

STRUCTURE NO. 03313

I-84 TR 815
over
I-84EB, RTE 72, 372, B&M RR
NEW BRITAIN

Routine & Special Inspection
on
4/22/2014

Inspected by GM2 Oncall - 28
for Area 2

TEAM:	Forwarded to TE3 Steve Keedy	Date	8/4/2014
TE3:	Reviewed by TE3 Steve Keedy	Date	8/6/2014
	BMM Required	Yes	
	Town Bridge	No	
	Rating <= 5 (Items 58,59,60 or 62)	Yes	
	Rating Change 2 or More Values	No	
	Forwarded to Supervisor Steve Keedy	Date	8/6/2014
	Forwarded to "To Be Copied Drawer" <input type="checkbox"/>	Date	
	Date BRI-19 Entered		8/6/2014
SUPERVISOR:	Reviewed by Supervisor Steve Keedy	Date	8/6/2014
SUPPORT:	Date Copies Made 8/6/14	BMM No	14-558
	Scanned By: <i>MJK</i>	Date Scanned	
		PDF Box No	

NBI: Yes

NHS: Yes

BRIDGE SAFETY INSPECTION

STATE PROJECT NO. 170-3224

BRIDGE NO. 03313
INTERSTATE 84 TR 815

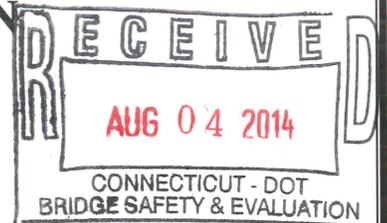
OVER

**INTERSTATE 84 EASTBOUND, ROUTE 72 WESTBOUND, ROUTE 372,
PAN AM RAILROAD AND QUINNIPIAC RIVER
NEW BRITAIN, CONNECTICUT**

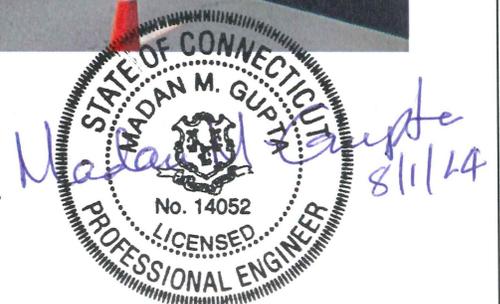
ROUTINE AND SPECIAL INSPECTION

APRIL 22, 2014

(Last Day of Inspection June 7, 2014)



Prepared By:
GM2 Associates, Inc.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033



STRUCTURE NO. 03313 TOWN New Britain

Inspectors SRD, AKC, BJS, PAH, CAW Date 4/22/2014

TABLE OF CONTENTS

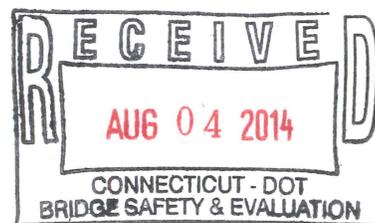
<u>Loose forms (not bound in report)</u>	<u>No. of Sheets</u>
	<u>Enclosed</u>
Maintenance Memo	<u>2</u>
Flagging Memos	<u>-</u>
Plan Sheets Project No. 109-74 (1966) Check here if already on file <input checked="" type="checkbox"/>	<u>-</u>

Bound Report Pages

	<input checked="" type="checkbox"/>	<u>Sheet Numbers</u>
Title Cover Sheet		<u>1</u>
Table of Contents		<u>1</u>
Location Map		<u>1</u>
Executive Summary		<u>2</u>
BRI - 19, HWY Bridge SI&A Form		<u>2</u>
BRI - 25, Under Entry SI&A Form		<u>3</u>
BRI - 18, Bridge Inspection Form		<u>9</u>
BRI - 12, Fracture Critical Inspection Data Sheet		<u>-</u>
Field Notes (Include Forms BRI-10, BRI-13, BRI-17, BRI-31)		<u>72</u>

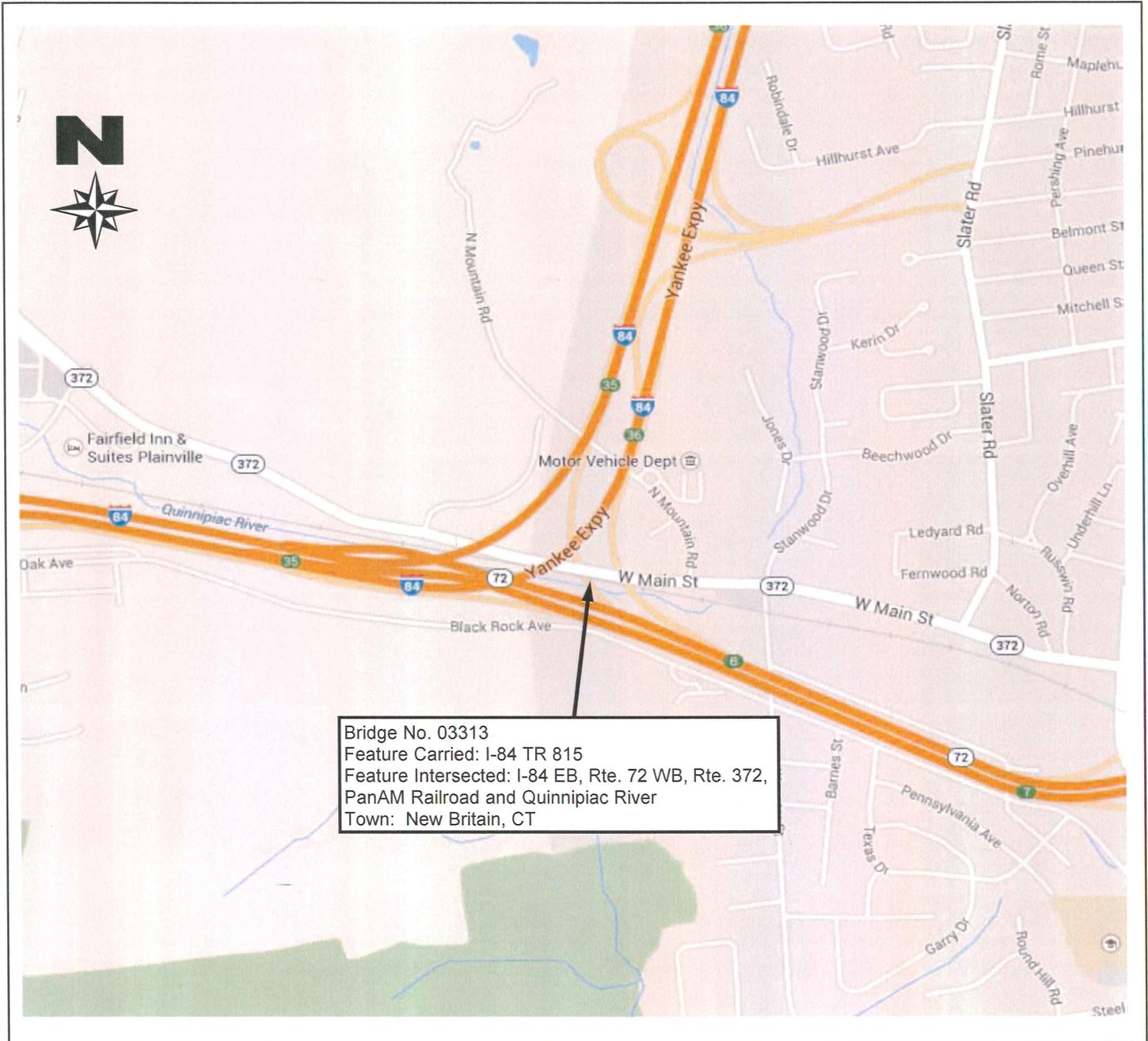
Calculations:

Load Rating Evaluation	<u>-</u>
Quantities & Cost Estimates	<u>-</u>
Photo Sheets	<u>26</u>
PONTIS Element Data Collection Form	<u>2</u>
Additional Notes and Back-up Material	<u>2</u>





LOCATION MAP



EXECUTIVE SUMMARY

Bridge No. 03313 carries I-84 TR 815 over I-84 Eastbound, Route 72 Westbound, Route 372 and Pan AM Railroad in New Britain, CT. This nine span bridge consists of steel multi-girders and a reinforced concrete deck. The superstructure is supported by reinforced concrete abutments and piers. The bridge was built in 1969 and rehabilitated in 2011. The overall length is 928 feet and the curb-to-curb width is 27.8 feet. According to information on file with Connecticut Department of Transportation, the bridge has an inventory load rating capacity of 45 tons for an AASHTO HS vehicle. Due to the section losses present in the steel a re-analysis of this structure may be warranted. During this routine inspection completed in June of 2014 the bridge was found to be in poor condition.

The deficiencies found on the bridge are as follows:

Deck: (Rated - 6)

1. The sloped concrete curbs exhibit large areas of severe scaling up 1' high x 4-1/2" deep with and without exposed rebar with maximum noted along the east curb in Spans 5 and 6.
2. There are four bent pipe sections located in Spans 1, 6 and 7. The posts are slightly tilted at these locations. The 5th post from Pier 6 in Span 7 at the east railing has two missing nuts and two nuts backed off 1/4". These conditions have been previously submitted for repair under Item No. 2 of BMM No. 06-085 and have not been addressed.
3. There are short deck weep pipes with potential to drain onto steel below at following locations:
 - Bay 3 near Pier 2 in Span 3.
 - Bay 3 near the first cross frame from Pier 5 in Span 5.
 - Bay 3 near Pier 6 in Span 7.This condition has been previously submitted for repair under Item No. 2 of BMM No. 10-621 and has not been addressed.
4. The light standard on the west parapet in Span 1 has a missing handhole cover plate with exposed wires. This condition has been previously submitted for repair under Item No. 2 of BMM No. 12-384 and has not been addressed.
5. The asphaltic plug joints exhibit adhesion separation cracks and cohesion cracks up to 18' long x 1/8" wide. There is a new BMM to address these conditions.

Superstructure: (Rated - 4)

1. The fixed bearings for girders exhibit areas of moderate to heavy rust with up to 1/2" thick pack rust between the bearing plates. Some anchor bolt nuts exhibit up to 80% section loss. These conditions have been previously submitted for repair under Item No. 6 of BMM No. 06-085 and have not been addressed.
2. The fixed hinges at Pier 1 exhibit up to 9/16" impacted rust between hinge plate and girder web and random pin nuts for hinge assemblies have up to 9/16" gaps under the nut (as-built condition). The sliding expansion bearing for the cap girder at Pier 1 appears to be frozen based on the comparison with previous measurements.
3. The girder ends exhibit section loss in the web and bearing stiffeners resulting in up to 5% loss in web for shear and up to 31% loss in web bearing area (buckling). Girder G4 bottom flanges have section losses up to 3/8" deep x 7" wide at several locations in critical areas resulting in up to 13%. These conditions have been previously submitted for repair under Item No. 5 of BMM No. 10-621 and have not been addressed.
4. There is a missing and broken horizontal welds at the end cross frame connection to Girder G2

Pier 7 in Span 7 and a 4" long cracked lower horizontal weld at the end cross frame connection to Girder G3 at Pier 7 in Span 7. There is a new BMM to address these conditions.

Substructure: (Rated - 5)

1. There are cracks up to 1/8" wide, hollow areas up to 2' x 2' and spalls/scaling up to 1' x 16" x 4" deep at the end of pier caps. The concrete pedestals spalls up to 10" x 1.5" x 1.5" deep, hollow areas up to 2' x full width and cracks up to 1/4" wide with some cracks extending through anchor bolt line. The pedestal for Girder G4 on Pier 2 is undermined 1' long x 2" high x 2" deep due to a 1' long x 3" high x 2" deep void. An 8" x 8" x 3" deep spall on the south face of the Pier 7 cap under Girder G4 undermines the pedestal for up to 7" x 7" x 3" deep. These conditions have been previously submitted for repair under Item No. 6 of BMM No. 10-621 and have not been addressed.

Bridge Number **03313**

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BRIDGE SAFETY & EVALUATION
STRUCTURE EVALUATION

Inspected By: Suresh Dontula & Amit KC

Sufficiency Rating **63.17**
Previous Inspection Date **4/10/2012**

SHEET 1 OF 2 FORM BRI-19 REV 10/00

BS&E Received Data Entry By: Stem Keech SHEET _____ OF _____
Copies Made Data Entry Date: 8/6/14

90) Inspection Date	Inspection Team	91) Frequency	Class:
042214	21 28	24	J3
Indepth Insp	Deck Survey	Access	Flagman
5/18/2010	12/10/1993	38 <input type="checkbox"/>	99 *

CRITICAL FEATURE INSPECTIONS				
Type	Frequency	Team	Date	
Fracture: J	24	20	28	4/10/2012 <u>4/22/14</u>
Uwater:				
Special: A	24	20	28	4/10/2012 <u>4/22/14</u>

RED FLAG

IDENTIFICATION

Bridge Name **NEW BRITAIN** Town Code **50440**

5) Inventory Route:
 A) Record Type **1**
 B) Signing Prefix **1** Interstate High
 C) Level of Service **7** Ramp, Wye, Co
 D) Route Number **00084**
 E) Directional Suffix **4** West

6) Feature Intersected **I-84EB, RTE 72,372,B&M RR**

7) Facility Carried: **I-84 TR 815**

9) Location **I84 WB EXT 35 TO RT 72 EB**

11) Milepoint **0.23 Miles**

16) Latitude **41deg 40 min 6.00 sec**
 17) Longitude **72deg 49 min 24.00 sec**

98) Border Bridge:
 A) State Code **0000** B) Percent Responsibility **%**
 C) Border Town Name

99) Border Bridge Structure No

STRUCTURE TYPE AND MATERIAL

43) Structure Type, Main:
 A) Material **3** Steel
 B) Design Type **2** Stringer/Multi-beam o

44) Structure Type, Approach:
 A) Material **0** Other
 B) Design Type **0** Other

45) Number of Spans, Main Unit **9**
 46) Number of Approach Spans **0**

107) Deck Structure Type **1** Concrete Cast-in-Place

108) Wearing Surface/Protective System:
 A) Type of Wearing Surface **6** Bituminous
 B) Type of Membrane **2** Preformed Fabric
 C) Type of Deck Protection **0** None

AGE AND SERVICE

27) Year Built **1969** 106) Year Reconstructed

42) Type of Service:
 A) On **6** Overpass structure B) Under **8** HIGHWAY-WATER

28) Number of Lanes:
 A) On **1** B) Under **7**

29) Average Daily Traffic **17815** Half ADT?: **No**
 109) Percent Truck **9%**
 30) Year of ADT **2014**

19) Bypass, Detour Length **4 miles**

GEOMETRIC DATA

48) Length of Max Span **109ft**
 49) Structure Length **928ft**

50) Curb or Sidewalk Widths:
 A) Left **0.0ft** B) Right **0.0ft**

51) Brg Rdwy width, curb-curb **27.8ft**
 52) Deck Width, Out-Out **31.5ft**
 32) Approach Roadway Width **28ft**
 33) Bridge Median **0** No Median

Deck Area **29219** sqft

34) Skew Angle **0deg**
 35) Structure Flared **0**

10) Inv. Rte. Min. Vert Clearance **99ft** **99in**
 47) Log Inv. Rte. Total Horiz Clr.: **27.8ft**
 47) RLog Inv. Rte. Total Horiz. Clr.: **0ft**
 53) Min Vert Clearance Over Bridge **99ft** **99in**
 54) Min Vert Under Clearance **H Ref** **16ft** **10in** **Ref**
 55) Min Lat Under Clearance on Right **H Ref** **12.6ft** **Ref**
 56) Min Lat Under Clearance on Left **11.7ft**

BRIDGE COMMENTS

Project No. 0171-0198 (1992): Rehabilitation (List 05).
3/6/2009 Project #171-339 Bridge Bearing Repair/Replace. Construction to start September 2010.

*** PAN AM RR FLAGMAN IS NEEDED TO INSPECT RR SPAN**

CLASSIFICATION

112) NBIS Bridge Length	Yes	
104) Highway System	1 On System	
26) Functional Class	11 Urban Principal Arterial - Interstate	
100) Defense Highway	1 Route is on a Interstate STRAHNET Route	
101) Parallel Structure	N No parallel structure exists	
102) Direction of Traffic	1 1-way traffic	
103) Temporary Structure		
110) Designated National Network	1 On national network	
20) Toll	3 On Free Road	
21) Maintain	1 State Highway Agency	
22) Owner	1 State Highway Agency	
Report Class	S STATE	
37) Historical Significance	5 Bridge is not eligible for National Register	

WATERWAY

DrainageBasinCode	6999	
38) Navigation Control	N Not applicable	
39) Navigation Vert Clr.		
116) Vert-Lift Brg Nav Min		
111) Pier Abutment Protection		
40) Navigation Horiz Clr.		

PROPOSED IMPROVEMENTS

75A) Type of Work Proposed		
75B) Work Done By		
76) Length of Struct. Improvement		ft
94) Bridge Improvement Cost	\$	
95) Roadway Improvement Cost	\$	
96) Total Project Cost	\$	
97) Year of Improvement Cost Est.		
114) Future ADT		115) Year Future ADT
List No. 27	Project No.	Advised

POSTED SIGNS & UTILITIES

Other Posted Signs 1				
Other Posted Signs 2				
Actual P.L. Single Unit Truck	tons	Actual P.L. 4Axle Truck	tons	
Rec. P.L. Single Unit Truck	tons	Rec. P.L. 4Axle Truck	tons	
Actual P.L. Semi-Trailer Truck	tons	Actual P.L. 3S2 Truck	tons	
Rec. P.L. Semi-Trailer Truck	tons	Rec. P.L. 3S2 Truck	tons	
Rec. P.L. All Vehicles	tons	Actual P.L. All Vehicles	tons	
Posted Vert Clearance On Bridge	ft	in	ft	in
Posted Vert Under Clearance	ft	in	ft	in
Posted Speed Limit	30	mph		mph
Utility				
Utility	1	Gas		
Utility	2	Water		

STRUCTURE EVALUATION

SHEET 2 OF 2 FORM BRI-19 REV 10/00

SHEET _____ OF _____

Bridge Number	03313	NBIS Length	
Town Name	NEW BRITAIN	Yes	928
Facility Carried	I-84 TR 815		
Feature Crossed	I-84EB, RTE 72,372,B&M RR		

Inspected By: S. DONTULA & AMIT KC

LOAD RATING AND POSTING

31) Design Load	5		Evaluation Code	L	
63) Operating Rating Type	1		Year of Evaluation	2000	
64) Operating Rating	75.0		70) Bridge Posting	5	
65) Inventory Rating Type	1		41) Structure Status	A	A
66) Inventory Rating	45.0				

CONDITION

Rating By

58) Deck	6	6	SK
59) Superstructure	4	4	SK
60) Substructure	5	5	SK
61) Channel & Chan. Protection	6	6	SK
62) Culverts	N	N	SK

APPRAISALS

Rating By

67) Structure Evaluation	4	4	MC
68) Deck Geometry	9	9	SK
69) Under Clear Vert & Horiz	6	6	SK
71) Waterway Adequacy	9	9	SK
72) Approach Rdwy Alignment	8	8	SK
113) Scour Critical	8	8	

Items 58 Thru 72 Checked By: _____

36) Traffic Safety Features:

A) Bridge Railings	0	0
B) Transitions	1	1
C) Approach Guardrail	1	1
D) Approach Guardrail End	1	1

OTHER FEATURES

Fence Required	Yes		Barrel Ladder	No	
Fence Present	No		Stand Pipes	No	
Fence Height	ft		Cat Walks	No	
Fence Type			Movable Inspection System	No	
Fence Material			Loose Concrete Checked?	Yes	Y
Fence Top Type					

INSPECTION COMMENTS

Proposed Next Indepth Insp Year	2020	
Senior Supervisor	Sarwat Basha	
	Leo Cain	
REVIEWED BY:	<u>SK</u>	Date <u>8/10/14</u>

BRIDGE NUMBER	TOWN NAME	NBIS BRG LGTH
03313	NEW BRITAIN	True 928
FACILITY CARRIED	FEATURE CROSSED	
I-84 TR 815	I-84EB, RTE 72, 372, B&M RR	

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
DIVISION OF BRIDGE SAFETY EVALUATION

**INVENTORY ROUTE
UNDER STRUCTURE EVALUATION**

FORM BRI-25 REV 10/00

INSPECTED BY: Suresh Dontula

Amit KC

REVIEWED BY: SK DATE: 8/6/14

SHEET _____ OF _____ (INSP. REPORT)

IDENTIFICATION

DESCRIPTION:

5) INVENTORY ROUTE:

- A) RECORD TYPE
- B) ROUTE SIGNING PREFIX State Highway
- C) DESIGNATED LEVEL OF SERVICE Mainline
- D) ROUTE NO.
- 11) MILE POINT (INV.RTE)

AGE & SERVICE

- + 28B) NUMBER OF INV.ROUTE LANES
- * 29) ADT (INV. RTE)
- * 109) TRUCK ADT % (INV.RTE)
- * 30) YEAR OF ADT (INV. RTE)
- * 41) INV ROUTE OPERATIONAL STATUS Open, no restriction
- 19) BYPASS DETOUR LENGTH Miles

GEOMETRIC DATA

- + 10) INV. RTE. MIN. VERT. CLEARANCE ft in
- + 47) LOG INV. RTE. TOTAL HORIZ CLR. ft ft
- + 47) RLOG INV. RTE. TOTAL HORIZ CLR. ft
- + LOG MIN VERT CLR OVER INV ROUTE ft in
- + RLOG MIN VERT CLR OVER INV ROUTE ft in
- + 55) MIN LAT UNDERCLR ON RIGHT ft
- + 56) MIN LAT UNDERCLR ON LEFT ft

LEAVE BLANK

CLASSIFICATION

- 26) INV. RTE. FUNCT CLASSIFICATION Urban Principal Arterial -
- 100) DEFENSE HIGHWAY DESIGNATION Route is not a STRAHNE
- ** 102) DIRECTION OF TRAFFIC 1-way traffic
- 104) HIGHWAY SYSTEM OF INV. ROUTE On System
- 110) DESIGNATED NATIONAL NETWORK On national network

POSTED SIGNS

- + POSTED VERT. CLR UNDER BRIDGE ft in ft in

0ft 0in

↑ LEAVE BLANK

COMMENTS:

ITEM 10 SEE CLEARANCE DIAG. FOR RT 72 WB.
ITEMS 47,53 & 55 SEE CLEARANCE DIAG.
NO ENTER FOR ITEM 53 LOG SINCE NO LOG RT 72 UNDER BRIDGE [RT 72 WB IS

* FILL OUT ON EVERY INSPECTION 29, 109, 30, 41

+ VERIFY EVERY INSPECTION 28B, 10, 47, 53, 55, 56 & POSTED VERT CLEARANCE UNDER THE BRIDGE

** MUST BE FILLED OUT OR VERIFIED ON THE FIRST INSPECTION MADE BASED ON THE NEW FHWA GUIDE 102

BRIDGE NUMBER	TOWN NAME	NBIS BRG LGTH
03313	NEW BRITAIN	True 928
FACILITY CARRIED	FEATURE CROSSED	
I-84 TR 815	I-84EB,RTE 72,372,B&M RR	

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
DIVISION OF BRIDGE SAFETY EVALUATION

**INVENTORY ROUTE
UNDER STRUCTURE EVALUATION**

FORM BRI-25 REV 10/00

INSPECTED BY: Suresh Dantula

Amit KC

REVIEWED BY: SK DATE: 8/6/14

SHEET _____ OF _____ (INSP. REPORT)

IDENTIFICATION

DESCRIPTION:

5) INVENTORY ROUTE:

- A) RECORD TYPE B
- B) ROUTE SIGNING PREFIX 1 Interstate Highway
- C) DESIGNATED LEVEL OF SERVICE 1 Mainline
- D) ROUTE NO. 00084
- 11) MILE POINT (INV.RTE) 50.41

AGE & SERVICE

- + 28B) NUMBER OF INV.ROUTE LANES 3
- * 29) ADT (INV. RTE) 37400
- * 109) TRUCK ADT % (INV.RTE) 14
- * 30) YEAR OF ADT (INV. RTE) 2010
- * 41) INV ROUTE OPERATIONAL STATUS A Open, no restriction
- 19) BYPASS DETOUR LENGTH 4 Miles

GEOMETRIC DATA

- + 10) INV. RTE. MIN. VERT. CLEARANCE 18 ft 9 in
- + 47) LOG INV. RTE. TOTAL HORIZ CLR. 99.9 ft 61.9 ft ✓
- + 47) RLOG INV. RTE. TOTAL HORIZ CLR. 0 ft
- + LOG MIN VERT CLR OVER INV ROUTE 16 ft 10 in
- + RLOG MIN VERT CLR OVER INV ROUTE 0 ft 0 in
- + 55) MIN LAT UNDERCLR ON RIGHT H 25.7 ft 23.4 ft ✓
- + 56) MIN LAT UNDERCLR ON LEFT 25.6 ft 26.6 ft ✓

LEAVE BLANK

CLASSIFICATION

- 26) INV. RTE. FUNCT CLASSIFICATION 1 Urban Principal Arterial - I
- 100) DEFENSE HIGHWAY DESIGNATION 1 Route is on a Interstate S
- ** 102) DIRECTION OF TRAFFIC 1 1-way traffic
- 104) HIGHWAY SYSTEM OF INV. ROUTE 1 On System
- 110) DESIGNATED NATIONAL NETWORK 1 On national network

POSTED SIGNS

+ POSTED VERT. CLR UNDER BRIDGE 0ft 0in ft in

COMMENTS:

ITEMS 47,55 & 56 SEE CLEARANCE DIAG. FOR 184.

LEAVE BLANK

* FILL OUT ON EVERY INSPECTION 29, 109, 30, 41

+ VERIFY EVERY INSPECTION 28B, 10, 47, 53, 55, 56 & POSTED VERT CLEARANCE UNDER THE BRIDGE

** MUST BE FILLED OUT OR VERIFIED ON THE FIRST INSPECTION MADE BASED ON THE NEW FHWA GUIDE 102

BRIDGE NUMBER	TOWN NAME	NBIS BRG LGTH
03313	NEW BRITAIN	True 928
FACILITY CARRIED	FEATURE CROSSED	
I-84 TR 815	I-84EB, RTE 72,372,B&M RR	

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
DIVISION OF BRIDGE SAFETY EVALUATION

**INVENTORY ROUTE
UNDER STRUCTURE EVALUATION**

FORM BRI-25 REV 10/00

INSPECTED BY: Suresh Dantula

Amit KC

REVIEWED BY: SK DATE: 8/6/14

SHEET _____ OF _____ (INSP. REPORT)

IDENTIFICATION

DESCRIPTION:

5) INVENTORY ROUTE:

- A) RECORD TYPE C
- B) ROUTE SIGNING PREFIX 3 State Highway
- C) DESIGNATED LEVEL OF SERVICE 1 Mainline
- D) ROUTE NO. 00372

11) MILE POINT (INV.RTE) 3.60

AGE & SERVICE

- + 28B) NUMBER OF INV.ROUTE LANES 2
- * 29) ADT (INV. RTE) 10500
- * 109) TRUCK ADT % (INV.RTE) 6
- * 30) YEAR OF ADT (INV. RTE) 2010
- * 41) INV ROUTE OPERATIONAL STATUS A Open, no restriction A
- 19) BYPASS DETOUR LENGTH 2 Miles

GEOMETRIC DATA

- + 10) INV. RTE. MIN. VERT. CLEARANCE 25 ft 0 in ft in
- + 47) LOG INV. RTE. TOTAL HORIZ CLR. 50.6 ft
- + 47) RLOG INV. RTE. TOTAL HORIZ CLR. 0 ft
- + LOG MIN VERT CLR OVER INV ROUTE 25 ft 0 in ft in
- + RLOG MIN VERT CLR OVER INV ROUTE 25 ft 0 in ft in
- + 55) MIN LAT UNDERCLR ON RIGHT H 12.6 ft
- + 56) MIN LAT UNDERCLR ON LEFT 0 ft

OSK

CLASSIFICATION

- 26) INV. RTE. FUNCT CLASSIFICATION 14 Urban Other Principal Art
- 100) DEFENSE HIGHWAY DESIGNATION 0 Route is not a STRAHNE
- ** 102) DIRECTION OF TRAFFIC 2 2-way traffic
- 104) HIGHWAY SYSTEM OF INV. ROUTE 1 On System
- 110) DESIGNATED NATIONAL NETWORK 0 Not on national network

POSTED SIGNS

+ POSTED VERT. CLR UNDER BRIDGE 0ft 0in ft in

COMMENTS:

↑ LEAVE BLANK

* FILL OUT ON EVERY INSPECTION 29, 109, 30, 41

+ VERIFY EVERY INSPECTION 28B, 10, 47, 53, 55, 56 & POSTED VERT CLEARANCE UNDER THE BRIDGE

** MUST BE FILLED OUT OR VERIFIED ON THE FIRST INSPECTION MADE BASED ON THE NEW FHWA GUIDE 102

Connecticut Department of Transportation

Bridge Inspection Report BRI-18

Bridge #: 03313

Inspection Date: 04/22/2014

Inspection Type:	Routine	Previous Inspection Date:	4/10/2012	Snooper Required:	Yes
Inspection Performed By:	GM2 On-call	Feature Carried:	I-84 TR 815	Snooper Used:	Yes
Town:	NEW BRITAIN	Feature Intersected:	I-84EB,RTE 72,372,B&M RR	Year Built:	1969
Location:	I84 WB EXT 35 TO RT 72 EB	Main Design:	Stringer/Multi-beam or Girder	Year Rebuilt:	-
Main Material:	Steel				

Visits

Inspectors:

Visit Date:	Temp:	Start Time:	End Time:	Inspector:	Task:
4/22/2014	60	8:00:00 AM	3:00:00 PM	A. KC	Inspector
4/29/2014	50	8:30:00 AM	3:00:00 PM	B. Swanson	Inspector
5/15/2014	60	8:30:00 AM	3:30:00 PM	P. Haefner	Inspector
6/2/2014	70	8:30:00 AM	3:00:00 PM	S. Dontula	Lead Inspector
6/3/2014	70	8:30:00 AM	3:00:00 PM		
6/6/2014	70	7:00:00 AM	3:00:00 PM		
6/7/2014	70	6:45:00 AM	12:30:00 PM		

DECK: - **Overall Rating:** 6

Rating

OVERLAY:	6	The bituminous concrete overlay exhibits areas of light to moderate raveling, areas of map cracking throughout with some cracks open up to 1/4" wide and the paving seams are open up to 1/2" wide. See Field Notes Sheets 8 through 12 and Photo No. 8.
DECK-STR. CONDITION:	6	The underside of deck exhibits transverse hairline cracks with and without efflorescence and areas of hairline map cracking with and without efflorescence covering up to 75% of the bay area. There are isolated areas of honeycombing up to 2' x 1' x 1/2" deep, end haunch spalls up to 1' x 4" x 8" deep, deck end hollow areas up to 8" in diameter and deck end spalls up to 14" x 6" x 4" deep with and without exposed rebar. The underside of the deck deterioration covers a maximum of 8.9% of the Span 5 deck area and 3.7% of the total deck area. See Field Notes Sheets 23, 24, 26, 29, 32, 35, 38, 41, 44 and 46 and Photo Nos. 9 and 10.
CURBS:	4	There are sloped concrete curbs along both fasciae, which exhibit rust stains, vertical hairline cracks with and without efflorescence, areas of hairline map cracking and scrapes/gouges up to 1.5' long x 3" high x 1" deep. There are

		<p>large areas of severe scaling up 1' high x 4-1/2" deep with and without exposed rebar, the maximum of which is noted along the east curb in Spans 5 and 6.</p> <p>The transition curb sections at the southwest approach are misaligned by up to 3.5" and curbs in the southwest and southeast approach have random spalls up to 3" deep. Transition curbs at the northwest have been removed from their original position and are laying on the approach embankment.</p> <p>Average West Curb Reveal: 2-3/4" Average East Curb Reveal: 2-1/2"</p> <p>See Field Notes Sheets 8 through 13 and Photo Nos. 11 and 12.</p>
MEDIAN:	N	-
SIDEWALKS:	N	-
PARAPET:	7	There are concrete parapets along both fasciae, which exhibit areas of light scaling, scrapes, vertical hairline cracks with efflorescence, areas of hairline map cracking and random areas of shallow rebar up to 8" long. See Field Notes Sheets 8 through 12 and Photo Nos. 11 and 12.
RAILING:	6	There are galvanized two-pipe railings along both fasciae, which exhibit areas of moderate to heavy surface rust, faded galvanizing, and minor gaps below the base plates with deteriorated caulk/sealant. There are four bent pipe sections located in Spans 1, 6 and 7. There are slightly tilted posts at areas of previous collision damage. There are random anchor bolts that are slightly bent and some nuts are not fully engaged. The 5th post from Pier 6 in Span 7 at the east railing has two missing nuts and two nuts backed off 1/4". See Field Notes Sheets 8 through 12 and Photo Nos. 11, 12 and 13.
PAINT:	N	-
FENCE:	N	-
DRAINS:	5	<p>There are scuppers in the east shoulder of Spans 3, 4 and 7, which exhibit heavy to laminated rust. There is evidence of leakage around the scupper pans. There is 3" x 2" rust hole in the scupper pipe in Span 4 (does not drain on steel).</p> <p>There are short deck weep pipes with potential to drain onto steel below at following locations:</p> <ul style="list-style-type: none"> - Bay 3 near Pier 2 in Span 3. - Bay 3 near the first cross frame from Pier 5 in Span 5. - Bay 3 near Pier 6 in Span 7. <p>See Field Notes Sheets 9, 26, 32 and 38 and Photo Nos. 14 and 15.</p>
LIGHTING STANDARD:	5	There are light standards on top of west parapet in Spans 1, 3, 6 and 8. The light standard on the west parapet in Span 1 exhibits a missing handhole cover plate with exposed wires. In Span 1 along the west parapet, there is a junction box cover with 10 out of 12 screws missing (but secure) and a junction box with temporary cover. See Field Notes Sheet 8 and Photo No. 16.
UTILITIES TYPE/SIZE:	N	-
CONSTR JOINTS:	N	-
EXPANSION JOINTS:	4	There are new asphaltic plug joints at both abutments and all piers since the last inspection. The asphaltic plug joints exhibit areas of light raveling, adhesion separation cracks and cohesion cracks up to 18' long x 1/8" wide. See Field Notes Sheets 8 through 12 and Photo Nos. 17 and 18.

59. SUPERSTRUCTURE: -

Overall Rating: 4

Rating

BEARING DEVICES:	6	<p>Girder Bearings: There are elastomeric bearings at both abutments and Pier 2 in Span 2, Pier 3 in Span 3, Pier 4 in Span 4, Pier 5 in Span 5, Pier 6 in Span 6, and Pier 7 in Span 7. There are gaps up to 1/8" deep between elastomeric bearing pads and pedestals at isolated locations.</p> <p>The fixed bearings exhibit areas of moderate to heavy rust with up to 1/2" thick pack rust between the bearing plates. Isolated anchor bolts are slightly tipped and backed off up to 1/2". Some anchor bolt nuts exhibit up to 80% section loss.</p> <p>Cap Girder Bearings at Pier 1: There is a sliding expansion bearing at the west column, which exhibits a full width x 1/8" gap under masonry plate that extends up to 5" under plate and the anchor bolt nuts have up to 30% section loss. The bearing appears to be frozen based on the comparison with previous measurements.</p> <p>There is a fixed bearing at the east column which exhibits rosebudding of anchor bolt nuts and up to 1/8" thick impacted rust under masonry plate. The anchor bolt nuts exhibit up to 25% section loss and the northwest anchor bolt nut is missing.</p> <p>Fixed Hinges at Pier 1 in Spans 1 and 2: The hinges at Pier 1 exhibit up to 9/16" impacted rust between hinge plate and girder web with bleeding rust, mainly at the fascia girders. There are random pin nuts for hinge assemblies that are not seated square on plate leaving a gap under the nut at one edge up to 9/16" (as-built condition). There several missing and not properly installed cotter pins, but the tack welds are in place. All hinge connections have backup hanger rod assemblies and support beams.</p> <p>See Field Notes Sheets 14 through 45 and Photo Nos. 19 through 25.</p>
STRINGERS:	N	-
GIRDERS:	4	<p>The superstructure consists of four welded steel plate girders in all spans. The girders have areas of peeling paint with moderate to heavy rust. Numerous web ends were painted over and repair plates were installed as part of previous repairs under Project 171-339 (mainly at Girder G4 ends). There are areas of section losses noted in the web and bearing stiffeners at some of these repaired locations but it is assumed that the repair plates are adequate to account for the section losses.</p> <p>Girder G4 web at the South Abutment has an 8" long x 3" high x 3/16" deep section loss between stiffeners (painted over). At this location, two of four bearing stiffeners have as little as 3/16" remaining x full width (painted over). Girder G4 web at Pier 1 in Span 2 has full height x 1" wide x 1/16" deep section loss at the connection to the cap girder. Girders G2 and G3 at Pier 3 in Span 3 have full width x 2" high x up to 3/16" deep section loss at the bottom of two of four bearing stiffeners. Also, Girder G3 has 3.5' long x 4" high x up to 1/8" deep section loss along the bottom of web (partially painted over). Girder G1 web at Pier 5 in Span 5 has a 5" long x 2.5" high x 3/16"-1/4" deep section loss between the stiffeners (painted over). Two of four stiffeners at this location have as little as 1/8" remaining with a 3/4" diameter hole, 2.5" above</p>

		the base (painted over). At these locations, the maximum resulting web loss for shear is ±5% and loss in web bearing area (buckling) is 31%. Girder G4 bottom flanges have section losses up to 3/8" deep x 7" wide at several locations in critical areas resulting in up to 13% loss (worst case noted in Span 4). Also, there are isolated web stiffeners with rust holes up to up to 3" x 4" along the bottom. See Field Notes Sheets 23 through 45 and Photo Nos. 9 and 26 through 30.
FLOOR BEAMS:	N	-
TRUSSES-GENERAL:	N	-
TRUSSES-PORTALS:	N	-
TRUSSES-BRACING:	N	-
PAINT:	5	Less than 50% of the painted surfaces have deterioration. See above items entitled "BEARING DEVICES" and "GIRDERS".
RUST:	5	See above items entitled "BEARING DEVICES" and "GIRDERS".
MACHINERY MOV SPAN:	N	-
RIVETS & BOLTS:	N	Erection bolts.
WELDS - CRACKS:	6	The bottom flange transition welds (Fatigue Category 'B') were checked hands-on and no significant deficiencies were noted. There are sloppy diaphragm connection welds at random locations. There is a missing and broken horizontal weld at the end cross frame connection to Girder G2 at Pier 7 in Span 7 and a 4" long cracked lower horizontal weld at the end cross frame connection to Girder G3 at Pier 7 in Span 7. See Field Notes Sheets 23, 24, 26, 29, 32, 35, 38, 41 and 44 and Photo Nos. 31 and 32.
TIMBER DECAY:	N	-
CONCRETE CRACKING:	N	-
COLLISION DAMAGE:	8	-
MEMBER ALIGNMENT:	8	-
DEFLECT. UNDER LOAD:	N	(N) Normal, (E) Excessive
VIBRATION UNDER LOAD:	N	(N) Normal, (E) Excessive
STAND PIPES:	N	-
BARREL LADDERS:	N	-

ARE BARREL LADDERS OSHA COMPLIANT? N/A

60. **SUBSTRUCTURE:** Overall Rating:
 Rating

ABUTMENTS-STEM: The South Abutment stem exhibits a full height x 1/16" wide vertical crack, a

	6	4' long diagonal hairline crack, spalls up to 1.5' x 6" x 1" deep with and without exposed rebar and a 2' x 1' hollow area. See Field Notes Sheets 47 and 49 and Photo Nos. 33 and 34.
ABUTMENTS-BACKWALL:	7	The South Abutment backwall has a 1' x 8" x 2" deep spall along the top in Bay 2. The North Abutment backwall exhibits hairline cracks up to full height with and without efflorescence. There is evidence of past leakage at east end of both backwalls. See Field Notes Sheets 47 and 49.
ABUTMENTS-FOOTINGS:	8	The North Abutment footing is exposed at the east end for 60" long x 5" wide x 4" deep. See Field Notes Sheet 49.
ABUTMENTS-SETTLEMENT:	8	-
ABUTMENTS-WINGWALLS:	7	The wingwalls exhibit light to heavy growth of vines on the wingwalls and heavy growth of vegetation along the bottom. There is missing joints filler material with vines growing through. The Southwest Wingwall has an area of light scaling along the top, the Southeast Wingwall exhibits vertical cracks open up to 1/16" wide and the Northeast and Northwest Wingwall has a 1.5' long horizontal hairline crack with and without efflorescence. There is minor erosion along the embankment in front of the Northwest Wingwall. The northeast and northwest cheekwalls exhibit horizontal hairline cracks up to 12" long and the west face of the northeast cheekwall has a 1' x 3" x 1" deep spall with exposed rebar. See Field Notes Sheets 48, 49 and 50 and Photo No. 35.
PIERS/BENTS-CAPS:	5	<p>The concrete pier caps exhibit vertical and horizontal cracks open up to 1/16" wide and isolated areas of map cracking, both with and without efflorescence. There are hollow areas up to full height x 1.5' (south side of Pier 6) and spalls up to 1.5' x 1' x 6" deep (south side of Pier 7). The grout pockets for the post tensioning anchorage typically have cracks up to 1/8" wide with efflorescence along the perimeter, hollow areas up to 2' x 2' and spalls/scaling areas up to 1' x 16" x 4" deep (east end of Pier 2).</p> <p>The concrete pedestals have vertical and horizontal cracks up to 1/4" wide with some cracks extending through anchor bolt line. Also, there are spalls up to 10" x 1.5" x 1.5" deep and hollow areas up to 2' x full width. The pedestal for Girder G4 on Pier 2 is undermined 1' long x 2" high x 2" deep due to a 1' long x 3" high x 2" deep void. An 8" x 8" x 3" deep spall on the south face of the Pier 7 cap under Girder G4 undermines the pedestal for up to 7" x 7" x 3" deep.</p> <p>The steel cap girder at Pier 1 exhibits areas of light to moderate rust on the interior portions, mainly at ends. Bottom flange along the south elevation in Span 1 near Girder G4 has a 3' long x 6" wide x 3/16" deep area of section loss (painted over, 2% loss). Also, the bottom flange at the north elevation near Girder G4 (Span 2) has areas of painted over section loss up to 2' long x 4" wide x 1/8" deep with recurring rust. The web stiffener at this location has section loss with a 2-1/2" diameter hole along the bottom.</p> <p>See Field Notes Sheets 51 through 66 and Photo Nos. 29, 36 through 41.</p>
PIERS/BENTS-PILE BENT:	N	-
PIERS/BENTS-COLUMNS:	7	The concrete pier columns exhibit isolated hairline cracks with and without efflorescence, areas of hairline map cracking and isolated pop outs. The Pier 6 column exhibits random areas of shallow rebar on the north face and a 2' diameter hollow area on the east face. See Field Notes Sheets 51 through 66 and Photo No. 36.
PIERS/BENTS-FOOTING:	7	Pier 5 footing is exposed up to 12' long x 6 high x 2' deep along the south side due to erosion. See Field Notes Sheet 59.
PIERS/BENTS-SETTLMT:	8	-
EROSION-SCOUR:	6	There are exposed footings at the North Abutment and Pier 5 due to erosion. See above items entitled "ABUTMENTS-FOOTINGS" and "PIERS/BENTS-

		FOOTINGS".
CONCRETE CRACK-SPALL:	5	See above items entitled "ABUTMENTS-STEM", "ABUTMENTS-BACKWALL" "ABUTMENTS-WINGWALL", "PIERS/BENT-CAPS" and "PIERS/BENT-COLUMNS".
STEEL CORROSION:	6	See above item entitled "PIERS/BENTS CAPS".
PAINT:	7	Less than 10% of painted surfaces are deteriorating on steel cap.
TIMBER DECAY:	N	-
COLLISION DAMAGE:	8	-
DEBRIS:	7	There is light accumulation of debris on the pier caps. See Field Notes Sheets 51 through 66.

61. CHANNEL & CHANNEL PROTECTION:

-

Overall Rating: 7

Rating

CHANNEL SCOUR:	7	Drop line measurements taken this inspection indicate that there is no significant change in channel profile since the last inspection except at one location where there is a 4' change in reading (at location away from the channel limits). See Field Notes Sheet 67.
EMBANKMENT EROSION:	7	The embankments exhibit areas of minor erosion.
DEBRIS:	6	There are trees laying across the channel. See Field Notes Sheet 68 and Photo Nos. 42 and 43.
VEGETATION:	8	The channel embankments exhibit heavy growth of vegetation with large and small trees and shrubs. See Field Notes Sheet 68 and Photo Nos. 42 and 43.
CHANNEL CHANGE:	8	The channel is generally straight through the bridge. The bridge has no effect on the channel flow.
FENDER SYSTEM:	N	-
SPUR, DIKES & JETTIES:	N	-
RIP RAP:	N	-

62. CULVERTS & RETAINING WALL:

-

Overall Rating: N

65. APPROACH CONDITION

-

Overall Rating: 6

Rating

APPROACH SLAB:	6	The approach slab is paved over. The rating is based on the condition of the approach pavement. See below item entitled "APPROACH PAVEMENT".
RELIEF JOINTS:	N	Not visible.
APPROACH GUIDE RAIL:	6	There are metal beam rails located at the southwest, northwest and northeast corners. The metal beam guide rails at the north approach exhibit minor scrapes. The end of guide rail at the southwest approach has random bent/tilted anchor bolts at the concrete anchorage to the ground and anchor bolt nuts are not snug, and random washers are missing (trailing end). There is a three-cable guiderail at the southeast corner that exhibits cables with slight slack and random tipped/twisted posts. See Field Notes Sheets 8 and 12 and Photo Nos. 44 and 45.
APPROACH PAVEMENT:	6	The approach pavements exhibit areas of light raveling, minor wheel rutting and transverse and longitudinal cracks up to 1/2" wide with edge raveling up to 3" wide. There are also areas of map cracking with cracks open up to 1/2" wide. The previously noted settlement in the south approach pavement near the South Abutment has been repaired. The north approach pavement exhibits a paving seam open up to 3/4" wide. See Field Notes Sheets 8 and 12 and Photo No. 46.
APPROACH EMBANKMENT:	7	Minor erosion along the Northeast Wingwall. See Field Notes Sheet 50.

TRAFFIC SAFETY FEATURES

Rating

BRIDGE RAILINGS:	Last Inspection: 0 Current: 0	Does not meet current standards for NHS-structure (solid concrete parapet is less than 42" high).
TRANSITIONS:	Last Inspection: 1 Current: 1	Meets current standards (see photo 40).
APPROACH GUARDRAILS:	Last Inspection: 1 Current: 1	Meets current standards.
APPR. GUARDRAIL ENDS:	Last Inspection: 1 Current: 1	Meets current standards.

66. LOAD POSTING

- Posted Loading -

SINGLE UNIT (TONS):	Last	-
----------------------------	------	---

	Inspection: - Current: -	
SEMI TRAILER (TONS):	Last Inspection: - Current: -	-
4 AXLE (TONS):	Last Inspection: - Current: -	-
3S2 (TONS):	Last Inspection: - Current: -	-
ADVANCE WARNING (Y/N):	N	-
LEGIBILITY:	N	-
VISIBILITY/LOCATION:	N	-

67. MISCELLANEOUS

Rating

MIN. VERT. UNDERCLEARANCE:	Last Inspection: 16' 10" Current: 16' 10"	See Field Notes Sheets 4 through 7. 16'-10" along the solid white line in Span 8 (15'-6" along the edge pavement in Span 1).
POSTED CLR. UNDER BRIDGE:	Last Inspection: -' -" Current: -' -"	-
POSTED CLR. ON BRIDGE:	Last Inspection: -' -" Current: -' -"	-
ADVANCED WARNING (YES/NO):	No	-
SPEED LIMIT (IF ANY):	Last Inspection: 30 Current: -	No signs posted on the bridge.
CHARACTER OF TRAFFIC:		Moderate, mixed.

ADDITIONAL NOTES:

1. Bridge identification is clear and legible.
2. The bridge is logged from south to north and the girders are numbered from west to east, which is consistent with the previous inspection report.
3. Bridge was inspected using 40' lift truck, 60' snooper and 60' man lift with lane closures on Route 72 westbound, Route 372, I-84 eastbound and I-84 TR 815 utilizing state trooper and local police.
4. A Pan Am railroad flagman is needed to inspect Span 5.
5. Bridge was inspected in conjunction with Bridge Nos. 03311, 03312 and 03320.

**ADDITIONAL
COMMENTS:**

There is a BMM submitted along with this report.

Inspectors' Signatures:

1) D. Smith Reddy

Date: 8 / 1 / 14

2) [Signature]

Date: 8 / 1 / 2014

3) _____

Date: --- / --- / ---

4) _____

Date: --- / --- / ---

P.E. Signature:

Madan M. Gupta

Date: --- / --- / ---

P.E. #:

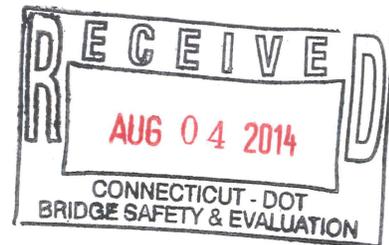
14052

Date: 8 / 1 / 14

Reviewed by:

Stephen Keedy conndot

Date: 8 / 6 / 14





JOB NO. 170-3224

BRIDGE NO. 03313

SUPPLEMENTAL SHEET

DATE: (SEE BELOW)

SHEET 1 OF 72

DESCRIPTION: TIME LOG

DATE:	DESCRIPTION		TIME AT SITE	
4/22/2014				
WEATHER: Sunny, 60°F	CREW:	SRD, BJS	8:00 AM	TO 3:00 PM
EQUIP. LIST: GM2 Inspection Van	LIFT:			TO
	TROOPER:			TO
VISITORS: Rick Prescottt 11:10 AM - 11:20 AM.				TO
TC & NOTES: Inspected N. Abutment and part of Span 9. Inspected in conjunction with Bridge Nos. 03311, 03312 & 03320.				

DATE:	DESCRIPTION		TIME AT SITE	
4/29/2014				
WEATHER: Sunny, 50°F	CREW:	SRD, AKC, BJS, CAW	8:30 AM	TO 3:00 PM
EQUIP. LIST: GM2 Inspection Van	LIFT:	2 - 40' (E-L)	8:30 AM	TO 3:00 PM
	MPT:	McClain	8:30 AM	TO 3:00 PM
	TROOPER:	Santa (#990)	8:45 AM	TO 2:30 PM
VISITORS:				TO
TC & NOTES: Right & left lane closures on Rte. 72 WB. Inspected Spans 1 and 2, S. Abutment and Piers 1 & 2 and hinge measurements. Inspected in conjunction with Bridge No. 03311 and 03312.				

DATE:	DESCRIPTION		TIME AT SITE	
5/15/2014				
WEATHER: Sunny, 60°F	CREW:	SRD, AKC, PAH, BJS	8:30 AM	TO 3:30 PM
EQUIP. LIST: GM2 Inspection Van	SNOOPER:	60' (McClain)	8:30 AM	TO 3:30 PM
	MPT:	McClain (2 Crews)	8:30 AM	TO 3:30 PM
	TROOPER:	Foley (#745)	8:45 AM	TO 1:45 PM
VISITORS:	TROOPER:	Zup (#745)	8:45 AM	TO 3:15 PM
TC & NOTES: Right & left lane closures on Rte. 72 WB & right lane closure on I-84 EB. Inspected part of Span 8 and Pier 7. Inspected in conjunction with Bridge Nos. 03311 & 03312.				

DATE:	DESCRIPTION		TIME AT SITE	
6/2/2014				
WEATHER: Sunny, 70°F	CREW:	SRD, AKC	8:30 AM	TO 3:00 PM
EQUIP. LIST: GM2 Inspection Van	LIFT:	40' (E-L)	8:30 AM	TO 3:00 PM
	MPT:	McClain	8:30 AM	TO 3:00 PM
VISITORS:	TROOPER:	Such (#1302)	8:45 AM	TO 3:00 PM
	TROOPER:	Cipriano(#1383)	8:45 AM	TO 3:00 PM
TC & NOTES: Right & left lane closures on I-84 EB & WB. Completed Span 8 and inspected part of Pier 8. Inspected in conjunction with Bridge Nos. 03311 & 03312.				



JOB NO. 170-3224

BRIDGE NO. 03313

SUPPLEMENTAL SHEET

DATE: (SEE BELOW)

SHEET 2 OF 72

DESCRIPTION: TIME LOG

DATE:			DESCRIPTION	TIME AT SITE	
WEATHER:	<u>Sunny, 70°F</u>	CREW:	<u>SRD, AKC, BJS</u>	<u>8:00 AM</u>	TO <u>3:00 PM</u>
EQUIP. LIST:	<u>GM2 Box Truck</u>	LIFT:	<u>60' Manlift (Above & Beyond)</u>	<u>8:00 AM</u>	TO <u>3:00 PM</u>
		LIFT:	<u>40' Lift (E-L)</u>	<u>8:00 AM</u>	TO <u>3:00 PM</u>
		TROOPER:	<u>Sliter (New Britain PD)</u>	<u>8:45 AM</u>	TO <u>1:00 PM</u>
VISITORS:					TO
TC & NOTES:	<u>Partial right lane closure on Rte. 372 WB & EB. Inspected Span 6 & Piers 5 & 6.</u>				
	<u>Inspected in conjunction with Bridge Nos. 03312 & 03320.</u>				

DATE:			DESCRIPTION	TIME AT SITE	
WEATHER:	<u>Sunny, 70°F</u>	CREW:	<u>SRD, AKC, PAH, BJS</u>	<u>7:00 AM</u>	TO <u>3:00 PM</u>
EQUIP. LIST:	<u>GM2 Inspection Van</u>	SNOOPER:	<u>60' (McClain)</u>	<u>8:30 AM</u>	TO <u>3:00 PM</u>
	<u>GM2 Box Truck</u>	MPT:	<u>McClain</u>	<u>8:30 AM</u>	TO <u>3:00 PM</u>
		TROOPER:	<u>Gutierrez (#1404) & Dowe (#940)</u>	<u>8:45 AM</u>	TO <u>3:00 PM</u>
VISITORS:		FLAGMAN:	<u>Phil Lane (PanAM RR)</u>	<u>7:00 AM</u>	TO <u>3:00 PM</u>
TC & NOTES:	<u>Right shoulder closure on I-84 TR 815. Inspected Spans 3-7 & 9, Piers 2-8 and partial top of deck.</u>				
	<u>Inspected in conjunction with Bridge Nos. 03311 & 03312.</u>				

DATE:			DESCRIPTION	TIME AT SITE	
WEATHER:	<u>Sunny, 70°F</u>	CREW:	<u>SRD, AKC, PAH, BJS</u>	<u>6:45 AM</u>	TO <u>12:30 PM</u>
EQUIP. LIST:	<u>GM2 Inspection Van</u>	SNOOPER:			TO
	<u>GM2 Box Truck</u>	MPT:	<u>McClain</u>	<u>6:45 AM</u>	TO <u>11:00 AM</u>
		TROOPER:	<u>Hennessey (#243)</u>	<u>6:45 AM</u>	TO <u>11:00 AM</u>
		TROOPER:	<u>Connelly (#960)</u>	<u>6:45 AM</u>	TO <u>11:00 AM</u>
VISITORS:		FLAGMAN:	<u>Phil Lane (PanAM RR)</u>	<u>7:00 AM</u>	TO <u>12:00 PM</u>
TC & NOTES:	<u>Left shoulder closure on I-84 TR 815. Completed top of deck and miscellaneous work.</u>				
	<u>Inspected in conjunction with Bridge Nos. 03311, 03312 & 03320.</u>				

DATE:			DESCRIPTION	TIME AT SITE	
WEATHER:		CREW:			TO
EQUIP. LIST:		SNOOPER:			TO
		MPT:			TO
VISITORS:		TROOPER:			TO
		FLAGMAN:			TO
TC & NOTES:					

SUPPLEMENTAL SHEET

FIELD ORIGINAL TRANSCRIBED BY: _____

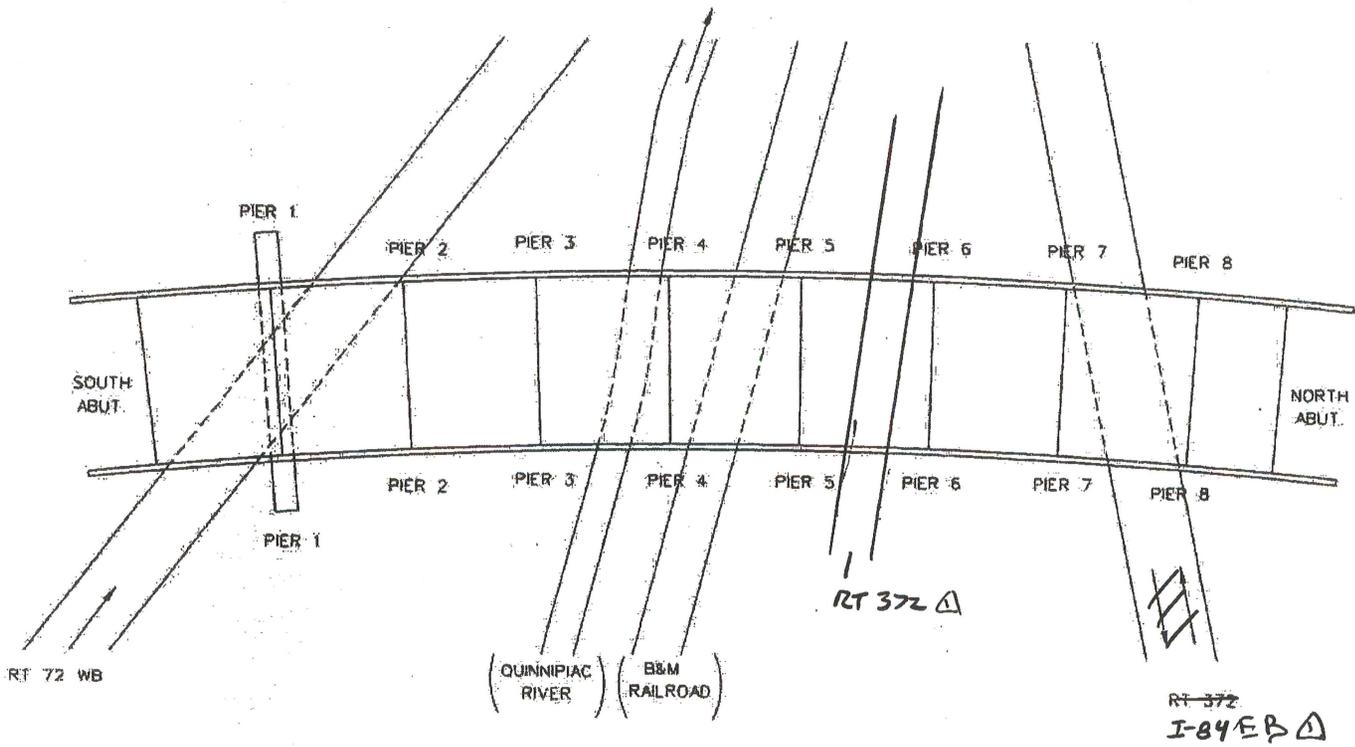
DESCRIPTION: KEY PLAN

BRIDGE NO. 03313

DATE: 5/18/10

CREW: JH, MSO, RL

SHEET 17 / ~~18~~ 106 / 120



KEY PLAN

△ - NO CHANGE

UPDATE NO.	DATE	COMPANY	CREW
△	4/10/12	BKR	MJO, JAC
△	4/22/12	GM2	SRD, BTS
△			
△			

SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: JW

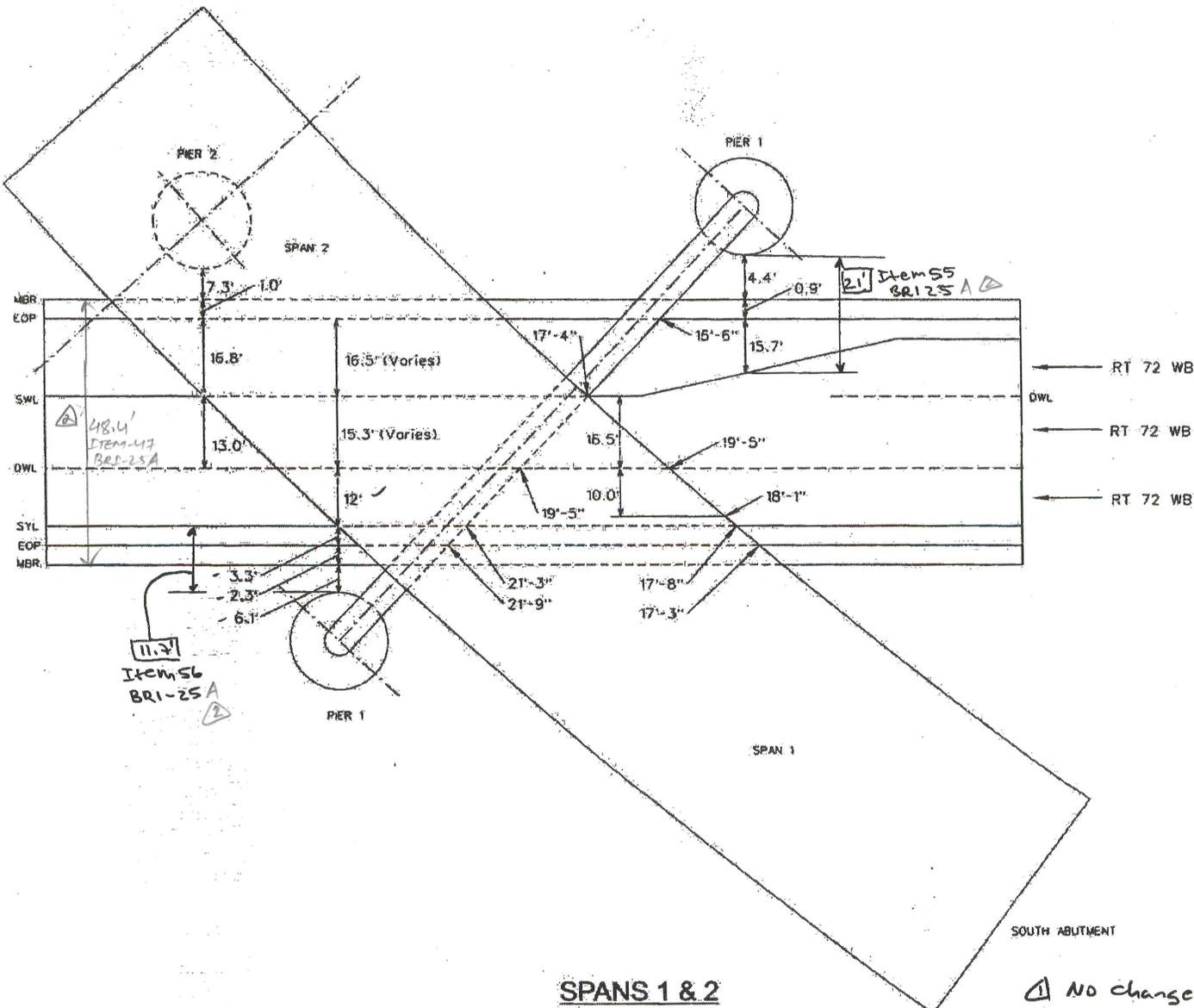
DESCRIPTION: CLEARANCE DIAGRAM - SPANS 1 & 2

BRIDGE NO. 03313

CREW: JM, RL

DATE: 5/18/2010

SHEET 18/28/10/6 4/2



NO CHANGES

GENERAL NOTES:

- ALL VERTICAL CLEARANCES ALONG THE WEST FASCIA GIRDER ARE GREATER THAN 25'.

UPDATE	DATE	COMPANY	CREW
<input checked="" type="checkbox"/>	4/15/12	BK12	MSP, PH
<input checked="" type="checkbox"/>	4/29/14	GMZ	SPD, ALC, BTJ, LAW
<input type="checkbox"/>			
<input type="checkbox"/>			

Baker

SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: RL

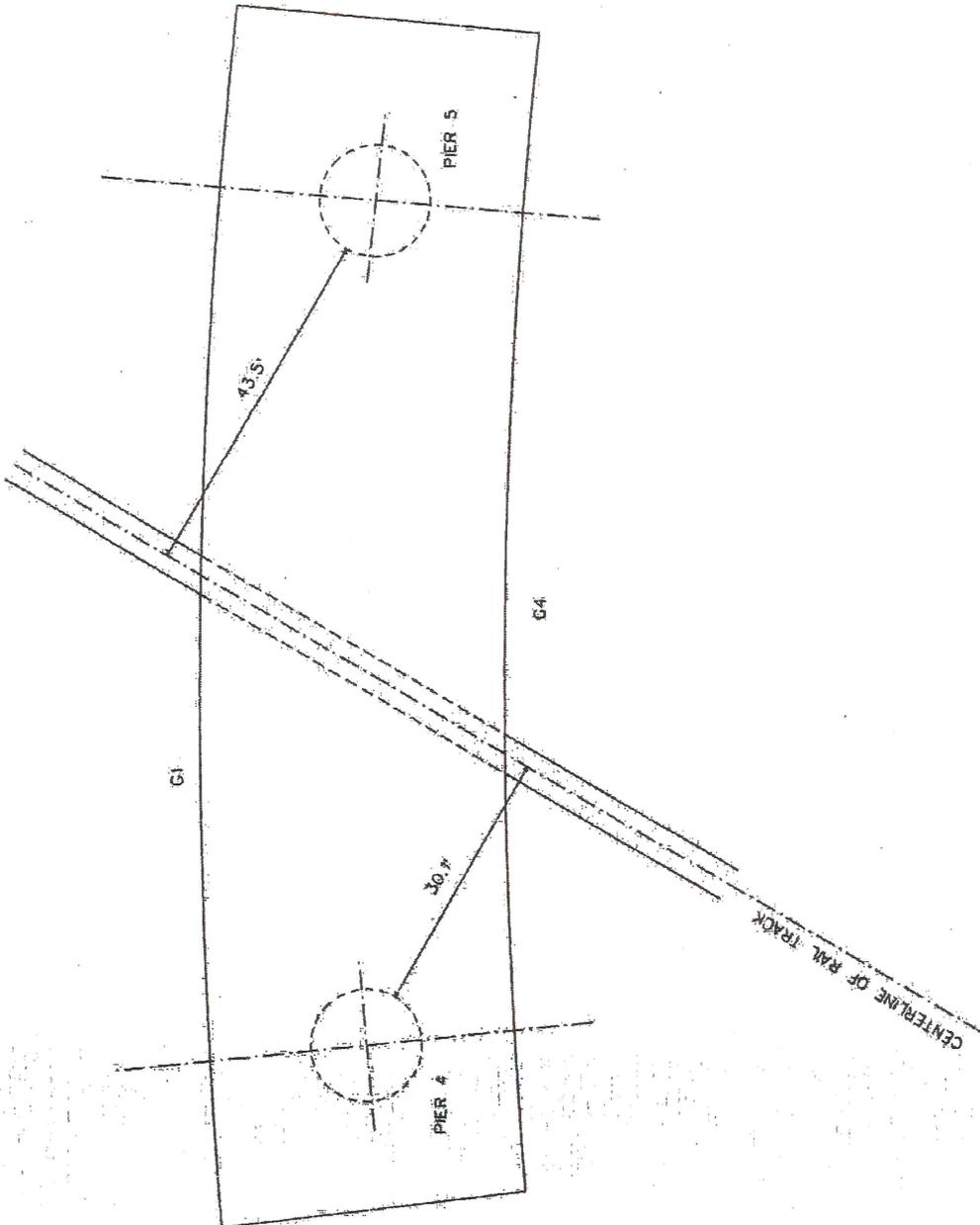
BRIDGE NO. 03313

DATE: 5/2/2010

CREW: JM, YS

SHEET ~~18/18~~ 106 ^{5/12}

DESCRIPTION: RAILROAD CLEARANCE DIAGRAM - SPAN 5



△ No changes
▽ NO CHANGES

SPAN 5

UPDATE NO.	DATE	COMPANY	CREW
△	4/18/12	BKR	YS, GH
△	6/6/14	GMZ	SPD, BOS
△			
△			

GENERAL NOTES:
VERTICAL CLEARANCE IS OVER 25'.

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

FIELD ORIGINAL

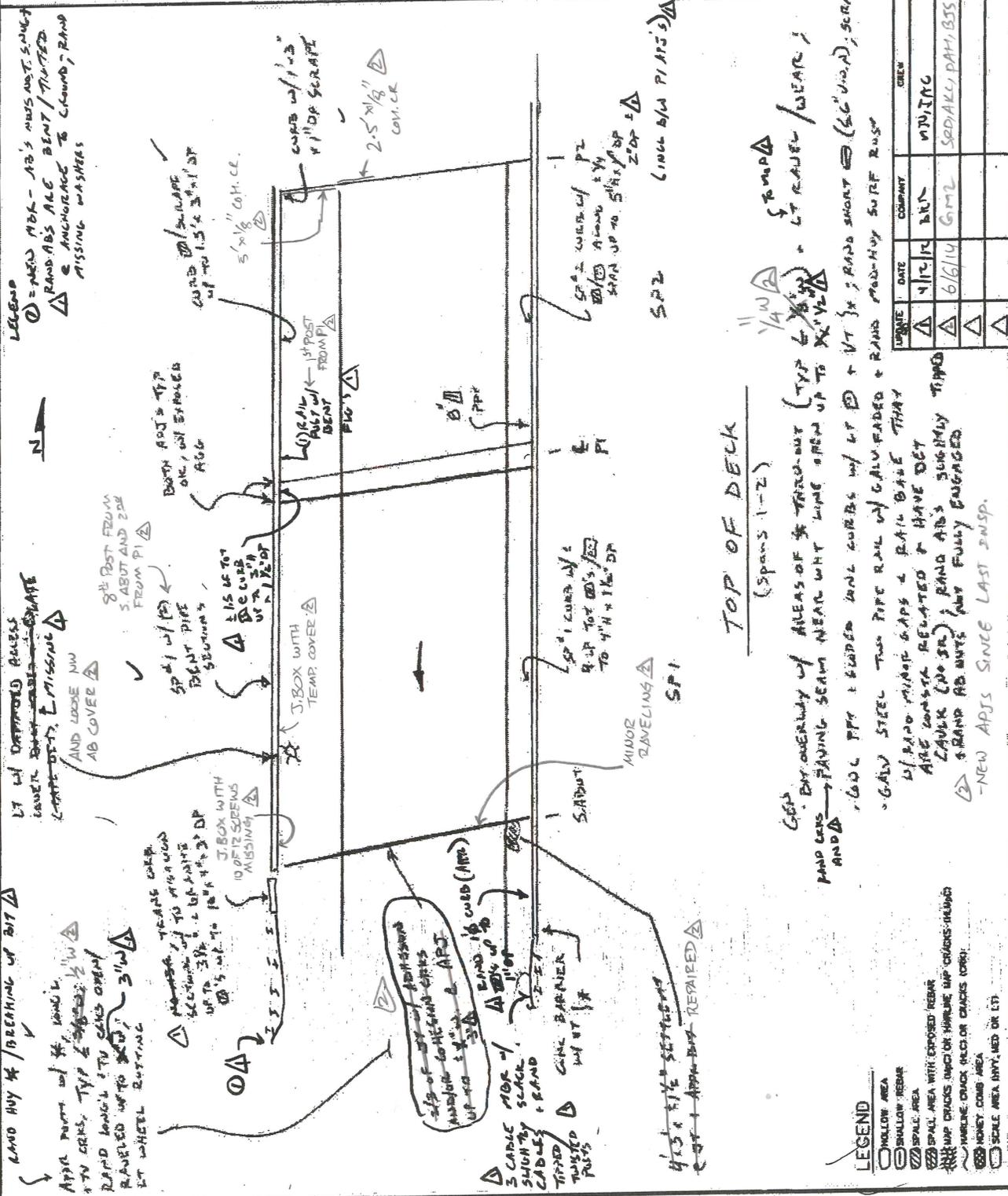
TRANSCRIBED BY: _____

CREW: M30, YS

SHEET 7 OF 10

8/72

DESCRIPTION: TOP OF DECK



TOP OF DECK
(Spans 1-2)

BY OVERLAY OF AREAS OF ~~THE~~ THROUGH (TYPE ~~TO~~ ~~BE~~) - LT RAILER / WEAR;
 HAND LENS - PAVING SEAM NEAR WHT LINE OPEN UP TO ~~1/2~~ ~~IN~~ ~~CH~~
 AND ~~1/2~~ ~~IN~~ ~~CH~~ - 600 PFT TIED IN CURBS w/ LT & RT ~~1/2~~ ~~IN~~ ~~CH~~; RAND SHORT ~~1/2~~ ~~IN~~ ~~CH~~; SCRAPES
 - GALV STEEL TWO PIPE RAIL w/ GALV PAINTED + RAND MAD-HUY SURF RUST
 w/ RAND MINOR GAPS + RAIL BASE THAT
 ARE CONSTA RELATED + HAVE DET
 CAUSE (NO SR); RAND ABS SUSPENSION TYPED
 - RAND ABS WHTS NOT FULLY ENGAGED
 - NEW APJS SINCE LAST INSP.

DATE	COMPANY	CREW
4/12/10	BKN	MINI/MC
6/6/10	GMZ	SODIALLY PAM/BSS

LEGEND
 [Symbol] HOLLOW AREA
 [Symbol] SHALLOW REBAR
 [Symbol] SPALL AREA
 [Symbol] SPALL AREA WITH EXPOSED REBAR
 [Symbol] MAP CRACKS, MAP OR MARKING MAP CRACKS - HUND
 [Symbol] MARKING CRACK (R.C.) OR CRACKS (O.R.)
 [Symbol] MONEY CONC AREA
 [Symbol] SCALE AREA INTY, MED OR LT

SUPPLEMENTAL SHEET

FIELD ORIGINAL TRANSCRIBED BY: _____

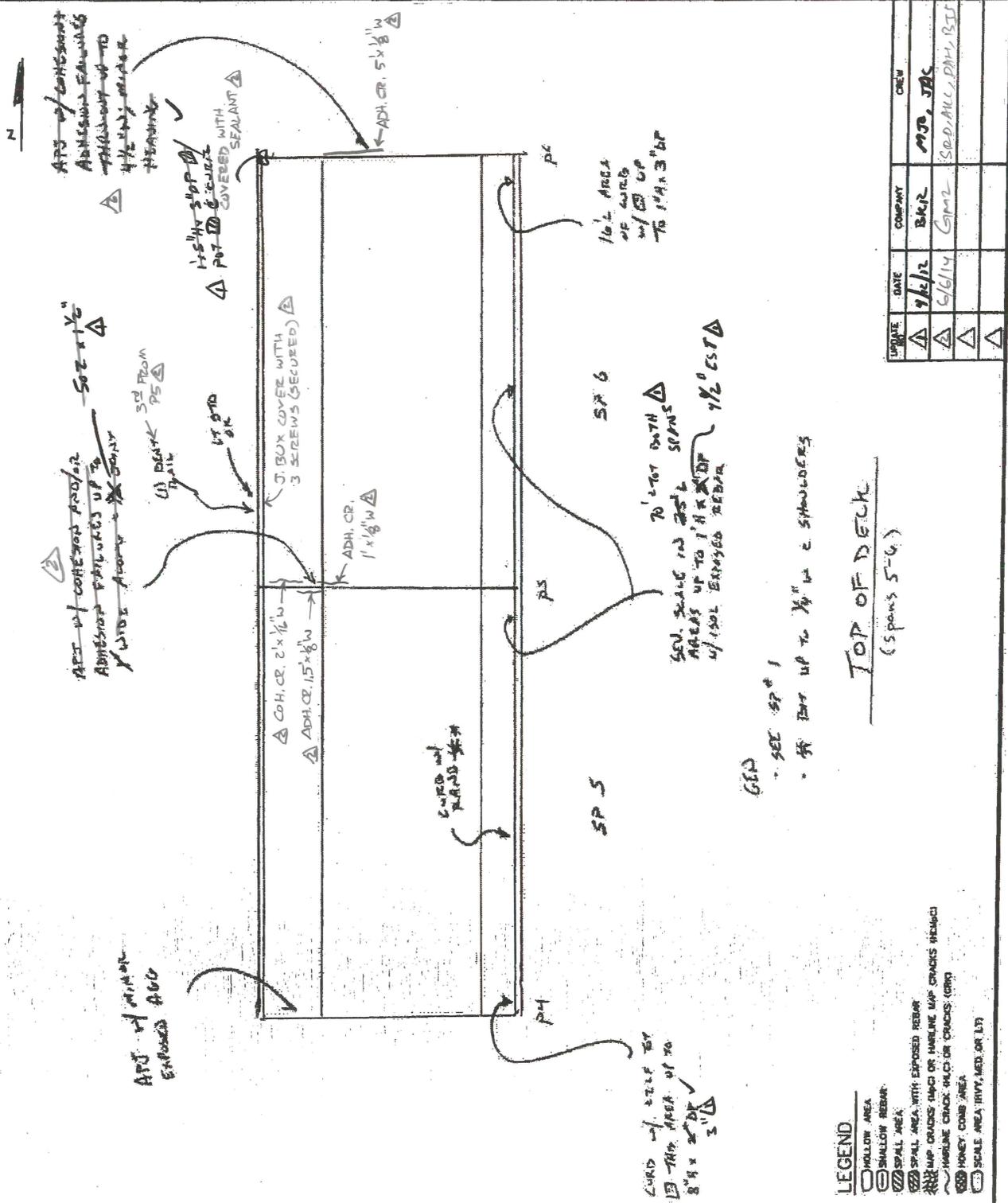
BRIDGE NO. 03313

DATE: 5/21/10

CREW: M50, YS

SHEET 24 OF 118 106

DESCRIPTION: Top of Deck



UPDATE	DATE	COMPANY	CREW
<input checked="" type="checkbox"/>	7/2/12	Baker	M50, JAC
<input checked="" type="checkbox"/>	5/6/14	Capri	SEDA, ALL, DMV, BJS
<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/>			

TOP OF DECK
(Spans 5-6)

- LEGEND**
- HOLLOW AREA
 - SHALLOW REBAR
 - SPALL AREA
 - SPALL AREA WITH EXPOSED REBAR
 - MAP CRACKS (M/C) OR HAIRLINE MAP CRACKS (H/M/C)
 - HAIRLINE CRACKS (H/C) OR CRACKS (C/R)
 - HONEY COMB AREA
 - SCALE AREA (RVT, MED, OR LT)

24/107

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

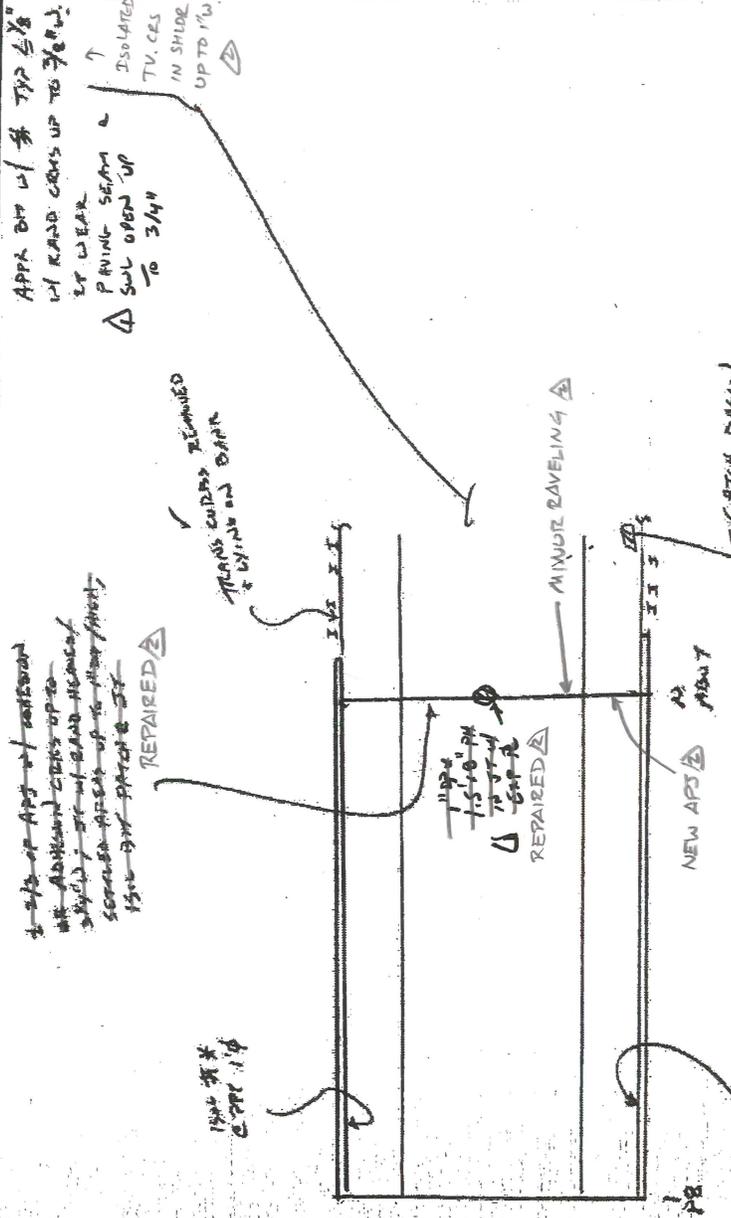
DATE: 5/21/10

FIELD ORIGINAL TRANSCRIBED BY: _____

CREW: MSO.YS

SHEET 26 OF 118106

DESCRIPTION: Top of Deck



GEN
 - SEE SP4 1/2 GEN NOTES - 1/2" Δ
 - TRANS CRKS & SP4 BIT UP TO 1/2"
 - W/BE & P. APRX IN GOOD CONDITION w/ ONLY 150L MINOR SCRAPES
 - CP, TRANS & EDGYS MEET R-D 30 STDs

TOP OF DECK
 (Span 9)

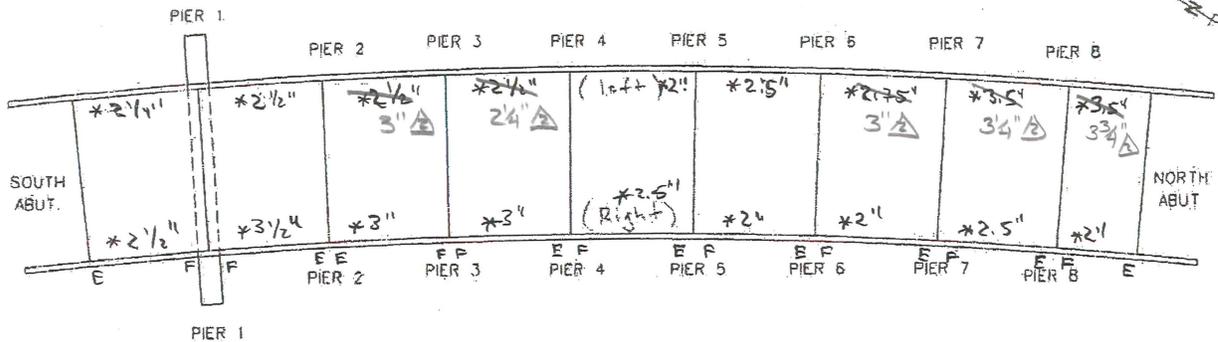
UPDATE	DATE	COMPANY	CREW
Δ	4/12/10	BAC	MSO, GA
Δ	6/16/10	GMZ	SPADAK, PAM, BTS
Δ			
Δ			

- LEGEND**
- HOLLOW AREA
 - SHALLOW REBAR
 - ▨ SPALL AREA
 - ▧ SPALL AREA WITH EXPOSED REBAR
 - ▩ W/BE CRACKS (1/4") OR MARLINE W/ CRACKS (1/4")
 - ▨ MARLINE CRACK (1/4") OR CRACKS (1/8")
 - ▧ MONEY COMB AREA
 - ▨ SCALE AREA (HYD. MED OR LTD)



2/2

PARAPET JOINT MEASUREMENTS



* = curb reveals Δ

Δ (Baker) YS, BH 7/18/12
 Δ (GM2) AKL, BJS 6/7/2014

LOCATION	WINTER MEASUREMENT < 50° F				SUMMER MEASUREMENT > 50° F				JOINT TYPE
	LEFT	RIGHT	TEMP	DATE	LEFT	RIGHT	TEMP	DATE	
S. Abutment					4 3/16 *	3 5/8 "	SEE BELOW	SEE BELOW	Asph. Plug
S. Hanger					3 13/16 "	4 "			
N. Hanger					3 5/16 "	3 3/8 "			
Pier 2					3 9/16 "	3 3/8 "			
Pier 3					4 "	3 5/8 "			
Pier 4					3 9/16 "	3 7/8 "			
Pier 5					3 9/16 "	3 7/16 "			
Pier 6					3 7/8 "	3 3/4 "			
Pier 7					3 3/4 "	3 1/10 "			
Pier 8					3 5/8 "	3 1/2 "			
N. Abutment					3 3/8 "	3 1/2 "	↓	↓	↓

GENERAL NOTES:

- Measurements taken chamfer-to-chamfer (JTS WERE SEALED)
- * = Measurement taken at girder bottom flange to the backwall
- ALL LEFT MEASUREMENTS TAKEN ON 6/6/14 @ 70°, EXCEPT @ S. ABUT, WHICH WAS TAKEN ON 4/29/14 @ 50°F.
- ALL RIGHT MEASUREMENTS TAKEN ON 6/7/14 @ 70°F.
- NO COMPARISON SHEET PROVIDED, SINCE MOST MEAS. WERE TAKEN @ DIFFERENT LOCATIONS (APT. JTS. WERE SEALED)

HINGE DATA SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: AKC Date: 4/29/2014

Bridge No.: 05313

I-24 TR 915 over I-49 EB, Rt 72 WB, Rt 372, and Pendin RR Town: New Britain

Measurements Reviewed By: SPD Date: 4/29/2014

Hinge Located: Span 1 at Pier 1

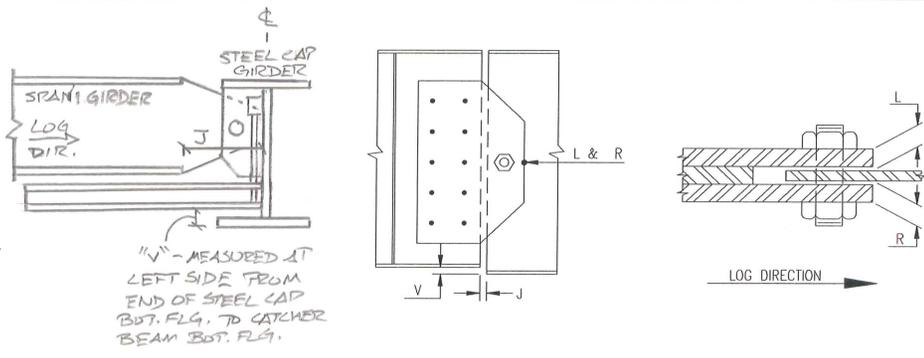
Effective span for Movement: 0

Page: 15 of 72

Beam No.	V (IN)	J* (IN)	R (IN)	L (IN)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments
	4/29/2014 - AKC, CAW (GMR) → T = 50°F							
1	7 5/16"	17 1/4"	13 1/16"	15 1/16"	Hanger Rods	N	CP & TW	Evidence of leakage onto PRA assembly (not through joint). 3/8" gap at west nut. Light bleeding rust on hinge plate and pin. 3/8" peck rust between pin plate and girder web. East cotter pin not properly installed.
2	8 1/16"	17 1/16"	7 1/8"	15 1/16"	Hanger Rods	N	CP & TW	3/16" gap at the west nut. Light abrasion rust on hinge plate to web. Left cotter pin improperly installed. 3/8" peck rust between pin plate and girder web.
3	7 15/16"	17 1/16"	13 1/16"	15 1/16"	Hanger Rods	N	CP & TW	1/8" gap at west nut. Light abrasion rust on hinge plate to web. 3/8" peck rust between pin plate and girder web. 1/8" gap at east nut.
4	8 13/16"	17 3/8"	1 1/4"	1 1/8"	Hanger Rods	N	CP & TW	Light abrasion rust on hinge plate to web. 3/8" peck rust between pin plate and girder web at both sides. East cotter pin improperly installed. Heavy to low, and bleeding rust on girder web. Random areas of peeling paint at rods and nuts. 3/16" GAP UNDER W. NUT.

Notes:

- 1) For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.
- 2) All measurements are taken in reference to log direction.
 - V : Vertical misalignment of girders @ left edge of girder's bottom flange.
 - J : Joint opening between webs, measured just above the bottom flange fillet, on the left face of the girder's web.
- 3) Use a permanent marker to indicate locations of field measurements.



CP: COTTER PIN
TW: TACK WELD

HINGE DATA SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: AKC Date: 4/29/2014

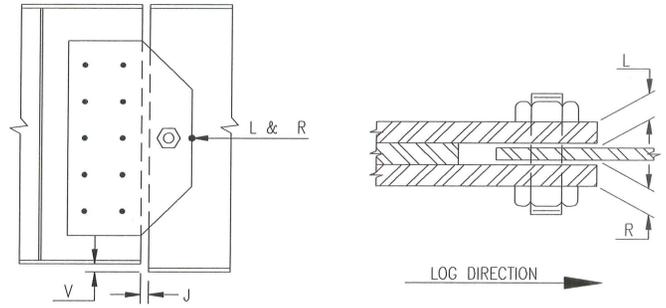
Bridge No.: 03313 I-84 TR 815 over I-84 EB, RT. 72 WB, RT 372 & Pan Am RR Town: New Britain Measurements Reviewed By: SRD Date: 4/29/2014

Hinge Located: Span 1 at Pier 1 Effective span for Movement: 0 Page: 16 of 72

Beam No.	V (IN)	J (IN)	R (IN)	L (IN)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments
1	7 5/16	17 4/16	13/16	15/16	Hanger Rods	N	CP & TW	See previous sheet
2	8 11/16	17 1/16	14/16	15/16	Hanger Rods	N	CP & TW	See previous sheet
3	7 15/16	17 11/16	13/16	15/16	Hanger Rods	N	CP & TW	See previous sheet
4	8 13/16	17 6/16	1 4/16	1 2/16	Hanger Rods	N	CP & TW	See previous sheet

Notes:

- 1) For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.
- 2) All measurements are taken in reference to log direction.
 - V** : Vertical misalignment of girders @ left edge of girder's bottom flange.
 - J** : Joint opening between webs, measured just above the bottom flange fillet, on the left face of the girder's web.
- 3) Use a permanent marker to indicate locations of field measurements.



HINGE ANALYSIS SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: YS Date: 4/13/2012

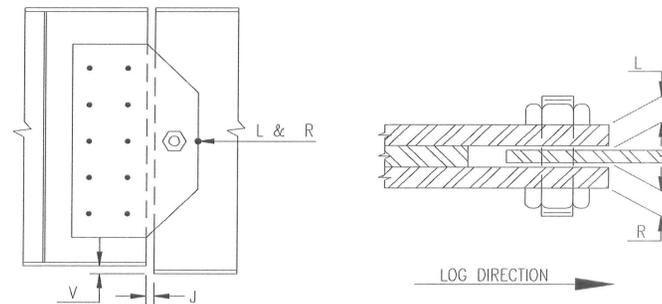
Bridge No.: 03313 I-84 TR 815 over I-84 EB, RT. 72 WB, RT 372 & Pan Am RR Town: New Britain Measurements Reviewed By: WMK Date: 5/23/2012

Hanger Location: Span 1 @ PIER 1 Effective span for Movement: 0 Page: 17 of 72

Beam No.	V (IN)	J (IN)	R (IN)	L (IN)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments
1	7 5/16	17 4/16	13/16	15/16	Hanger Rods	N	CP & TW	2012 Measurements
2	8 11/16	17 1/16	14/16	15/16	Hanger Rods	N	CP & TW	2012 Measurements
3	7 15/16	17 11/16	13/16	15/16	Hanger Rods	N	CP & TW	2012 Measurements
4	8 13/16	17 6/16	1 4/16	1 2/16	Hanger Rods	N	CP & TW	2012 Measurements

Notes:

- 1) For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.
- 2) All measurements are taken in reference to log direction.
 - V** : Vertical misalignment of girders @ left edge of girder's bottom flange.
 - J** : Joint opening between webs, measured just above the bottom flange fillet, on the left face of the girder's web.
- 3) Use a permanent marker to indicate locations of field measurements.



HINGE ANALYSIS SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: AKC Date: 4/29/2014

Bridge No.: 03313

I-84 TR 815 over I-84 EB, RT. 72 WB, RT 372 & Pan Am RR Town: New Britain

Measurements Reviewed By: SRD Date: 4/29/2014

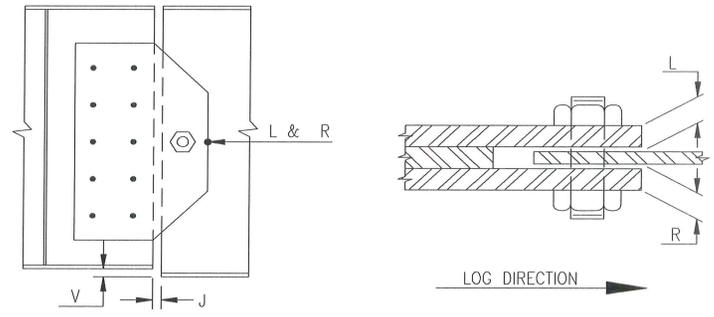
Hanger Location: Span 1 at Pier 1 Effective span for Movement: 0

Page: 18 of 72

Beam No.	V (IN)	J (IN)	R (IN)	L (IN)	Reviewer's Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	

Additional Review Comments:

All measurements are within 1/16". All measurements were double checked with no distress noted. "L" and "R" per plans should be 7/8".



HINGE DATA SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: AKC Date: 4/29/2014

Bridge No.: 03313

I-81 TR 815 over I-81 EB, Rt 72 WB, Rt 372, and Pen Am Rd Town: New Britain

Measurements Reviewed By: SRD Date: 4/29/2014

Hinge Located: Span 2 at Pier 1

Effective span for Movement: 0

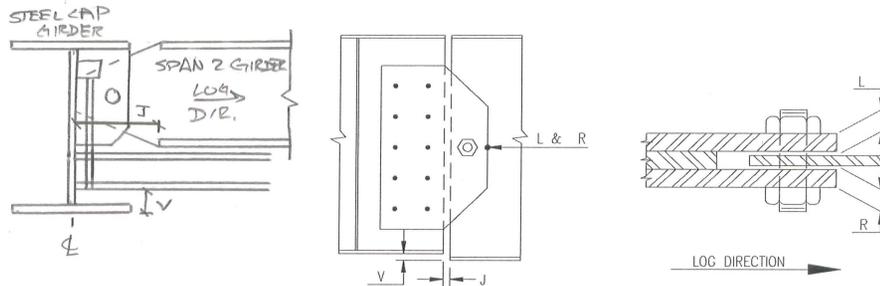
Page: 19 of 72

Beam No.	V (IN)	J* (IN)	R (IN)	L (IN)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	4/29/2014 - AKC, CAW (GMZ) → T = 50°F Comments
1	9 1/2"	17 5/16"	15 5/16"	13 1/16"	Hanger Rods	N	CP & TW	Bleeding rust due to water leakage and a 9/16" gap under west plate. West cotter pin is missing
2	10 3/16"	17 3/16"	1 1/8"	13 1/16"	Hanger Rods	N	CP & TW	1/8" gap under west nut. 1/4" gap under east plate.
3	10 1/8"	16 7/8"	13 1/16"	13 1/16"	Hanger Rods	N	CP & TW	7/16" gap under west plate with abrasion rust between hinge plate and web, 1/4" gap under east nut, 3/8" gap under west nut. West cotter pin improperly installed. East cotter pin missing
4	10 5/8"	17 3/16"	1"	1 1/4"	Hanger Rods	N	CP & TW	9/16" pick rust between hinge plate and web at the west side and 1/4" pick rust at east side. Bleeding rust on girder web. Moderate to heavy rust at the bottom nuts.
								<u>General Notes:</u> Feeling paint at bars and nuts

Notes:

- For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.
- All measurements are taken in reference to log direction.
 - V** : Vertical misalignment of girders @ left edge of girder's bottom flange.
 - J** : Joint opening between webs, measured just above the bottom flange fillet, on the left face of the girder's web.
- Use a permanent marker to indicate locations of field measurements.

CP: COTTER PIN
TW: TACK WELD



HINGE DATA SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: AKC Date: 4/29/2014

Bridge No.: 03313

I-84 TR 815 over I-84 EB, RT. 72 WB, RT 372 and Pan Am RR Town: New Britain

Measurements Reviewed By: SRD Date: 4/29/2014

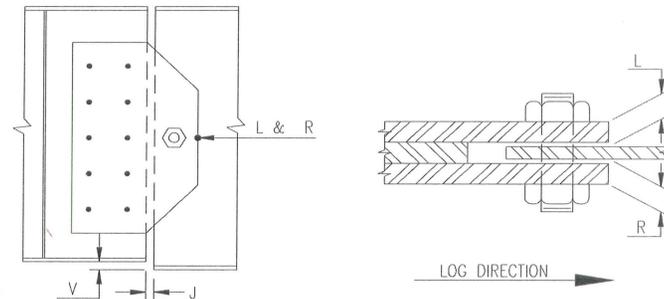
Hinge Located: Span 2 @ PIER 1 Effective span for Movement: 0

Page: 20 of 72

Beam No.	V (IN)	J (IN)	R (IN)	L (IN)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments
1	9 8/16	17 5/16	15/16	1 3/16	Hanger Rods	N	CP & TW	See previous sheet
2	10 3/16	17 3/16	1 2/16	13/16	Hanger Rods	N	CP & TW	See previous sheet
3	10 2/16	16 14/16	13/16	1 3/16	Hanger Rods	N	CP & TW	See previous sheet
4	10 10/16	17 7/16	1	1 4/16	Hanger Rods	N	CP & TW	See previous sheet

Notes:

- For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.
- All measurements are taken in reference to log direction.
 - V** : Vertical misalignment of girders @ left edge of girder's bottom flange.
 - J** : Joint opening between webs, measured just above the bottom flange fillet, on the left face of the girder's web.
- Use a permanent marker to indicate locations of field measurements.



HINGE ANALYSIS SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: YS Date: 4/13/2012

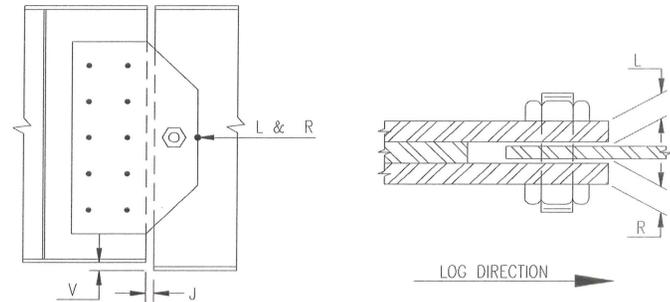
Bridge No.: 03313 I-84 TR 815 over I-84 EB, RT. 72 WB, RT 372 and B & M RR Town: New Britain Measurements Reviewed By: WMK Date: 5/23/2012

Hanger Location: Span 2 @ PEER 1 Effective span for Movement: 0 Page: 21 of 72

Beam No.	V (IN)	J (IN)	R (IN)	L (IN)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments
1	9 8/16	17 5/16	15/16	1 3/16	Hanger Rods	N	CP & TW	2012 Measurements
2	10 3/16	17 3/16	1 2/16	13/16	Hanger Rods	N	CP & TW	2012 Measurements
3	10 2/16	16 14/16	13/16	1 3/16	Hanger Rods	N	CP & TW	2012 Measurements
4	10 10/16	17 7/16	1	1 4/16	Hanger Rods	N	CP & TW	2012 Measurements

Notes:

- For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.
- All measurements are taken in reference to log direction.
 - V** : Vertical misalignment of girders @ left edge of girder's bottom flange.
 - J** : Joint opening between webs, measured just above the bottom flange fillet, on the left face of the girder's web.
- Use a permanent marker to indicate locations of field measurements.



HINGE ANALYSIS SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: AKC Date: 4/29/2014

Bridge No.: 03313

I-84 TR 815 over I-84 EB, RT. 72 WB, RT 372 and Pan Am Town: New Britain

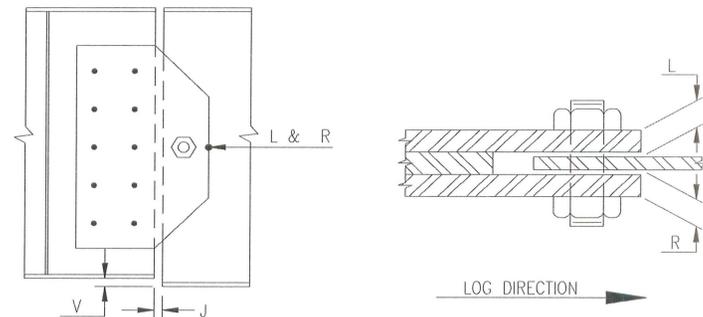
Measurements Reviewed By: WMK Date: 5/23/2012

Hanger Location: Span 2 @ PIER 1 Effective span for Movement: 0

Page: 22 of 72

Beam No.	V (IN)	J (IN)	R (IN)	L (IN)	Reviewer's Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	

Additional Review Comments:



SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: B.L.

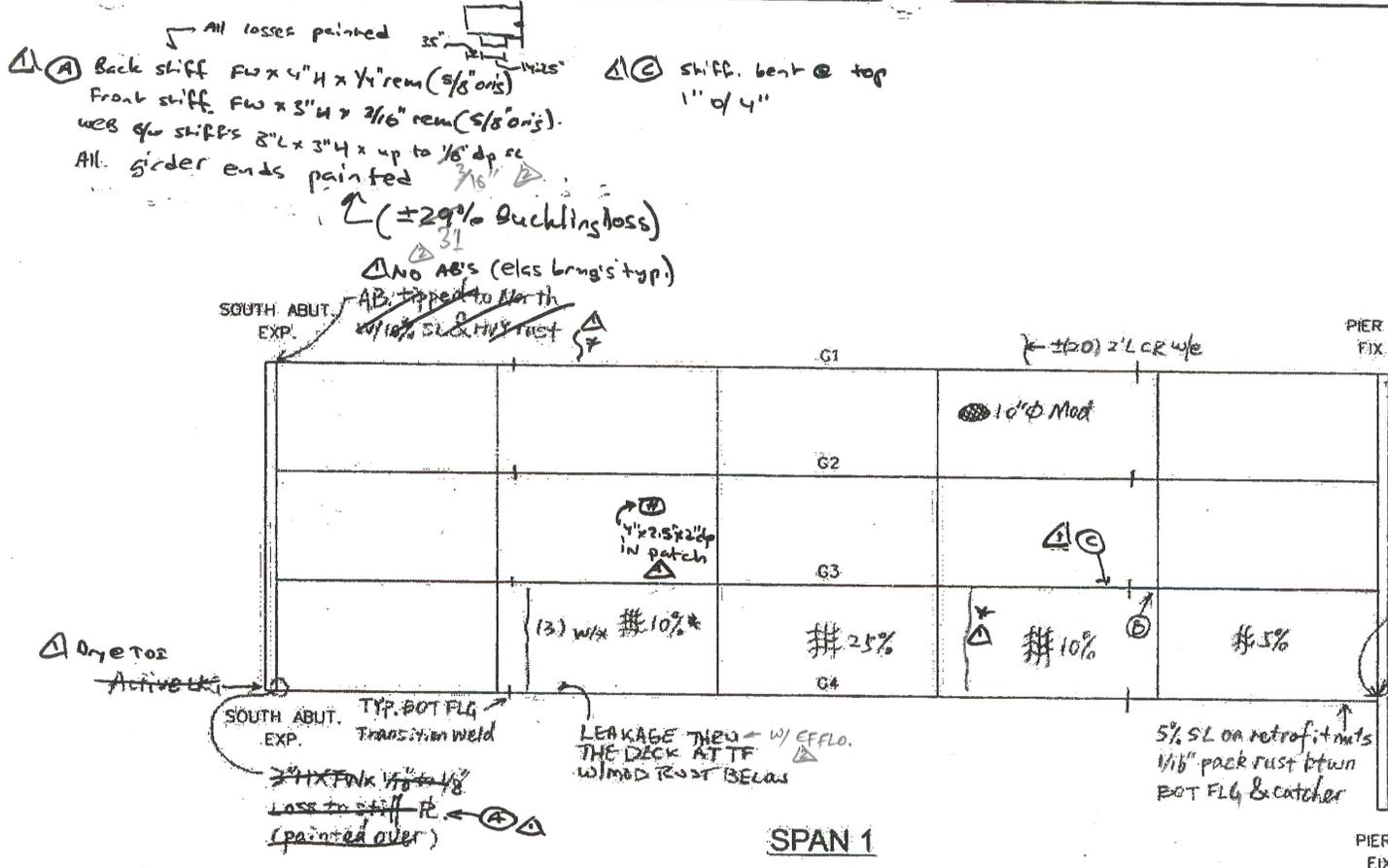
BRIDGE NO. 03313

DATE: 5/26/2010

CREW: JM, TC, FB, AD

SHEET 30 / 106
23/12

DESCRIPTION: FRAMING AND UNDERSIDE OF DECK - SPAN 1



SPAN 1

GENERAL NOTES:

- Peeling paint w/ red-ox. curb. rust ($\pm 10\%$) Δ
- Structural steel exhibits upto 50% deterioration paint throughout
- HVY rust and pitting loss on end diaph over south abutment NFD Δ
- \textcircled{B} Poorly welded lower horizontal diaph. conn. plate to stiffener.

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MAP) OR HARBORLINE MAP CRACKS (HLMAP)
- HARBORLINE CRACK (HLCR) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY. WED OR LT)
- WITH EFFLORESCENCE

UPDATE:	DATE	COMPANY	CREW
Δ	4/13/12	BKR	YS
Δ	4/29/14	Gm2	SND, ARL, BTS, CAW
Δ			
Δ			

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/2010

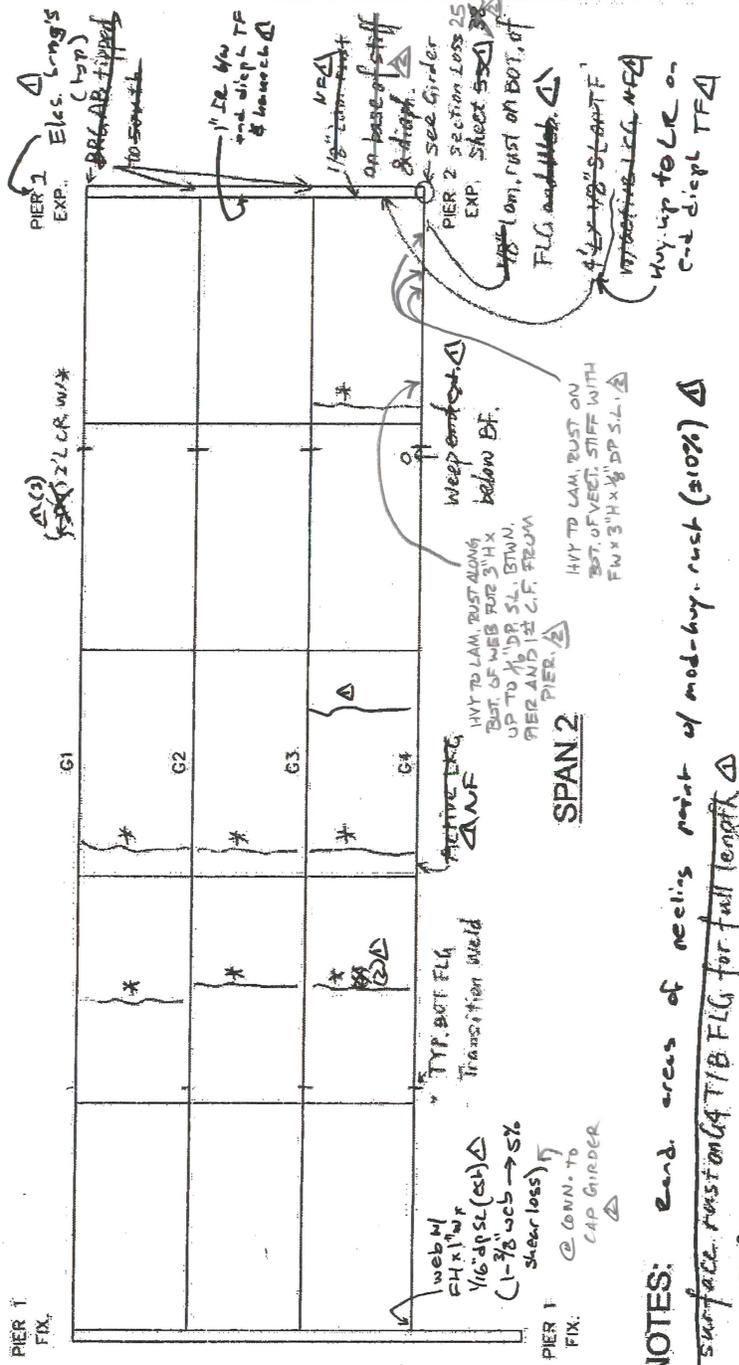
FIELD ORIGINAL

TRANSCRIBED BY: RL

CREW: JM, RL

SHEET 37 / 47 #8106 24/42

DESCRIPTION: FRAMING AND UNDERSIDE OF DECK - SPAN 2



GENERAL NOTES: End areas of nee'ing point of mod-hy. rust (±10%) Δ
 - Mod to riv surface. rust on G1/B FLG for full length Δ
 - Peeling paint w/ surface rust at random locs on G1 - G3 (±10%) Δ
 - Active LKG at full length of pier 2 joint.

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- ▨ SPALL AREA
- ▧ SPALL AREA WITH EXPOSED REBAR
- ▩ MAP CRACKS (MAP) OR MARLINE-MAP CRACKS (MAPC)
- MARLINE CRACK (MCR) OR CRACKS (CRK)
- HONEY COMB AREA
- ▬ SCALE AREA (INT. MED OR LT)
- ★ WITH EFFLUESCENCE

UPDATE	DATE	COMPANY	CREW
Δ	4/13/12	BLR	YS
Δ	4/29/14	GMZ	SPD, AML, BSS, CAW
Δ			
Δ			

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

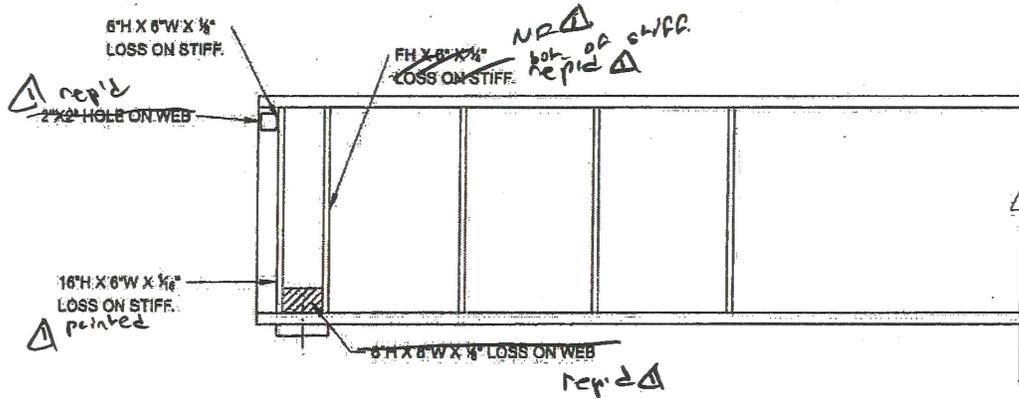
FIELD ORIGINAL

TRANSCRIBED BY: RL

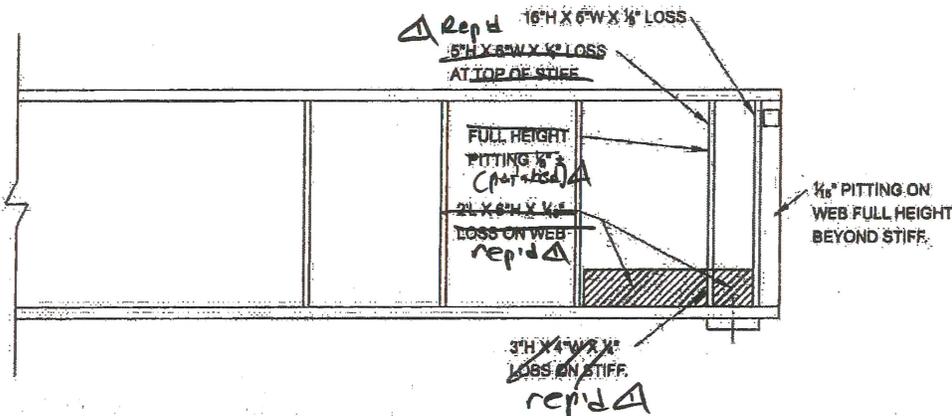
CREW: RL, JM

SHEET 25/72
~~28/72~~ / ~~118/106~~

DESCRIPTION: GIRDER SECTION LOSS



SPAN 2 G4 @ PIER 2 WEST ELEVATION



SPAN 2 G4 @ PIER 2 EAST ELEVATION

Δ - NO CHANGE

Δ 4/13/12 (BKL) γ S

Δ 4/29/14 (GMZ) - SRD, AUL, BSS, CAW

SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: RL

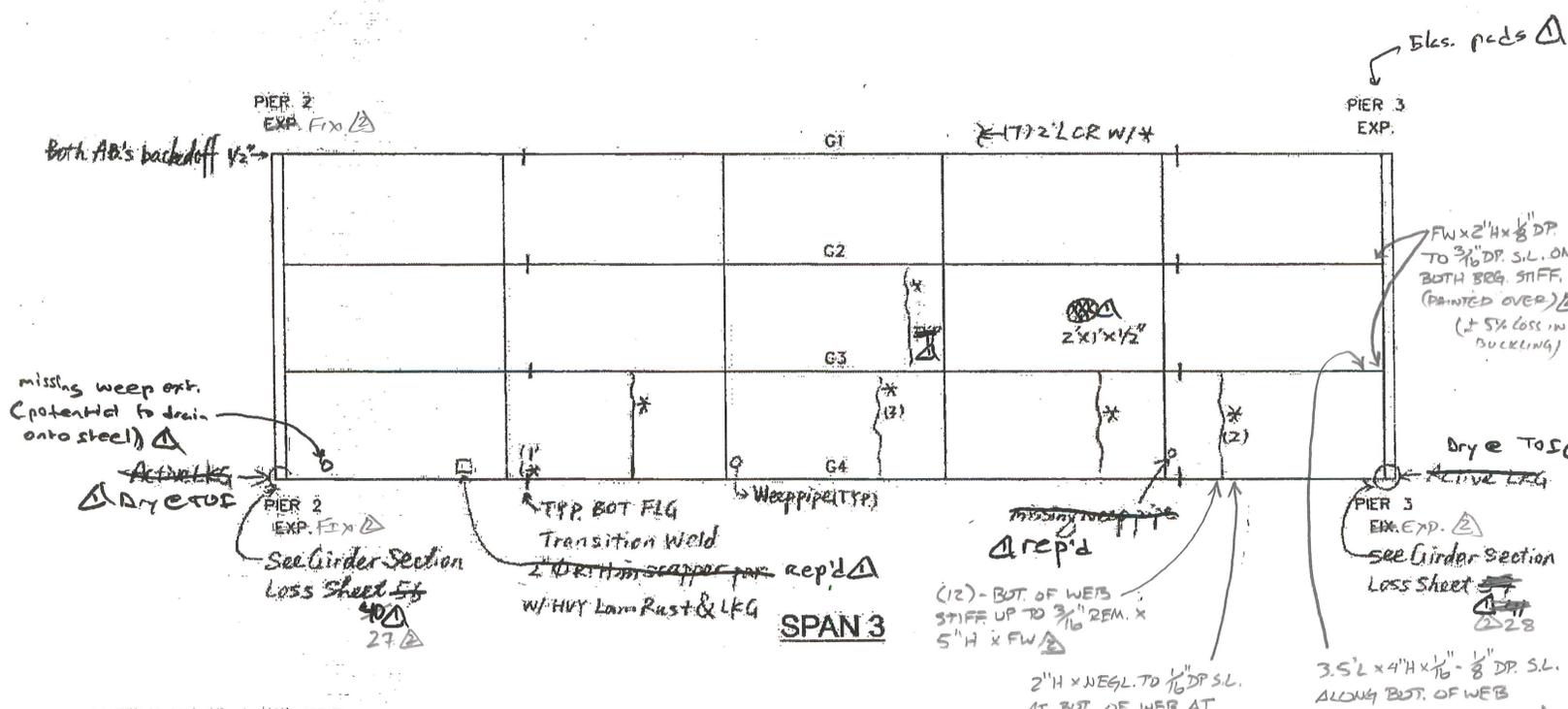
BRIDGE NO. 03313

DATE: 5/21/2010

CREW: JM, RL

SHEET 34 / 118106
26/12

DESCRIPTION: FRAMING AND UNDERSIDE OF DECK - SPAN 3



GENERAL NOTES:

- Large area peeling paint at Girder web east side.
- Rand areas of

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (UPE) OR HARRLINE MAP CRACKS (HLMAC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRN)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- WITH EFFLORESCENCE

UPDATE NO.	DATE	COMPANY	CREW
△	4/12/12	GRZ	YS, AU
△	6/6/14	GMZ	SRD, AKG, PAM, BTS
△			
△			

SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: RL

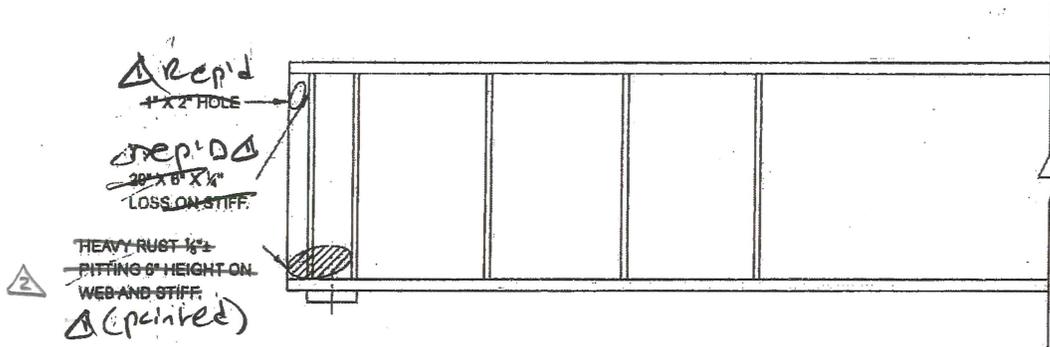
BRIDGE NO. 03313

DATE: 5/21/10

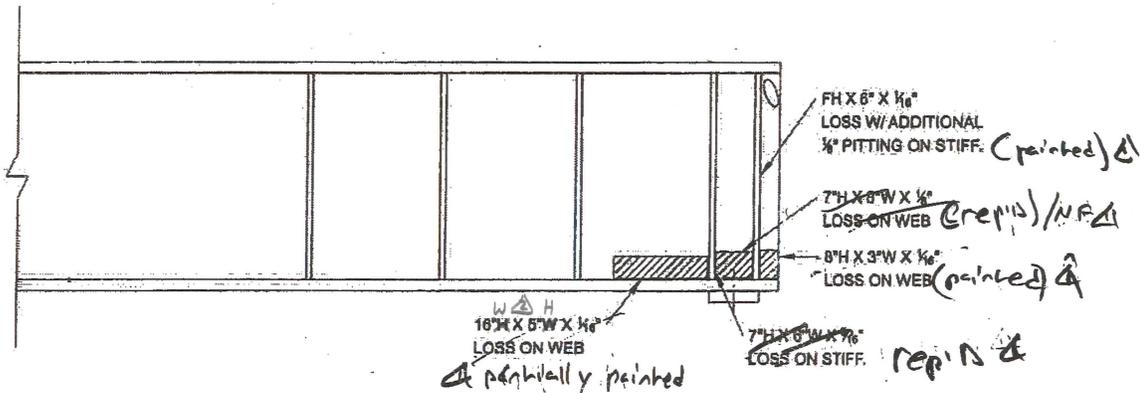
CREW: RL, JM

SHEET ~~NO 86/118~~ 27/12
118106

DESCRIPTION: GIRDER SECTION LOSS



SPAN 3 G4 @ PIER 2 EAST ELEVATION



SPAN 3 G4 @ PIER 2 WEST ELEVATION

Δ 4/18/12 YS, BU (SKR)

Δ 6/6/14 SRD, ARC, PAH, BJS (GMZ)

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

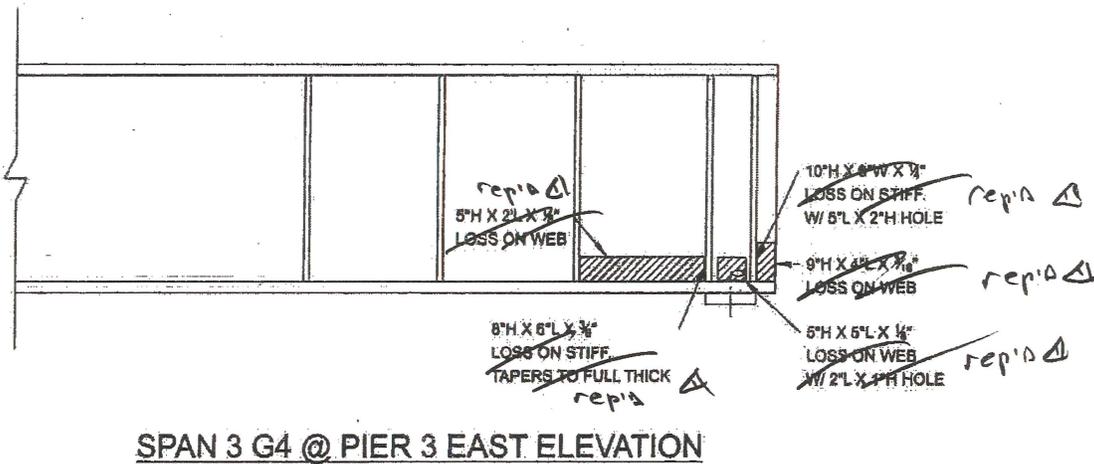
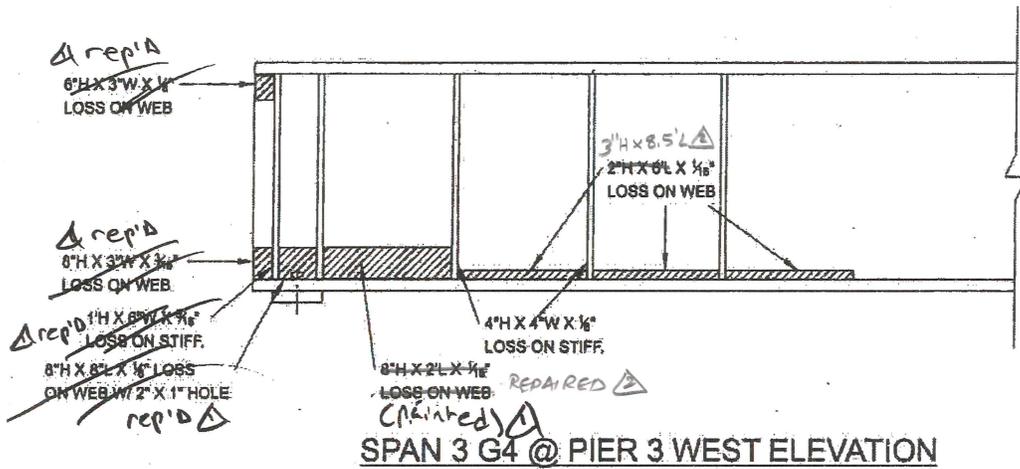
FIELD ORIGINAL

TRANSCRIBED BY: RL

CREW: RL, JM

SHEET 41-57/118106 ^{24/12}

DESCRIPTION: GIRDER SECTION LOSS



△ 4/18/12 YS, BH (BKR)

△ 6/6/14 - SRD, AKC, DAN, BIS (Gm2)

Baker

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

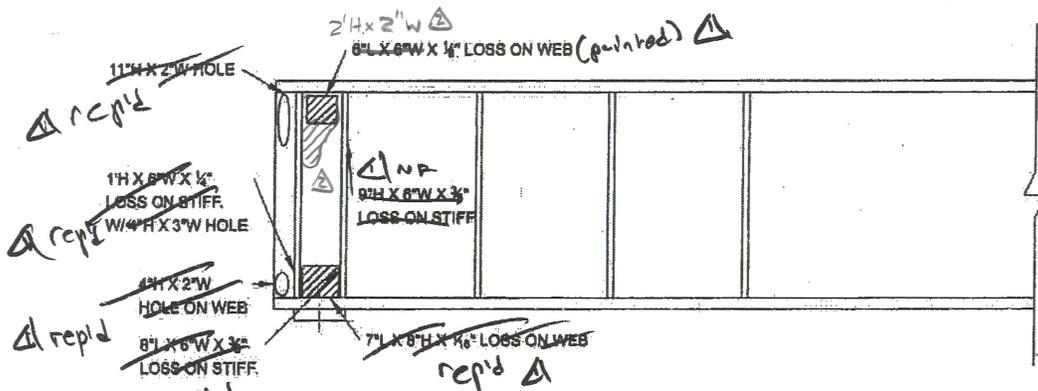
FIELD ORIGINAL

TRANSCRIBED BY: RL

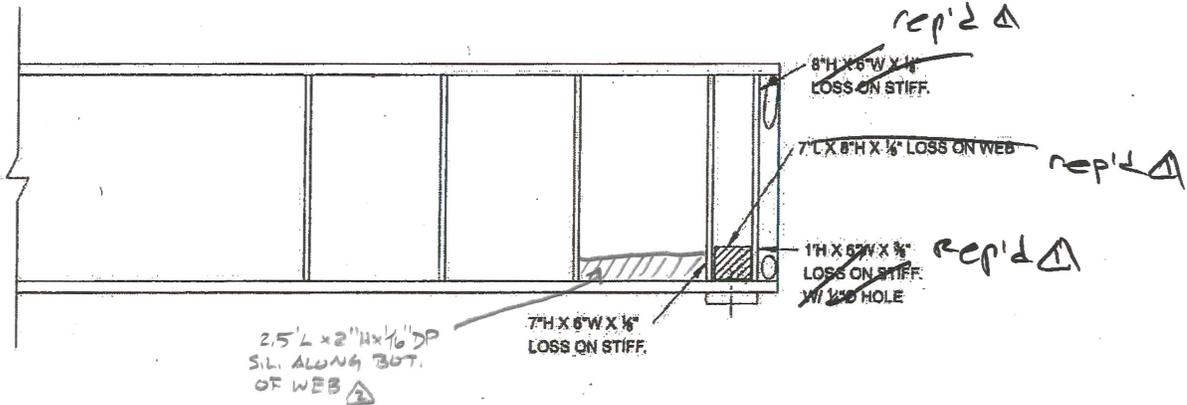
CREW: RL, JM

SHEET ~~43~~ ³⁰ / ~~128~~ ¹⁷² 106

DESCRIPTION: GIRDER SECTION LOSS



SPAN 4 G4 @ PIER 3 EAST ELEVATION



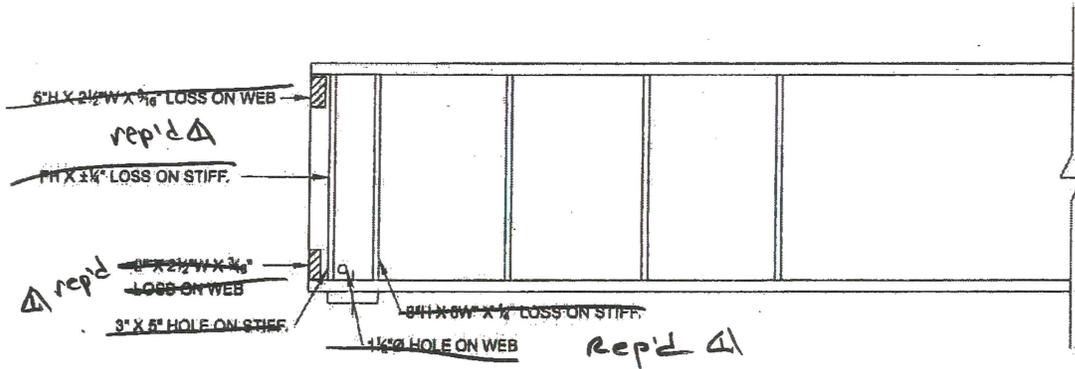
SPAN 4 G4 @ PIER 3 WEST ELEVATION

4/18/12 YS, BH (BKR)

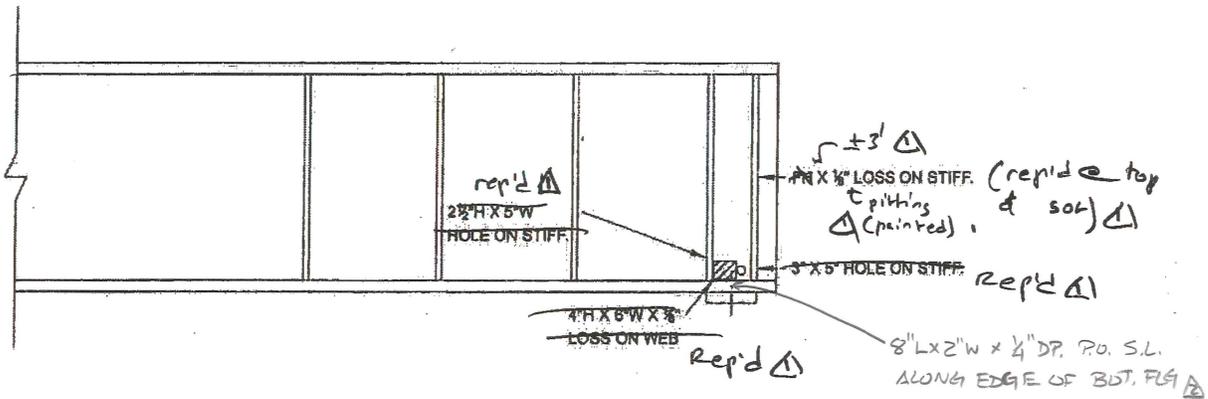
6/6/14 SRD, ARL, PAH, BJS (GM2)

<h1>SUPPLEMENTAL SHEET</h1> <p> <input type="checkbox"/> FIELD ORIGINAL <input checked="" type="checkbox"/> TRANSCRIBED BY: <u>RL</u> </p>	BRIDGE NO. 03313	DATE: 5/21/10
	CREW: RL, JM	SHEET 57 / 146 106 ^{31/72}

DESCRIPTION: GIRDER SECTION LOSS



SPAN 4 G4 @ PIER 4 WEST ELEVATION



SPAN 4 G4 @ PIER 4 EAST ELEVATION

- △ 4/18/12 Bkr vs. BH
- △ 6/6/14 - SRD, AIC, PAH, BJS (GMR)

SUPPLEMENTAL SHEET

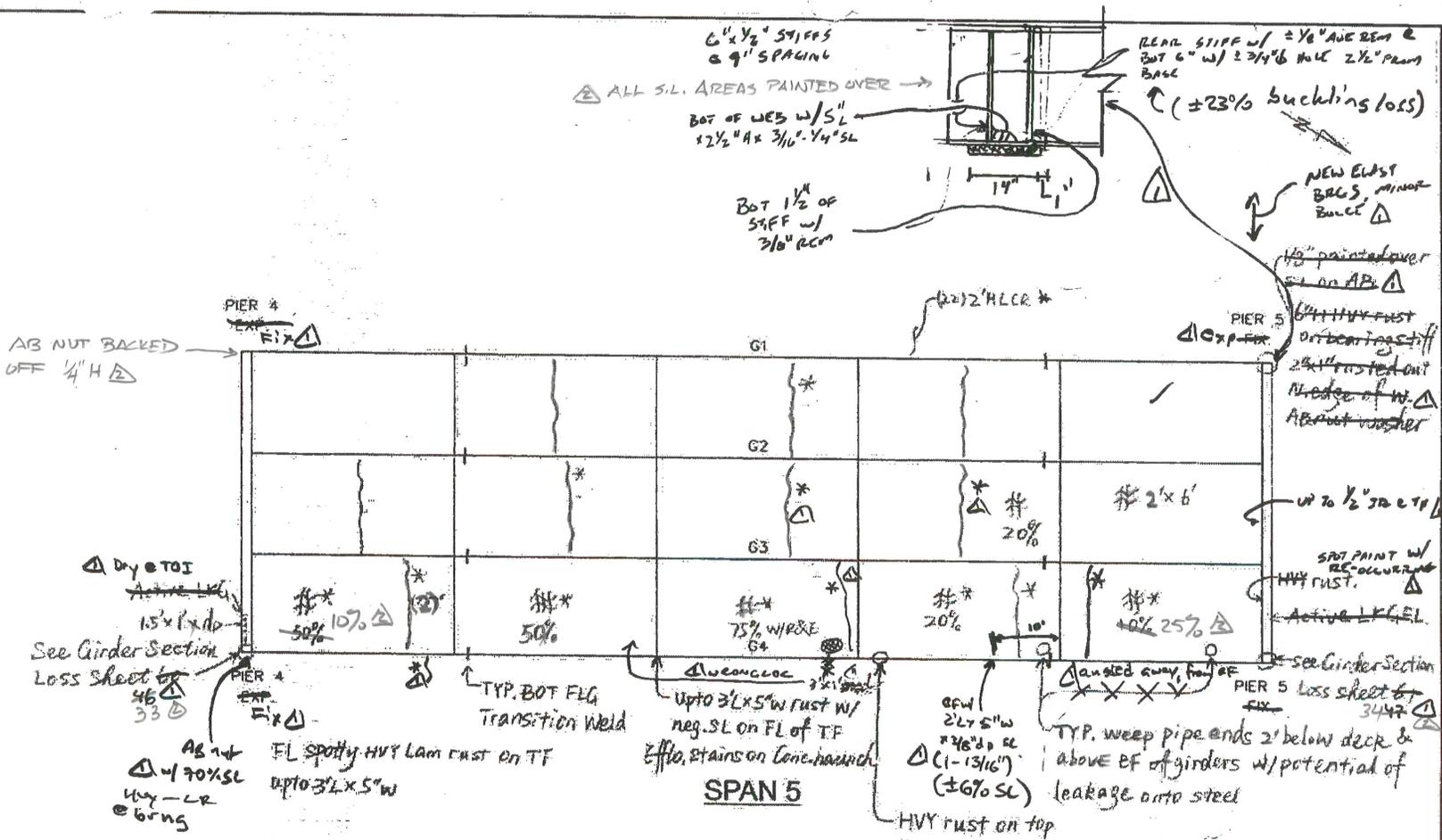
FIELD ORIGINAL

TRANSCRIBED BY: RL

BRIDGE NO. 03313
CREW: JM, RL

DATE: 5/21/2010
SHEET 45 / 119 / 106 32/712

DESCRIPTION: FRAMING AND UNDERSIDE OF DECK - SPAN 5



GENERAL NOTES:

- LT rust on Pier 4 fixed bearings w/upto 1/2" lum rust
- TYP. E. AB tilted slightly at random locations.

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (M/C) OR HARBLINE MAP CRACKS (H/M/C)
- HARBLINE CRACK (H/C) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVV, MED OR LTV)
- WITH EFFLORESCENCE

UPDATE NO.	DATE	COMPANY	CREW
△	4/11/10	BKR	WJ/SAC
△	6/6/14	GMZ	SRD, ALL, PAN, BJS
△			
△			

SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: RL

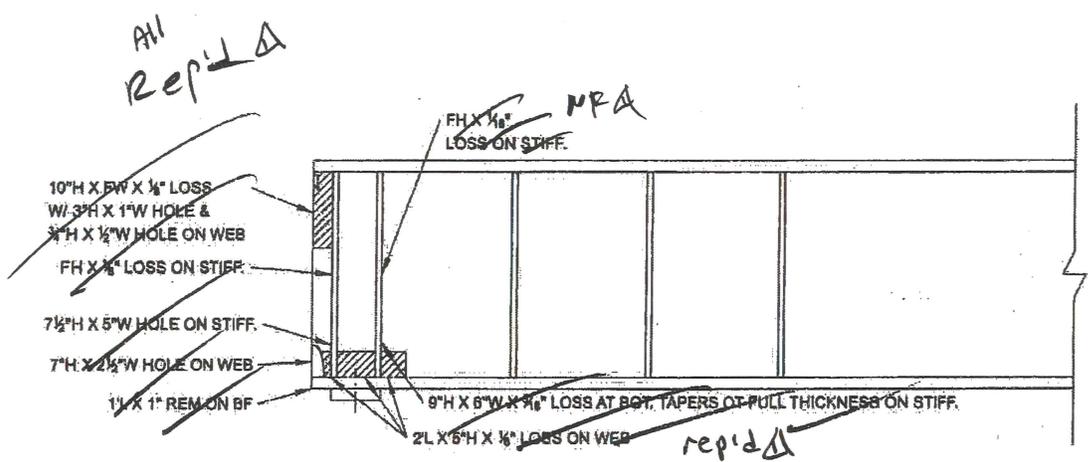
BRIDGE NO. 03313

DATE: 5/21/10

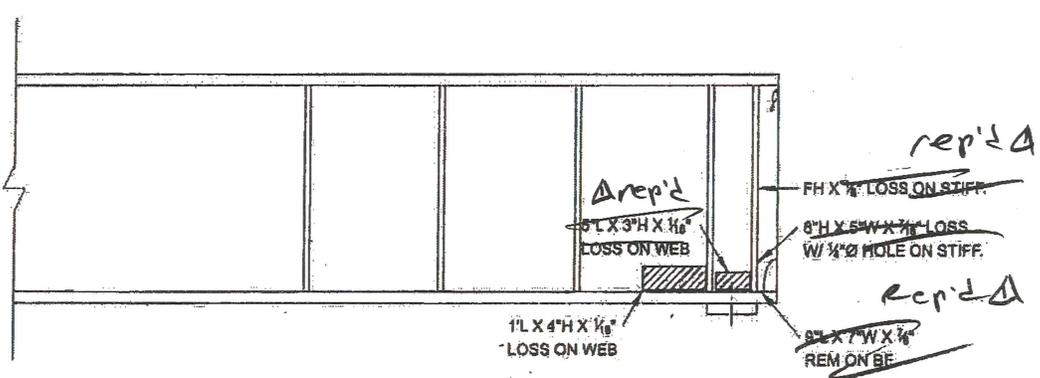
CREW: RL, JM

SHEET ~~4/60/118106~~ ^{33/12}

DESCRIPTION: GIRDER SECTION LOSS



SPAN 5 G4 @ PIER 4 EAST ELEVATION



SPAN 5 G4 @ PIER 4 WEST ELEVATION

△ - NO CHANGE

Δ 4/18/12 (BKR) VS, BH

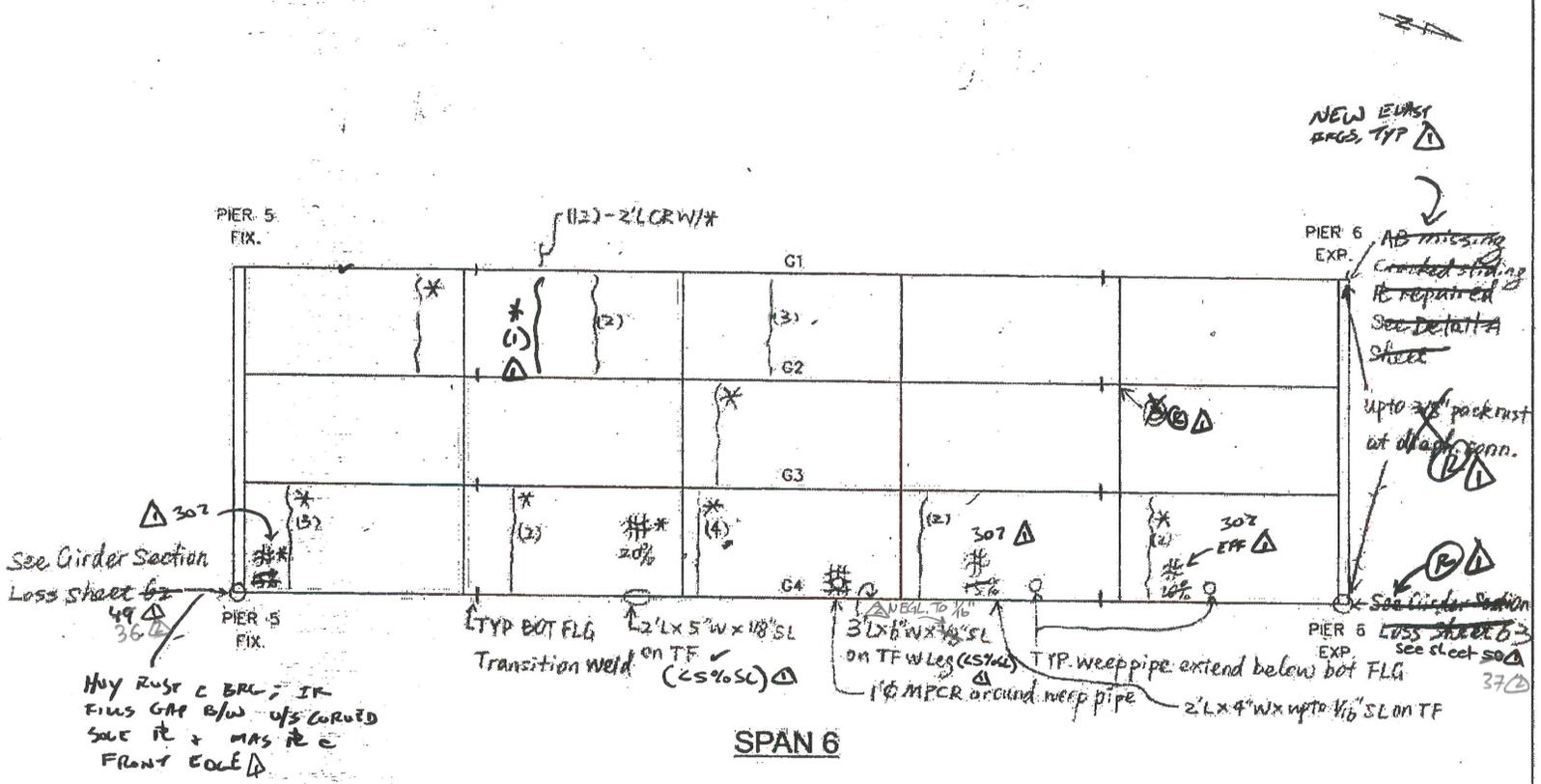
Δ 6/6/14 (GM2) -SRD, ARC, PAH, BJS

SUPPLEMENTAL SHEET

FIELD ORIGINAL TRANSCRIBED BY: RL

DESCRIPTION: FRAMING AND UNDERSIDE OF DECK - SPAN 6

BRIDGE NO. 03313
 CREW: JTM, RL
 DATE: 5/21/2010
 SHEET 48/47 #8106 35/72



GENERAL NOTES:

- Poorly welded lower horizontal diaph. conn. plate to stiffener
- REP D

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPCI) OR HARBLINE MAP CRACKS (HLMPCI)
- HARBLINE CRACK (HLCI) OR CRACKS (CRKI)
- HONEY COMB AREA
- SCALE AREA DIVY, MED OR LTI
- WITH EFFLORESCENCE

UPDATE NO.	DATE	COMPANY	CREW
1	4/11/12	BKR	MTO/JA
2	6/21/14 & 6/6/14	GUR	SRO, ALL, DAN, BSS
3			
4			

SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: RL

BRIDGE NO. 03313

DATE: 5/2/10

CREW: RL, JM

SHEET 49 / 36 / 12
67 / 48 / 12

DESCRIPTION: GIRDER SECTION LOSS

△ - 4/11/12
△ - 6/3/14 - SPO, AUG BJS (6mm)

NEW FH \updownarrow
B/W STIFF'S △

REP'D △

TOP & BOT. OF STIFF'S
W/ MAX LOSS & 1" MIN. REM.

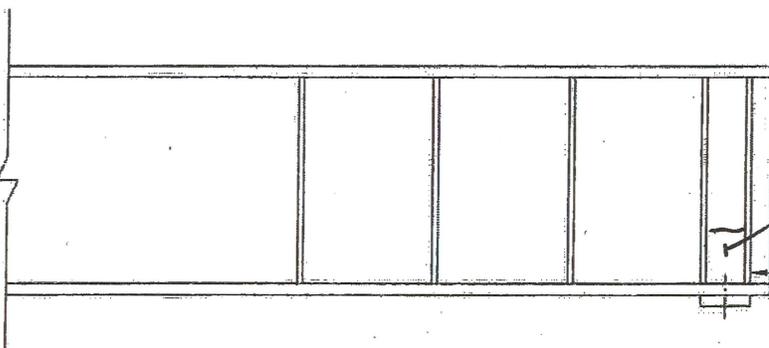
SPAT PAINT
NEW LBS △

WEB END REP'D △

HVX LOSS THRU-OUT ON WEB
W/ RPTS UP TO FWX TH

1.6LX UP TO 5.4X UP TO 3/8" LOSS ON WEB
3 1/2" H X 1 1/2" L, SPAT PAINTED △

SPAN 6 G4 @ PIER 5 EAST ELEVATION



SPAN 6 G4 @ PIER 5 WEST ELEVATION

② - NO CHANGE

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

FIELD ORIGINAL

TRANSCRIBED BY: RL

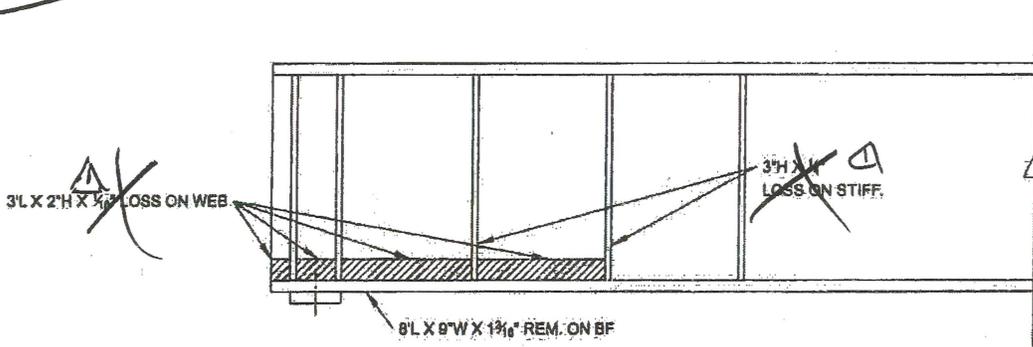
CREW: RL, JM

SHEET ⁵⁹ 85 / ^{37/12} 118 106

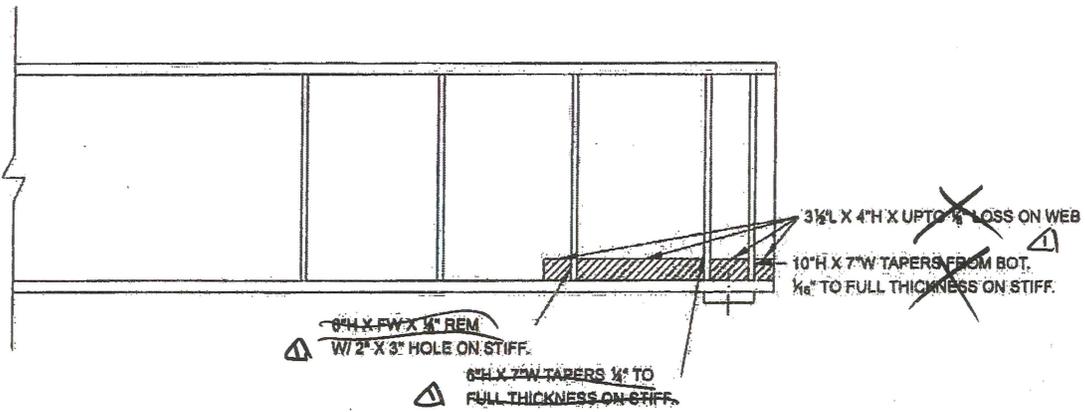
DESCRIPTION: GIRDER SECTION LOSS

web
Rep it's
typ

△ 4/11/12 - M20/SAC
△ 6/16/14 - SRD, ALL, PAH, BJS (G M2)



SPAN 6 G4 @ PIER 6 WEST ELEVATION



SPAN 6 G4 @ PIER 6 EAST ELEVATION

△ - NO CHANGE

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

FIELD ORIGINAL

TRANSCRIBED BY: RL

CREW: RL, JM

SHEET ~~52~~ 64 / ~~H8106~~ 39/172

DESCRIPTION: GIRDER SECTION LOSS

PLAND. REP. R/S
e BEAM END

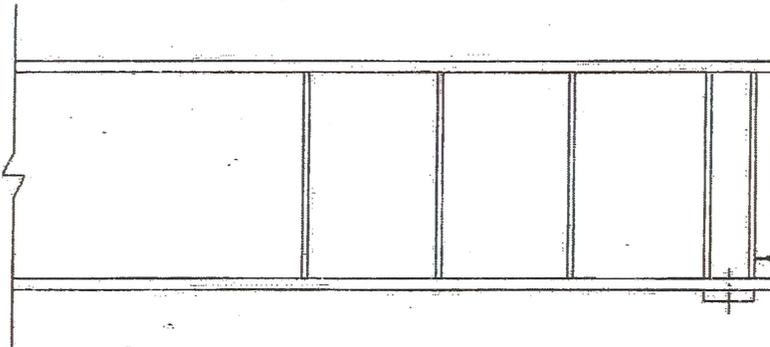
△ 4/11/12 - MD/JAC
② - 6/6/14 - SRD, PAH, AVG, BJS (GMS)

~~1" X 3" K.E. TO FULL THICKNESS
W/ 4" X 2" HOLE ON WEB~~

~~6" X 8" X UPTO 1/4" PITTING ON BF~~

~~6" X 7" W X 1/4" LOSS ON STIFF~~

SPAN 7 G4 @ PIER 6 EAST ELEVATION



~~6" X 7" W TAPERS FROM 1/4"
TO FULL THICKNESS ON STIFF~~

SPAN 7 G4 @ PIER 6 WEST ELEVATION

△ - NO CHANGE

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

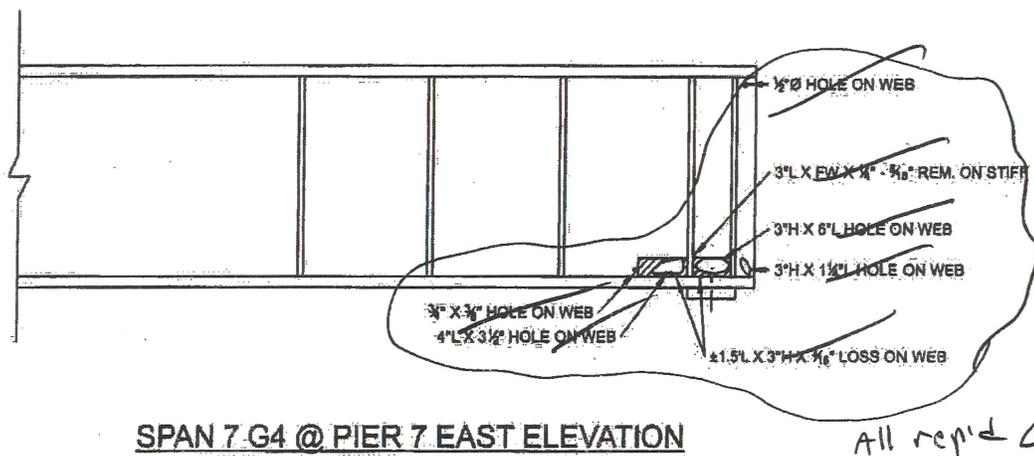
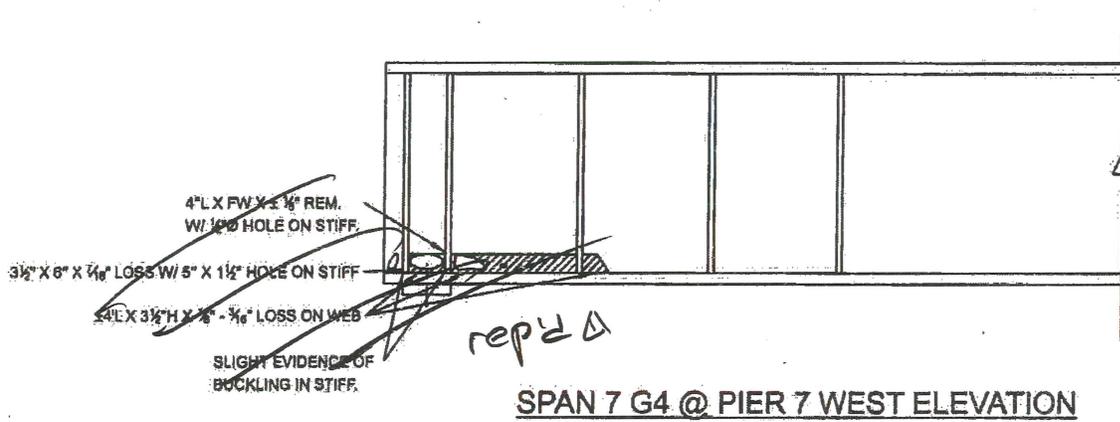
FIELD ORIGINAL

TRANSCRIBED BY: RL

CREW: RL, JM

SHEET ~~53.65/~~ ^{40/12} ~~118-106~~

DESCRIPTION: GIRDER SECTION LOSS



Δ - NO CHANGE

Δ 4/18/12 YS, BH (AKA)

△ 6/6/14 - SRD, ALC, PAH, BJS (AM2)

SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: RL

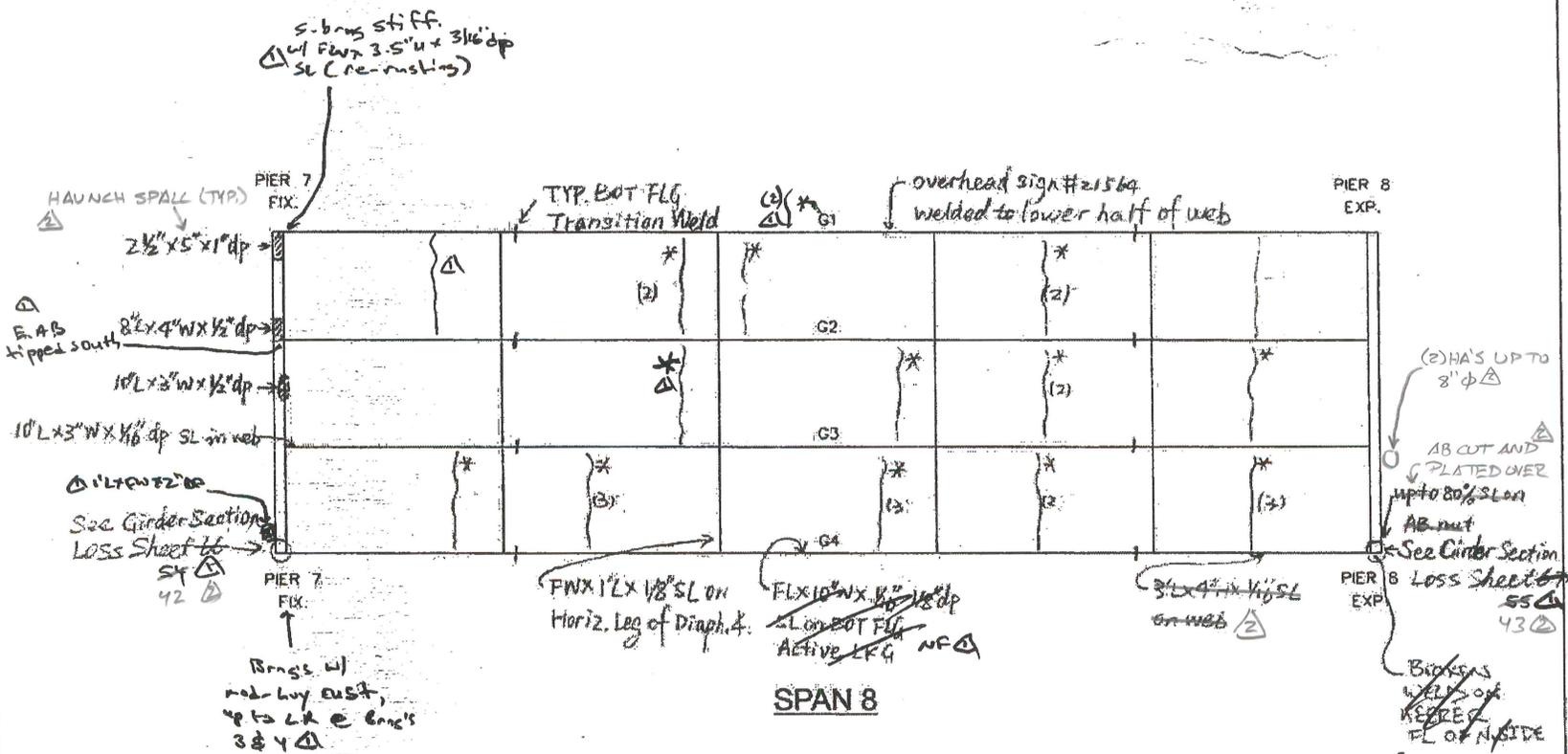
DESCRIPTION: FRAMING AND UNDERSIDE OF DECK - SPAN 8

BRIDGE NO. 03313

CREW: SM, MEJ, RL

DATE: 5/20/2016

SHEET: 58/106
41/72



GENERAL NOTES:

- BOT FLG show Hvy rust and up to 1/8" SL (unless otherwise noted)
- Patched areas @ u/s of deck not shown
- Areas of peeling paint & hvy rust (< 50%)

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HMPG)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (Hvy, Med or Lt)
- WITH EFFLORESCENCE

UPDATE NO.	DATE	COMPANY	CREW
△	4/16/12	BKR	YS, MJO
△	5/15/12 6/2/12	GMZ	SRD, AKC, PAH, BJS
△			
△			

SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: RL

BRIDGE NO. 03313

DATE: 5/20/2010

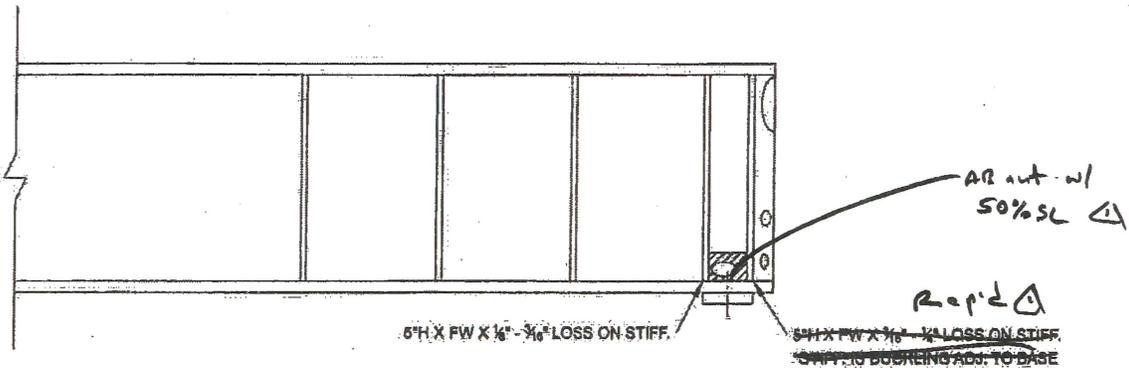
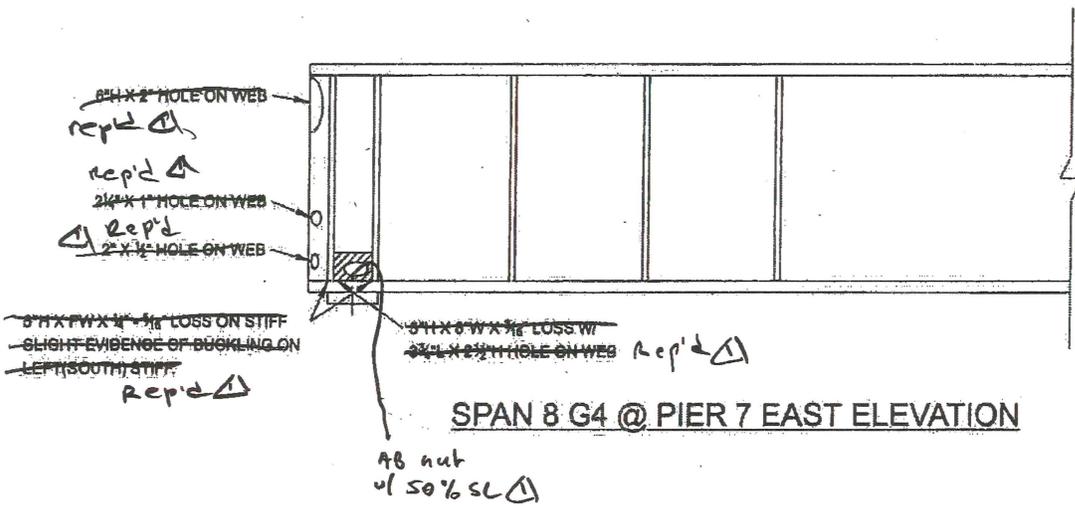
CREW: JM, MRJ, RL

SHEET 55/66/118/106 ^{42/72}

DESCRIPTION: GIRDER SECTION LOSS

△ 4/16/12 (GMR) YS, M TO

△ 5/15/14 (GMR) - SRD, AKC, PAH, BJS (GMR)



SPAN 8 G4 @ PIER 7 WEST ELEVATION

△ - NO CHANGE

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/20/2010

FIELD ORIGINAL

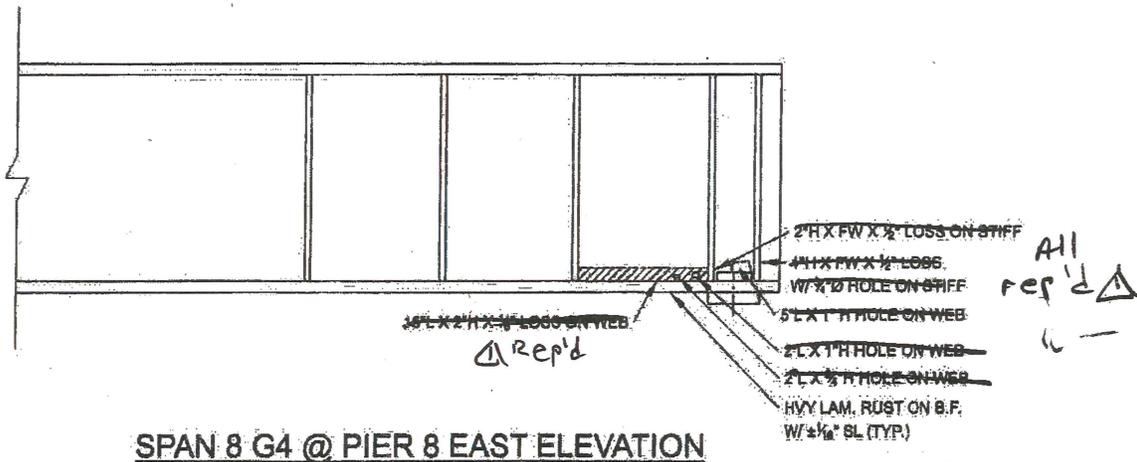
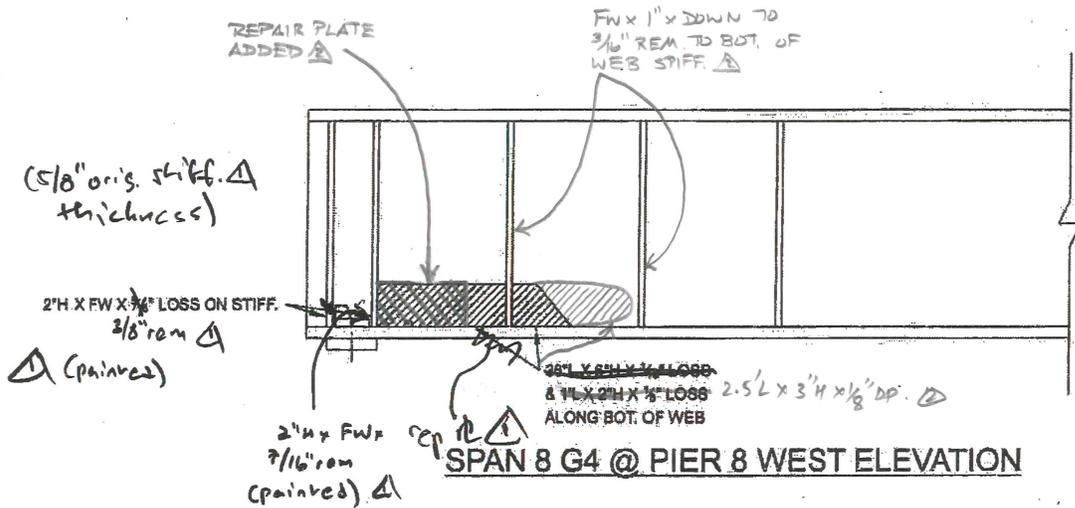
TRANSCRIBED BY: RL

CREW: JM, MRJ, RL

SHEET ⁵⁶ 27/48-106 ⁴³ 4/12

DESCRIPTION: GIRDER SECTION LOSS

Δ 4/27/12 vs. PR (GR) Δ
 Δ 6/2/14 - SRD, Δ RC (GMZ)



SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/27/2010

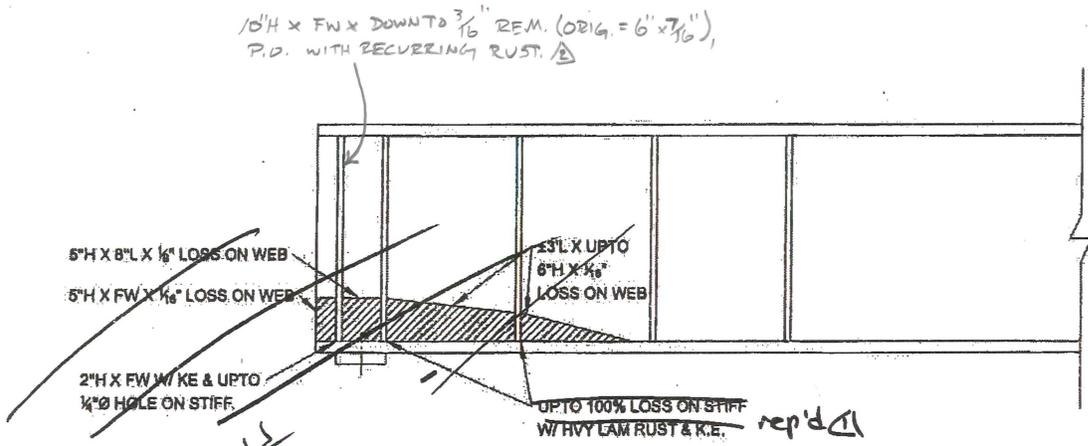
FIELD ORIGINAL

TRANSCRIBED BY: RL

CREW: JM, YS, PT3

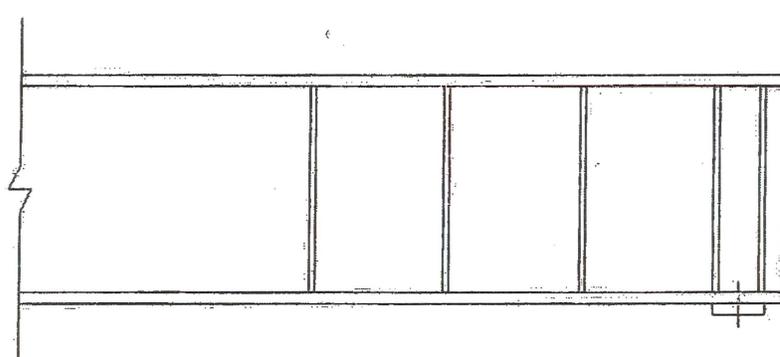
SHEET ~~58/48~~ ^{45/42} ~~106~~

DESCRIPTION: GIRDER SECTION LOSS



Δ Rep'd

SPAN 9 G4 @ PIER 8 EAST ELEVATION



SPAN 9 G4 @ PIER 8 WEST ELEVATION

Δ 4/18/12 YS, BH (Bkr2)

Δ 6/10/14 - SRD, AICC, DAN, BJS (GMR)

46/72

Bridge No.: 03313

Date: 4/22/14

Prepared By: BJS

Checked By: AKC

CONCRETE DETERIORATION WORKSHEET

Form BRI - 10, 9/01

Deterioration By Span - In Square Feet											
Span Number											
Deterioration Type	1	2	3	4	5	6	7	8	9		Total
Spalled and Delaminated Areas	Top: 0	Top: 0	Top: 0	Top: 0	Top: 0	Top: 0	Top: 0	Top: 0	Top: 0		Top: 0
	Bot: 0	Bot: 0	Bot: 0	Bot: 0	Bot: 2	Bot: 0	Bot: 0	Bot: 3	Bot: 1		Bot: 5
Scale (Moderated to Severe Only)	Top: 0	Top: 0	Top: 0	Top: 0	Top: 0	Top: 0	Top: 0	Top: 0	Top: 0		Top: 0
	Bot: 0	Bot: 0	Bot: 0	Bot: 0	Bot: 0	Bot: 0	Bot: 0	Bot: 0	Bot: 0		Bot: 0
Cracks: w/Efflorescence (use 6 in. width x length)	Bot: 35	Bot: 28	Bot: 35	Bot: 27	Bot: 54	Bot: 65	Bot: 38	Bot: 79	Bot: 20		Bot: 379
w/o Efflo. (use 3 in. width x length)	Bot: 0	Bot: 2	Bot: 0	Bot: 0	Bot: 5	Bot: 12	Bot: 4	Bot: 4	Bot: 5		Bot: 32
Map Cracking: w/Efflorescence (use full area)	Bot: 14	Bot: 0	Bot: 0	Bot: 175	Bot: 217	Bot: 157	Bot: 0	Bot: 0	Bot: 0		Bot: 563
w/o Efflo. (use 50% of area)	Bot: 28	Bot: 0	Bot: 0	Bot: 7	Bot: 15	Bot: 0	Bot: 42	Bot: 0	Bot: 0		Bot: 91
Honeycombed Areas (only areas more than 1 1/2 in deep)	Bot: 0	Bot: 0	Bot: 0	Bot: 0	Bot: 0	Bot: 0	Bot: 0	Bot: 0	Bot: 0		Bot: 0
Total Deterioration (Square Feet)	77	29	35	209	292	234	83	85	25		1070
Total Span Area (Square Feet)	3467	3289	3289	3289	3289	3490	3490	3490	1987		29080
% Spalled and Delaminated on Top	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%
% Deterioration on Bottom	2.2%	0.9%	1.1%	6.4%	8.9%	6.7%	2.4%	2.4%	1.3%		3.7%

SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: RL

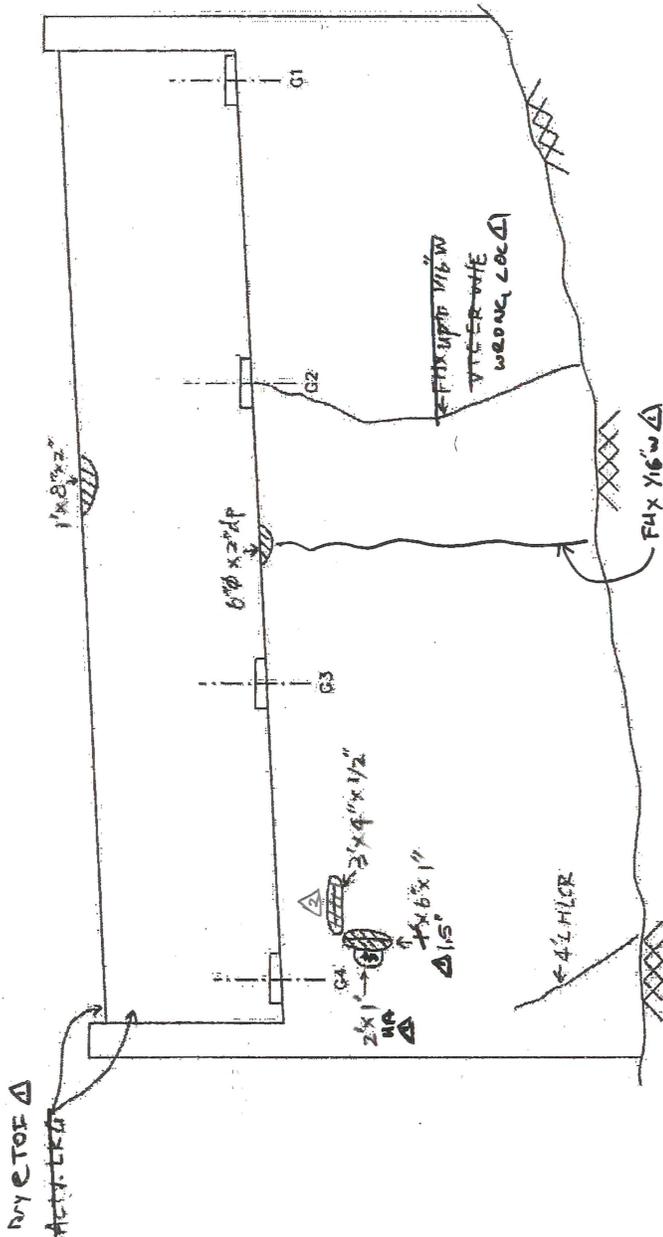
BRIDGE NO. 03313

DATE: 5/26/10

CREW: PB, JC

SHEET ~~6069~~ / ~~48102~~ ^{47/42}

DESCRIPTION: SOUTH ABUTMENT



SOUTH ABUTMENT

GENERAL NOTES:

- Round. cracks of staining on stem

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (DASHED LINE)
- MAP CRACKS (SOLID LINE)
- HONEY COMB AREA
- SCALE AREA (DOTS)
- SCALE AREA (CROSS-HATCH)
- SCALE AREA (DIAGONAL)
- SCALE AREA (VERTICAL)
- SCALE AREA (HORIZONTAL)
- SCALE AREA (DIAGONAL)
- SCALE AREA (VERTICAL)
- SCALE AREA (HORIZONTAL)

UPDATE NO.	DATE	COMPANY	CREW
1	4/13/10	GR	YS
2	4/27/14	GMZ	SPD, ALC, BJS, CAW
3			
4			

SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: RL

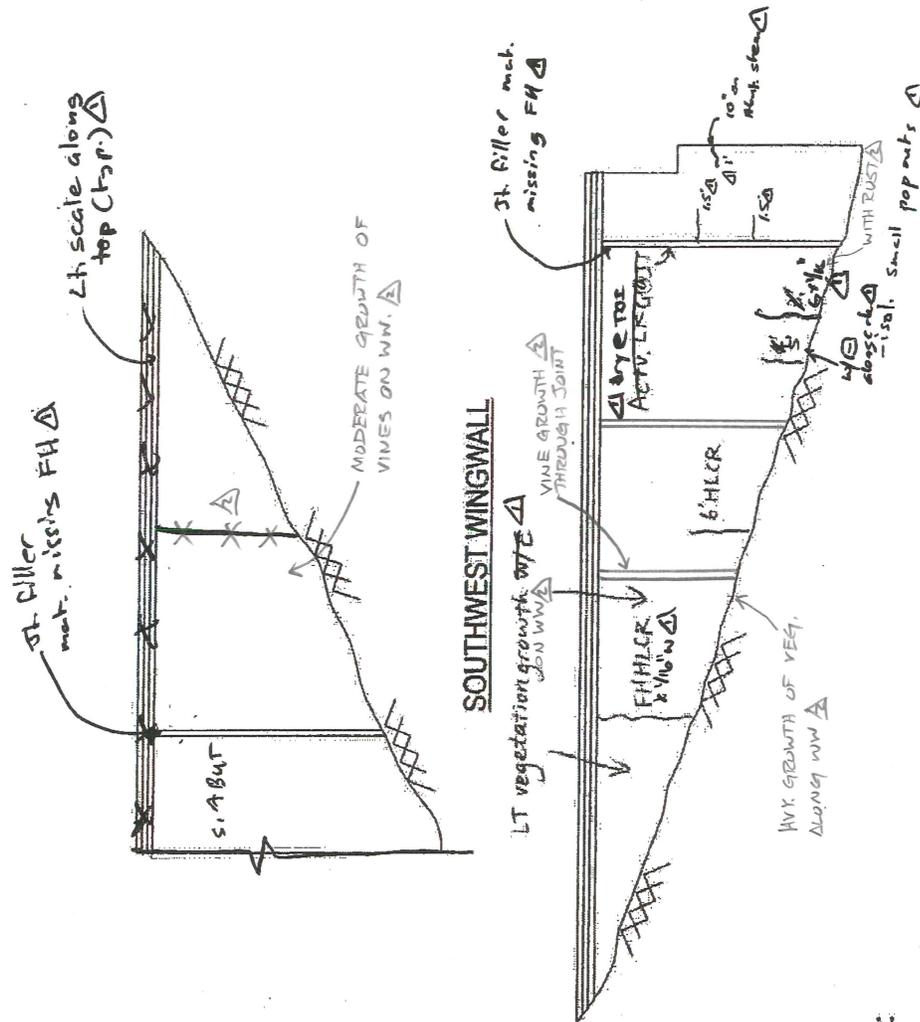
BRIDGE NO. 03313

DATE: 5/26/10

CREW: P.B., J.C.

SHEET 30/118 106 ^{48/42}

DESCRIPTION: SOUTH AND EAST BREASTWALL



GENERAL NOTES:

LEGEND

- HOLLOW AREA
- SHALLOW REPAIR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MAP) OR HAIRLINE MAP CRACKS (HLMC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (PVT. MED. OR LT.) WITH EFFLORESCENCE

UPDATE	DATE	COMPANY	CREW
△	4/13/12	BKX	YS
△	4/20/14	GMZ	SRD, AKC, BJS, CAW
△			
△			

SUPPLEMENTAL SHEET

FIELD ORIGINAL

☑ TRANSCRIBED BY: RL

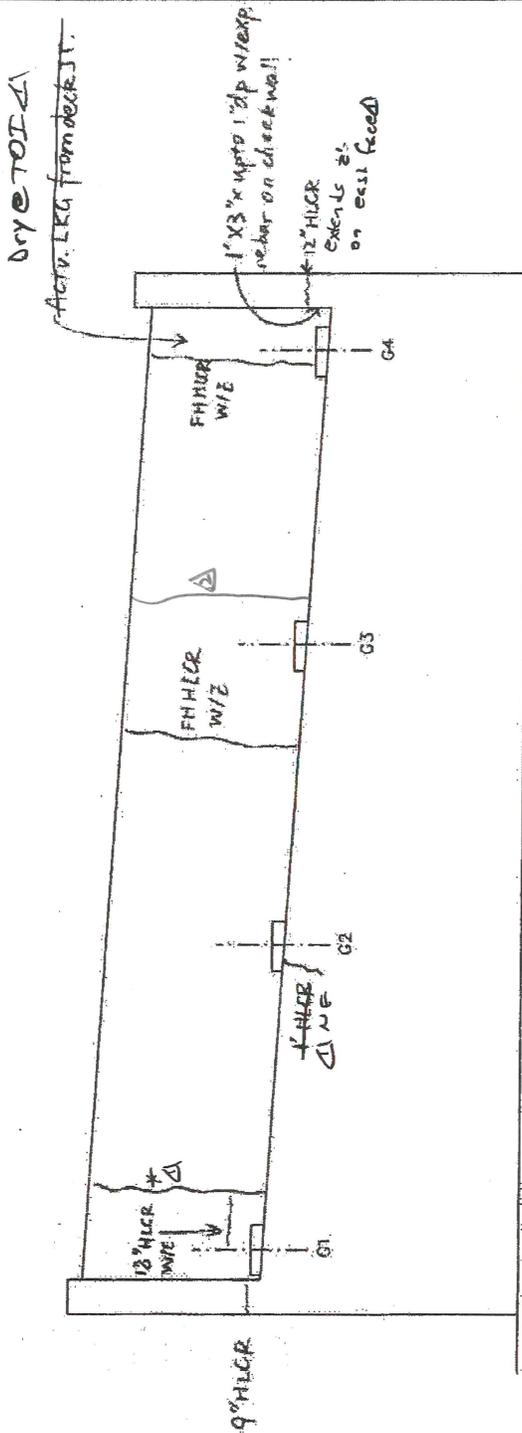
BRIDGE NO. 03313

DATE: 5/27/2010

CREW: JM, YS, PB

SHEET ⁶² 71 / ⁴⁹ 106 / 12

DESCRIPTION: NORTH ABUTMENT



Further Veg. (Pison Ivy) on Slope Δ
 60' L x 5" W x 4' dp exp. Footing

NORTH ABUTMENT

GENERAL NOTES:

- Abut stem covered w/ prob coating (cracks might not be visible) Δ
- Read areas of staining e backwell Δ

LEGEND

	HOLLOW AREA
	SHALLOW REPAIR
	SPALL AREA
	SPALL AREA WITH EXPOSED REBAR
	H/M/C/T MAP CRACKS (H/M/C/T)
	H/L or CRACK (H/L) or CRACKS (CRK)
	HONEY COMB AREA
	SCALE AREA (INV, MED, OR LT) WITH EFFLORESCENCE

UPDATE NO.	DATE	COMPANY	CREW
Δ	4/16/12	BKR	YS, MJO
Δ	4/22/14	GMZ	SEP, BGS
Δ			
Δ			

SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: RL

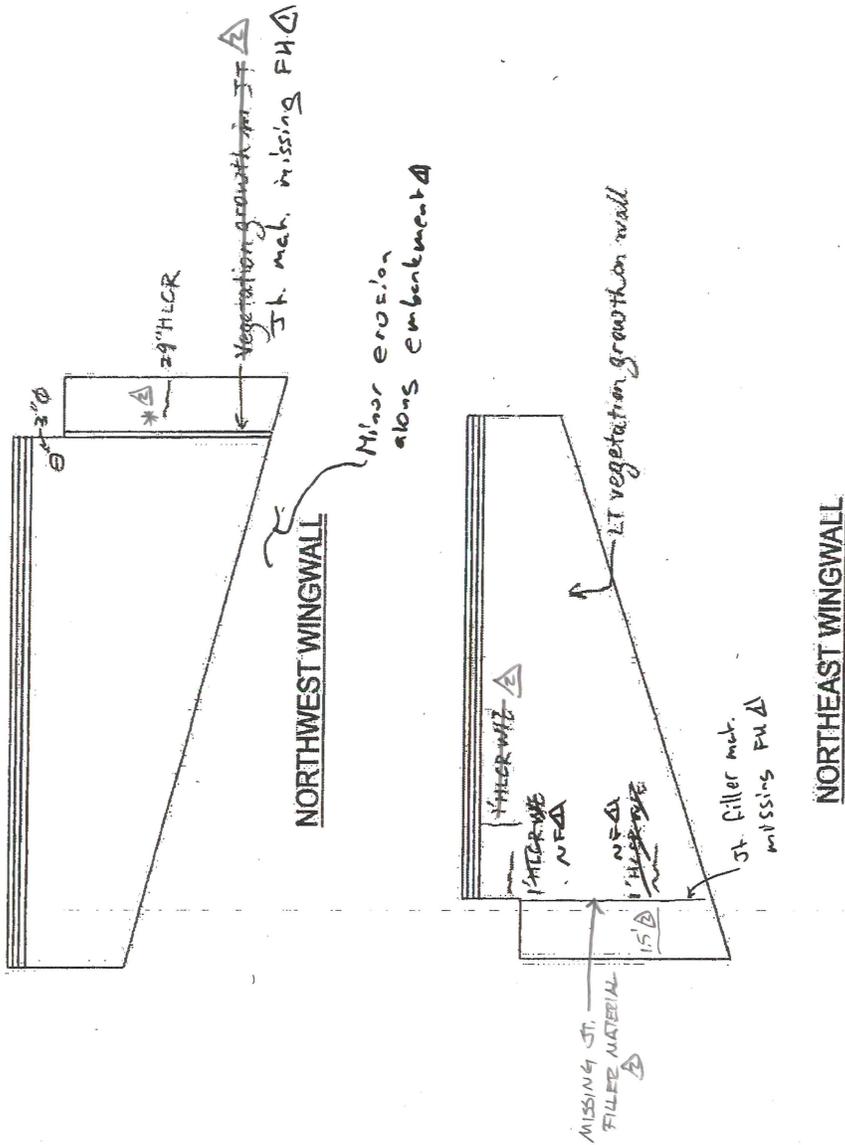
BRIDGE NO. 03313

DATE: 5/27/10

CREW: JM, VS, PB

SHEET 62 / 118 106 ^{50/172}

DESCRIPTION: NORTHWEST AND NORTHEAST BREASTWALL



DATE	COMPANY	CREW
4/16/12	BCC	YS, NJO
4/22/14	GM2	SPD, BJS

GENERAL NOTES:

- LEGEND**
- HOLLOW AREA
 - SHALLOW REBAR
 - ▨ SPALL AREA
 - ▧ SPALL AREA WITH EXPOSED REBAR
 - ▩ MAP CRACKS (INJECTOR HARBLINE MAP CRACKS INHIBIT)
 - HARBLINE CRACK (INJECTOR CRACKS INHIBIT)
 - HONEY COMB AREA
 - ▬ SCALE AREA (NOT MED OR LTD)
 - △ WITH EFFLORESCENCE

SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: RL

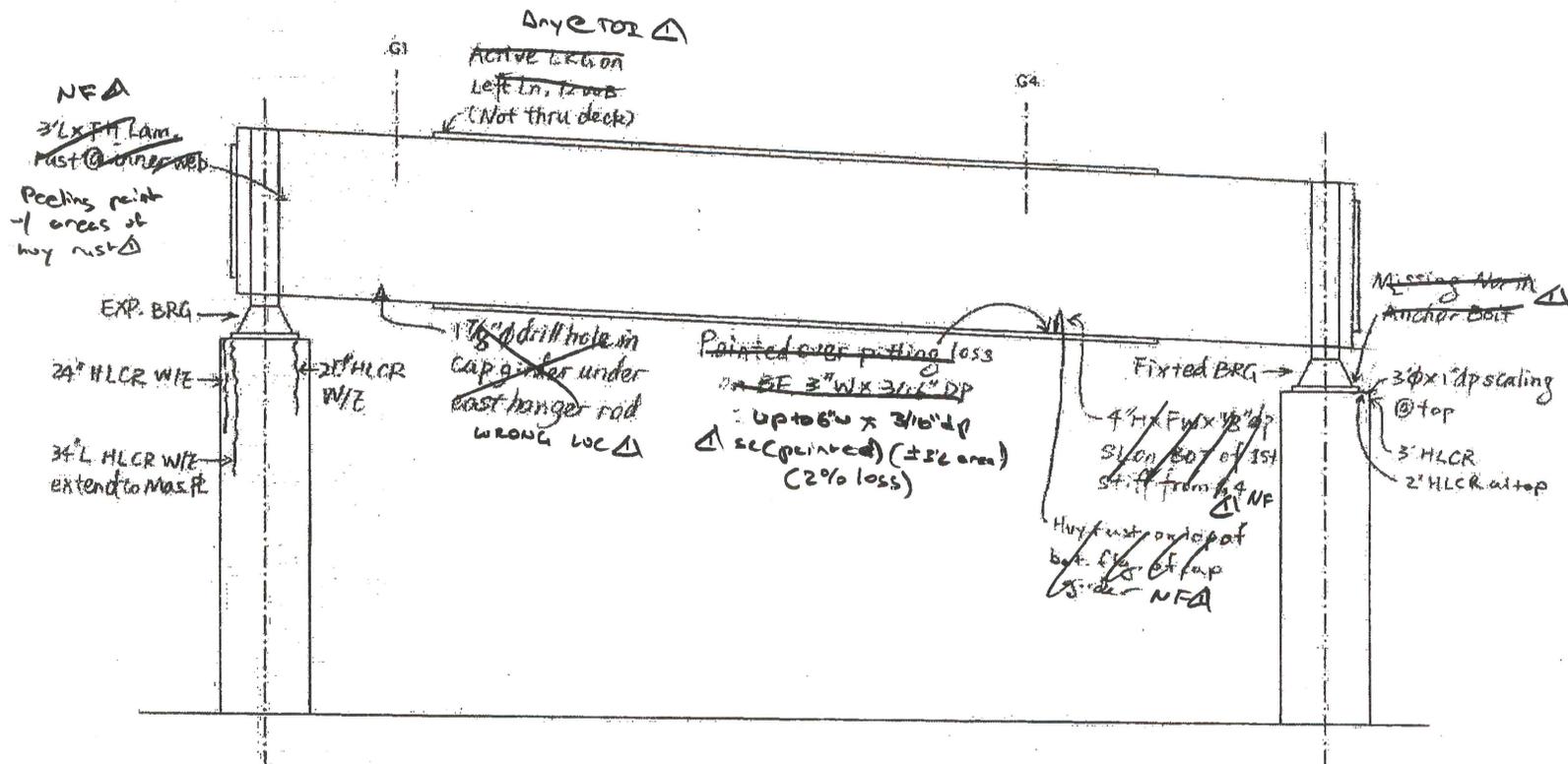
DESCRIPTION: PIER 1 SOUTH ELEVATION

BRIDGE NO. 03313

DATE: 5/26/10

CREW: JM, RL, JC, PB

SHEET 64
3/11/10
5/1/12



**SOUTH ELEVATION
PIER 1**

GENERAL NOTES:

- Up to 1/16" SL on underside of TF cap girder @ isol. loc's Δ

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MG) OR HARLINE MAP CRACKS (HLMG)
- HARLINE CRACK (HLC) OR CRACKS (CR)
- HONEY COMB AREA
- SCALE AREA (HYV, WED OR LY)
- WITH EFFLORESCENCE

Δ - NO CHANGE

UPDATE NO.	DATE	COMPANY	CREW
Δ	4/13/12	SKX	TS
Δ	4/21/14	GMZ	SRD, AKC, BJS, CAW
Δ			
Δ			

SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: PL

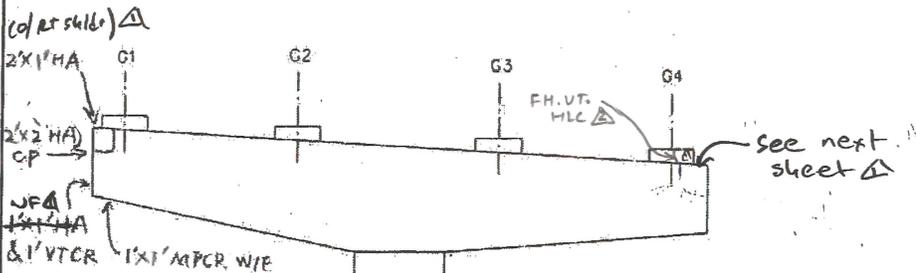
BRIDGE NO. 03313

DATE: 5/21/10

CREW: JM, RL

SHEET ~~66~~ / ~~118~~ 106 ^{53/72}

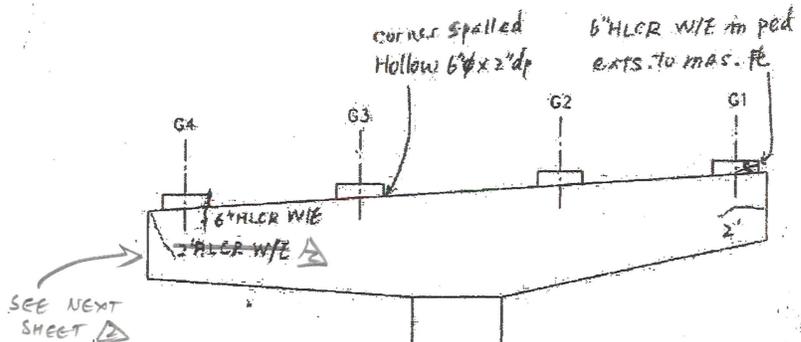
DESCRIPTION: PIER 2



**SOUTH ELEVATION
PIER 2**

GENERAL NOTES:

- Stains from prev. leakage Δ



**NORTH ELEVATION
PIER 2**

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (H.V.Y., MED. OR LT)
- WITH EFFLORESCENCE

UPDATE	DATE	COMPANY	CREW
Δ	4/18/12	BKR	BHYS
Δ	4/29/14	GMZ	AKC, CAW
Δ			
Δ			

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

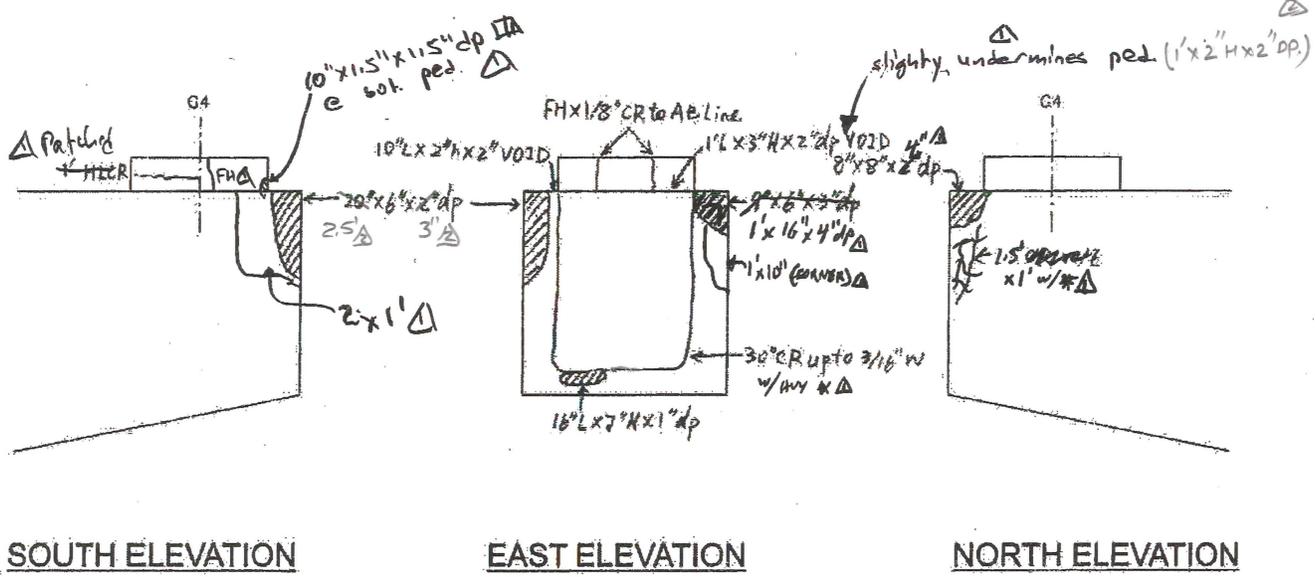
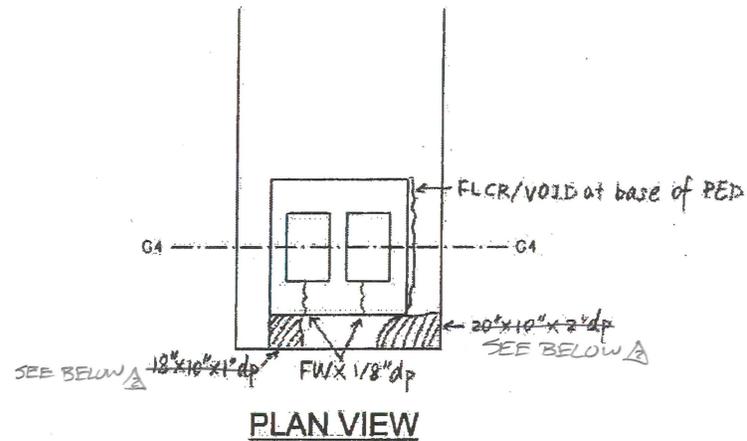
FIELD ORIGINAL

TRANSCRIBED BY: RL

CREW: JM, RL

SHEET ~~63~~ ~~76/106~~ ^{54/112} 106

DESCRIPTION: PIER 2 PIER CAP EAST END



PIER 2 PIER CAP EAST END

GENERAL NOTES:

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (M/C) OR HAIRLINE MAP CRACKS (H/M/C)
- HAIRLINE CRACK (H/C) OR CRACKS (C/R)
- HONEY COMB AREA
- SCALE AREA (H.V., MED OR LT)
- WITH EFFLORESCENCE

UPDATE	DATE	COMPANY	CREW
△	4/14/12	BKR	BH, YS
△	6/16/14	GMC	SRD, AKC, PAN, BJS
△			
△			

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

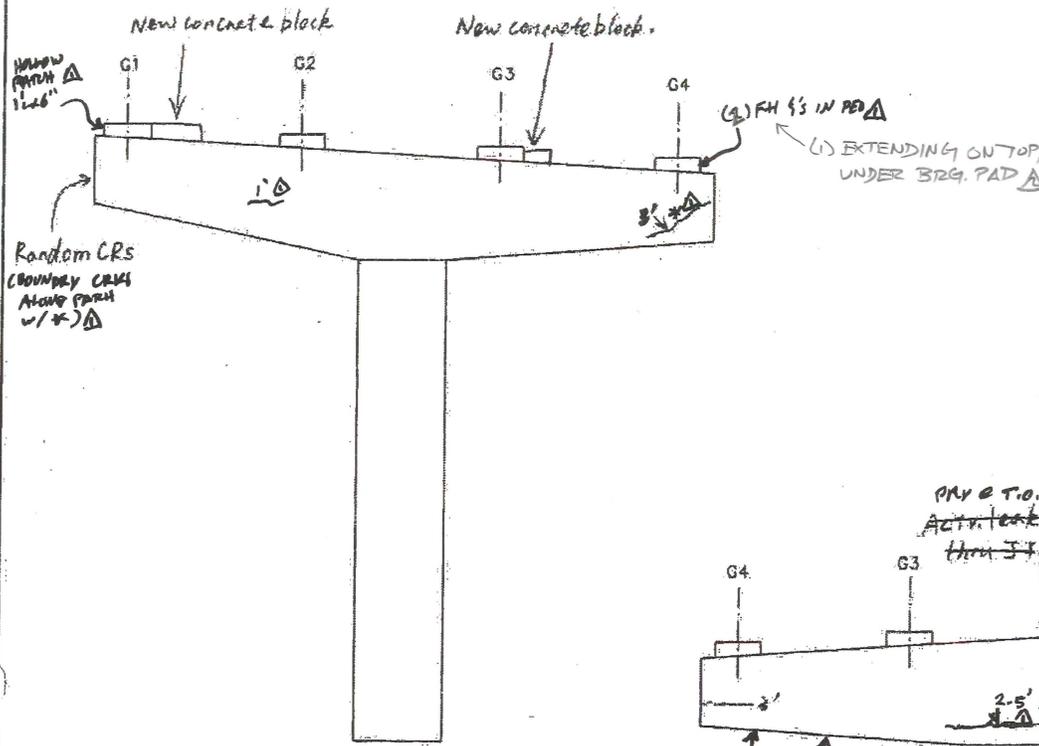
FIELD ORIGINAL

TRANSCRIBED BY: RL

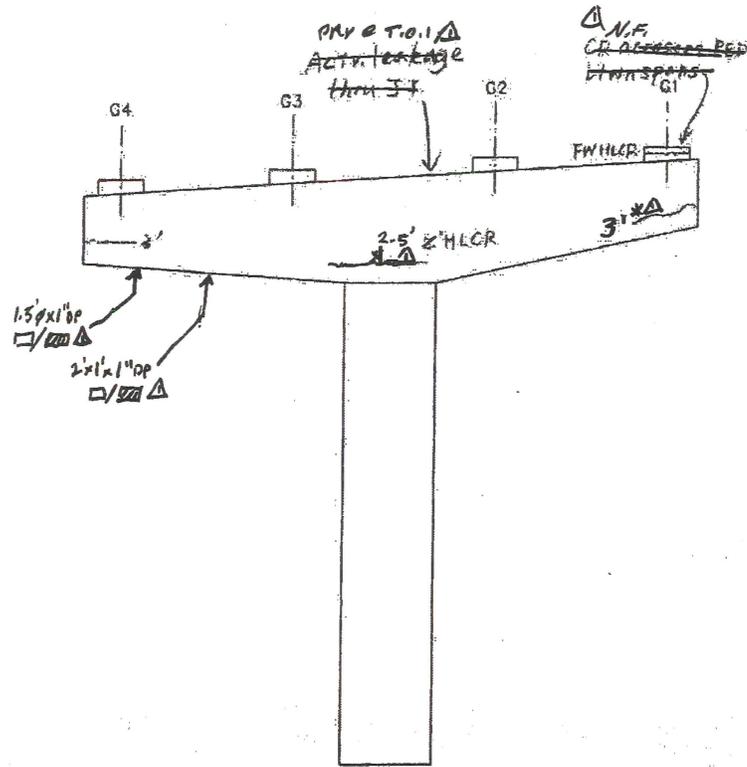
CREW: JM, RL

SHEET ~~63~~ / ~~118~~ ⁵⁵ / ~~106~~ ¹¹²

DESCRIPTION: PIER 3



**SOUTH ELEVATION
PIER 3**



**NORTH ELEVATION
PIER 3**

GENERAL NOTES:

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MDC) OR HARLINE MAP CRACKS (HLMDC)
- HARLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED, OR LT)
- WITH EFFLORESCENCE

UPDATE NO.	DATE	COMPANY	CREW
△	4/18/12	BKR	BIT, YS
△	6/6/14	GMZ	SOD, AICC, PAM, BJS
△			
△			

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

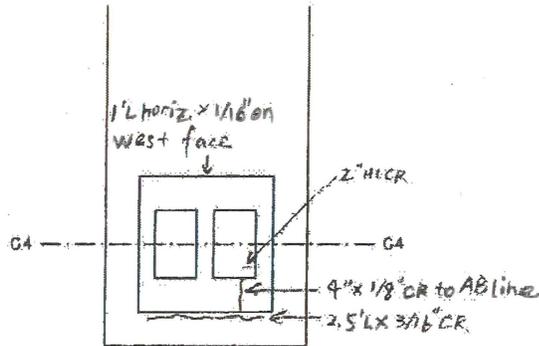
FIELD ORIGINAL

TRANSCRIBED BY: *RL*

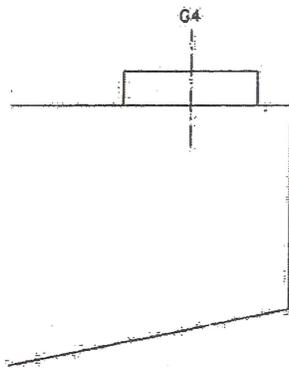
CREW: *JM, RL*

SHEET ~~69~~ ~~78~~ ~~118~~ ~~106~~ ^{56/72}

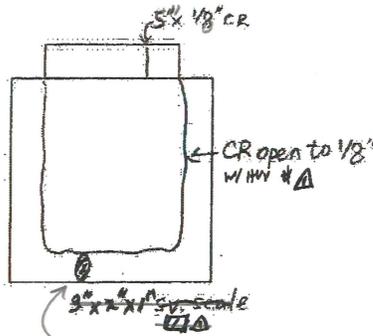
DESCRIPTION: PIER 3 PIER CAP EAST END



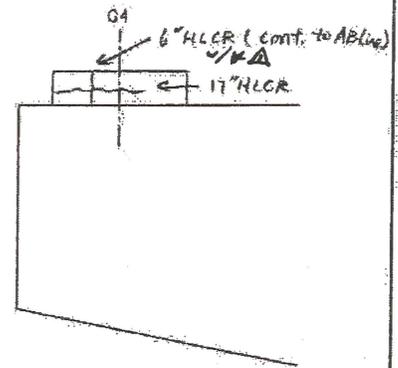
PLAN VIEW



SOUTH ELEVATION



EAST ELEVATION



NORTH ELEVATION

PIER 3 PIER CAP EAST END

GENERAL NOTES:

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MAP) OR HAIRLINE MAP CRACKS (INLH)C
- HAIRLINE CRACK (HLC) OR CRACKS (CR)
- HONEY COMB AREA
- SCALE AREA (HVV, MED OR LT)
- WITH EFFLORESCENCE

UPDATE NO.	DATE	COMPANY	CREW
	4/18/12	BKR	BH, JS
	6/6/14	GMZ	SRD, ALC, PAT, BJS

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

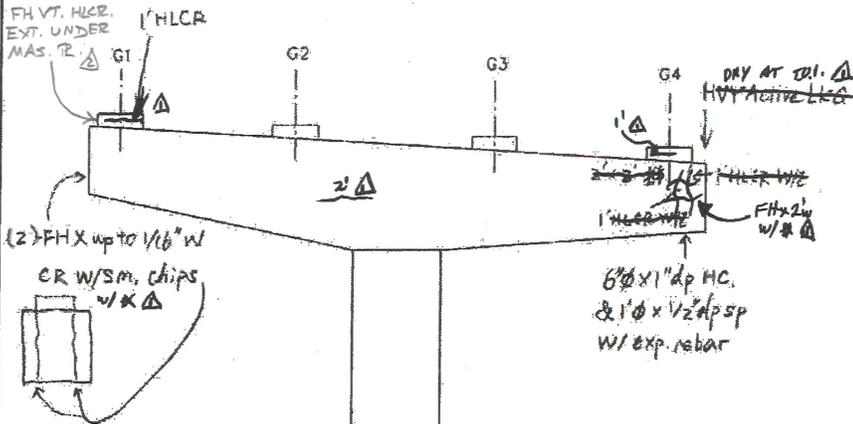
FIELD ORIGINAL

TRANSCRIBED BY: RL

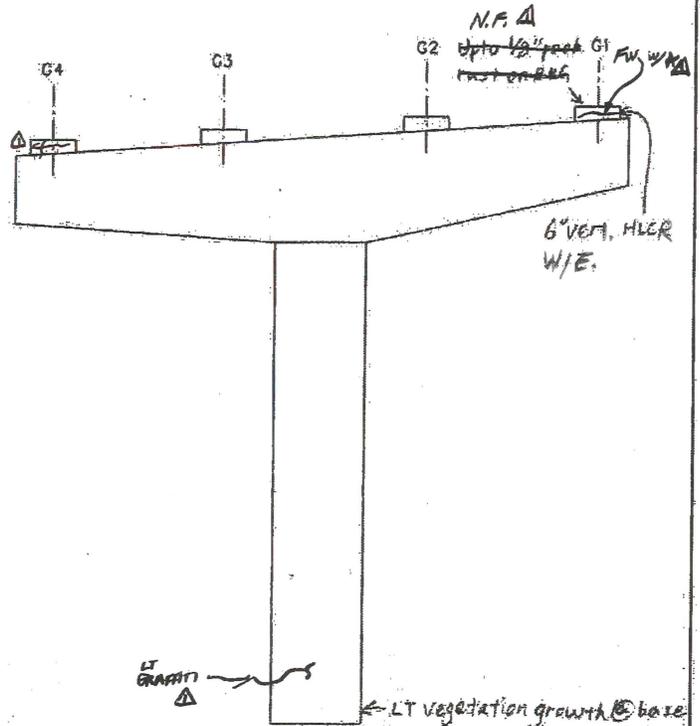
CREW: JM, RL

SHEET 79 / 106 ⁵¹/₇₂

DESCRIPTION: PIER 4



**SOUTH ELEVATION
PIER 4**



**NORTH ELEVATION
PIER 4**

GENERAL NOTES:

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HARLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- WITH EFFLORESCENCE

UPDATE	DATE	COMPANY	CREW
	4/18/12	BKR	BSH/YS
	6/6/14	GMZ	SRD, AKC, PAM, BJS

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

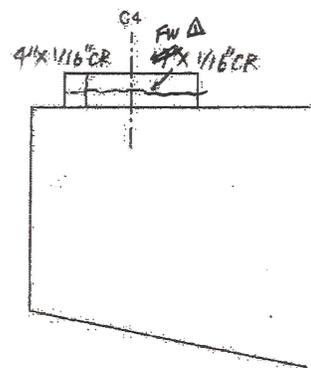
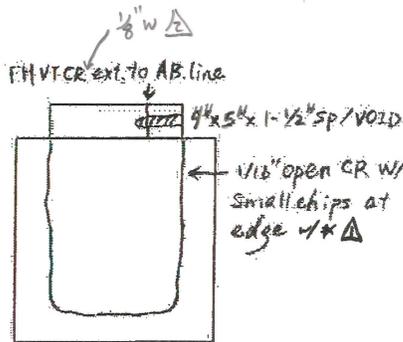
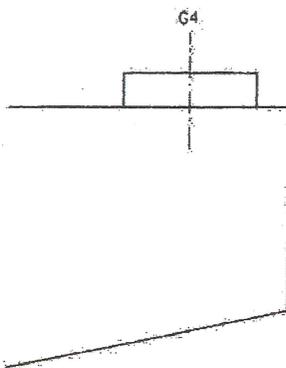
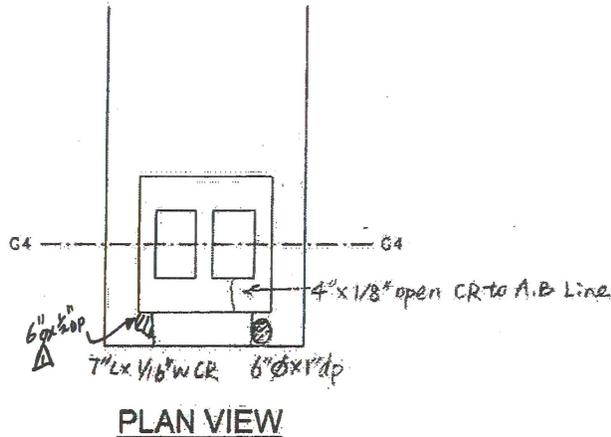
FIELD ORIGINAL

TRANSCRIBED BY: RL

CREW: JM, RL

SHEET 21 / 40 / 106 ^{58/72}

DESCRIPTION: PIER 4 PIER CAP EAST END



PIER 4 PIER CAP EAST END

GENERAL NOTES:

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVV, MED OR LTI)
- WITH EFFLORESCENCE

UPDATE NO.	DATE	COMPANY	CREW
△	4/19/12	BKR	BN, YS
△	6/6/14	GMZ	SRD, AKC, PAH, BJS
△			
△			

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

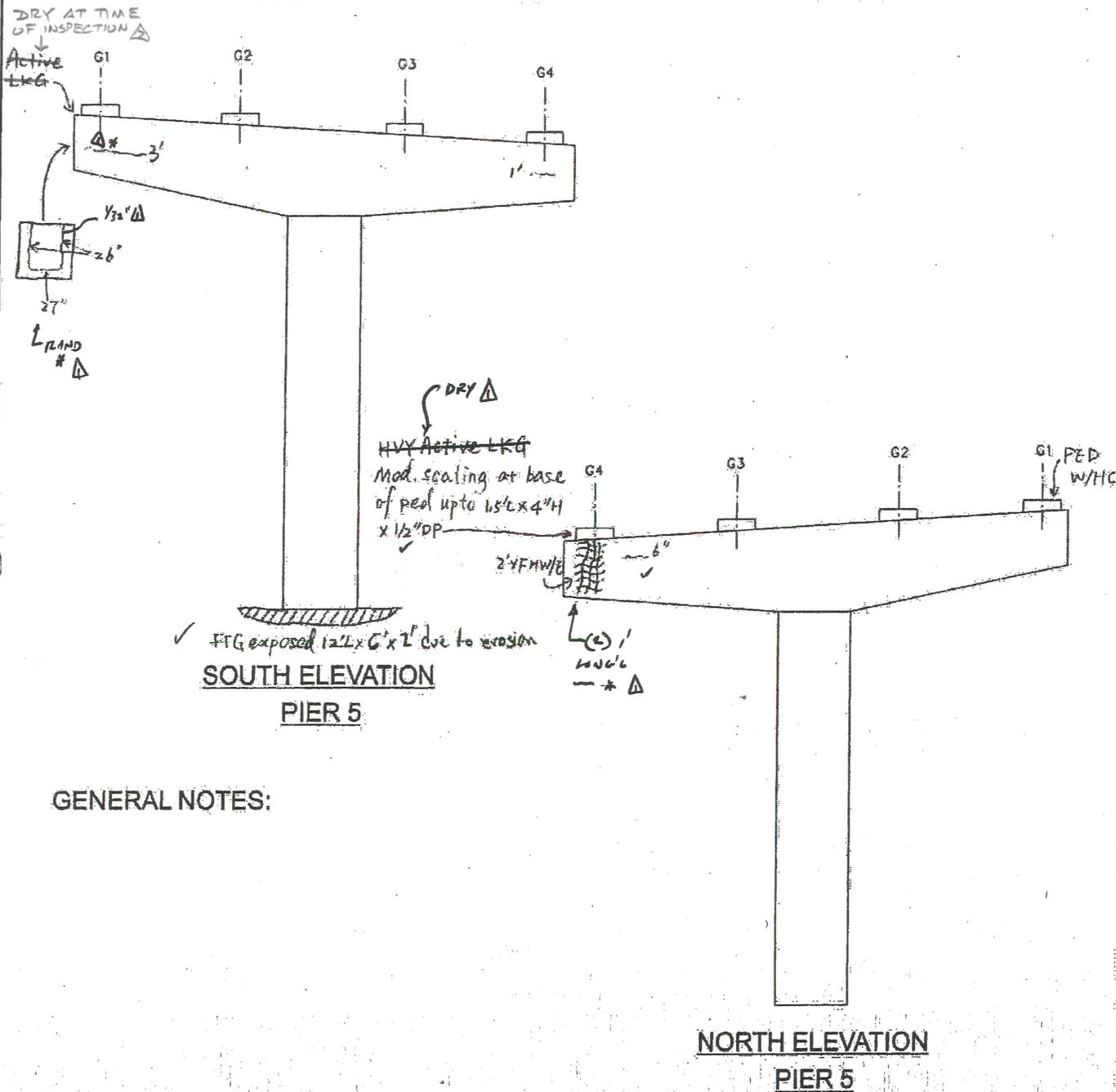
FIELD ORIGINAL

TRANSCRIBED BY: RL

CREW: JM, RL

SHEET 81/118 59/12

DESCRIPTION: PIER 5



GENERAL NOTES:

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HARLINE MAP CRACKS (HLMPC)
- HARLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED, OR LT)
- WITH EFFLORESCENCE

UPDATE NO.	DATE	COMPANY	CREW
Δ	4/11/12	BKR	JM, JAC
Δ	6/6/14	GMC	SRD, ALLC, PAH, BJS
Δ			
Δ			

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

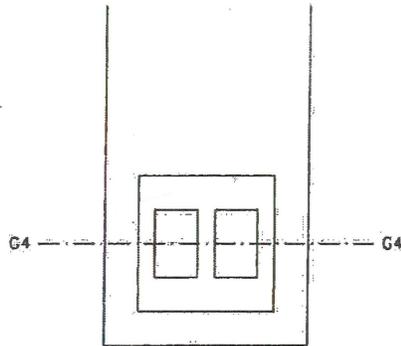
FIELD ORIGINAL

TRANSCRIBED BY: RL

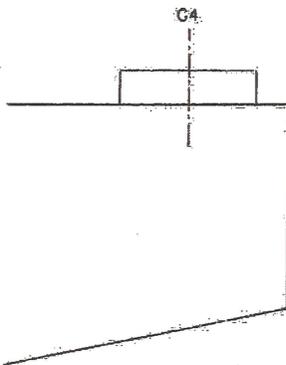
CREW: JM, RL

SHEET ~~73/87~~ / ~~148~~ 106⁶⁰ / 72

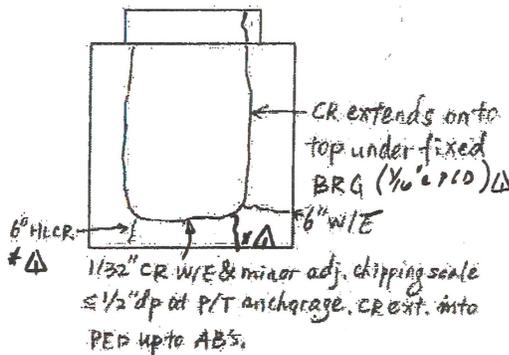
DESCRIPTION: PIER 5 PIER CAP EAST END



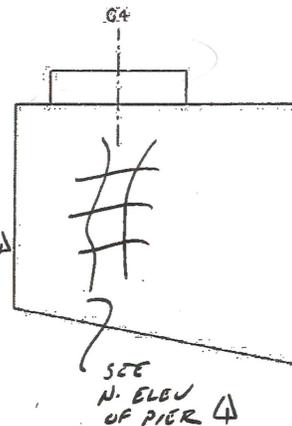
PLAN VIEW



SOUTH ELEVATION



EAST ELEVATION



NORTH ELEVATION

PIER 5 PIER CAP EAST END

GENERAL NOTES:

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVV, MED OR LTV)
- WITH EFFLORESCENCE

Δ - NO CHANGE

UPDATE NO.	DATE	COMPANY	CREW
Δ	4/11/10	B.R.F.	M/D/JAG
Δ	4/6/14	G.M.Z.	S.R.D., A.R.C., P.A.H., B.J.S.
Δ			
Δ			

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

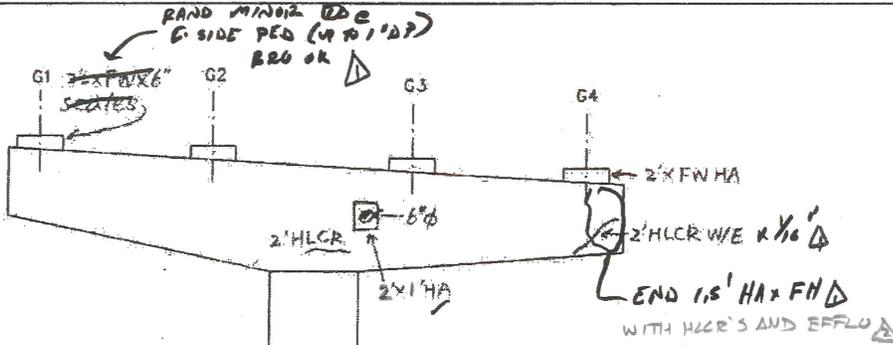
FIELD ORIGINAL

TRANSCRIBED BY: RL

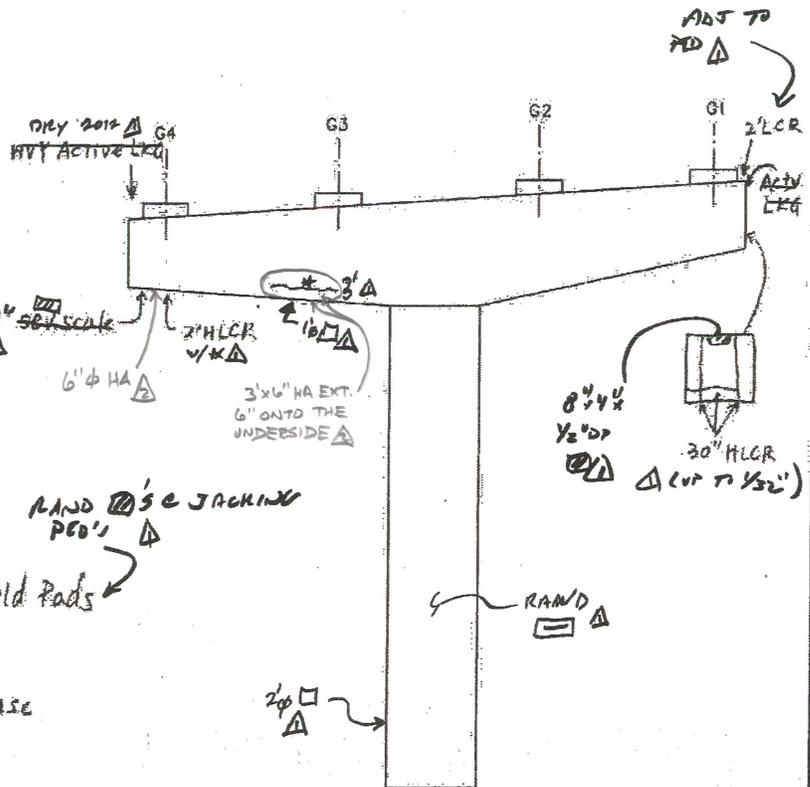
CREW: JM, RL

SHEET ~~83/106~~ 6/1/12

DESCRIPTION: PIER 6



**SOUTH ELEVATION
PIER 6**



**NORTH ELEVATION
PIER 6**

GENERAL NOTES:

- 4 New Pads are added next to all old Pads
- Evidence of LKG F.W.
- MOD ^{LT} vegetation growth around column base

RAND 2' x 1' JACKETING PED'S

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MDC) OR HARKLINE MAP CRACKS (HLCR)
- HARKLINE CRACK (HLCR) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVV, MED OR LT)
- WITH EFFLORESCENCE

UPDATE	DATE	COMPANY	CREW
	4/11/12	BKR	MJD, JAG
	6/6/14	GMZ	SRD, AKC, PAM, BJS

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

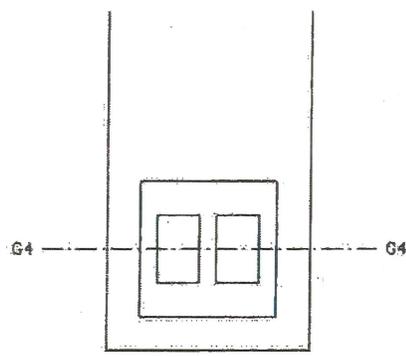
DATE: 5/21/10

FIELD ORIGINAL TRANSCRIBED BY: RL

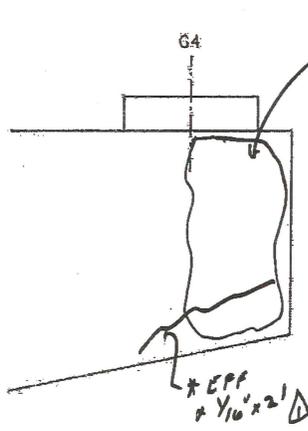
CREW: JM, RL

SHEET ~~78~~ ~~44~~ / ~~118~~ ~~106~~ ^{62/72}

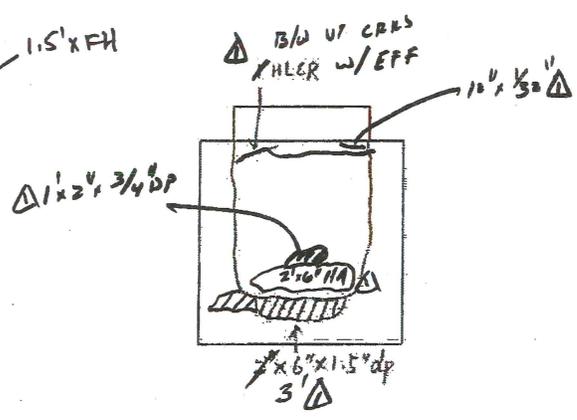
DESCRIPTION: PIER 6 PIER CAP EAST END



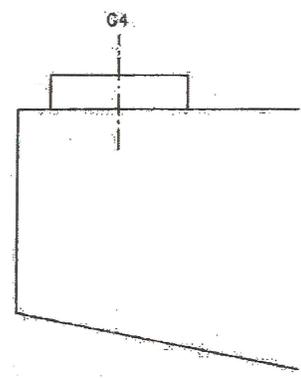
PLAN VIEW



SOUTH ELEVATION



EAST ELEVATION



NORTH ELEVATION

PIER 6 PIER CAP EAST END

GENERAL NOTES:

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAZLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVV, MED OR LI)
- WITH EFFLORESCENCE

Δ - NO CHANGE

UPDATE NO.	DATE	COMPANY	CREW
△	4/1/16	B&K	MTO/SAW
△	6/6/14	GMZ	SRD, AKC, PAH, BJS
△			
△			

SUPPLEMENTAL SHEET

FIELD ORIGINAL

TRANSCRIBED BY: RL

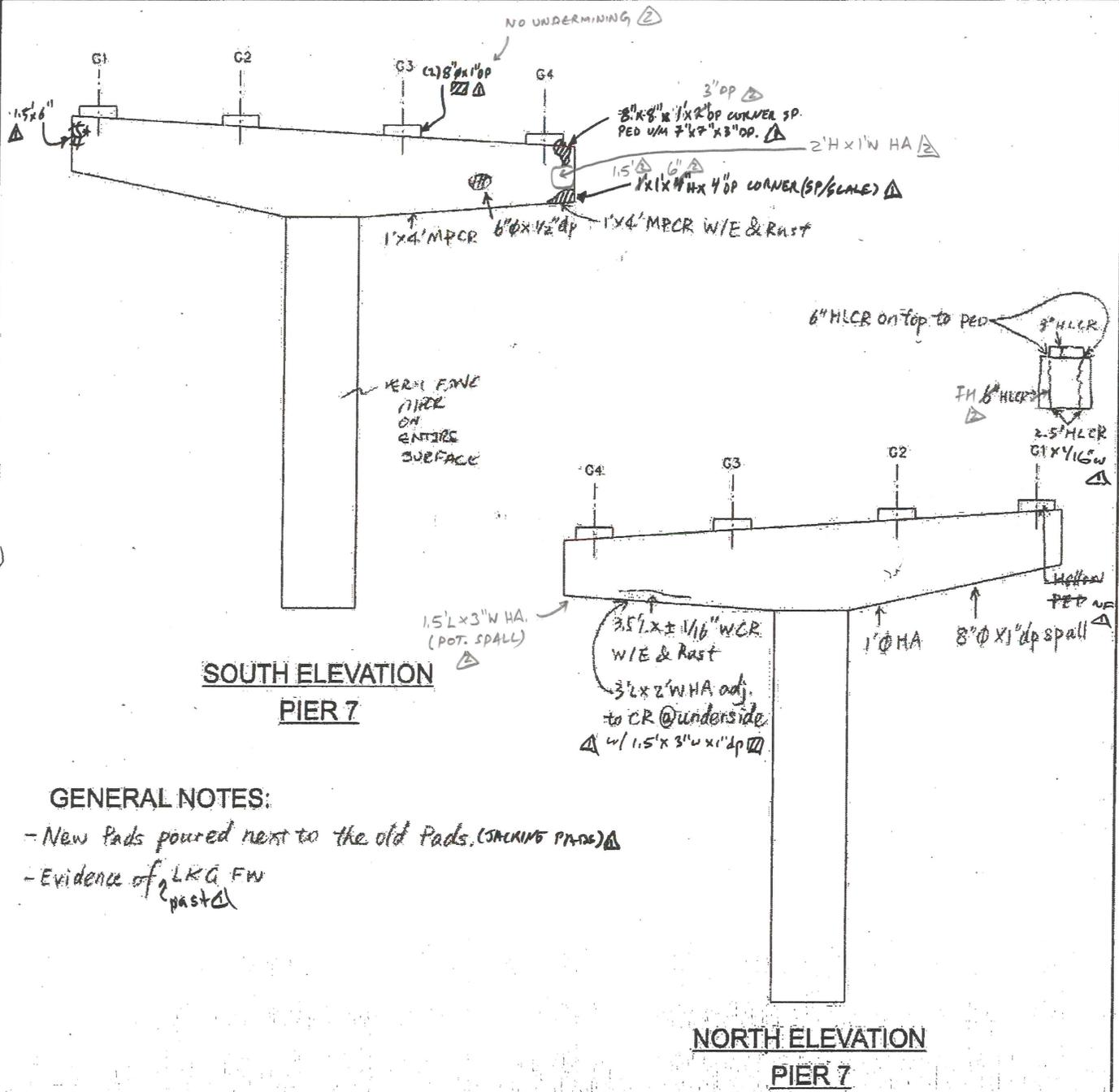
BRIDGE NO. 03313

DATE: 5/21/10

CREW: JM, RL, MJO, YS

SHEET ~~26~~ ^{63/72} / ~~85~~ / ~~110~~ ₁₀₆

DESCRIPTION: PIER 7



**SOUTH ELEVATION
PIER 7**

**NORTH ELEVATION
PIER 7**

GENERAL NOTES:

- New Pads poured next to the old Pads. (SHADING PAD) Δ
- Evidence of LKG FW past Δ

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CR)
- HONEY COMB AREA
- SCALE AREA (HVV, MED OR LT)
- WITH EFFLORESCENCE

UPDATE NO.	DATE	COMPANY	CREW
Δ	4/16/12	BKR	YS, PB
Δ	6/6/14	GMZ	AKK, PAH
Δ			
Δ			

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/10

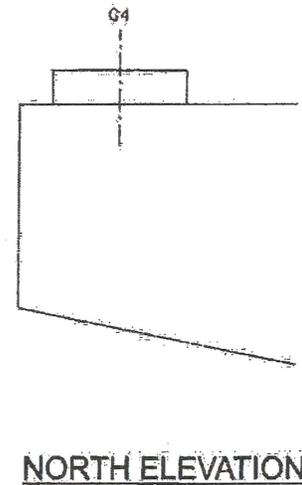
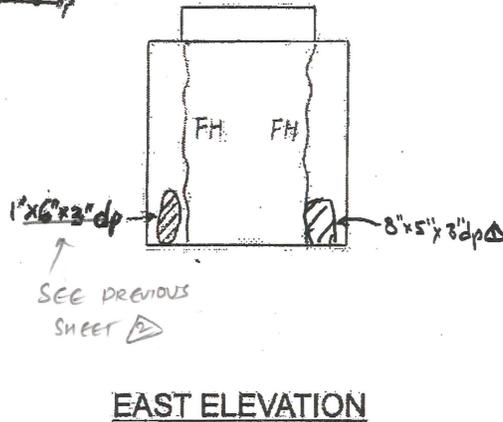
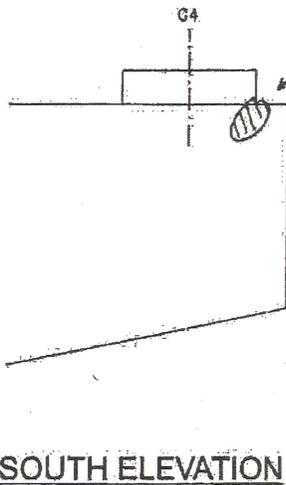
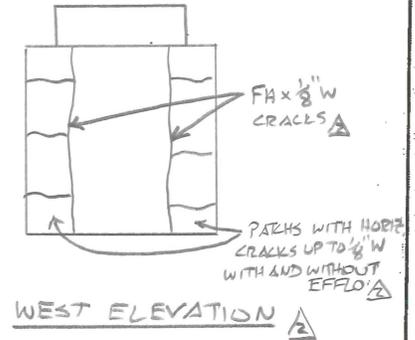
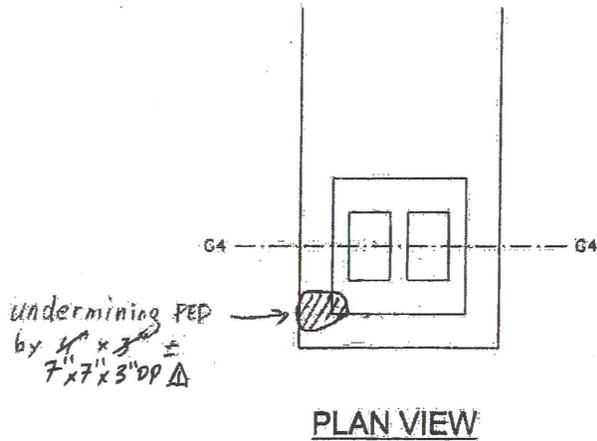
FIELD ORIGINAL

TRANSCRIBED BY: RL

CREW: JM, RL

SHEET ~~23~~ ~~86~~ / ~~118~~ ^{67/72} 106

DESCRIPTION: PIER 7 PIER CAP EAST END



PIER 7 PIER CAP EAST END

GENERAL NOTES:

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MOC) OR HARBORNE MAP CRACKS (HLMOC)
- HARLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVV, MED. OR LT)
- WITH EFFLORESCE

UPDATE NO.	DATE	COMPANY	CREW
△	4/12	SKA	VS, MJO
△	6/6/14	GMZ	AKC, PAH
△			
△			

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/20/10

FIELD ORIGINAL

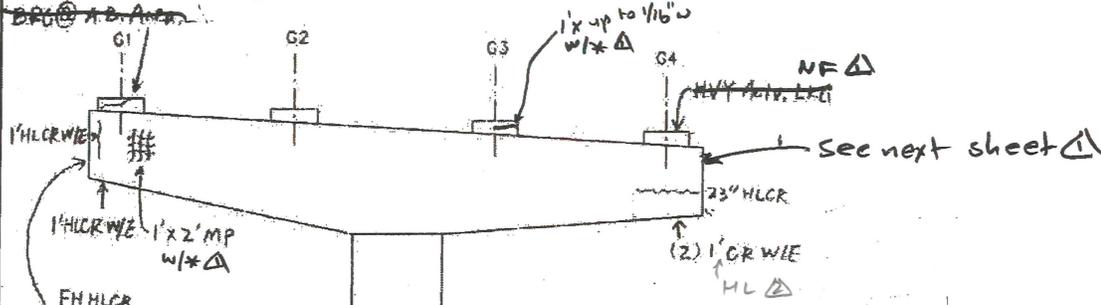
TRANSCRIBED BY: PL

CREW: MJO, YS

SHEET ⁷⁸ 87 / ^{65/72} 106

DESCRIPTION: PIER 8

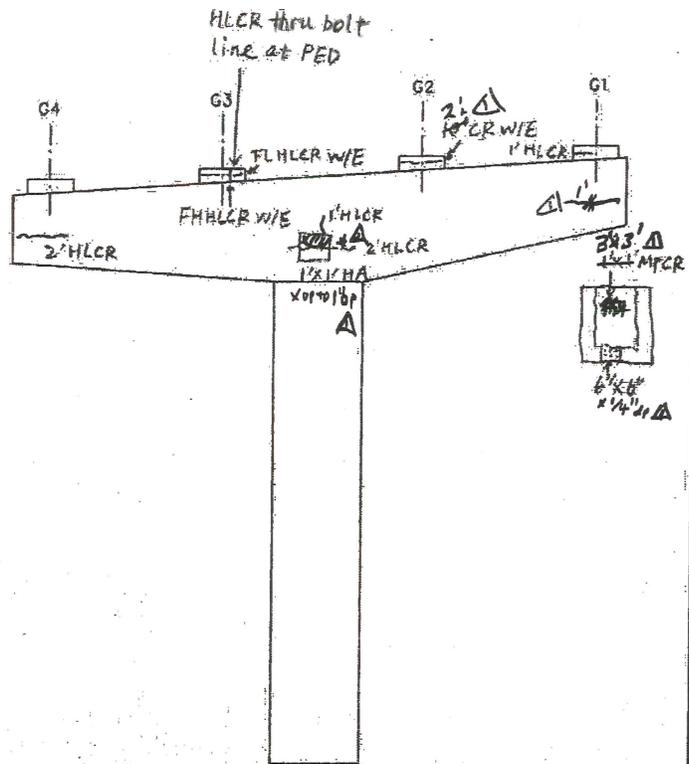
~~TO HLCR goes below NF~~



**SOUTH ELEVATION
PIER 8**

GENERAL NOTES:

- Active leakage from underside of parapets @ fascias & deck joint for F&T, (CRK @ 2012) Δ



**NORTH ELEVATION
PIER 8**

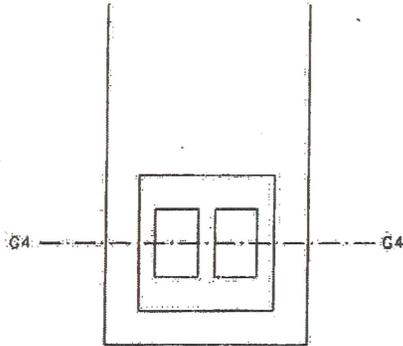
LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVV, MED OR LTI)
- WITH EFFLORESCENCE

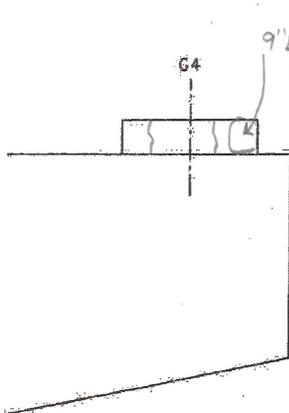
UPDATE NO.	DATE	COMPANY	CREW
Δ	4/18/12	BKR	BH, YS
Δ	6/2/14	GMZ	SRD, AKC
Δ			
Δ			

<h1>SUPPLEMENTAL SHEET</h1> <p> <input type="checkbox"/> FIELD ORIGINAL <input checked="" type="checkbox"/> TRANSCRIBED BY: <u>RL</u> </p>	BRIDGE NO. 03313	DATE: 5/20/10
	CREW: MJO, YS	SHEET 79 88 / 118 ^{66/72} 106

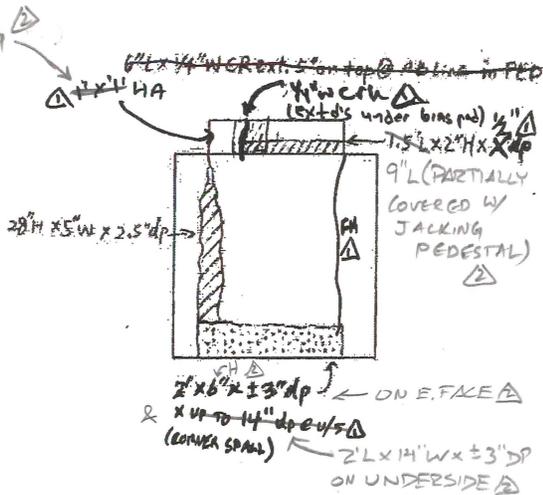
DESCRIPTION: PIER 8 PIER CAP EAST END



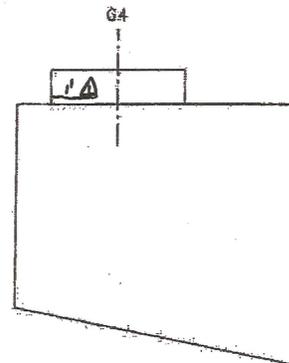
PLAN VIEW



SOUTH ELEVATION



EAST ELEVATION



NORTH ELEVATION

PIER 8 PIER CAP EAST END

GENERAL NOTES:

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MPC) OR HAIRLINE MAP CRACKS (HLMPC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (H, V, MED OR LT)
- WITH EFFLORESCENCE

UPDATE NO.	DATE	COMPANY	CREW
△	4/18/12	BSR	BS, YS
△	6/6/14	GMZ	SPO, AKC, DAN, BJS
△			
△			

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/2010

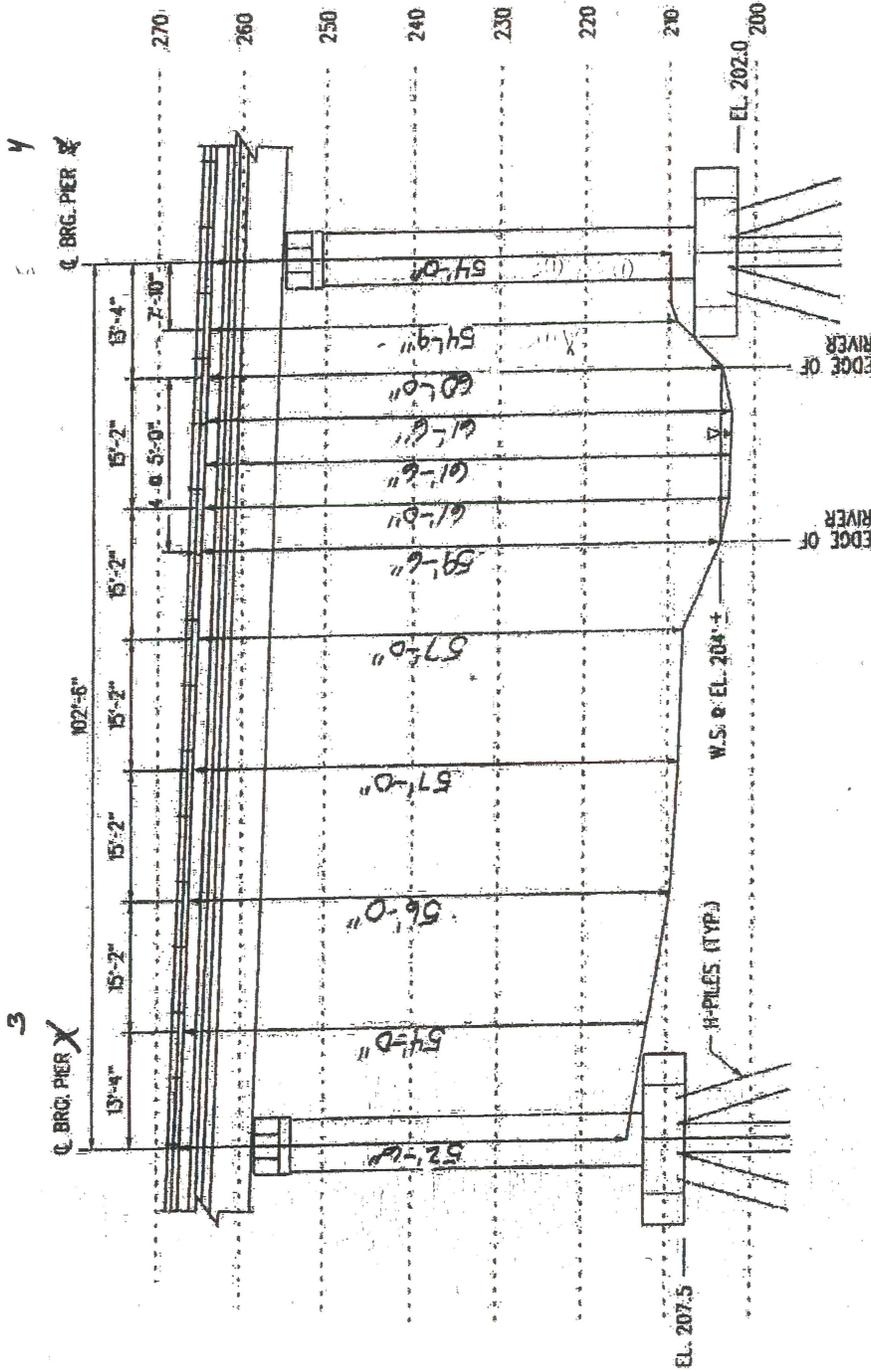
FIELD ORIGINAL TRANSCRIBED BY: _____

CREW: JM, MJD, JS, EL

SHEET 80 ~~89/116~~ 106

67/42

DESCRIPTION: DROP LINE MEASUREMENTS



UPDATE	DATE	COMPANY	CREW
△	4/12/12	BKR	MJB/JAC
△	6/6/14	GMZ	SEB, MC, PAM, BJI
△			
△			

RIVER CROSS SECTION

△ - MEAS. TAKEN @ W. PPT DUE TO CONTRACTOR TRAFFIC PATTERN ON BRIDGE; SEE CHANNEL DIAGRAM (EAST) FOR POST LOGS & MEAS

△ - ALSO, TAKEN @ W. PPT. DURING 2014 INSP. FOR COMPARISON

SUPPLEMENTAL SHEET

BRIDGE NO. 03313

DATE: 5/21/2010

FIELD ORIGINAL

TRANSCRIBED BY: _____

CREW: JM, MJO, YS, RL

SHEET 81/40 / H8106

628/72

DESCRIPTION: CHANNEL DIAGRAM

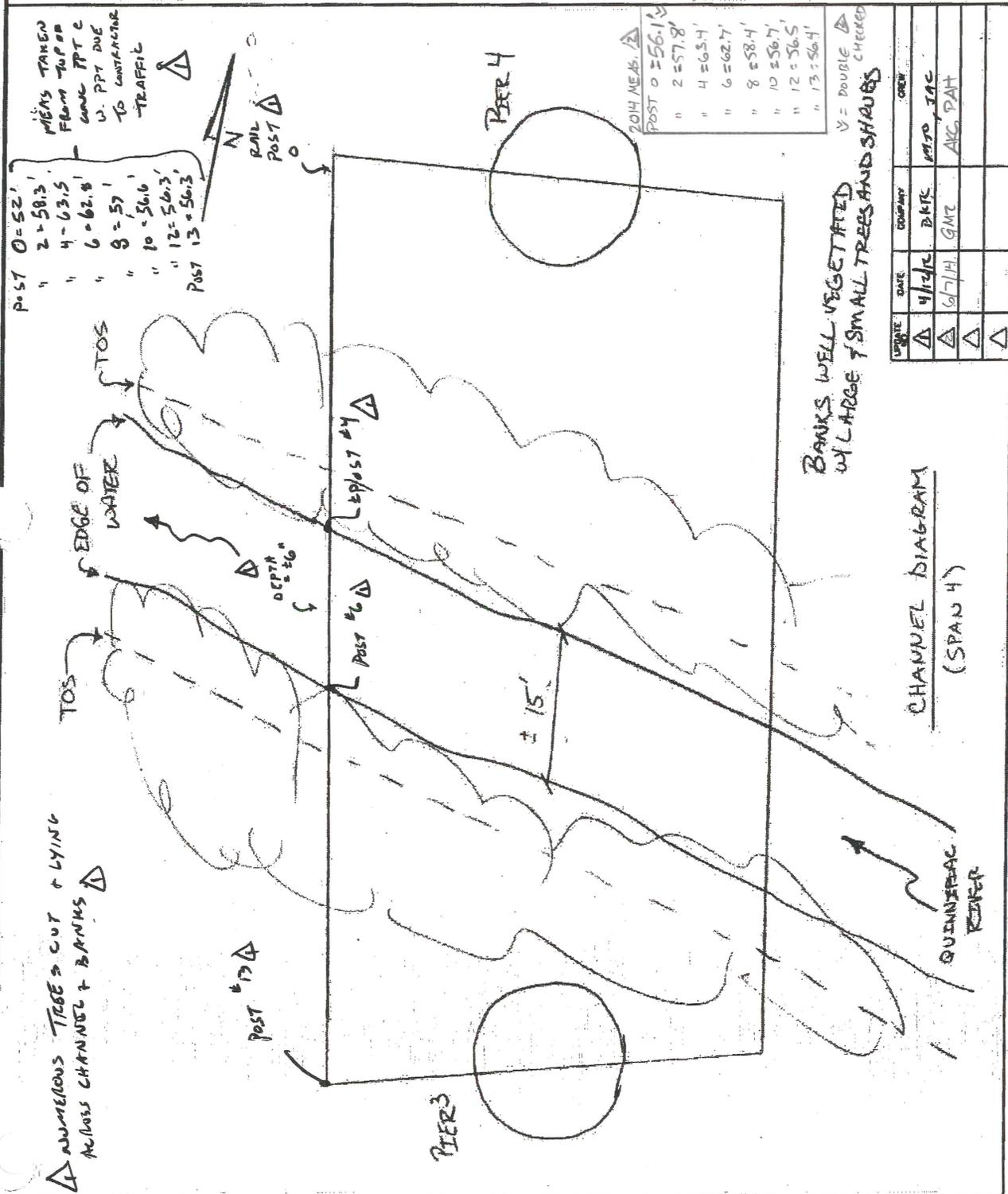


PHOTO LOG

Form BRI-13, Rev. 9/97

69/72

Bridge Information System	
Image Inventory	
Bridge No. <u>03313</u>	Date <u>4/22/2014 & 4/29/2014</u>
Town: <u>New Britain</u>	Photographer: <u>SRD, AKC</u>
Carried / Crossed: <u>I-84 TR 815 over I-84 EB, RT 72 WB, RT 372 and Pen Am RR</u>	
Film Frame #	Image Description
4/22/2014 SRD ↓	1 Northwest wingwall Elevation
	2 Bearing for G2 at North Abutment
	3 East Elevation
	4 Bearing for G3 at North Abutment
	5 North Abutment Backwall in Bay 2
	6 North Elevation of Pier 8
	7 North Abutment Elevation
	8 Bridge from North Approach
	9 North Approach from Bridge
	10 Bridge ID
4/29/2014 AKC ↓	11 Fixed Bearing for Pier 1 Cap Girder at East End Looking North.
	12 Fixed Bearing for Pier 1 Cap Girder at East End Looking South.
	13 East Side of G4 at Pier 1 in Span 1
	14 South Side of Pier 1 Cap Girder near G4 in Span 1. Note the Pitting
	15 North Side of Pier 1 Cap near G4. Note the Rust hole
	16 West side of G4 at Pier 1 in Span 2
	17 East side G3 at Pier 1 in Span 2
	18 East Side of G4 at Pier 2 in Span 2
	19 South Side of Pier 2 Cap at East End
	20 Bearing for G4 at Pier 2 in Span 2
	21, 23 West Side of G4 at Pier 2 in Span 2
	24 Bearing for G1 at Pier 2 in Span 3
	25 Bearings for G1 at Pier 2 in Spans 2 and 3
	26 Bearing for G1 at Pier 2 in Span 2

PHOTO LOG

Form BRI-13, Rev. 9/97

70/72

Bridge Information System

Image Inventory

Bridge No. 03313

Date 4/29/2014, 6/2/2014 & 6/3/2014

Town: New Britain

Photographer: AKC

Carried / Crossed: I-81 TR 815 over I-81 EB, Rt 72 WB, Rt 372 and Pan Am RR

Film Frame #	Image Description
27	South Abutment below G1
28	Bearing for G1 at the South Abutment
29	North Side of G1 at South Abutment. Note the painted over section loss
30	Expansion Bearing at West End of Pier 1 Cap Girder looking North
31	West Side of G1 at Pier 1 in Span 1. Note the Gap under the Nut
32	East Side of G1 at Pier 1 in Span 1. Note Gutter Pin Installed Improperly
33	North Side of Pier 1 Cap Girder at West End.
34	West Side of G1 at Pier 1 in Span 2.
35	South Abutment Elevation
36	Underside of Span 2 looking North
37	South Elevation of Pier 2.
38	East Side of G4 at Pier 8 in Span 8. Note Repaired Areas at Girder End
39	West Side of G4 at Pier 8 in Span 8. Note Repaired Area and S.L. along bot. of Web
40, 41, 42	East side of Pier 8 Cap.
43	Bearing for G4 at Pier 8 in Span 8
44	South Elevation of Pier 8.
45	Underside of Span 8 Looking South.
46, 47	East Elevation of Bridge in Spans 6, 7 and 8.
48	West Elevation of Bridge
49	Bridge I.D.
50	Fixed Bearing for G4 at Pier 5 in Span 6.
51, 52	East Side of G4 at Pier 5 in Span 6. Note Repaired S.L. and Crack in Pedestal.
53	Rust in Top Flange of G4, West side, in Span 6 b/w 2 nd & 3 rd X-Frame from Pier 6
54	North Elevation of Pier 5.

6/2/2014
AKC
↓

6/3/2014
AKC
↓

PHOTO LOG

Form BRI-13, Rev. 9/97

7/1/72

Bridge Information System

Image Inventory

Bridge No. 03313

Date 6/6/2014

Town: New Britain

Photographer: SRD, AKC

Carried / Crossed: I-84 TR 815 over I-84 EB, Rt 72WB, Rt 372 and Pan Am RIZ

Film Frame #	Image Description
55	Bay 4 at Pier 8 in Span 9. Note Deck End Spall
56	East Face of G4 at Pier 8 in Span 9
57	Bearing for G4 at Pier 8 in Span 9
58	East Face of G4 at Pier 8 in Span 9. Note S.L. at the Top.
59	North Abutment Elevation
60	West Side of G1 at Pier 7 in Span 7
61	West Side of G2 at Pier 7 in Span 7. Note the Cracked Weld
62	West Side of G3 at Pier 7 in Span 7. Note the Missing Weld
63	East End of Pier 7 South Face
64	Bay 3 b/w 1 st & 2 nd x-Frame from Pier 6 in Span 7. Note S.L. in Bot. Fls. of G4
65	Bay 3 b/w 1 st & 2 nd x-Frame from Pier 6 in Span 7. Note Rust on Scupper
66	West Side of G4 near Pier 6 in Span 7. Note Short Weep draining on Steel
67	East End of Pier 6 Cap, South Face
68, 69	West Side of G1 at Pier 5 in Span 5
70, 71	Bearing for G1 at Pier 4 in Span 5
72	East Face of G4 at Pier 4 in Span 5
73	Upstream View of Channel
74	-
75	Downstream View of Channel
76	Underside of Span 4
77	West Side of G3 at Pier 3 in Span 3. Note the S.L.
78	East Side of G4 at Pier 2 in Span 3
79	Southwest Wingwall Elevation
80	Three - Cable Guideway at Southeast Corner

6/6/2014
AKC



6/2014
SRD

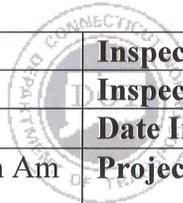


PHOTO LOG

Form BRI-13, Rev. 9/97

72/72

Bridge Information System	
Image Inventory	
Bridge No. <u>03313</u>	Date <u>6/6/2011</u>
Town: <u>New Britain</u>	Photographer: <u>SPD</u>
Carried / Crossed: <u>I-84 TR 815 over I-84 EB Rt 72 WB, Rt 372 and Pan Am RR</u>	
Film Frame #	Image Description
81	Approach Guiderail at Southwest Corner
82	Deck Joint at South Abutment
83	South Approach Pavement
84	Missing Hand Hole Cover for Light Standard on West Parapet in Span 1
85	Typical Overlay in Span 1
86	Deck Joint at Pier 1
87	East Fascia
88	Deck Joint at Pier 2
89	Deck Joint at Pier 3
90	Sealing with and without Exposed Rebar in East Curb in Span 5
91	Deck Joint at Pier 5
92	Sealing with and without Exposed Rebar in East Curb in Span 6
93	Overlay in Span 6
94	West Fascia in Spans 6, 7 and 8
95	Deck Joint at Pier 6
96	5 th Railing Post from Pier 6 in Span 7 along East Fascia
97	Sign Connection to West Parapet in Span 6
98	Deck Joint at North Abutment
99	Bridge from North Approach
100	Approach Guiderail at Northwest Corner
101	North Approach from Bridge
102	South Approach from Bridge
103	Bridge from South Approach
104 & 105	West Elevation



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 1: Bridge Identification Number.

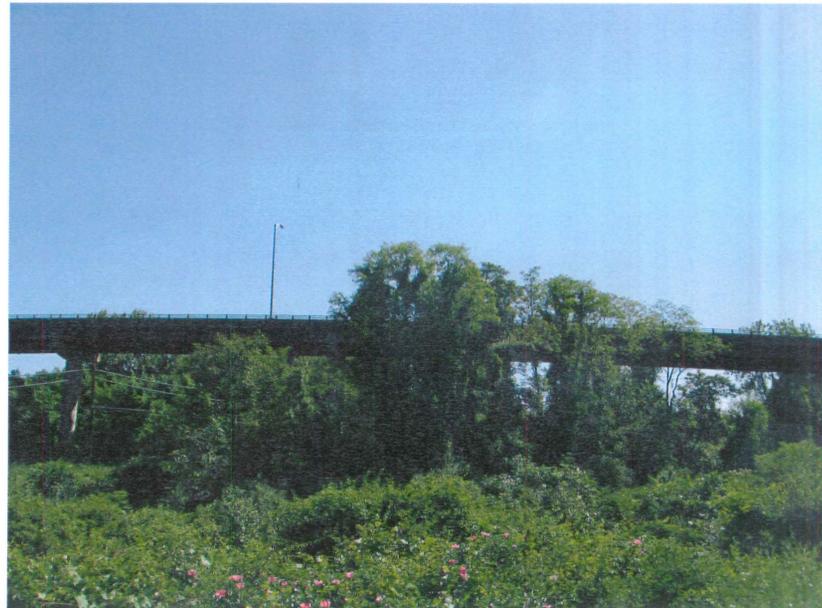


Photo # 2: West elevation.



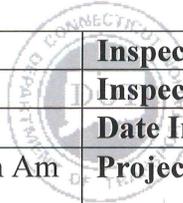
Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 3: East elevation.



Photo # 4: Bridge from the south approach.



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 5: South approach from the bridge.



Photo # 6: Bridge from the north approach.



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 7: North approach from the bridge.



Photo # 8: Overlay in Span 1. Note the areas of map cracking.



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 9: Underside of the deck and framing in Span 2.



Photo # 10: Underside of deck in Bay 4 at Pier 8 in Span 9. Note the deck end spall with exposed rebar.

Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 11: Curb, parapet and railing along the west fascia in Spans 6, 7 and 8.



Photo # 12: Curb, parapet and railing along the east fascia in Span 5. Note the areas of severe scaling in the curb.



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224

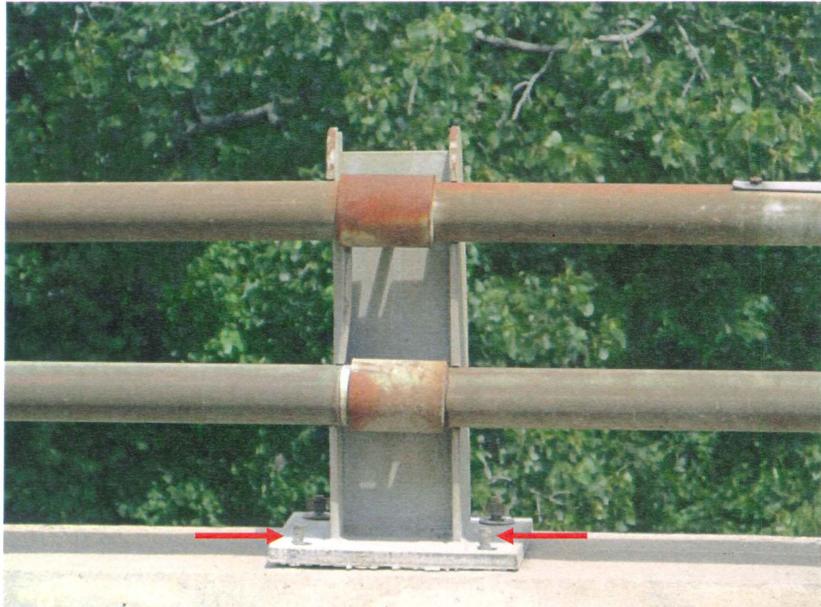
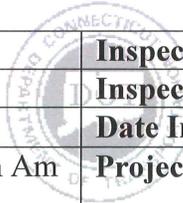


Photo # 13: 5th railing post from Pier 6 in Span 7 along the east fascia. Note the missing nuts.



Photo # 14: Underside of deck in Bay 3 between the 1st and 2nd cross frames from Pier 6 in Span 7. Note the rust on the scupper.



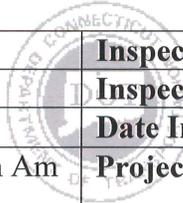
Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 15: West side of Girder G4 near Pier 6 in Span 7. Note the short weep pipe draining on the steel.



Photo # 16: Light standard on the west parapet in Span 1. Note the missing handhole cover with exposed wires.



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224

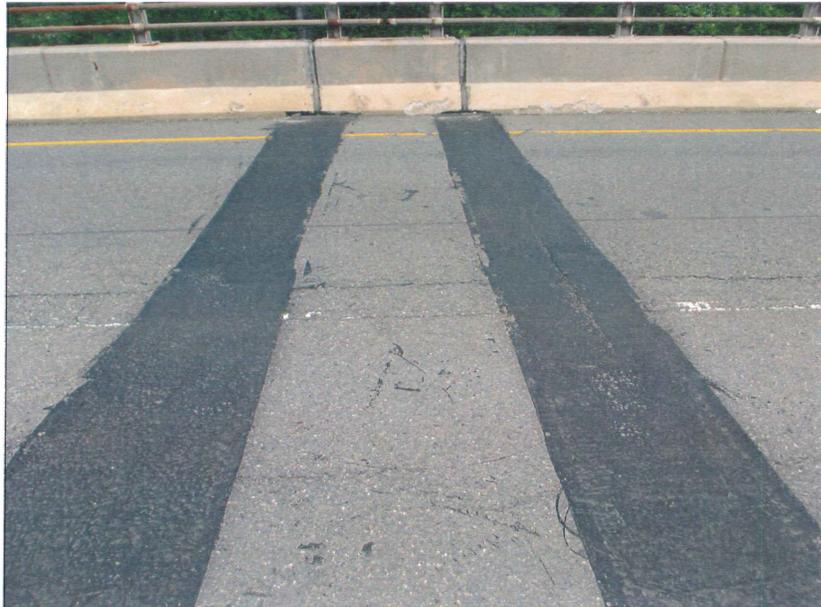


Photo # 17: Asphaltic plug joint at Pier 1.

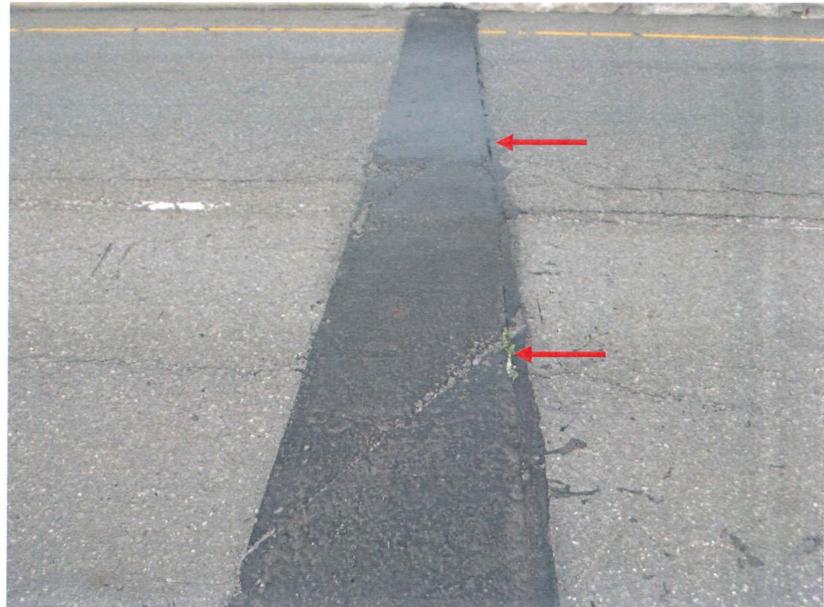


Photo # 18: Asphaltic plug joint at Pier 5. Note the adhesion separation cracks.



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 19: Elastomeric bearing for Girder G3 at the North Abutment. Note the gap under the bearing pad.



Photo # 20: Fixed bearing for Girder G4 at Pier 5 in Span 6. Note the areas of rust in the bearing.



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 21: Expansion bearing for the cap girder at the west column of Pier 1. Note the gap under the masonry plate and section loss in the anchor bolt nut.



Photo # 22: Fixed bearing for the cap girder at the east column of Pier 1. Note the missing anchor bolt nut.



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 21: Expansion bearing for the cap girder at the west column of Pier 1. Note the gap under the masonry plate and section loss in the anchor bolt nut.



Photo # 22: Fixed bearing for the cap girder at the east column of Pier 1. Note the missing anchor bolt nut.

Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 23: West side of Girder G1 at Pier 1 in Span 1. Note the gap under the nut.



Photo # 24: East side of Girder G4 at Pier 1 in Span 1. Note the bleeding rust and impacted rust between hinge plate and web.



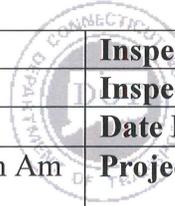
Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 25: East side of Girder G3 at Pier 1 in Span 2. Note that the cotter pin is missing.



Photo # 26: East side of Girder G4 at the South Abutment. Note the section loss along the bottom of bearing stiffeners and the bottom of web between bearing stiffeners (painted over).



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 27: West side of Girder G1 at Pier 5 in Span 5. Note the section loss along the bottom of web and the bearing stiffener with a rust hole (painted over).



Photo # 28: West side of Girder G4 between the 1st and 2nd cross frames from Pier 6 in Span 7. Note the section in the bottom flange and web and the rust hole in the web stiffener.



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 29: East side of Girder G4 near Pier 8 in Spans 8 and 9. Note the areas of repair at the bottom of the web and bearing stiffeners. Also note the crack in the pier cap and pedestal.



Photo # 30: West side of Girder G4 at Pier 1 in Span 2. Note the section loss in the web.



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 31: West side of Girder G2 at Pier 7 in Span 7. Note the cracked weld.



Photo # 32: West side of Girder G3 at Pier 7 in Span 7. Note the cracked weld.

Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 33: South Abutment elevation.



Photo # 34: South Abutment stem below Girder G1. Note the spall with exposed rebar and adjacent hollow area.

Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 35: Southwest Wingwall elevation.



Photo # 36: South elevation of Pier 2.



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 37: East end of Pier 2 in Span 3. Note the spall with exposed rebar in the pier cap and the vertical crack in the pedestal. Also, note that the pedestal is slightly undermined due to a void.



Photo # 38: South face of Pier 6 at the east end. Note the hollow area, cracks and spall.



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224

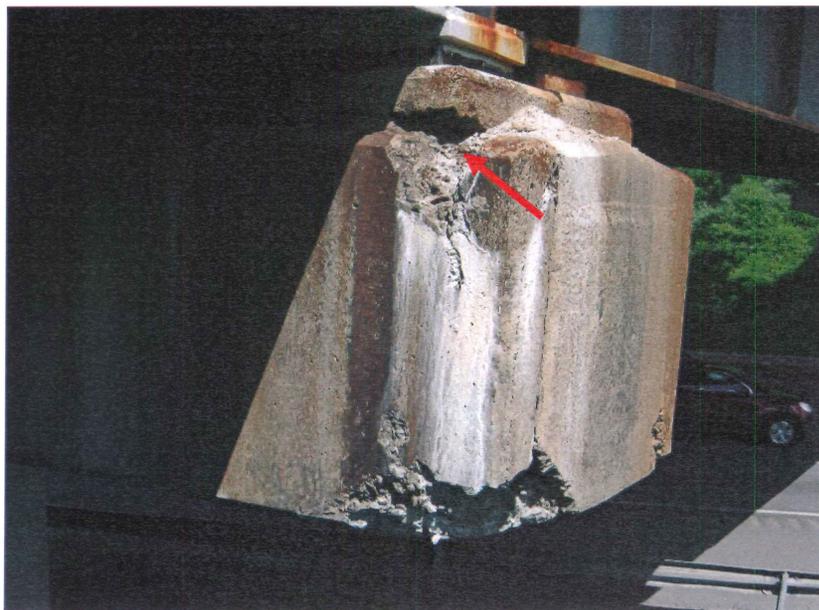


Photo # 39: South face of Pier 7 at the east end. Note the spalls and undermining of the pedestal.



Photo # 40: South side of Pier 1 cap girder near Girder G4 in Span 1. Note the area of pitting in the bottom flange.



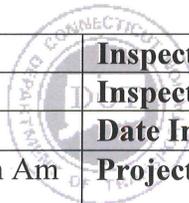
Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 41: North side of Pier 1 cap girder near Girder G4. Note the rust hole at the bottom of the web stiffener.



Photo # 42: Downstream view.



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 43: Upstream view.



Photo # 44: Approach guiderail at the northwest corner.



Bridge No.:	03313	Inspected by:	Suresh Dontula
Town:	New Britain, CT	Inspected by:	Amit KC
Feature Carried:	I-84 TR 815	Date Inspected:	April 22, 2014
Feature Crossed:	I-84 EB, Rte. 72 WB, Rte. 372, Pan Am RR and Quinnipiac River	Project No.:	170-3224



Photo # 45: Three cable guiderail at the southeast corner.



Photo # 46: South approach pavement.

Your Agency Name

Your Office Name

Your Department Name

Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 03313

Agency ID: 03313

SR: 63.8 SD/FO: SD

IDENTIFICATION

State 1: 09 Connecticut Struc Num 8: 03313
 Facility Carried 7: I-84 TR 815 Location 9: I84 WB EXT 35 TO RT 72 EB
 Rte.(On/Under) 5A: Route On Structure Rte. Signing Prefix 5B: 1 Interstate Hwy
 Level of Service 5C: 7 Ramp Route Number 5D: 00084
 Directional Suffix 5E: 4 West % Responsibility: 0.00
 SHD District 2: 01 County Code 3: Hartford
 Place Code 4: NEW BRITAIN Mile Post 11: 0.230 mi
 Feature Intersected 6: I-84EB,RTE 72,372,B&M RR
 Latitude 16: 41° 14' 06" Longitude 17: 072° 49' 24"
 Border Bridge Code 98: Unknown (P)
 Border Bridge Number 99: NA

INSPECTION

Frequency 91: 24 months Inspection Date 90: 7/30/2014 Next Inspection: 4/22/2016
 FC Frequency 92A: 24 months FC Inspection Date 93A: 7/30/2014 Next FC Inspection: 4/22/2016
 UW Frequency 92B: NA UW Inspection Date 93B: NA Next UW Inspection: NA
 SI Frequency 92C: 24 months SI Date 93C: 7/30/2014 Next SI: 4/22/2016
 Element Frequency: 24 months Element Insp. Date: 4/10/2012 Next Elem. Insp.: 7/30/2016

STRUCTURE TYPE AND MATERIALS

Number of Approach Spans 46: 0 Number of Spans Main Unit 45: 9
 3 Steel
 Deck Type 107: 1 Concrete-Cast-in-Place
 Wearing Surface 108A: 6 Bituminous
 Membrane 108B: 2 Preformed Fabric
 Deck protection 108C: None

CLASSIFICATION

Defense Highway 100: 1 STRAHNET hwy Parallel Structure 101: No || bridge exists
 Direction of Traffic 102: 1 1-way traffic Temporary Structure 103: Unknown (NBI)
 Highway System 104: 1 On the NHS NBIS Length 112: Long Enough
 Toll Facility 20: 3 On free road Functional Class 26: 11 Urban Interstate
 Defense Hwy 110: 1 STRAHNET hwy Historical Significance 37: 5 Not eligible for NRHP
 Owner 22: 01 State Highway Agency
 Custodian 21: 01 State Highway Agency

AGE AND SERVICE

Year Built 27: 1969 Year Reconstructed 106: -1
 Type of Service on 42A: 6 2d level interchg
 Type of Service under 42B: 8 Hwy-waterway-RR
 Lanes on 28A: 1 Lanes under 28B: 7 Detour Length 19: 3.7 mi
 ADT 29: 18,528 Truck ADT 109: 9% Year of ADT 30: 2013

CONDITION

Deck 58: 6 Satisfactory Super 59: 4 Poor Sub 60: 5 Fair
 Culvert 62: N N/A (NBI) Channel/Channel Protection 61: 7 Minor Damage

LOAD RATING AND POSTING

Inventory Rating Method 65: 1 LF Load Factor Operating Rating Method 63: 1 LF Load Factor
 Inventory Rating 66: HS24.8 Operating Rating 64: HS41.3
 Design Load 31: 5 MS 18 (HS 20) Posting 70: 5 At/Above Legal Loads
 Posting Status 41: A Open, no restriction

GEOMETRIC DATA

Length Max Span 48: 108.92 ft Structure Length 49: 928.15 ft
 Curb/Sdwk Width L 50A: 0.00 ft Curb/Sidewalk Width R 50B: 0.00 ft
 Width Curb to Curb 51: 27.89 ft Width Out to Out 52: 31.50 ft
 Approach Roadway width 32: (w/ shoulders) 27.89 ft Median 33: 0 No median
 Deck Area: 29,219.40 sq. ft
 Skew 34: 0.00° Structure Flared 35: 0 No flare
 Vertical Clearance 10: 328.05 ft Horizontal Clearance 47: 27.56 ft
 Minimum Vertical Clearance Over Bridge 53: 328.05 ft
 Minimum Vertical Underclearance Reference 54A: H Hwy beneath struct
 Minimum Vertical Underclearance 54B: 16.83 ft
 Minimum Lateral Underclearance Reference R 55A: H Hwy beneath struct
 Minimum Lateral Underclearance R 55: 12.47 ft
 Minimum Lateral Underclearance L 56: 11.81 ft

APPRAISAL

Bridge Rail 36A: 0 Substandard Approach Rail 36C: 1 Meets Standards
 Transition 36B: 1 Meets Standards Approach Rail Ends 36D: 1 Meets Standards
 Str Evaluation 67: 4 Minimum Tolerable Deck Geometry 68: 9 Above Desirable Crit
 Underclearance, Vertical and Horizontal 69: 6 Equal Minimum
 Waterway Adequacy 71: 9 Above Desirable Approach Alignment 72: 8 Equal Desirable Crit
 Scour Critical 113: 8 Stable Above Footing

PROPOSED IMPROVEMENTS

Bridge Cost 94: \$1,000 Type of Work 75: 38 Other Structural
 Roadway Cost 95: \$1,000 Length of Improvement 76: 0.3 ft
 Total Cost 96: \$2,000 Future ADT 114: 8,732
 Year of Cost Estimate 97: 2000 Year of Future ADT 115: 2029

NAVIGATION DATA

Navigation Control 38: Permit Not Required
 Vertical Clearance 39: 0.0 ft Horizontal Clearance 40: 0.0 ft
 Pier Protection 111: Unknown (NBI) Lift Bridge Vertical Clearance 116: 0.0 ft

Your Agency Name

Your Office Name

Your Department Name

Structure Inventory and Appraisal Sheet (English Units)

ELEMENT CONDITION STATE DATA

Str Unit	Elm/Env	Description	Units	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4	% in 5	Qty. St. 5
0	14/3	P Conc Deck/AC Ovly	(SF)	29,219	100%	29,219	0%	0	0%	0	0%	0	0%	0
0	107/3	Paint Stl Opn Girder	(LF)	3,648	83%	3,028	10%	365	5%	182	2%	73	0%	0
0	161/3	Paint Stl Pin/Hanger	(EA)	8	75%	6	25%	2	0%	0	0%	0	0%	0
0	205/3	R/Conc Column	(EA)	9	100%	9	0%	0	0%	0	0%	0	0%	0
0	215/3	R/Conc Abutment	(LF)	63	97%	61	3%	2	0%	0	0%	0	0%	0
0	231/3	Paint Stl Cap	(LF)	75	93%	69	5%	4	1%	1	1%	1	0%	0
0	233/3	P/S Conc Cap	(LF)	212	53%	112	35%	75	12%	25	0%	0	0%	0
0	305/3	Asphaltic Plug Joint	(LF)	278	94%	261	6%	17	0%	0	0%	0	0%	0
0	310/3	Elastomeric Bearing	(EA)	36	100%	36	0%	0	0%	0	0%	0	0%	0
0	311/3	Moveable Bearing	(EA)	1	100%	1	0%	0	0%	0	0%	0	0%	0
0	313/3	Fixed Bearing	(EA)	25	52%	13	48%	12	0%	0	0%	0	0%	0
0	321/3	R/Conc Approach Slab	(EA)	2	100%	2	0%	0	0%	0	0%	0	0%	0
0	330/3	Metal Rail Uncoated	(LF)	2,031	100%	2,031	0%	0	0%	0	0%	0	0%	0
0	331/3	Conc Bridge Railing	(LF)	2,031	100%	2,031	0%	0	0%	0	0%	0	0%	0
0	357/3	Pack Rust Smart Flag	(EA)	1	0%	0	100%	1	0%	0	0%	0	0%	0
0	359/3	Soffit Smart Flag	(EA)	1	0%	0	0%	0	100%	1	0%	0	0%	0
0	363/3	Section Loss SmFlag	(EA)	1	0%	0	100%	1	0%	0	0%	0	0%	0
0	371/3	Free Fall Pipes, Scu	(EA)	3	100%	3	0%	0	0%	0	0%	0	0%	0

ADDITIONAL FIELD NOTES

AND

BACK-UP MATERIALS

4/29/14
SOF
AKG CW

HINGE DATA SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: See below Date: See below

Bridge No.: 03313

I-84 TR 815/I-84 EB, RT 72 WB & B&M R.R.

Town: NEW BRITAIN

Measurements Reviewed By: JM

Date: 7/2/2010

Hinge Located: Span 1 at Pier 1

Span 1 at Pier 1

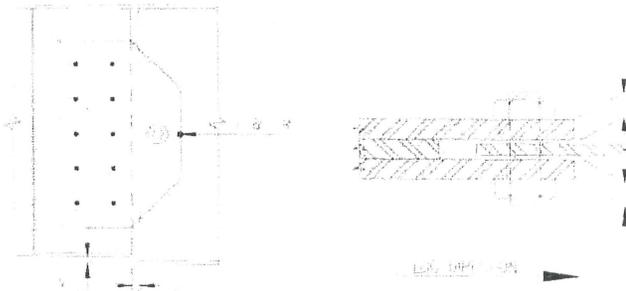
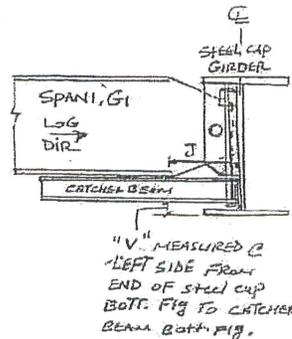
Effective span for Movement: 0

Page: 29 of 118

Beam No.	V (IN)	J (IN)	R (IN)	L (IN)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments
								4/13/12 YS T=50°
1	7- 6/16	17- 4/16	12/16	15/16	Hanger Rods See Photo 24	N	CP & TW	Evidence of leakage onto P&H assembly (not thru jt). 3/8" gap under @ Nut <u>(S)</u> side; Lt. bleeding rust on hinge plate and pin. 3/8" pack rust between pin plate and girder web. Measured by JC on 5/26/10.
Δ 1	7- 5/16"	17- 4/16"	13/16"	15/16"	"	N	"	E. cotter pin not properly installed Δ
2	8-12/16	17- 1/16	14/16	1	Hanger Rods See Photo 24	N	CP & TW	3/16" gap under @ Nut <u>(S)</u> side, Lt. abrasion rust on hinge plate to web. Left cotter pin improperly installed. Due to lack of clearance, nut is adjacent to cotter pin hole. 3/8" pack rust between pin plate and girder web. Measured by JC on 5/26/10.
Δ 2	8- 11/16"	17- 1/16"	7/8"	15/16"	"	N	"	See above comments Δ
3	7-15/16	17-10/16	12/16	12/16	Hanger Rods See Photo 24	N	CP & TW	1/8" gap under W. nut <u>(S)</u> side, Lt abrasion rust on hinge plate to web. 3/8" pack rust between pin plate and girder web. Measured by JM on 5/18/10. 1/8" gap @ E. nut Δ
Δ 3	7- 15/16"	17- 11/16"	13/16"	15/16"	"	N	"	See above comments Δ
4	8-13/16	17-10/16	1- 3/16	1-12/16	Hanger Rods See Photo 24	N	CP & TW	9/16" gap under W. nut <u>(S)</u> side, Lt. abrasion rust on hinge plate to web. 3/8" pack rust between pin plate and girder web. Measured by JM on 5/18/10. E. cotter pin improperly installed Δ
Δ 4	8 13/16"	17 3/8"	1 1/4"	1 1/8" w	"	N	"	Hvy. rust & bleeding rust on girder web Δ E. cotter pin improperly installed Δ Rend. areas of peeling paint @ rods & nuts Δ

Notes:

- For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.
- All measurements are taken in reference to log direction.
 - V : Vertical misalignment of girders @ left edge of girder's bottom flange.
 - J : Joint opening between webs, measured just above the bottom flange fillet, on the left face of the girder's web.
- Use a permanent marker to indicate locations of field measurements.
 - CP: Cotter Pin
 - TW: Tack Weld



29/48-106

HINGE DATA SHEET

Form BRI-30, Rev. 9/97

Measurements Taken By: See below Date: See below

Bridge No.: 03313

I-84 TR 815/I-84 EB, RT 72 WB & B&M R.R.

Town: NEW BRITAIN

Measurements Reviewed By: JM

Date: 7/2/2010

Hinge Located: Span 2 at Pier 1

Span 2 at Pier 1

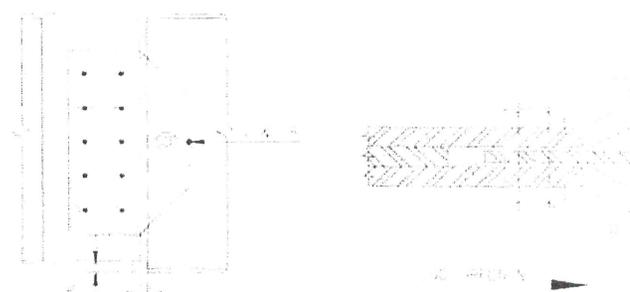
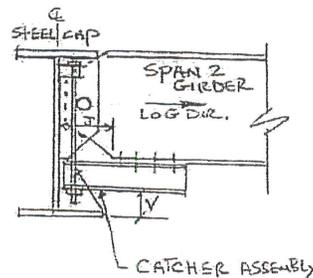
Effective span for Movement: 0

Page: 32 of 118

Beam No.	V (IN)	J (IN)	R (IN)	L (IN)	Secondary System Type	Gap ¹ (Y/N)	Nut Restraint System	Comments
								4/13/12 YS T=50° (left lane) 4/14/12 YS T=60° (right lane)
1	9- 8/16	17- 5/16	15/16	1- 3/16	Hanger Rods See Photo 24	N	CP & TW	Bleeding rust due to water leakage and 9/16" gap under W. Plate. Measured by JC on 5/26/10. W. cotter pin missing
Δ 1	9 1/2"	17- 5/16"	15/16"	1- 3/16"	"	N	"	see above comments
2	10- 3/16	17- 4/16	1- 2/16	12/16	Hanger Rods See Photo 24	N	CP & TW	1/8" gap under W. Nut at W side. 1/4" gap under E. plate. Measured by JC on 5/26/10.
Δ 2	10- 3/16"	17- 3/16"	1 1/8"	13/16"	"	N	"	SEE ABOVE COMMENTS
3	10- 1/16	16-10/16	14/16	1- 3/16	Hanger Rods See Photo 24	N	CP & TW	7/16" gap under W. plate abras. Rust between hinge plate and web. 3/8" gap under east nut (7/16)" gap under W. nut at W side. Measured by JC on 5/26/10. W. cotter pin improperly installed
Δ 3	10 1/8"	16 7/8"	13/16"	1- 3/16"	"	N	CP & TW	E. cotter pin missing
4	10-10/16	17- 8/16	1	1- 4/16	Hanger Rods See Photo 24	N	CP & TW	9/16" pack rust between hinge plate & web, W. side & 1/4" pack rust at E. side. Bleeding rust on girder web. Moderate rust at bottom Nut. Measured by JM on 5/18/10.
Δ 4	10 5/8"	17 7/16"	1"	1- 1/4"	"	N	CP & TW	See above comments
								Gen. Notes:
								- Peeling paint @ bars & nuts

Notes:

- For Hinge assemblies with a redundant support system, indicate if there is a gap between the redundant system (bearing) and the bottom flange of the suspended girder.
- All measurements are taken in reference to log direction.
 - V : Vertical misalignment of girders @ left edge of girder's bottom flange.
 - J : Joint opening between webs, measured just above the bottom flange fillet, on the left face of the girder's web.
- Use a permanent marker to indicate locations of field measurements.
 - CP: Cotter Pin
 - TW: Tack Weld



901
101
3/4/25