

SN 099-0009
I-55 NB over the Des Plaines River
Smith Bridge



2021 Bridge Inspection Report

Bridge Inspection By: Illinois Department of Transportation

Bridge Inspection Report By: Illinois department of Transportation

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Executive Summary

Bridge Description

The structure is 1,406' back to back of abutments and consists of three (3) steel truss main spans (Spans 4, 5, and 6) and four (4) steel multi-beam approach spans (Spans 1, 2, 3, and 7). Both abutments are reinforced concrete spill thru abutments on spread footing. Piers are concrete on spread footings.

Construction History

Date	Contract No.	Description
2013	60R2	Deck overlay and joints, painting
2011	60J24	Fiber Optic conduit Installation
2010	60K04	Deck overlay Repairs and treatment
2005	62861	Joint and misc. Repair
2002	82409	Superstructure Repairs, painting, and new Bituminous Overlay
1999	60706	Milling new bituminous surface
1997	82962	Deck overlay and Joint Repair
1993	82045	Bridge Repairs
1990	80710	Remove Debris
1978	33113	Reconstruction
1958		Maintenance and Repair
1957		Original Plans

The bridge inspection was performed by Illinois Department of Transportation. The inspection started on August 16, 2021 and concluded on August 18, 2021.

SN 099-0009 is in moderate condition. Transverse cracking present in deck. Several joints are showing signs of failure. Upper truss verticals and sway braces have offsets. Floorbeams look to be in good condition. Stringers in span 5 have areas of moderate section loss. Lower chord beginning to show significant section loss throughout structure. Truss members have significant amounts of section loss in splash zone (10' above deck). Lower gusset plates have areas of section loss present. Approach beams showing signs of moderate deterioration. Approach beams have several stiffeners exhibiting offsets. Large number of Cross Frames have offsets and/or missing bolts. Piers have been Repaired previously. Area of spalling at South abutment. Piers have impact damage above waterline. Underwater rating is due to Pier 4 and 5 having areas of scour with top of footings expose



SN: 099-0009	District: 1	Spans: 3	Appr. Spans: 4	Skew: 0	ADT: 24200	Truck Pct: 7
ADT Un: 0	Maint. Co: 99 - Will	Twsp: 01 - Channahon		Status: 1-Open, no restrictions		
Facility Carried: I- 55 NB			Feature Crossed: DES PLAINES RIVER			
Location: 2.3 M S OF US 6		Municipality: 0000	Team/Sub Section: 137/555		Insp/Rte: 037	
Bridge Name: SMITH BRIDGE			Material & Type: Steel Continuous / Cantilever (Suspended)			
Insp. Intervals Routine: 24		Fracture Critical: 24	Underwater: 60	Special: 0	Element Level: 24	
90 - Inspection Date: 08/16/2021		90C - Temp (°F): 77		90B1 - In Depth: <input checked="" type="checkbox"/>		
Is Delinquent: <input type="checkbox"/>		Reason:				
90A - Agency Program Manager: William A. Beisner						
90A1 - Team Leader: Joe Summerson			90A2 - Inspector: Joe Deckard			

90B - Previous Inspection Remarks

DECK - 8% SPALL/DELAM/MAPCRK. 3% SPALL/DELAM.TRANV. CRKS. 2' - 6' APART W/EFF. & SPALLING AT LONG. JT., HOLES IN FILLED SIP FORMS UP TO 10% OF DECK AREA, DETER. @ FLOOR DRAINS/SCUPPERS DROPPING WATER ON STRUCTURAL STEEL. TRANV. & LONG. CRKS. ON CONC. PARAPETS.
 SUPER - UP TO 49% S.L. IN STR., UP TO 4% S.L. IN F.B. UP TO 22% S.L. IN TRUSS. UP TO 4% S.L. IN GIR.
 SUB - RATING LOWERED DUE TO UNDERWATER RATING WITH SCOUR @ P4 & P5, TOP OF FOOTINGS EXPOSED. MINOR IMPACT DAMAGE ABOVE WATERLINE. ITEMS 34, 49, 66, 72, & 74 WITH GREATER THAN 10% S.L. HAS AN INVENTORY RATING FACTOR OVER 1.

Resources

Time to Inspect (H:M): 40:00	Traffic Control: 3	Boat: _	Waders: _	Snooper: S
Ladder: _	Manlift: M	Bucket Truck: _	Other: _	

Inspector's Appraisals

	Prev	New	Comments
58 - Deck Condition:	5	5	SEE 90B
59 - Superstructure Condition:	5	5	SEE 90B
60 - Substructure Condition:	5	5	SEE 90B
62 - Culvert Condition:	N	N	
61 - Channel Condition:	7	7	
71 - Waterway Adequacy:	8	8	
72 - Approach Rdwy Align:	8	8	
111 - Pier Navig Protection:	5	5	
36A - Bridge Railing Adequacy:	3	3	
Approach Guardrail Adequacy: 36B - Transitions:	3	3	36C - Guardrail: 3 3 36D - Ends: 3 3

Additional Inventory Data - To Be Verified During Routine Inspection

108A - Wearing Surface Type: G	108B - Type of Membrane: A	108C - Deck Protection: J
108D - Total Deck Thickness (In.): 7.5		
59A - Paint Date (Mo/Yr): 10/2013	59B - Paint Type: S I U :	
59C - Utilities Attached: 9 N N		
113A - Scour Critical Analysis Date: 02/01/1993	113 - Scour Critical Rating: 8	113B - Evaluation Method: B



Weight Limit Posting:	70A2 - Single Unit Vehicles:	=
	70B2 - Combination Type 3S-1 (3 or 4 axles):	=
	70C2 - Combination Type 3S-2 (5 or more axles):	=
	70D2 - One Truck at a Time:	=

90B - Inspection Remarks

Deck - 8% spall/delamination/map crack 3% spall/delamination transverse cracks 2' - 6' apart with efflorescence and spalling at longitudinal joint, holes in filled stay in place forms up to 10% of deck area, deterioration @ floor drains/scuppers dropping water on structural steel. transverse & longitudinal cracks on concrete parapets.
 Superstructure - Up to 37% section loss in stringers. Up to 4% section loss in floorbeam. Up to 19% section loss in truss (vertical). Up to 22% section loss in truss (gusset plate). Up to 18% section loss in girder. Items 26, 34, 49, 66, 72, & 74 with greater than 10% section loss has an inventory rating factor over 1.
 Substructure - Rating lowered due to underwater rating with scour @ Pier 4 & Pier 5, top of footings exposed. Minor impact damage above waterline.

	Signature	Date
Inspection Team Leader:	<i>Joseph Summerson</i>	01/04/2022
Agency Program Manager:	<i>William A. Beisner</i>	1/5/2022

Use Additional Forms as Needed



SN: 099-0009	District: 1	Spans: 3	Appr. Spans: 4	Skew: 0	ADT: 24200	Truck Pct: 7
ADT Un:	Maint. Co: Will	Twsp: Channahon	Status: Open- No restriction			
Facility Carried: I - 55 NB	Feature Crossed: Des Plaines River					
Location: 2.3 Miles South of US 6	Municipality:	Team/Sub Section: 137/555	Insp/Rte: 037			
Bridge Name: Smith Bridge	Material & Type: Steel Continuous/ Cantilever through Truss					
Insp. Intervals Routine: 24	Fracture Critical: 24	Underwater: 60	Special: 0	Element Level: 24		
93A- Inspection Date: 08 /16/2021	93A4- Temp. (°F): 77					
Is Delinquent: <input type="checkbox"/>	Reason:					
90A - Agency Program Manager: William A. Beisner	90A3 - Consultant Program Manager:					
93A3 - Team Leader: Joe Summerson	93A5 - Inspector: Joe Deckard					

Resources

Time to Inspect (H:M): 40:00	30:00	Traffic Control: <u>Y</u>	Y	Boat: <u>1</u>	1	Waders: <u> </u>	Snooper: <u>2</u>	2
Ladder: <u> </u>	Manlift: <u>1</u>	1	Bucket Truck: <u> </u>	Other: <u> </u>				

Inspector's Appraisals

92A1-Type: B3	If "X4-Other" Description: Span 5
93A1-Rating: Prev. <u>6</u> New <u>6</u>	FC Method: Prev. <u>V UT</u> New: MP <input type="checkbox"/> DP <input type="checkbox"/> UT <input type="checkbox"/> V <input checked="" type="checkbox"/>
93A2-Remarks: Members: U13-L13, U13'-L13'	
minor rust	

92A1-Type: B5	If "X4-Other" Description: Spans 4,5 & 6
93A1-Rating: Prev. <u>6</u> New <u>6</u>	FC Method: Prev. <u>V</u> New: MP <input type="checkbox"/> DP <input type="checkbox"/> UT <input type="checkbox"/> V <input checked="" type="checkbox"/>
93A2-Remarks: Members: L13-L17, U14-L14, U14-L15, U16-L16, U16-L17, L17-U16', U16'-L16', L15'-U14', U14'-L14'	
L17'-L13'	
minor rust	

92A1-Type: B6	If "X4-Other" Description: Spans 4,5 & 6
93A1-Rating: Prev. <u>5</u> New <u>5</u>	FC Method: Prev. <u>V</u> New: MP <input type="checkbox"/> DP <input type="checkbox"/> UT <input checked="" type="checkbox"/> V <input checked="" type="checkbox"/>
93A2-Remarks: Members: L0-L2, U1-U13, U1-L1, L2-U3, U3-L3, L4-U5, U5-L5, L6-U7, U7-L7, U9-L9, U9-L10, U11-L11, U11-L12, L0'-L2', U1'-U13', U1'-L1', L2'-U3', U3'-L3', L4'-U5', U5'-L5', L6'-U7', U7'-L7', U9'-L9', U9'-L10', U11'-L11', U11'-L12',	
Up to 22% in gussett plate. Up to 19% in truss.	

92A1-Type: X2	If "X4-Other" Description: Spans 4,5 & 6
93A1-Rating: Prev. <u>5</u> New <u>5</u>	FC Method: Prev. <u>V</u> New: MP <input type="checkbox"/> DP <input type="checkbox"/> UT <input checked="" type="checkbox"/> V <input checked="" type="checkbox"/>
93A2-Remarks: Missing bolts, up to 4% section loss	

92A1-Type: _____ If "X4-Other" Description: _____
 93A1-Rating: Prev. New FC Method: Prev. New: MP DP UT V
 93A2-Remarks: _____

92A1-Type: _____ If "X4-Other" Description: _____
 93A1-Rating: Prev. New FC Method: Prev. New: MP DP UT V
 93A2-Remarks: _____

92A1-Type: _____ If "X4-Other" Description: _____
 93A1-Rating: Prev. New FC Method: Prev. New: MP DP UT V
 93A2-Remarks: _____

92A1-Type: _____ If "X4-Other" Description: _____
 93A1-Rating: Prev. New FC Method: Prev. New: MP DP UT V
 93A2-Remarks: _____

92A1-Type: _____ If "X4-Other" Description: _____
 93A1-Rating: Prev. New FC Method: Prev. New: MP DP UT V
 93A2-Remarks: _____

	Signature	Date
Inspection Team Leader:	<i>Joseph Summerson</i>	01/04/2022
Consultant Program Manager:		
Agency Program Manager:	<i>William A. Beisner</i>	<i>1/5/2022</i>

Two Girder

- A1- Suspension Link & Pin
- A2- Suspension Single Pin
- A3- Tension Flanges Riveted/
Bolted Plate Girders
- A4- Bearing Seat of Suspended
Spans
- A5- Tension Flange of Rolled
Beam
- A6- Tension Flange of Welded
Plate Girders
- A7- Tension Flanges of Lattice
Truss Web Girders

Truss System

- B1- Eyebars & Pin Tension Members
- B2- Simple Span Welded Truss
Tension Members
- B3- Hanger Link & Pin of Suspended
Trusses
- B4- Single Element Tension Members
- B5- Simple Span Riveted/Bolted
Tension Members
- B6- Continuous Truss System- Welded,
Riveted or Bolted Tension Members

Cable Stayed & Suspension

- C1- Suspension Bridge- Cables
- C2- Cable Stayed- Cables
- Tied Arches**
- D1- Welded Box Ties
- D2- Riveted/Bolted Box Ties
- D3- Stiffened Girders
- Framed Steel Substructure**
- E1- Welded or Rolled Pier Cap
- E2- Riveted or Bolted Pier Cap
- E3- Welded or Rolled Pier Column
- E4- Riveted or Bolted Pier Column

Box Beams

- F1- Single Welded Box
- F2- Single Riveted/Bolted Box
- F3- Double Box Beam- Welded,
Riveted or Bolted
- Other Types**
- X1- Bascule
- X2- Floorbeams supporting other
steel members or spacing > 15 ft.
- X3- Cross Frames or Transfer
Beams
- X4- Other



Bridge Inspection Report

Structure Number: 099-0009 Date: 08/16/2021
 Inspector 1: Joe Deckard Qualification: IDOT I Employer: IDOT
 (IDOT, ASNT Level, etc.)
 Inspector 2: _____ Qualification: _____ Employer: _____
 Prev. Insp. Date: 08/05/2019 Girder #1 on East side Upstation to South # joints = _____

Pin Data*:

Diam: 6.5" Length: 27.8" Material: A276 # nuts/end: 2
 *If pin geometry varies between joints, use separate sheets.
 For pins with special features (cotter pins, integral head, stepped shoulder) attach sketch of pin to report; Sketch

UT data:

Trans. diam: 1" Freq: 3.5 MHz Gain: 50% sc. ht. 60 dB Scan at 70 dB

Link data:

Width 1.33" CL - CL Pins: 16.75" Thickness: 1.5" Material: Low Alloy (A242)



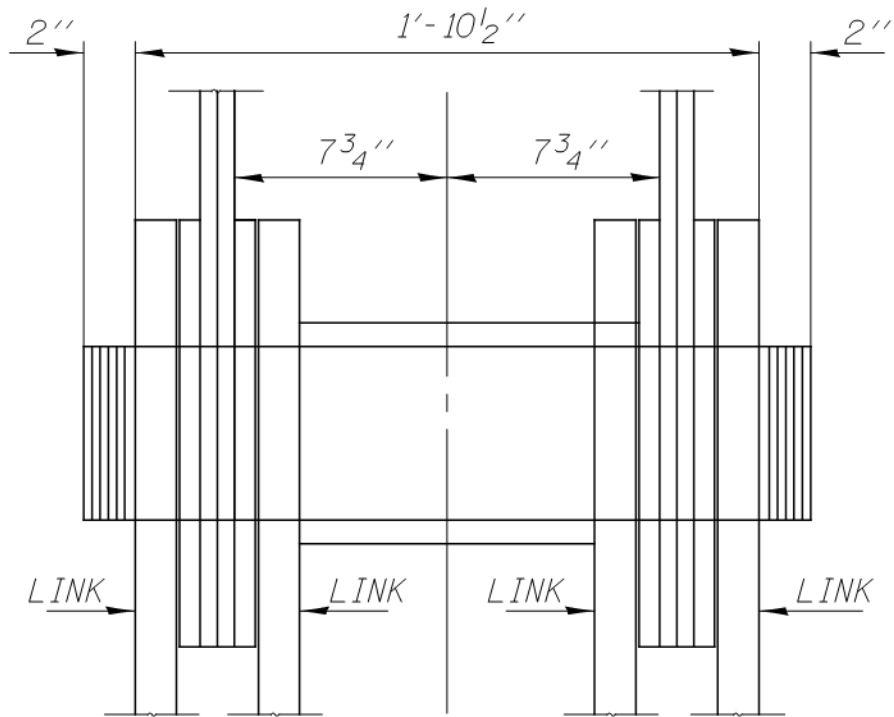
Span # 1 Span # 7
 Nor Abut Pier # 1 Looking E Pier # 6 S Abut

Check or "ok" indicates acceptable. For remarks, see below.

Member	Span	Dist to Pier #	Top/Single Pin	Bot Pin	Near Link	Far	Inspector #
L0E	4	at P3	OK	OK	OK	OK	1
L0W	4	at P3	OK	OK	OK	OK	1
L0'E	6	at P6	OK	OK	OK	OK	1
L0'W	6	at P6	OK	OK	OK	OK	1

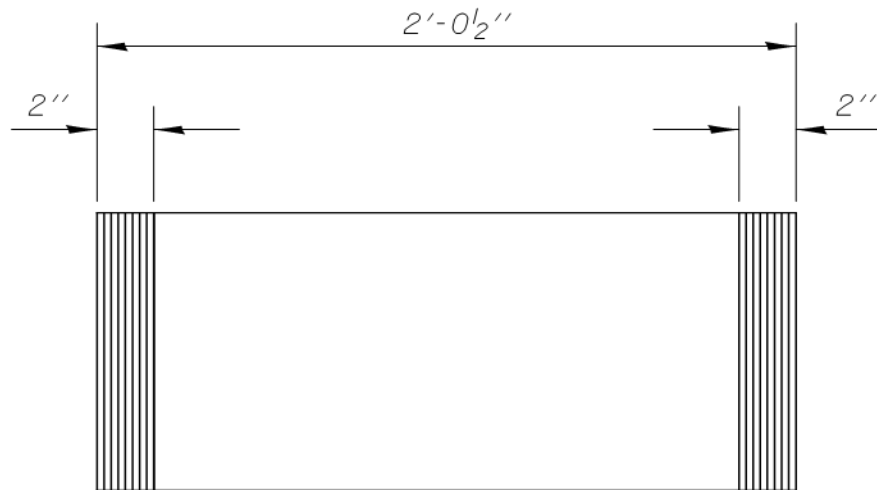
Inspection Remarks:

	Signature	Date
Inspector 1:	<i>Joe Deckard</i>	01/04/2021
Inspector 2:		



BEARING PINS

@ L0 & L0'



TRUSS PINS

@ PP 13 & 13'
UPPER & LOWER

PIN DETAILS



SN: 099-0009	District: 1	Spans: 3	Appr. Spans: 4	Skew: 0	ADT: 24200	Truck Pct: 7
ADT Un:	Maint. Co: Will	Twsp: Channahon	Status: Open- No restriction.			
Facility Carried: I - 55 NB			Feature Crossed: Des Plaines River			
Location: 2.3 Miles South of US 6		Municipality:	Team/Sub Section: 137/555		Insp/Rte: 24	
Bridge Name: Smith Bridge			Material & Type: Steel Continuous/ Cantilever through Truss			
Insp. Intervals Routine: 24		Fracture Critical: 24	Underwater: 60	Special: 0	Element Level: 24	
93C- Inspection Date: 08/16/2021		93C6- Temp. (°F): 77				
Is Delinquent:	<input type="checkbox"/>	Reason:				
90E-Agency Program Manager: William A. Beisner		90E3-Consultant Program Manager:				
90E1- Team Leader: Joe Summerson		90E2- Inspector: Joe Deckard				

Resources

Time to Inspect (H:M):	<u>40</u> : <u>0</u>	30 : 0	Traffic Control:	<u>Y</u>	Y	Boat:	<u>1</u>	1	Waders:	<u>_</u>	Snooper:	<u>2</u>	2
Ladder:	<u>_</u>	Manlift:	<u>1</u>	Bucket Truck:	<u>_</u>	Other:							

Inspector's Appraisals

Element	Element Description	Env	Quantity	Unit	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	4	17036	SF	14930	1087	0	1019
	Remarks	Spalling/delamination/map cracking, exposed rebar with section loss						
29	Steel Deck with Concrete Filled Grid	4	32432	SF	24801	7326	229	76
	Remarks	Spalling/delamination/map cracking, transverse cracking						
8102	Steel Beam/ Girder/ Stringer End	4	114	EA	111	3	0	0
	Remarks	Minor section loss due to joint leaking						
107	Steel Open Girder/ Beam	4	2886	LF	2226	660	0	0
	Remarks	Minor areas of section loss (outside girders)						
113	Steel Stringer	4	8262	LF	7780	437	45	0
	Remarks	Moderate section loss (majority at joint locations)						
120	Steel Truss	4	918	LF	825	40	3	0
	Remarks	Minor and moderate areas of section loss (in addition to access holes)						
152	Steel Floor Beam	4	1332	LF	1325	5	2	0
	Remarks	Minor section loss at ends of floorbeam						
161	Steel Pin and Pin Hanger Assembly or both	4	4	EA	4	0	0	0
	Remarks							
162	Steel Gusset Plate	4	212	EA	210	2	0	0
	Remarks	Minor section loss						
205	Reinforced Concrete Column	1	14	EA	14	0	0	0
	Remarks							
210	Reinforced Concrete Pier Wall	1	252	LF	252	0	0	0
	Remarks							
215	Reinforced Concrete Abutment	1	102	LF	87	10	5	0
	Remarks	Spalling/delamination/map cracking						
234	Reinforced Concrete Pier Cap	1	206	LF	206	0	0	0
	Remarks							
300	Strip Seal Expansion Joint	4	180	LF	180	0	0	0
	Remarks							
301	Pourable Joint Seal	4	252	LF	237	0	15	0
	Remarks	15' Leaking in Span 5						
303	Assembly Joint with Seal (Modular)	4	36	LF	36	0	0	0
	Remarks							
310	Elastometric Bearing	4	108	EA	84	24	0	0
	Remarks	Minor cracking						

Element Level Inspection Report

Structure Number: 099-0009

Element	Element Description	Env	Quantity	Unit	CS1	CS2	CS3	CS4
311	Movable Bearing	4	14	EA	0	8	6	0
	Remarks	Minor to moderate section loss on several						
313	Fixed Bearing	4	16	EA	6	10	0	0
	Remarks	Minor section loss						
330	Metal Bridge Railing	4	1842	LF	1542	300	0	0
	Remarks	Minor impact damage						
331	Reinforced Concrete Bridge Railing	4	790	LF	186	604	0	0
	Remarks	Spalling/delamination/map cracking						
8510	Flexible Wearing Surface	4	32432	SF	32432	0	0	0
	Remarks							
8511	Rigid Waring Surfaces	4	17036	SF	15036	2000	0	0
	Remarks	Spalling/delamination/map cracking						
515	Steel Protective Coating	4	189821	SF	178236	3947	0	7638
	Remarks	Minor pitting and failure throughout						
	Remarks							
	Remarks							
	Remarks							
	Remarks							
	Remarks							
	Remarks							

	Signature	Date
Inspection Team Leader:	<i>Joseph Summerson</i>	01/04/2022
Consultant Program Manager:		
Agency Program Manager:	<i>William A. Beisner</i>	1/5/2022



SN: 099-0009	District: 1	Spans: 3	Appr. Spans: 4	Skew: 0	ADT: 24200	Truck Pct: 7
ADT Un:	Maint. Co: Will	Twsp: Channahon	Status: Open - no restrictions			
Facility Carried: I - 55 NB	Feature Crossed: Des Plaines River					
Location: 2.3 miles South of US 6	Municipality:	Team/Sub Section: 137/555	Insp/Rte: 037			
Bridge Name: Smith Bridge	Material & Type: Steel Continuous/ Cantilever through Truss					
Insp. Intervals Routine: 24	Fracture Critical: 24	Underwater: 60	Special: 0	Element Level: 24		
93B- Inspection Date: 08/16/2021	93B6- Temp. (°F): 77					
Is Delinquent: <input type="checkbox"/>	Reason:					
90A - Agency Program Manager: William A. Beisner	90A3 - Consultant Program Manager:					
93B3 - Team Leader: Joe Summerson	93B7 - Inspector: Joe Deckard					
93B2 - Underwater Inspection Remarks:						

Previous Inspection	
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Resources

Time to Inspect (H:M): 2:00	Traffic Control: North	Boat: 1	Waders: ___	Snooper: ___
Ladder: ___	Manlift: ___	Bucket Truck: ___	Other: ___	

Inspector's Appraisals

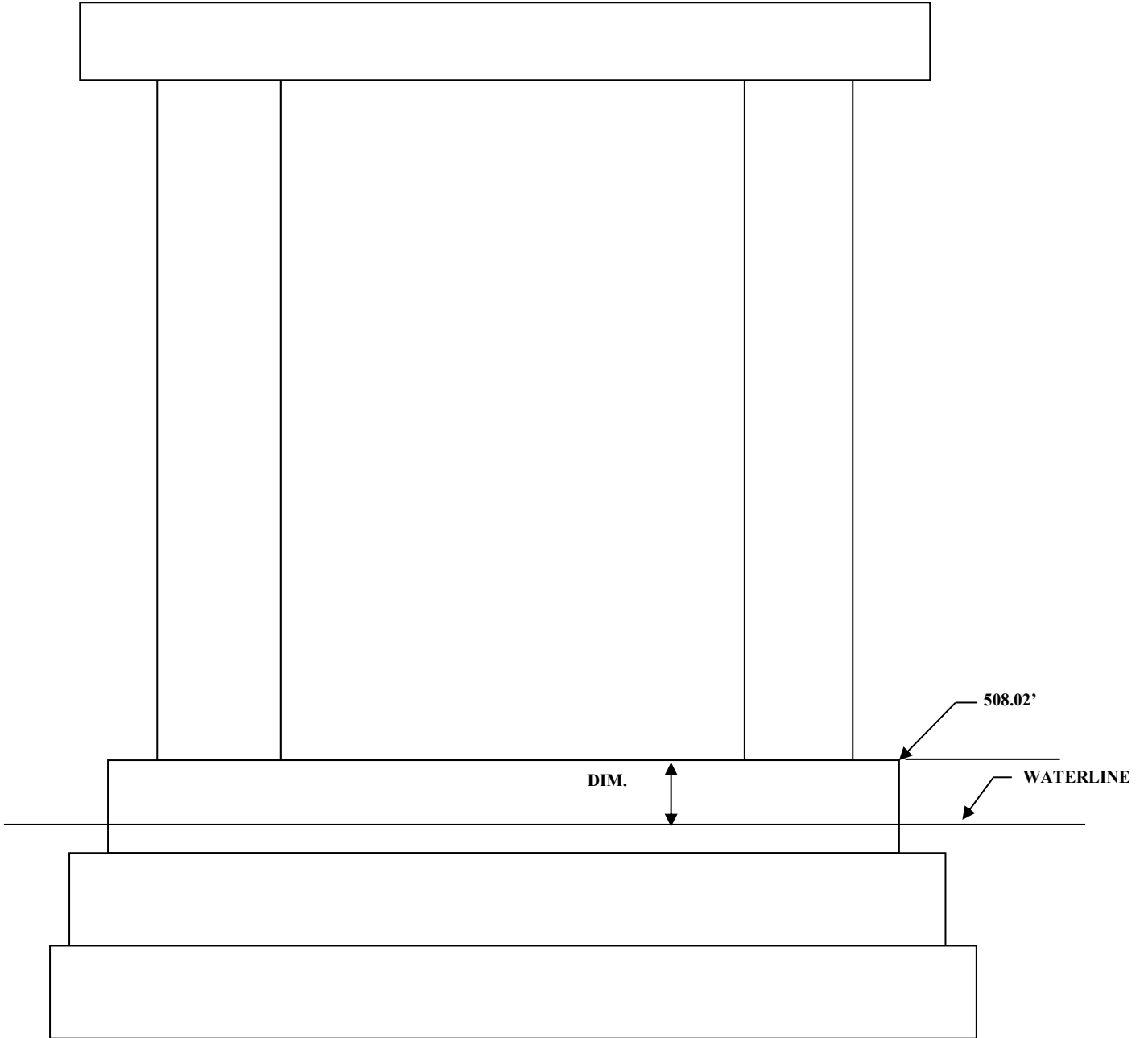
93B8- Substructure Units Inspected	93B1- Rating				
Piers 3 - 5	<table border="1"> <tr> <td>Prev</td> <td>New</td> </tr> <tr> <td>5</td> <td>5</td> </tr> </table>	Prev	New	5	5
Prev	New				
5	5				
93B4 - Method: <table border="1"><tr><td>S</td><td>P</td><td>___</td><td>___</td></tr></table> S P	S	P	___	___	If "O-Other" Describe: _____
S	P	___	___		

93B2 - Underwater Inspection Remarks:

Exposed footing at Piers 4 & 5 .

	Signature	Date
Inspection Team Leader:	<i>Joseph Summerson</i>	01/04/2022
Consultant Program Manager:		
Agency Program Manager	<i>William A. Beisner</i>	<i>1/5/2022</i>

P 4



DETAIL A

UNDERWATER INVESTIGATION

SHEET 1 OF 3

STRUCTURE NUMBER: 099-0009

WATER ELEVATION: 504.42'

INSPECTION DATE: 08/16/2021

DETAIL/DIM. /ELEV.: A/3.6/508.02'

INSPECTED BY: J. Summerson, M. Rives, A. Young



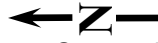
50'	25'	Edge	Center Line	Edge	25'	50'
50' (+/-)		503	503	503	503	503
25' (+/-)		503	503	503	503	503
Edge		503	503	503	503	503
	Bank					
C.L		503	<div data-bbox="667 871 1050 1425" style="border: 1px solid black; padding: 5px;"> <p align="center">PIER: 3</p> <p>FLOW DIR.: ↓</p> <p>TOP FOOTING ELEVATION: 495.08'</p> <p>BOT. FOOTING ELEVATION: 490.48'</p> <p>DESIGN S.B. ELEVATION: NA</p> <p>BOT. SEALCOAT: 480.0'</p> </div>	503	503	503
Edge		503	503	503	503	503
25' (+/-)		503	503	503	503	503
50' (+/-)		503	503	503	503	503

UNDERWATER INVESTIGATION

SHEET 2 OF 3

STRUCTURE NUMBER: 099-0009
INSPECTION DATE: 8/16/2021
INSPECTED BY: J. Summerson, M. Rives, A. Young

WATER ELEVATION: 504.42'
DETAIL/DIM. /ELEV.: A/3.6/508.02'



	50'	25'	Edge	Center Line	Edge	25'	50'
50' (+/-)502		502	502	494	492	492	492
25' (+/-)502		502	502	494	493	493	493
Edge 502	502	502	502	494	493	493	493
C.L. 502	502	502	502		497	495	494
Edge 502	502	502	502	502	502	501	502
25' (+/-)502		502	502	502	502	502	502
50' (+/-)502		502	502	502	502	502	502

PIER: 4

FLOW DIR.: ↓

**TOP FOOTING
ELEVATION: 496.02'**

**BOT. FOOTING
ELEVATION: 490.02'**

**DESIGN S.B.
ELEVATION: NA**

BOT. SEALCOAT: 478.52'

UNDERWATER INVESTIGATION

SHEET 3 OF 3

STRUCTURE NUMBER: 099-0009

WATER ELEVATION: 504.42'

INSPECTION DATE: 8/16/2021

DETAIL/DIM. /ELEV.: A/3.6/508.02'

INSPECTED BY: J. Summerson, M. Rives, A. Young

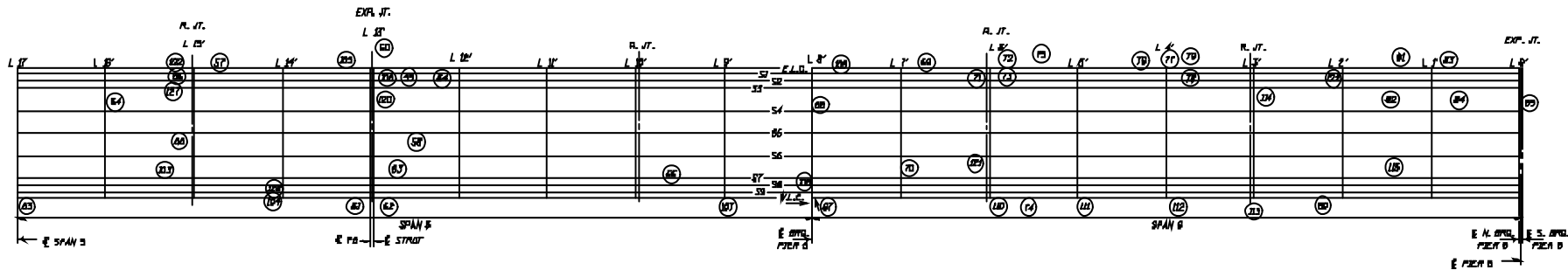
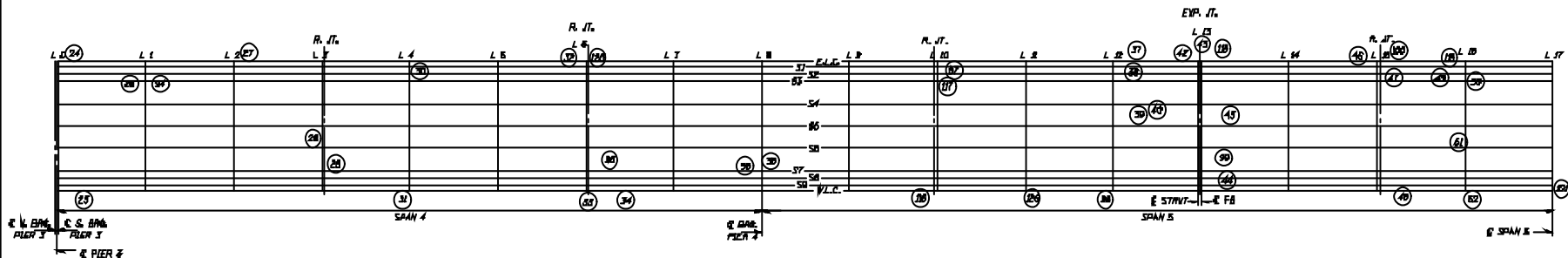
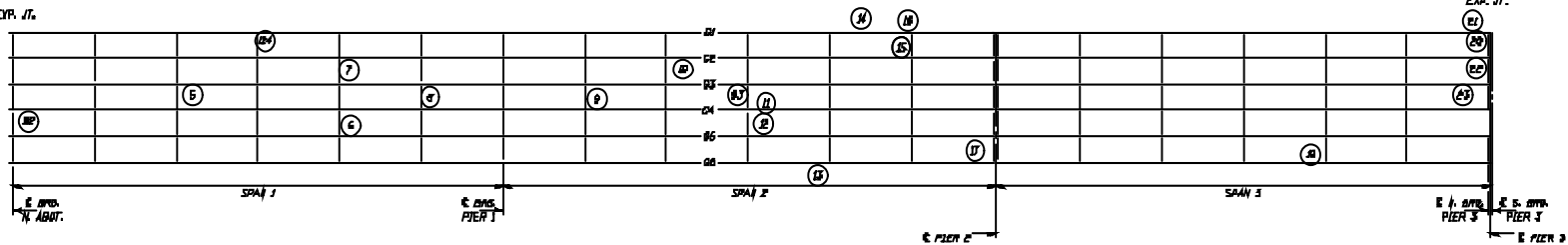


	50'	25'	Edge	Center Line	Edge	25'	50'	
50' (+/-)491		492	492	492	494	496	503	
25' (+/-)490		493	493	493	496	503	503	
Edge 491		496	495	496	503	503	503	
			<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">PIER: 5</p> <p>FLOW DIR.: ↓</p> <p>TOP FOOTING ELEVATION: 500.02'</p> <p>BOT. FOOTING ELEVATION: 494.02'</p> <p>DESIGN S.B. ELEVATION: NA</p> <p>BOT. SEALCOAT: 485.02'</p> </div>					
C.L. 492		496	498		503	503	503	
Edge 492		494	496	496	503	503	503	
25' (+/-)491		492	494	495	503	503	503	
50' (+/-)492		491	492	493	503	503	503	

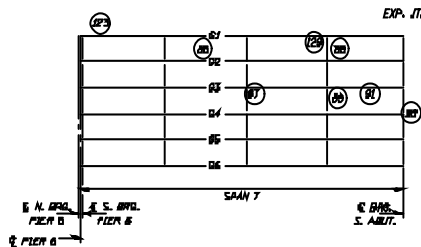
Repaired items removed from report

18, 35, 41, 65

EXP. JT.



- ① FITCH IN DEF. TABLE
- ② PADW' BKN. COLL
- ③ CONC. DECK BKN
- ④ BRKD DECK BKN
- ⑤ OVERLAY BKN. CONC.



DES PLAINES SOUTH BRIDGE
008-0000

TABLE OF DEFICIENCIES

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SN: 099-0009
Date: August 16, 2021

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“?” Indicates new photo needed

ITEM#	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
1	All	Paint	Throughout	1,2,3,4,5,6	See ELI Form	N/A Zone Paint @ Joints	2000	
2	1,2,3,7	Concrete Deck	Throughout	7,8	See ELI Form	N/A	2000	
3	4,5,6	Filled Grid Deck	Throughout	9,10	See ELI Form	N/A	2001	
4	All	Overlay	Throughout	11,12	See ELI Form	N/A	2015	
92	1	Cross Frame	Between Girder 3 & Girder 4 @ North Abutment	13 LE	40% SL, 2" X 30"L hole in lower horizontal	N/A	2017	
5	1	Cross Frame	3 rd Cross Frame from North Abutment @ Girder 3, between Girder 3 & Girder 4	14 LE	7 3/4" Crack in angle to web	Repair	2013	
124	1	Cross Frame	4 th Cross Frame from Pier 1	40 LE	1- Missing bolt	N/A	2021	
6	1	Cross Frame	3 rd Cross Frame from Pier 1 between Girder 4 & Girder 5	49 LN	4" x 1/4" Offset on diagonal & 3" x 1/4" Offset on top angle	N/A	1999	
7	1	Cross Frame	3 rd Cross Frame from Pier 1 between Girder 2 & Girder 3	132 LN	3" X 1/4" Offset on top angle	N/A	1999	
8	1	Cross Frame	2 nd Cross Frame North of Pier 1, between Girder 3 & Girder 4	108 LN	12" x 1" Offset on top angle	N/A	2005	
9	2	Cross Frame	2 nd Cross Frame from Pier 1, between Girder 3 & Girder 4	15 LN	8" x 1" offset in angle & 5% SL, 5/8" missing bolt @ bottom of angle @ Girder 3	N/A	2005	
10	2	Girder 3	1 st stiffener s of 3 rd Cross Frame from Pier 1, East side	16 LE	18" X 2" offset on stiffener & 9 1/2" X 1/2" offset in web	N/A	1999	
93	2	Cross Frame	4 th Cross Frame from Pier 1 Between Girder 3 & Girder 4 @ Girder 3	17 LE	1 missing bolt in angle	Repair	2017	
11	2	Girder 4	East angle at 4 th Cross Frame from Pier 1	18 LE	12" x 1/4" offset on angle bottom flange	N/A	1999	

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12	2	Girder 5	East angle 4 th Cross Frame from Pier 1	19 LE	18" x 1/2" offset on angle bottom flange	N/A	1999	
13	2	Girder 6	3 rd Cross Frame from Pier 2	20 LSE	13" x 5/8" offset on outside angle bottom flange	N/A	1999	
14	2	Girder 1	1 st splice North of Pier 2	109 LE	18" x 5/8" offset on east angle bottom flange	N/A	2000	
15	2	Girder 2	2 nd Cross Frame from Pier 2 East Side	21 LNW	angle welded to bottom flange	N/A	1999	
16	2	Girder 1	2 nd Cross Frame North of Pier 2, East face	22 LE	angle welded to bottom flange	N/A	2009	
17	2, 3	Bearing	Pier 2, Girder 6	23 LN	Missing both bearing guides	Repair	2009	
19	3	Girder 6	1 ST Stiffener North of 3 rd Cross Frame From Pier 3, East Side	24 LE	3' x 1 1/2" Offset in stiffener	N/A	1999	
20	3	Girder 1	3 rd Stiffener From Pier 3, West Side	25 LE	12" x 3/4" Offset on stiffener	N/A	1999	
21	3	Girder 1	@ 3 rd Stiffener From Pier 3	25 LE	4% SL, 12" X 1" L area of loss in Web; 0.295" Avg. Rem., 0.375" Nom.	N/A	2009	
22	3	Girder 2	3 rd Stiffener From Pier 3, West Side & East Side	26 LE	4' X 1" Offset on stiffener west side, 12" X 1" Offset on stiff east side	N/A	1999	
23	3	Girder 3	3 rd Stiffener From Pier 3, East Side	27 LE	3' X 1/2" Offset on Stiffener	N/A	1999	
24	4	L0E-L1E	@ L0E	28 LE	8% SL (See Detail 1)	N/A	2021	
25	4	L0W-L1W	@ L0W & L1W, Full Length	29 LS	9% SL (See Detail 2)	N/A	2013	
26	4	L1E-U1E	@ L1E	30 LE	19% SL (See Detail 16)	Repair IRF=1.081, SL= 19%	2015	

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ITEM#	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
94	4	L1E-L2E	@ L1E	31 LE	9% SL (See Detail 16)	N/A	2017	
27	4	L2E-U3E	@ L2E	32 LE	6% SL 6" area of loss with 2" hole in web & 3-1" holes in web at other sections (2-C18 X 42.7 & 2- Pl. 3/8" X 15" & 6" X 12" access hole)	N/A	2015	
28	4	Sway Brace	P.P. 3	110 LSE	6' X 2" Offset centerline driving lane (Lane 2), 15' X 4" Offset centerline passing lane (Lane 1)	N/A	1999	
29	4	L3W-L4E	@ L3W	33 LN	20% SL, 3" holes in bottom of angle	N/A	2015	
30	4	L4E-U4E	@ L4E	34 LE	<3% SL, 4" area of loss with 1" hole in outside channel, (2-C12 X 20.7 & 2- Pl. 3/8" X 15")	N/A	2015	
31	4	Gusset Plate	L4W (outside)	35 LSW	14% SL, (See Detail 3)	Repair	2009	
32	4	U5E-U6E	U6E	36 LNE	Partial crack tack weld	N/A	2009	
33	4	Gusset Plate	L6W (outside)	37 LSE	8% SL, (See Detail 4)	N/A	2009	
125	4	Connection Plate	@ L6E	111 LN	2-2" Torch cut 1-5" Torch cut 1-Broken bolt bottom flange of floorbeam to connection plate	N/A	2021	
95	4	L6W-L7E	@ Last 8' From L6W	38 LN	30% SL, 2-3" holes in angles, 10% SL 1" hole as well as 2-2" & 1-4" Torch cuts in bottom connection plate	N/A	2017	
34	4	S9	Floorbeam 7, Panel 7	39 LS	13% SL in bottom flange, (See Detail 5)	N/A IRF = 99.00 Zero Force Member	2015	

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ITEM#	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
96	4	L7E-L8W	@ Last 10' from L8W	41 LS	40% SL, 4" hole, 5-3" cracks. ½" full length offset	Repair	2017	
36	4, 5	Floorbeam 8	Below Stringers 2, 3 & 7, South Face	42 LN	4% Section loss, 18" X 18"L area of loss in Web; 0.698" Avg. Rem., 0.725" Nom.	N/A	2009	
97	5	L10E-U10E	10' Above Deck	43 LNE	16% Section loss (See Detail 17)	Repair	2017	
116	5	Floorbeam 10	West End	44 LS	7% Section loss web, .70" Avg. Rem. .75" Nom.	N/A	2019	
117	5	L10E-L11W	@ L10E	45 LN	5% Section loss, 2" hole in bottom connection plate	N/A	2019	
126	5	L11W-U11W	@L11W	112 LE 113 LSW	7% S.L., 3" hole in Outside channel @ top gusset plate	N/A	2021	
98	5	L12W-U12W	15' Above Deck	46 LN	0% SL, 1 – 15/16" Misdrilled hole (Between access holes)	N/A	2017	
37	5	U12E-U13E	U12E	47 LN	Partial crack tack weld	N/A	2009	
38	5	L12E-U13E	3' from Portal Frame	114 LE	7" X 3/8" Offset	N/A	2009	
39	5	Portal Frame	Between Panel Point 12 & 13	115 LSW	¼" X 6" L Offset Centerline driving lane (Lane 2)	N/A	2001	
40	5	Lateral Bracing	L12W to Mid-Point Floorbeam 13, Full Length	48 LN	40% SL, 3/16" loss in angles, 1- Broken Rivet	N/A	2013	
42	5	L12E-L13E	@ L13E	50 LE	45% SL (See Detail 6)	Repair Zero Force Member	2013	
43	5	U12E-U13E	U13E	51 LSW	Partial crack tack weld 1 each side	N/A	2009	
118	5	Conduit	@ L13E	52 LE	Broken conduit	Repair	2019	
44	5	L13W-U13W	3' from L13W	53 LE	3% SL, 10" X 6 ½" L Area Of Loss Is Plate; 0.382" Avg. Rem., 0.5" Nom.	N/A	2009	

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ITEM#	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
99	5	Lateral Bracing	L13W to Mid-Point Floorbeam 14, Last 12' From L13W	54 LSW	50% SL, 2-4" holes, 3-3" cracks	Repair	2017	
45	5	Portal Frame	Between Panel Point 13 & 14	116 LE	6" X ¼" offset centerline driving lane (Lane 2)	N/A	2001	
100	5	Joint	@ Panel Point 15	55 LE	10' of Joint failed, 6' east end & 4' West end	Repair	2017	
46	5	L15E-U15E	2' Above L15E	56 LSW	0% SL, 2" Hole in North plate (Between access holes)	N/A	2015	
47	5	Gusset Plate	U15E (inside)	57 LE	1 ½" X 1" Torch cut hole	N/A	2009	
48	5	L15W-L16W	6'S OF L15W	58 LSE	0% SL, 1" X 3"L hole in top plate (Between Access Holes)	N/A	2015	
49	5	Stringer 3	Throughout, Panel 16	59 LNE.	21% Top flange, (See Detail 7)	N/A 21% SL Top Flange IRF = 1.453	2013	
119	5	Gusset Plate	@ U16E I.S. Plate	60 LE	¾ " Misdrilled hole	N/A	2019	
50	5	L16E-U16E	18" from L16E	61 LE	<3% SL, 2" X 3"L Area of loss W/ 1" Hole	N/A	2009	
51	5	Sway Brace	Panel Point 16, West lane	117 LSE	15' X 4" Offset (Lane 1)	N/A	1999	
52	5	Gusset Plate	L16W (Outside)	62 LN	18" X ½" Offset due to pack rust	N/A	2009	
101	5	L17W-U17W	8' from deck, East web, 1' from U17W, West web	63 LN 64 LN	2 – 1'1 X ¼"D X 1/8"w torch cuts, 3 ½" X ½" Offset West channel, 5" X ¾" Offset North cover plate	N/A	2009	
54	5	Sway Brace	P.P. 16'	118 LE	8" X ½" Offset	N/A	2005	
55	5	Diaphragm	Floorbeam 15', Panel 16' Between Stringer 5 & 6	119 LS	18" X 1" Offset bottom flange	N/A	2001	

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ITEM#	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
56	5	U16'E-U15'E	@ U15'E	65 LSE	Partial crack tack weld	N/A	2015	
102	5	L16'E-L15'E	4' from L15'E	66 LE	0% SL 6" X 2"L hole in top plate @ Splice	N/A	2017	
127	5	L16'W -L15'E	5' from L15'E	<u>120</u> LE	50% SL to angle	N/A	2021	
103	5	Diaphragm	Between Stringer 6-& 7, @ Floorbeam 15'	67 LSW	20% SL, 1" hole in top of web 1" X 3"L hole in bottom of web	N/A	2017	
57	5	L15'E-U14'E	@ L15'E	68 LNW	0% SL, 2" hole in bottom Cover plate & 2 -15/16" Misdrilled holes 1 each side (Not in Line with Access Hole)	N/A	2015	
104	5	L15'W-L14'W	@ L14'W	69 LE	2% SL, 3" area of loss with 1" hole in channel web	N/A	2017	
128	5	Floorbeam 13'	@ Stringer 9, Panel 14'	<u>121</u> LSW	1" Hole in Bearing Stiffener	N/A	2021	
105	5	L13'E- Mid-Point Floorbeam 14'	3' from L13'E	70 LS	2- Broken Bolts	N/A	2017	
61	5	Gusset Plate	U13'W (Outside)	71 LSE	1" Misdrilled Hole	N/A	2009	
106	5	Stringer 1	@ Floorbeam 13' Panel 13'	72 LE, 73LN	49% SL in Web, 27% Web Bearing Loss (See Detail 10)	N/A Zero Force Member	2017	X
60	5	L13'E-L12'E	@ L13'E	74 LNW	7% SL (See Detail 8)	N/A Zero Force Member	2005	
62	5	L13'W-L12'W	@ L13'W	75 LNE	3% SL (See Detail 9)	N/A Zero Force Member	2013	
63	5	Stringer 1-9	@ Floorbeam 13', Panel 13'	76 LNW	0% SL Web, 2" Holes Drilled into Web (Abandoned, Reinforced)	N/A	2011	
120	5	Joint	@ P.P. 13'	77 LE	5' Failed East end	Repair	2019	
59	5	Stringer 1	@ Floorbeam 13', Panel 13'	<u>122</u> LE	10" X 1/2" Offset bottom flange	N/A	2001	

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ITEM#	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
58	5	Portal Frame	Mid-Point., Between Panel Point 12' & Panel Point 13'	?	6" X 1/2" Offset	N/A	2015	
64	5	U13'E-U12'E	@ U12'E	78 LNE	Partial crack tack weld	N/A	2001	
66	5	Stringer 7	Full Length, Panel 10'	79 LNW	37% SL in Bottom Flange, 24% SL in Top Flange 3% SL in web (See Detail 11)	N/A 37% SL in Bottom Flange, 24% SL in Top Flange 3% SL in web IRF = 1.21	2015	
107	5	L9'W-U9'W	@ L9'W	80 LSE	4% SL 2-15/16" Misdrilled holes (@ Gus. Pl. 1 Per Section)	N/A (1 Per Section)	2017	
67	5,6	L8'W-U8'W	L8'W	81 LNE	4% SL, 6 1/2" X 3"L area of loss in outside channel 0.255" Avg. Rem., 0.387" Nom.	N/A	2009	
108	5,6	L8'W-U8'W	20' from U8'W	123 LS	7% SL, 2-15/16" Misdrilled Holes	N/A	2017	
68	5,6	Sway Brace	P.P. 8'E	124 LS	12" X 1" Offset	N/A	2011	
109	6	L8'E-L7'E	10' from L8'E	82 LNW	0% SL 2" X 9"L hole in top plate (Between Access Holes)	N/A	2017	
69	6	U7'E-U6'E	U7'E	83 LN	<3 % SL 2 - 1" Misdrilled holes in top angle (1 Per Section)	N/A	2009	
70	6	U7'W-U6'W	@ U7'W	84 LE	2 - Partial crack tack weld (tension member)	N/A	2001	
110	6	L7'W-L6'W	@ L6'W	85 LS	0% SL 6" X 12"L area of loss with up to 3" hole in lower chord (Between access holes)	N/A	2017	
71	6	U7'E-L6'E	@ L6'E	86 LE	6% SL, 6" area of loss W/ 2" X 1"L hole in outside channel	N/A	2009	
121	6	Diaphragm	@ Floorbeam 6', Panel 7 Between Stringer 6 & 7	87 LE	1" X 5" Hole in web	N/A	2019	
72	6	Gusset Plate	L6'E (Outside)	88 LN	22% SL (See Detail 12)	N/A 22% SL -IRF = 1.58	2015	

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ITEM#	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
73	6	Gusset Plate	L6'E (Inside)	88 LN	6% SL (See Detail 13)	N/A 6% SL -IRF = 1.58	2009	
74	6	Stringer 8	Full Length, Panel 6'	89 LE	19% SL in Bottom Flange, 14% SL in Top Flange 6% SL in web (See Detail 14)	N/A 19% SL in Bottom Flange, 14% SL in Top Flange 6% SL in Web IRF = 1.69	2015	
111	6	L6'W-L5'W	@ L6'W	90 LN	35% SL 6" Hole in diaphragm, 0% SL, 3" hole in top cover plate	N/A	2017	
75	6	L6'E-L5'E	3' from L6'E	91 LE	0% SL, 2" Hole in Top Plate (Between Access Holes)	N/A	2013	
76	6	U5'E-L4'E	L4'E	92 LE	4% SL, 6" X 1" L area of loss in exterior channel; 0.395" Avg. Rem., 0.6" Nom.	N/A	2009	
77	6	L4'E-U4'E	5' from L4'E	93 LS	3% SL, 2- 7/8" Misdrilled holes in North plate	N/A	2013	
78	6	Stringer 1	@ Floorbeam4', Panel 4'	94 LE	7% SL, 1" hole in web (13 5/8" cope)	N/A	2015	
112	6	L4'W-U4'W	@ L4'W	95 LSE	3% SL, 3" X 1" l area with 1" hole in Web	N/A	2017	
79	6	L4'E-L3'E	@ L4'E	96 LN	0% SL, 2" X 3" L hole in top cover plate	N/A	2015	
114	6	Stringer 2	@ FB3', Panel 3'	97 LN	4-Missing bolts (15/16" Holes) in clip angle connection to bottom flange	N/A	2017	
113	6	L2'W-L1'E	@ L2'W	98 LNW	10% SL 1" hole in angle	N/A	2017	
80	6	U3'W-L2'W	@ L2'W	99 LSE	5% SL, E & W Chan For 6" L in web, .40" Avg. Rem., .45" Nom.	N/A	2013	
122	6	L2'E-U2'E	@ L2'E	100 LNE	5% SL, 6" X 3" l Area with 1" hole (inside channel web)	N/A	2019	
81	6	L2'E-U1'E	5' from L2'E & 13' from L2'E	101 LNE	4% S. L., 3" X 6" L area of loss with 2" hole in channel web.,	N/A	2009	

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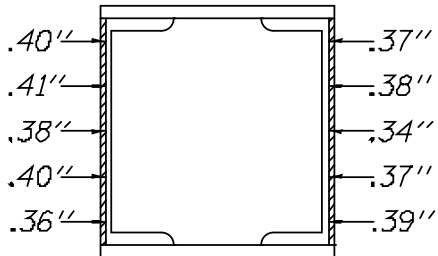
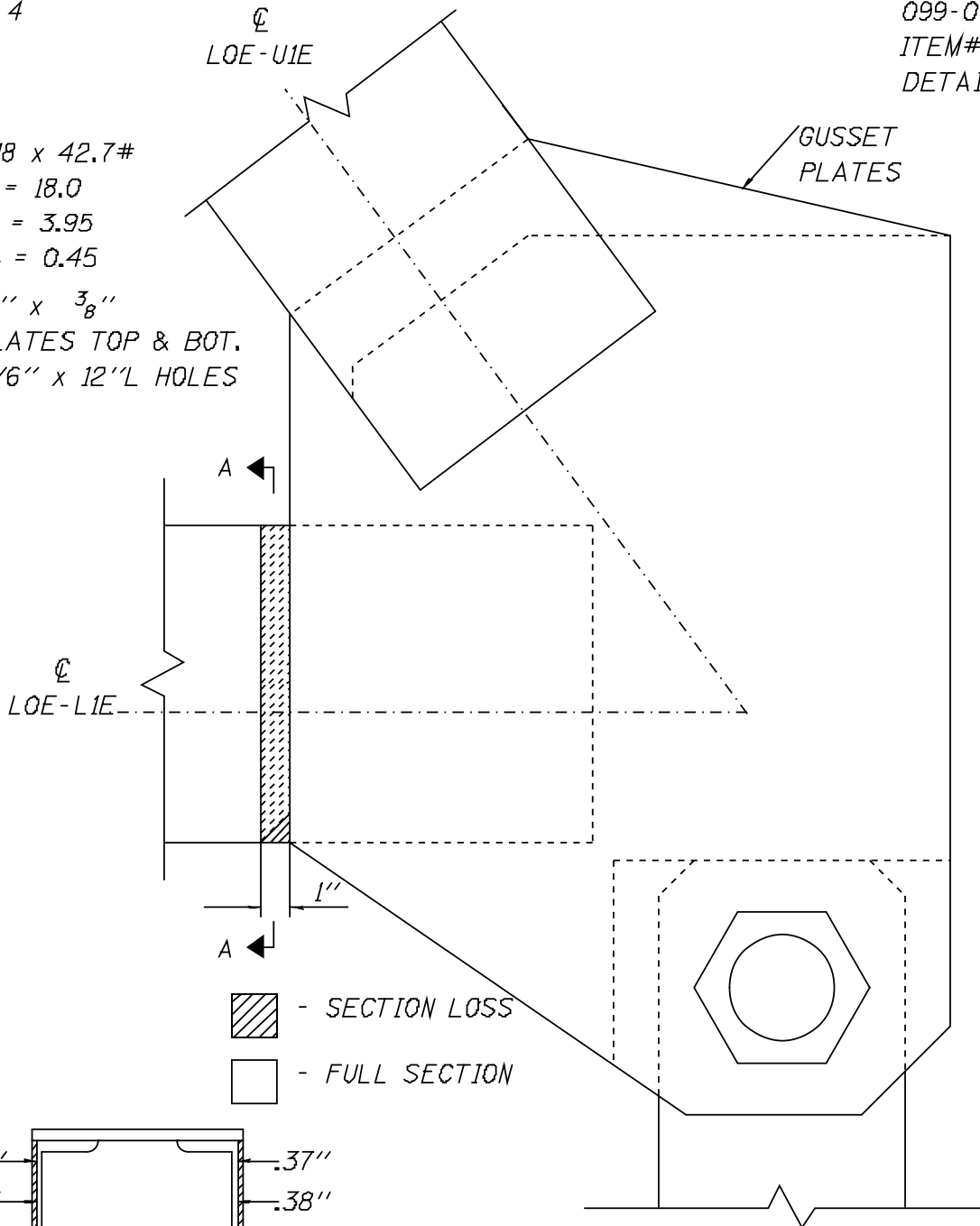
IRF=Inventory Rating Factor
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ITEM#	Span(s)	Member(s)	Location(s)	Photo(s)	Deficiency(ies)	Corrective Action	Year	Load Cap. Re-Eval.
					0.45" Nom.			
82	6	U2'E-U1'W	Panel 2', 11' from East Truss	125 LN	7 1/2" X 1/2" Offset	N/A	2009	
115	6	L2'E-L1'W	@ L1'W	102 LN	10% SL, 2" area with 1" Hole in angle	N/A	2017	
83	6	L1'E-U1'E	5' Above L1'E	126 LE	5" X 5/8" Offset	N/A	2011	
84	6	Stringer 3	3' South of Floorbeam 1', East Face	127 LN	15" X 7/8" Offset on angle bottom flange	N/A	2009	
85	6	Floorbeam 0'	South Face	128 LS	8 - Welded attachments on bottom flange	N/A	2009	
123	7	Conduit	@ P. 6	103 LE	Broken conduit	Repair	2019	
86	7	Girder 2	10 TH Stiffener from Pier 6, East Face	129 LE	7" X 1/2" Offset	N/A	2013	
129	7	Girder 1	15' South of Pier 6	130 LNE	18% SL, Bottom Flange (See Deta;l 18)	Repair	2021	X
87	7	Cross Frame	3rd Cross Frame from P. 6, Between Girder 3 & Girder 4 @ Girder 3	104 LE	12 3/4" Crack in stiffener	Repair	2015	
88	7	Cross Frame	4 th Cross Frame from P. 6, Between Girder 1 & Girder 2	131 LS	18" X 1/2" Offset	N/A	1999	
89	7	Cross Frame	4th Cross Frame From P. 6, Between Girder 3 & Girder 4 @ Girder 3	105 LN	1 Missing bolt & 1 loose bolt	Repair (Need A 3"- 3 1/2 " Bolt)	2015	
90	7	Girder 4	@ South Abutment	106 LSW	Cracks in bottom flange angles (See Detail 15)	Repair	2015	
91	7	South Abutment	Cap	107 LSE	10 Square Feet delamination/spalled cap	N/A	2013	

SPAN 4
@LOE

099-0009
ITEM# 24
DETAIL 1

C18 x 42.7#
d = 18.0
b_f = 3.95
t_w = 0.45
15" x 3/8"
PLATES TOP & BOT.
w/6" x 12"L HOLES



SEC. A-A

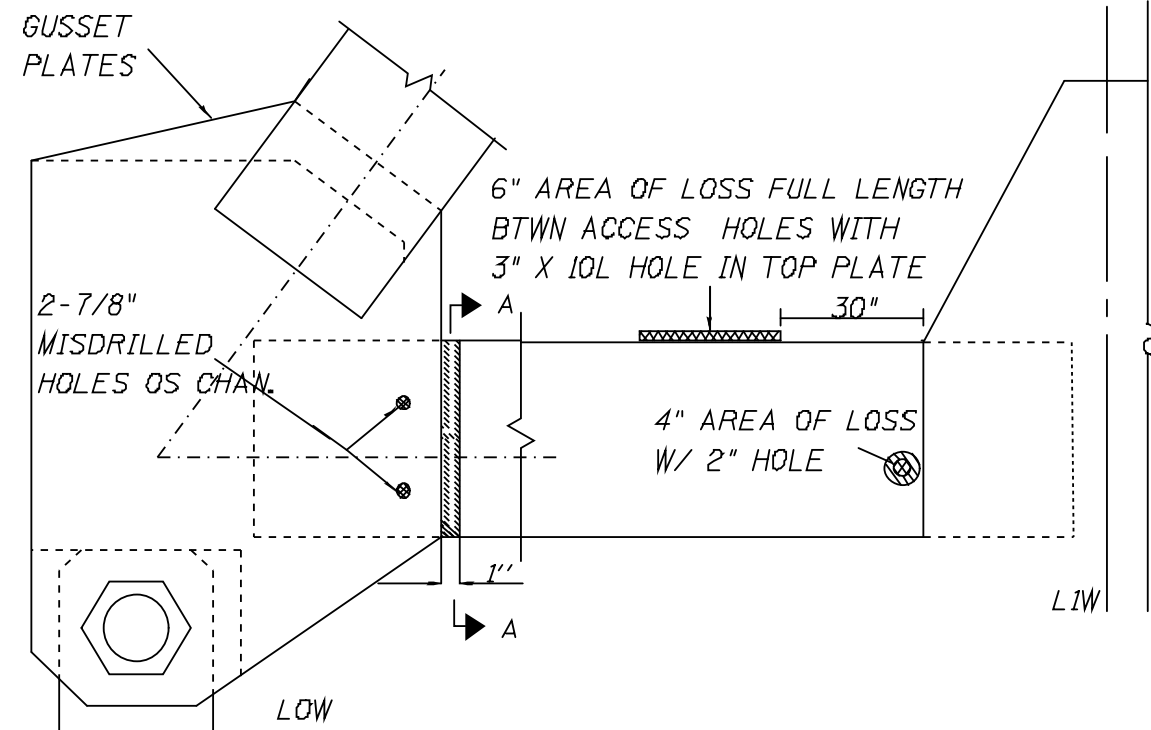
ELEVATION
(LOOKING WEST)

SPAN 4
LOW-L1W

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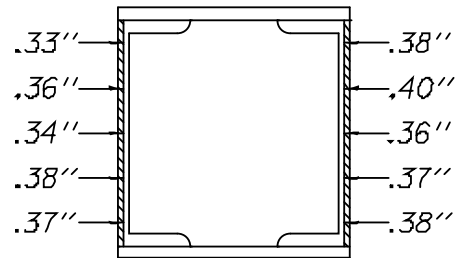
099-0009
ITEM# 25
DETAIL 2

15" x 3/8"
PLATES TOP & BOT.
w/6" x 12"L HOLES



- HOLE
- SECTION LOSS
- FULL SECTION

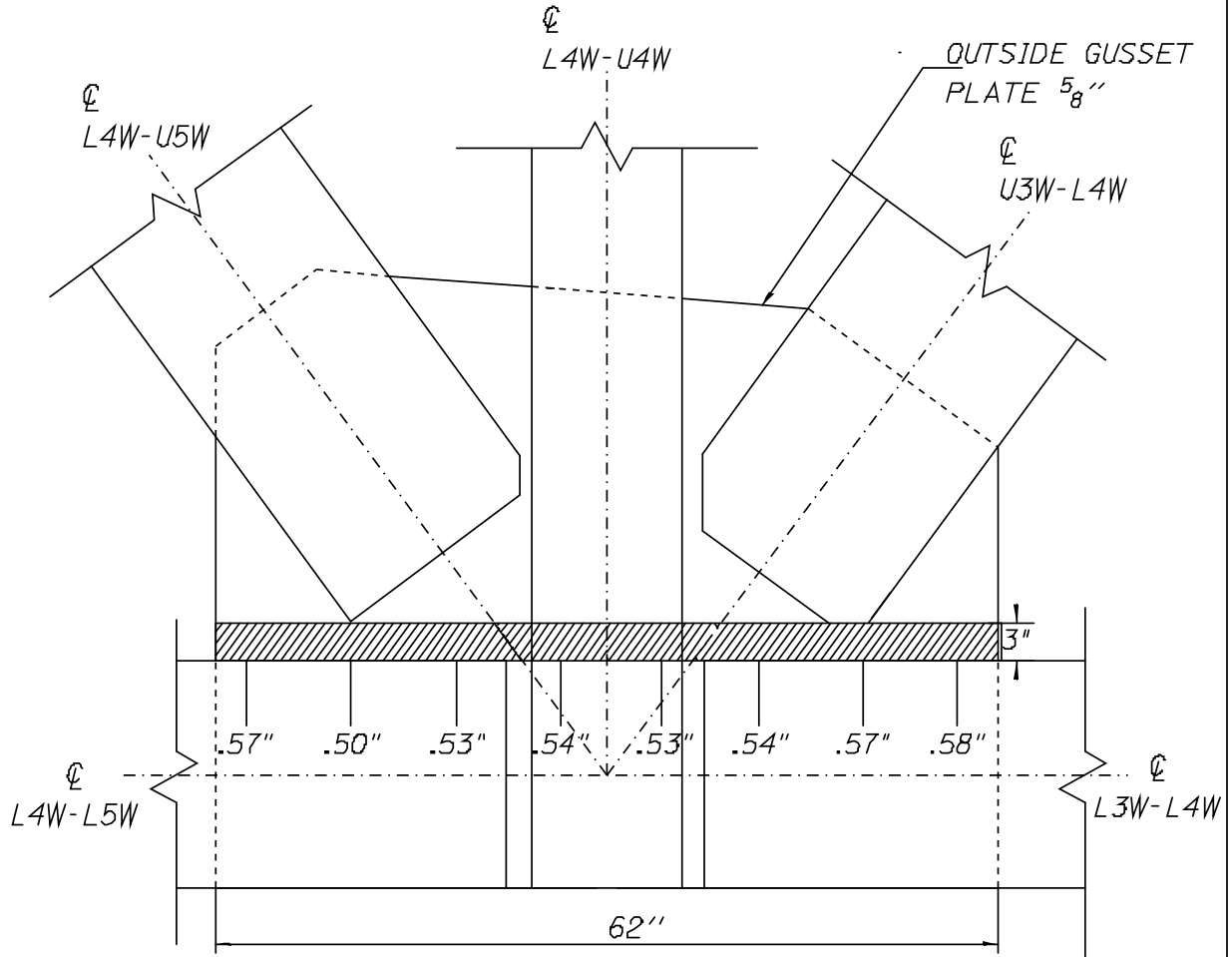
ELEVATION
(LOOKING EAST)






SEC. A-A

SPAN 4, L4W
 GUSSET PLATE,
 OUTSIDE

099-0009
 ITEM# 31
 DETAIL 3



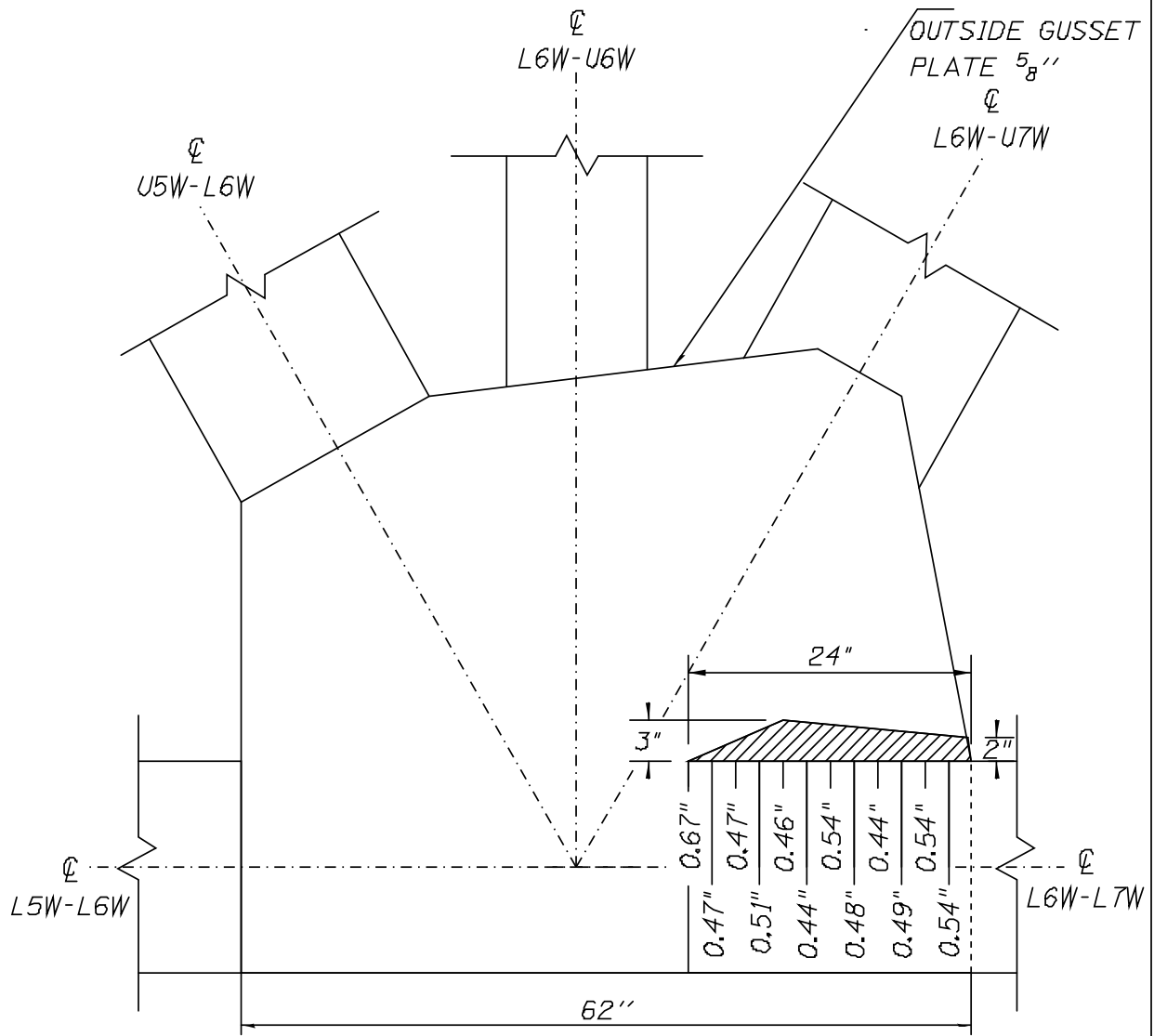
ELEVATION
 (LOOKING WEST)




-  - HOLE
-  - SECTION LOSS
-  - FULL SECTION

READINGS EQUALLY SPACED

SPAN 4, L6W
 GUSSET PLATE
 OUTSIDE

099-0009
 ITEM# 33
 DETAIL 4



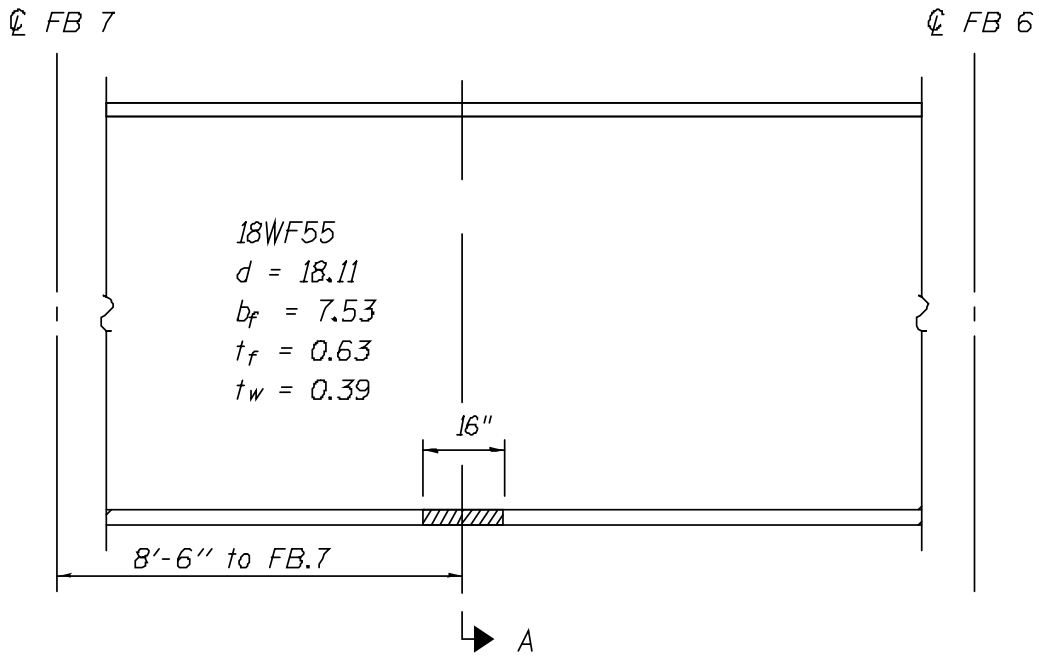
-  - HOLE
-  - SECTION LOSS
-  - FULL SECTION

ELEVATION
 (LOOKING EAST)

READINGS EQUALLY SPACED

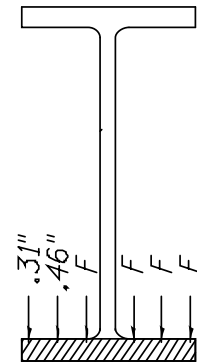
SPAN 4
 S9
 FLOORBEAM 7, PANEL 7

099-0009
 ITEM# 34
 DETAIL 5






ELEVATION

SP. 4
 S9 PAN. 7



SEC. A-A

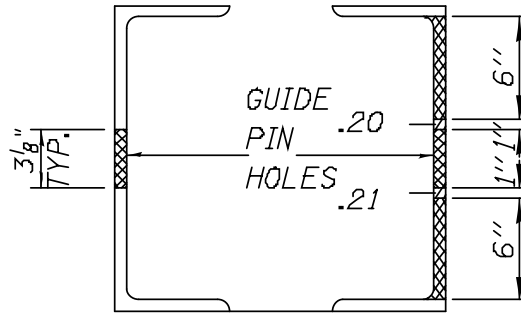
-  - HOLE
 -  - SECTION LOSS
 -  - FULL SECTION
- READINGS EQ. SP.

SPAN 5
 L12E-L13E
 @L13E

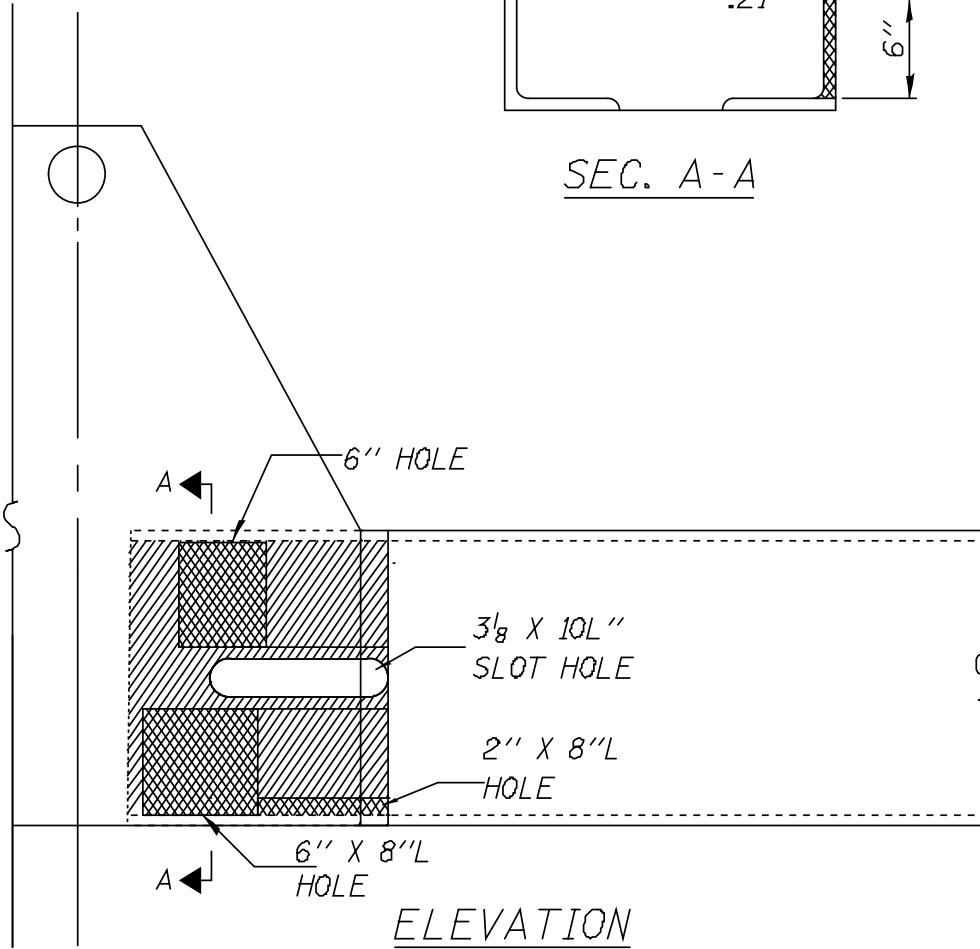
C18 x 42.7#
 $d = 18.0$
 $b = 3.95$
 $t = 0.45$

099-0009
 ITEM# 42
 DETAIL 6

f
 w
 $15'' \times \frac{3}{8}''$
 PLATES TOP & BOT.
 w/6'' x 12'' L HOLES



SEC. A-A



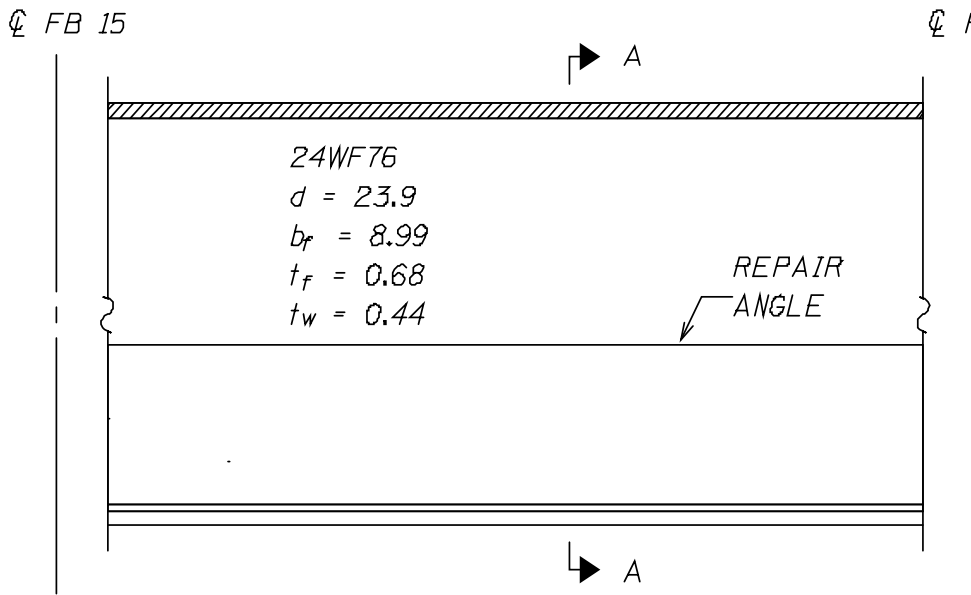
ELEVATION
 LOOKING WEST

- L13E
- HOLE
 - SECTION LOSS
 - FULL SECTION

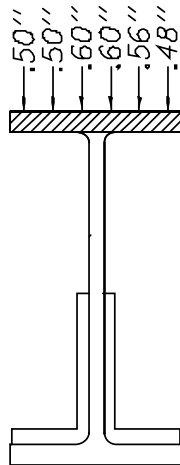
NOTE:
 MEASUREMENTS
 EQUALLY SPACED

SPAN 5, S3
THROUGHOUT PANEL 16




099-0009
ITEM# 49
DETAIL 7



ELEVATION
(LOOKING WEST)

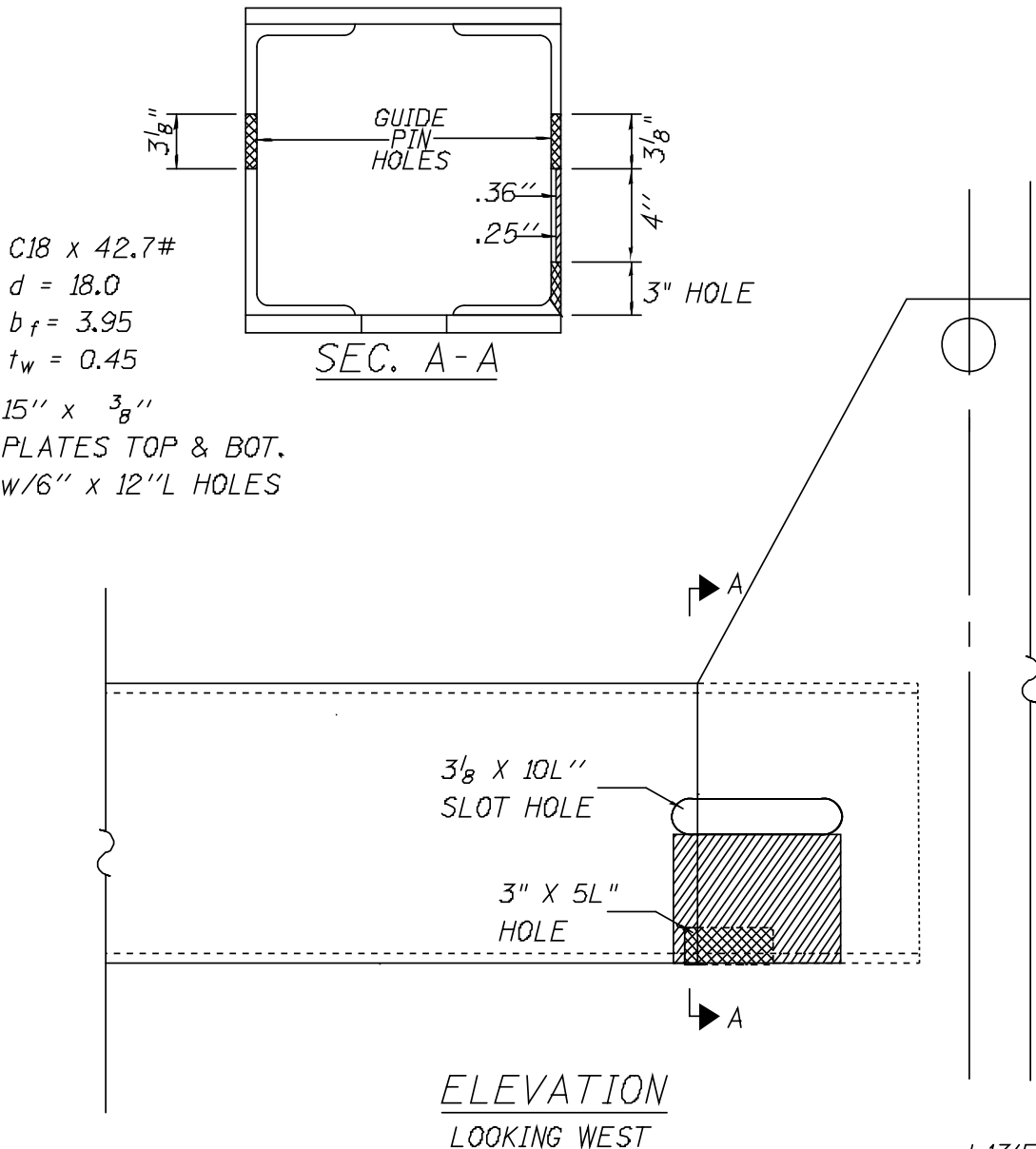


SEC. A-A

-  - HOLE
 -  - SECTION LOSS
 -  - FULL SECTION
- READINGS EQ. SP.




SPAN 5
 L13'E-L12'E
 @L13'E

099-0009
 ITEM# 60
 DETAIL 8



C18 x 42.7#
 d = 18.0
 b_f = 3.95
 t_w = 0.45
 15" x 3/8"
 PLATES TOP & BOT.
 W/6" x 12"L HOLES

NOTE:
 MEASUREMENTS
 EQUALLY SPACED

-  - HOLE
-  - SECTION LOSS
-  - FULL SECTION

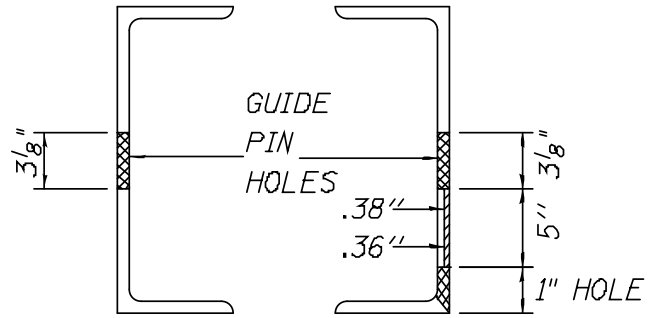
SPAN 5
L13'W-L12'W
@L13'W

C18 x 42.7#

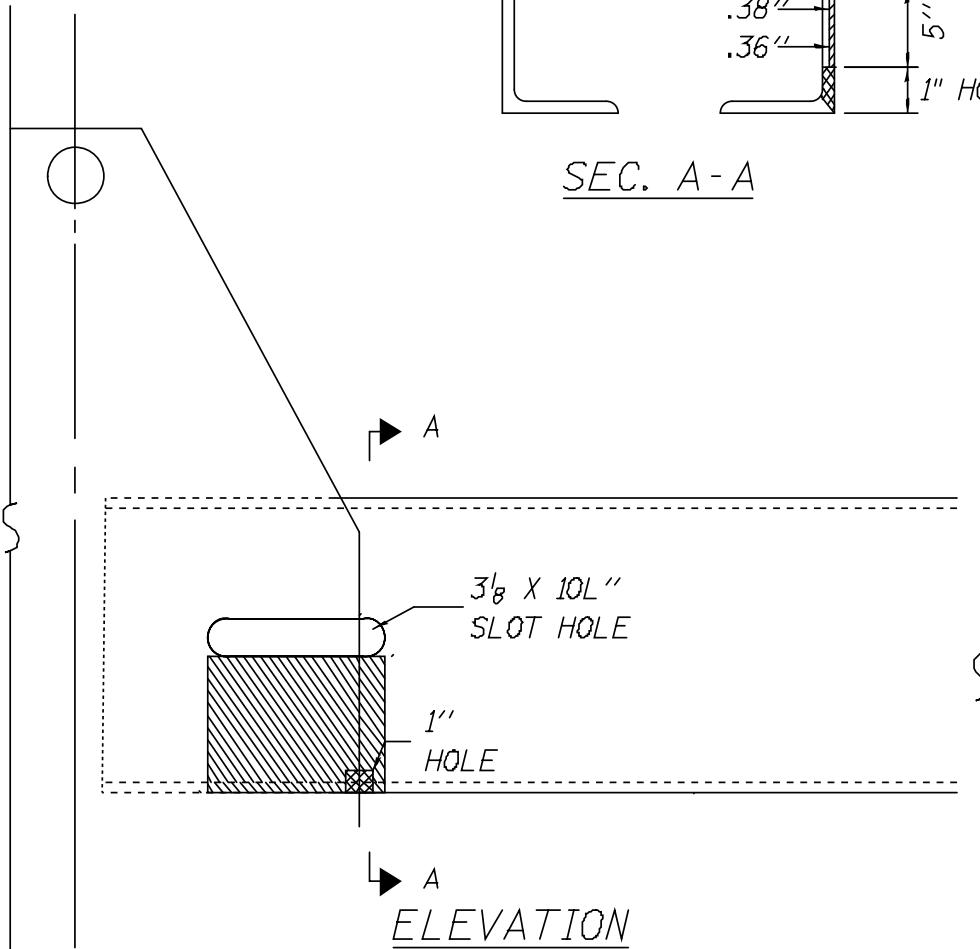
$d = 18.0$
 $b = 3.95$
 $t = 0.45$

099-0009
ITEM# 62
DETAIL 9




f
 w
 $15'' \times \frac{3}{8}''$
PLATES TOP & BOT.
w/6'' x 12'' L HOLES



SEC. A-A



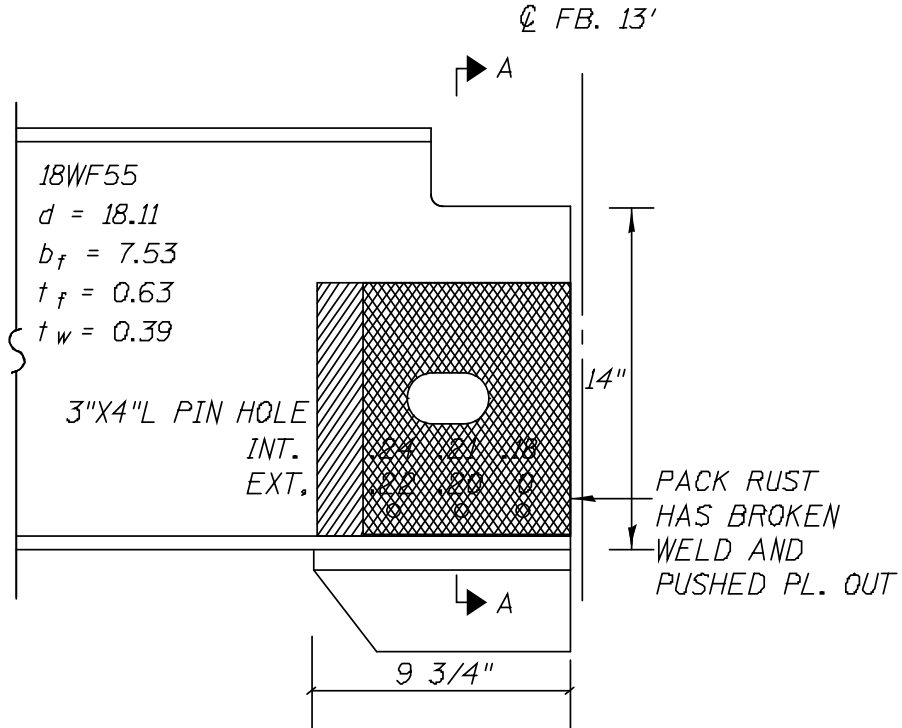
ELEVATION
LOOKING EAST

- L13E
-  - HOLE
 -  - SECTION LOSS
 -  - FULL SECTION

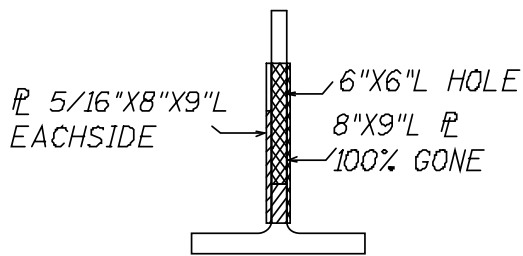
NOTE:
MEASUREMENTS
EQUALLY SPACED

SP. 5
 S1
 @FB. 13', PAN. 13'

099-0009
 ITEM# 106
 DETAIL 10



ELEVATION
 (LOOKING WEST)



SEC. A-A

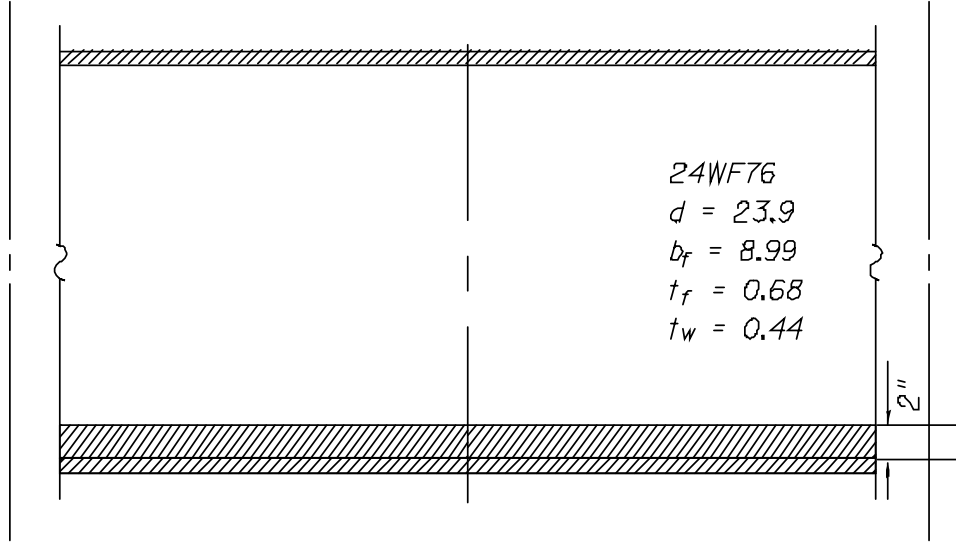
- HOLE
- SECTION LOSS
- FULL SECTION

SPAN 5
S7, FULL LENGTH
PANEL 10'

099-0009
ITEM# 66
DETAIL 11

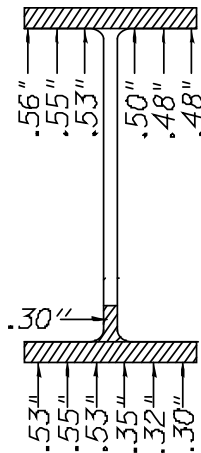
☉ FB 10'

☉ FB 9'






↙ A
ELEVATION

SP. 5
S7 PAN. 10'

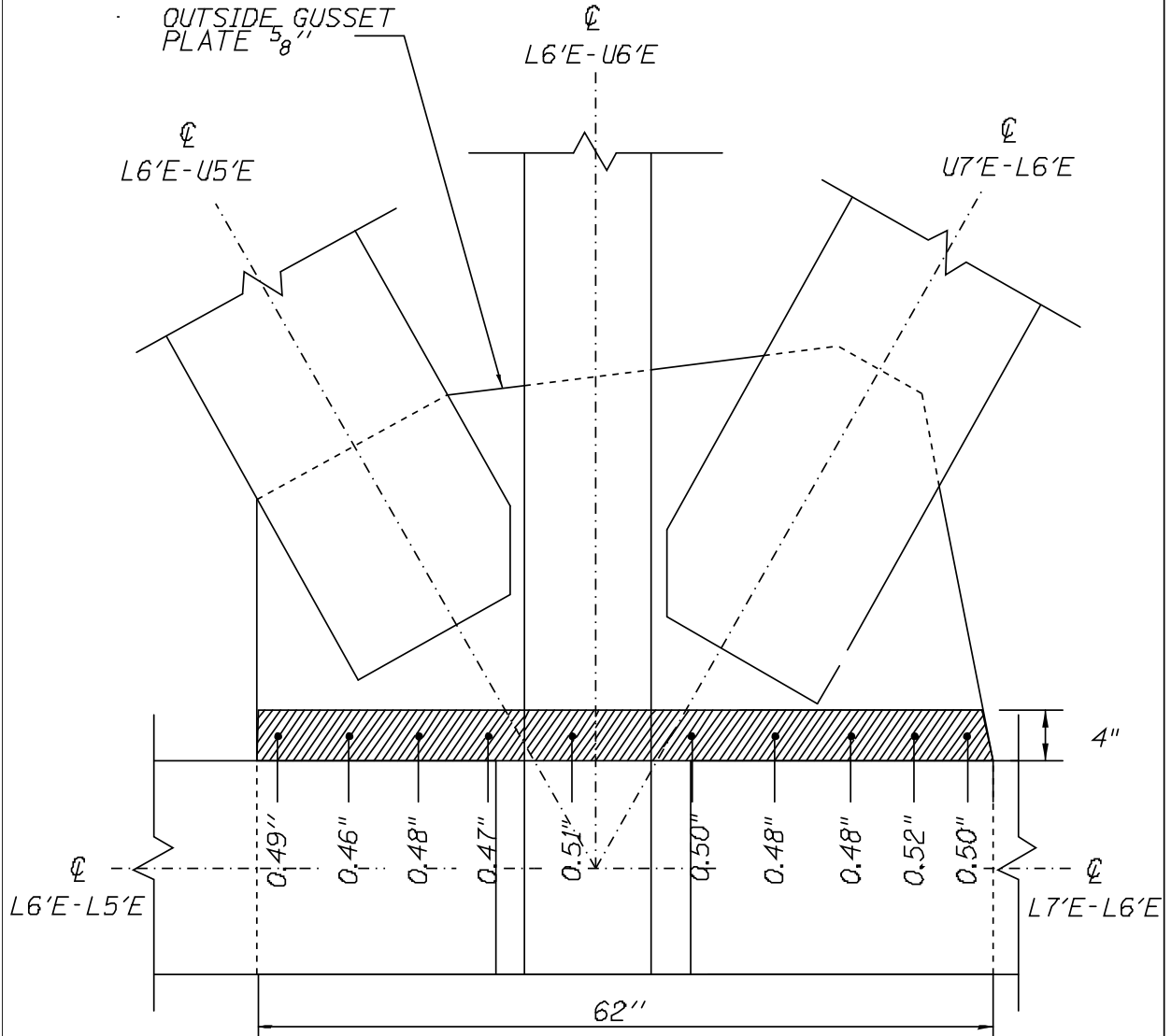


SEC. A - A




-  - HOLE
 -  - SECTION LOSS
 -  - FULL SECTION
- READINGS EQ. SP.

SPAN 6
 GUSSET PLATE,
 @L6'E, OUTSIDE

099-0009
 ITEM# 72
 DETAIL 12

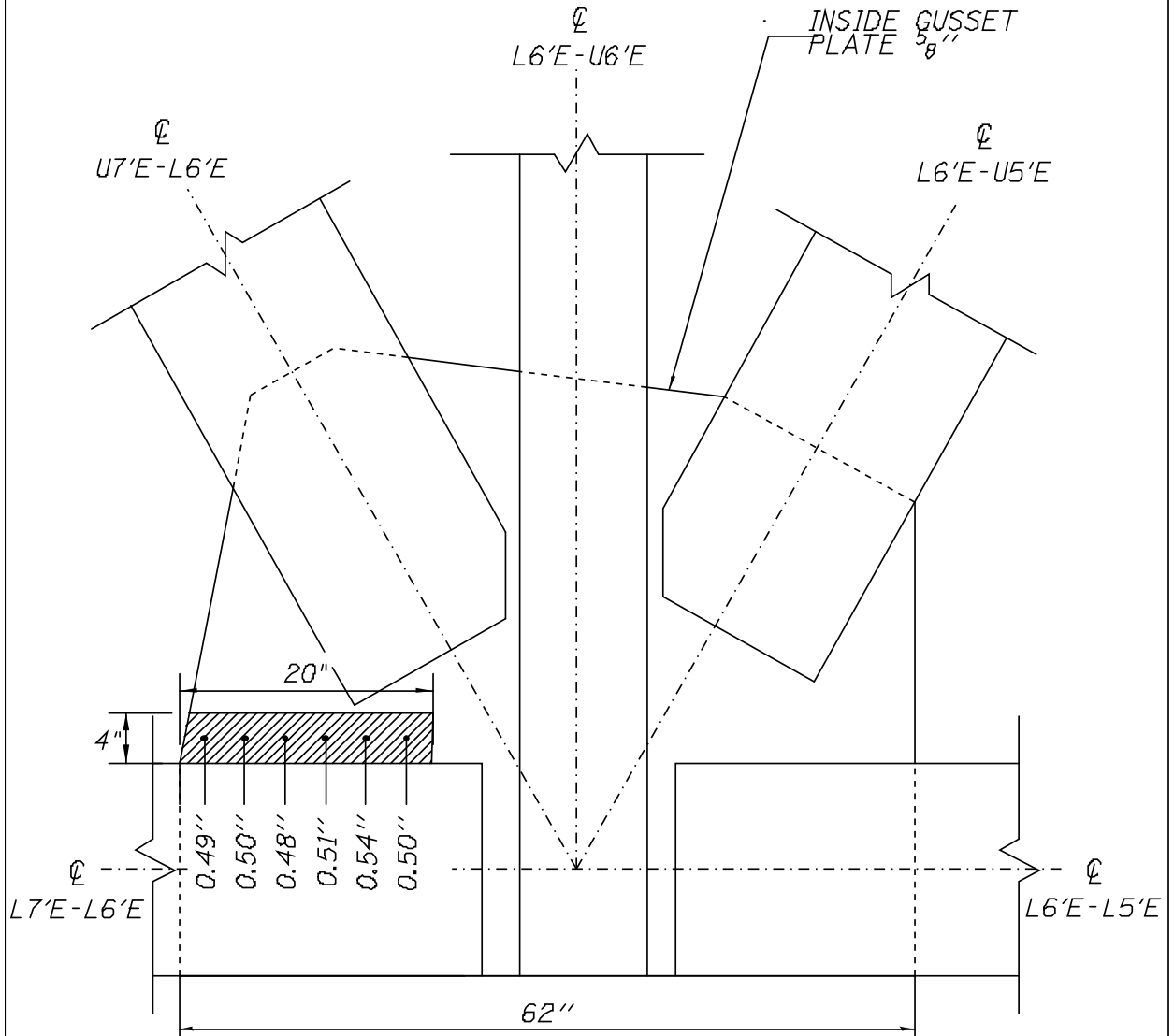


ELEVATION
 (LOOKING EAST)




-  - HOLE
 -  - SECTION LOSS
 -  - FULL SECTION
- READINGS EQUALLY SPACED

SPAN 6
 GUSSET PLATE
 @L6'E, INSIDE

099-0009
 ITEM# 73
 DETAIL 13



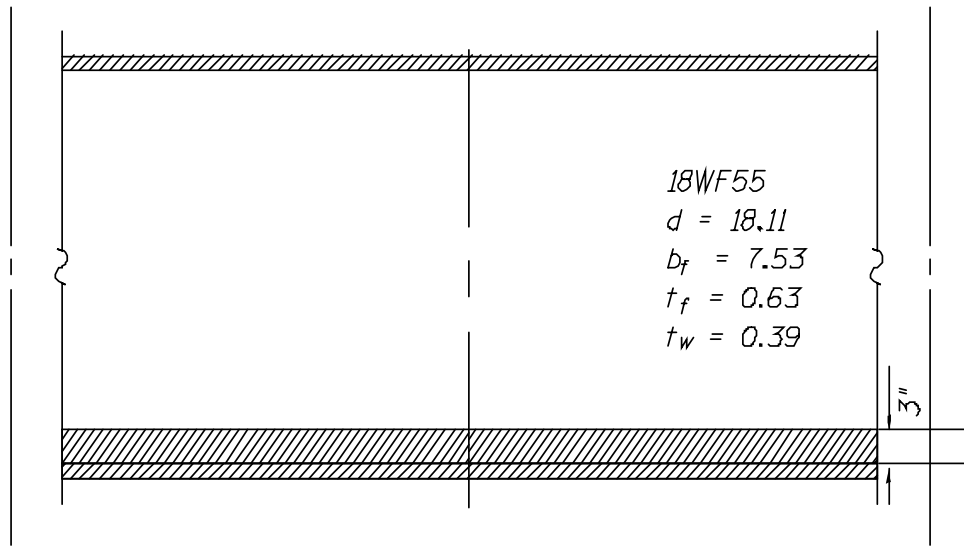
ELEVATION
 (LOOKING EAST)

-  - HOLE
 -  - SECTION LOSS
 -  - FULL SECTION
- READINGS EQUALLY SPACED

SPAN 6
 S8, PANEL 6
 FULL LENGTH
 C FB 6'

099-0009
 ITEM# 74
 DETAIL 14
 C FB 5'

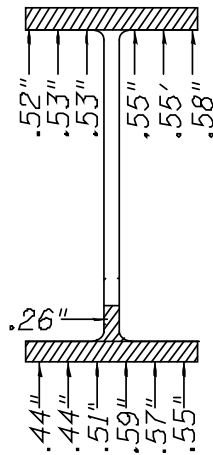
A ←






A ←

ELEVATION

SP. 6
 S8 PAN. 6'



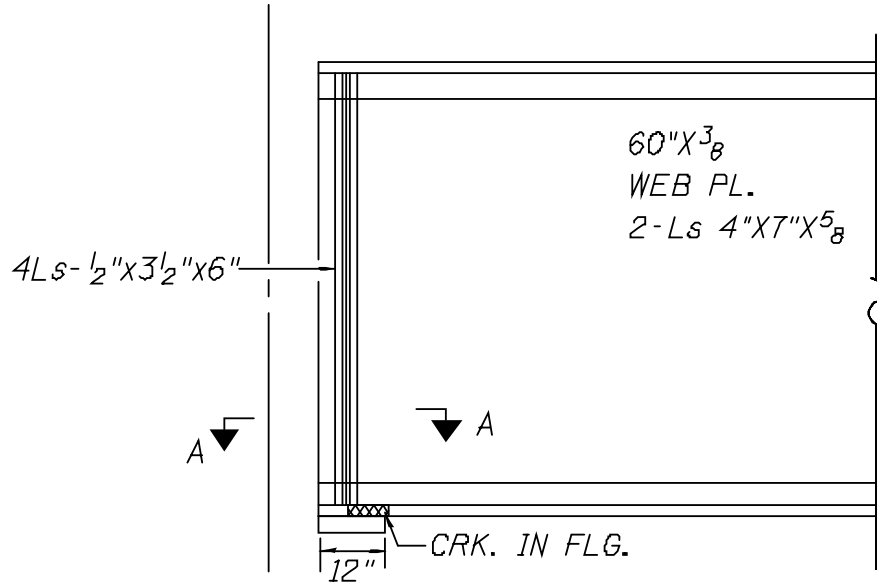
SEC. A-A

-  - HOLE
 -  - SECTION LOSS
 -  - FULL SECTION
- READINGS EQ. SP.

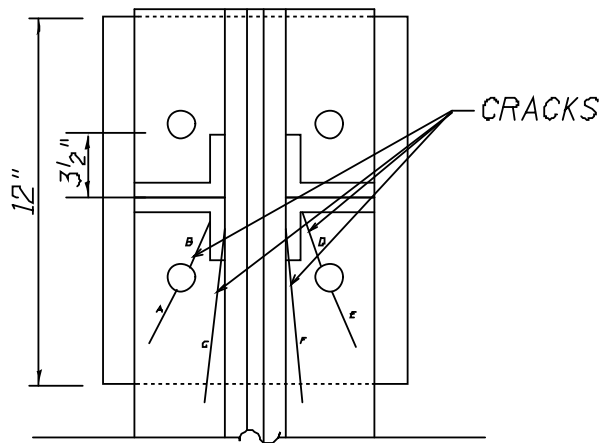
SP. 7
 GIRDER 4
 © SOUTH ABUTMENT

099-0009
 ITEM# 90
 DETAIL 15

☉ S ABUT.



ELEVATION
 (LOOKING WEST)



SEC. A-A

CRK. SIZE

- A-1/4"
- B-1 1/2"
- C-3"
- D-2"
- E-1 3/4"
- F-3 1/2"
- (C & F 1/2" PAST BRG.)



- HOLE



- SECTION LOSS



- FULL SECTION

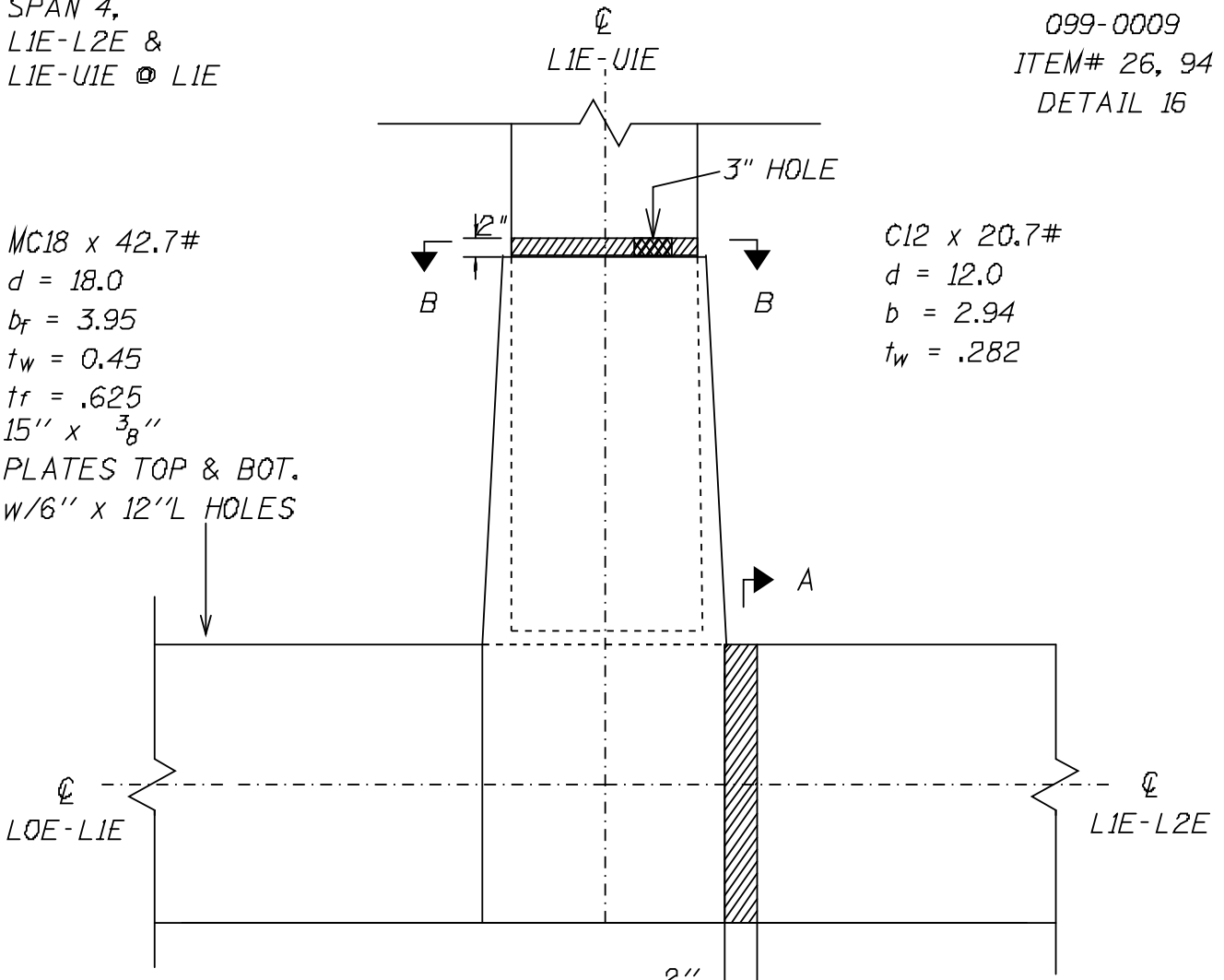
READINGS EQ. SP.

SPAN 4,
L1E-L2E &
L1E-U1E @ L1E

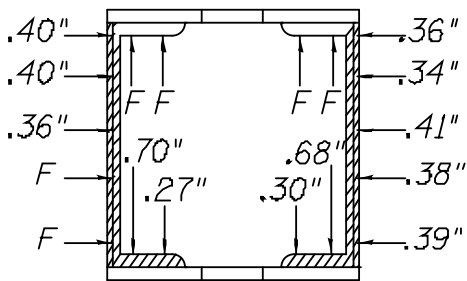
099-0009
ITEM# 26, 94
DETAIL 16

MC18 x 42.7#
d = 18.0
b_f = 3.95
t_w = 0.45
t_f = .625
15" x 3/8"
PLATES TOP & BOT.
W/6" x 12" L HOLES

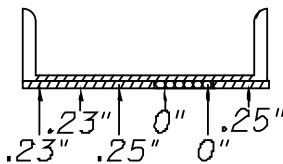
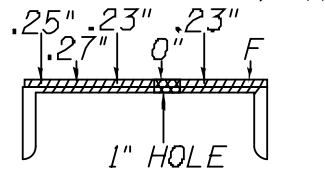
C12 x 20.7#
d = 12.0
b = 2.94
t_w = .282



ELEVATION
(LOOKING WEST)



SEC. A-A



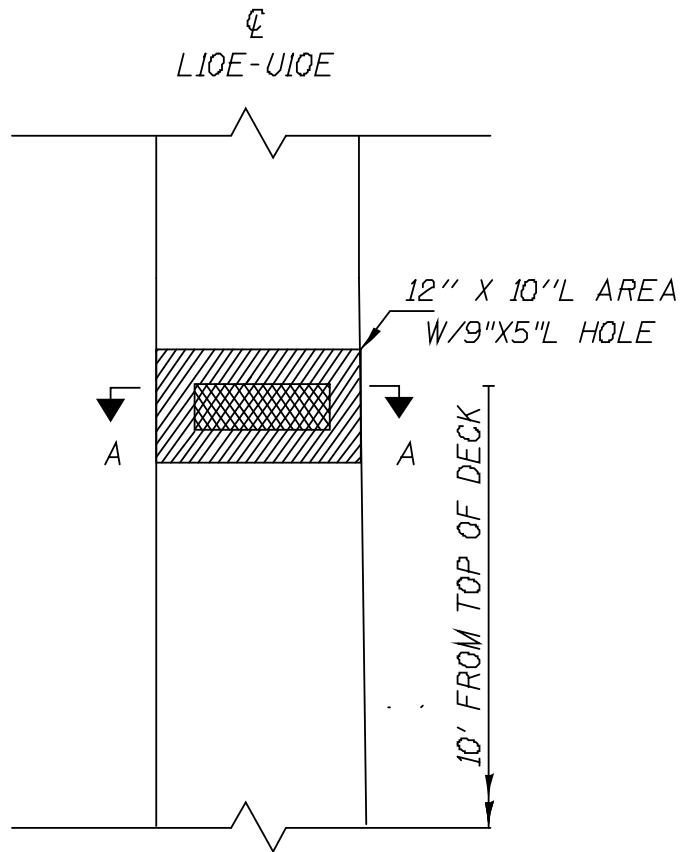
SEC. B-B

- HOLE
 - SECTION LOSS
 - FULL SECTION
- READINGS EQ. SP.

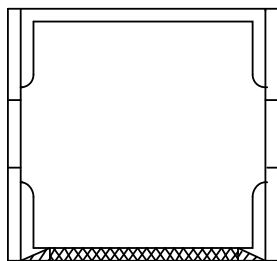
SPAN 5
 L10E-U10E
 10' ABOVE DECK

099-0009
 ITEM# 97
 DETAIL 17




C12 x 20.7#
 $d = 12.0$
 $b_f = 2.94$
 $t_w = .282$
 15" x $\frac{3}{8}$ "
 PLATES TOP & BOT.
 W/6" x 12" L HOLES



ELEVATION
 (LOOKING WEST)

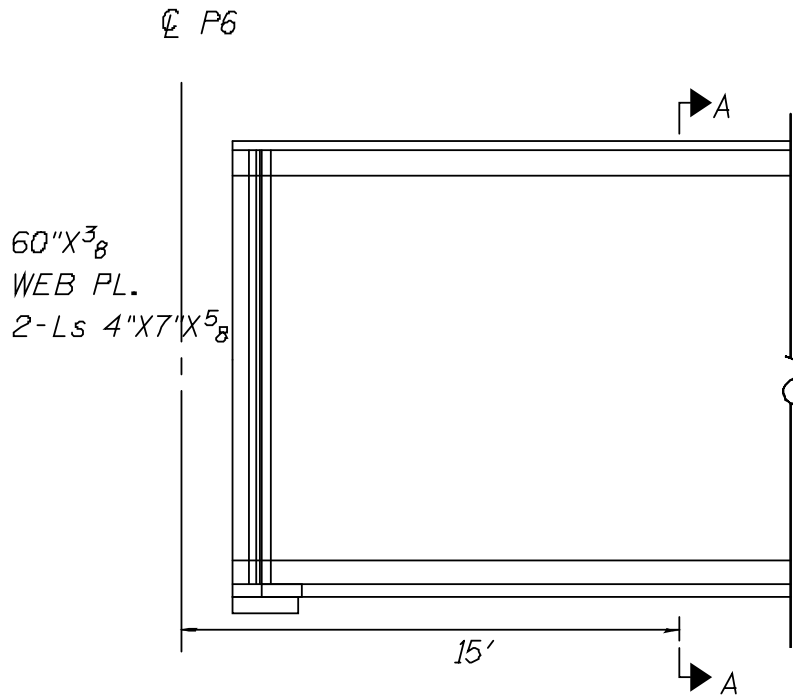


SEC. A-A

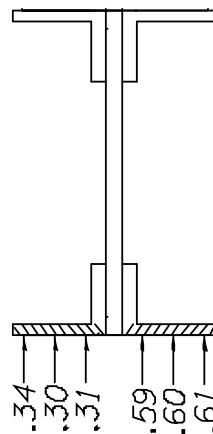
-  - HOLE
 -  - SECTION LOSS
 -  - FULL SECTION
- READINGS EQ. SP.

SPAN 7
 GIRDER 1
 15' SOUTH OF PIER 6

099-0009
 ITEM# 129
 DETAIL 18



ELEVATION
 (LOOKING WEST)



SEC. A-A




-  - HOLE
 -  - SECTION LOSS
 -  - FULL SECTION
- READINGS EQ. SP.



PHOTO 1 SPAN 5, LOOKING NORTH



PHOTO 2 SPAN 4, LOOKING NORTH



PHOTO 3 SPAN 6, LOOKING NORTH



PHOTO 4 SPAN 5, LOOKING NORTH



PHOTO 5

SPAN 3, LOOKING NORTH



PHOTO 6

SPAN 7, LOOKING NORTH



PHOTO 7 SPAN 7, LOOKING NORTH



PHOTO 8 SPAN 3, LOOKING NORTH



PHOTO 9 SPAN 4, LOOKING NORTH



PHOTO 10 SPAN 5, LOOKING SOUTH



PHOTO 11

SPAN 5, LOOKING NORTH



PHOTO 12

SPAN 3, LOOKING NORTH



PHOTO 13



PHOTO 14



PHOTO 15



PHOTO 16



PHOTO 17



PHOTO 18



PHOTO 19



PHOTO 20



PHOTO 21



PHOTO 22



PHOTO 23

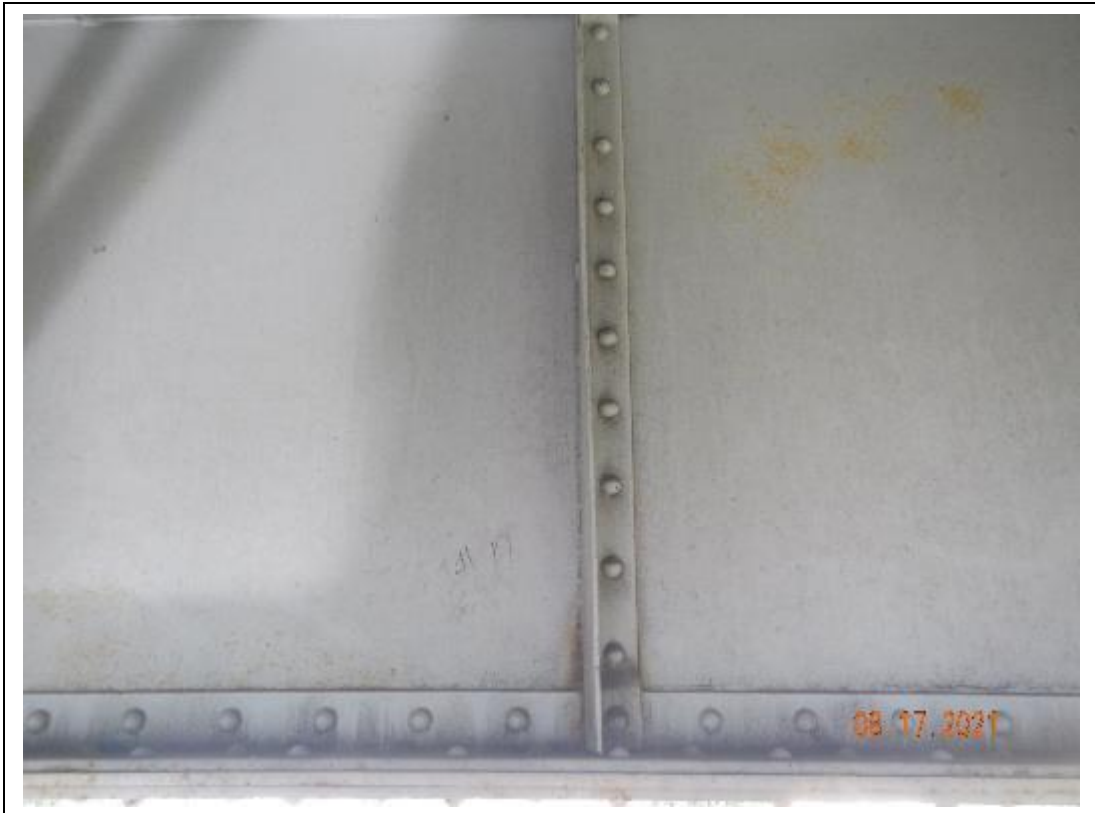


PHOTO 24



PHOTO 25



PHOTO 26



PHOTO 27



PHOTO 28



PHOTO 29



PHOTO 30



PHOTO 31



PHOTO 32



PHOTO 33



PHOTO 34



PHOTO 35



PHOTO 36



PHOTO 37



PHOTO 38



PHOTO 39



PHOTO 40



PHOTO 41



PHOTO 42



PHOTO 43



PHOTO 44



PHOTO 45



PHOTO 46



PHOTO 47



PHOTO 48



PHOTO 49



PHOTO 50



PHOTO 51



PHOTO 52



PHOTO 53



PHOTO 54



PHOTO 55



PHOTO 56



PHOTO 57



PHOTO 58



PHOTO 59



PHOTO 60



PHOTO 61



PHOTO 62

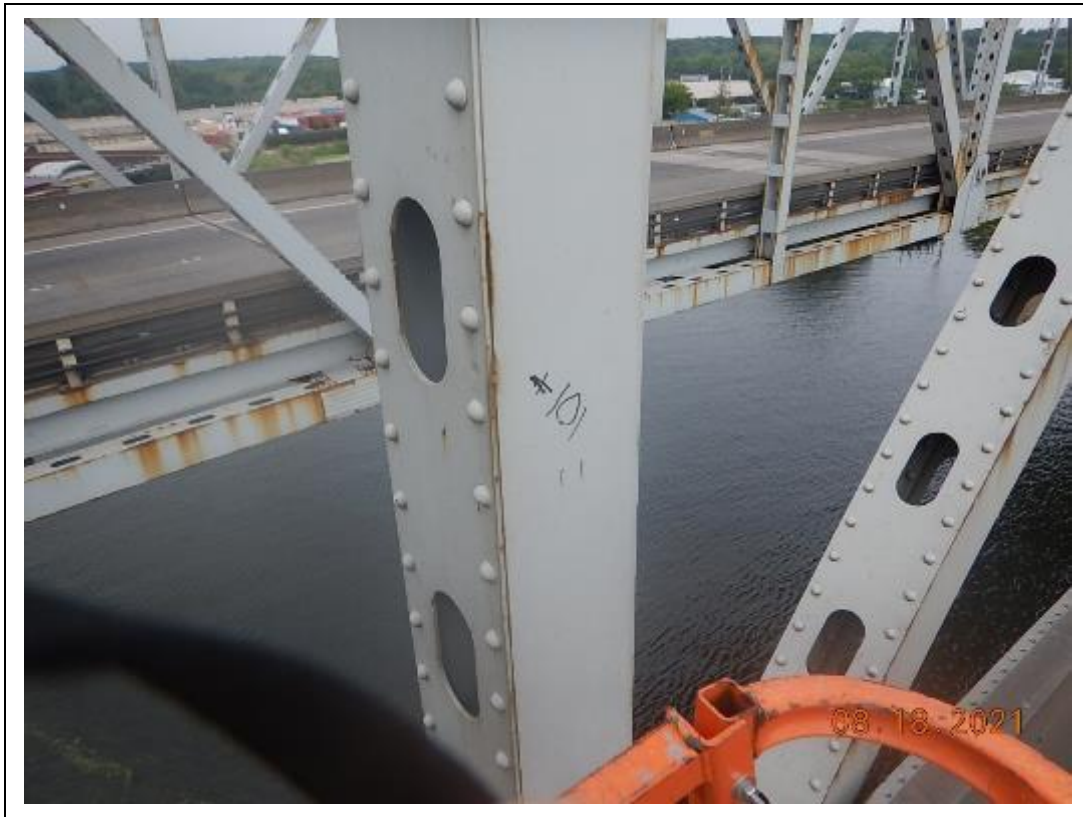


PHOTO 63



PHOTO 64



PHOTO 65



PHOTO 66

(2020)



PHOTO 67



PHOTO 68

(2020)



PHOTO 69



PHOTO 70

(2020)



PHOTO 71



PHOTO 72



PHOTO 73



PHOTO 74



PHOTO 75



PHOTO 76

(2020)



PHOTO 77



PHOTO 78



PHOTO 79

(2020)



PHOTO 80

(2020)



PHOTO 81

(2020)



PHOTO 82

(2020)



PHOTO 83



PHOTO 84



PHOTO 85



PHOTO 86



PHOTO 87



PHOTO 88



PHOTO 89

(2020)



PHOTO 90



PHOTO 91

(2020)



PHOTO 92

(2020)



PHOTO 93

(2020)



PHOTO 94



PHOTO 95



PHOTO 96



PHOTO 97

(2020)



PHOTO 98

(2020)



PHOTO 99

(2020)



PHOTO 100

(2020)



PHOTO 101 (2020)



PHOTO 102



PHOTO 103 (2020)



PHOTO 104



PHOTO 105 (2020)



PHOTO 106 (2020)



PHOTO 107 (2020)



PHOTO 108



PHOTO 109



PHOTO 110



PHOTO 113



PHOTO 114



PHOTO 115



PHOTO 116



PHOTO 117



PHOTO 118



PHOTO 119



PHOTO 120



PHOTO 121



PHOTO 122



PHOTO 123



PHOTO 124



PHOTO 125



PHOTO 126



PHOTO 127



PHOTO 128



PHOTO 129



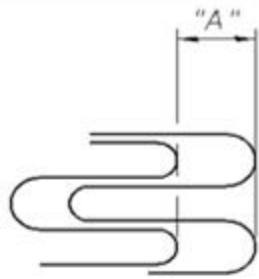
PHOTO 130



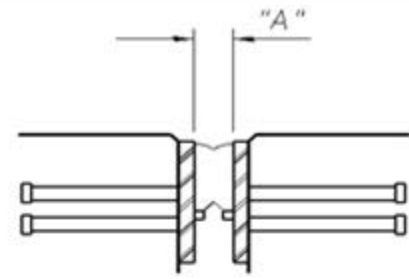
PHOTO 131



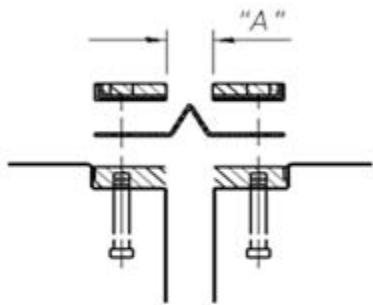
PHOTO 132



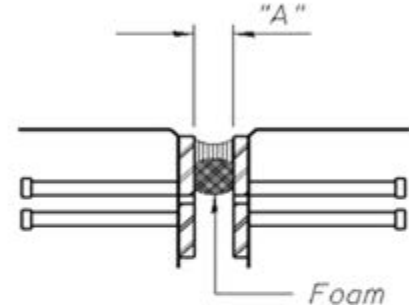
FINGER PLATE (FP)



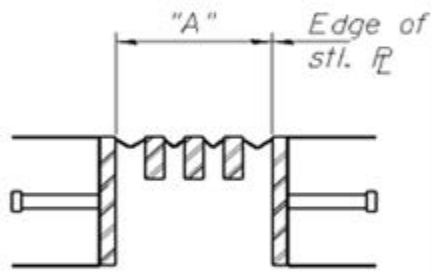
PREFORMED JOINT SEAL (PJS)



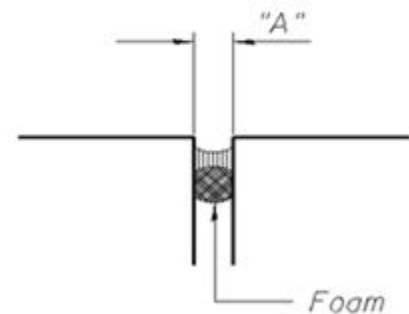
NEOPRENE JOINT (NJ)



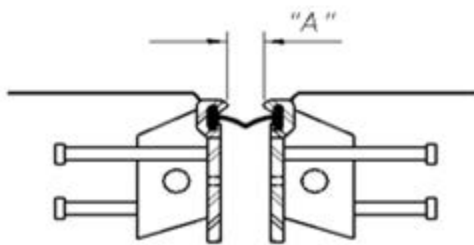
SILICONE JOINT W/ STEEL R (SJS)



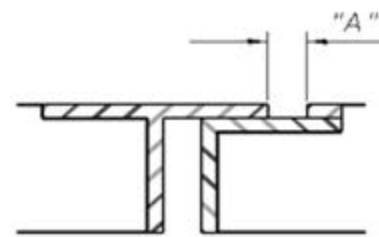
MODULAR JOINT (MJ)



SILICONE JOINT W/ CONCRETE R (SJC)



STRIP SEAL JOINT (SSJ)



SLIDING STEEL JOINT (SJ)