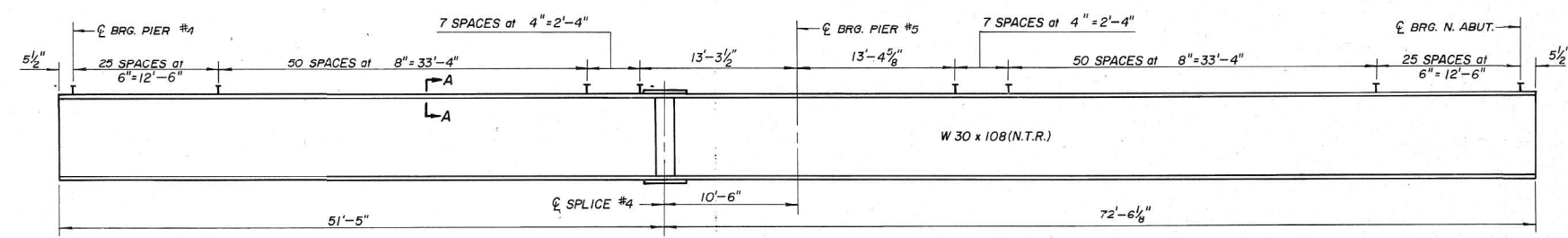
AS-BUILT PLANS FOR S.N. 057-0069
FOR INFORMATION ONLY

F.A.S. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
704	2VBR	MCLEAN	32	23
ILLINOIS PROJECT				
BRIDGE SHT. NO. 11 OF 20 SHTS.				



DETAIL OF SPLICE
(ALL SPLICE PLATES=N.T.R.)

FRAMING PLAN
(N.T.R. INDICATES NOTCH TOUGHNESS REQUIREMENTS)



BEAM ELEVATION

STRUCTURAL STEEL-SPANS 5 & 6
F.A.P. RTE. 704
SECTION 2VBR
MCLEAN COUNTY
STATION 397+53.38

MODEL: AsBuilt Loc1 13 (Sheet)
FILE NAME: c:\p\work\p\wood\stevenson\wood\illinois\p\0122504\0570069\sh-As_Built_Loc1.dgn

USER NAME	Steven.Wood	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	12/3/2024	DATE	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS LOCATION #1 S.N. 057-0069			
SCALE:	SHEET 13	OF 15 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	21
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

AS-BUILT PLANS FOR S.N. 057-0069
FOR INFORMATION ONLY

F.A.S. ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
704	2VBR	MCLEAN	32	24
ILLINOIS PROJECT				

BRIDGE SHT. NO. 12 OF 20 SHTS.

TOP OF FLANGE ELEVATIONS *

BEAM	1	2	3	4	5	6	7	8	9	10
LOCATION										
BRG. S. ABUT.	329.30	329.45	329.60	329.75	329.90	329.94	329.90	329.84	329.79	329.74
BRG. PIER #1	329.75	329.89	330.02	330.15	330.28	330.32	330.25	330.19	330.12	330.05
SPLICE #1	329.84	329.98	330.11	330.23	330.36	330.39	330.33	330.26	330.19	330.11
BRG. PIER #2	330.15	330.27	330.38	330.50	330.61	330.62	330.54	330.45	330.37	330.28
SPLICE #2	330.22	330.33	330.44	330.55	330.66	330.67	330.58	330.49	330.40	330.31
SPLICE #3	330.32	330.42	330.52	330.61	330.71	330.71	330.61	330.51	330.40	330.30
BRG. PIER #3	330.32	330.41	330.51	330.60	330.70	330.69	330.59	330.48	330.38	330.27
BRG. PIER #4	330.32	330.41	330.49	330.56	330.64	330.62	330.50	330.38	330.26	330.14
BRG. PIER #4	330.32	330.40	330.48	330.56	330.64	330.62	330.50	330.38	330.26	330.13
SPLICE #4	330.09	330.16	330.23	330.30	330.36	330.33	330.20	330.07	329.94	330.80 → 329.80
BRG. PIER #5	330.04	330.11	330.18	330.24	330.30	330.27	330.14	330.00	329.87	329.73
BRG. N. ABUT.	329.75	329.80	329.86	329.91	329.96	329.91	329.76	329.61	329.47	329.32

* PRIOR TO DEAD LOAD DEFLECTION, FOR FABRICATION ONLY

INTERIOR BEAM REACTION TABLE

		W 33 x 130			W 30 x 108	
		S. ABUT. & PIER 4	PIER 1 & 3	PIER 2	PIER 4 & N. ABUT.	PIER 5
R _D	(K)	26.5	86.9	88.3	23.5	74.7
R _{LL}	(K)	32.5	46.5	48.2	32.1	40.6
R _{IMP}	(K)	8.4	11.1	11.4	8.6	10.9
R _{TOTAL}	(K)	67.4	144.5	147.9	64.2	126.2

INTERIOR BEAM MOMENT TABLE

	W 33 x 130				W 30 x 108	
	0.4 SPAN 1 & 4	PIER 1 & 3	0.5 SPAN 2 & 3	PIER 2	0.4 SPAN 5 & 6	PIER 5
I _s (in ⁴)	6710	6710	6710	6710	4470	4470
I _c (in ⁴)	17966		17966		13063	
S _s (in ³)	406	406	406	406	299	299
S _c (in ³)	602		602		465	
ρ (k/ft)	0.734	1.016	0.734	1.016	0.708	0.990
M _D (ft-k)	256	576	253	604	201	428
S _D (k/ft)	0.282		0.282		0.282	
M _{S/D} (ft-k)	112		128		94	
M _{LL} (ft-k)	474	289	520	318	395	199
M _{IMP} (ft-k)	117	72	123	75	106	53
½(M _{LL} + M _{IMP}) (ft-k)	985	602	1071	655	834	420
M _a (ft-k)	1759	1531	1888	1637	1468	1102
M _u (ft-k)	3438		3438		2650	
f _s ρ (non-comp.) (ksi)	7.6	17.0	7.5	17.9	8.1	17.2
f _s ρ (comp.) (ksi)	2.5		2.8		2.7	
f _s ½(LL + I) (ksi)	19.6	17.8	21.4	19.4	21.5	16.9
f _s (overload) (ksi)	29.7	34.8	31.7	37.3	32.3	34.1
f _s (total) (ksi)	38.6	45.3	41.2	48.4	42.0	44.2
VR (k)	47		40.5		45.6	

M_u = Full Plastic Moment Capacity for Compact, Braced section.

Non-compact section

M_a = (Applied Moment) = 1.3 [M_D + M_{S/D} + S_s (M_E + I)]

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total and Overload).

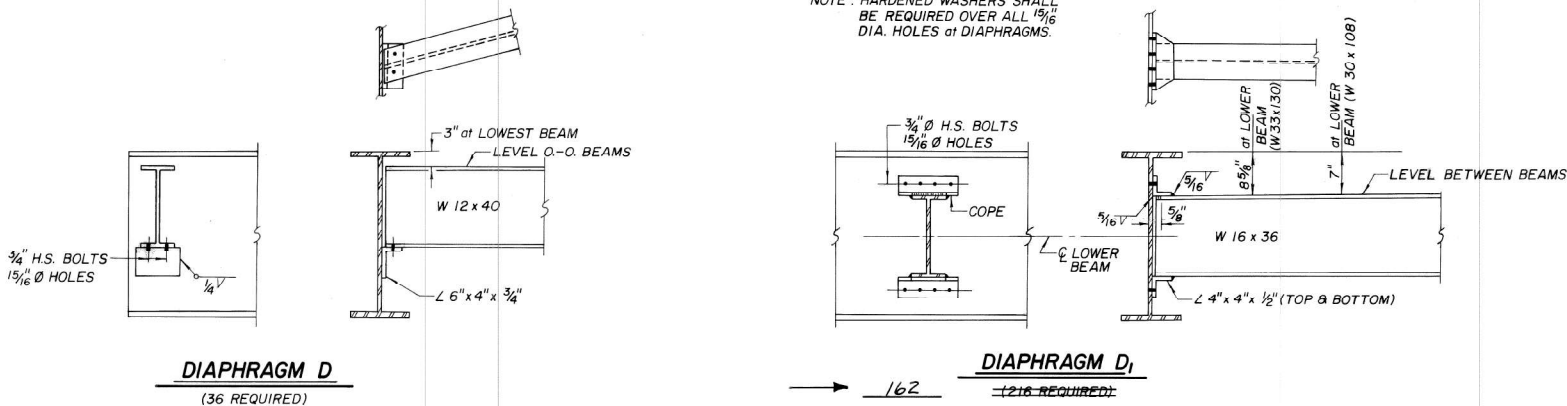
I_c and S_c are the moment of inertia and section modulus of the composite section used in computing f_s (Total and Overload).

VR is the maximum L + impact shear range in span.

The Fully Plastic Moment capacity (M_u) is computed according to AASHTO 1.7.59(A) & 1.7.62(A).

f_s (Total) is the sum of the stresses due to 1.3 [M_D + ⅓ (M_E + I)].

f (Overload) is the sum of the stresses due to M_D + ⅓ (M_E + I).



STRUCTURAL STEEL DETAILS
F.A.P. RTE. 704
SECTION 2VBR
MCLEAN COUNTY
STATION 397+53.38

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #1 S.N. 057-0069

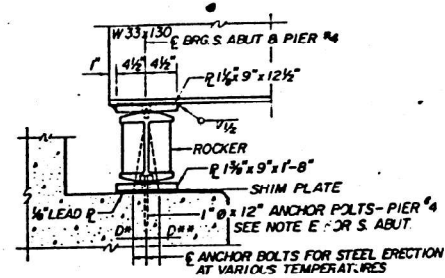
SCALE: SHEET 14 OF 15 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	22
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

AS-BUILT PLANS FOR S.N. 057-0069
FOR INFORMATION ONLY

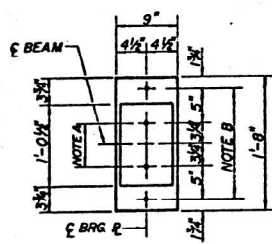
DATE	BY	CHKD	APP'D	TOTAL SHEETS	SHEET NO.
704	2VBR	MCLEAN	32	254	

BRIDGE SHT. NO. 13 OF 20 SHTS.



ELEVATION

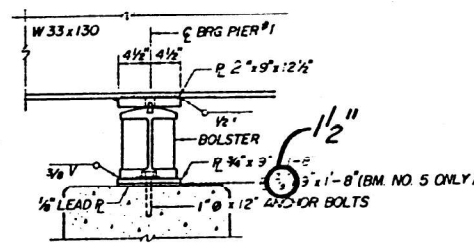
NOTE E: 1" x 24" ANCHOR BOLTS CUT BOLTS TO FIT SHIM PLATES AND MAINTAIN A MINIMUM OF 10" EMBEDMENT INTO CONCRETE.



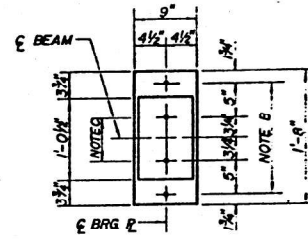
PLAN

AT S. ABUT. & PIER 4

NOTE: 1" x 9" x 1" SHIM PLATE FOR S. ABUT. AND 1" x 9" x 1" SHIM PLATE FOR BEAM NO. 6-PIER 4. SEE TABLE FOR "I" DIMENSION.

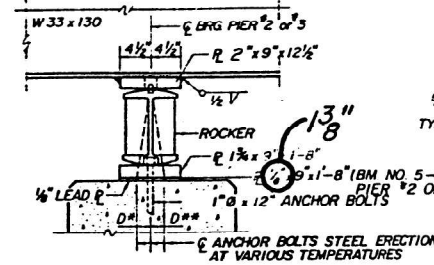


ELEVATION

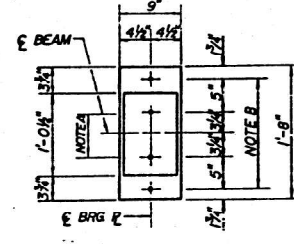


PLAN

AT PIER 1

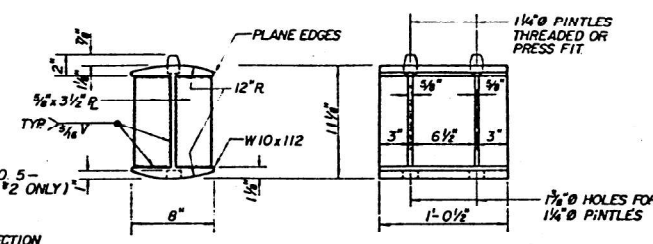


ELEVATION



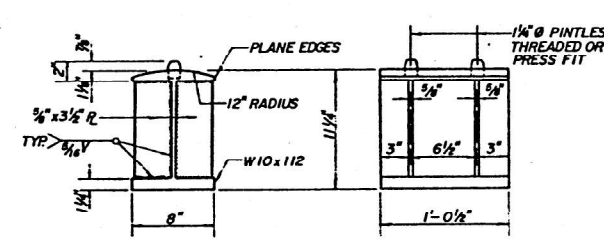
PLAN

AT PIER 2 & 3



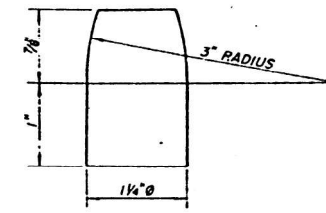
ROCKER

(S. ABUT. & PIERS 2,3,4)

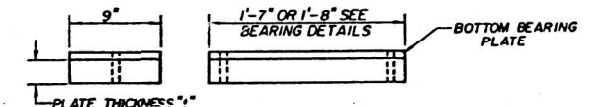


BOLSTER

(PIER #1)



PINTLE



SHIM PLATE DETAIL

NOTES

- 1 1/4" HOLES - 1" DEEP IN TOP PLATE FOR PINTLES. THREADED OR PRESS FIT PINTLES INTO BOTTOM PLATE.
 - 1 1/4" HOLES FOR 1" DIA. ANCHOR BOLTS 3/8" x 2 1/2" x 2 1/2" PLATE WASHERS UNDER NUT.
 - 1 1/4" HOLES - 1" DEEP IN TOP PLATE ONLY FOR 1 1/4" PINTLES.
 - D* (SIDE OF BEARING AWAY FROM FIXED BEARING)
D** 1/8" PER EACH 100' OF EXPANSION FOR EVERY 15° FALL BELOW THE NORMAL TEMPERATURE OF 50° F.
 - D** (SIDE OF BEARING TOWARD FIXED BEARING)
D** 1/8" PER EACH 100' OF EXPANSION FOR EVERY 15° RISE ABOVE THE NORMAL TEMPERATURE OF 50° F.
- AFTER BEAMS HAVE BEEN ERECTED AND DIMENSIONS D* OR D** ARE DETERMINED, HOLES SHALL BE DRILLED AND ANCHOR BOLTS SHALL BE INSTALLED AS SHOWN ON BRIDGE SHEETS NO. 14-18. FIXED ANCHOR BOLTS MAY BE BUILT INTO THE MASONRY. ALL STEEL FOR BEARINGS SHALL BE M183.

TABLES OF ABUTMENT SHIM PLATE THICKNESSES ("I")

SOUTH ABUTMENT										
BEAM NUMBER	1	2	3	4	5	6	7	8	9	10
TOP OF SHIM PLATE ELEVATION	325.41	325.56	325.71	325.86	326.00	326.05	326.00	325.95	325.90	325.85
PLATE THICKNESS ("I")	0"	1 1/4"	3"	4 3/8"	6 3/8"	6 3/4"	6"	5 1/4"	4 3/8"	3 1/2"

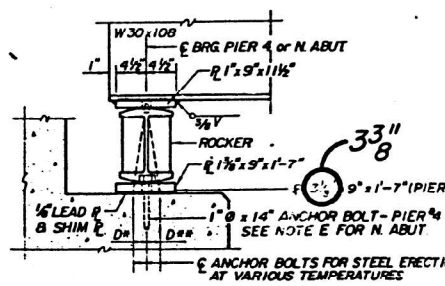
NORTH ABUTMENT										
BEAM NUMBER	1	2	3	4	5	6	7	8	9	10
TOP OF SHIM PLATE ELEVATION	326.14	326.19	326.25	326.30	326.35	326.30	326.15	326.00	325.86	325.71
PLATE THICKNESS ("I")	6 1/4"	7"	7 3/4"	8 1/2"	9 1/4"	8 3/4"	6 3/8"	5 1/8"	3 3/4"	1 3/8"

NOTE: THE CONTRACTOR SHALL VERIFY SHIM PLATE THICKNESSES ("I") BEFORE ORDERING THE SHIM PLATES, AS FOLLOWS: AFTER THE CONCRETE BEARING BLOCKS HAVE BEEN REMOVED FROM THE EXISTING ABUTMENTS AND THE AREA IS GROUND SMOOTH, THE ELEVATION OF THIS AREA SHALL BE DETERMINED. THIS ELEVATION SUBTRACTED FROM THE TOP OF SHIM PLATE ELEVATION MINUS 1/8" FOR THE LEAD PLATE WILL BE THE REQUIRED SHIM PLATE THICKNESS ("I"). IT WILL BE NECESSARY TO REMOVE APPROXIMATELY 1/2" OF CONCRETE CAP FOR BEAM NO. 1, AT THE SOUTH ABUTMENT.

Contractor may provide multi-plates to obtain ("I") Shim Plate thickness required (For multi-plates, min. shim plate thickness = 1/2")

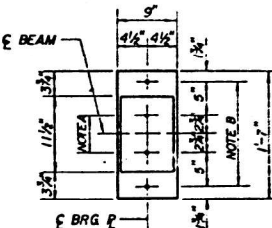
BEARING DETAILS
F.A.P. RTE. 704
SECTION 2 VBR
MCLEAN COUNTY
STATION 397+53.38

As Revised-
Rev. 5-30-85
J.J. Edwards



ELEVATION

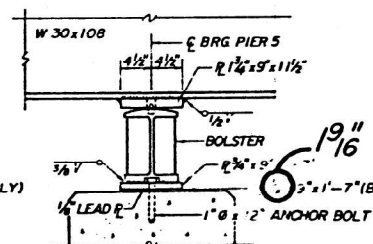
NOTE E: 1" x 24" ANCHOR BOLTS CUT BOLTS TO FIT SHIM PLATES AND MAINTAIN A MINIMUM OF 10" EMBEDMENT INTO CONCRETE.



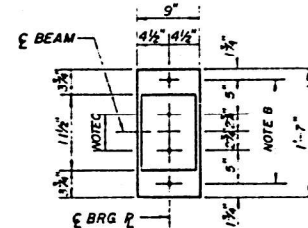
PLAN

AT PIER 4 & N. ABUT.

NOTE: 1" x 9" x 1" SHIM PLATE FOR N. ABUT. AND 1" x 9" x 1" SHIM PLATE FOR BEAM NO. 6-PIER 4. SEE TABLE FOR "I" DIMENSION.

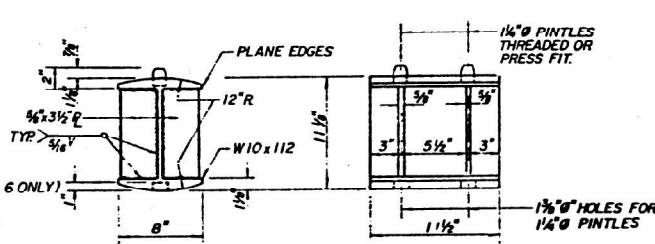


ELEVATION



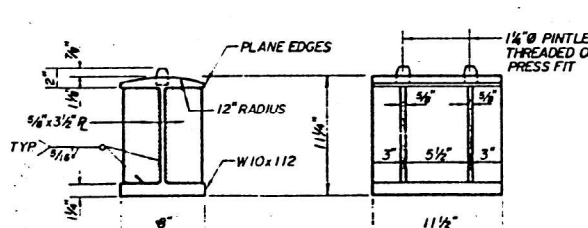
PLAN

AT PIER 5



ROCKER

(PIER #5 & N. ABUT.)



BOLSTER

(PIER #5)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #1 S.N. 057-0069

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	23
CONTRACT NO. 70H47				

SCALE: SHEET 15 OF 15 SHEETS STA. TO STA.

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

MODEL: AsBuilt Loc1 15 (Sheet)
FILE NAME: c:\p\work\p\stevens.wood\illinois\p\0122604\0570H47-shAs-Built Loc1.dgn

Bench Mark: Chiseled "Q" top of northeast wingwall of S.N. 021-0013, Elevation 680.86.

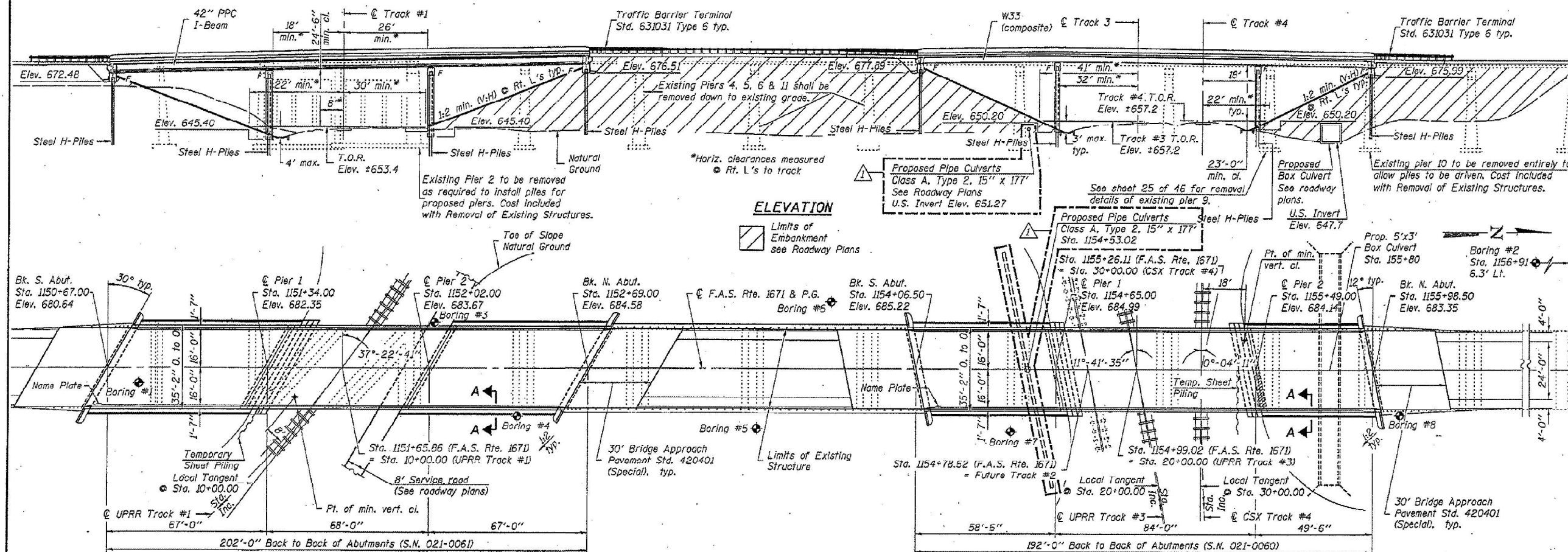
Existing Structure: S.N. 021-0013 built 1927 as S.B.I. Route 25, Section 22V at Station 1153+86.5.
Superstructure replaced in 1975 as F.A. Route 26, Section 22 VBR. Structure consists of 14 span pre-cast deck beams on multi-column piers and spill-thru counterfort abutts. 59'-11 3/4" back-to-back abutments, 33'-0" out-to-out deck. Structure to be removed and replaced. Road to be closed and traffic detoured during construction.

No salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS FOR S.N. 021-0060
FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	SHEETS	POST	SHEET NO. 1
F.A.S. 1671	+	DOUGLAS	181	85	45 SHEETS
Contract #70258					
+ 22VBR-1 and 144SBR-2					



Notes:
See sheet 2 of 46 for Section A-A.
Up to 4\"/>

DESIGNED	Curt M. Eng
CHECKED	John T. H
DRAWN	W.D.C. / M.B.M.
CHECKED	CME / JZT

August 4, 2006
EXAMINED
PASSED
DESIGNED BY CIVIL ENGINEER



EXPIRES 11-30-2006

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.
DESIGN SPECIFICATIONS
2002 AASHTO

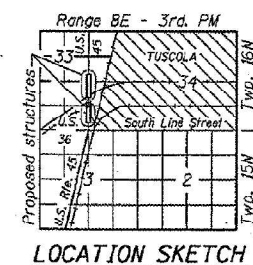
PLAN

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (AASHTO M270 Grade 50W)

PRECAST PRESTRESSED UNITS
 $f'_c = 6,000$ psi
 $f'_d = 5,000$ psi
 $f'_s = 270,000$ psi (1/2\"/>

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 4.9/2g
Site Coefficient (S) = 1.2



GENERAL PLAN & ELEVATION
U.S. ROUTE 45 OVER
UNION PACIFIC & CSX RAILROADS
F.A.S. ROUTE 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86 (SOUTH)
STATION 1154+99.02 (NORTH)
STRUCTURE NO. 021-0061 (SOUTH)
STRUCTURE NO. 021-0060 (NORTH)

Revised 9-5-06 C.M.E.

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

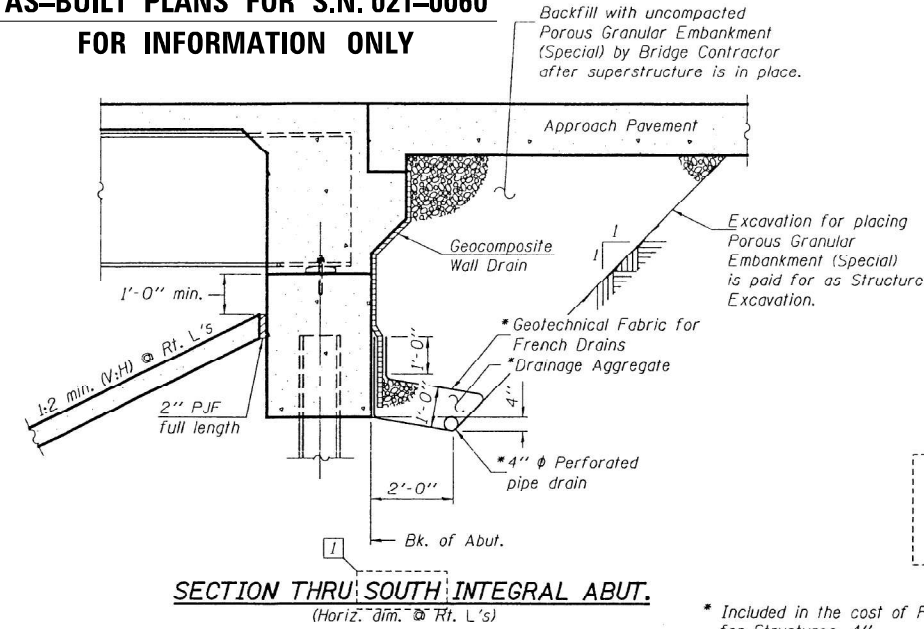
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #2 S.N. 021-0060

SCALE: SHEET 1 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	24
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

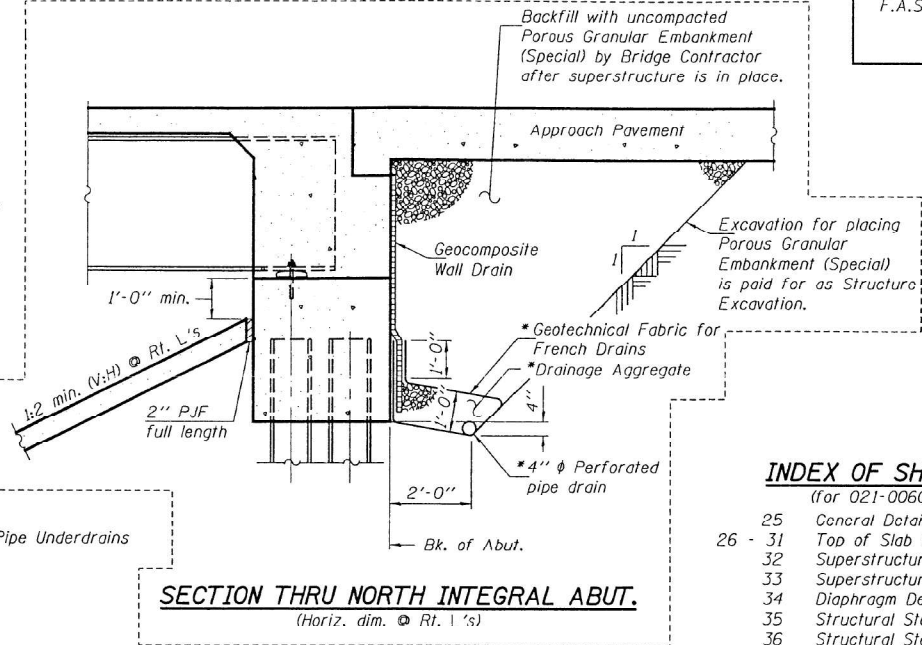
AS-BUILT PLANS FOR S.N. 021-0060
FOR INFORMATION ONLY



Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

* Included in the cost of Pipe Underdrains for Structures, 4".

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STATION 1154+99.02
BUILT 200 BY
STATE OF ILLINOIS
F.A.S. RT. 1671 SEC. 22VBR-1
LOADING HS20-44
STR. NO. 021-0060

NAME PLATE
See Std. 515001

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	+	DOUGLAS	181	109
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #70258
+ 22VBR-1 and 144SBR-2

GENERAL NOTES

Fasteners shall be high strength bolts (AASHTO M 164, Type 3). Bolts $\frac{7}{8}$ " ϕ , open holes $\frac{15}{16}$ " ϕ , unless otherwise noted. Calculated weight of Structural Steel = 159,190 Lbs. All structural steel shall be AASHTO M 270 Grade 50W. Field welding of construction accessories will not be permitted to beams. Anchor bolts shall be set before bolting diaphragms over supports. 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. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. The Contractor shall drive two (2) HP 12x53 test piles in a permanent location, one at each abutment, and two (2) HP 12x74 test piles in a permanent location, one at each pier, as directed by the Engineer before ordering the remainder of the piles. AASHTO M 270 Grade 50W structural steel shall only be painted, at the ends of the beams, for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with an inorganic zinc rich primer per AASHTO M 300, Type 1. No field painting shall be required. All structural steel shall be cleaned as specified in the special provision for "Surface Preparation and Painting Requirements for Weathering Steel".

INDEX OF SHEETS

(for 021-0060)

25	General Details
26 - 31	Top of Slab Elevations
32	Superstructure
33	Superstructure Details
34	Diaphragm Details
35	Structural Steel
36	Structural Steel Details
37	Bearing Details
38	Anchor Bolt Details
39	South Abutment
40	North Abutment
41	Pier 1
42	Pier 2
43	Bar Splicer Assembly Details

STRUCTURE NO. 021-0060

BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		112	112
Removal of Existing Structures No. 2	Each			0.5
Structure Excavation	Cu. Yd.		246	246
Driving Steel Piles	Foot		1535	1535
Concrete Structures	Cu. Yd.		236.2	236.2
Concrete Superstructure	Cu. Yd.	233.0		233.0
Bridge Deck Grooving	Sq. Yd.	640		640
Protective Coat	Sq. Yd.	843		843
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	3330		3330
Reinforcement Bars, Epoxy Coated	Pound	49600	16170	65770
Slopedwall 4"	Sq. Yd.		27	27
Bituminous Coated Aggregate	Sq. Yd.		489	489
Slopedwall 6"	Sq. Yd.		840	840
Furnishing Steel Piles HP 12x53	Foot		695	695
Furnishing Steel Piles HP 12x74	Foot		2	2
Test Pile Steel HP 12x53	Each		2	2
Test Pile Steel HP 12x74	Each		2	2
Temporary Sheet Piling	Sq. Ft.		330	330
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		61	61
Pipe Underdrains for Structures, 4"	Foot		132	132
Diamond Grinding (Bridge Section)	Sq. Yd.	821		821
Bar Splicers	Each	64		64

GENERAL DETAILS

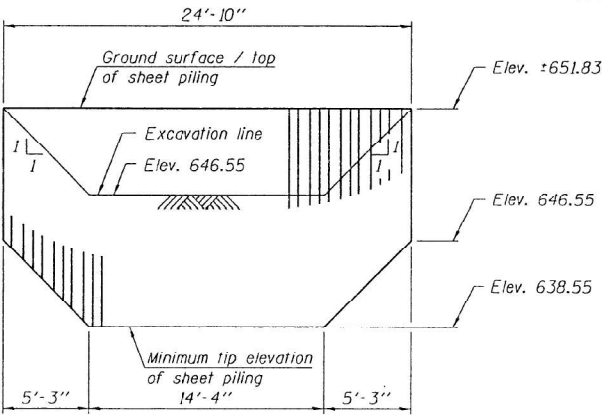
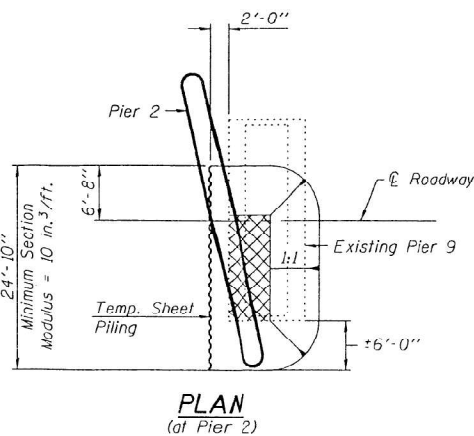
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1154+99.02
STRUCTURE NO. 021-0060

CONSTRUCTION SEQUENCE

1. Remove the superstructures on both sides of the existing Pier 9.
2. Drive temporary sheeting at the location shown and excavate to the limits shown on the plan and elevation view.
3. Remove the existing substructure per plans and Section 501 of the Standard Specifications.
4. Fill and compact excavation with embankment material per Section 205 of the Standard Specifications.
5. Remove temporary sheeting.

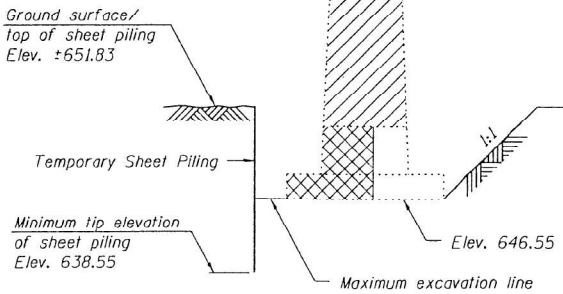
Hatched area indicates Removal of Existing Structures.

Cross-hatched area indicates concrete to be removed as required to install piles for proposed pier. Cost Included with Removal of Existing Structures.



Note:
If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

TEMPORARY SHEET PILING



DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.T.

August 4, 2006
EXAMINED <i>Thomas J. Domagala</i>
ENGINEER OF RECORD
PASSED <i>Ralph E. Anderson</i>
ENGINEER OF BRIDGES AND STRUCTURES

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #2 S.N. 021-0060

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

SCALE: SHEET 2 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	25
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

Revised 8/23/2007, PMP

* Order d(E) and a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

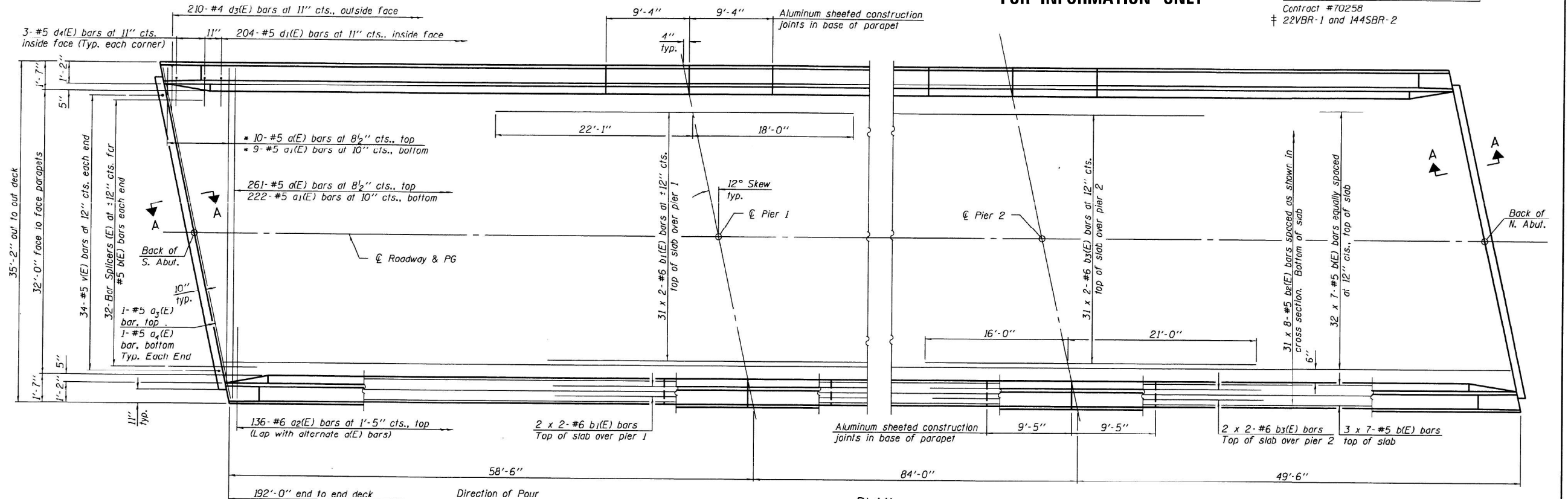
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS FOR S.N. 021-0060
FOR INFORMATION ONLY

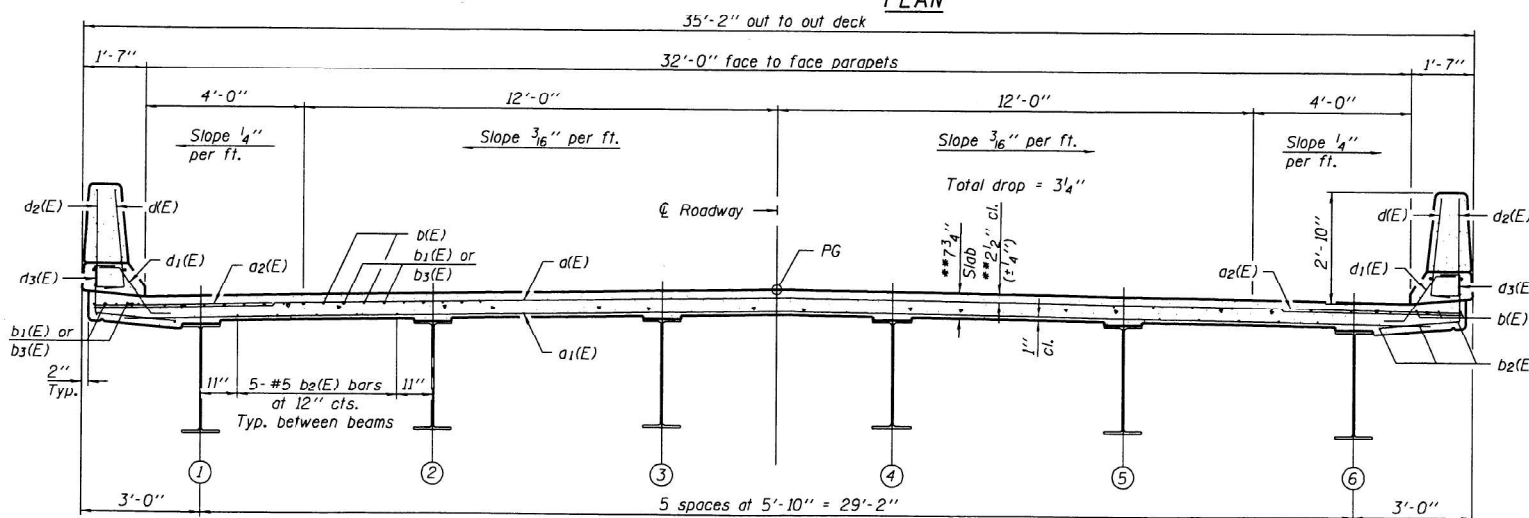
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.S. 1671	+	DOUGLAS	181	116
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #70258
+ 22VBR-1 and 144SBR-2

SHEET NO. 32
46 SHEETS



Notes:
See Sheet 33 of 46 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 32 x 7-#5 etc. indicates 32 lines of bars with 7 lengths per line.
See Sheet 33 of 46 for parapet reinforcement.
For Section A-A and diaphragm details, see sheet 34 of 46.
For bar splicer details, see sheet 43 of 46.
See sheet 33 of 46 for details of v(E) bars.
The Contractor shall be required to pour the deck starting at the South Abutment toward the North Abutment. See plan view for direction of pour.
Pouring the deck from North to South is not allowed.



MINIMUM BAR LAP
(Slab)
#5 bar = 2'-2"
#6 bar = 2'-7"

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Massman
CHECKED	C.M.E. / R.L.T.

August 4, 2006	EXAMINED	Thomas J. Damagala
	PASSED	Ralph E. Anderson

NEAR PIER

CROSS SECTION
(Looking North)

NEAR MIDSPAN

** Prior to grinding

SUPERSTRUCTURE
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1154+99.02
STRUCTURE NO. 021-0060

USER NAME	= Steven.Wood	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	= 12/3/2024	DATE	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #2 S.N. 021-0060

SCALE: SHEET 3 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	26
				CONTRACT NO. 70H47

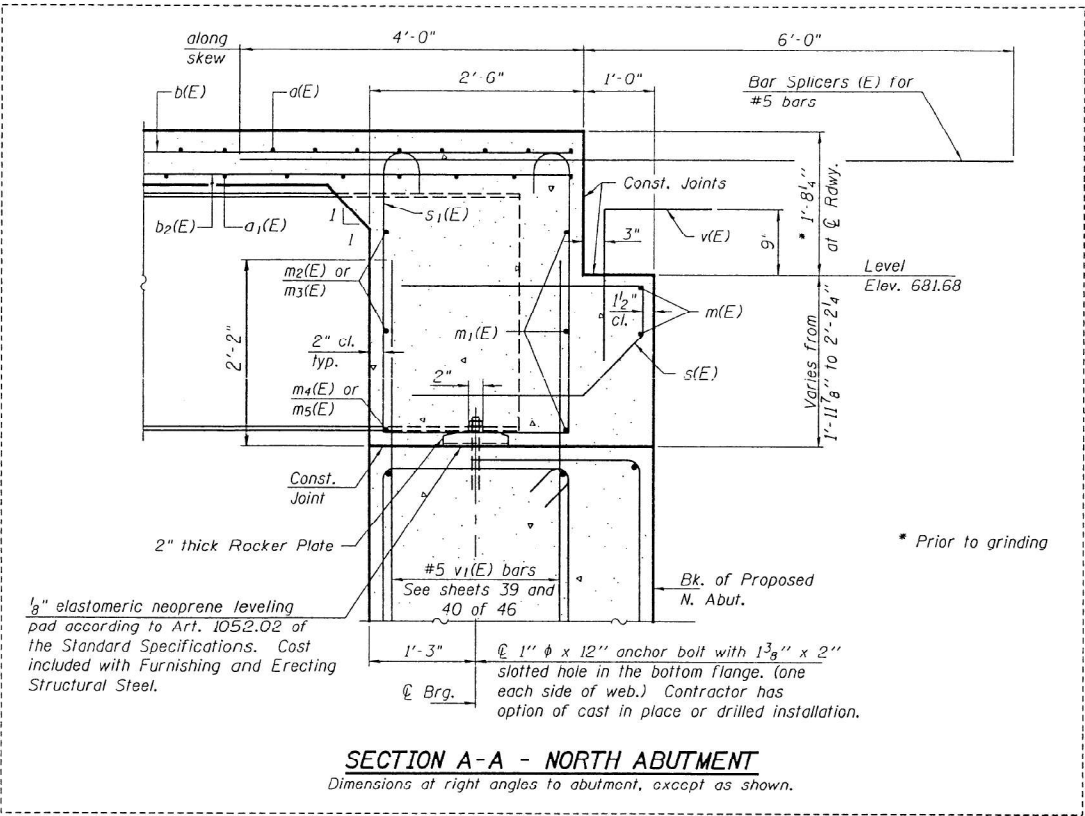
ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS FOR S.N. 021-0060
FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	†	DOUGLAS	181	118
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #70258
† 22VBR-1 and 144SBR-2

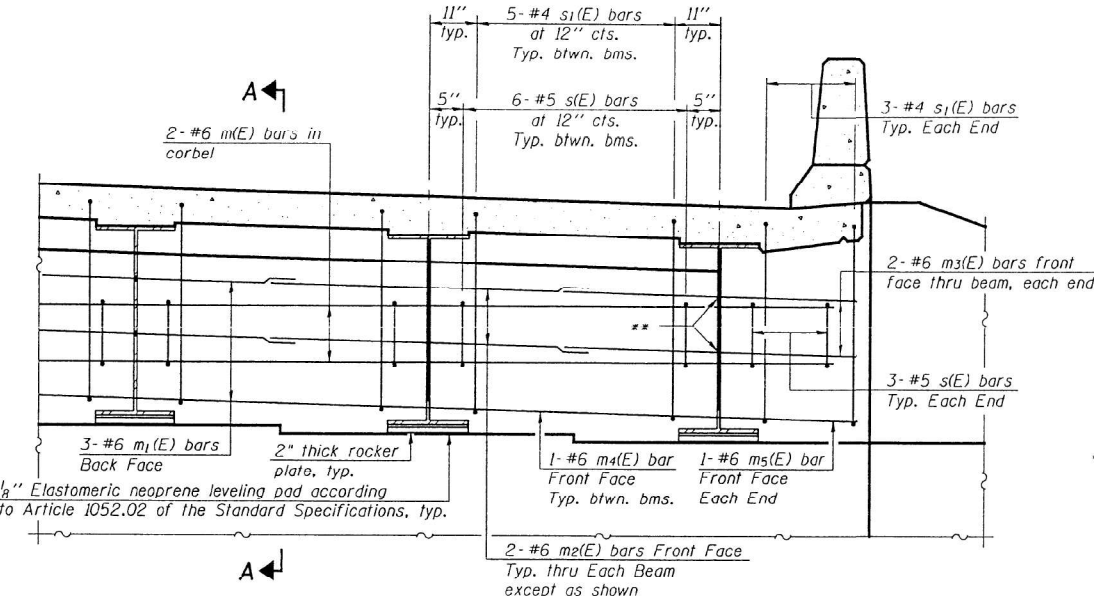


Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 33 of 46.
Concrete in diaphragm is included with Concrete Superstructure on sheet 33 of 46.
For details of bars s(E) & s1(E) see sheet 33 of 46.
The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
For anchor bolt details see sheet 38 of 46.
For bar splicer details, see sheet 43 of 46.
See sheet 36 of 46 for holes thru web for m2(E) or m3(E) bars.

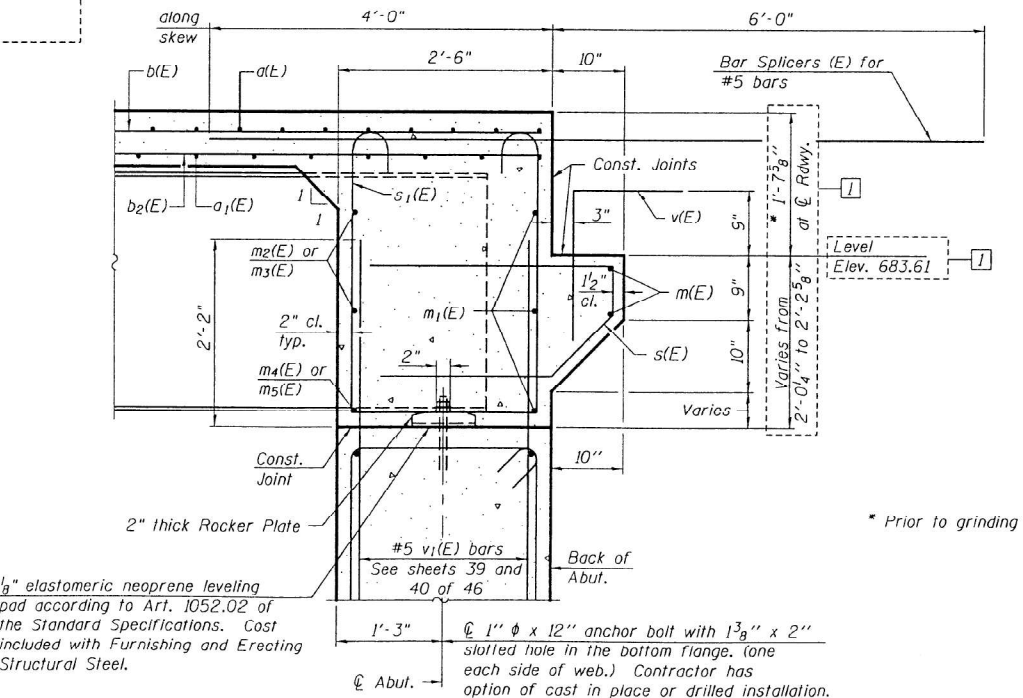
MIN. BAR LAP
#6 bar = 2' 9"

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.T.

August 4, 2006
EXAMINED *Thomas J. Domagala*
PASSED *Robert E. Anderson*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES



DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A - SOUTH ABUTMENT
Dimensions at right angles to abutment, except as shown.

DIAPHRAGM DETAILS
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1154+99.02
STRUCTURE NO. 021-0060

Revised 8/23/2007, PMP

USER NAME	= Steven.Wood	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	= 12/3/2024	DATE	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #2 S.N. 021-0060

SCALE: SHEET 4 OF 6 SHEETS STA. TO STA.

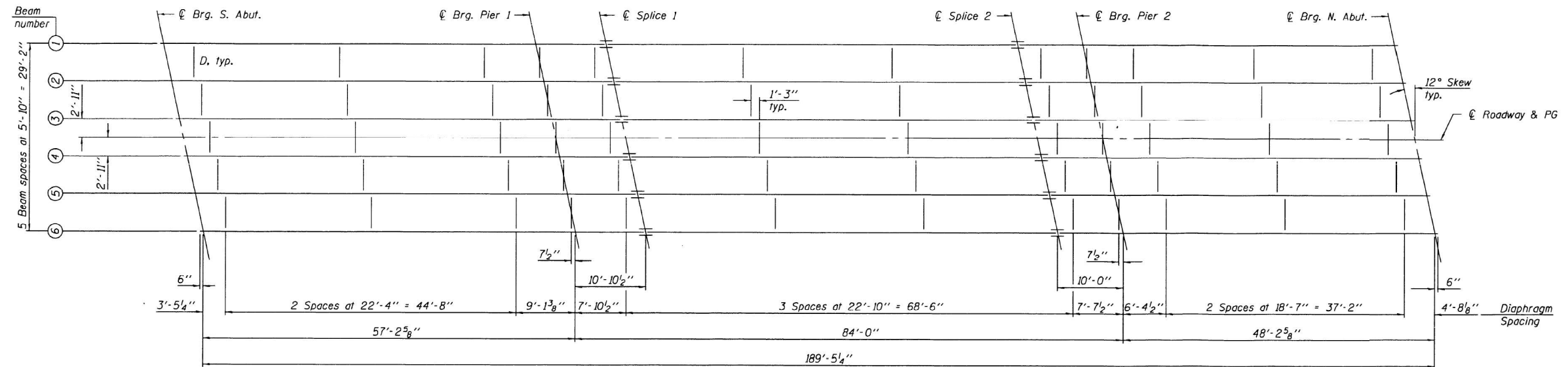
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	27
				CONTRACT NO. 70H47
		ILLINOIS	FED. AID PROJECT	

MODEL: AsBuilt Loc2.4 [Sheet]
FILE NAME: c:\p\work\pvidad\steven.wood\illinois\pvidad\1022604.D5\0147-sh4As_Built_Loc2.dgn

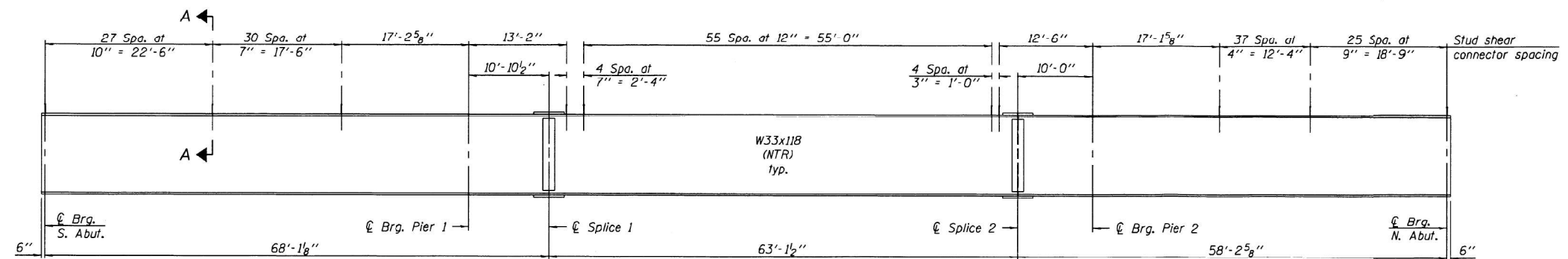
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	119
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #70258
22VBR-1 and 144SBR-2



PLAN

ELEVATION

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.T.

August 4, 2006

EXAMINED Thomas J. Domagala
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

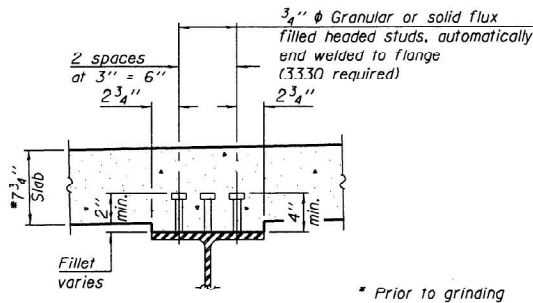
Notes:
NTR denotes members to which Notch Toughness Requirements are applicable.
For Section A-A, see sheet 36 of 46.

STRUCTURAL STEEL
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1154+99.02
STRUCTURE NO. 021-0060

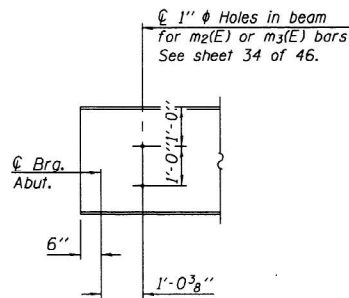
USER NAME = Steven.Wood	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	AS-BUILT PLANS LOCATION #2 S.N. 021-0060			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	DRAWN -	REVISED -					VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	28	
	CHECKED -	REVISED -		CONTRACT NO. 70H47								
PLOT DATE = 12/3/2024	DATE -	REVISED -		SCALE:	SHEET 5	OF 6 SHEETS	STA.	TO STA.				
				ILLINOIS FED. AID PROJECT								

MODEL: AsBuilt Loc2.6 (Steel)
FILE NAME: c:\p\work\bridges\steven.wood\illinois\gov\1022604\DS\047-sh4-As_Built_Loc2.dgn

INTERIOR BEAM MOMENT TABLE					
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
Is	(in ⁴) 5900	5900	5900	5900	5900
Ic (n)	(in ⁴) 15505	—	15505	—	15505
Ic (3n)	(in ⁴) 11349	—	11349	—	11349
Ss	(in ³) 359	359	359	359	359
Sc (n)	(in ³) 526	—	526	—	526
Sc (3n)	(in ³) 474	—	474	—	474
Z	(in ³) —	415	—	415	—
Q	(k/ft.) 0.713	1.155	0.713	1.155	0.713
M _R	(k) 125	572	259	520	58
s _R	(k/ft.) 0.442	—	0.442	—	0.442
Ms _R	(k) 100	—	214	—	56
M _L	(k) 342	238	470	226	267
M (Imp)	(k) 94	62	113	60	78
S ₅ (M _L + M(Imp))	(k) 727	500	972	477	575
Ma	(k) 1238	1394	1879	1296	896
Mu	(k) 2643	1729	2643	1729	2643
f _s R non-comp (k.s.i.)	4.2	19.1	8.7	17.4	1.9
f _s R (comp) (k.s.i.)	2.5	—	5.4	—	1.4
f _s S ₅ (L + Imp) (k.s.i.)	16.6	16.7	22.2	15.9	13.1
f _s (Overload) (k.s.i.)	23.3	35.8	36.2	33.3	16.4
VR	(k) 43.9	—	40.1	—	43.7



SECTION A-A



END OF BEAM
ELEVATION

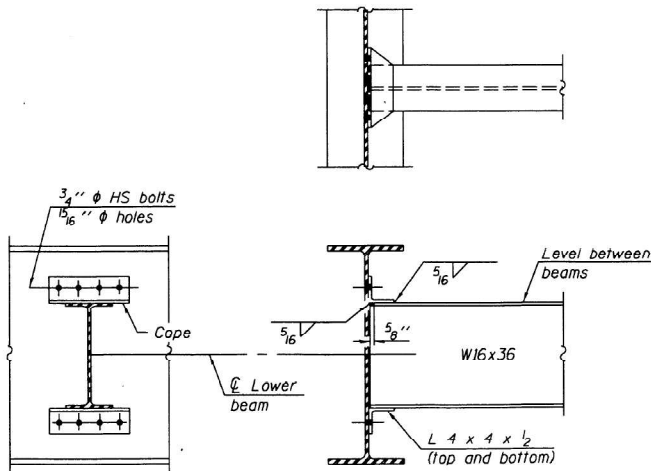
DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.T.

August 4, 2006
EXAMINED *Thomas J. Damagallo*
PASSED *Ralph E. Anderson*
PRINCIPAL ENGINEER
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERIOR BEAM REACTION TABLE					
	S. Abut.	Pier 1	Pier 2	N. Abut.	
R _R	(k) 23.0	92.1	86.5	17.1	
R _L	(k) 31.0	41.0	39.7	29.7	
Imp.	(k) 8.5	10.5	10.4	8.6	
R (Total)	(k) 62.5	143.6	136.6	55.4	

Is and Ss are the moment of inertia and section modulus of the steel section used in computing ts (Total & Overload).
Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (See AASHTO 10.38)
VR is the maximum Live Load + Impact shear range within the composite portion of the span.
Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.
Ma (Applied Moment) = 1.3(M_R + Ms_R + S₅(M_L + M(Imp))).
The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.
Ts (Overload) is the sum of the stresses due to M_R + Ms_R + S₅(M_L + M(Imp)).



DIAPHRAGM D
(60 Required)

AS-BUILT PLANS FOR S.N. 021-0060
FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	+	DOUGLAS	181	120
FED. ROAD DIST. NO. 7	ILL. 1008	FED. AID PROJECT		

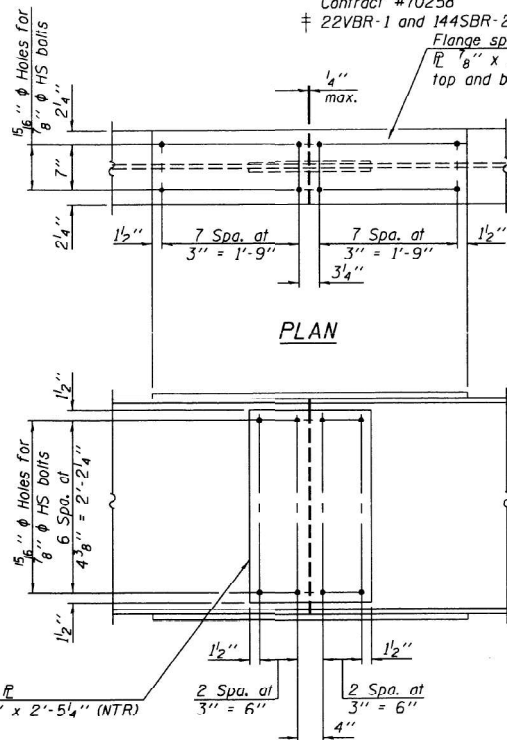
SHEET NO. 36
46 SHEETS

Contract #70258

22VBR-1 and 144SBR-2

Flange splice

8" x 11 1/2" x 4'-0 1/4" (NTR)
top and bottom



ELEVATION

SPLICE DETAIL
Typical for splice 1 and splice 2
(12 Required)

*TOP OF BEAM ELEVATIONS

Beam	1	2	3	4	5	6
Br. South Abutment	684.31	684.42	684.51	684.50	684.41	684.30
Br. Pier 1	684.02	684.11	684.20	684.19	684.09	683.97
Splice 1	683.96	684.05	684.14	684.13	684.03	683.91
Splice 2	683.33	683.42	683.50	683.48	683.37	683.25
Br. Pier 2	683.19	683.28	683.35	683.34	683.23	683.11
Br. North Abutment	682.51	682.60	682.67	682.64	682.53	682.40

* For fabrication only.

Notes:
Two hardened washers shall be required over all oversize holes for diaphragms.
NTR denotes members to which Notch Toughness Requirements are applicable.

STRUCTURAL STEEL DETAILS
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1154+99.02
STRUCTURE NO. 021-0060

USER NAME = Steven.Wood	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	AS-BUILT PLANS LOCATION #2 S.N. 021-0060				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISED -						VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	29
	CHECKED -	REVISED -		CONTRACT NO. 70H47								
PLOT DATE = 12/3/2024	DATE -	REVISED -		SCALE:		SHEET 6	OF 6 SHEETS	STA.	TO STA.			
								ILLINOIS		FED. AID PROJECT		

Bench Mark: Chiseled square on top of the southwest wingwall, 17.65' Rt. at Station 288+13. Elevation = 755.435

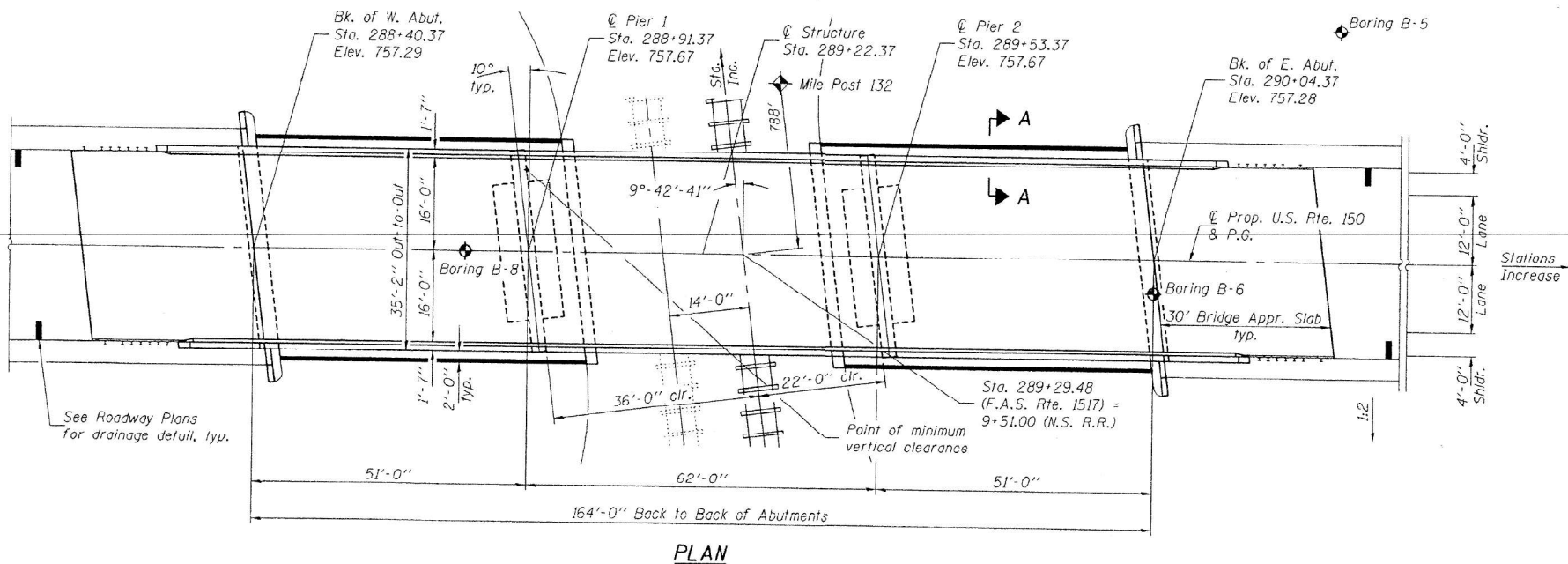
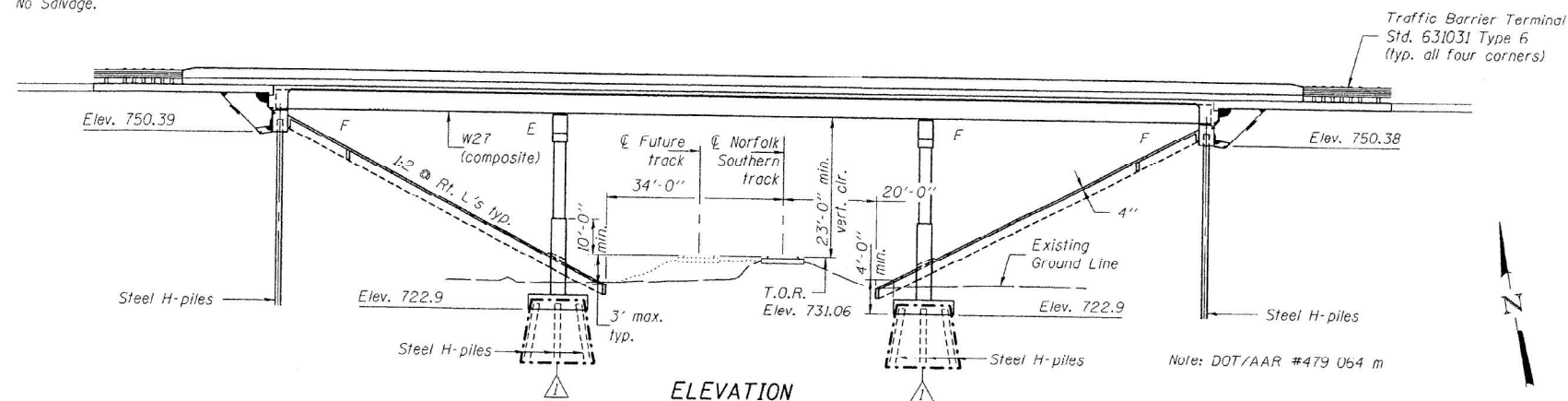
Existing Structure: S.N. 074-0009 built in 1928 as S.B.I. Route 39, Section 12V at Sta. 289+23.00. Superstructure replaced in 1975 as S.B.I. Route 39, Section 12VBR. Structure consists of five span PPC deck beams on spill-thru counter-fort abutments and multi-column piers. 218'-7" back-to-back abutments. 33'-0" out-to-out deck. SN 074-0086 to be built on new alignment approximately 49' south of existing bridge. Road closed and traffic detoured during construction.

No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
AS-BUILT PLANS FOR S.N. 074-0086
FOR INFORMATION ONLY

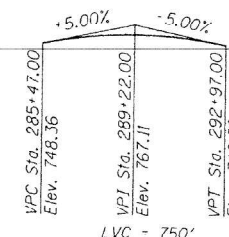
INDEX OF SHEETS

- 1 General Plan & Elevation
- 2 General Data
- 3 Reinforced Soil Slope Details
- 4-5 Top of Slab Elevations
- 6 Top of West Approach Pavement Elevation
- 7 Top of East Approach Pavement Elevation
- 8 Superstructure
- 9 Superstructure Details
- 10 Diaphragm Details
- 11-12 Bridge Approach Slab Details
- 13 Structural Steel
- 14 Structural Steel Details
- 15 Bearing Details
- 16 West Abutment
- 17 East Abutment
- 18 Pier 1
- 19 Pier 2
- 20 Cantilevered Forming Brackets for Superstructure with W27 Beams and Smaller
- 21 Bar Splicer Assembly Details
- 22 HP Pile Details
- 23-25 Soil Boring Logs

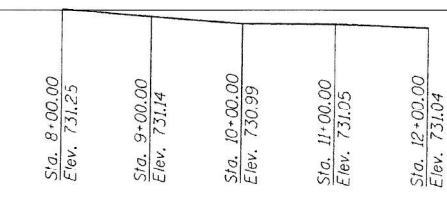


STATION 289+22.37
BUILT 20 BY
STATE OF ILLINOIS
F.A.S. RTE. 1517 SEC. 12VBR-1
LOADING HL-93
STRUCTURE NO. 074-0086

NAME PLATE
See Std. 515001



PROFILE GRADE
(along U.S. Route 150)



PROFILE GRADE
(Top of Rail - Norfolk Southern R.R.)

Notes: The profile grade shows the final elevations after grinding. Up to 4" will be ground off the bridge slab, approach pavement and connector pavement.

LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
2007 LRFD AASHTO 4th Edition

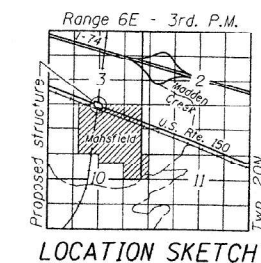
DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (AASHTO M270 Grade 50W)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec (S_{D1}) = 0.10g
Design Spectral Acceleration at 0.2 sec (S_{D5}) = 0.17g
Soil Site Class = C



LOCATION SKETCH

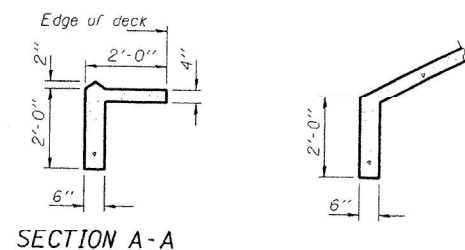
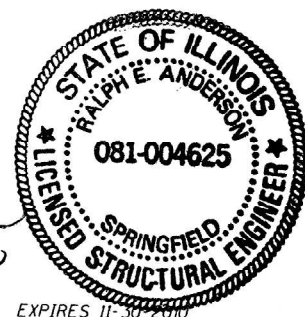
GENERAL PLAN & ELEVATION
U.S. ROUTE 150 OVER
NORFOLK SOUTHERN R.R.
F.A.S. RTE. 1517 - SEC. 12VBR-1
PIATT COUNTY
STATION 289+22.37
STRUCTURE NO. 074-0086

SHEET NO.	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	1517	12VBR-1	PIATT	168	86
CONTRACT NO. 70388					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

Revised 12/17/2009, DPN

DESIGNED: *Edward P. Daniel*
CHECKED: *Stephen M. Ryan*
DRAWN: *h.t. duong*
CHECKED: *DPN/SMR*

EXAMINED: *William J. Anderson*
PASSED: *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
CHECKER OF BRIDGE AND STRUCTURES



SECTION A-A

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #3 S.N. 074-0086

SCALE: SHEET 1 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	30
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

MODEL: AsBuilt Loc3 1 [Sheet]
FILE NAME: c:\p\work\p\wood\stevens\wood\illinois\p\wood\1022604\05\04\7-sh-A-As_Built_Loc3.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS FOR S.N. 074-0086
FOR INFORMATION ONLY

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 3, mechanically galvanized, unless otherwise noted.
Bolts 3/4" Ø, holes 15/16" Ø, unless otherwise noted.
Calculated weight of Structural Steel = 108170 lbs. (AASHTO M 270 Gr. 50W).
All structural steel shall be AASHTO M 270 Grade 50W.
No field welding is permitted except as specified in the contract documents.
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.
Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

Slipforming of parapets will not be allowed.
Sloped wall shall be reinforced with welded wire fabric, 6"x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

The Contractor shall drive two test piles, one each at West Abutment and Pier 2 to 110% of the nominal required bearing specified in respective locations before ordering the remainder of piles.

The Contractor shall submit Structural Assessment Report(s) as required for the Contractor's Means and Methods of Construction. See Special Provisions.

Current Ratings of File for Existing Structure

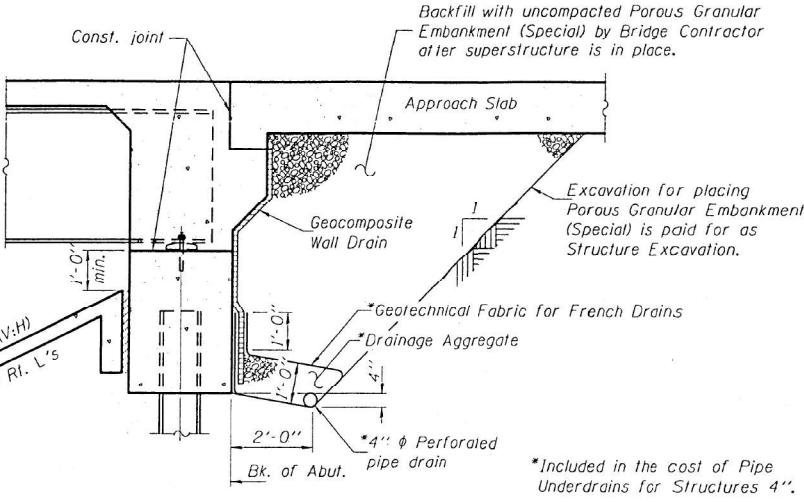
Inventory: HS 17.3

Operating: HS 28.9

Live Load Restrictions: No

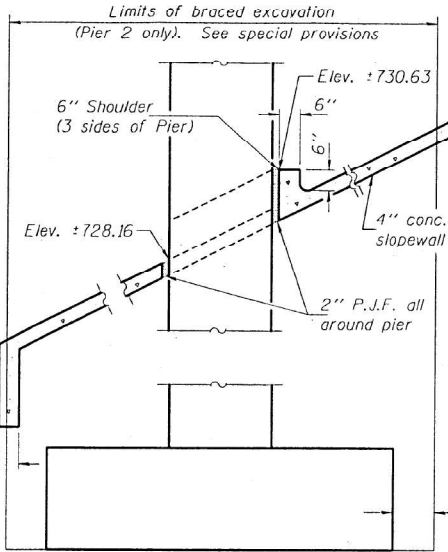
Inventory and Operating Ratings and Live Load Restrictions are provide for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.

The Contractor is advised that the existing structure contains members (including piers) that are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the existing structure when developing construction procedures for the complete or partial removal, or replacement of the structure. An Existing Structure Information Package is available upon request as noted in the special provisions.



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.	92.4		92.4
Removal of Existing Structures	Each	1		1
Structure Excavation	Cu. Yd.		250	250
Concrete Structures	Cu. Yd.		254.0	254.0
Concrete Superstructure	Cu. Yd.		319.4	319.4
Bridge Deck Grooving	Sq. Yd.	697		697
Concrete Encasement	Cu. Yd.		4.2	4.2
Protective Coat	Sq. Yd.	967		967
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	3654		3654
Reinforcement Bars, Epoxy Coated	Pound	76250	33700	109950
Bar Splicers	Each	64		64
Sloped wall 4"	Sq. Yd.		482	482
Furnishing Steel Piles HPI2x53	Foot		2348	2348
Driving Piles	Foot		2348	2348
Test Pile Steel HPI2x53	Each		2	2
Name Plates	Each	1		1
Elastomeric Bearing Assembly, Type I	Each		12	12
Anchor Bolt 1" Ø	Each		24	24
Anchor Bolt 1 1/2" Ø	Each		24	24
Braced Excavation	Cu. Yd.		112	112
Geocomposite Wall Drain	Sq. Yd.		56.8	56.8
Pipe Underdrains for Structures 4"	Foot		137	137
Diamond Grinding (Bridge Section)	Sq. Yd.	734		734
Reinforced Soil Slope System	Sq. Ft.		5660	5660
Asbestos Bearing Pad Removal	Each		88	88
Sloped wall Removal	Sq. Yd.		542	542

**Includes bridge approach slab and connector pavement.

GENERAL DATA
STRUCTURE NO. 074-0086

SHEET NO. 2	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	1517	12VBR-1	PIATT	168	87
CONTRACT NO. 70388					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

Revised 4/15/2010, DPN

Revised 12/17/2009, DPN

0740086-70388 rev.dgn 04/16/2010 8:19:30 AM

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

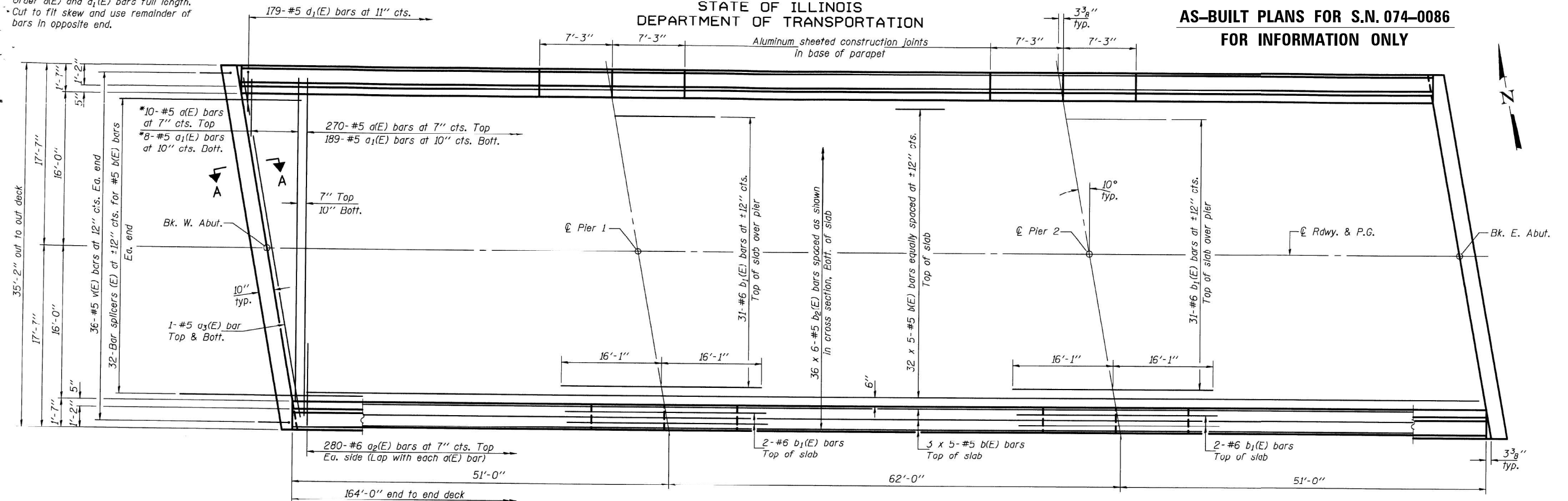
AS-BUILT PLANS
LOCATION #3 S.N. 074-0086

SCALE: SHEET 2 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	31
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

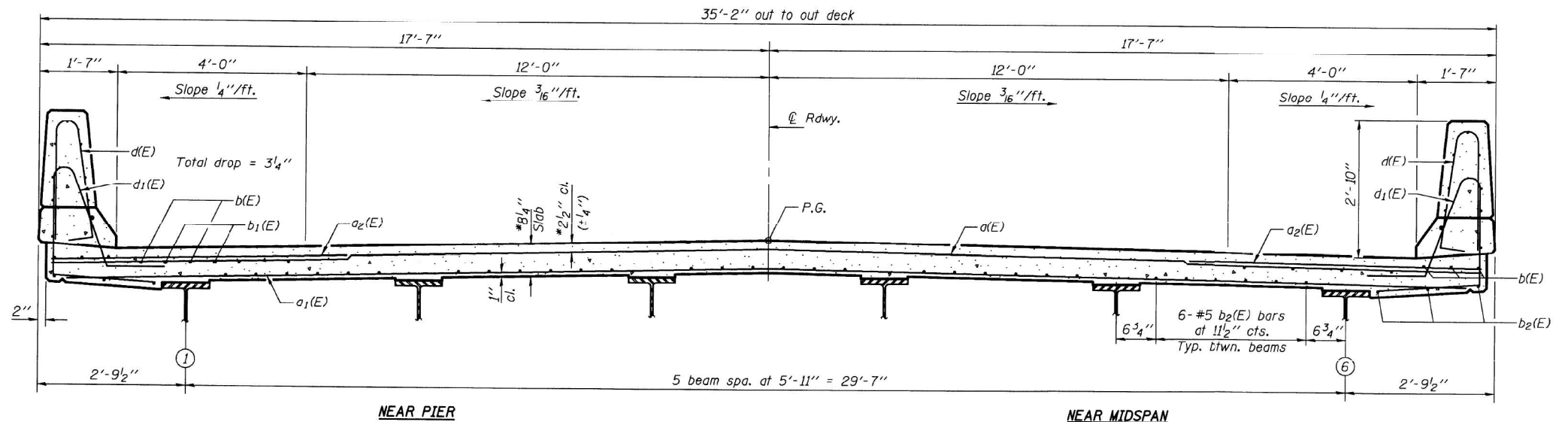
MODEL: AsBuilt_Loc3 3 Sheet
FILE NAME: c:\p\work\p\id\stevens\wood\illinois\gov\1022604\0570H47-shh-As_Built_Loc3.dgn

*Order a(E) and a₁(E) bars full length.
*Cut to fit skew and use remainder of bars in opposite end.



MIN. BAR LAP
#5 bar = 2'-2"

Notes: See sheet 9 of 25 for superstructure details and Bill of Material.
Bars indicated thus 32 x 5- #5 etc. indicates 32 lines of bars with 5 lengths per line.
See sheet 9 of 25 for parapet reinforcement.
See sheet 10 of 25 for Section A-A.



DESIGNED	D.P. Nariswala
CHECKED	S.M. Ryan
DRAWN	h.t. duong
CHECKED	DPN/SMR

November 25, 2009

EXAMINED *Thomas J. Demagala*
ENGINEER OF BRIDGE DESIGN

PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE
STRUCTURE NO. 074-0086

SHEET NO. 8	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	1517	12VBR-1	PIATT	168	93
CONTRACT NO. 70388					
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

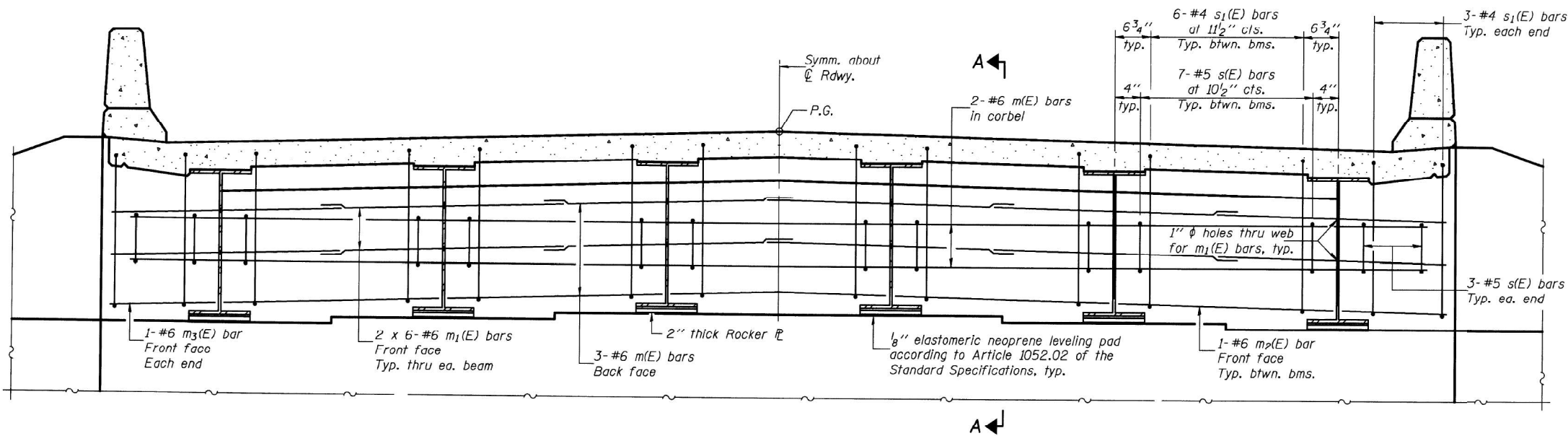
AS-BUILT PLANS
LOCATION #3 S.N. 074-0086

SCALE: SHEET 3 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	32
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

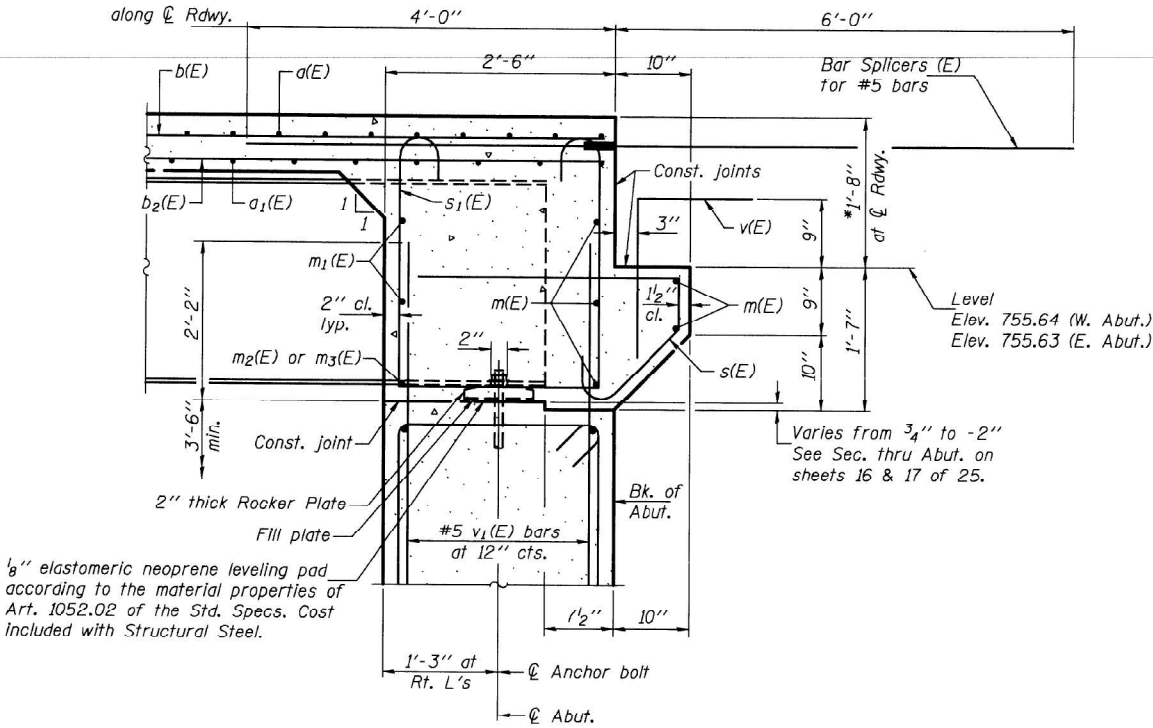
AS-BUILT PLANS FOR S.N. 074-0086
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DIAPHRAGM ELEVATION AT ABUTMENT

Notes: Reinforcement bars in diaphragm are billed with superstructure on sheet 9 of 25.
Concrete in diaphragm is included with Concrete Superstructure on sheet 9 of 25.
For details of bars s(E) & s₁(E) see sheet 9 of 25.
The s(E) and s₁(E) bars shall be placed parallel to the beams.
Spacing for these bars shall be at right angles to the beams.



MIN. BAR LAP
#6 bar = 2'-9"

DIAPHRAGM DETAILS
STRUCTURE NO. 074-0086

SECTION A-A

Dimensions at right L's to abutment, except as shown.

*Prior to grinding.

DESIGNED	D.P. Narielwala
CHECKED	S.M. Ryan
DRAWN	h.t. duong
CHECKED	DPN/SMR

November 25, 2009
EXAMINED *Thomas J. Demagala*
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 10	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	1517	12VBR-1	PIATT	168	95
CONTRACT NO. 70388					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #3 S.N. 074-0086

SCALE: SHEET 4 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	33
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

[illegible]

DETAIL B

1" ϕ holes in beam
 for 111(E) burs. See
 sheet 10 of 25.

END OF BEAM ELEVATION

STRUCTURAL STEEL
STRUCTURE NO. 074-0086

DESIGNED	D.P. Narielwala
CHECKED	S.M. Ryan
DRAWN	h.t. duong
CHECKED	DPN/SMR

November 25, 2009

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 13 25 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1517	12VBR-1	PIATT	168	98
	CONTRACT NO. 70388				
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT		

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #3 S.N. 074-0086

SCALE:	SHEET 5	OF 6	SHEETS	STA.	TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-D	VARIOUS	43	34
		CONTRACT NO. 70H47		
		ILLINOIS FED. AID PROJECT		

MODEL: AsBuilt_Loc3 5 [Sheet]
FILE NAME: c:\pw work\pwidott\steven.wood@illinois.gov\d1022604\D570H47-sht-As Built Loc3.dgn

AS-BUILT PLANS FOR S.N. 074-0086
FOR INFORMATION ONLY

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.4 and in.3).

$I_c(n), S_c(n)$: Composite moment of Inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads (in.4 and in.3).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in.4 and in.3).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1} : Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2} : Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW} : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

$M_L + Imp$: Un-factored live load moment plus dynamic load allowance (Impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).

$1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_L + Imp$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

$\phi_f M_{nc}$: Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).

$M_{DC1} + M_{DC2} + M_{DW} + 1.3 M_L + Imp$

Vr: Factored shear range in span computed according to Art. 6.10.10.

INFORMATION ONLY

PLAN

Flange splice $\bar{L}$
 $\frac{3}{4}$ " x 10 " x $3'-7\frac{1}{2}"$ (NTR)
 Top & Bott.

$\frac{1}{4}"$ max.

$1\frac{3}{4}"$ 6 spa. at $3"$ 4" 6 spa. at $3"$ $1\frac{3}{4}"$
 $= 1'-6"$ $= 1'-6"$

$1\frac{5}{16}"$ ϕ holes for
 $\frac{7}{8}"$ ϕ H.S. bolts

2" 6" 2"

ELEVATION

Web splice $\bar{L}$
 $\frac{5}{8}"$ x $1'-7\frac{1}{2}"$ x $1'-9\frac{1}{2}"$ (NTR)

$1\frac{3}{4}"$ 2 spa. at $3" = 6"$ 4" 2 spa. at $3" = 6"$ $1\frac{3}{4}"$

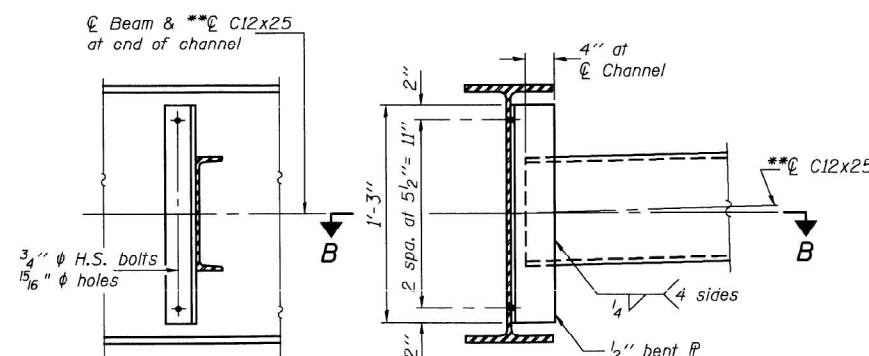
$1\frac{5}{16}"$ ϕ holes for
 $\frac{7}{8}"$ ϕ H.S. bolts
 5 spa. at $3"$ c/s.
 $= 1'-6"$

$1\frac{3}{4}"$

ELEVATION
SPLICE DETAIL
(12 Required)

<i>Location</i>	£ Brg. W. Abut.	£ Brg. Pier 1	£ Splice 1	£ Brg. Pier 2	£ Splice 2	£ Brg. E. Abut.
<i>Beam 1</i>	756.31	756.62	756.70	756.64	756.62	756.36
<i>Beam 2</i>	756.43	756.74	756.81	756.74	756.73	756.46
<i>Beam 3</i>	756.54	756.83	756.91	756.83	756.82	756.54
<i>Beam 4</i>	756.56	756.84	756.91	756.83	756.81	756.53
<i>Beam 5</i>	756.47	756.75	756.82	756.73	756.71	756.42
<i>Beam 6</i>	756.37	756.65	756.71	756.62	756.60	756.30

SECTION B-B



DIAPHRAGM D
(55 Required)

***Alternate channel C12x30 may be used to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section, C12x25. The alternate channel C12x30, if utilized, shall be provided at no extra cost to the Department.*

Notes: Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone E.
All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
All splice plate material shall be AASHTO M 270 Grade 50W.

DESIGNED	D.P. Narielwala
CHECKED	S.M. Ryan
DRAWN	h.t. duong
CHECKED	DPN/SMR

November 25, 2009

EXAMINED *Thomas J. Domagala*
ENGINEER OF BRIDGE DESIGN

PASSED *Ralph E. Carlson*
ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 14 25 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1517	12VBR-1	PIATT	168	99
	FED. ROAD DIST. NO. - ILLINOIS			FED. AID PROJECT	

CONTRACT NO. 70388

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

AS-BUILT PLANS
LOCATION #3 S.N. 074-0086

SCALE:	SHEET 6	OF 6	SHEETS	STA.	TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	35
		CONTRACT NO. 70H47		
ILLINOIS		FED. AID PROJECT		

MODEL: AsBuilt_Loc3 6 [Sheet]
FILE NAME: c:\pw work\pwidot\steven.wood@illinois.gov\d1022604\D570H47-sht-As Built Loc3.dgn

Bench Mark: Chiseled "B" on top of wing 16'-0" Rte. Sta. 753+88.50 Elev. 647.50

Existing Structure: No. 020-0020 Built in 1933 as F.A. Rte. 161 Section 12 B
Sta. 751+92.58 A 4-Span continuous R.C. Haunched Girder, R.C. Spill
Thru Abut. and R.C. Piers. Substructure to be reconstructed to accommodate a new widened
40' web R. Girder with a R.C. Deck. Existing Structure is 30'-3"
wide and 393'-2" Back to Back Abut. Traffic shall be detoured during reconstruction.
Road will be closed.

No Salvage:

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS FOR S.N. 020-0020
FOR INFORMATION ONLY

ROUTE NO.	SECTION	PROJECT	TOTAL SHEETS	SHEET NO.
71	2BR	Devill	30	13
14 SHEETS				

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " ϕ , open holes $\frac{13}{16}$ " ϕ , unless otherwise noted. (AASHTO M162 Type 3).
Calculated weight of Structural Steel = 326,300 lbs. - M 222
All structural steel shall be AASHTO M 222 unpainted except Floor Drains which shall be as specified.

All structural steel for a distance of three times the depth of the girders, but not exceeding 10 feet, each way from the deck joints and all floor drain components shall be cleaned and given one coat of the basic lead silica chromate primer and a maroon field coat. Both coats to be applied in the shop with spot painting only in the field.

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.

Anchor bolts shall be set before bolting diaphragms over supports.
The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.

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.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ 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.

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 tension flanges, webs and all splice plate material of the steel girders.

Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.

Layout of riprap may be varied in the field to suit ground conditions, as directed by the Engineer.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		65	65
Structure Excavation	Cu. Yd.		85	85
Floor Drains	Each	32		32
Class X Concrete	Cu. Yd.	415.4	97.8	513.2
Structural Steel	Lump Sum	1		1
Stud Shear Connectors	Each	3750		3750
Reinforcement Bars	Pound	43,950	6360	50,310
Reinforcement Bars (Epoxy Coated)	Pound	71,340		71,340
Name Plates	Each	1		1
Neoprene Expansion Joint 2'x"	Lin. Ft.	69		69
Elastomeric Bearing Assembly, Type I	Each	10		10
Elastomeric Bearing Assembly, Type II	Each	10		10
Protective Coat	Sq. Yd.	1710	34	1744
Riprap	Sq. Yd.		1115	1115
Removal of Existing Slope Wall	Sq. Yd.		495	495

STATION 751+92.58
BUILT 19 BY
STATE OF ILLINOIS
F.A.R. RT. 71 SEC. 12 BR
F.A. Proj. BR-F-71(21)
LOADING HS20
*STR. No.

NAME PLATE
Std. 2113

Bk. of New E. Abut.
Sta. 753+89.15
Elev. 647.12

Sta. 753+03.90
Elev. 629.96

Sta. 751+92.58 (Local Datum)
Elev. 653.67

Sta. 750+81.46
Elev. 637.37

Bk. of New W. Abut.
Sta. 749+96.21
Elev. 660.21

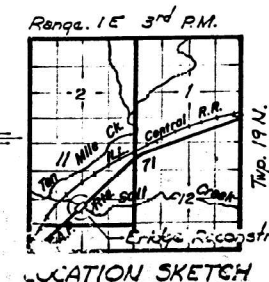
Sta. 749+00.00
Elev. 663.41

SECTION THRU EXISTING
SLOPE WALL

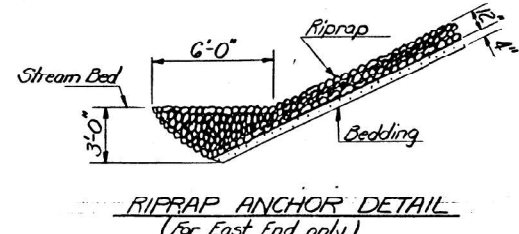
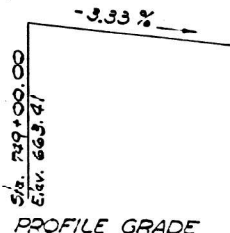
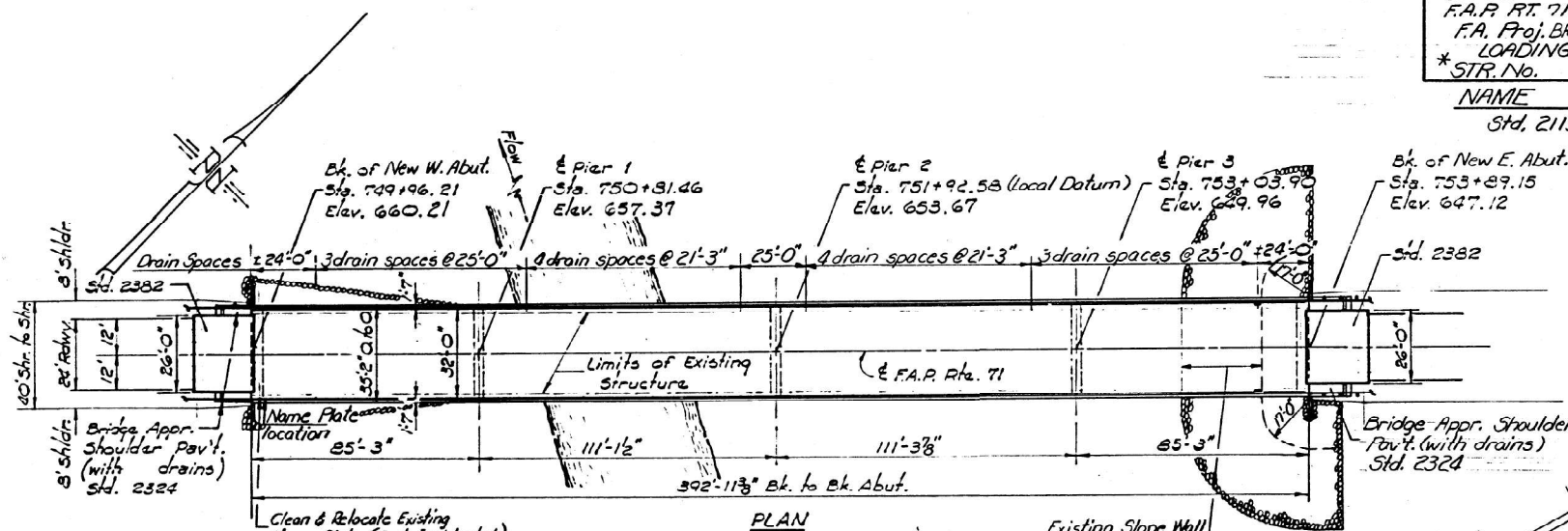
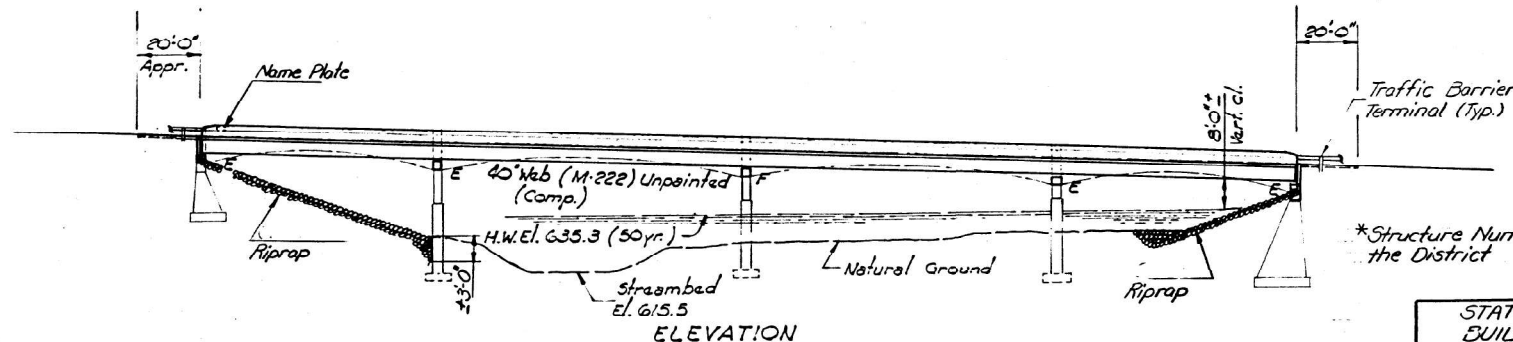
DESIGN STRESSES
 $f_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (Structural)
Epoxy coated reinforcement bars shall be used in the top layer of the deck slab.

LOADING HS 20-44 (New Construction)
Design Specification: 1977 AASHTO.
1978, 1979 and 1980 Interim Specifications so applicable.

Allow 25 $\frac{1}{2}$ sq. ft. for future wearing surface.



GENERAL PLAN
F.A.R. Rte. 71 Over SALT CREEK
F.A.R. Rte. 71 SECTION 12 BR
DE WITT COUNTY
Sta. 751+92.58



WATERWAY INFORMATION

Drainage Area 335 sq. mi		Low Grade Elev. 639.2		@ Sta.	
Flood	Freq. Yr.	Q C.F.S.	Exist. Prop.	H.W.E. Exist. Prop.	Headwater El. Exist. Prop.
Design	50	12400	3159	635.3	1.11 1.11 636.4 636.4
Base	100	19300	3426	636.1	1.33 1.33 637.4 637.4
Overtopping	300	25406	3959	637.5	1.76 1.76 639.26 639.26
Max. Vel.	500				

DESIGNED	DAU KRULL
CHECKED	Rick Brunette
DRAWN	J.R.S.
CHECKED	R.B.

EXAMINED
APPROVED
DATE

Revised: R.D. 3-21-81

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #4 S.N. 020-0020

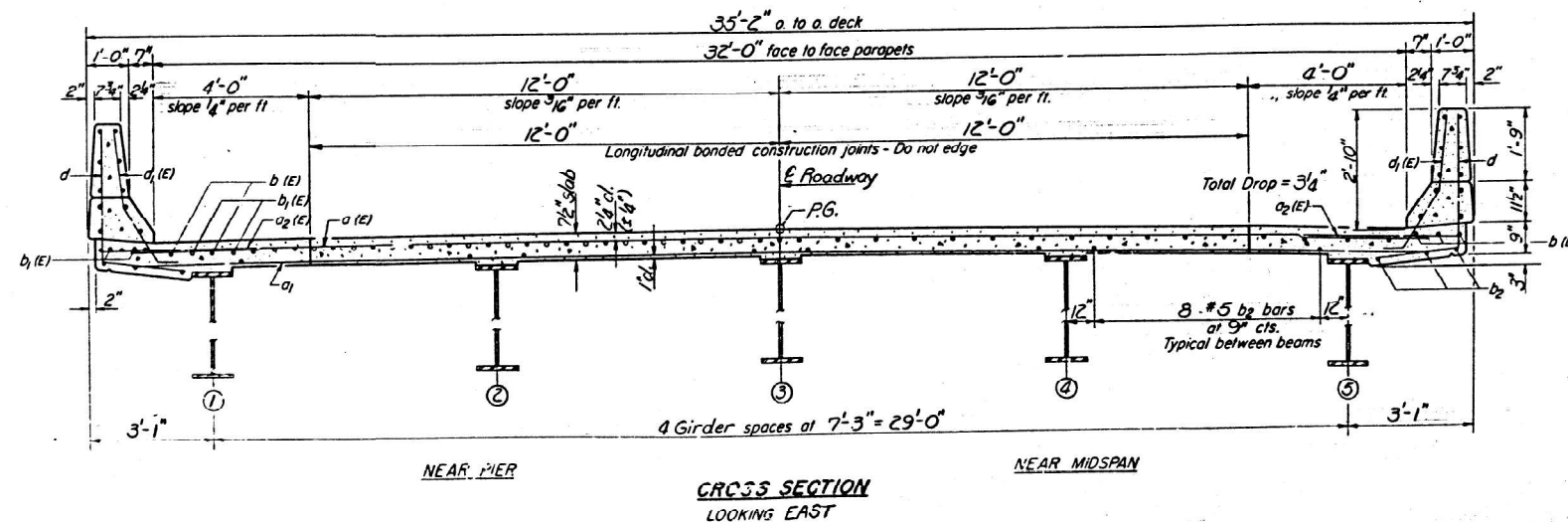
SCALE: SHEET 1 OF 8 SHEETS STA. TO STA.

USER NAME	DESIGNED	REVISION	STATE OF ILLINOIS	AS-BUILT PLANS	LOCATION #4 S.N. 020-0020	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Steven.Wood	-	-	STATE OF ILLINOIS	AS-BUILT PLANS	LOCATION #4 S.N. 020-0020	VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	36
DESIGNED	-	-	STATE OF ILLINOIS	AS-BUILT PLANS	LOCATION #4 S.N. 020-0020	VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	36
DRAWN	-	-	STATE OF ILLINOIS	AS-BUILT PLANS	LOCATION #4 S.N. 020-0020	VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	36
CHECKED	-	-	STATE OF ILLINOIS	AS-BUILT PLANS	LOCATION #4 S.N. 020-0020	VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	36
DATE	-	-	STATE OF ILLINOIS	AS-BUILT PLANS	LOCATION #4 S.N. 020-0020	VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	36

AS-BUILT PLANS FOR S.N. 020-0020
FOR INFORMATION ONLY

ROUTE NO.	RELATION	COUNTY	TOTAL SHEETS	SHEET NO.
71	12BR	Dewitt	30	16
FED. ROAD DIST. NO. 7		ALL-NO.	FED. AID PROJECT.	

SHEET NO. 4
14 SHEETS



NOTES:
See sheet #5 for superstructure details and Bill of Material.
Reinforcement Lap Splices shall be epoxy coated. See Special Provisions.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

SUPERSTRUCTURE
FAR RT 11 SEC 12 DP
DEWITT COUNTY
STATION 751+22.58

DESIGNED	DAN KRULL
CHECKED	Rick Brunette
DRAWN	Joe Switband
CHECKED	R.B.

DEC 26 1980

EXAMINED _____
ENGINEER OF DESIGN AND TRAFFIC STUDIES

PASSED _____
ENGINEER OF DESIGN

APPROVED _____
DIRECTOR OF HIGHWAYS

S-1-0 4-1-79

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #4 S.N. 020-0020

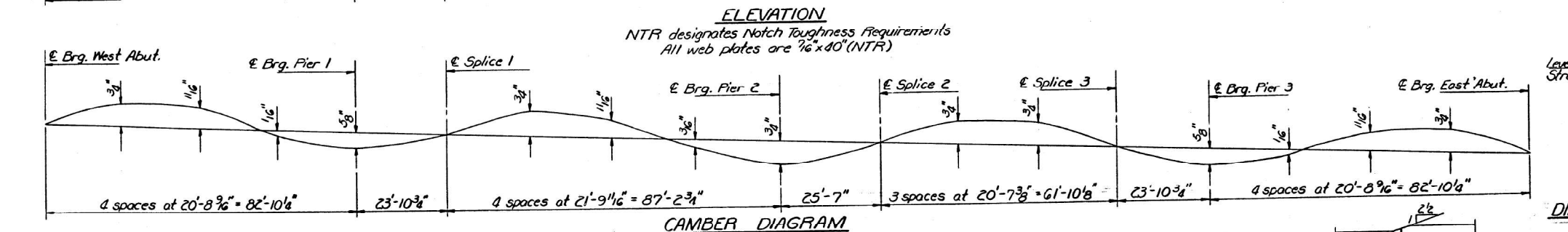
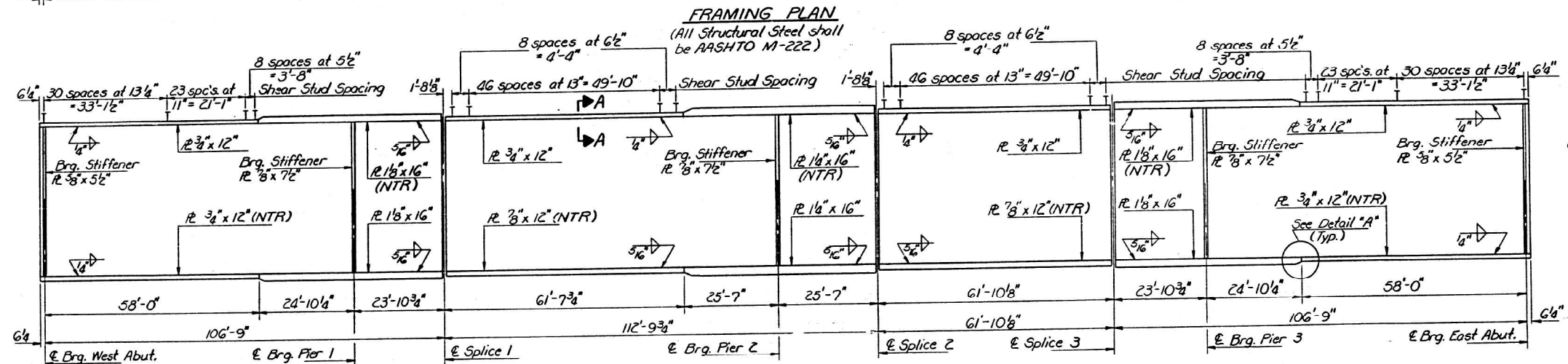
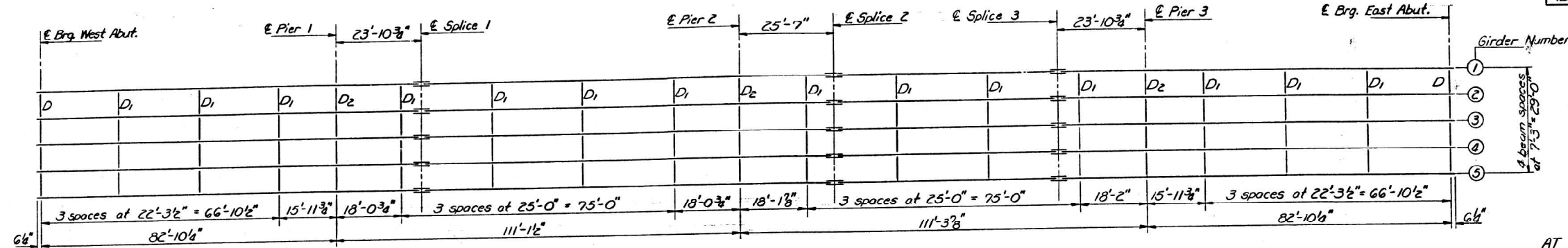
SCALE:	SHEET 2	OF 8	SHEETS	STA.	TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	37
		CONTRACT NO. 70H47		
		ILLINOIS	FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS FOR S.N. 020-0020
FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71	12BR	DeWitt	30	19
SHEET NO. 7 14 SHEETS				



TOP OF WEB ELEVATIONS
(for Fabrication only, before any deflection)

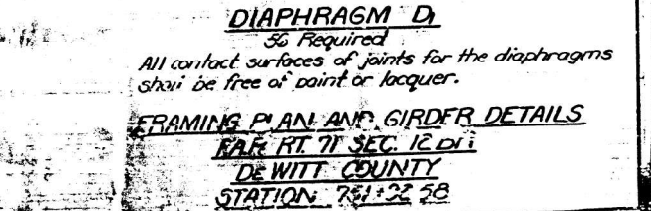
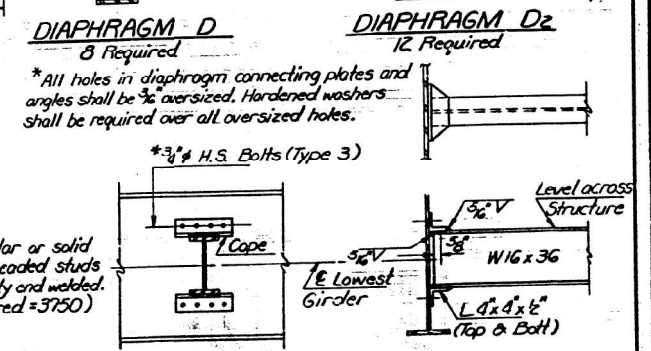
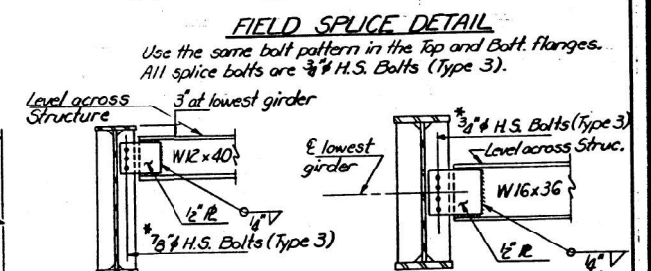
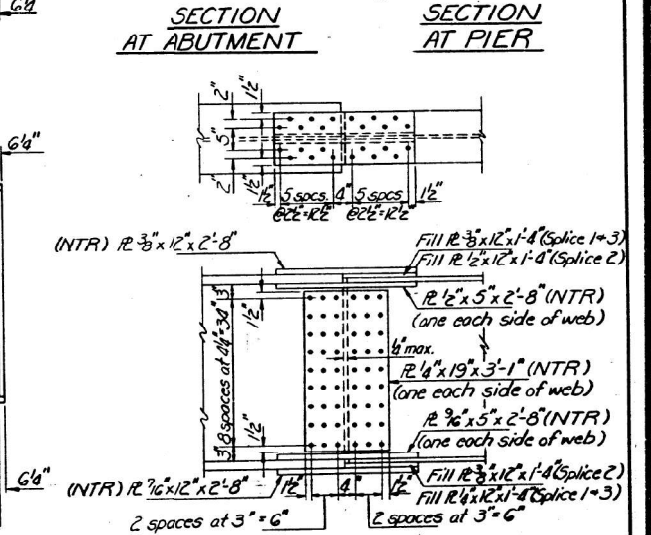
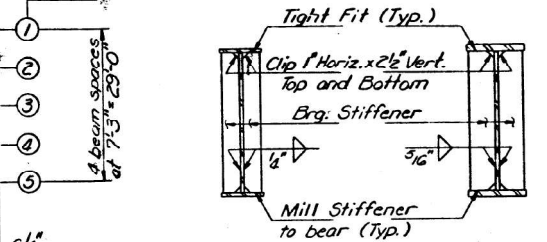
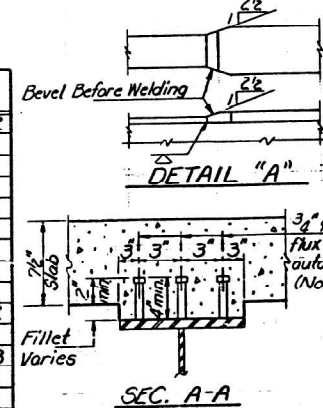
	W. Abut.	Pier 1	Splice 1	Pier 2	Splice 2	Splice 3	Pier 3	E. Abut.
E. Beam 1	659.084	656.325	655.594	652.625	651.837	649.780	648.918	646.159
E. Beam 2	659.211	656.452	655.721	652.752	651.964	649.907	649.045	646.286
E. Beam 3	659.324	656.565	655.834	652.865	652.077	650.020	649.158	646.399
E. Beam 4	659.211	656.452	655.721	652.752	651.964	649.907	649.045	646.286
E. Beam 5	659.084	656.325	655.594	652.625	651.837	649.780	648.918	646.159

INTERIOR GIRDER REACTION TABLE

	Abut.	Pier 1 or Pier 3	Pier 2
R ₂	(1K) 34.1	127.1	135.0
R ₄	(1K) 41.1	65.4	69.6
Imp.	(K) 9.9	14.7	14.7
R Total	(K) 85.1	207.2	219.3

INTERIOR GIRDER MOMENT TABLE

	0.4 Span 1 Pier 1 or 0.6 Span 1 Pier 3	0.5 Span 2 or 3	Pier 2
I _s	(in ⁴) 9806.7	17558.5	10430.1
I _c	(in ⁴) 24163.4	—	26170.3
S _s	(in ³) 472.6	831.2	520.7
S _c	(in ³) 656.9	—	719.5
e	(K/1) 843	852	861
M ₂	(K) 432.4	1180.4	475.8
M ₄	(K) 449.5	1322.2	1063.0
M _{Imp.}	(K) 349.3	300.1	353.0
M _{Total}	(K) 2001.3	1934.7	2273.7
f _s composite (Ksi)	36.56	28.65	37.92
f _s Total (Ksi)	47.54	45.69	48.89
V _R	(K) 57.0	—	49.1



DESIGNED DAN KRULL
CHECKED Rick Brunette
DRAWN Joe Sutherland
CHECKED R.B.

EXAMINED
PASSED
APPROVED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #4 S.N. 020-0020

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	38
CONTRACT NO. 70H47				

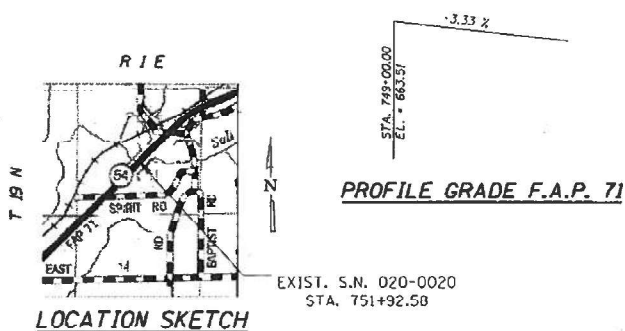
USER NAME - Steven.Wood	DESIGNED -	REVISED -
PLOT DATE - 12/3/2024	DRAWN -	REVISED -
	CHECKED -	REVISED -
	DATE -	REVISED -

STRUCTURE 020-0020 WAS ORIGINALLY BUILT IN 1938 AS F.A. ROUTE 161, SECTION 12-B AT STATION 751+92.58 BY THE STATE OF ILLINOIS. THE STRUCTURE WAS RECONSTRUCTED IN 1984, SECTION 126R, CONTRACT 35358. THE SUBSTRUCTURE WAS RECONSTRUCTED TO ACCOMMODATE A NEW WIDENED 40" WEB R GIRDER WITH A R.C. DECK.

THE EXISTING STRUCTURE IS A FOUR SPAN STEEL R GIRDER STRUCTURE WITH A BACK-TO-BACK ABUTMENT LENGTH OF 392'-11 3/8". THE STRUCTURE MEASURES 32'-0" FROM FACE-TO-FACE OF PARAPET AND HAS AN OUT-TO-OUT WIDTH OF 35'-2". THE SUPERSTRUCTURE CONSISTS OF 5 40" WEB R GIRDERS SUPPORTING A 7 1/2" REINFORCED CONCRETE DECK ON PILE SUPPORTED R.C. SPILL THRU ABUTMENTS AND R.C. PIERS. THE SLOPES ARE PROTECTED WITH RIPRAP.

METHOD OF CONSTRUCTION: STAGE CONSTRUCTION.

AS-BUILT PLANS FOR S.N. 020-0020
FOR INFORMATION ONLY



GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING PLANS ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION 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 SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

SEE SPECIAL PROVISION "DECK SLAB REPAIR" FOR ADDITIONAL REQUIREMENTS PERTAINING TO DECK SLAB REPAIR.

AREAS OF DECK REPAIRS SHOWN ARE ESTIMATED. THE ENGINEER SHALL SHOW ACTUAL LOCATIONS OF DECK REPAIRS ON AS-BUILT PLANS.

FIBERS ARE INCLUDED IN BRIDGE DECK LATEX CONCRETE OVERLAYS.

INDEX OF SHEETS

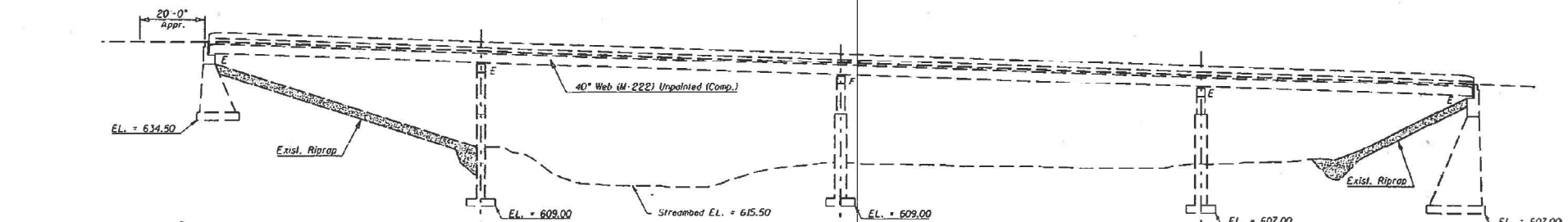
- General Plan and Elevation
- Deck Cross Sections
- 5. Staging Details
- Wearing Surface Plan
- Joint Details at Abutments
- 11. Bridge Approach Details
- 15. Bridge Deck Patching Details
- Schedule of Deck Slab Repair
- Detail of Inlet Adjust (Special)
- Temporary Concrete Barrier for Stage Construction
- 33. As-Built Plans (Information Only)

PROPOSED WORK

- Perform Bridge Deck Scarification 3/4"
- Perform Approach slab repair.
- Perform Concrete Removal.
- Remove Bridge Approach Shoulders.
- Remove and replace Diaphragms at abutments.
- Jack, remove, and replace Bearings at abutments.
- Place Latex Concrete Overlay 2 1/4".
- Place Concrete Super-Structures.
- Place Polymer Concrete
- Perform Bridge Deck Grinding.
- Perform Bridge Deck Grooving.
- Place HMA Surface Course.
- Place Silicone Joint Seal

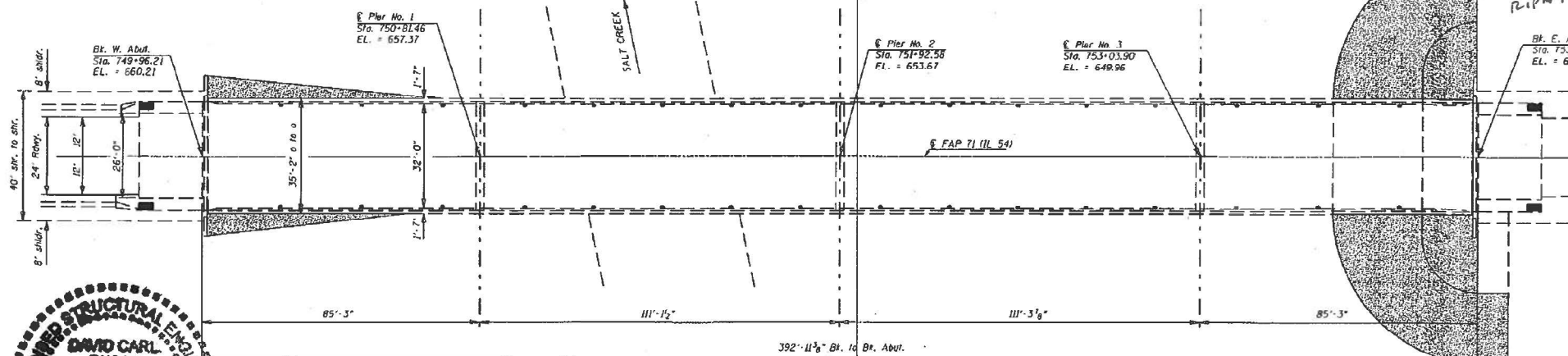
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	3.5
Concrete Superstructure	Cu. Yd.	3.4
Protective Coat	Sq. Yd.	1,513.0
Reinforcement Bars Epoxy Coated	Pound	267.0
Bar Splicers	Each	16.0
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	1,155.0
Furnish & Erect Structural Steel	Pound	2,350.0
Elastomeric Bearing Assembly Type 2	Each	10.0
Anchor Bolts 1" x 1/2"	Each	20.0
PCC Bridge Approach Pavement (Special)	Sq. Yd.	32.0
Bridge Approach Shoulder Removal	Sq. Yd.	32.0
Jack and Remove Existing Bearings	Each	10.0
Structural Steel Removal	Pound	2,190.0
Structural Steel Repair	Pound	490.0
Bridge Deck Latex Conc. Overlay 2 1/2"	Sq. Yd.	1,460.0
Bridge Deck Scarification 3/4"	Sq. Yd.	1,501.0
Deck Slab Repair (Full-Depth) Type 2	Sq. Yd.	103.0
Silicone Joint Sealer 2 1/2"	Foot	72.0
Diamond Grinding (Bridge Section)	Sq. Yd.	1,338.0
Polymer Concrete	Cu. Ft.	1.7

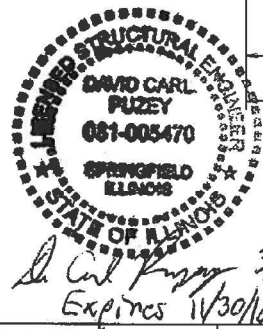


ELEVATION VIEW

ELEVATIONS TAKEN FROM
AS-BUILT PLANS AND ARE
SHOWN FOR PERSPECTIVE ONLY.



PLAN VIEW



FILE NAME: per\\11.084EBID\\INTE\\Illinois.gov\\P\\1001\\00-projects\\1001-01\\Office\\District 5\\Projects\\057-0000\\Data\\Struct\\S\\Plan-78877-Final	USER NAME: s.wood	DESIGNED: JMS	REVISED: -
		DRAWN: -	REVISED: -
		CHECKED: -	REVISED: -
		DATE: 012915	REVISED: -
			REVISED: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
S.N. 020-0020

SCALE: 1" = 20' SHEET NO. 1 OF 20 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71	126R	DEWITT	41	7
CONTRACT NO. T0877				

USER NAME: Steven.Wood	DESIGNED: -	REVISED: -
	DRAWN: -	REVISED: -
	CHECKED: -	REVISED: -
PLOT DATE: 12/3/2024	DATE: -	REVISED: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #4 S.N. 020-0020

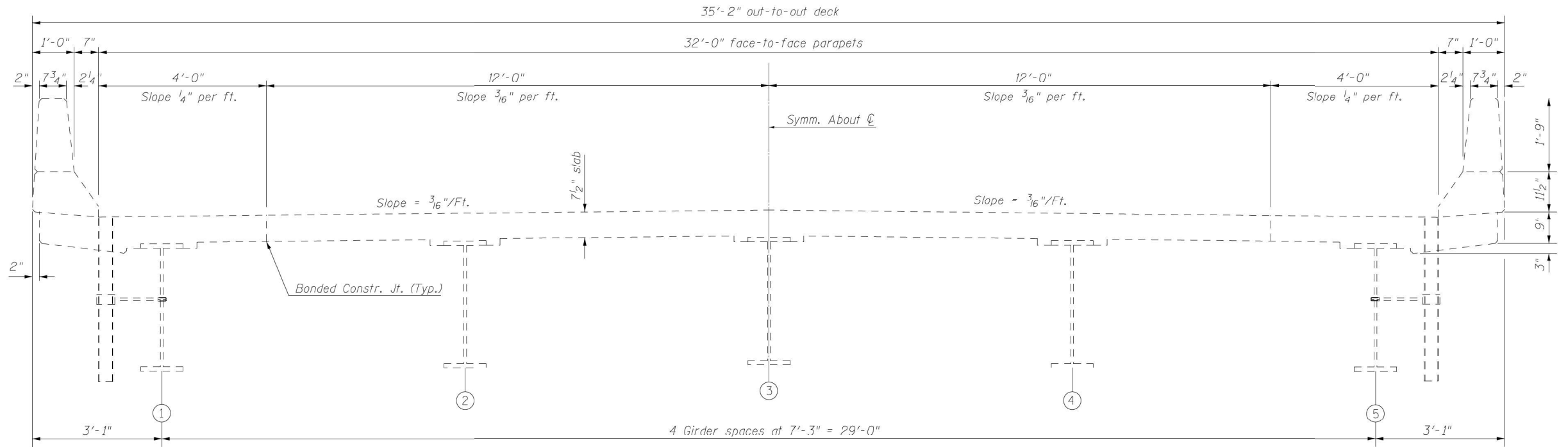
SCALE: SHEET 4 OF 8 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	39
CONTRACT NO. 70H47				

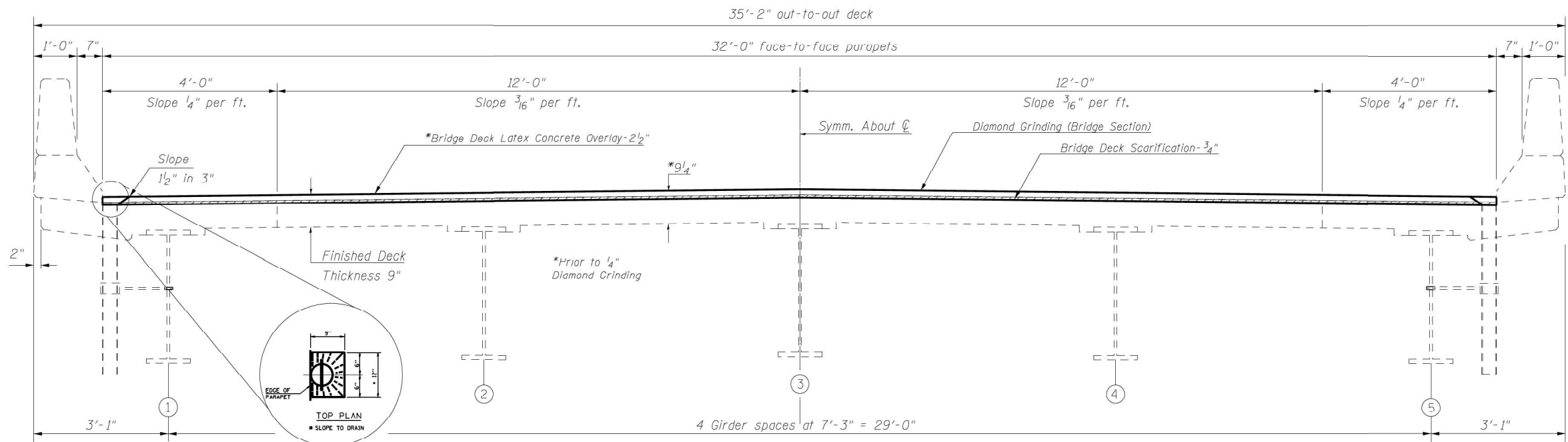
ILLINOIS FED. AID PROJECT

S.N. 020-0020

FOR INFORMATION ONLY



S.N. 020-0020



FILE NAME =	USER NAME = shererjm	DESIGNED - JMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				DECK CROSS SECTIONS S.N. 020-0020			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\IL\084EBID\INTEG\Illinois.gov\DWID\Documents\DOT Offices\District 5\Projects\057		DRAWN Data Structures\JMS\Plan-70B77-Struc	REVISED Jm								71	12BDR	DEWITT	47	8
PLOT SCALE = 40.0000' / in.	CHECKED -	DATE - 012915	REVISED -					CONTRACT NO. 70B77							
PLOT DATE = 6/21/2017															
				SCALE: None	SHEET NO. 2 OF 20 SHEETS	STA.	TO STA.								

USER NAME = Steven.Wood	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	AS-BUILT PLANS LOCATION #4 S.N. 020-0020				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISED -		VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	40				
	CHECKED -	REVISED -		CONTRACT NO. 70H47								
PLOT DATE = 12/3/2024	DATE -	REVISED -		SCALE:	SHEET 5	OF 8	SHEETS	STA.	TO STA.		ILLINOIS FED. AID PROJECT	

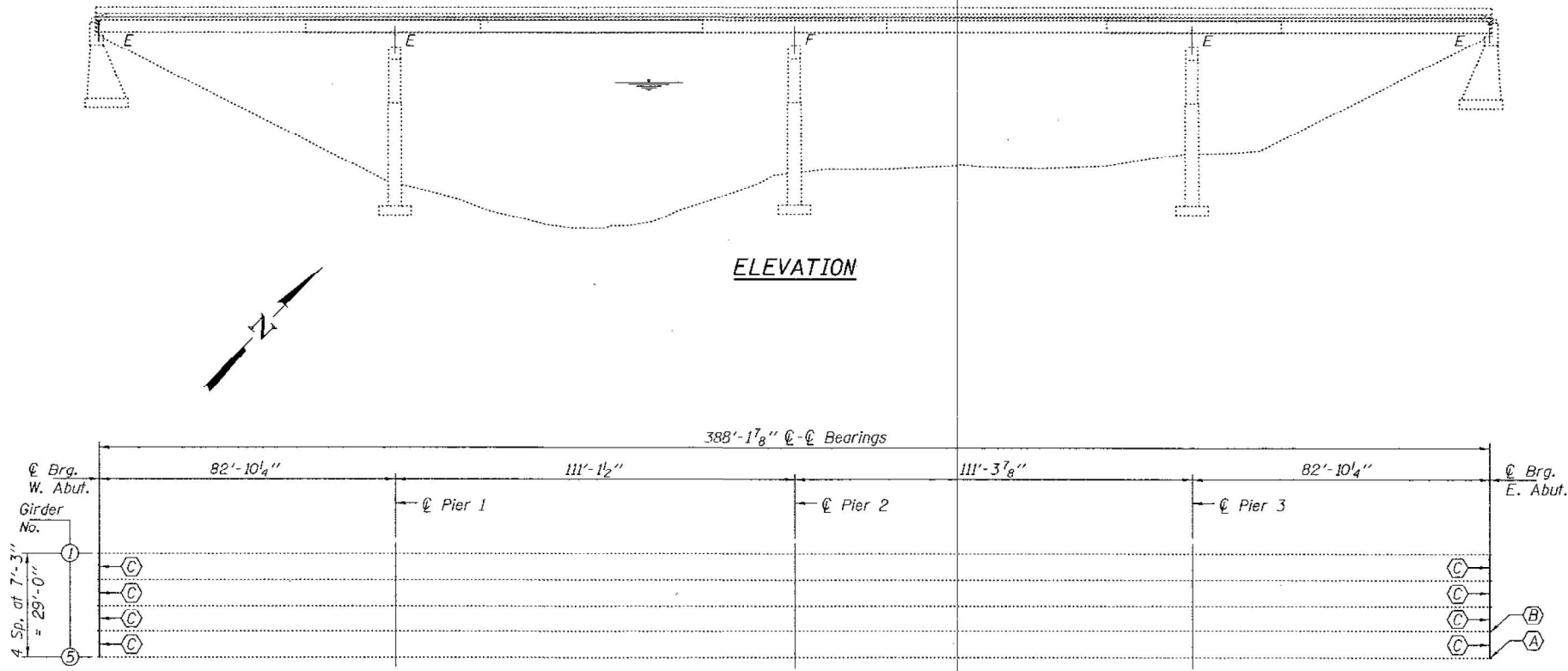
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MODEL: AsBuilt Loc4 6 (Steel)
FILE NAME: c:\p\work\p\wood\steven.wood@illinois.gov\d1022604.D570H47-sh4-As_Built_Loc4.dgn

AS-BUILT PLANS FOR S.N. 020-0020
FOR INFORMATION ONLY

NOTES

All structural steel shall be AASHTO M 270 Grade 50.
Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts.
Bolts $\frac{7}{8}$ " ϕ , holes $\frac{15}{16}$ " ϕ , unless otherwise noted.
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
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 Furnishing and Erecting Structural Steel.
The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the GBSP "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
All structural steel shall be galvanized. Cost included with Structural Steel Repair or Furnishing and Erecting Structural Steel.
Two $\frac{1}{8}$ " adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



Note:
For Total Bill of Material, see sheet 1 of 20.

DESIGNED JSB	EXAMINED <i>Jim A. Wood</i>	DATE MARCH 7, 2018	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		GIRDER REPAIRS AND BEARING REPLACEMENT FAP 71 OVER SALT CREEK SN 020-0020 SHEET NO. 17 OF 20 SHEETS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED JGY	PASSED <i>Carl R. Rugg</i>	REVISED					T1	1280R	DeWITT	47	23
DRAWN <i>baliva</i>	ENGINEER OF BRIDGES AND STRUCTURES	REVISED					CONTRACT NO. 70B77				
CHECKED JSB JGY		REVISED					ILLINOIS FED. AID PROJECT				

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

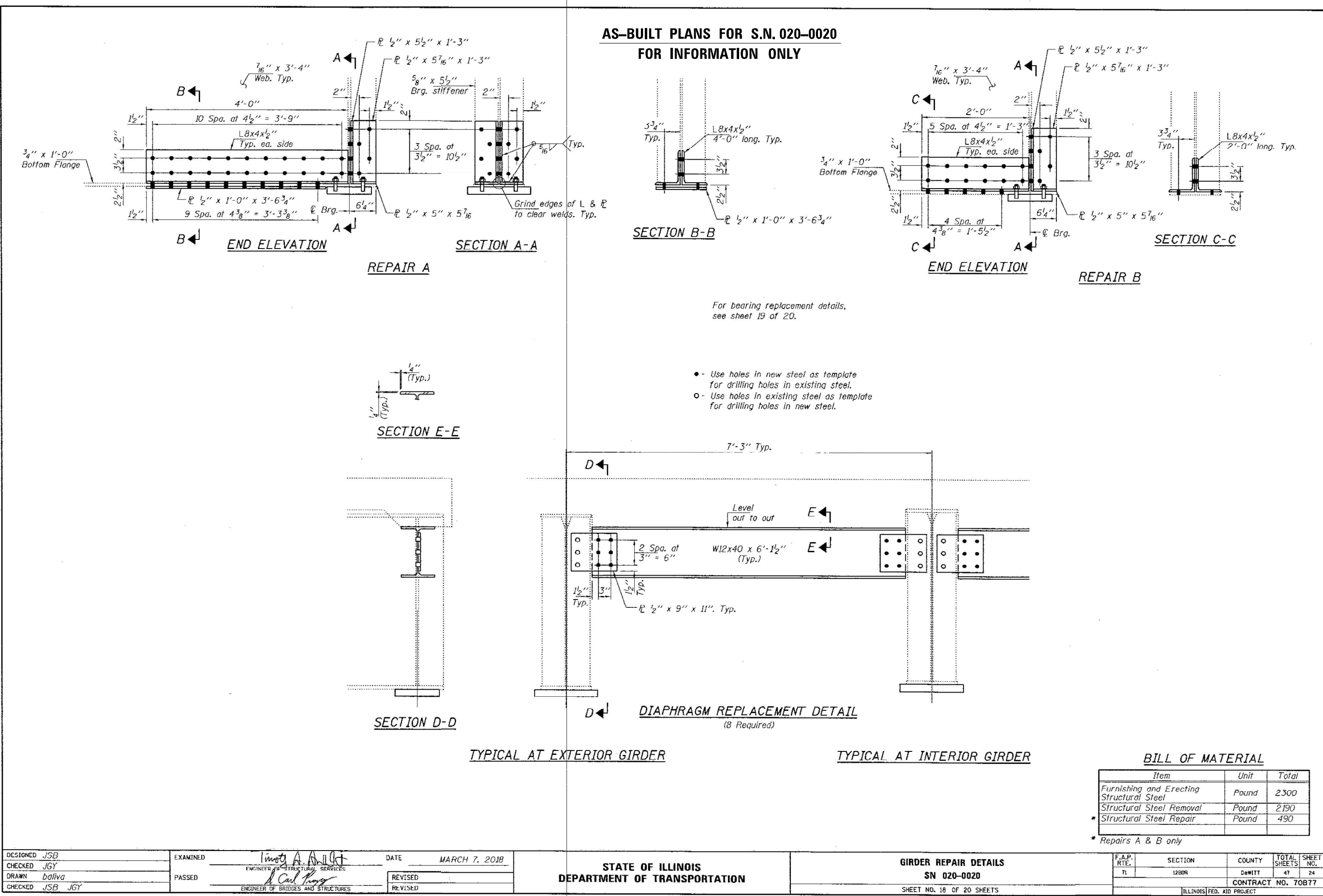
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #4 S.N. 020-0020

SCALE: SHEET 6 OF 8 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	41
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

MODEL: AsBuilt Loc4 7 (Steel)
FILE NAME: c:\p\work\p\wood\stevens\wood\illinois\gov\1022604\0570H47-sh4As_Built_Loc4.dgn



USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #4 S.N. 020-0020

SCALE: SHEET 7 OF 8 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	42
CONTRACT NO. 70H47				
ILLINOIS FED. AID PROJECT				

AS-BUILT PLANS FOR S.N. 020-0020
FOR INFORMATION ONLY

BEAM REACTIONS

<i>R</i> φ	(K)	34.1
<i>R</i> ⊥	(K)	41.1
<i>Imp.</i>	(K)	9.9
<i>R</i> (Total)	(K)	85.1

Notes:
Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Jack and Remove Existing Bearings

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

Min. jack capacity = 45 Tons.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts for type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

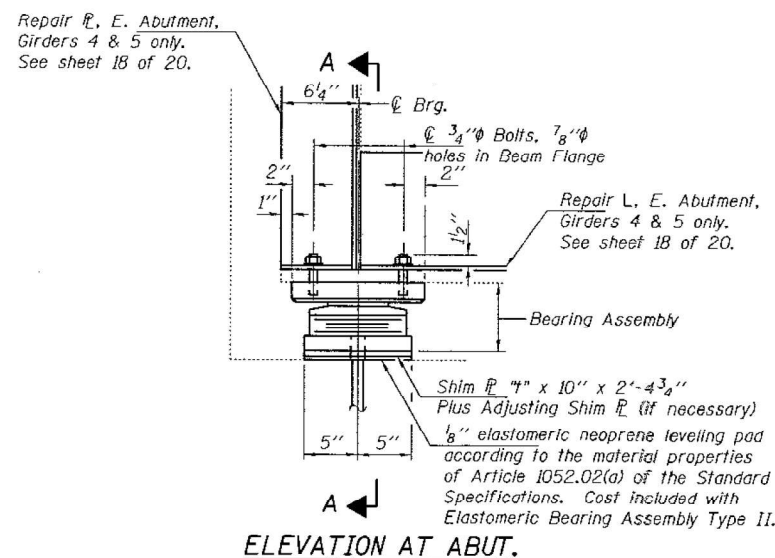
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

Shim plates are included with Furnishing and Erecting Structural Steel.

The 6" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

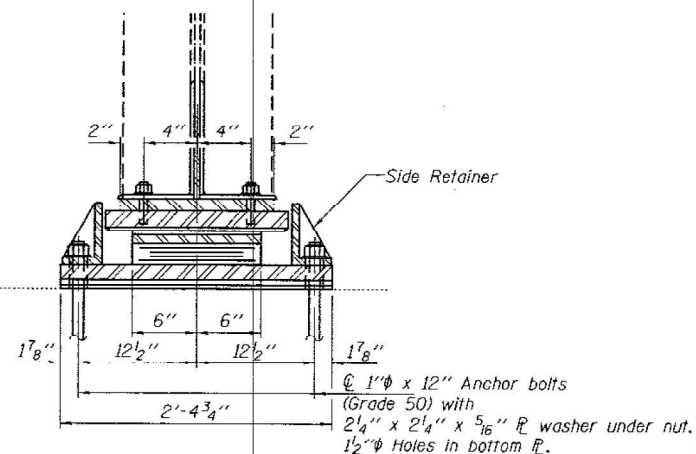


ELEVATION AT ABUT.

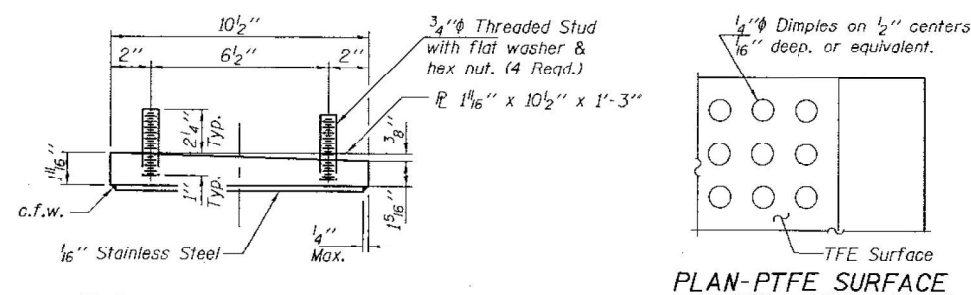
TYPE II ELASTOMERIC EXP. BRG.

SHIM PLATE "I"

Location	Bm. 1	Bm. 2	Bm. 3	Bm. 4	Bm. 5
W. Abut.	0	8"	0	0	0
E. Abut.	0	4"	4"	0	0

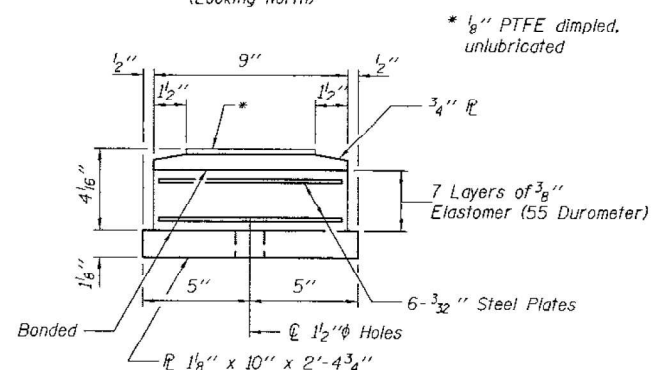


SECTION A-A

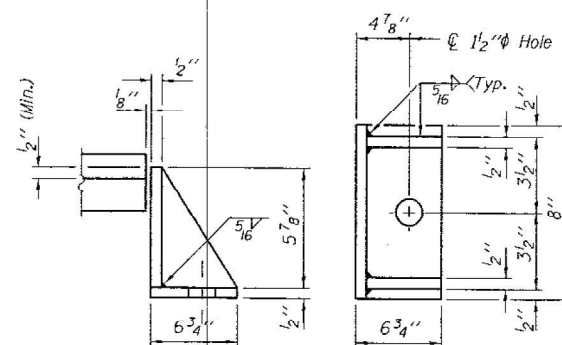


TOP BEARING ASSEMBLY

(Looking North)

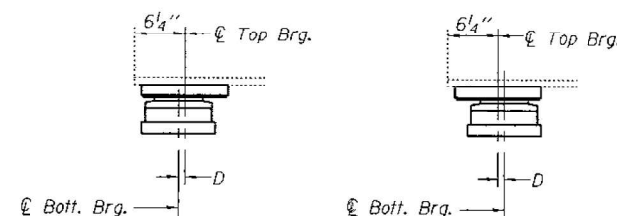


BOTTOM BEARING ASSEMBLY



SIDE RETAINER

Equivalent rolled angle with stiffeners
will be allowed in lieu of welded plates.



BELOW 50°F.

$D = \frac{1}{8}''$ per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

ABOVE 50°F.

SETTING ANCHOR BOLTS AT EXP. BRG.

$\Delta = \frac{1}{8}''$ per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	10
Jack and Remove Existing Bearings	Each	10
Furnishing and Erecting Structural Steel	Pound	50
Anchor Bolts 1"Ø	Each	20

DESIGNED <u>JSB</u>	EXAMINED <u>Timothy A. Anhalt</u>	DATE <u>MARCH 7, 2018</u>
CHECKED <u>JGY</u>	ENGINEER OF STRUCTURAL SERVICES	
DRAWN <u>ballva</u>	PASSED <u>Carl Perry</u>	REVISED
CHECKED <u>JSB JGY</u>	ENGINEER OF BRIDGES AND STRUCTURES	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING REPLACEMENT DETAILS
SN 020-0020

SHEET NO. 19 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71	128DR	DeWITT	47	25
CONTRACT NO. 70B77				

USER NAME = Steven,Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/3/2024	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

AS-BUILT PLANS
LOCATION #4 S.N. 020-0020

SCALE:	SHEET 8	OF 8	SHEETS	STA.	TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2025-2	VARIOUS	43	43
		CONTRACT NO. 70H47		
ILLINOIS		FED. AID PROJECT		

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