BRIDGE SAFETY INSPECTION
STATE PROJECT NO. 170-2357

ROUTINE INSPECTION REPORT FOR BRIDGE NO. 02375

RECEIVED
JAN 10 2007
CONNECTICUT - DOT
BRIDGE SAFETY & EVALUATION

CARRYING
SR 500 TR 801
OVER
I-84 EB & I-84 TR 833
EAST HARTFORD, CONNECTICUT

STEEL MULTI GIRDER

INSPECTED DECEMBER 1, 2006

Prepared by:

Garg Consulting Services, Inc.
ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS

2096A Silas Deane Highway
Rocky Hill, CT 06067

Prepared for:

AI Engineers, Inc.

919 Middle Street
Middletown, CT 06457

Bridge Number **02375**

Inspected By: P. Gagnon & S. Watrous

Sufficiency Rating 81.62

Previous Inspection Date 3/2/2005

BS&E Received ☐ Data Entry By: BSE

Copies Made ☐ Data Entry Date: 2/6/07

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BRIDGE SAFETY & EVALUATION

STRUCTURE EVALUATION

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

SHEET_____ OF_____ (INSP. REPORT)

90) Inspection Date	Inspection Team	91) Frequency	Class:
12/01/06	2024	24	02

Indepth Insp	Deck Survey	Access	Flagman
1/18/2000		21	000

CRITICAL FEATURE INSPECTIONS

	Type	Frequency	Team	Date
Fracture:				
Uwater:				
Special:				

RED FLAG ☐

IDENTIFICATION

Bridge Name

Town Name EAST HARTFORD Town Code 22630

5) Inventory Route:

A) Record Type 1 D) Route Number 00500

B) Signing Prefix 3 State Highway E) Directional Suffix 0 NA

C) Level of Service 7 Ramp, Wye, Co

6) Feature Intersected I-84 EB AND I-84 TR 833

7) Facility Carried: SR 500 TR 801

9) Location NB ACCESS FROM ROUTE 2 WB

11) Milepoint 0.09 Miles

16) Latitude 41 deg 45 min 52.48 sec deg min sec

17) Longitude 72 deg 39 min 10.17 sec deg min sec

98) Border Bridge:

A) State Code 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 3 B) Design Type 0 Other 02

45) Number of Spans, Main Unit 7 005

46) Number of Approach Spans 0 0002

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 Performed Fabric

C) Type of Deck Protection 0 None

AGE AND SERVICE

27) Year Built 1964 106) Year Reconstructed 1989

42) Type of Service:

A) On 1 Highway B) Under 1 HIGHWAY

28) Number of Lanes:

A) On 1 B) Under 4

29) Average Daily Traffic 4100

109) Percent Truck 5 %

30) Year of ADT 2002

19) Bypass, Detour Length 1 miles

GEOMETRIC DATA

48) Length of Max Span 75 ft

49) Structure Length 419 ft

50) Curb or Sidewalk Widths:

A) Left 1.5 ft B) Right 1.5 ft

51) Brg Rdwy width,curb-curb 39.0 ft

52) Deck Width, Out-Out 44.5 ft

32) Approach Roadway Width 39 ft

33) Bridge Median 0 No Median

Deck Area 18687 sqft

34) Skew Angle 99 deg

35) Structure Flared 0

10)Inv. Rte. Min. Vert Clearance 99 ft 99 in

47) Log Inv. Rte. Total Horiz Clr.: 39.0 ft

47) RLog Inv. Rte. Total Horiz. Clr.: ft

53) Min Vert Clearance Over Bridge 99 ft 99 in

54) Min Vert Under Clearance H Ref 14 ft 10 in Ref

55) Min Lat Under Clearance on Right H Ref 9.3 ft Ref

56) Min Lat Under Clearance on Left 3.8 ft 03.7 ft

BRIDGE COMMENTS

STRUCTURE EVALUATION

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

SHEET_____ OF_____ (INSP. REPORT)

Bridge Number	02375	NBIS Length	
Town Name	EAST HARTFOR	Yes 419	
Facility Carried	SR 500 TR 801		
Feature Crossed	I-84 EB AND I-84 TR 833		

Inspected By: P. GOODWIN & S. WARDOUS

CLASSIFICATION

112) NBIS Bridge Length	Yes		
104) Highway System	1	On System	
26) Functional Class	11	Urban Principal Arterial - Interstate	12
100) Defense Highway	1	Defense Highway	
101) Parallel Structure	N	No parallel structure exists	
102) Direction of Traffic	1	1-way traffic	
103) Temporary Structure			
110) Designated National Network	0	Not 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			
38) Navigation Control			
39) Navigation Vert Clr.		40) Navigation Horiz Clr.	
116) Vert-Lift Brg Nav Min			
111) Pier Abutment Protection			

PROPOSED IMPROVEMENTS

75A) Type of Work Proposed			
75B) Work Done By			
76) Length of Struct. Improvement	ft		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. _____ Project No. _____ Advertised _____

POSTED SIGNS & UTILITIES

Other Posted Signs 1	~~0~~				—
Other Posted Signs 2	~~0~~				—
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-TrailerTruck	tons		Actual P.L. 3S2 Truck	tons	
Rec. P.L. Semi-TrailerTruck	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 UnderClearance	ft	in		ft	In
Posted Speed Limit	mph				mph
Utility					

LOAD RATING AND POSTING

31) Design Load	5	Evaluation Code	L	
63) Operating Rating Type	1	Year of Evaluation	2000	
64) Operating Rating	72.2	70) Bridge Posting	5	
65) Inventory Rating Type	1	41) Structure Status	A	A
66) Inventory Rating	43.3	Open, no restriction		

CONDITION

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

APPRAISALS

		Rating	By
67) Structure Evaluation	5	4	DLC
68) Deck Geometry	9	9	DLC
69) Under Clear Vert & Horiz	3	3	DLC
71) Waterway Adequacy	N	N	DLC
72) Approach Rdwy Alignment	8	8	DLC
113) Scour Critical			

Items 58 Thru 72 Checked By: DLC

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	No		Barrel Ladder	No
Fence Present	No	N	Stand Pipes	No
Fence Height	0.0 ft	ft	Cat Walks	No
Fence Type			Movable Inspection System	No
Fence Material			Loose Concrete Checked?	No
Fence Top Type				

INSPECTION COMMENTS

Proposed Next Indepth Insp Year 2010

REVIEWED BY: D Colacchio Date 1/9/07

BRIDGE NUMBER	TOWN NAME	NBIS BRG LGTH	
02375	EAST HARTFORD	Yes	419
FACILITY CARRIED	FEATURE CROSSED		
SR 500 TR 801	I-84 EB AND I-84 TR 833		

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
DIVISION OF BRIDGE SAFETY EVALUATION

INVENTORY ROUTE UNDER STRUCTURE EVALUATION

FORM BRI-25 REV 10/00

INSPECTED BY: P. GOODWIN
S. WATKINS

REVIEWED BY: J Colavecchio DATE: 1/9/07

SHEET_____ OF_____ (INSP. REPORT)

IDENTIFICATION

DESCRIPTION: I-84 EB

5) INVENTORY ROUTE:

A) RECORD TYPE	A	
B) ROUTE SIGNING PREFIX	1	Interstate Highway
C) DESIGNATED LEVEL OF SERVICE	1	Mainline
D) ROUTE NO.	00084	
11) MILE POINT (INV.RTE)	63.51	

CLASSIFICATION

26) INV. RTE. FUNCT CLASSIFICATION	11	Urban Principal Arterial - I
100) DEFENSE HIGHWAY DESIGNATION	1	Defense Highway
** 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

AGE & SERVICE

+ 28B) NUMBER OF INV.ROUTE LANES	2	
* 29) ADT (INV. RTE)	41900	43550
* 109) TRUCK ADT % (INV.RTE)	15	
* 30) YEAR OF ADT (INV. RTE)	2002	2005
* 41) INV ROUTE OPERATIONAL STATUS	A	Open, no restriction — A
19) BYPASS DETOUR LENGTH	1	Miles

POSTED SIGNS

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

COMMENTS:

ALL MEASUREMENTS WERE DOUBLE-CHECKED

GEOMETRIC DATA

+ 10) INV. RTE. MIN. VERT. CLEARANCE	18 ft 7 in	ft in
+ 47) LOG INV. RTE. TOTAL HORIZ CLR.	37.4 ft	37.9 ft
+ 47) RLOG INV. RTE. TOTAL HORIZ CLR.	ft	. ft
+ 53) LOG MIN VERT CLR OVER BRG RDWAY	17 ft 11 in	17 ft 10 in
+ 53) RLOG MIN VERT CLR OVER BRG RDWAY	ft in	ft in
+ 55) MIN LAT UNDERCLR ON RIGHT	H 9.7 ft	H 09.6 ft
+ 56) MIN LAT UNDERCLR ON LEFT	3.8 ft	03.7 ft

* 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 GUI 2

BRIDGE NUMBER	TOWN NAME	NBIS BRG LGTH	
02375	EAST HARTFORD	Yes	419
FACILITY CARRIED	FEATURE CROSSED		
SR 500 TR 801	I-84 EB AND I-84 TR 833		

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
DIVISION OF BRIDGE SAFETY EVALUATION

INVENTORY ROUTE UNDER STRUCTURE EVALUATION

FORM BRI-25 REV 10/00

INSPECTED BY: P. GOODWIN
S. WATTERS

REVIEWED BY: D Colaveschi DATE: 1/9/07

SHEET_____ OF_____ (INSP. REPORT)

IDENTIFICATION

DESCRIPTION: I-84 TR 833

5) INVENTORY ROUTE:

A) RECORD TYPE	B	
B) ROUTE SIGNING PREFIX	1	Interstate Highway
C) DESIGNATED LEVEL OF SERVICE	7	Ramp, Wye, Connector,
D) ROUTE NO.	00084	
11) MILE POINT (INV.RTE)	63.51	

AGE & SERVICE

+ 28B) NUMBER OF INV.ROUTE LANES	2	
* 29) ADT (INV. RTE)	7700	
* 109) TRUCK ADT % (INV.RTE)	5	
* 30) YEAR OF ADT (INV. RTE)	1992	
* 41) INV ROUTE OPERATIONAL STATUS	A	Open, no restriction
19) BYPASS DETOUR LENGTH	1	Miles

GEOMETRIC DATA

+ 10) INV. RTE. MIN. VERT. CLEARANCE	15 ft 1 in	ft in
+ 47) LOG INV. RTE. TOTAL HORIZ CLR.	38.2 ft	ft
+ 47) RLOG INV. RTE. TOTAL HORIZ CLR.	ft	ft
+ 53) LOG MIN VERT CLR OVER BRG RDWAY	14 ft 10 in	ft in
+ 53) RLOG MIN VERT CLR OVER BRG RDWAY	ft in	ft in
+ 55) MIN LAT UNDERCLR ON RIGHT	H 9.3 ft	ft
+ 56) MIN LAT UNDERCLR ON LEFT	4.7 ft	ft

CLASSIFICATION

26) INV. RTE. FUNCT CLASSIFICATION	11	Urban Principal Arterial - I
100) DEFENSE HIGHWAY DESIGNATION	1	Defense Highway
** 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 ft in ft in

COMMENTS:

~~Ramp - No updated ADT info available.~~

* 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 GUI 2

Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 02375 | Agency ID: 02375 | Sufficiency Rating: 97.6

IDENTIFICATION

State 1: 09 Connecticut | Struc Num 8: 02375
Facility Carried 7: SR 500 TR 801 | Location 9: NB ACCESS FROM ROUTE 2 WB
Rte.(On/Under)5A: Route On Structure | Rte. Signing Prefix 5B: 3 State Hwy
Level of Service 5C: 7 Ramp | Rte. Number 5D: 00500
Directional Suffix 5E: 0 N/A (NBI) | % Responsibility : 0
SHD District 2: 01 | County Code 3: Hartford
Place Code 4: EAST HARTFORD | Mile Post 11: 0.150 mi
Feature Intersected 6: I-84 EB AND I-84 TR 833
Latitude 16: 41d 45' 52" | Longitude 17: 072d 39' 10"
Border Bridge Code 98: Not Applicable (P)
Border Bridge Number 99: NA

INSPECTION

Frequency 91: 24 months | Inspection Date 90: 12/1/2006 | Next Inspection: 12/01/2008
FC Frequency 92A: NA | FC Inspection Date 93A: NA | Next FC Inspection: NA
UW Frequency 92B: NA | UW Inspection Date 93B: NA | Next UW Inspection: NA
SI Frequency 92C: NA | SI Date 93C: NA | Next SI: NA
Element Frequency: 24 months | Element Inspection Date: 12/01/2006 | Next Elem. Insp. Due: 12/01/2008

CLASSIFICATION

Defense Highway 100: 1 STRAHNET hwy | Parallel Structure 101: No || bridge exists
Direction of Traffic 102: 1 1-way traffic | Temporary Structure 103: Not Applicable (P)
Highway System 104: 1 On the NHS | NBIS Length 112: Long Enough
Toll Facility 20: 3 On free road | Functional Class 26: 12 Urban Fwy/Expwy
Historical Significance 37: 5 Not eligible for NRHP
Owner 22: 1 State Highway Agency
Custodian 21: 1 State Highway Agency

STRUCTURE TYPE AND MATERIALS

Number of Approach Spans 46: 2 | Number of Spans Main Unit 45: 5
Main Span Material/Design 43A/B:
3 Steel | 02 Stringer/Girder
Approach Span Material/Design 44A/B:
3 Steel | 02 Stringer/Girder
Deck Type 107: 1 Concrete-Cast-in-Place
Wearing Surface 108A: 6 Bituminous
Membrane 108B: 2 Preformed Fabric
Deck Protection 108C: None

CONDITION

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

LOAD RATING AND POSTING

Inventory Rating Method 65: 1 LF Load Factor | Operating Rating Method 63: 1 LF Load Factor
Inventory Rating 66: HS23.7 | Operating Rating 64: HS39.7
Design Load 31: 5 MS 18 (HS 20) | Posting 70: 5 At/Above Legal Loads
Posting status 41: A Open, no restriction

AGE AND SERVICE

Year Built 27: 1964 | Year Reconstructed 106: 1989
Type of Service on 42A: 1 Highway
Type of Service under 42B: 1 Highway
Lanes on 28A: 1 | Lanes Under 28B: 4 | Detour Length 19: 1.2 mi
ADT 29: 4,100 | Truck ADT 109: 5 % | Year of ADT 30: 2002

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: 7 | Deck Geometry 68: 9 Above Desirable Crit
Underclearance, Vertical and Horizontal 69: 6 Equal Minimum
Waterway Adequacy 71: N Not applicable | Approach Alignment 72: 7 Above Min Criteria
Scour Critical 113: N Not Over Waterway

GEOMETRIC DATA

Length Max Span 48: 75.1 ft | Structure Length 49: 419.0 ft
Curb/Sdwlk Wdth L 50A: 1.5 ft | Curb/Sidewalk Width R 50B: 1.5 ft
Width Curb to Curb 51: 39.0 ft | Width Out to Out 52: 44.6 ft
Approach Roadway Width 32: (w/ shoulders) 39.0 ft | Median 33: 0 No median
Deck Area: 18,643.1 sq. ft
Skew 34: 99.00 ° | Structure Flared 35: 0 No flare
Minimum Vertical Clearance Over Bridge 53: 328.1 ft
Minimum Vertical Underclearance Reference 54A: H Hwy beneath struct
Minimum Vertical Underclearance 54B: 14.8 ft
Minimum Lateral Underclearance Reference R 55A: H Hwy beneath struct
Minimum Lateral Undrclearance R 55: 9.3 ft
Minimum Lateral Undrclearance L 56: 3.7 ft

PROPOSED IMPROVEMENTS

Bridge Cost 94: $ 1,000 | Type of Work 75: 38 Other Structural
Roadway Cost 95: $ 1,000 | Length of Improvment 76: 0.3 ft
Total Cost 96: $ 2,000 | Future ADT 114: 2,150
Year of Cost Estimate 97: 2000 | Year of Future ADT 115: 2019

NAVIGATION DATA

Navigation Control 38: N NA-no waterway
Vertical Clearance 39: 0.0 ft | Horizontal Clearance 40: 0.0 ft
Pier Protection 111: Not Applicable (P) | Lift Bridge Vertical Clearance 116:

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
UNIT0	14/3	P Conc Deck/AC Ovly	(SF)	18,686	0 %	0	100 %	18,686	0 %	0	0 %	0	0 %	0
UNIT0	107/3	Paint Stl Opn Girder	(LF)	2,440	59 %	1,430	25 %	600	8 %	200	8 %	200	0 %	10
UNIT0	205/3	R/Conc Column	(EA)	20	50 %	10	20 %	4	30 %	6	0 %	0	0 %	0
UNIT0	215/3	R/Conc Abutment	(LF)	139	96 %	133	4 %	6	0 %	0	0 %	0	0 %	0
UNIT0	234/3	R/Conc Cap	(LF)	365	70 %	255	21 %	75	10 %	35	0 %	0	0 %	0
UNIT0	301/3	Pourable Joint Seal	(LF)	440	0 %	0	32 %	140	68 %	300	0 %	0	0 %	0

Structure Inventory and Appraisal Sheet (English Units)

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
UNIT0	305/3	Asphaltic Plug Joint	(LF)	62	65 %	40	35 %	22	0 %	0	0 %	0	0 %	0
UNIT0	311/3	Moveable Bearing	(EA)	42	0 %	0	33 %	14	67 %	28	0 %	0	0 %	0
UNIT0	313/3	Fixed Bearing	(EA)	42	0 %	0	100 %	42	0 %	0	0 %	0	0 %	0
UNIT0	321/3	R/Conc Approach Slab	(EA)	2	0 %	0	100 %	2	0 %	0	0 %	0	0 %	0
UNIT0	331/3	Conc Bridge Railing	(LF)	876	100 %	876	0 %	0	0 %	0	0 %	0	0 %	0
UNIT0	359/3	Soffit Smart Flag	(EA)	1	0 %	0	0 %	0	0 %	0	100 %	1	0 %	0
UNIT0	363/3	Section Loss SmFlag	(EA)	1	0 %	0	0 %	0	100 %	1	0 %	0	0 %	0
UNIT0	370/3	deck drainage system	(LF)	120	58 %	70	8 %	10	33 %	40	0 %	0	0 %	0
UNIT0	371/3	Free Fall Pipes, Scu	(EA)	6	67 %	4	0 %	0	33 %	2	0 %	0	0 %	0

CONNECTICUT DEPARTMENT OF TRANSPORTATION
FRACTURE CRITICAL MEMBERS/FATIGUE PRONE DETAILS
INSPECTION DATA SHEET

Form BRI12, Rev 9/97

Bridge No: 02375

Year Built: 1964

Fracture Critical Inspection Date:

FC Insp Freq: Months **FC Type Code:**

Town: East Hartford ADT: 4,100 Year of ADT: 2002

Facility Carried: SR 500 TR 801 Structure Type: 302 % Truck: 5

Feature Intersected: I-84 EB & I-84 TR 833

Access Equipment Needed: 30' Lift

Traffic Control Required: Lane closures on I-84 EB and I-84 TR 833

Reference to Plans: Proj. No. 42-135, 1962

MEMBER/DETAIL TYPE # M

Member/Detail Type: Partial length welded cover plates ☐ Fracture Critical

Fatigue Category: E' Steel Type: A-373 ☒ Fatigue Prone

Description: Spans 1-6 have rolled beam girders with bottom flange partial length welded cover plates.

Inspection Procedure: 100% hands on.

MEMBER/DETAIL TYPE #

Member/Detail Type: ☐ Fracture Critical

Fatigue Category: Steel Type: ☐ Fatigue Prone

Description:

Inspection Procedure:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

INSPECTION REPORT TRANSMITTAL FORM
Form BRI-27, Rev. 6/00

Structure No.	02375	Town	EAST HARTFORD
Inspection Date	12/1/2006	Inspectors	GCS

TABLE OF CONTENTS

Loose Forms (not bound in report)

	Number of Sheets Enclosed
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Flagging Memos	0
PONTIS Element Data Collection Form	2
Plan Sheets PROJ. NO. 42-135, 1962 Already on file ☑	0

Bound Report Pages

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Table of Contents		1
Executive Summary		3
Field Notes		46
Calculations:	Load Rating Evaluation	0
	Quantities & Cost Estimate	0
Photo Sheets		13
Photo Images		26

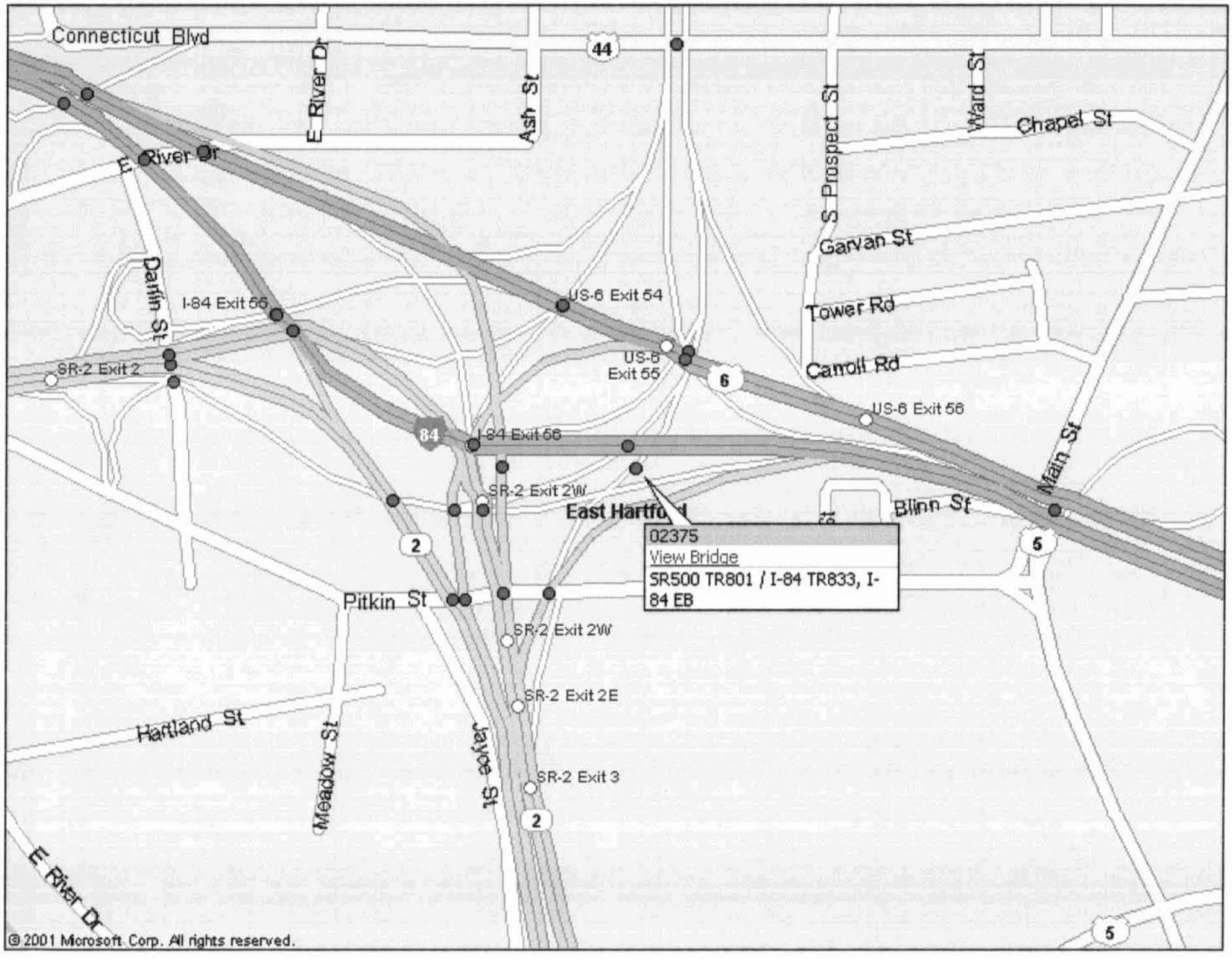
Forms

BRI-10, Concrete Deterioration Worksheet	1
BRI-12, Fracture Critical Inspection Sheet	1
BRI-13, Photo Log	2
BRI-14, Sliding Bearing Measurement Sheet	6
BRI-17, Joint Measurement Sheet	1
BRI-18, Bridge Inspection Form	6
BRI-19, Highway Bridge Inventory Form	2
BRI-25, Highway Bridge Under Entry Form	2
BRI-27, Inspection Report Transmittal Form	1

Comments:

Attached: Location Map

LOCATION MAP



EXECUTIVE SUMMARY
12/1/06

Bridge No. 02375 carries SR 500 TR 801 (Ramp from Route 2 WB to SR 500 NB) over I-84 EB and I-84 TR 833 in East Hartford, CT. The seven-span steel multi-girder bridge has an overall length of 419 feet and a curb-to-curb width of 39 feet. The bridge was built in 1964 and rehabilitated in 1989. The superstructure supports a reinforced concrete deck with bituminous concrete overlay. Reinforced concrete abutments and piers support the superstructure. BMM Nos. 02-458 and 05-361 have not been completed since the last inspection, however there is a new BMM associated with this report. According to the information on file with the Connecticut Department of Transportation, the Inventory rating for an HS-20 loading is 43.3 tons. Deterioration found during this inspection is significant enough to warrant a reanalysis.

A routine inspection was performed on December 1, 2006 and found the bridge to be in poor condition (overall rating = 4). The deficiencies found on the bridge and recommendations for repairs are as follows:

Deck:

The deck is in fair condition (Rating = 5).

1. The bituminous overlay has random transverse and longitudinal cracks and paving seams open up to ¼ inch wide. Random potholes in spans 5-7 have been patched however, there are scattered new potholes up to 12-inch diameter x up to 2-inch deep. There is light to moderate raveling throughout with a 13-foot x 2-foot x up to 1-inch deep area of severe raveling with water ponding in span 3 right shoulder. Patch the potholes and severe raveling (2 CF).

2. The deck underside has 11.4% total deterioration with a maximum of nearly 20% in span 5. The deterioration consists of spalls with exposed rebar up to 2-foot x 4-foot x 2-inch deep (span 5), hollow areas up to 5-foot x 8½-foot (span 3), widespread map cracks with isolated efflorescence, and random transverse cracks with scattered efflorescence. The deck ends over the piers are typically deteriorated with hollow areas and spalls with exposed rebar throughout. Remove deteriorated concrete and patch (4 CY).

3. Safety walks have random transverse hairline cracks and light scale throughout. Span 5, west safety walk has an area of severe scale 13 feet long x up to full width x up to 1 inch deep. No action is required at this time.

4. Span 2 scupper has been cleared since the previous inspection. The scuppers in spans 3 and 6 at the west side are clogged with leaves and debris. Clear the scuppers (2 EA).

5. Pier 2, north elevation scupper downspout is disconnected and misaligned at the bell connection. Pier 3, south elevation scupper downspout has two cracked elbows. Pier 6, south elevation scupper downspout (cast iron) has heavy rust with perforations along the pier cap. Realign the pier 2 downspout (1 EA), replace the pier 3 cracked elbows (2 EA), and replace the pier 6 cast iron downspout with new PVC downspout (20 LF).

6. Span 7 weep extension in bay 1 is missing. Install a new weep extension (4 LF).

7. The pourable seal joints at the south abutment and piers have random holes up to 2-inch x 6-inch and separations up to 1½-feet long. There is active leakage throughout the joints. Reseal the joints (440 LF).

8. The joint over pier 6 has a 5-inch x 2-inch x 1-inch deep spall in the header. Clean and patch the spall (<1 CF).

Superstructure:

The superstructure is in poor condition (Rating = 4). Rating was lowered from '5'.

1. Expansion sliding bearings have light to heavy rust with areas of laminated rust and pack rust up to 3/8 inches thick between bearing plates. Expansion bearings at the south abutment and piers 1, 2, 3, and 5 are frozen at 55°F. Fixed bearings have heavy rust with laminated rust. There is also pack rust up to ½ inch thick between the sole and masonry plates. Clean and paint all bearings (fixed and expansion, 84 EA) and reset all frozen bearings (28 EA). Consideration should be given to replacing all expansion bearings with elastomeric bearing type (42 EA).

2. Span 5, girder 6, west anchor bolt is missing. Install anchor bolt (1 EA).

3. Girder ends have heavy rust with section loss. Bottom flange loss is not in critical areas. Webs at piers typically have section loss up to 1/16-inch with greater section loss at the following locations:
   - -Span 3, girder 1 at pier 2 has up to 1/8-inch loss x up to 4 inches high x 1 foot long (20% loss at critical section).
   - -Span 6, girder 2 at pier 5 has 3/16-inch loss x 2 inches high x 30 inches long (30% loss at critical section).
   - -Span 6, girder 3 at pier 5 has 3/16-inch loss x 5 inches high x 2 feet long (25% loss at critical section).
   - -Span 6, girder 3 at pier 6 has 1/8-inch loss x up to 10 inches high x 2½ feet long on the west side and up to ¼-inch loss x 3 inches high x 12 inches long on the east side (total 50% loss at the critical section).
   - -Span 6, girder 4 at pier 5 has 1/8-inch loss x 4 inches high x 20 inches long (20% loss at the critical section).

   Strengthen girder webs at the above 5 locations (100 LBS) and clean and paint girder ends x 3 feet long and end diaphragms (6000 SF).

Substructure:

The substructure is in satisfactory condition (Rating = 6).

1. Abutment stems and backwalls have random vertical hairline cracks up to full height with isolated efflorescence. North abutment stem has four hollow areas up to 2 feet x 1½ feet. No action is required at this time.

2. Pier caps and columns have random vertical and horizontal cracks up to 1/8-inch wide throughout. Spalls and hollow areas are as noted below:
   - -Pier 1 cap has six hollow areas up to 2 feet x 3 feet. Pier 1 column has four hollow areas up to 5 feet x 1.5 feet.

-Pier 2 cap has two hollow areas up to 1 foot x 1½ foot.
-Pier 3 cap has five hollow areas up to 4 feet x 6 inches and one 12-inch x 3-inch x 4-inch spall.
-Pier 4 cap has three hollow areas up to 15 inches x 7 inches and two spalls up to 1 foot x 8 inches x 1 inch deep with exposed rebar.
-Pier 5 cap has six hollow areas up to 3 feet x 1½ feet and two spalls up to 2 feet x 1½ feet x 2 inches deep with exposed rebar. Pier 5 column has six hollow areas up to full width x 2 feet and eight spalls up to 3½ feet x 2 feet x 5 inches deep with exposed rebar.
-Pier 6 cap has twelve hollow areas up to 4 feet x 2½ feet and three spalls up to 1½ feet x 1½ feet x 2 inches with exposed rebar. Pier 6 column has three hollow areas up to 2 feet x 2½ feet and two spalls up to 2½ feet x 5 inches x 4 inches with exposed rebar.

Remove loose concrete and clean and patch all deteriorated concrete (2 CY).

3. Random pedestals have spalled and hollow corners and edges with exposed rebar. No bearings are undermined. Remove loose concrete and clean and patch all deteriorated concrete (<1 CY).
   -Pier 2 pedestals have three hollow areas up to 8 inches x 8 inches.
   -Pier 3 pedestals have a 4 inch x 4 inch hollow area and a 18 inch x 7 inch x 2 inch deep spall.
   -Pier 5 pedestals have a 3 feet x 8 inch hollow area and five spalls up to 10 inches x 8 inches x 3 inches deep.
   -Pier 6 pedestals have six hollow areas up to 4 feet x 8 inches and three spalls up to 4 feet x 7 inches x 5 inches deep.

4. The joint between the northeast wingwall and the north abutment stem is open 1-1/16" at the bottom and 1-7/16" at the top (measurements taken at chisel marks), no change since previous inspection. Monitor at future inspections.

Approach Condition:

The approaches are in satisfactory condition (Rating = 6). Rating was upgraded from '5'.

1. Approach pavement at both approaches have random transverse and longitudinal cracks and open paving seams up to 4 inches wide (south approach on right shoulder line). There are also random areas of raveling up to 20 feet long x 1 foot wide x up to 1¾ inches deep. South approach potholes have been patched since the previous inspection, however the riding surface remains bumpy and uneven. Patch the open paving seam in the south approach (1 CF) and consider routine maintenance.

Connecticut Department of Transportation

Bridge Inspection Report BRI-18

BRIDGE #: 02375 **INSPECTION DATE:** 12/1/2006

INSPECTION TYPE: Routine **PREVIOUS INSPECTION DATE** 3/2/2005 **SNOOPER REQUIRED:** No

INSPECTION PERFORMED BY: GCS **SNOOPER USED:** No

TOWN: EAST HARTFORD **FEATURE CARRIED:** SR 500 TR 801 **YEAR BUILT:** 1964

LOCATION: NB ACCESS FROM ROUTE **FEATURE INTERSECTED** I-84 EB AND I-84 TR 833 **YEAR REBUILT:** 1989

MAIN MATERIAL: Steel **MAIN DESIGN:** Stringer/Multi-beam or Gird

INSPECTION VISITS:

Inspection Date:	12/1/2006	Start Time:	9:00 AM
Temperature:	60 °F	End Time:	3:00 PM
Inspection Date:	12/7/2006	Start Time:	8:30 AM
Temperature:	45 °F	End Time:	3:30 PM
Inspection Date:	12/10/2006	Start Time:	6:00 AM
Temperature:	45 °F	End Time:	1:00 PM
Inspection Date:	12/15/2006	Start Time:	12:30 PM
Temperature:	55 °F	End Time:	1:15 PM

INSPECTORS:

Inspector:	P. Goodwin	Task:	Team Leader
Inspector:	S. Watrous	Task:	Assistant Team Leader
Inspector:	C. Lewis	Task:	Inspector
Inspector:	D. Shi	Task:	Inpsector
Inspector:	D. Colavecchi	Task:	Inspector

58. DECK

Reinforced concrete deck with bituminous concrete overlay and waterproofing membrane. Deck is in fair condition.

OVERALL RATING 5

	RATING	
OVERLAY	5	Random transverse and longitudinal cracks open up to ¼" wide. Paving seams are open up to ¼". Random potholes in spans 5-7 have been patched, scattered new potholes up to 12" dia. x up to 2" deep. Light to moderate raveling throughout with a 13' x 2' x up to 1" deep area of severe raveling with water ponding in span 3 right shoulder. See field note sheets 5-8 and photo 8.
DECK STR. CONDITION	5	The deck underside has 11.4% total deterioration with a maximum of nearly 20% deterioration in span 5. The deterioration consists of spalls with exposed rebar up to 2' x 4' x 2" deep (span 5), hollow areas up to 5' x 8½' (span 3), widespread map cracks with isolated efflorescence, and random transverse cracks with scattered efflorescence. The deck end haunches over piers are typically deteriorated with hollow areas and spalls with exposed rebar throughout. Random hollow areas in overlay are an indication of deteriorated concrete in the top surface. See field note sheets 17-23 & 28 and photos 9 & 10.
CURBS	7	Vertical faced granite curbs have random scrape marks and cracked mortar. Average curb reveal is 7-3/4".
MEDIAN	N	
SIDEWALKS	6	Safety walks have random transverse hairline cracks and light scale throughout. Span 5, west safety walk has an area of severe scale 13'L x up to FW x up to 1"D. See field note sheets 5-8 and photo 11.
PARAPET	7	Parapets have random vertical and transverse hairline cracks with isolated efflorescence and scattered areas of light to moderate scale.
RAILING	6	Standard two pipe railing has random areas of moderate to heavy rust with isolated laminated rust. Approximately 40% of the anchor bolt nuts have rosebudding.
PAINT	N	
FENCE	N	
DRAINS	4	Span 2 scupper has been cleared since the previous inspection. There are clogged scuppers in spans 3 and 6. See photo 13. Pier 1, south elevation scupper downspout (PVC) is not connected to the left-in-place metal section attached to the pier. Pier 2, north elevation scupper downspout is disconnected and misaligned at the bell connection. Pier 3, south elevation scupper downspout (PVC) has two cracked elbows and leaking. See photo 12. Pier 5, south elevation downspout ends ±4" from ground and is clogged with leaves due to lack of clearance. Pier 6, south elevation scupper downspout (cast iron) has heavy rust with perforations along the pier cap and is rusted out 6" high at the bottom, just above the bell fitting. See photo 14. The

BRIDGE #: 02375 **INSPECTION DATE:** 12/1/2006

58. DECK — Reinforced concrete deck with bituminous concrete overlay and waterproofing membrane. Deck is in fair condition. **OVERALL RATING** 5

drain pipe below the bell fitting has heavy laminated rust and a 6" x 4" cut hole, pipe is clogged below this hole.

Span 7 is missing a PVC weep near the north abutment adjacent to girder 1 (no rusting of the steel was noted).

See field note sheets 5-8 & 30-41.

LIGHTING STANDARD	N	Abandoned light pole anchor bolts and conduits on parapets.
UTILITIES TYPE/SIZE	8	Rigid metal conduit along the east fascia in spans 6 & 7.
CONSTRUCTION JOINTS	N	
EXPANSION JOINTS	5	The joints at the south abutment and piers 1-6 are concrete headers with pourable joint sealant. The pourable sealant has random holes up to 2" x 6" and separations up to 1½'L. The concrete headers have light to moderate scale and random cracks. The joint over pier 3 has a full width crack (transverse to the joint) across both headers and the east side of the joint has settled ¼". See photo 15. The joint over pier 6 has a 5" x 2" x 1" deep spall in the header. The asphaltic plug joint at the north abutment has a total of 22' of adhesion cracks and wear throughout with exposed aggregate. There is active joint leakage throughout all joints. See field note sheets 5-8 and photo 16.

59. SUPERSTRUCTURE — Steel multi-girder rolled beams with cover plates. Superstructure is in poor condition. Rating lowered from '5'. **OVERALL RATING** 4

	RATING	
BEARING DEVICES	4	Steel on bronze sliding plate expansion bearings at south abutment and piers 1-5. Curved sole plate sliding bearings at pier 2 (G4-G6) and pier 6. Sliding bearings have light to heavy rust with areas of laminated rust and pack rust up to 3/8" thick between bearing plates. Bearings at the south abutment and piers 1, 2, 3 & 5 are frozen and show no evidence of movement at 55°F. See photos 17 & 19. Span 5, girder 6, west anchor bolt is missing and sliding plate is twisted. See photo 18. Anchor bolt nuts have section loss up to 90%. Keepers are typically in place at areas of missing anchor bolts. See field note sheets 11-16. Fixed bearings have heavy rust with laminated rust. There is also pack rust up to ½" thick between the sole and masonry plates. Rating lowered from '5'. See field note sheets 19-24 and photo 24.
STRINGERS	N	
GIRDERS	4	Rolled steel beams have heavy rust with section loss up to 1/8" at the bottom flanges of girder ends. See photos 20 & 22. Webs typically have section loss up to 1/16" with greater section loss at the following locations: Span 3, girder 1 at pier 2 has up to 1/8" loss x up to 4"H x 1'L (20% loss at critical section); span 6, girder 2 at pier 5 has 3/16" loss x 2"H x 30"L (30% at critical section); span 6, girder 3 at pier 5 has 3/16" loss x 5"H x 2'L (25% loss at critical section) and at pier 6 has 1/8" loss x up to 10"H x 2½'L on the west side and up to ¼" loss x 3"H x 12"L on the east side (total 50% loss at the critical section); and span 6, girder 4 at pier 5 has 1/8" loss x 4"H x 20"L (20% loss at the critical section). See photo 21. There is up to ¼" pack rust between the end diaphragm top flanges and deck haunches, lifting the deck off of the diaphragms. End diaphragms have areas of heavy rust with up to 1/8" deep pitting on the flanges. Rating lowered from '5'. See field note sheets 17-27.
FLOOR BEAMS	N	
TRUSSES-GENERAL	N	
TRUSSES-PORTALS	N	

BRIDGE #: 02375 **INSPECTION DATE:** 12/1/2006

59. SUPERSTRUCTURE

Steel multi-girder rolled beams with cover plates. Superstructure is in poor condition. Rating lowered from '5'.

OVERALL RATING 4

TRUSSES-BRACING	N	
PAINT	5	100% paint loss typical at girder ends up to 3'L and end diaphragms. Scattered areas of paint loss throughout remainder of girders.
RUST	5	Heavy laminated rust with section loss on girder ends and bearings and at other random areas. Isolated areas of light rust scattered throughout remainder of girders. Also, see "Bearing Devices' and 'Girders' items above.
MACHINERY MOV SPAN	N	
RIVETS & BOLTS	N	
WELDS & CRACKS	7	Cover plate end welds (fatigue category E & E') were checked 100% hands-on. Random diaphragm connection welds are sloppy.
TIMBER DECAY	N	
CONCRETE CRACKING	N	
COLLISION DAMAGE	8	
MEMBER ALIGNMENT	5	Expansion bearings are frozen throughout, prohibiting normal thermal movement. Span 5, girder 6 bearing at pier 4, sliding plate is twisted. Pack rust between bearing elements is raising superstructure. See field note sheets 11-16.
DEFLECT. UNDER LOAD	N	(N) Normal (E) Excessive
VIBR. UNDER LOAD	N	(N) Normal (E) Excessive
STAND PIPES	N	
BARREL LADDERS	N	

ARE BARREL LADDERS OSHA COMPLIANT? NA

60. SUBSTRUCTURE

Reinforced concrete abutments and piers. Substructure is in satisfactory condition.

OVERALL RATING 6

	RATING	
ABUTMENTS-STEM	6	Abutment stems have random vertical hairline cracks up to full height with isolated efflorescence. South abutment stem under girder 2 pedestal has a full height x 1/16" crack. Mapcracks typical in concrete patches. North abutment stem has four hollow areas up to 2' x 1½'. Pedestals have random vertical hairline cracks. See field note sheets 29 & 30.
ABUTMENTS-BACKWALL	7	Backwalls have random vertical hairline cracks with isolated efflorescence and rust bleed. See field note sheets 29 & 30.
ABUTMENTS-FOOTINGS	N	Not visible.
ABUT.-SETTLEMENT	8	See "Abutments-Wingwalls" below for open construction joint between the northeast wingwall and north abutment.
ABUTMENTS-WINGWALLS	7	The joint between the northeast wingwall and the north abutment stem is open 1-1/16" at the bottom and 1-7/16" at the top (measurements taken at chisel marks), no change since previous inspection. See field note sheets 31 & 32.
PIERS/BENTS-CAPS	6	Pier caps have random vertical and horizontal cracks up to 1/8" wide and areas of hairline map cracking with isolated efflorescence and rust bleed. There are random hollow areas up to 4' x 2½' (pier 6, north elevation) and spalls with exposed rebar up to 20" x 22" x 2" deep (pier 5, south elevation).

Connecticut Department of Transportation

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BRIDGE #: 02375 **INSPECTION DATE:** 12/1/2006

60. SUBSTRUCTURE

Reinforced concrete abutments and piers. Substructure is in satisfactory condition.

OVERALL RATING 6

Concrete pedestals have random vertical and horizontal cracks up to 1/16" wide. Random pedestals have hollow areas up to 3' x 8" (pier 5 under girder 2) and corner and edge spalls with exposed rebar up to 4' x 7" x 5" (pier 6 under girder 5) with no undermining of bearings.

See field note sheets 33-44 and photos 14, 23 & 24.

PIERS/BENTS-PILE BENT	N	
PIERS/BENTS-COLUMN	6	Columns have random vertical and horizontal cracks up to 1/8" wide with isolated efflorescence. Map cracks typical in concrete patches. There are random hollow areas up to 5' x 1½' (pier 1, column 4) and spalls with exposed rebar up to 3½' x 2' x 5" deep (pier 5, column 3), especially at piers 5 & 6. Rating lowered from '6'. See field note sheets 33-44 and photo 25.
PIERS/BENTS-FOOTINGS	N	Not visible.
PIERS/BENTS-SETTLEMent	8	
EROSION-SCOUR	8	Erosion rated '8'. Rip rap along southeast wingwall and south abutment, east end. Scour rated 'N'.
CONCRETE CRACK-SPALL	6	See above items.
STEEL CORROSION	N	
PAINT	N	
TIMBER DECAY	N	
COLLISION DAMAGE	8	
DEBRIS	7	Light accumulation of debris on the pier caps.

61. CHANNEL & CHANNEL PROTECTION

OVERALL RATING N

62. CULVERTS & RETAINING WALL

OVERALL RATING N

APPROACH CONDITION

Approaches are in satisfactory condition. Rating upgraded from '5'.

OVERALL RATING 6

	RATING	
APPROACH SLAB	6	Not visible (paved over) except the south approach paving seam along the right shoulder line is open, exposing the slab 2½'L x 4"W (no deficiencies in slab). Rating is based on bituminous concrete pavement condition. See below.
RELIEF JOINTS	N	
APPROACH GUIDE RAIL	7	Continuous concrete Jersey barrier at the southwest, southeast, and northeast corners have isolated hairline cracks and a 1½' x 1½' x 2" deep spall in the southeast barrier. There is no barrier at the northwest corner due to adjacent Bridge No. 02376 (trailing end). Impact attenuator at southeast barrier end has no deficiencies.
APPROACH PAVEMENT	6	Approach pavement has random transverse and longitudinal cracks and open paving seams up to 4" wide. There are also random areas of raveling up to 20'L x 1'W x up to 1-3/4"D. South approach potholes have been patched since the previous inspection, however the riding surface remains bumpy and uneven. The south approach, right shoulder has settled up to 1" but the transition to the bridge is ramped by the asphaltic plug joint in the right shoulder. Rating upgraded from '5'.

Connecticut Department of Transportation

Bridge Inspection Report BRI-18

BRIDGE #: 02375 **INSPECTION DATE:** 12/1/2006

APPROACH CONDITION Approaches are in satisfactory condition. Rating upgraded from '5'. **OVERALL RATING** 6

See field note sheets 5 & 8 and photo 26.

APPROACH EMBANKMENT 8

TRAFFIC SAFETY FEATURES:

BRIDGE RAILINGS	0	Vertical faced parapet with safety walk (does not meet RB 350 standards).
TRANSITIONS	1	Continuous concrete barrier.
APPROACH GUARDRAILS	1	
APPR. GUARDRAIL ENDS	1	Impact attenuator at southeast barrier end.

LOAD POSTING

SINGLE UNIT (TONS)		
HS (TONS)		
4 AXLE (TONS)		
3S2 (TONS)		
ADVANCE WARNING Y/N		
LEGIBILITY		
VISIBILITY/LOCATION		

MISC.

MIN VERT. UNDERCLR.	14' 10"	Span 2, girder 6 over I-84 TR 833 left lane at left shoulder.
POSTED CLR. UNDER BRIDGE	' "	
POSTED CLR. ON BRIDGE	' "	
ADVANCE WARNING (Y/N)	No	
SPEED LIMIT (IF ANY)	MPH	
CHARACTER OF TRAFFIC		Moderate, mixed.

ADDITIONAL NOTES

-Bridge identification number on parapet is in good condition. ID plates for piers are damaged or missing. See photo 1. Painted ID's are faded.
-Bridge is logged from south to north with girder 1 at the west fascia in all spans which is consistent with previous reports and plans.
-45' lift and 20' ladder used for inspection.
-Span 2 inspected with Bridge No. 02374 and span 6 inspected with Bridge No. 02376.
-BMM Nos. 02-458 & 05-361 have not been addressed at the time of the inspection. A new BMM is associated with this report.

ADDITIONAL COMMENTS:

Attachments: See table of contents.

Connecticut Department of Transportation

Bridge Inspection Report BRI-18

BRIDGE #: 02375 **INSPECTION DATE:** 12/1/2006

Inspectors' Signatures:	1)		Date: 01/09/07
	2)		Date: 01/09/07
	3)		Date: __/__/__
	4)		Date: __/__/__
P.E. Signature:			Date: 01/09/07
P.E.#:		18533	
Reviewed by:		CDOT	Date: 2/16/07

TIME AT SITE

Bridge No. 02375

Proj. # 170-2357

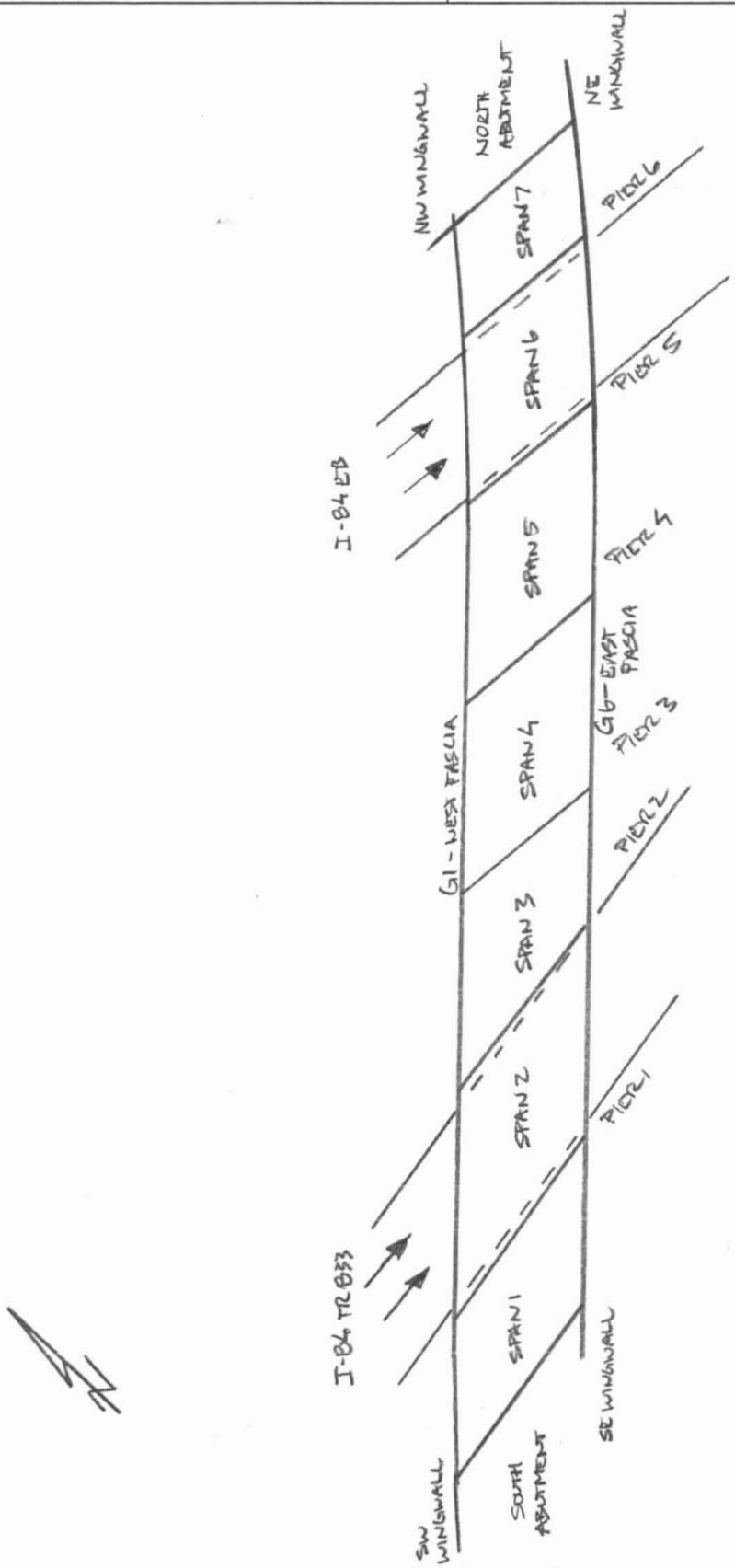
Garg Consulting Services, Inc.
ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS

Sheet 1

Date: 12/1/06	Crew: PDG, SW	
	Equipment Used: 43' Lift	
Time: 0900-1500	Police: N/A (Name/Time)	Flagman: N/A (Name/Time)
Work Done:	Completed spans 3-5.	
Date: 12/7/06	Crew: PDG, SW, CL	
	Equipment Used: 43'Lift, Cube, Crash	
Time: 0830-1530	Police: Desjardin #907 (Name/Time) 0830-1500	Flagman: N/A (Name/Time)
Work Done:	Completed spans 1 & 2. Inspected with Bridge No. 02374.	
Date: 12/10/06	Crew: PDG, DS	
	Equipment Used: 43' Lift, Cube, Crash	
Time: 0600-1300	Police: Rondinone #286 (Name/Time) 0600-1300	Flagman: N/A (Name/Time)
Work Done:	Completed spans 6 & 7. Inspected with Bridge No. 02376.	
Date: 12/15/06	Crew: PDG, SW	
	Equipment Used: Inspection van	
Time: 1230-1315	Police: N/A (Name/Time)	Flagman: N/A (Name/Time)
Work Done:	Inspected top of deck.	
Date:	Crew:	
	Equipment Used:	
Time:	Police: (Name/Time)	Flagman: (Name/Time)
Work Done:		

FIELD NOTES

	PROJ. NO. 170-2357	BRIDGE NO. 02375
	DATE 12/1/06	SHEET 2
PREPARED BY: Garg Consulting Services, Inc. ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS	CREW PDG, SW, CL	

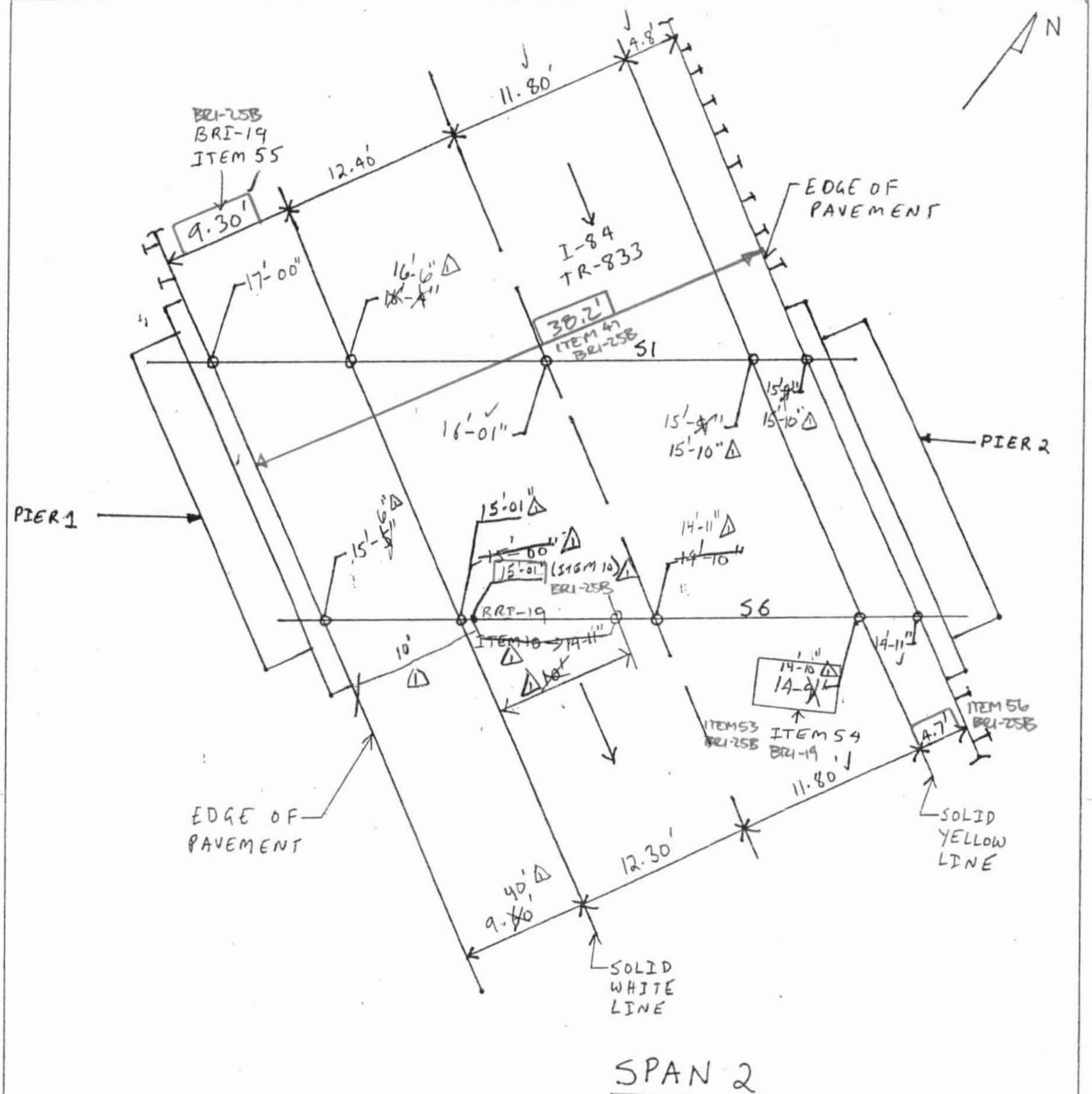


GENERAL KEY PLAN

Revision	Date	Crew	Company	Revision	Date	Crew	Company
Revision	Date	Crew	Company	Revision	Date	Crew	Company

United International Corporation
Engineers and Surveyors

FIELD NOTES	JOB NO. 170-1965	BRIDGE NO. 02375
	DATE: 1/18/00	SHEET 3 ~~11~~ OF ~~61~~
DESCRIPTION: CLEARANCE DIAGRAM	CREW: RDB, SRD, JM	



SPAN 2

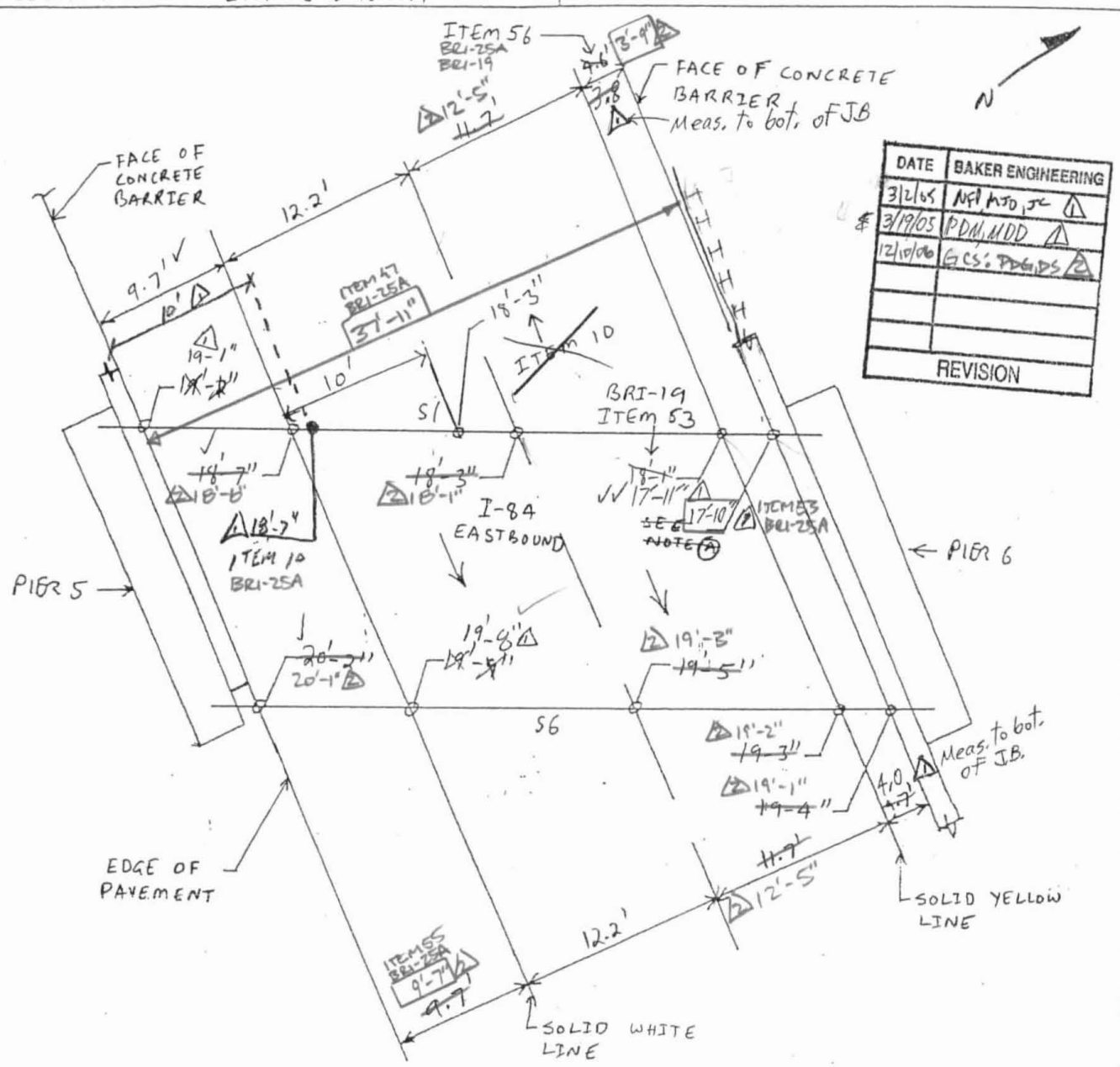
NTS

DATE	BAKER ENGINEERING
3/2/05	NFP, MJO, JC 1
12/7/06	GCS-PG, SW, CL 2
	REVISION

2 NO CHANGES

United International Corporation
Engineers and Surveyors

FIELD NOTES	JOB NO. 170-1965	BRIDGE NO. 02375
	DATE: 02-09-00	SHEET 4 ~~12~~ OF ~~61~~
	CREW: RDB, SRD	
DESCRIPTION: CLEARANCE DIAGRAM		



DATE	BAKER ENGINEERING
3/2/05	NFI, MJO, JC 1
3/19/05	PDM, MDD 1
12/10/06	GCS: PDG, DS 2
REVISION	

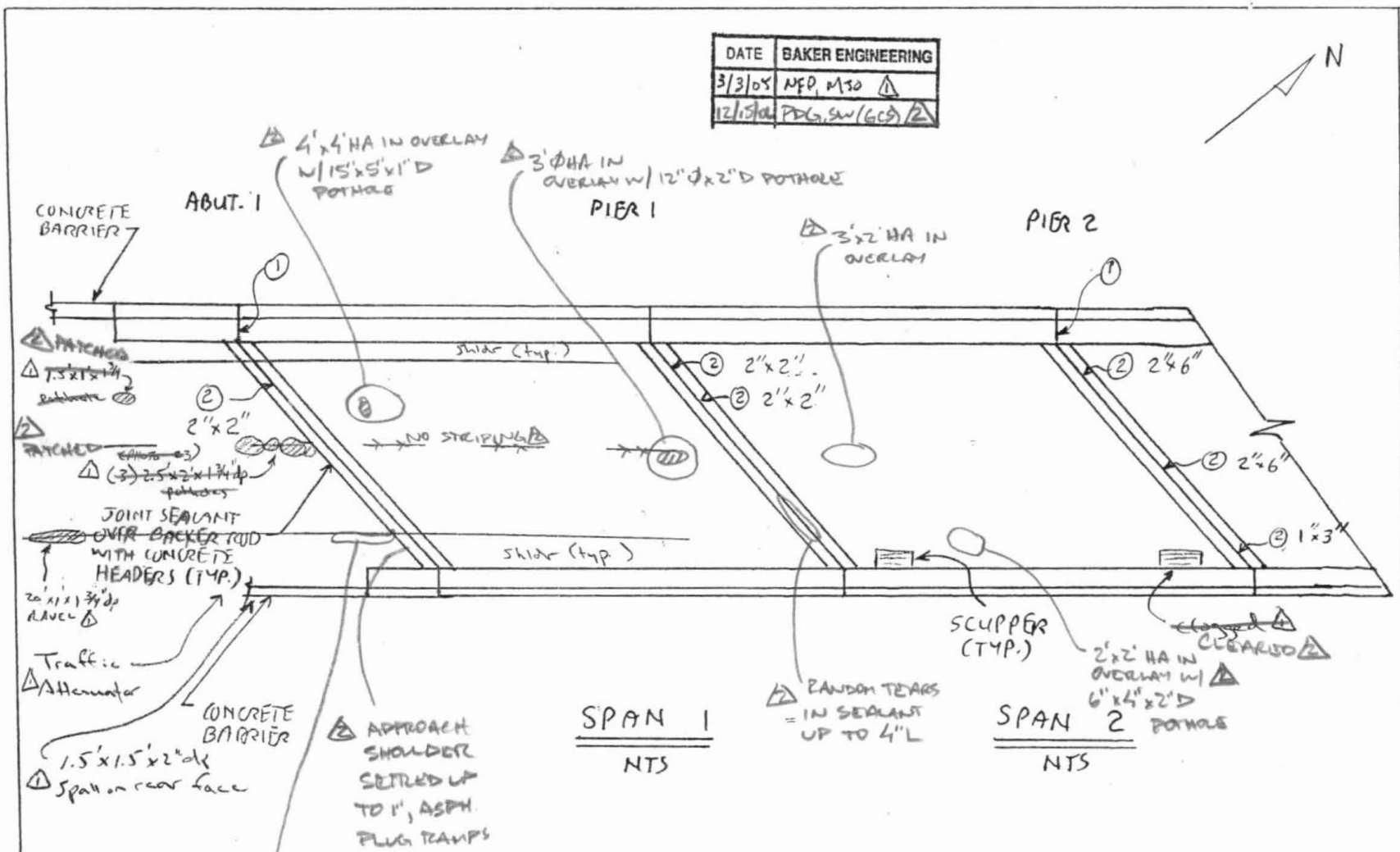
SPAN 6

NTS

NOTE:

~~(A) CLEARANCE COULD NOT BE OBTAINED DUE TO HEAVY ICE ALONG THE BARRIER~~ 1

DATE	BAKER ENGINEERING
3/3/05	NFP, MJO 1
12/15/06	PDG, SW (GCS) 2



NOTES

(A) FOR NOTES, SEE ~~SHEETS 17 & 18~~ 16 SPAN 7

DETERIORATION NOTES

(1) JOINT SEAL SEPARATED FROM CURB AND/OR SAFETY WALK

(2) HOLE IN JOINT SEALANT - SIZE NOTED

DESCRIPTION: TOP OF DECK NOTES

FIELD NOTES

JOB NO. 170-1965 | BRIDGE NO. 02375

DATE: 01-18-00 | SHEET ~~14~~ 15 OF ~~66~~

CREW: RDB, SRD, JM

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Engineers and Surveyors

15/41

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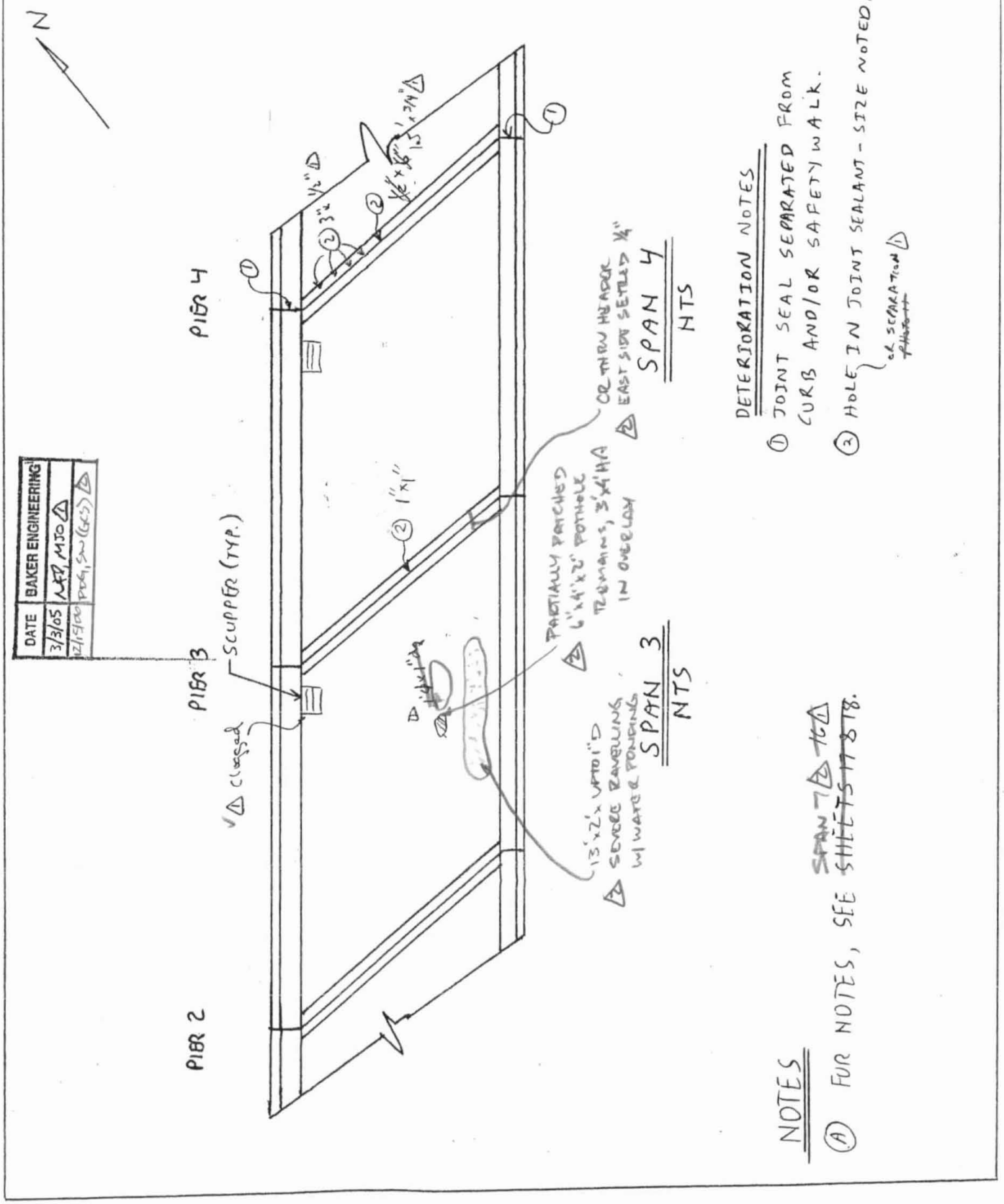
Engineers and Surveyors

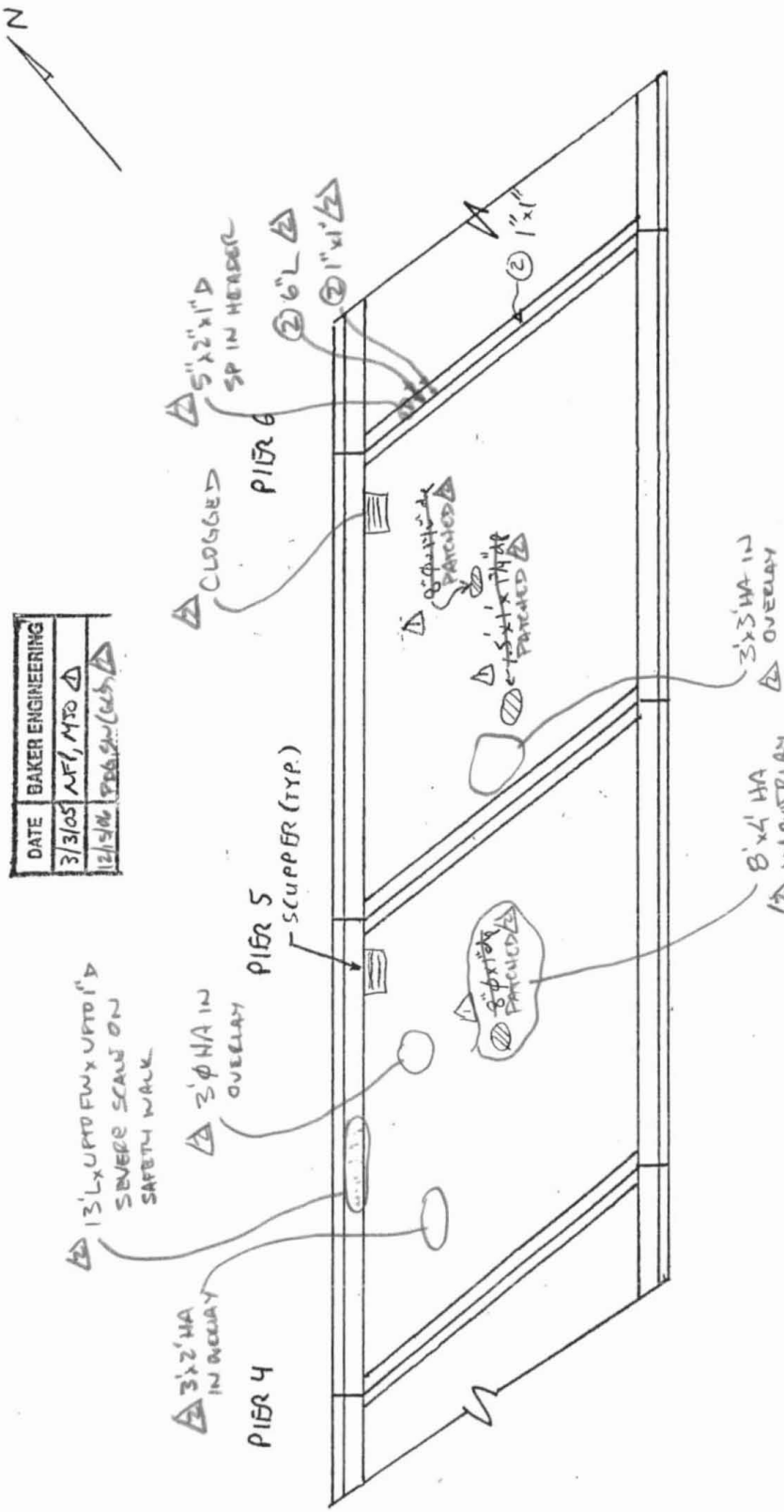
FIELD NOTES	JOB NO. 170-1965	BRIDGE NO. 02375
	DATE: 01-18-00	SHEET ~~15~~ 6 OF ~~16~~
	CREW: RDB, SRD, JM	
DESCRIPTION: TOP OF DECK NOTES		



United International Corporation
Engineers and Surveyors

15/21

FIELD NOTES	JOB NO. 170-1965	BRIDGE NO. 02325
	DATE: 01-18-00	SHEET ~~8~~ 7 OF ~~8~~ 6
	CREW: RDB, SRD, JM	
DESCRIPTION: TOP OF DECK NOTES		



DETERIORATION NOTES

1. JOINT SEAL SEPARATED FROM CURB AND/OR SAFETY WALK.
2. HOLE IN JOINT SEALANT - SIZE NOTED

NOTES

A. FOR NOTES, SEE SPAN 7 ~~SHEETS 17 & 18~~.

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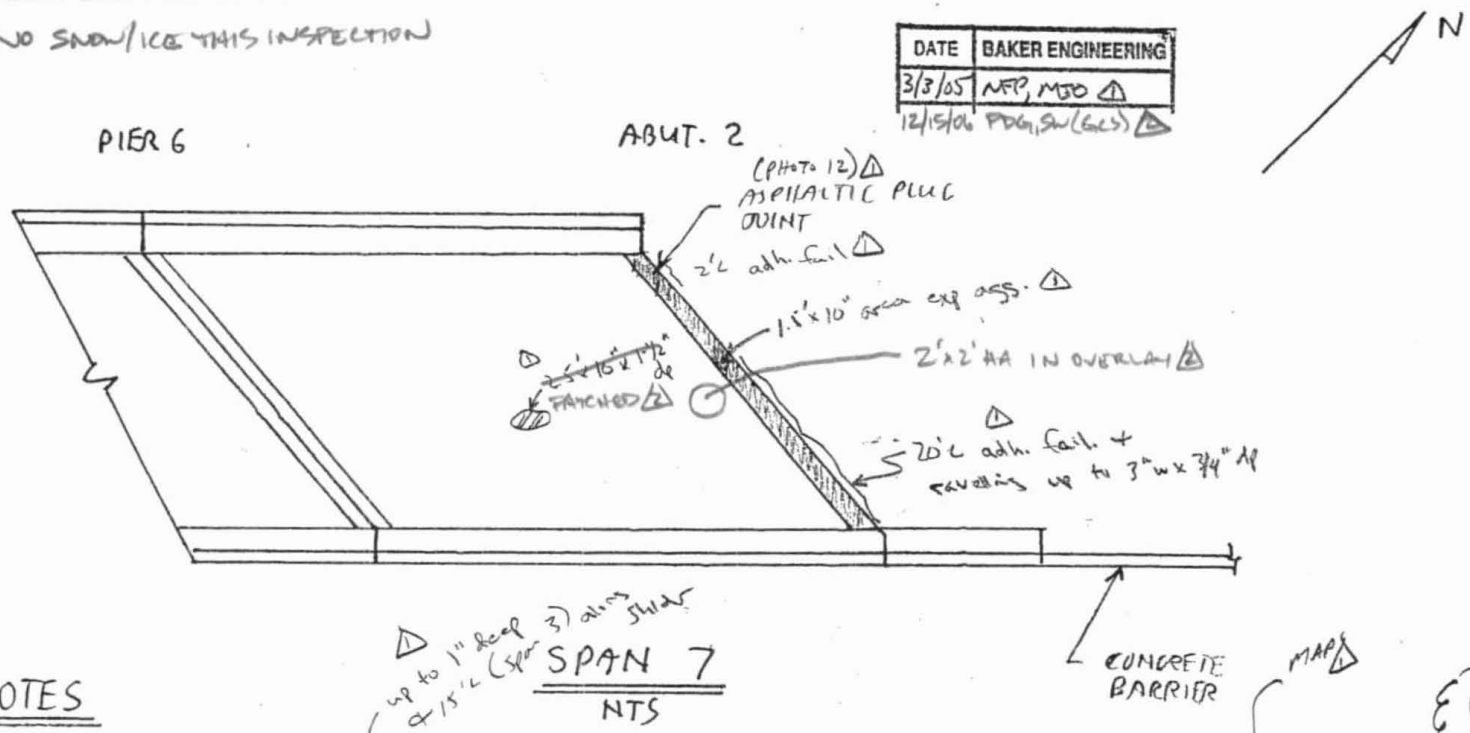
DATE	BAKER ENGINEERING
3/3/05	NFP, MJO △1
12/15/06	PDG, SW (GLS) △2

△2 NO SNOW/ICE THIS INSPECTION



MAP △1

PHOTO NO. 9

NOTES

(A) BITUMINOUS OVERLAY WITH MEMBRANE - OVERLAY EXHIBITS AREAS OF ~~RANDOM~~ CRACKING OR RAVELING UP TO 10' WIDE IN THE TRAVEL LANE FOR ALL SPANS. THE CRACKS ARE UP TO 1/4" WIDE AND EXTEND FOR THE FULL LENGTH IN ALL SPANS. ~~SNOW EXTENDING UP TO 2' FROM EACH CURB CONCEALS THIN PORTION OF THE OVERLAY FROM VIEW - SEE PHOTO 6~~ △2

(B) ~~GRANITE CURBS - THE EAST CURB IS CONCEALED FROM VIEW BY SNOW. APPROXIMATELY 1/2 OF THE HEIGHT OF THE WEST CURB IS ALSO CONCEALED FROM VIEW BY SNOW. THE EXPOSED PORTION OF CURBING EXHIBITS~~ CRACKED, LOOSE OR MISSING JOINT MORTAR AT RANDOM LOCATIONS △1 ~~and ice + snow~~

(C) ~~SAFETYWALKS - BOTH SAFETYWALKS ARE CONCEALED FROM VIEW BY SNOW. CLEANING OF SEVERAL AREAS ALONG THE WEST SAFETYWALK INDICATES THAT THERE IS~~ RANDOM TRANSVERSE HAIRLINE CRACKING AND LIGHT SCALING.

(D) PARAPETS - THE PARAPETS EXHIBIT VERTICAL HAIRLINE CRACKS AT RANDOM LOCATIONS ALONG BOTH VERTICAL FACES. SOME OF THE CRACKS EXTEND ACROSS THE TOP OF THE PARAPETS. ~~THE INSIDE FACE OF THE EAST PARAPET IS APPROXIMATELY 1/2 CONCEALED FROM VIEW BY SNOW.~~ BOTH PARAPETS EXHIBIT LIGHT SCALE.

(E) TWO RAIL BRIDGE RAIL - THERE ARE SMALL ISOLATED AREAS OF MODERATE RUST ALONG THE PIPES WITH AREAS OF HEAVIER RUST AT RANDOM COUPLER LOCATIONS. THE EDGES OF THE BASE PLATES EXHIBIT MODERATE TO HEAVY RUST AND APPROXIMATELY ~~20%~~ △1 40% OF ANCHOR BOLT NUTS EXHIBIT ROSEBUDDING.

PHOTO NO. 12

DESCRIPTION: TOP OF DECK NOTES	FIELD NOTES
CREW: RDB, SRD, JM	DATE: 01-18-00
	JOB NO. 170-1965
	SHEET ~~17~~ 18 OF ~~106~~
	BRIDGE NO. 02325

~~19~~

Baker

SUPPLEMENTAL SHEET

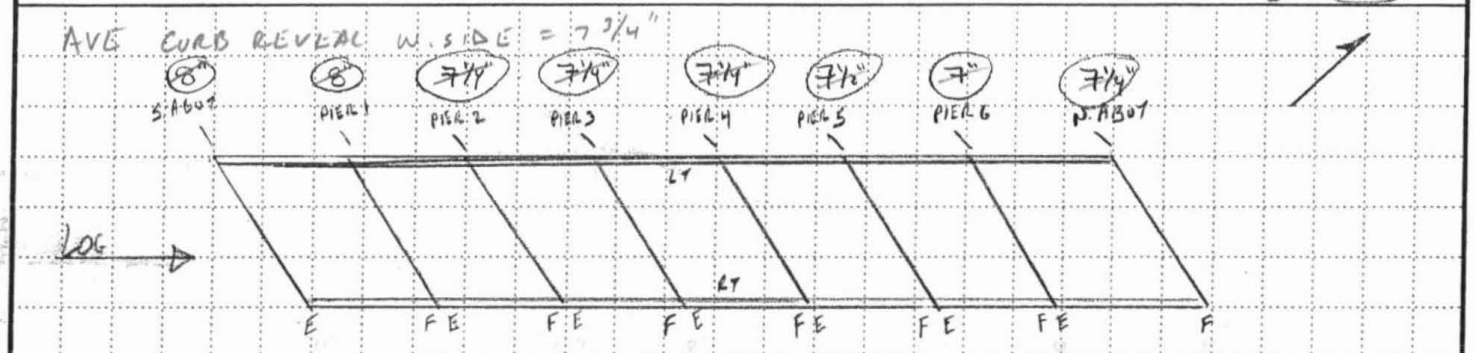
☒ FIELD ORIGINAL ☐ TRANSCRIBED BY: _____

BRIDGE NO. 2375 | DATE: 3/3/05

CREW: NEP, MJO | SHEET ~~18~~ 19 OF ~~61~~

DESCRIPTION: PARAPET JOINT MEASUREMENTS △12/15/06 PDG, SW (GCS) (* ~~NO SHEET #19~~)

AVE CURB REVEAL W. SIDE = 7 3/4"



(#) - Denotes curb reveal

AVE E. curb reveal ~~not meas. due to snow/ice~~ 7 3/4"

LOCATION	MEASUREMENT < 50° F LEFT	RIGHT	TEMP	DATE	△1 MEASUREMENT > 50° F LEFT	RIGHT	TEMP	DATE	JOINT TYPE
S. ABUT	2-5/8"	2-5/16"	30°F	3/3/05	2 5/16	2 1/8	55°F	12/15/06	Pour. Sealant
PIER 1	1-1/16"	1-3/8"	30°	3/3/05	1 1/8	1 3/16	↓	↓	"
PIER 2	1-13/16"	1-7/8"	30°	3/3/05	1 9/16	1 1/2	↓	↓	"
PIER 3	1-1/4"	1-7/16"	30°	3/3/05	1 3/16	1 5/16	↓	↓	"
PIER 4	2-1/2"	2-1/4"	30°	3/3/05	2 1/8	1 13/16	↓	↓	"
PIER 5	1-1/16"	1-7/16"	30°	3/3/05	1 1/16	1 7/16	↓	↓	"
PIER 6	1-9/16"	1-13/16"	30°	3/3/05	1 1/2	1 11/16	↓	↓	"
N. ABUT	8 1/2" *	3-1/8"	30°	3/3/05	* 8 3/4	2 7/8	↓	↓	Asph. Plug
					ALL MEASUREMENTS DOUBLE CHECKED				

GENERAL NOTES:

- Meas. taken 3" below top of ppt.
- * Meas. taken from face of backwall to web of fascia girder @ b.f. perpendicular to backwall.

REGULAR INSPECTION [X]
Date: 12/15/06

SUMMER / WINTER JOINT MEASUREMENTS [ ]
Summer 20 __ __ Winter 20 __ __

JOINT MEASUREMENTS

Form BRI-17, Rev. 9/03

Bridge No.: 02375 SR 500 TR 801 over I-84 EB & I-84 TR 833 **Town:** East Hartford

Measurements Taken By: SW

Measurements Reviewed By: PDG

Deck Joint Location	Deck Joint Type[1]	Effect Span[2] (ft.)	Winter Measurements Temp °F	Winter Date: 3/3/05 Left (in.)	Winter Date: 3/3/05 Right (in.)	Summer Measurements Temp °F	Summer Date: 12/15/06 Left (in.)	Summer Date: 12/15/06 Right (in.)	Differential Movements Actual Left (in.)	Differential Movements Actual Right (in.)	Differential Movements by Formula	Comments	Difference Between Actual & Calc'd Mov't Left (in.)	Difference Between Actual & Calc'd Mov't Right (in.)
S. Abut.	Pour	59.6	30	2-10/16	2- 5/16	55	2- 5/16	2- 2/16	- 5/16	- 3/16	- 2/16	Expansion	3/16	1/16
Pier 1	Pour	77.8	30	1- 1/16	1- 6/16	55	1- 2/16	1- 3/16	1/16	- 3/16	- 2/16	Fixed/Expansion	- 3/16	1/16
Pier 2	Pour	53.6	30	1-13/16	1-14/16	55	1- 9/16	1- 8/16	- 4/16	- 6/16	- 2/16	Fixed/Expansion	2/16	4/16
Pier 3	Pour	66.0	30	1- 4/16	1- 7/16	55	1- 3/16	1- 5/16	- 1/16	- 2/16	- 2/16	Fixed/Expansion	- 1/16	-0
Pier 4	Pour	65.6	30	2- 8/16	2- 4/16	55	2- 2/16	1-13/16	- 6/16	- 7/16	- 2/16	Fixed/Expansion	4/16	5/16
Pier 5	Pour	56.8	30	1- 1/16	1- 7/16	55	1- 1/16	1- 7/16	0	0	- 2/16	Fixed/Expansion	- 2/16	- 2/16
Pier 6	Pour	40.4	30	1- 9/16	1-13/16	55	1- 8/16	1-11/16	- 1/16	- 2/16	- 1/16	Fixed/Expansion	-0	1/16
N. Abut.	Plug	0.0	30	8- 8/16	3- 2/16	55	8-12/16	2-14/16	4/16	- 4/16	0	Fixed	- 4/16	4/16

1. The "Deck Joint Type" should be "plug" for Asphaltic Plug joints, "strip" for Strip Seals, "seg." for Segmental Joints, etc.
2. The "Effective Span" is the length contributing to expansion at the joint. This should be 0 at fixed joints of single span bridges.

Reviewer's Comments: Deck joint type "Pour" is for pourable sealant type joint.

Difference in measurements from previous inspection is likely due to the condition of the bearings (frozen and heavily rusted).

Summer / Winter Joint Measurements: (IF ADDING OR REMOVING, SEND A COPY OF THIS FORM TO SUPERVISOR FOR REVIEW/APPROVAL WITH REASONS FOR CHANGE INDICATED)

[ ] **ADD** TO SUMMER/WINTER LIST SUPERVISOR APPROVAL: _____

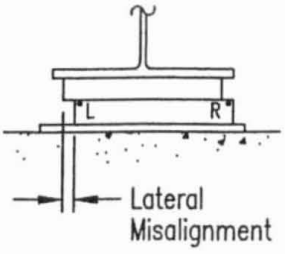
[ ] **REMOVE** FROM SUMMER/WINTER LIST MASTER LIST ENTRY: _____

FIELD NOTES

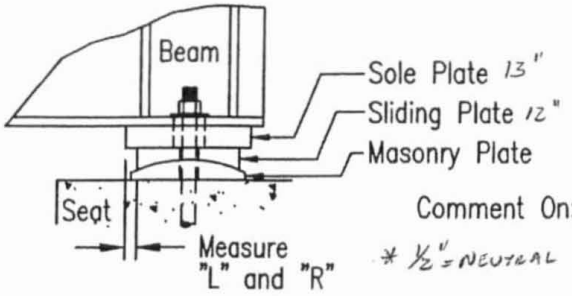
BRIDGE NO. 2375	DATE: 3/2/05
CREW: MJO/NFV/JC	SHEET ~~20/61~~ 11 ~~NO SHEET #19~~

SLIDING BEARING MEASUREMENTS

Form BRG-14, Rev. 9/01



FRONT VIEW



SIDE VIEW

* ½" = NEUTRAL

Span No. = 1

Substructure Unit = S. ABUT

Temperature = 32°F

Comment On:
- Presence of keepers or work done on bearings.
- Undermining of bearing. Attach sketch with dimensions.
- Cracking of plates or welds.
- Condition of anchor bolts.

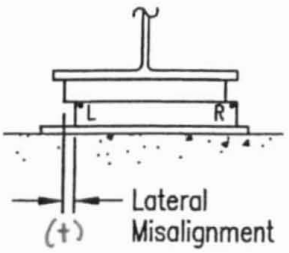
Beam	Movement "L"	Movement "R"	Mode Exp. or Contr.	Lateral Misalign.	Condition: Bearing Frozen?	Condition: Normal Mov't?	Condition: Rust ? H/M/L	Comments
	SPAN #1		BRGS	@	S. ABUT			3/2/05; ±32°; MJO, JC, NFV
1	3/4"	7/8"	C	5/16"-3/8" RT	*	*	L	KEEPER @ RT SIDE + AB @ LT SIDE, OK NO VISUAL EVID OF MVMNT; 1/16" JK B/W SLIDE + SOLE PL
3	15/16"	1 1/8"	C	0	*	*	L	AB'S OK; ±1/16" JK BTWN SOLE + SLIDE PL NO VISUAL EVID OF MVMNT
5	1 1/8"	1 1/4"	C	1/8" RT	*	*	L	AB'S OK, + 1/8" JK BTWN SOLE + SLIDE PL NO VISUAL EVID OF MVMNT
6	1 1/16"	1 3/16	C	1/8" RT	*	*	L	SEE GS
								GEN NOTES
							•	G2 W/ KEEPER @ LT SIDE ONLY, RT AB OK
							• *	G4 AB'S OK, ± 3/16", 1/4" JK BTWN SOLE + SLIDE PL'S NO VISUAL EVID OF MVMNT, TYP
12/7/06		-45°	⚠	GCS: PDG, SW, CL				
1	3/4"	13/16"	C	-3/8	Y	**	L	KEEPER ON RT SIDE
3	15/16"	1 1/4"	C	-3/8	Y	↓	L	
5	1 1/8	1 1/4"	C	-3/8	Y	↓	L	
6	1 1/16	1 1/8	C	-1/4	Y	↓	L	
								** BEARINGS ARE IN CORRECT MOVE
								FOR AMBIENT TEMP BUT HAVE
								SHOWN LITTLE TO NO MVMT SINCE
								PREVIOUS INSP.

FIELD NOTES

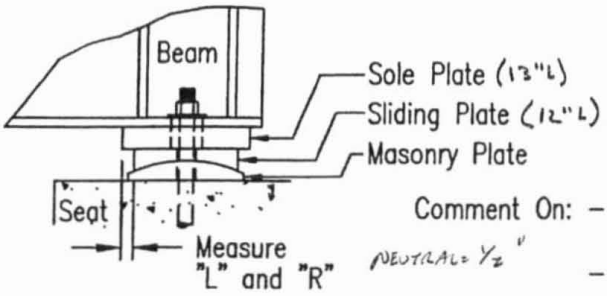
BRIDGE NO. 02375	DATE: 03/02/05
CREW: JC, MJO, MFP	SHEET ~~2~~/~~4~~/12

SLIDING BEARING MEASUREMENTS

Form BRI-14, Rev. 9/01



FRONT VIEW



NEUTRAL = 1/2"

SIDE VIEW

Span No. = 2

Substructure Unit = P2

Temperature = 30 °F

Comment On:
- Presence of keepers or work done on bearings.
- Undermining of bearing. Attach sketch with dimensions.
- Cracking of plates or welds.
- Condition of anchor bolts.

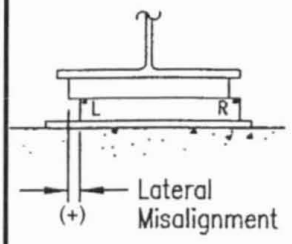
Beam	Movement				Condition			Comments
	"L"	"R"	Mode Exp. or Contr.	Lateral Misalign.	Bearing Frozen?	Normal Mov't?	Rust ? H/M/L	
1	1 1/8"	1"	C	--	N	Y	L	← bearings typ w/ lam rust
3	7/8"	3/4"	C	1/16"E	N	Y	H	on components as noted.
5	5/8"	1/2"	C	1/16"E	N	Y	M-H	
6	7/8"	3/4"	C	--	N	Y	L	
△ 12/7/06	45°F		GCS: ~~PDG~~, SW, CL					
1	1 1/8"	1 1/16"	C	0	Y	*	L	
3	7/8"	3/4"	C	+1/16	Y	↓	H	
6	7/8"	3/4"	C	0	Y	↓	L	
								* BRG's ARE IN CORRECT MODE
								FOR AMBIENT TEMP. BUT HAVE
								SHOWN LITTLE TO NO MVMT SINCE
								PREV. INSP.

FIELD NOTES

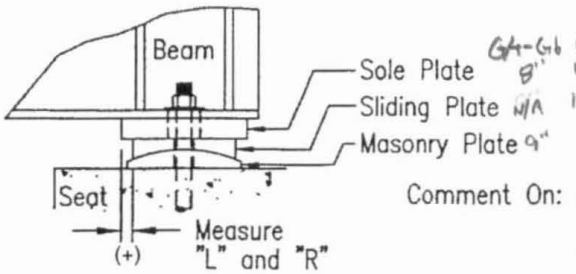
PROJ. NO. 170-2357	BRIDGE NO. 2375
DATE 12/1/06	SHEET 13
PREPARED BY: Garg Consulting Services, Inc. ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS	CREW PDG, SW

SLIDING BEARING MEASUREMENTS

Form BRI-14, Rev. 9/01



FRONT VIEW



G4-G6 G1-3
Sole Plate 8" 13"
Sliding Plate N/A 12"
Masonry Plate 9"

SIDE VIEW

Span No. = 3

Substructure Unit = PIER 2

Temperature = 60 °F

Comment On:
- Presence of keepers or work done on bearings.
- Undermining of bearing. Attach sketch with dimensions.
- Cracking of plates or welds.
- Condition of anchor bolts.

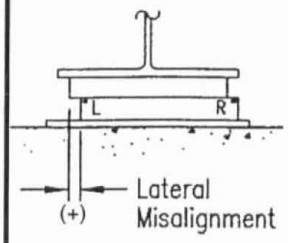
Beam	Movement				Condition			Comments
	"L"	"R"	Mode Exp. or Contr.	Lateral Misalign.	Bearing Frozen?	Normal Mov't?	Rust ? H/M/L	
G1	5/16	3/16	E	-1/16	N	Y	H	
G2	3/4	3/4	C	-1/16	*	N	H	UPTO 5/16" PACK RUST BTWN BRG PL'S
G3	13/16	3/4	C	-1/8	N	N	H	
G4	7/16	1/4	C	-1/4	*	N	H	CURVED SOLE PL ON MAS PL TYPE BRG
G5	0	1/4	C	0	*	N	H	
G6	5/8	1/2	N	0	*	Y	H	
								*NO PRIOR DATA FOR COMPARISON, NO EVIDENCE OF MOVEMENT

FIELD NOTES

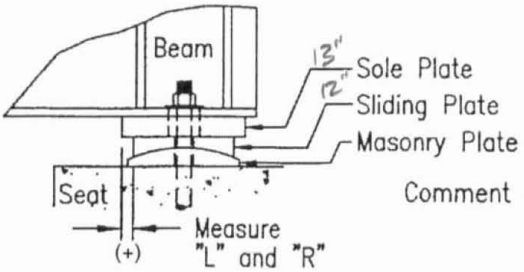
PROJ. NO. 170-2357	BRIDGE NO. 2375
DATE 12/1/06	SHEET 14
PREPARED BY: Garg Consulting Services, Inc. ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS	CREW TDG, SW

SLIDING BEARING MEASUREMENTS

Form BRI-14, Rev. 9/01



FRONT VIEW



SIDE VIEW

Span No. = 4

Substructure Unit = PIER 3

Temperature = 60 °F

Comment On:
- Presence of keepers or work done on bearings.
- Undermining of bearing. Attach sketch with dimensions.
- Cracking of plates or welds.
- Condition of anchor bolts.

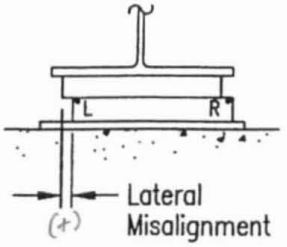
Beam	Movement				Condition			Comments
	"L"	"R"	Mode Exp. or Contr.	Lateral Misalign.	Bearing Frozen?	Normal Mov't?	Rust ? H/M/L	
G1	1/4	5/16	E	3/16	Y	N	M	75% AS NOT LOSS
G2	9/16	7/16	N	1/4	*	N	M	1/8" PACK PLSA BTWN SOLE & SLIDING PL'S
G3	1/2	1/2	N	-3/16	Y	N	H	
G4	7/16	3/8	E	-1/4	*	N	H	
G5	7/8	15/16	C	0	Y	N	H	
G6	13/16	3/4	C	1/16	Y	N	M	
								*NO PRIOR DATA FOR COMPARISON, NO EVIDENCE OF MOVEMENT

FIELD NOTES

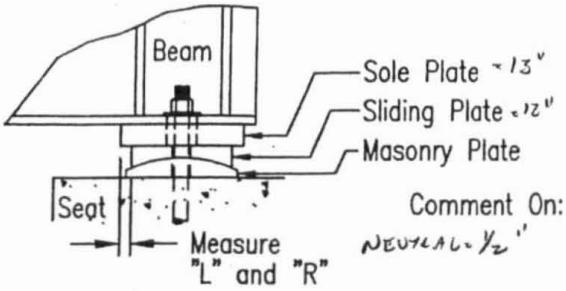
BRIDGE NO. 2375	DATE: 3/4/15
CREW: MJO/JC	SHEET ~~23/61~~ 15

SLIDING BEARING MEASUREMENTS

Form BRI-14, Rev. 9/01



FRONT VIEW



SIDE VIEW

Span No. = 5

Substructure Unit = PIER 4

Temperature = 33 °F

Comment On:
- Presence of keepers or work done on bearings.
- Undermining of bearing. Attach sketch with dimensions.
- Cracking of plates or welds.
- Condition of anchor bolts.

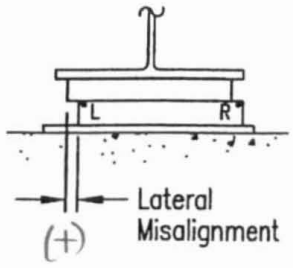
Beam	Movement "L"	Movement "R"	Mode Exp. or Contr.	Lateral Misalign.	Condition: Bearing Frozen?	Condition: Normal Mov't?	Condition: Rust ? H/M/L	Comments
1	1 3/8"	1-9/16"	C	5/16" RT	*	*	H	W. AB NUT W/ 10% LOSS; E. AB NUT W/ 75% LOSS 3/16"-1/4" JR BTWN SP+SLP.
2	1-9/16"	1-9/16"	C	1/4" RT	*	*	H	UP TO 80% LOSS OF AB NUTS 3/16"-1/4" JR BTWN SP + SLP
3	1 3/4"	1-3/4"	C	1/8" RT	*	*	M-H	UP TO 40% AB NUT LOSS; ± 1/8" JR BTWN SP + SLP + 5/16-3/8 MAX JR BTWN SLP + MP @ E. ELEV
4	1-9/16"	1-9/16"	C	1/8" RT	*	*	M-H	UP TO 60% AB NUT LOSS; ± 1/4" JR BTWN SP + SLP 1/8"-3/16" MAX JR BTWN SLP + MP @ E ELEV (PHOTO 14)
5	1 1/2"	1 3/8"	C	1/8"-3/16 RT	*	*	M-H	±60% LOSS EE. AB NUT. KEEPER @ W. SIDE (NO AB) ±5/16" JR BTWN SP + SLP
6	1 1/2"	1 3/16"	C	3/8" RT	*	*	M	W. AB SHEARED OFF. E. AB NUT W/ ±80% LOSS UP TO 1/8" JR BTWN SP + SLP
							* =	NO END OF MOVMNT (USUAL)
							SP	= SOLE PL
							SLP	= SLIDE PL
△12/06 60°F			GCS: FEG, SW				MP	= MAS PL
G1	15/16	1 1/8	N	-1/4"	N	Y	H	SEE ABOVE
G2	1 3/16	1 3/16	C	-1/8"	N	Y**	H	" "
G3	1 3/8	1 7/16	C	-1/16"	N	Y**	H	" "
G4	1 5/16	1 1/4	C	-1/16"	N	Y**	H	" "
G5	1 3/16	1 1/16	C	-1/16"	N	Y**	M	" "
G6	1 3/16	13/16	C	-3/8"	N	Y**	M	SLID. PL TWISTED SEE ABOVE
								** BRGS ARE IN INCORRECT MODE
								FOR AMBIENT TEMP BUT HAVE
								EXPANDED SINCE PREV. INSP. (TEMP
								CHANGE FROM 33°F TO 60°F

FIELD NOTES

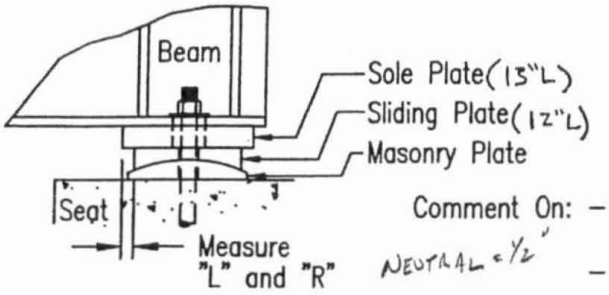
BRIDGE NO. 02375	DATE: 03/02/05
CREW: JC, MJO, NFP	SHEET ~~34/61~~ 16

SLIDING BEARING MEASUREMENTS

Form BRG-14, Rev. 9/01



FRONT VIEW



SIDE VIEW

NEUTRAL = 1/2"

Span No. = 6

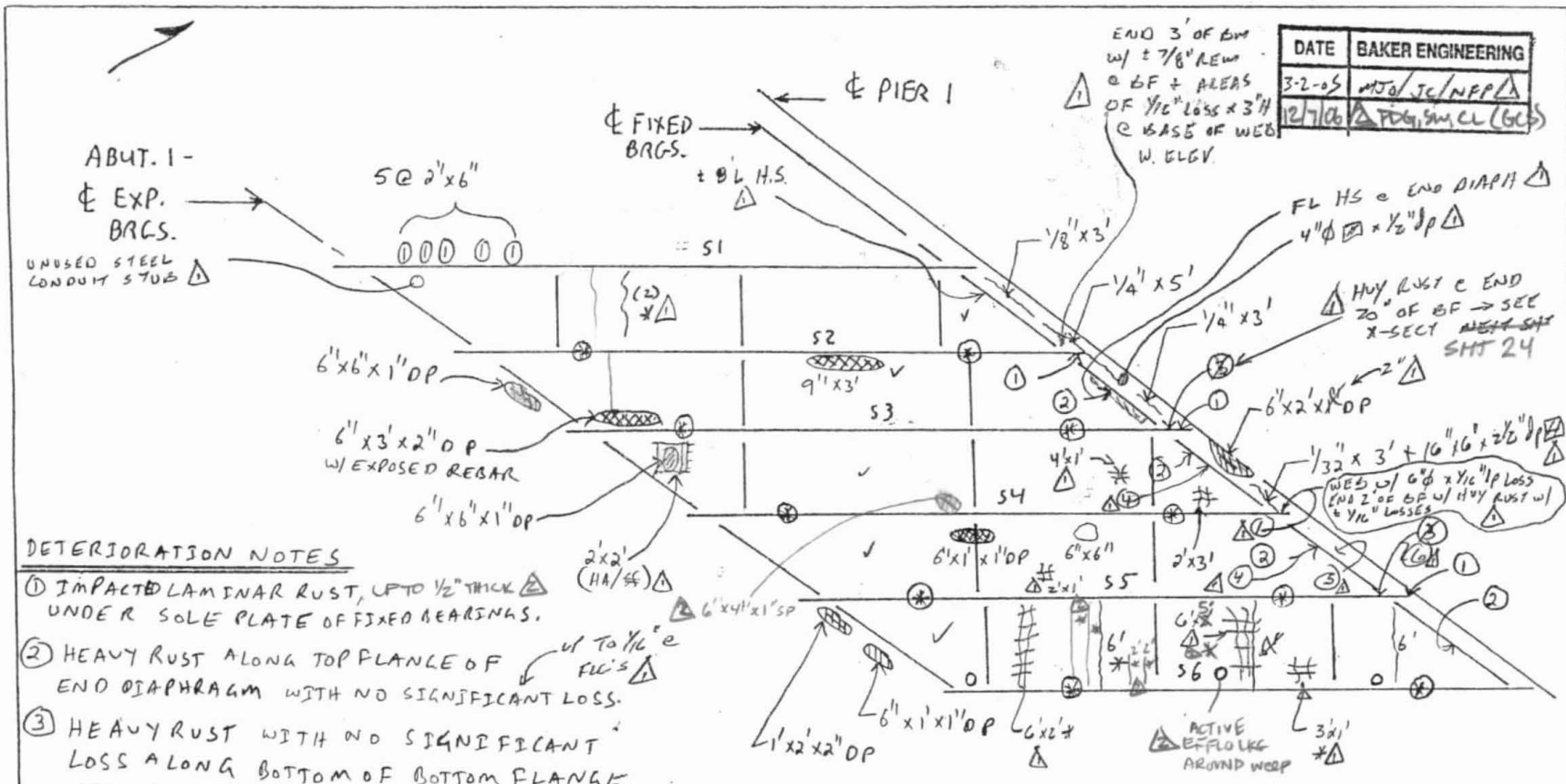
Substructure Unit = 5

Temperature = 30 °F

Comment On:
- Presence of keepers or work done on bearings.
- Undermining of bearing. Attach sketch with dimensions.
- Cracking of plates or welds.
- Condition of anchor bolts.

Beam	Movement				Condition			Comments
	"L"	"R"	Mode Exp. or Contr.	Lateral Misalign.	Bearing Frozen?	Normal Mov't?	Rust ? H/M/L	
1	7/16"	9/16"	NEUTRAL	1/16" W	N	Y	M	← Bearings typ w/ lam rust as
3	1/2"	9/16"	N ~~CONTR~~	--	N	Y	M-H	noted on components & btwn
5	1/2"	5/16"	EXP	1/16" W	N	Y	M	Sole/Sliding PL's
6	7/16"	7/16"	EXP	1/16" W	N	Y	L	
12/10/2006		45°F	2	GCS: ~~PDG~~, DS				
1	7/16	5/8	N	+1/16	Y	N	M	
2	1/4	7/16	E	-1/16	Y	N	M	
3	1/2	7/16	N	+1/16	Y	N	H	
4	9/16	1/2	N	0	Y	N	M	
5	9/16	5/16	N	-1/8	Y	N	M	
6	3/8	3/8	E	-1/16	Y	N	L	

DATE	BAKER ENGINEERING
3-2-05	MJO/JC/NFP
12/7/06	PDG, SW, CL (GCS)



DETERIORATION NOTES

1. IMPACTED LAMINAR RUST, UP TO 1/2" THICK UNDER SOLE PLATE OF FIXED BEARINGS.
2. HEAVY RUST ALONG TOP FLANGE OF END DIAPHRAGM WITH NO SIGNIFICANT LOSS. (UP TO 1/16" @ FLC'S)
3. HEAVY RUST WITH NO SIGNIFICANT LOSS ALONG BOTTOM OF BOTTOM FLANGE NEAR BEARING.
4. HA'S ALONG END DIAPH HAUNCH ~~THRU OUT~~
5. (2) ~~PL~~'S @ U-SIDE JT UP TO 3'L x 6"W x 2 1/2" Dp (~~PHOTO 4~~)
6. HVY RUST @ BF, 16.5'L, w/ AS LITTLE AS 5/8" REM x FW, W. LEG

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACKS (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- * EFFLORESCENCE IS PRESENT
- ⊛ END OF BOTTOM FLANGE COVER PLATE
- O PVC WEEP PIPE
- HS = HAUNCH SPALL

SPAN 1

NTS

NOTES:

A. DECK UNDERSIDE EXHIBITS PATTERNED RUST SPOTS.

B. FIXED BEARINGS EXHIBIT MODERATE TO HEAVY RUST.

C. LIGHT TO MODERATE RUST ON BACKS OF END DIAPHRAGMS AND ENDS OF STRINGERS ALONG WITH DETERIORATION AND WATER STAINS ON DECK INDICATE PAST JOINT LEAKAGE AT PIER.

D. THERE IS LIGHT FRECKLED RUST AT RANDOM LOCATIONS ALONG THE STRINGER BOTTOM FLANGES COVERING LESS THAN 5% OF STEEL SURFACES.

ACTIVE LEAKAGE ALONG BOTH JOINTS ± 50% LENGTH EACH JT

DESCRIPTION: UNDERSIDE OF DECK AND FRAMING

FIELD NOTES

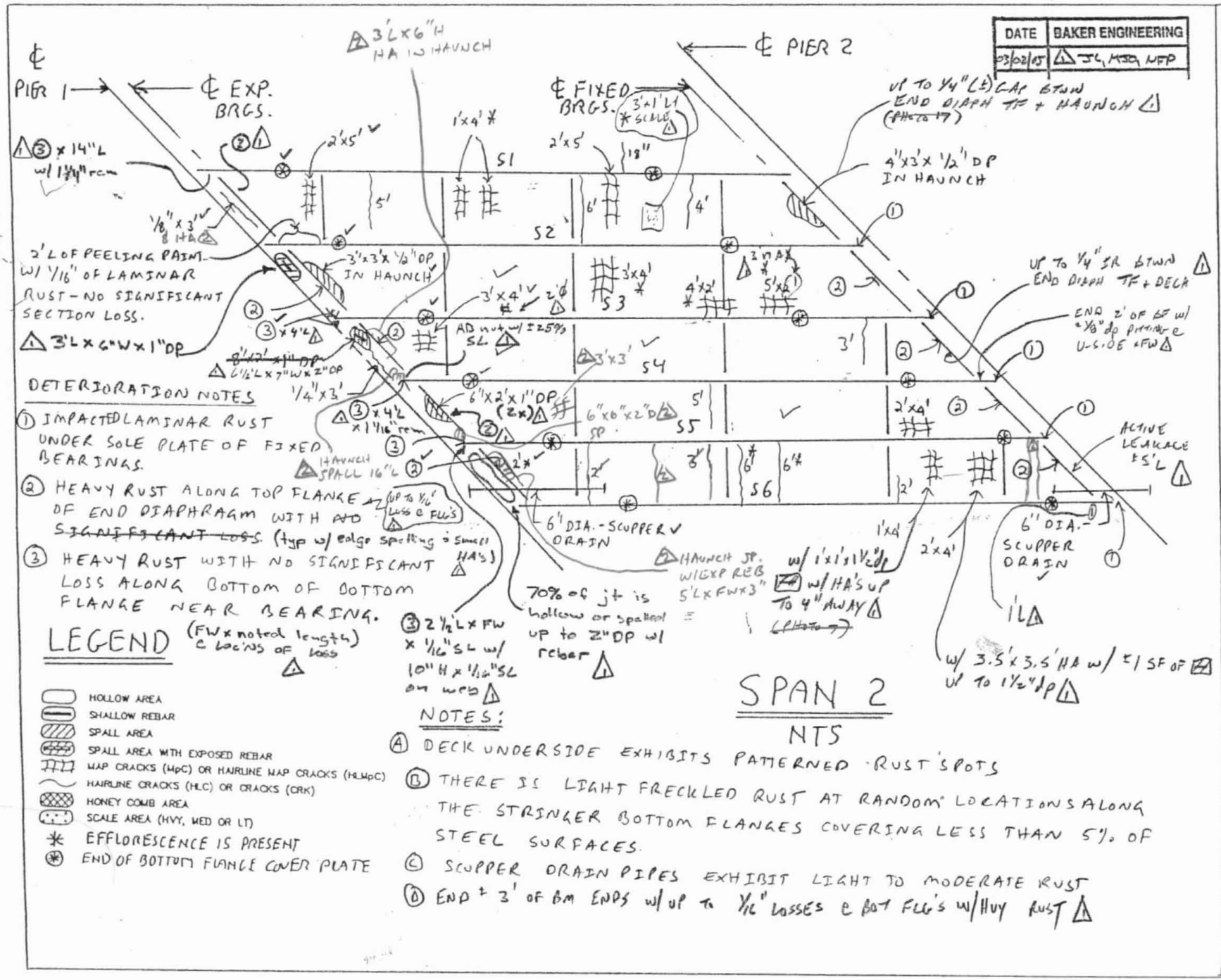
JOB NO. 170-1965 | BRIDGE NO. 02375

DATE: 1-18-00 | SHEET ~~38~~ 1 OF ~~BK~~ 17

CREW: RDG, SKD, JM

United International Corporation
Engineers and Surveyors

~~45~~ 46



DETERIORATION NOTES

1. IMPACTED LAMINAR RUST UNDER SOLE PLATE OF FIXED BEARINGS.
2. HEAVY RUST ALONG TOP FLANGE OF END DIAPHRAGM WITH ~~SIGNIFICANT LOSS~~ (typ w/ edge spalling & small HA's)
3. HEAVY RUST WITH NO SIGNIFICANT LOSS ALONG BOTTOM OF BOTTOM FLANGE NEAR BEARING.

LEGEND (FW x noted length @ locns of loss)

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACKS (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- * EFFLORESCENCE IS PRESENT
- ⊛ END OF BOTTOM FLANGE COVER PLATE

NOTES:

A. DECK UNDERSIDE EXHIBITS PATTERNED RUST SPOTS

B. THERE IS LIGHT FRECKLED RUST AT RANDOM LOCATIONS ALONG THE STRINGER BOTTOM FLANGES COVERING LESS THAN 5% OF STEEL SURFACES.

C. SCUPPER DRAIN PIPES EXHIBIT LIGHT TO MODERATE RUST

D. END ± 3' OF BM ENDS w/ UP TO 1/16" LOSSES @ BOT FLG'S W/ HVY RUST

SPAN 2

NTS

DATE	BAKER ENGINEERING
03/02/05	JL, MJG, MFP

United International Corporation
Engineers and Surveyors

FIELD NOTES

DESCRIPTION: UNDERSIDE OF DECK AND FRAMING

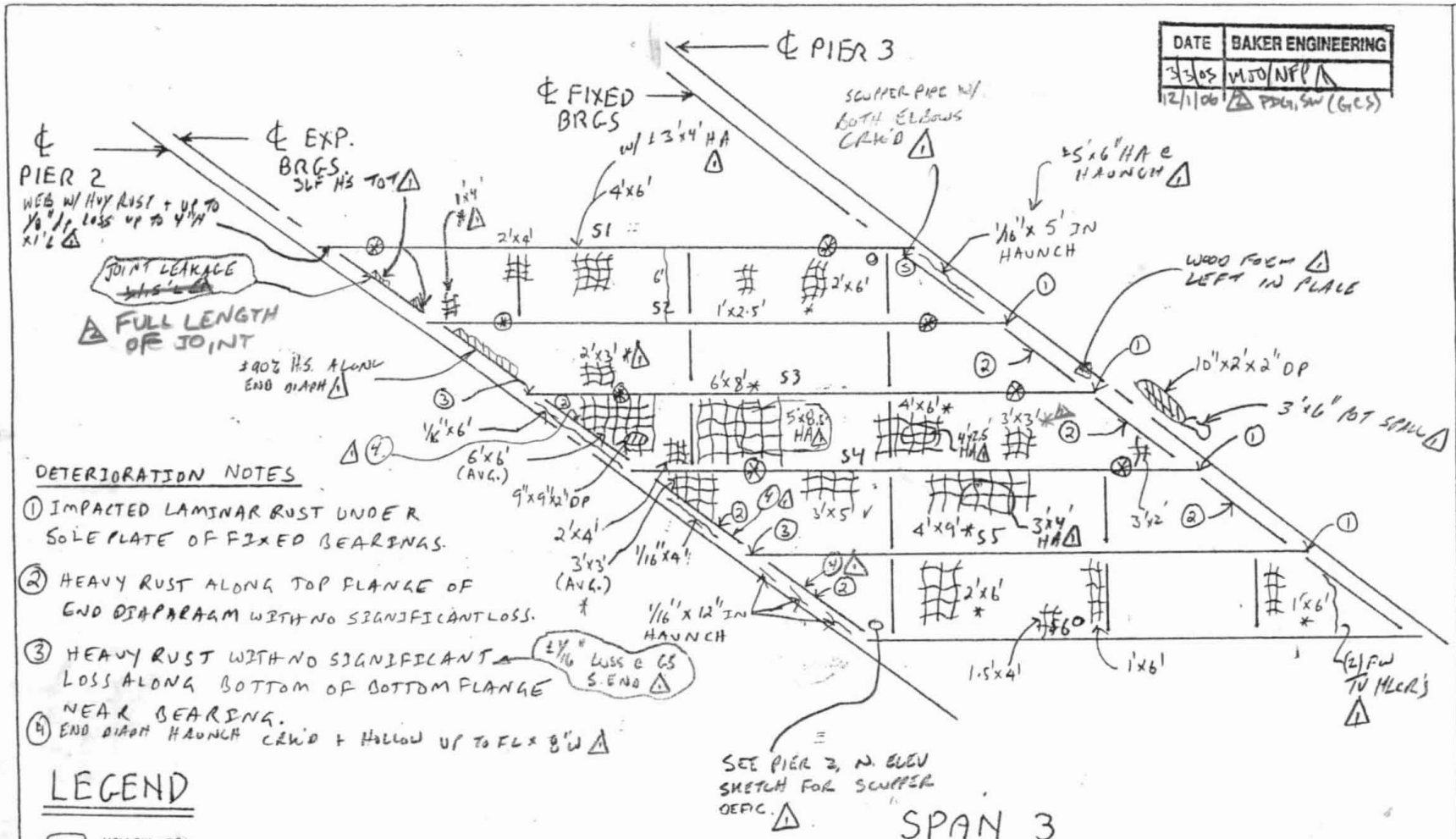
JOB NO. 170-1965 | BRIDGE NO. 02375

DATE: 1-18-00 | SHEET 18 OF 18

CREW: RDB, SRD, JM | 12/7/00 BCS: RDM, SW, CL

27/41

DATE	BAKER ENGINEERING
3/3/05	MJO/NFP
12/1/06	PDG, SW (GCS)



DETERIORATION NOTES

1. IMPACTED LAMINAR RUST UNDER SOLE PLATE OF FIXED BEARINGS.
2. HEAVY RUST ALONG TOP FLANGE OF END DIAPHRAGM WITH NO SIGNIFICANT LOSS.
3. HEAVY RUST WITH NO SIGNIFICANT LOSS ALONG BOTTOM OF BOTTOM FLANGE NEAR BEARING.
4. END DIAPH HAUNCH CRK'D + HOLLOW UP TO FL x 8"W

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACKS (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- * EFFLORESCENCE IS PRESENT
- ⊛ END OF BOTTOM FLANGE COVER PLATE
- o PVC DECK WEEP PIPE
- (S) SCUPPER
- HS = HAUNCH SPALL

SPAN 3

NTS

NOTES

(A) LIGHT TO MODERATE RUST ALONG THE BACKS OF THE END DIAPHRAGMS AND THE ENDS OF THE STRINGERS AT BOTH PIERS INDICATE THAT THE JOINTS MAY BE LEAKING.

(B) THERE ARE PATTERNED RUST SPOTS AT RANDOM LOCATIONS ON THE UNDERSIDE OF DECK

(C) THERE IS LIGHT FRECKLED RUST AT RANDOM LOCATIONS ALONG THE STRINGER BOTTOM FLANGES COVERING LESS THAN 5% OF STEEL SURFACES.

DESCRIPTION: UNDERSIDE OF DECK AND FRAMING

FIELD NOTES

CREW: RDB, SRD

DATE: 01-19-00

JOB NO. 170-1965

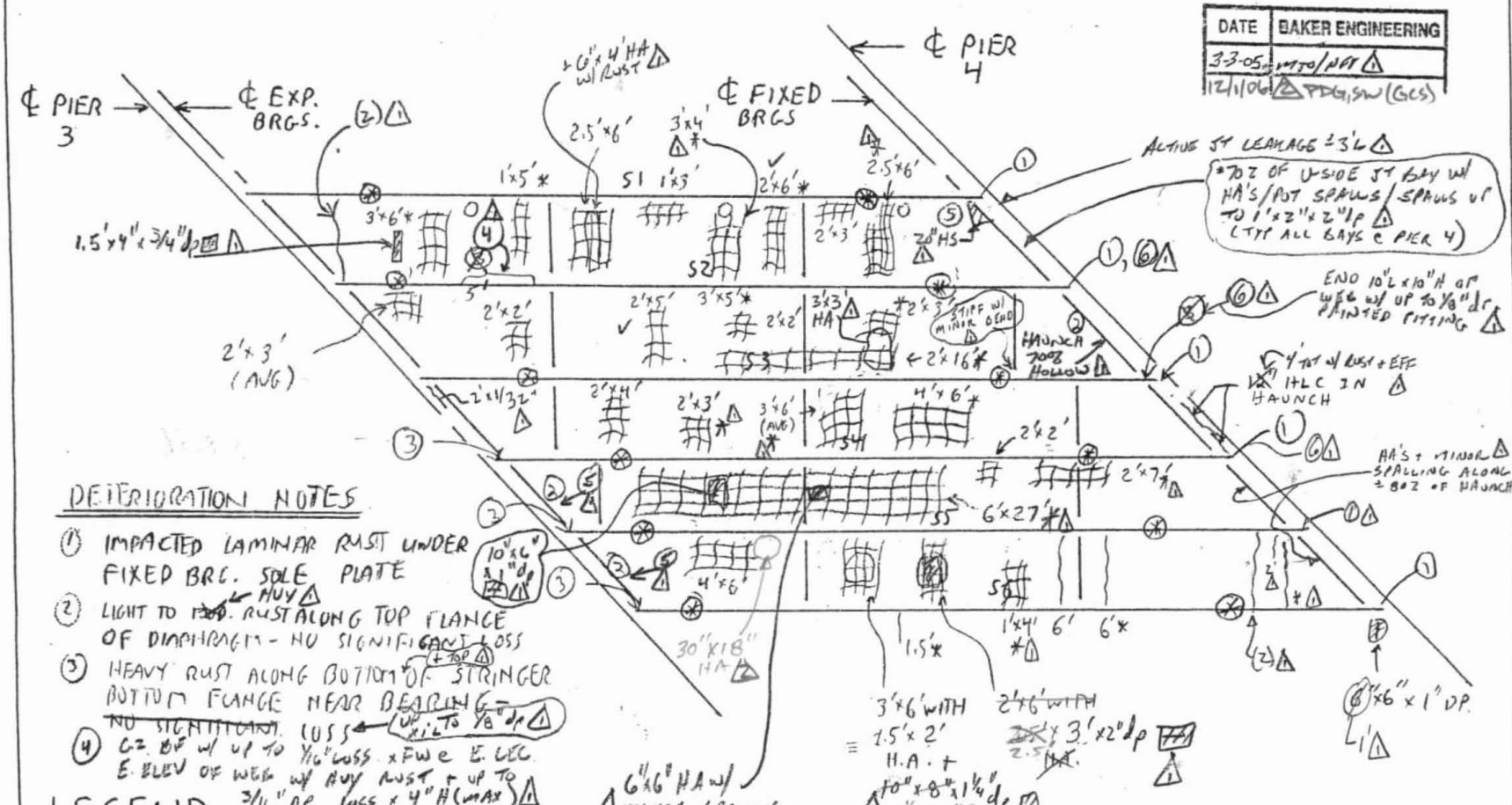
BRIDGE NO. 02375

SHEET ~~30~~ OF ~~36~~ 19

United International Corporation
Engineers and Surveyors

3/3/05

DATE	BAKER ENGINEERING
3-3-05	MTO/NAT
12/1/06	PDG, SW (GCS)



DETERIORATION NOTES

(1) IMPACTED LAMINAR RUST UNDER FIXED BRG. SOLE PLATE

(2) LIGHT TO ~~MOD~~ HVY RUST ALONG TOP FLANGE OF DIAPHRAGM - NO SIGNIFICANT LOSS + TOP

(3) HEAVY RUST ALONG BOTTOM OF STRINGER BOTTOM FLANGE NEAR BEARING ~~NO SIGNIFICANT LOSS~~ UP TO 1/8"dp

(4) C.Z. BOT W/ UP TO 1/16" LOSS x FW @ E. LEG. E. ELEV OF WEB W/ HVY RUST + UP TO 3/16" DP LOSS x 4"H (MAX) ~~MODERATE~~

(5) = UP TO 70% OF END DIAP HAUNCH IS HOLLOW

(6) SAMES AS (3), BOT W/ UP TO 1/8"; FW + 3'L LOSSES

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACKS (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- * EFFLORESCENCE IS PRESENT
- ⊛ END OF BOTTOM FLANGE COVER PLATE
- o PVC DECK WEEP PIPE
- ⑤ SCUPPER

HS - HAUNCH SPALL

SPAN 4

NTS

(D) - BM ENDS W/ PAINTED OVER PITTING @ WEBS UP TO 6"H, 1/8"dp x UP TO 3'L @ P3

(E) = HAND RESEALING OF PIER 4 JB'S

NOTES

(A) LIGHT TO MODERATE RUST ALONG THE BACKS OF THE END DIAPHRAGMS AT BOTH PIERS AND THE ENDS OF THE STRINGERS INDICATES PAST JOINT LEAKING

(B) THERE ARE PATTERNED RUST SPOTS AT RANDOM LOCATIONS ON THE DECK UNDERSIDE

(C) THERE IS LIGHT FRECKLED RUST AT RANDOM LOCATIONS ALONG STRINGER BOTTOM FLANGES COVERING LESS THAN 5% OF STEEL SURFACES

DESCRIPTION: UNDERSIDE OF DECK AND FRAMING

FIELD NOTES

JOB NO. 170-1965

DATE: 01-19-00

CREW: RDB, SRD

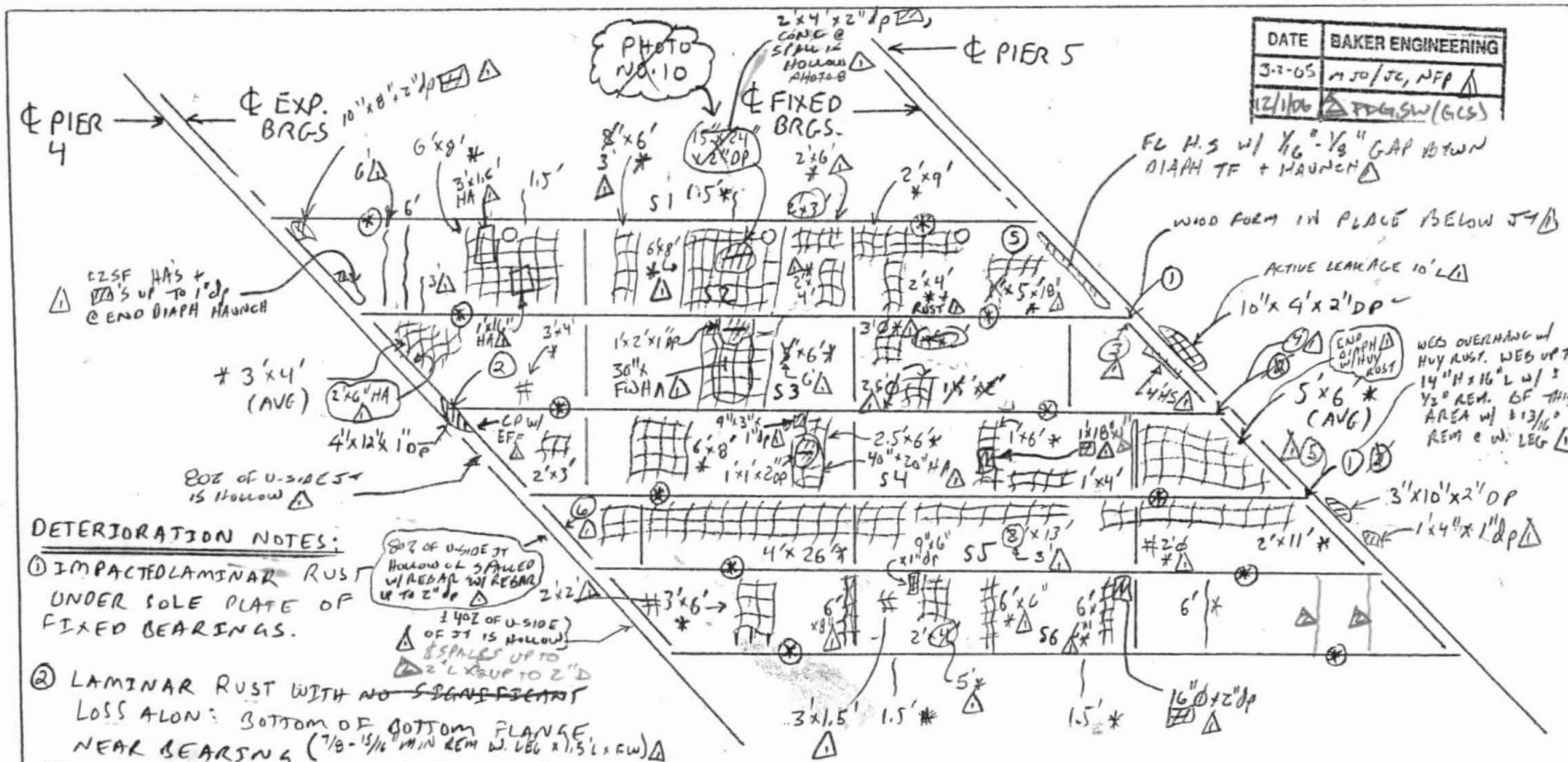
BRIDGE NO. 02375

SHEET 20 OF 20

United International Corporation
Engineers and Surveyors

UIC

24



DATE	BAKER ENGINEERING
3-2-05	MJO/JC, NFP
12/1/06	PDG, SW (GCS)

DESCRIPTION: UNDERSIDE OF DECK AND FRAMING

FIELD NOTES

JOB NO. 120-1965 | BRIDGE NO. 02375

DATE: 01-19-00 | SHEET 21 OF 26

CREW: RDB, SRD

UIC United International Corporation
Engineers and Surveyors

DETERIORATION NOTES:

① IMPACTED LAMINAR RUST UNDER SOLE PLATE OF FIXED BEARINGS.

② LAMINAR RUST WITH ~~NO SPALLS FIGURE~~ LOSS ALONG BOTTOM OF BOTTOM FLANGE NEAR BEARING (7/8-15/16" MIN REM W. LEG x 1.5'L x FW)

③ BF, E ELEV w/ 2/16"L x FW x 1/16"-1/8" BF LOSS

④ BF W HVY RUST 4'L W/ 7 5/16" MIN REM x FW @ W. LEG (SAME @ E. LEG, BUT ONLY 1'L)

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACKS (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- * EFFLORESCENCE IS PRESENT
- ⊛ END OF BOTTOM FLANGE COVER PLATE
- O PVC DECK WEEP PIPE
- ⑤ SCUPPER
- HS: HAUNCH SPALL
- CP: CONC PATCH

⑤ ACTIVE LEAKAGE, ±3'L

⑥ = END DIAPH HAUNCH W/ HA'S + SPALLS UP TO 1"dp x FL, UP TO 6"W

SPAN 5

NTS

NOTES

Ⓓ ACTIVE JT LEG @ P4 FL

Ⓐ THERE ARE PATTERNED RUST SPOTS ON THE DECK UNDERSIDE AT RANDOM LOCATIONS

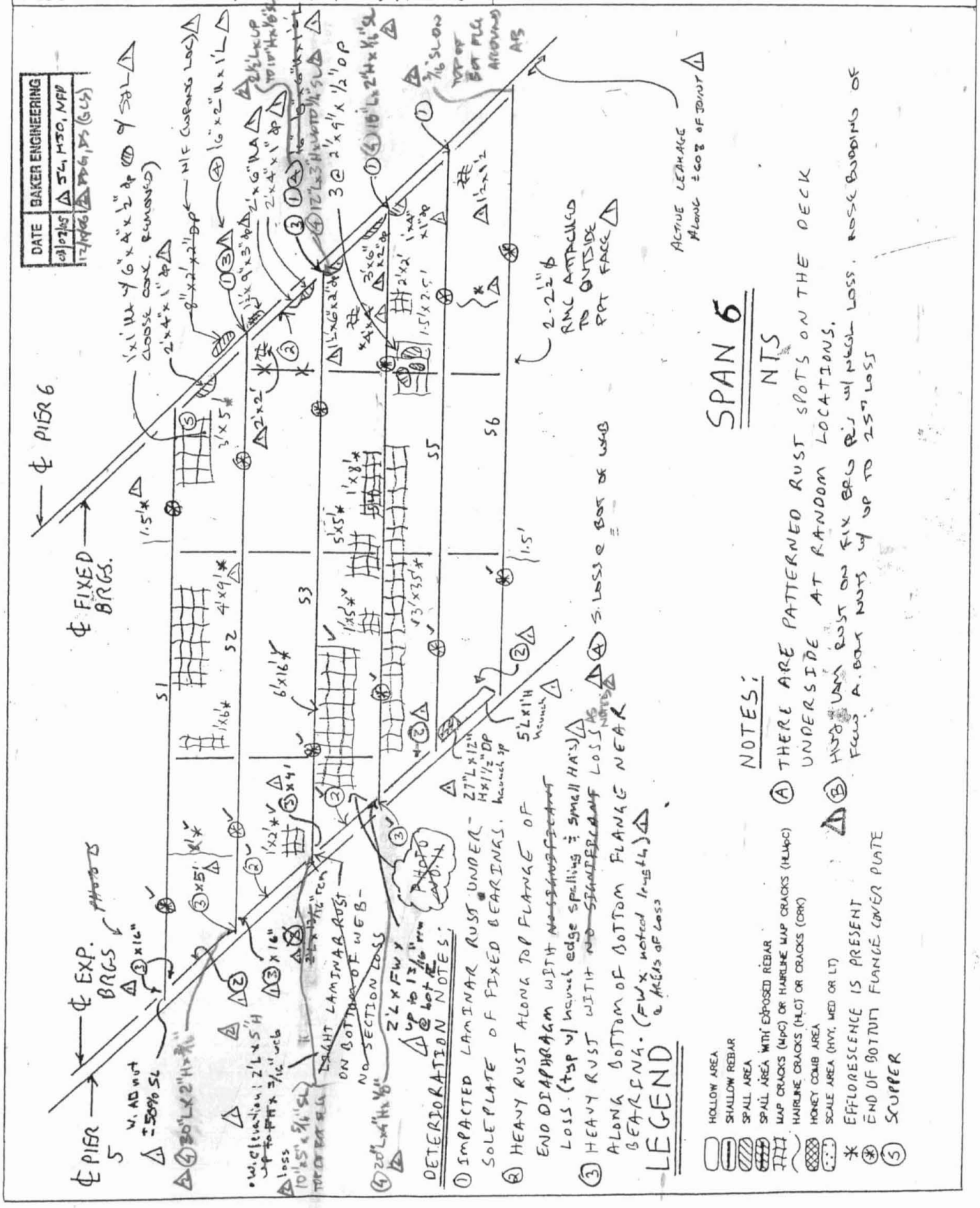
Ⓑ HVY RUST @ FIXED BRGS @ P5 W/ RAND ROSEWOODING ABS

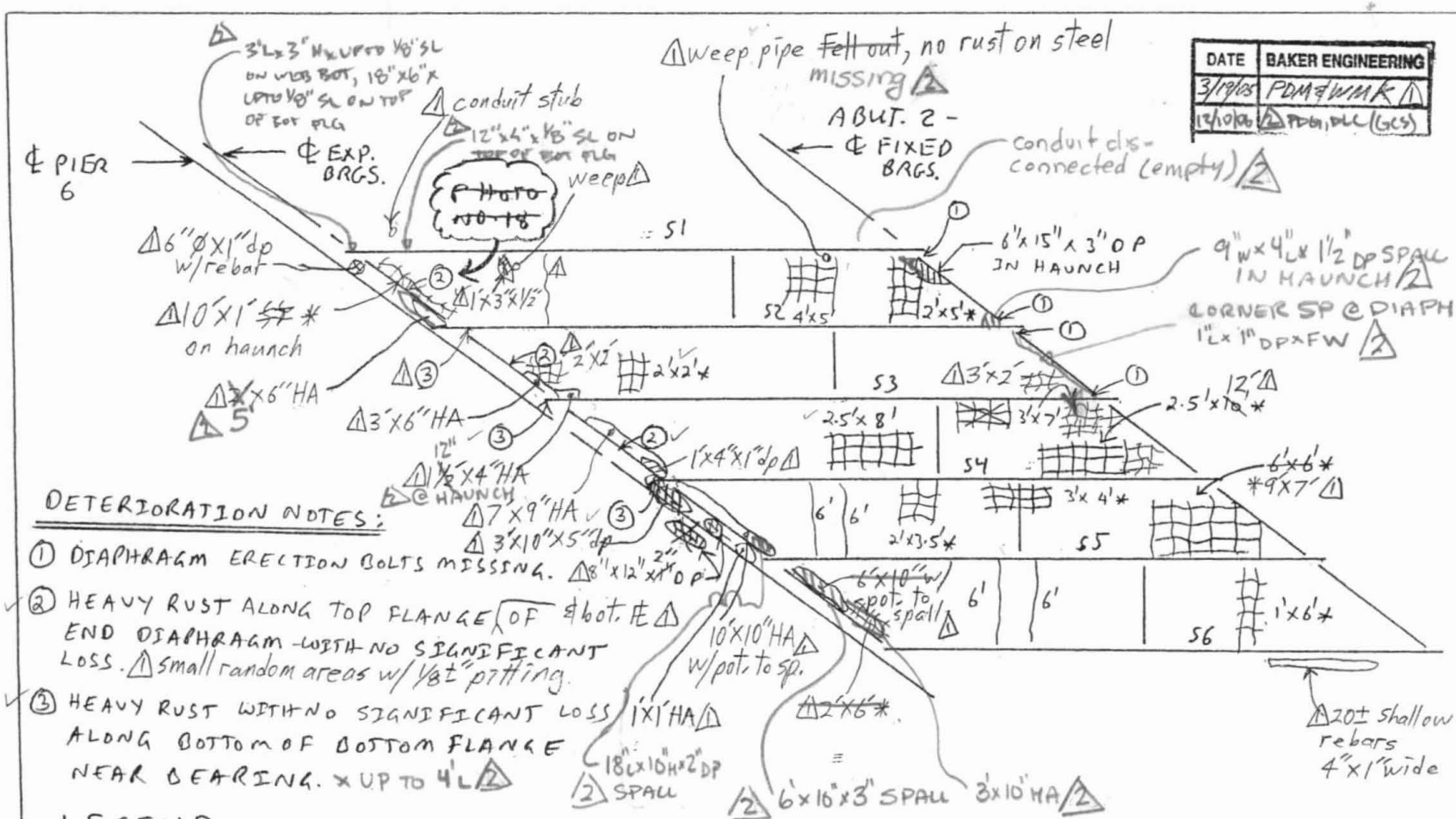
Ⓒ END 2' OF BEAMS WITH PAINTED OR RUSTED PITTING UP TO 10"H x 1/16"dp. & WEBS + UP TO FW x 1/8"dp @ TOP + BOTTOM OF FLG W/ AREAS OF HVY RUST ±1'L (~~PHOTO 15~~)

United International Corporation
Engineers and Surveyors

31/61

FIELD NOTES	JOB NO. 170-1965	BRIDGE NO. 02375
	DATE: 2-9-00	SHEET ~~33~~ OF ~~66~~ 22
	CREW: RDB, SRD	
DESCRIPTION: UNDERSIDE OF DECK AND FRAMING		





DATE	BAKER ENGINEERING
3/19/05	PDM & WMK
12/10/06	PDG, DLL (GCS)

DESCRIPTION: UNDERSIDE OF DECK AND FRAMING

FIELD NOTES

JOB NO. 170-1965 | BRIDGE NO. 02375

DATE: 2-9-00 | SHEET ~~34~~ 23 OF ~~46~~

CREW: RDB, SRD

DETERIORATION NOTES:

1. DIAPHRAGM ERECTION BOLTS MISSING.
2. HEAVY RUST ALONG TOP FLANGE OF & bot. FE END DIAPHRAGM WITH NO SIGNIFICANT LOSS. small random areas w/ 1/8± pitting.
3. HEAVY RUST WITH NO SIGNIFICANT LOSS ALONG BOTTOM OF BOTTOM FLANGE NEAR BEARING. x UP TO 4' L

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACKS (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- * EFFLORESCENCE IS PRESENT
- (*) END OF BOTTOM FLANGE COVER PLATE
- o PVC DECK WEEP PIPE

SPAN 7

NTS

NOTES:

(A) THERE ARE PATTERNED RUST SPOTS ON DECK UNDERSIDE AT RANDOM LOCATIONS.

(B) FIXED BEARINGS ARE IN GOOD CONDITION WITH NO RUST.

(C) Pier 6 Exp. Brgs. are Fixed type w/ slotted holes, all have hvy lam. & I.R. & rosebudding AB nuts (G1 - G4 are worst case)

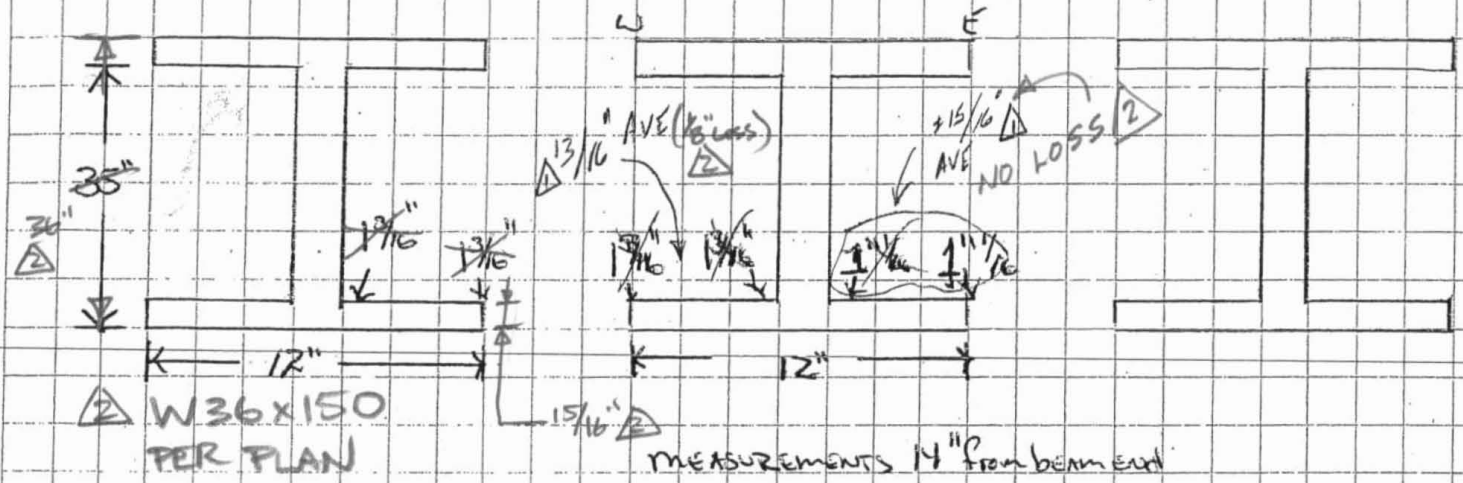
(D) N. ABUT JOINT EXHIBITS ACTIVE JOINT LEAKAGE ALONG ±40% OF JOINT

United International Corporation
Engineers and Surveyors

~~37~~ / ~~24~~

DATE PREPARED 04-15-2002	PREPARED BY P.V.	State of Connecticut Department of Transportation Bureau of Engineering & Highway Operations DES-003 REV 1-93 (302-06-0225) COMPUTATION SHEET	ORGANIZATION UNIT NO. 1307	WORK ORDER NO.
DATE CHECKED	CHECKED BY			SHEET NO. 24 / 61

SUBJECT: Bridge 2375 SR500 TR801 & I-84EB TR801 EAST HARTFORD (N.T.S)

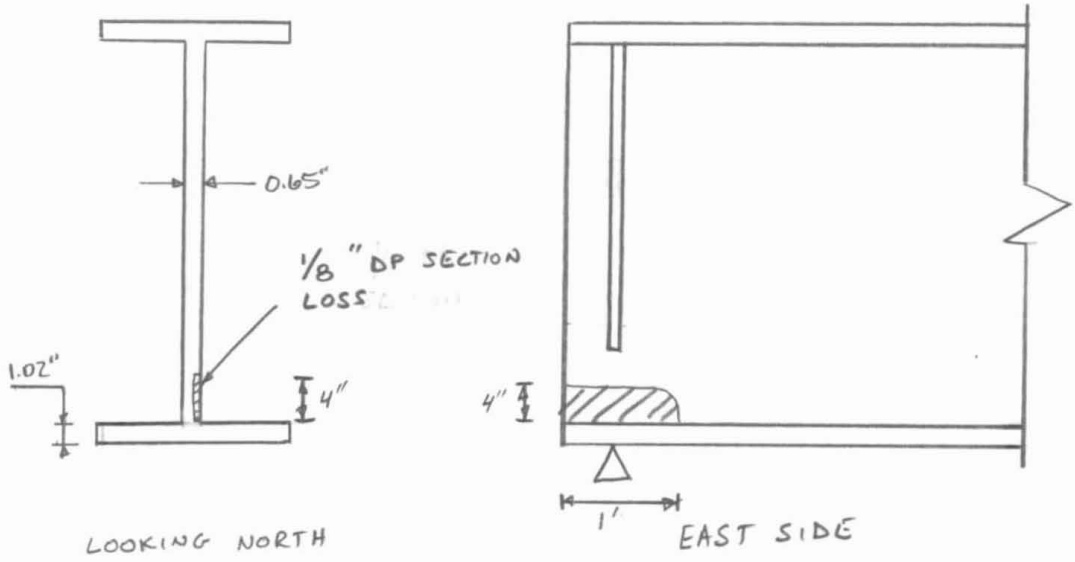


DATE	MAKER CHECKING
3/2/05	MJO/JC/NPC
12/7/00	DG, SW, CL (LOS)
	REVISION

STRINGER # 3 SPAN # 1

FIELD NOTES

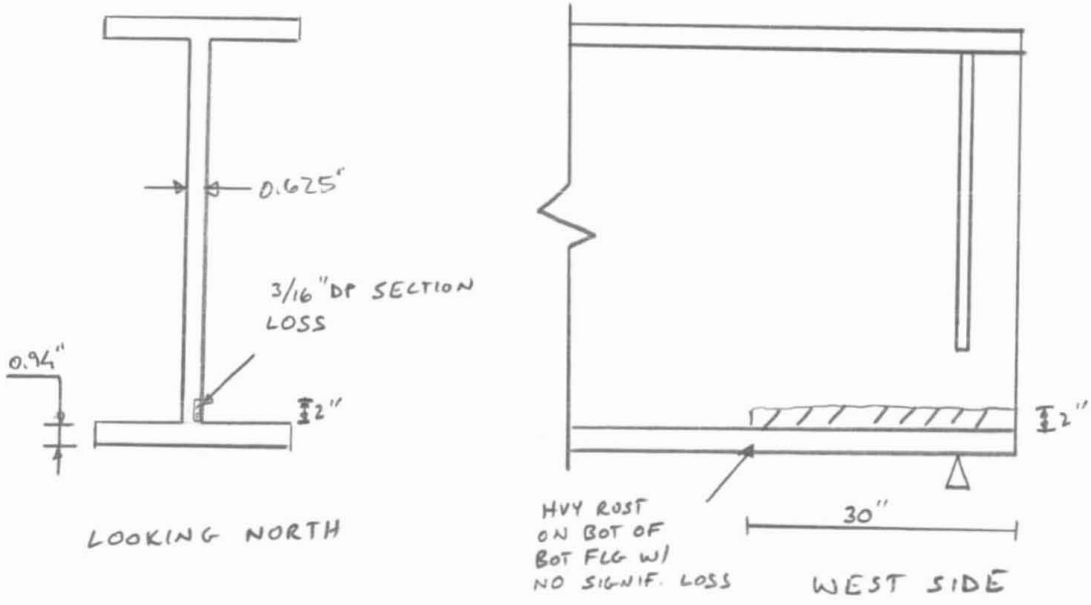
	PROJ. NO. 170-2357	BRIDGE NO. 02375
	DATE 12/1/06, 12/10/06	SHEET 25
PREPARED BY: Garg Consulting Services, Inc. ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS	CREW PDG, SW, DS	



SPAN 3 G1 @ PIER 2

N.T.S.

ORIGINAL SECTION
W36X160



SPAN 6 G2 @ PIER 5

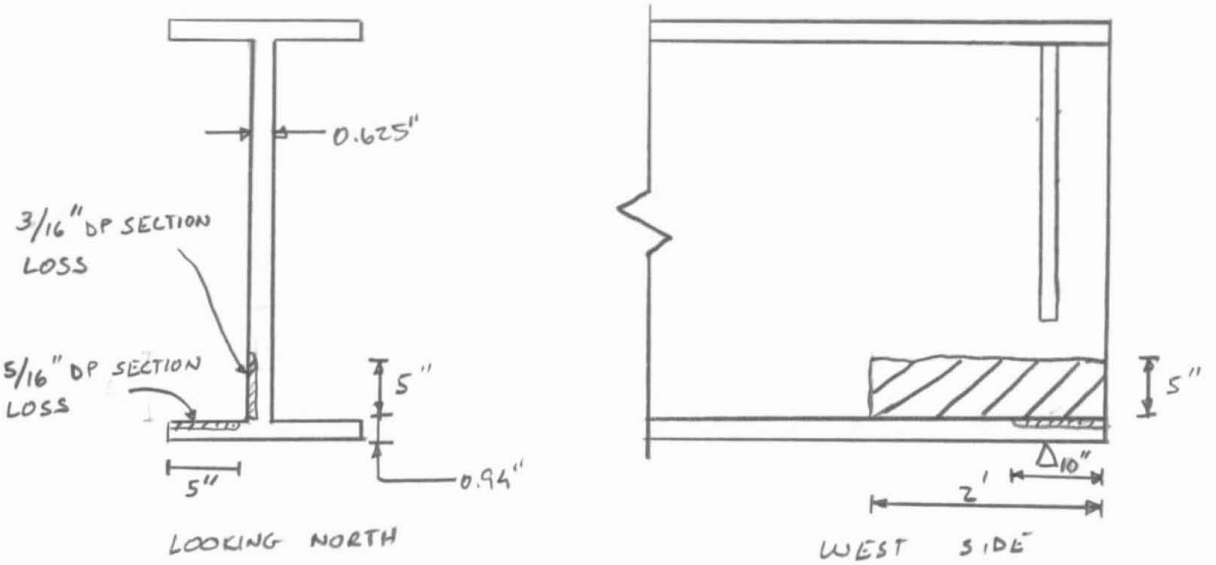
N.T.S.

ORIGINAL SECTION
W36X150

Revision	Date	Crew	Company	Revision	Date	Crew	Company
Revision	Date	Crew	Company	Revision	Date	Crew	Company

FIELD NOTES

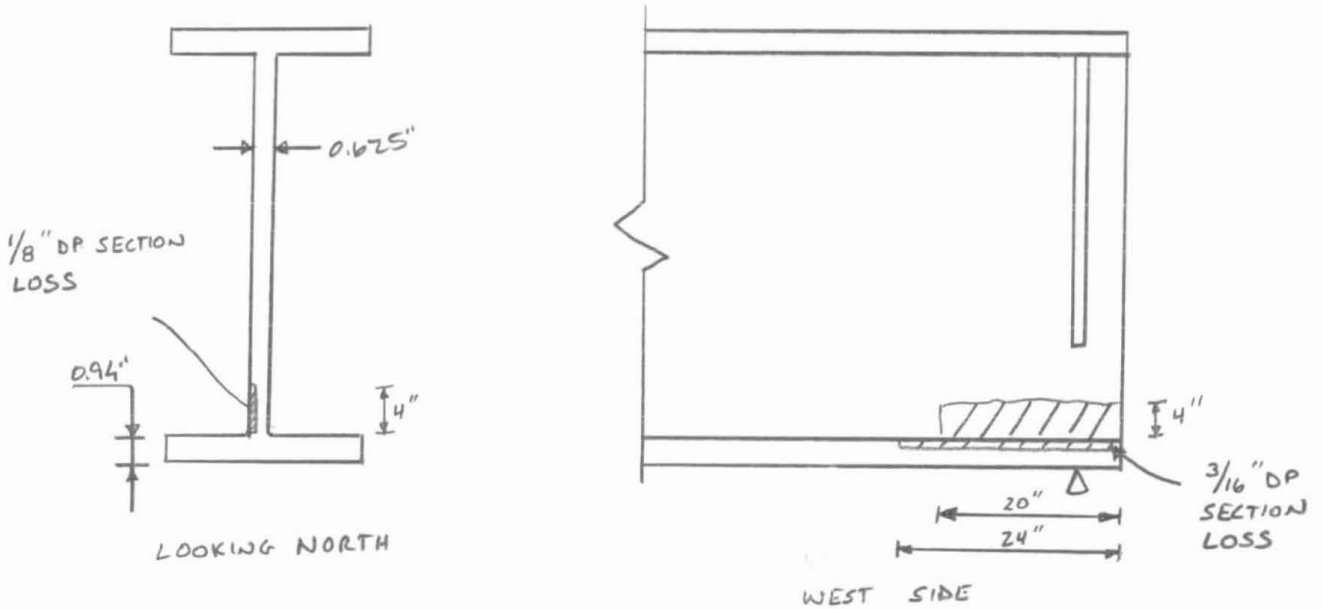
	PROJ. NO. 170- 2357	BRIDGE NO. 02375
	DATE 12/10/06	SHEET 26
PREPARED BY: Garg Consulting Services, Inc. ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS	CREW PG, DS	



SPAN 6 G3 @ PIER 5

N.T.S.

ORIGINAL SECTION
W36X150



SPAN 6 G4 @ PIER 5

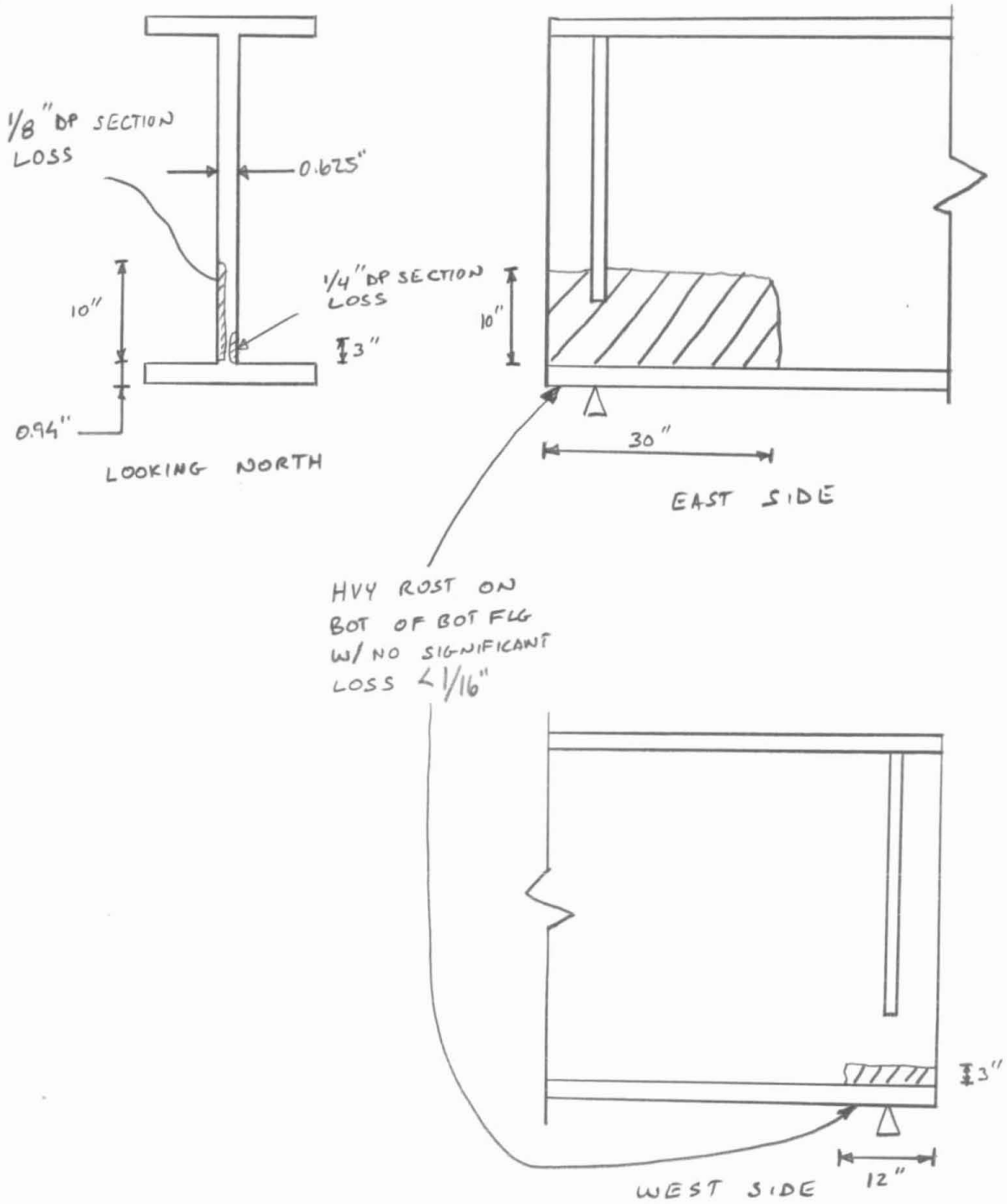
N.T.S

ORIGINAL SECTION
W36X150

Revision	Date	Crew	Company	Revision	Date	Crew	Company
Revision	Date	Crew	Company	Revision	Date	Crew	Company

FIELD NOTES

	PROJ. NO. 170-2357	BRIDGE NO. 02375
	DATE 12/10/06	SHEET 27
PREPARED BY: Garg Consulting Services, Inc. ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS	CREW PG, DS	



SPAN 6 G3 @ PIER 6

ORIGINAL SECTION
W 36 X 150

Revision	Date	Crew	Company	Revision	Date	Crew	Company
Revision	Date	Crew	Company	Revision	Date	Crew	Company

Bridge No.: 2375 Date: 12/27/06 Prepared By: CL Checked By: PDG

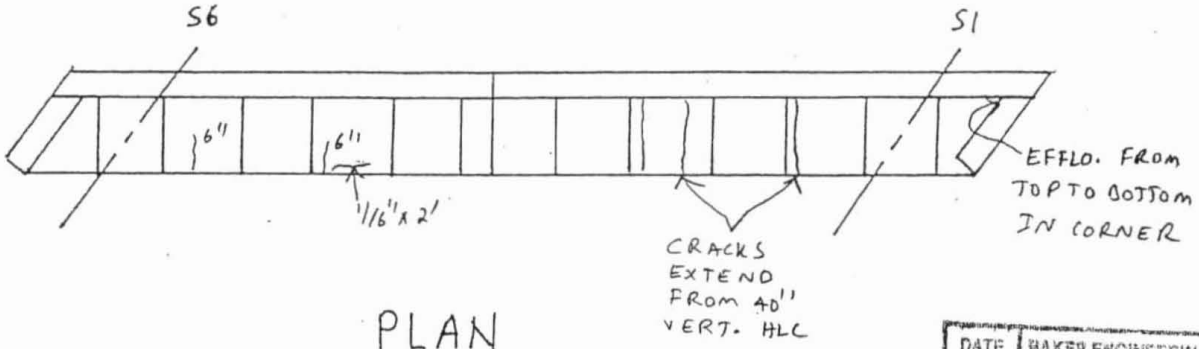
CONCRETE DETERIORATION WORKSHEET

Form BRI-10, Rev. 9/01

	Deterioration By Span - In Square Feet										
	Span Number										
Deterioration Type	1	2	3	4	5	6	7	8	9	10	Total
Spalled and Delaminated Areas	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top: 0
	Bot: 25	Bot: 33	Bot: 62	Bot: 26	Bot: 30	Bot: 14	Bot: 25	Bot:	Bot:	Bot:	Bot: 215
Scale (Moderate to Severe Only)	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top: 0
	Bot:	Bot: 3	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot: 3
Cracks: w/Efflorescence (use 6 in. width x length)	Bot: 16	Bot: 7	Bot: 0	Bot: 7	Bot: 5	Bot: 8	Bot: 0	Bot:	Bot:	Bot:	Bot: 42
w/o Efflo. (use 3 in. width x length)	Bot: 8	Bot: 16	Bot: 8	Bot: 7	Bot: 8	Bot: 0	Bot: 9	Bot:	Bot:	Bot:	Bot: 56
Map Cracking: w/Efflorescence (use full area)	Bot: 45	Bot: 38	Bot: 166	Bot: 313	Bot: 502	Bot: 314	Bot: 142	Bot:	Bot:	Bot:	Bot: 1,520
w/o Efflo. (use 50% of area)	Bot: 6	Bot: 32	Bot: 56	Bot: 57	Bot: 31	Bot: 5	Bot: 36	Bot:	Bot:	Bot:	Bot: 222
Honeycombed Areas (only areas more than 1 1/2 in. deep)	Bot: 10	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot: 10
Total Span Area (Square Feet)	2,403	3,427	2,407	2,937	2,937	2,492	1,602				18,205
% Spalled and Delaminated on Top	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%				0.00%
% Deterioration on Bottom	4.56%	3.76%	12.14%	13.94%	19.58%	13.67%	13.17%				11.35%

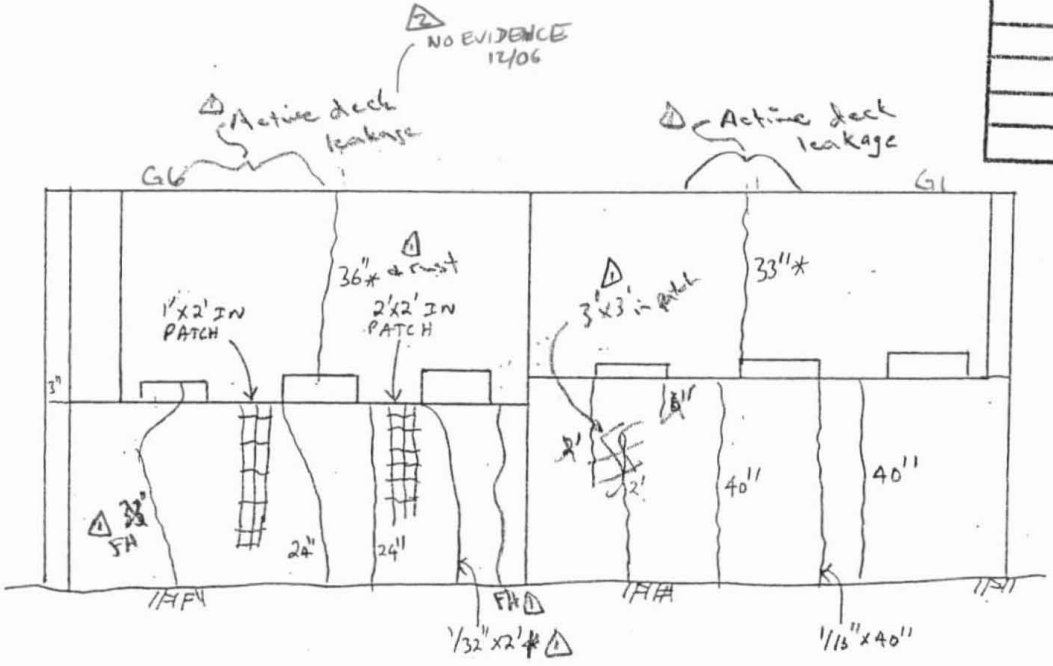
United International Corporation
Engineers and Surveyors

FIELD NOTES	JOB NO. 170-1965	BRIDGE NO. 02375
	DATE: 1-18-00	SHEET ~~35~~ OF ~~61~~ 29
DESCRIPTION: SUBSTRUCTURE	CREW: RDB, SRD, JM	



PLAN
NTS

DATE	BAKER ENGINEERING
3/2/05	NFP, MSO, JC (1)
12/7/06	(2) PDG, SM, CL (GCS)
REVISION	



SOUTH ABUTMENT (#1) - ELEVATION
NTS

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACKS (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- * EFFLORESCENCE IS PRESENT

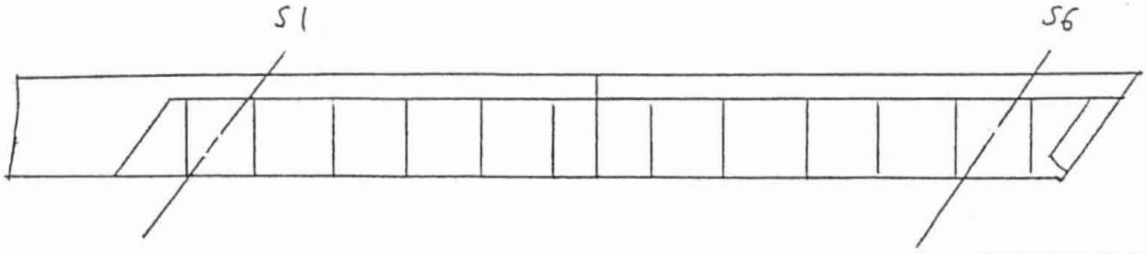
NOTES:

(A) THERE ARE SOME AREAS OF LIGHT ACCUMULATION OF DIRT ON SEAT.

(B) BROKEN STONE COVERS SLOPE IN FRONT OF ABUTMENT.

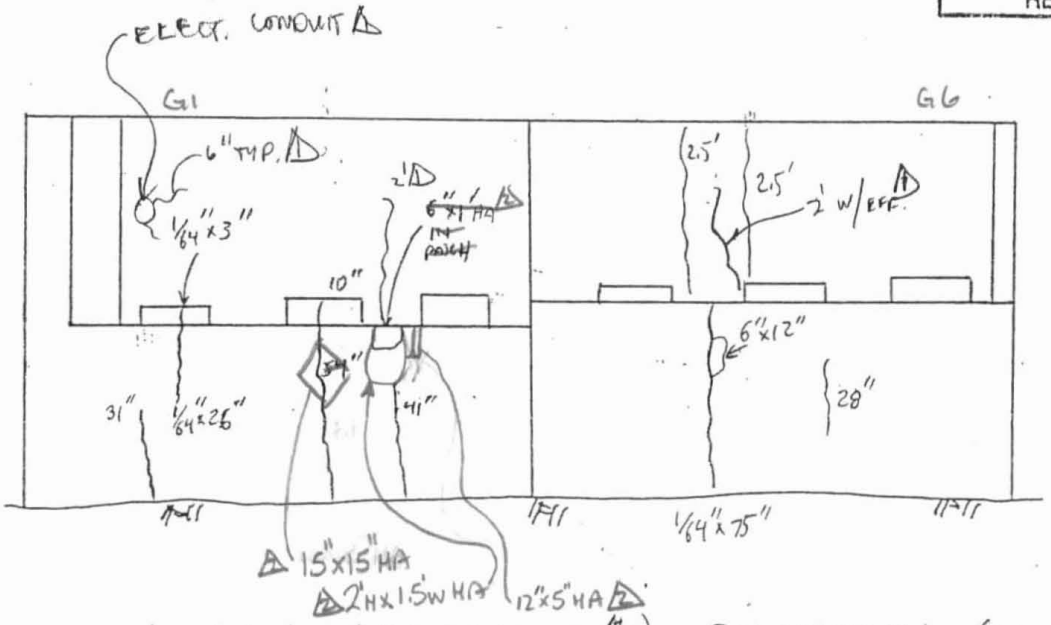
United International Corporation
Engineers and Surveyors

FIELD NOTES	JOB NO. 170-1965	BRIDGE NO. 02375
	DATE: 01-19-00	SHEET ~~34~~ OF ~~61~~ 30
	CREW: RDB, SRD	
DESCRIPTION: SUBSTRUCTURE		



PLAN
NTS

DATE	BAKER ENGINEERING
3/19/05	MDD, WMR △1
12/10/06	△2 PDG, DLC (GLS)
REVISION	



NORTH ABUTMENT (#2) - ELEVATION (~~PHOTO 18~~ △)
NTS

LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACKS (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- ✳ EFFLORESCENCE IS PRESENT

NOTES;

(A) BROKEN STONE COVERS THE SLOPE IN FRONT OF THE ABUTMENT

(B) NO DEBRIS ON THE SEAT

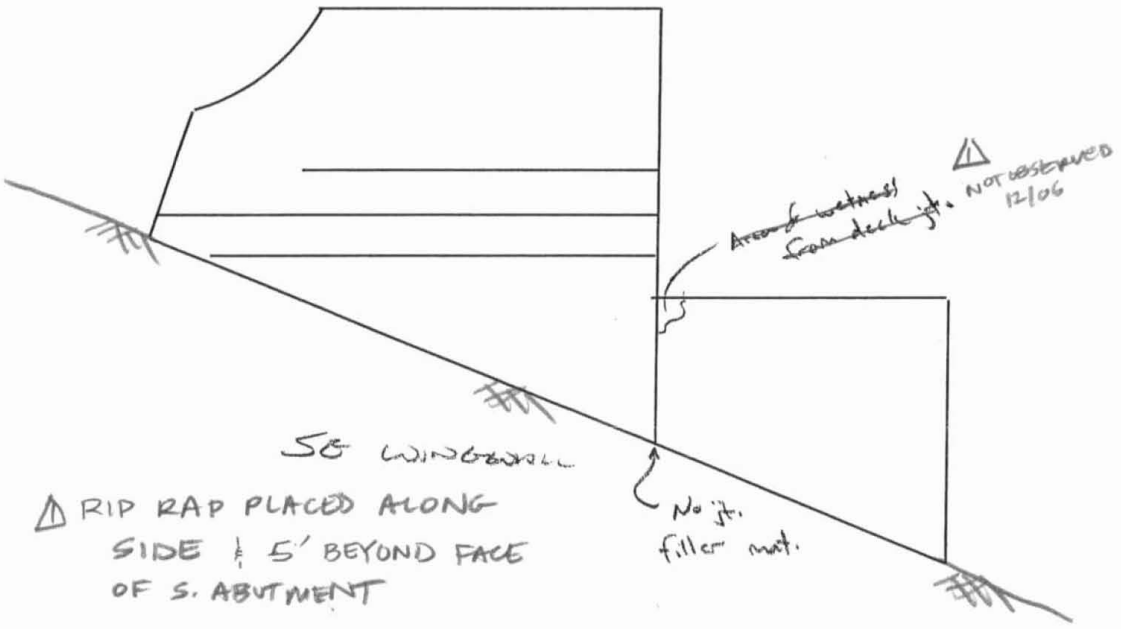
Baker

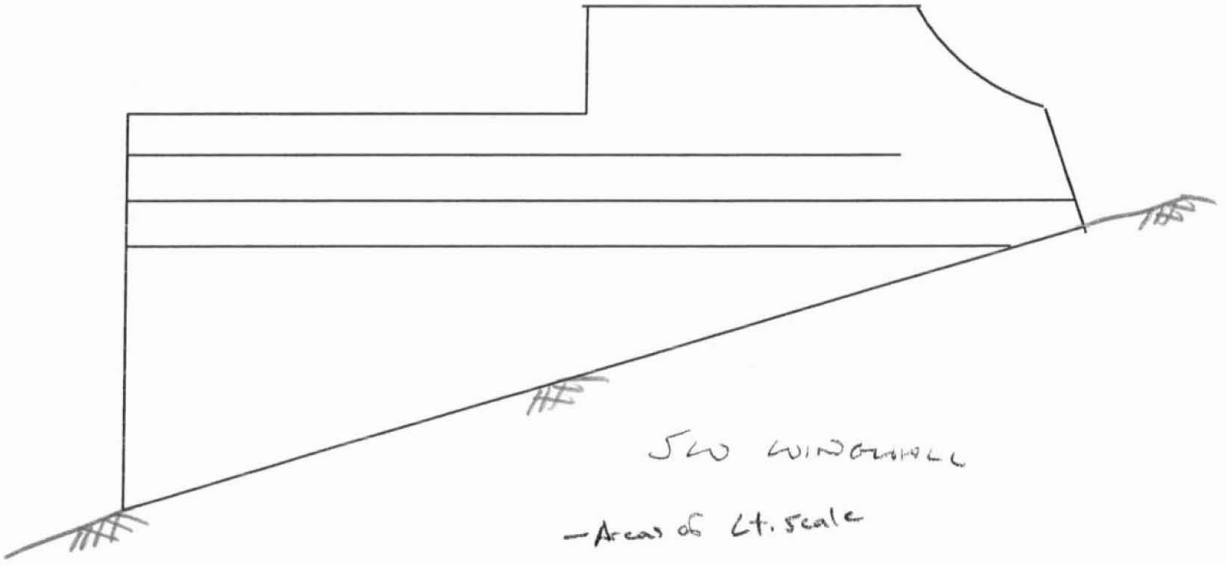
SUPPLEMENTAL SHEET

☒ FIELD ORIGINAL ☐ TRANSCRIBED BY: _____

BRIDGE NO. 02375	DATE: 3/2/05
CREW: NFP, MJ1, JC	SHEET ~~35~~ OF ~~61~~ 31

DESCRIPTION: Wingwalls - South





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 (HVY, MED OR LT)

UPDATE NO.	DATE	COMPANY	CREW
1	12/7/06	GLS	PDG, SW, CL

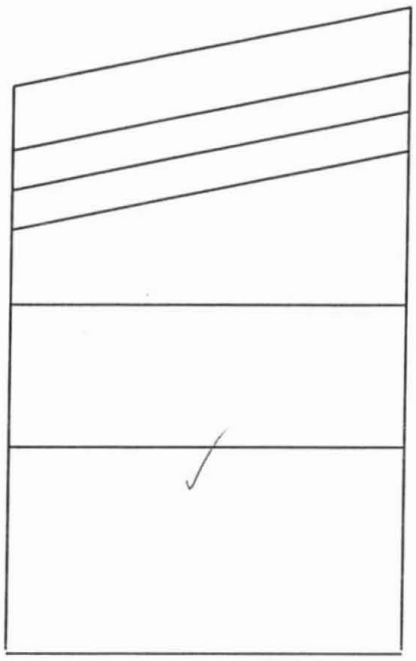
Baker

SUPPLEMENTAL SHEET

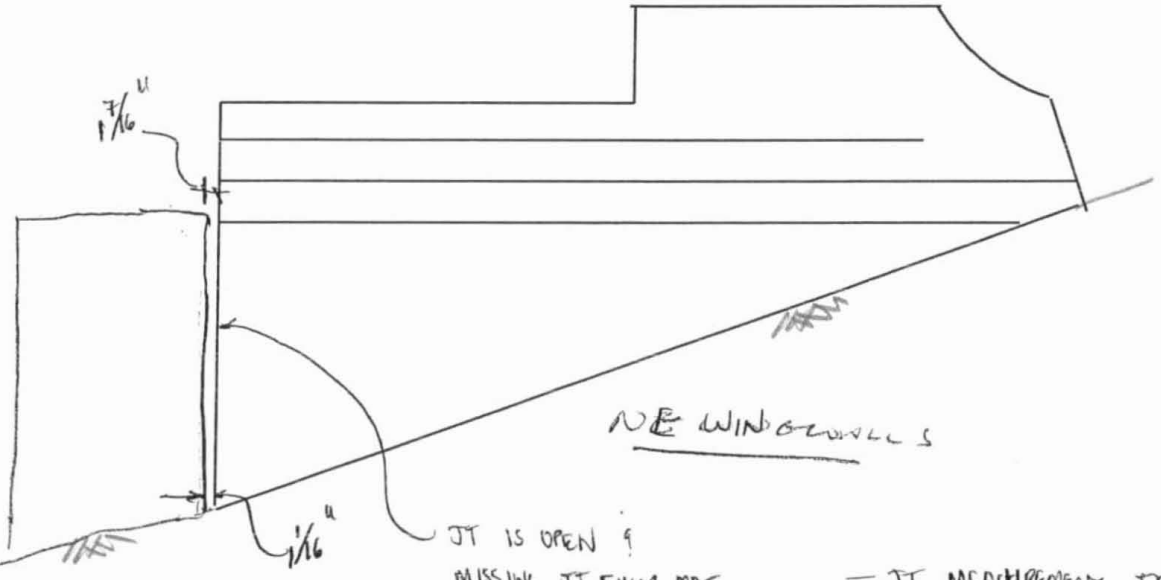
☑ FIELD ORIGINAL ☐ TRANSCRIBED BY: ____

BRIDGE NO. 02375	DATE: 03/19/05
CREW: MDD, WMK	SHEET ~~36~~ OF ~~61~~ 32

DESCRIPTION: Wingwalls – North



NW WINGWALL



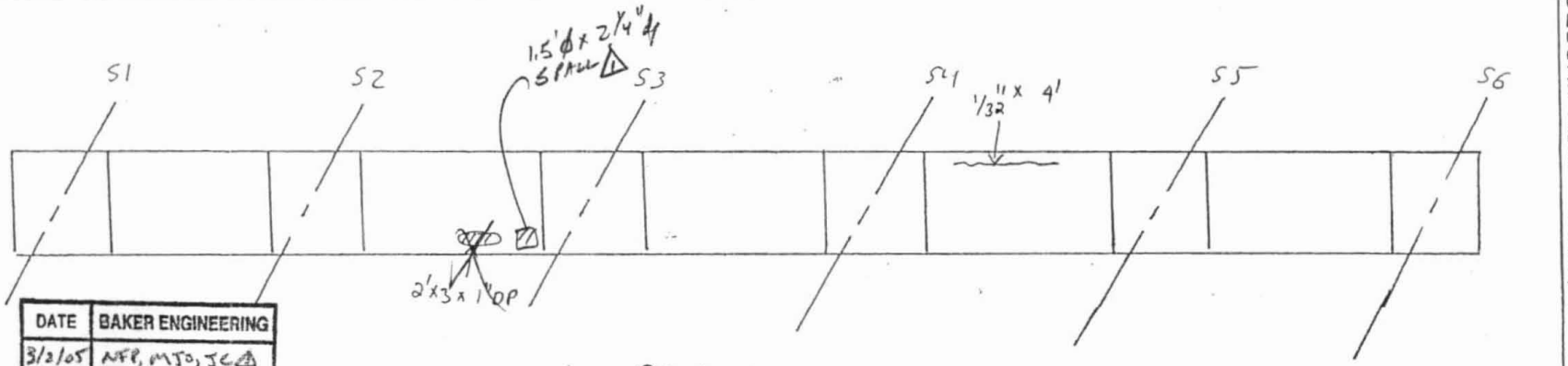
NE WINGWALLS

— JT MEASUREMENTS TAKEN @ CHISEL MARKS.

△ NO CHANGE

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 (HVY, MED OR LT)

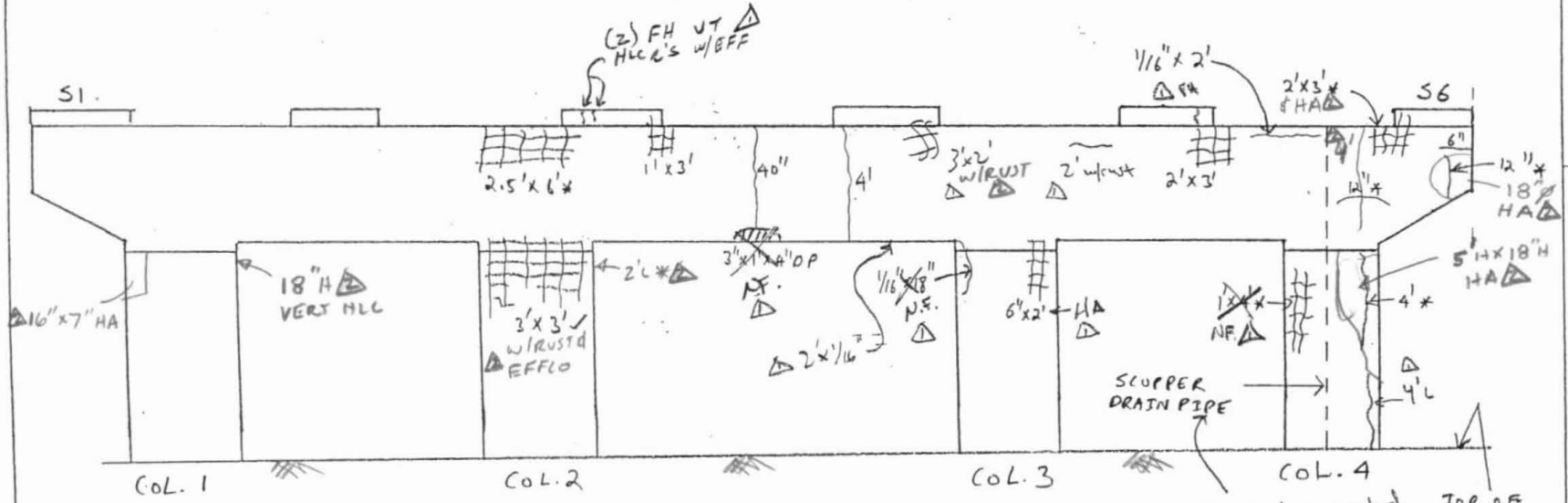
UPDATE NO.	DATE	COMPANY	CREW
△1	12/12/06	GCS	PDG, DLC
△			
△			
△			



DATE	BAKER ENGINEERING
3/2/05	NFP, MJO, JC
12/4/06	PDG, SW, CL

PLAN

NTS



LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACKS (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- * EFFLORESCENCE IS PRESENT
- NF = NOT FOUND OR REPAIRED

PIER 1 – SOUTH ELEVATION

NTS

△ – Prev. repairs typ exhibit hc perimeter cracks + ff

DESCRIPTION: SUBSTRUCTURE

FIELD NOTES

CREW: RDB, SRD, JM

DATE: 1-18-00

JOB NO. 170-1965

BRIDGE NO. 02375

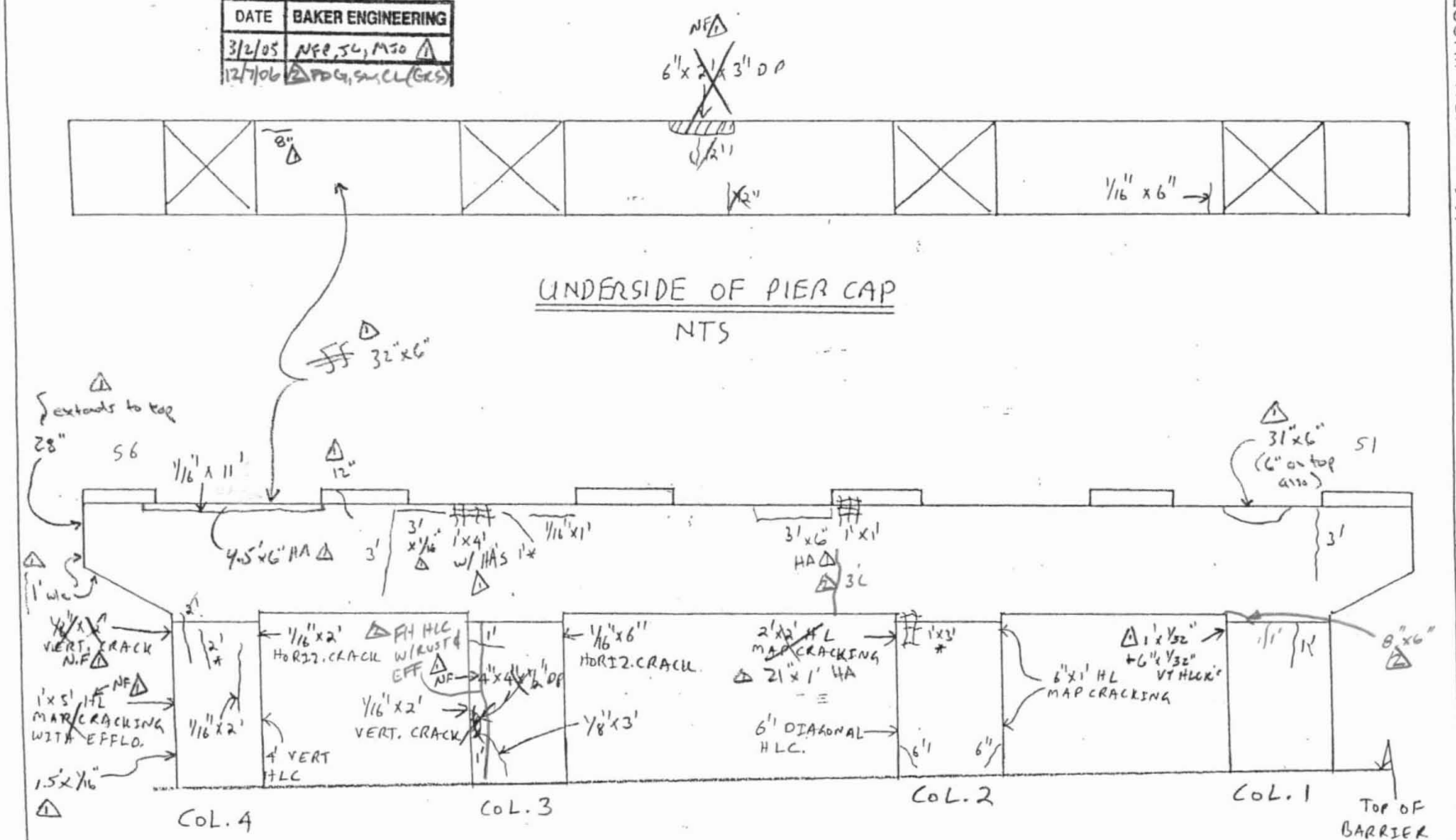
SHEET 37 OF 67 33

Ulico Field Inspection Output Report

Engineers and Surveyors

8/4/05

DATE	BAKER ENGINEERING
3/2/05	NFP, SC, MJO 1
12/7/06	2 PDG, SM, CL (GRS)



LEGEND

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

N.F. = NOT FOUND OR REPAIRED 1

PIER 1 - NORTH ELEVATION

NTS

NOTES:

(A) PIER CAP UNDERSIDE EXHIBITS PATTERNED RUST SPOTS.

DESCRIPTION: SUBSTRUCTURE

FIELD NOTES

JOB NO. 170-1965

DATE: 1-18-00

CREW: RDB, SRD, JM

BRIDGE NO. 02275

SHEET 28 OF 61 34

UJC

Engineers and Surveyors

83/43

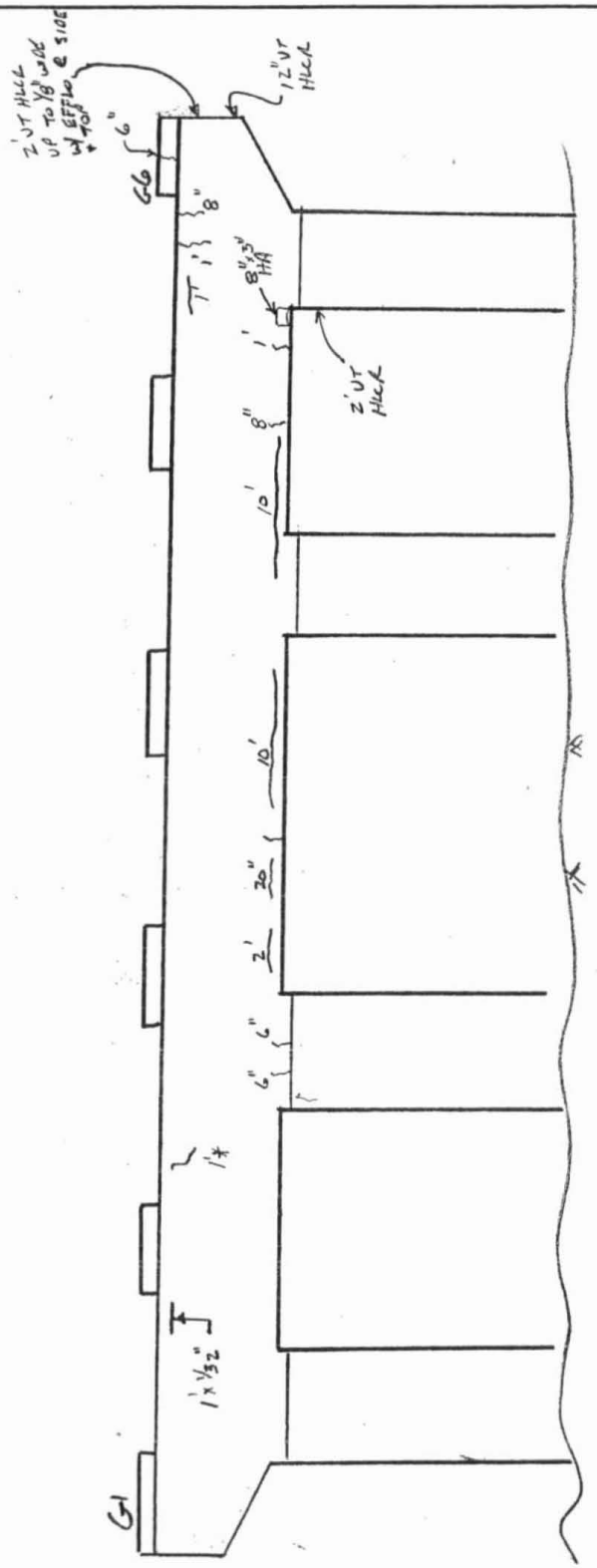
Baker

SUPPLEMENTAL SHEET

☐ FIELD ORIGINAL ☒ TRANSCRIBED BY: MJO

BRIDGE NO. 2375	DATE: 3-3-05
CREW: MJO/NFP	SHEET ~~34~~ OF ~~64~~ 35

DESCRIPTION:



PIER 2, S. ELEV

△ NO CHANGE

GS: NUMEROUS LOOSE REBARS THRU-OUT
. LT DEBRIS @ CAP

UPDATE NO.	DATE	COMPANY	CREW
△	12/7/06	GCS	RDG, SW, CL
△			
△			
△			

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 (HVY, MED OR LT)
- * W/ EFF

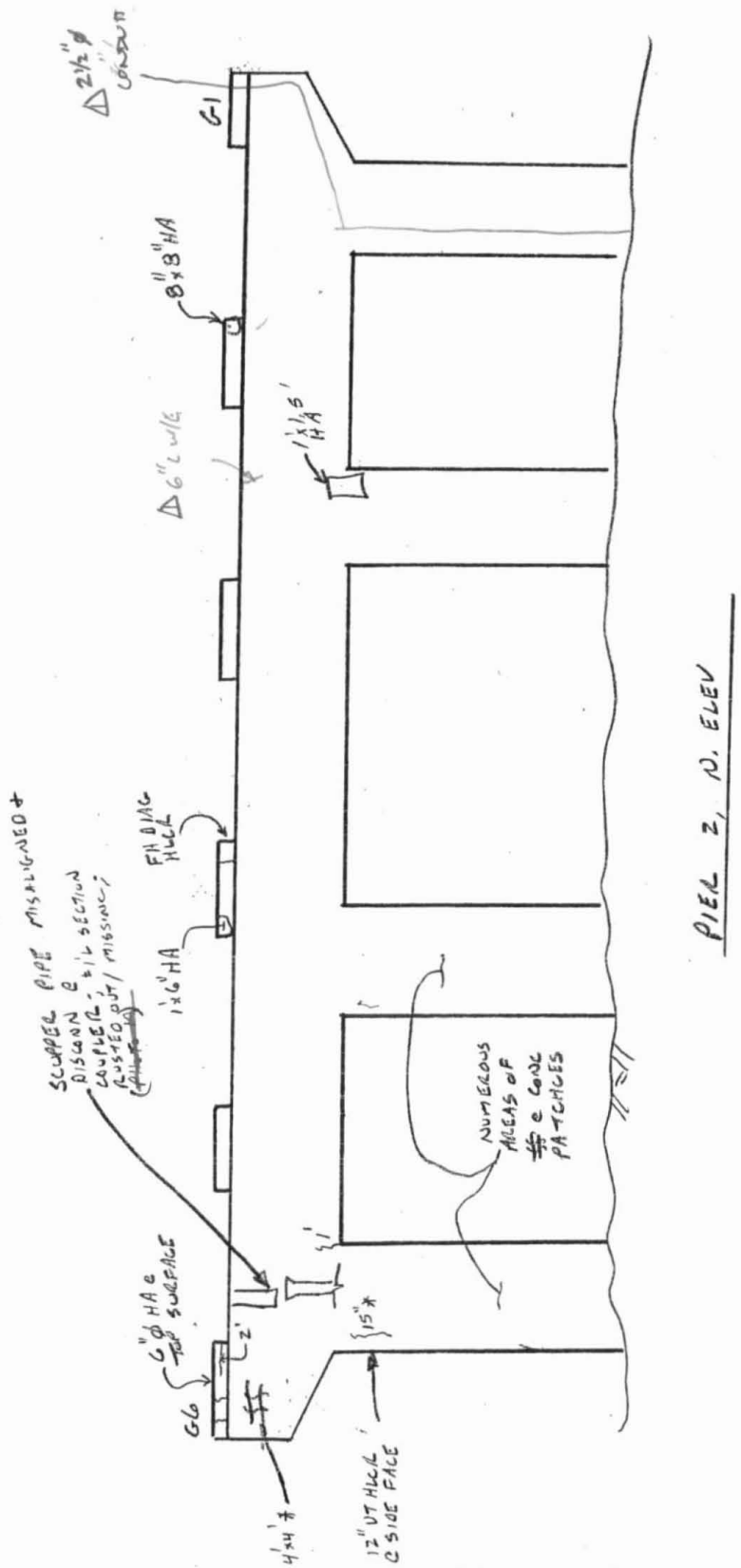
Baker

SUPPLEMENTAL SHEET

☐ FIELD ORIGINAL ☒ TRANSCRIBED BY: MTP

BRIDGE NO. 2375	DATE: 3-3-05
CREW: MJD/NFP	SHEET ~~40~~ OF ~~61~~ 36

DESCRIPTION:



GEN
• NUMEROUS CONCRETE REPAIRS THRU-OUT

UPDATE NO.	DATE	COMPANY	CREW
△	12/1/06	GCS	PDG, SW
△			
△			
△			

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 (HVY, MED OR LT)

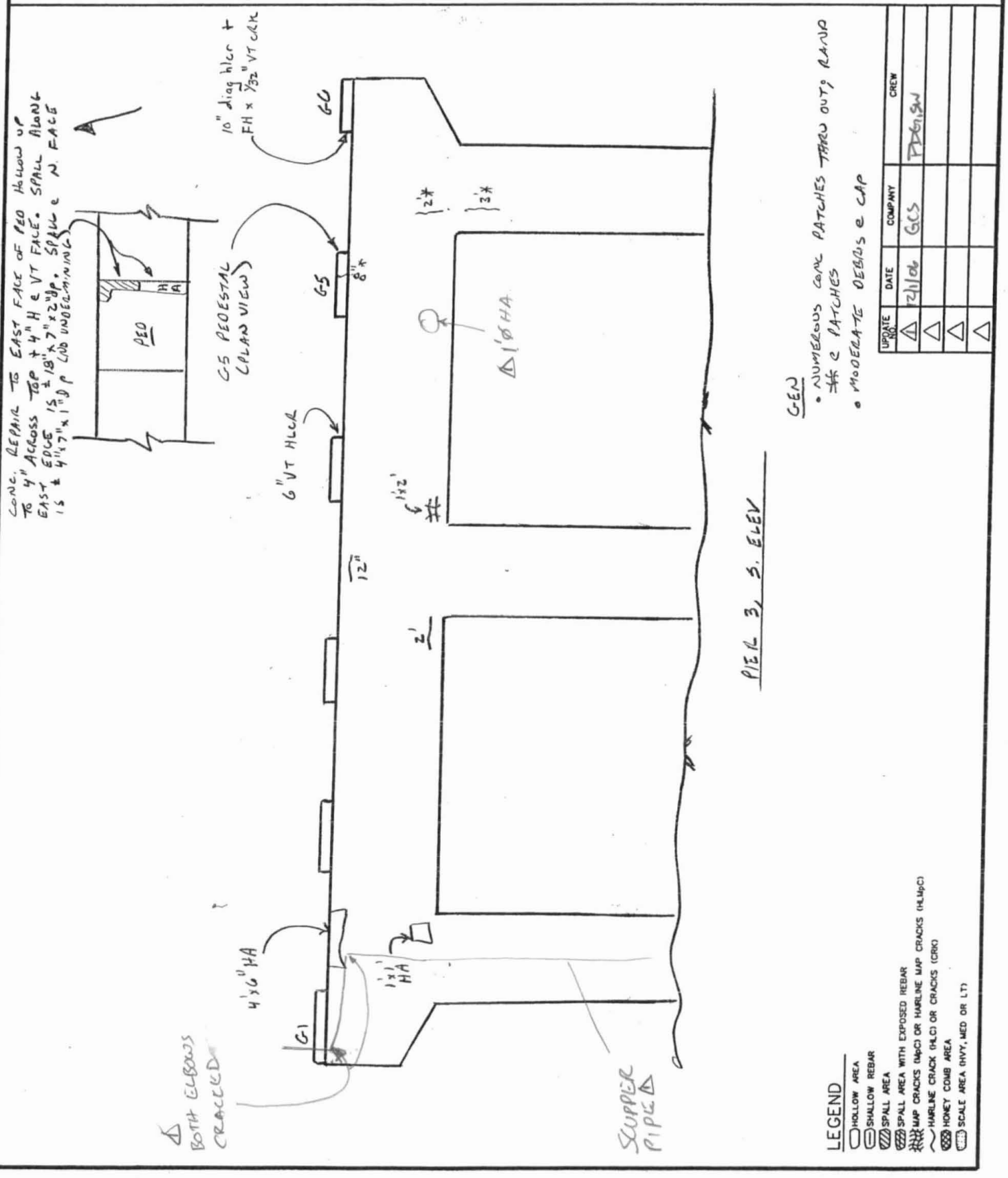
Baker

SUPPLEMENTAL SHEET

☐ FIELD ORIGINAL ☒ TRANSCRIBED BY: MJO

BRIDGE NO. 2375	DATE: 3-3-05
CREW: MJO/NFP	SHEET ~~41~~ OF ~~61~~ 37

DESCRIPTION:



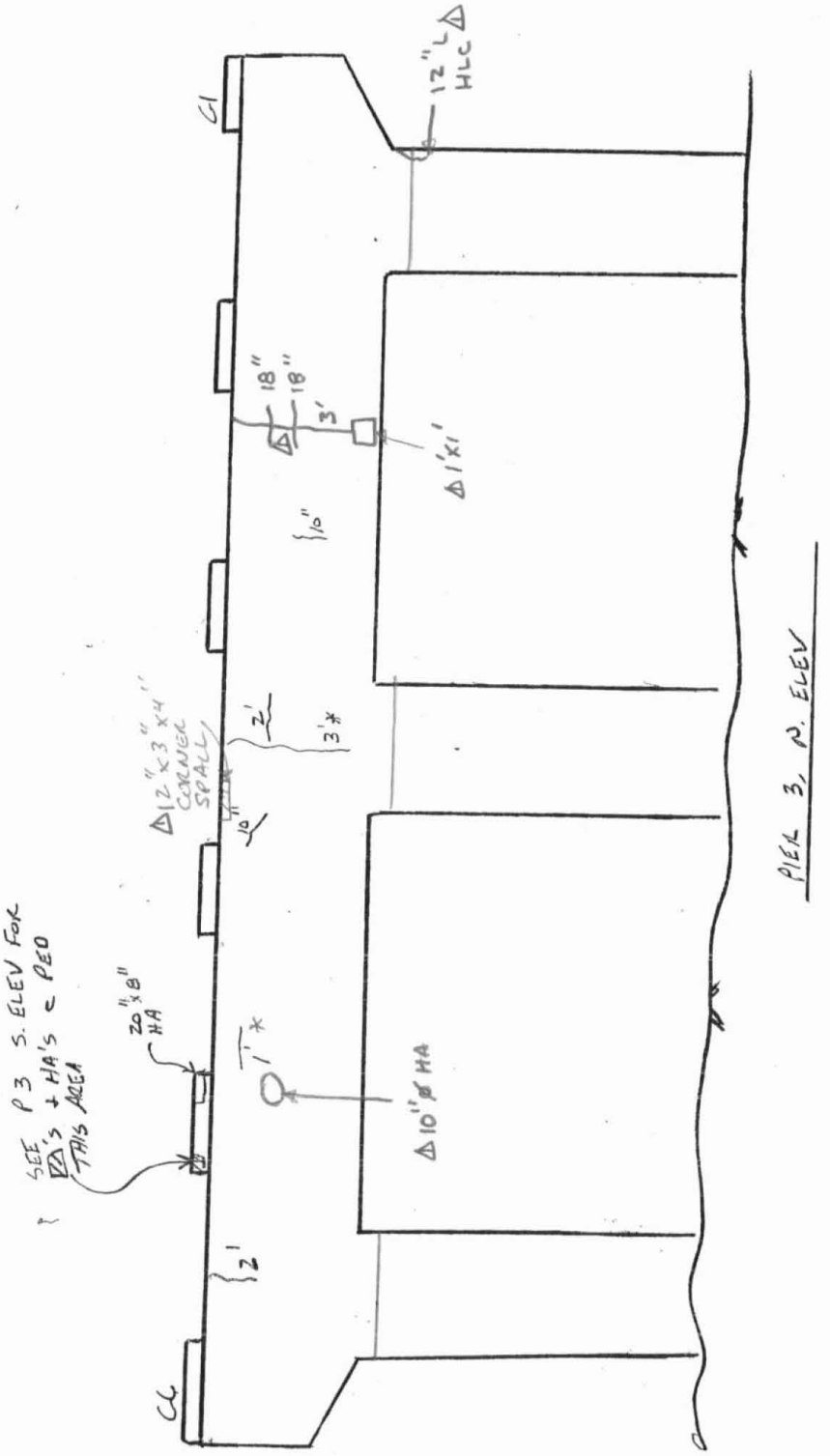
Baker

SUPPLEMENTAL SHEET

☐ FIELD ORIGINAL ☒ TRANSCRIBED BY: MJD

BRIDGE NO. 2375	DATE: 3-3-05
CREW: NFP, MJD	SHEET ~~12~~ OF ~~61~~ 38

DESCRIPTION:



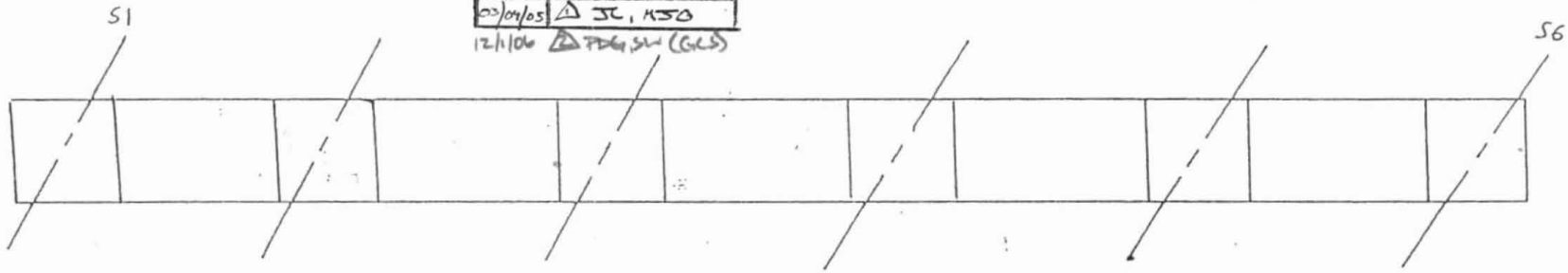
GEN
- HAND # IN CONC PATCHES
- NUMEROUS CONC PATCHES

UPDATE NO.	DATE	COMPANY	CREW
△	12/1/06	GLS	PDG, SW
△			
△			
△			

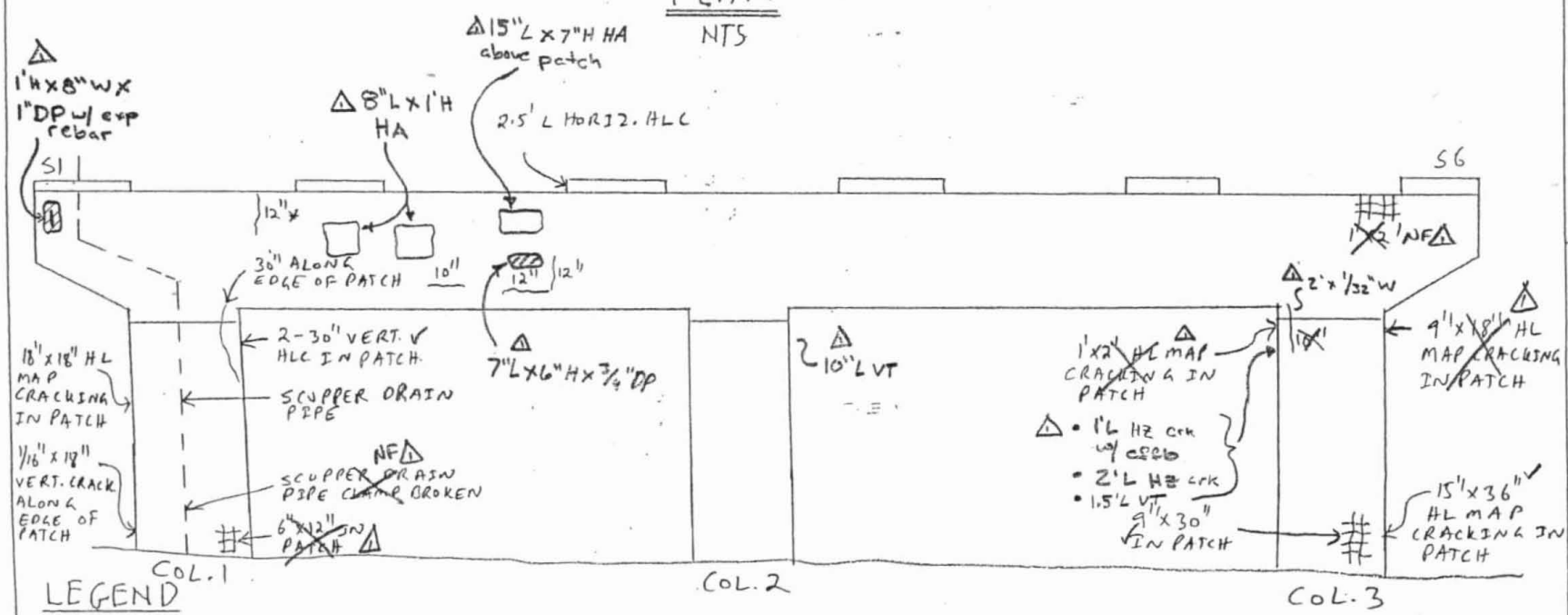
LEGEND
- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACK (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- * w/ EFF

DATE	BAKER ENGINEERING
03/04/05	△1 JC, KSD
12/1/06	△2 PDG, SLW (GLS)

△2 NO CHANGE



PLAN
NTS



LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACKS (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- ✳ EFFLORESCENCE IS PRESENT

NF = NOT FOUND OR REPAIRED △

PIER 4 - SOUTH ELEVATION

NTS

NOTES:

(A) LIGHT ACCUMULATION OF SAND AND DEBRIS ON TOP OF PIER ✓

(B) EVIDENCE OF PAST JOINT LEAKAGE.

DESCRIPTION: SUBSTRUCTURE

FIELD NOTES

JOB NO. 170-1965 | BRIDGE NO. 02375

DATE: 1-19-00 | SHEET ~~43~~ 39 OF ~~41~~ 39

CREW: RDB, SRD

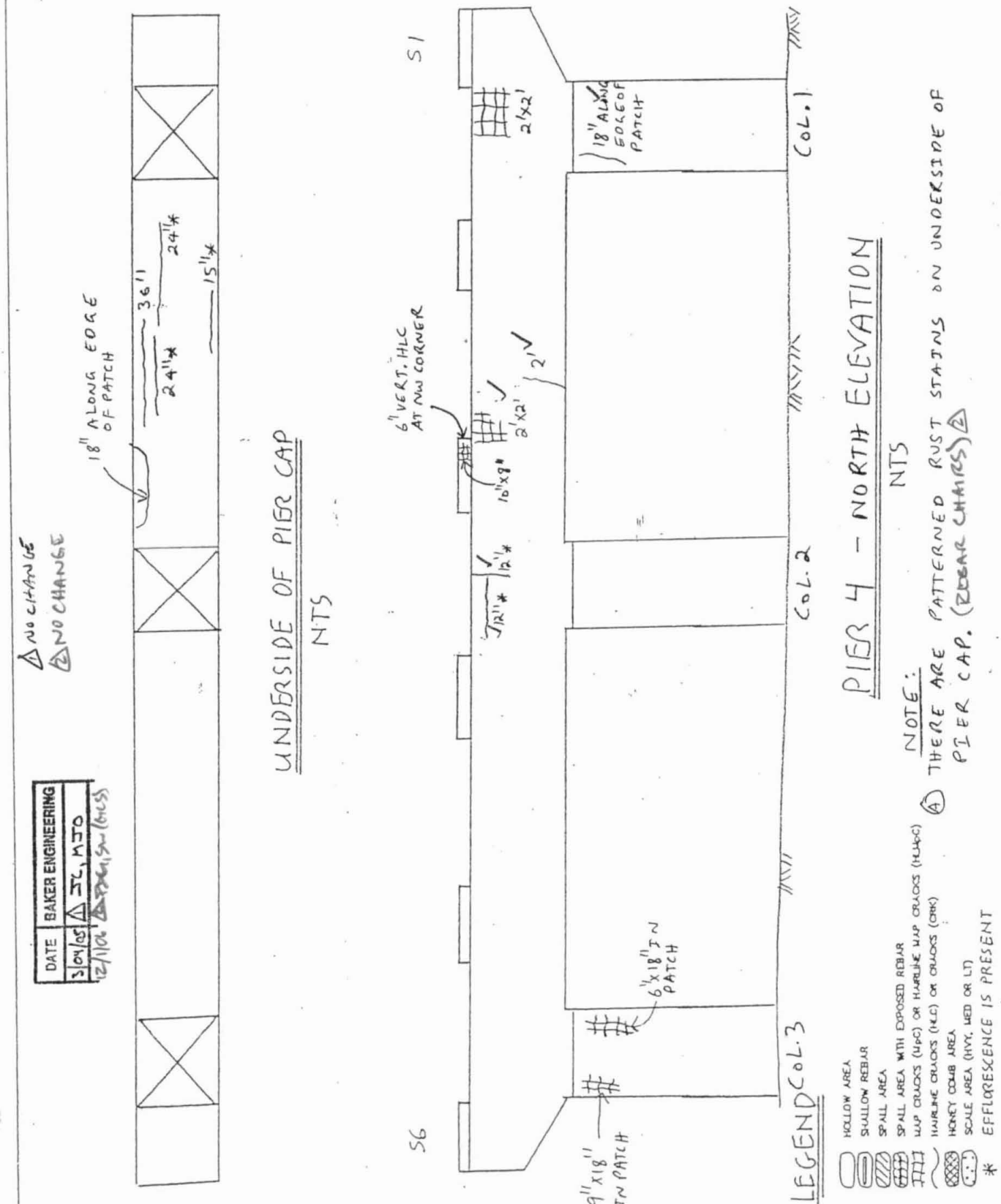
Engineers and Surveyors

UJC

Page 43

United International Corporation
Engineers and Surveyors

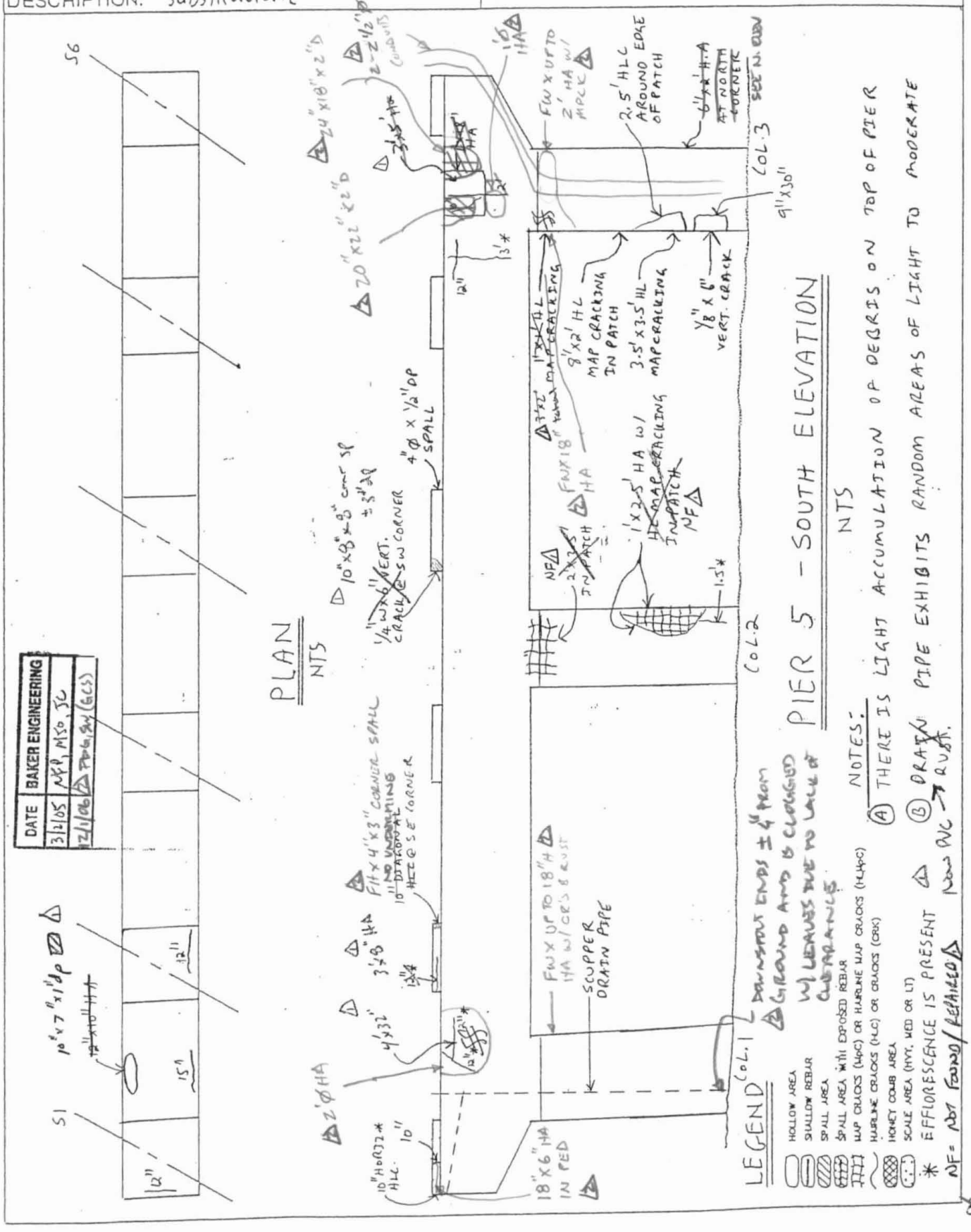
FIELD NOTES	JOB NO. 170-1965	BRIDGE NO. 02375
	DATE: 01-19-00	SHEET ~~49~~ OF ~~61~~ 40
	CREW: RDB, SRD	
DESCRIPTION: SUBSTRUCTURE		



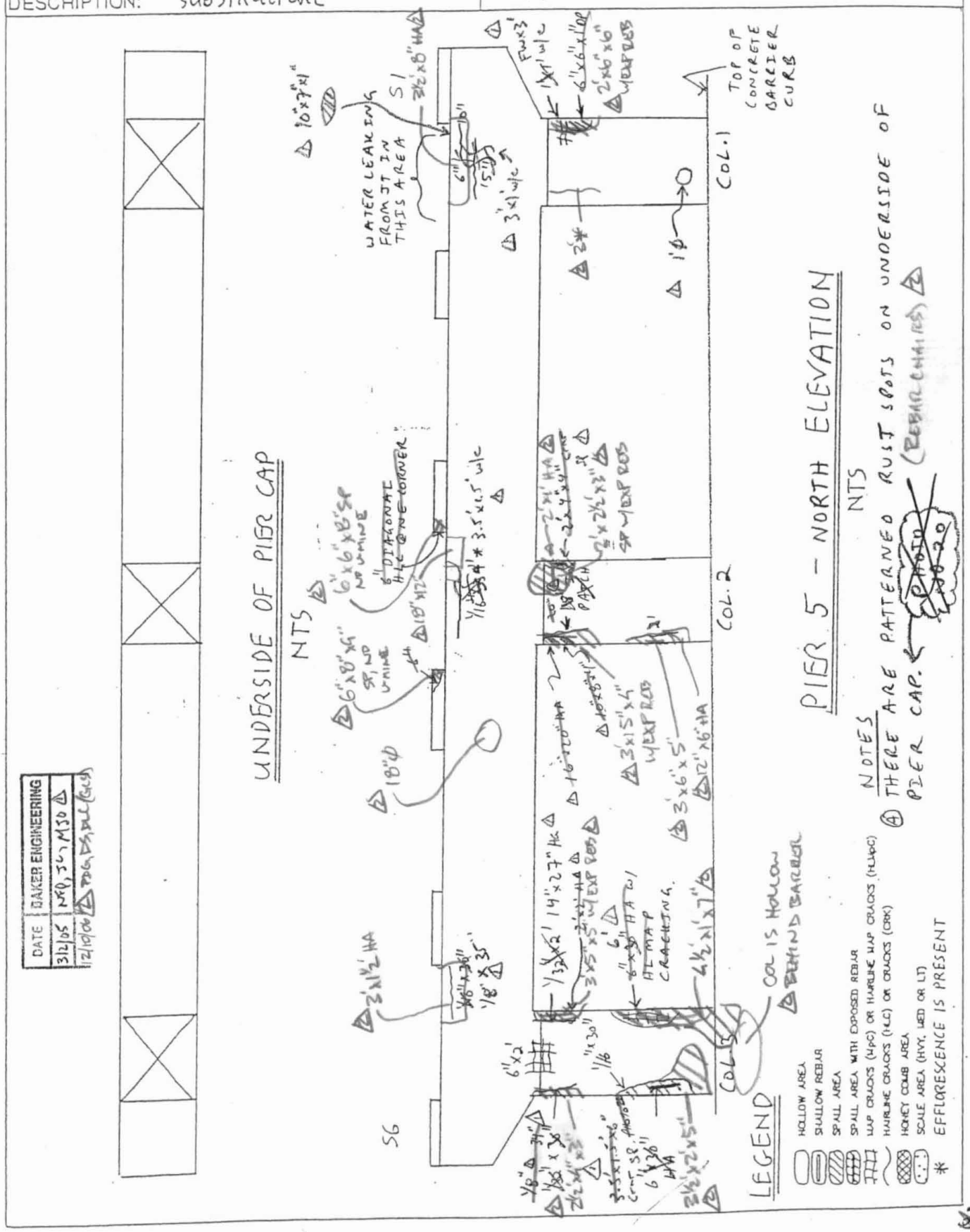
09/03

United International Corporation
Engineers and Surveyors

FIELD NOTES	JOB NO. 170-1965	BRIDGE NO. 02375
	DATE: 02-09-00	SHEET 45 OF 61 41
	CREW: RDB, SRD	
DESCRIPTION: SUBSTRUCTURE		

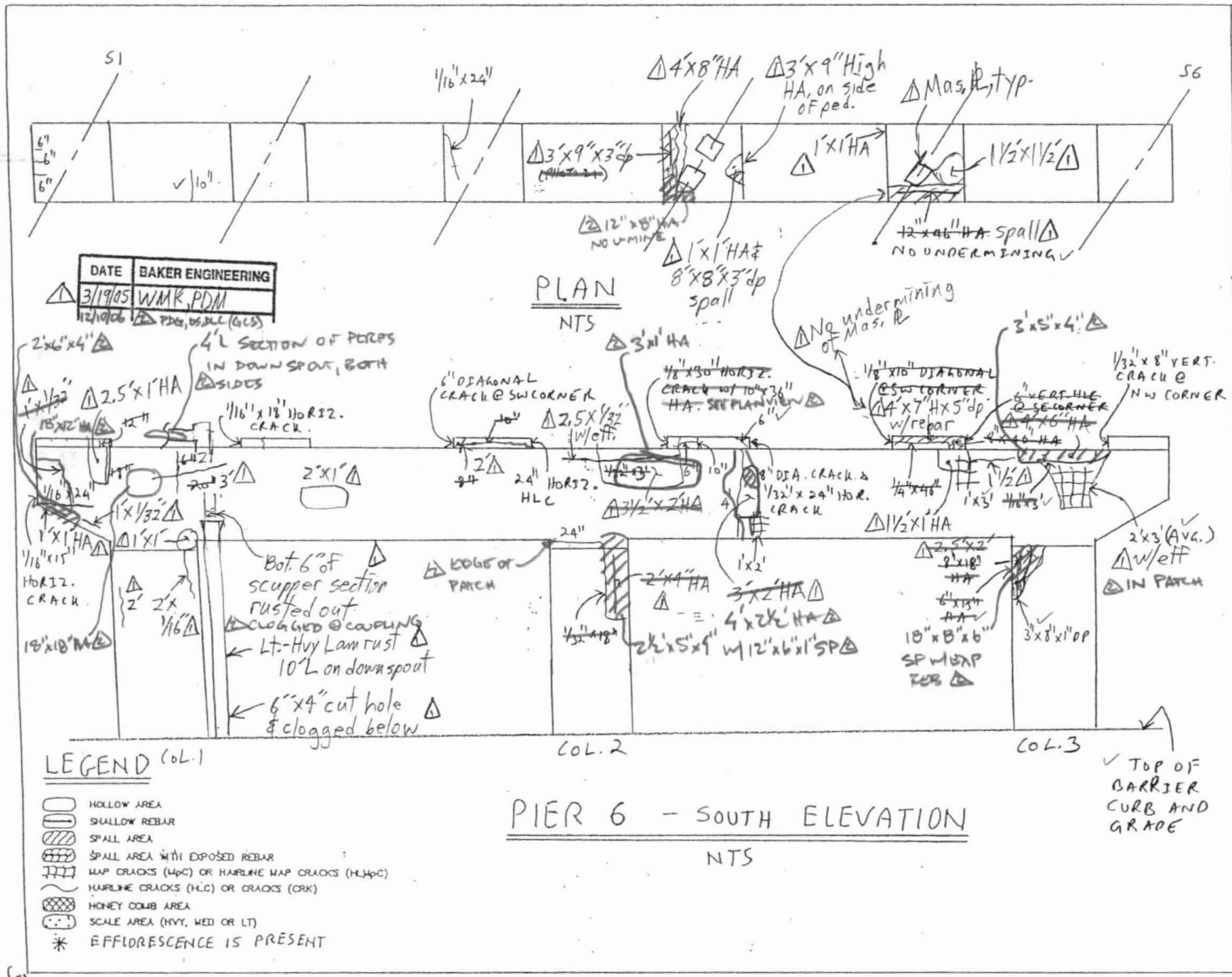


FIELD NOTES	JOB NO. 170-1965	BRIDGE NO. 02375
	DATE: 02-09-00	SHEET ~~46~~ OF ~~61~~ 42
	CREW: RDB, SRD	
DESCRIPTION: SUBSTRUCTURE		



DATE	BAKER ENGINEERING
3/12/05	MP, JSV, MJO
11/21/06	PDG, DS, BLL (GLG)

31/013



DESCRIPTION: SUBSTRUCTURE

FIELD NOTES

JOB NO. 170-1965

BRIDGE NO. 02375

DATE: 02-09-00

CREW: RDB, SRD

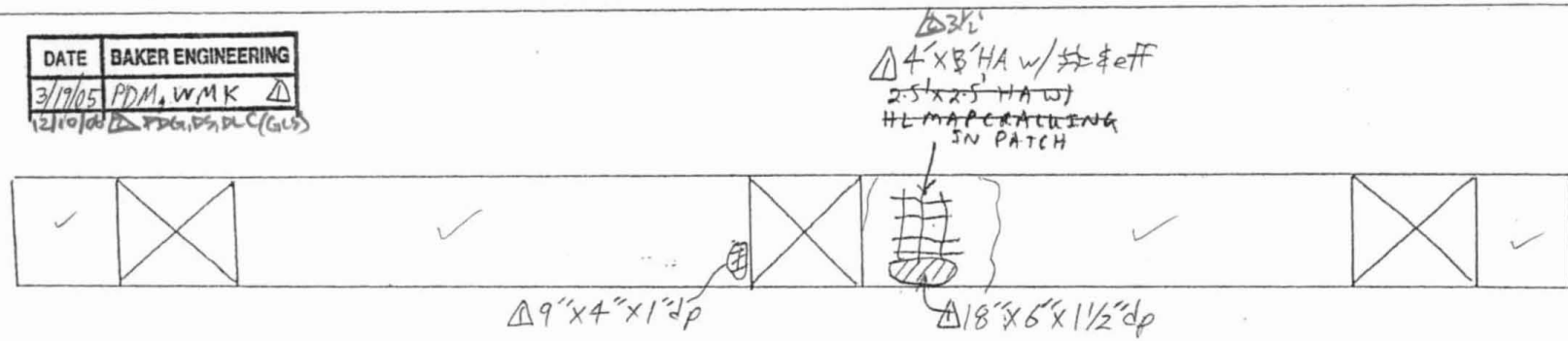
SHEET 47 OF 47 43

UIC

Engineers and Surveyors

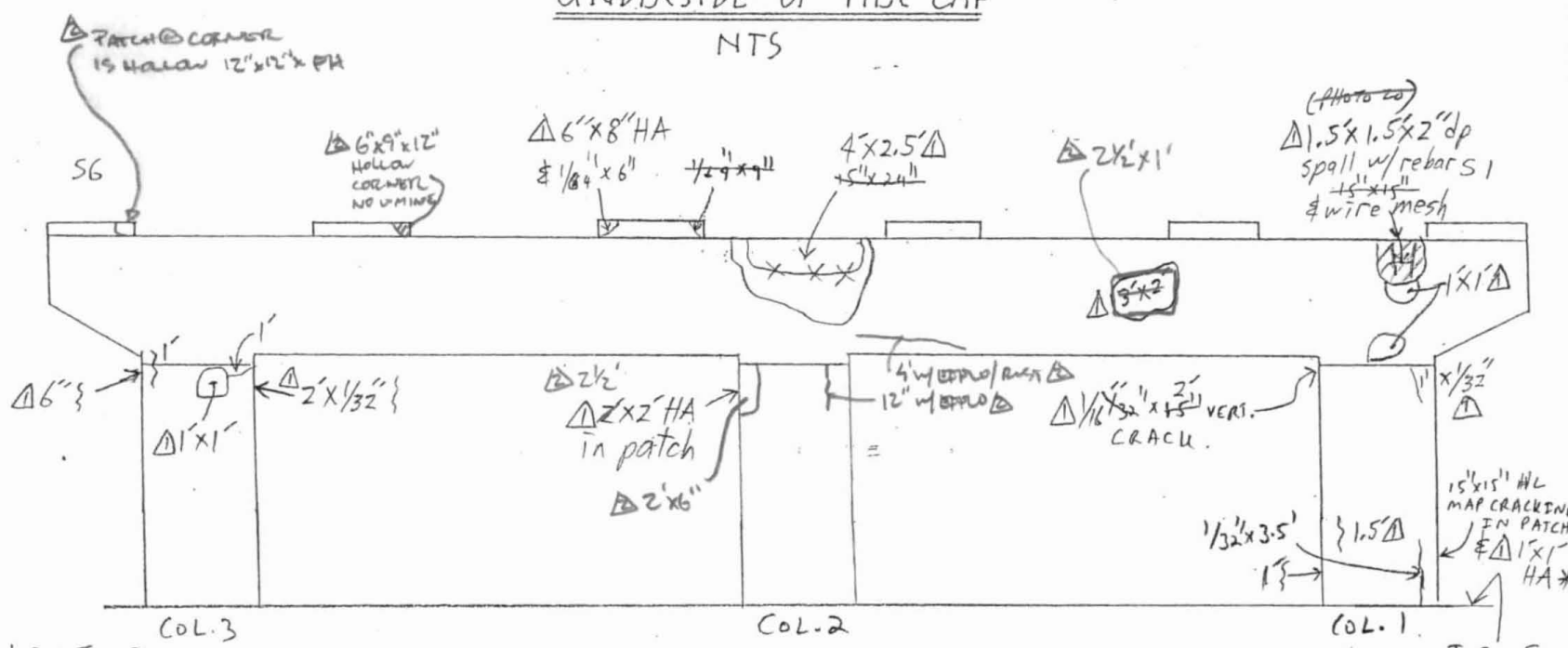
37/43

DATE	BAKER ENGINEERING
3/19/05	PDM, WMK △
12/10/00	△ PDG, DS, DLC (GLS)



UNDERSIDE OF PIER CAP

NTS



LEGEND

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAP CRACKS (MpC) OR HAIRLINE MAP CRACKS (HLMpC)
- HAIRLINE CRACKS (HLC) OR CRACKS (CRK)
- HONEY COMB AREA
- SCALE AREA (HVY, MED OR LT)
- * EFFLORESCENCE IS PRESENT

PIER 6 - NORTH ELEVATION

NTS

NOTES

Ⓐ PIER CAP UNDERSIDE EXHIBITS PATTERNED RUST SPOTS. (REBAR CHAIRS) △

DESCRIPTION: SUBSTRUCTURE

FIELD NOTES

CREW: RDB, SKD

DATE: 02-09-00

JOB NO. 170-1965

BRIDGE NO. 02375

SHEET ~~48~~ OF ~~67~~ 44

UIC

Engineers and Surveyors

~~53~~ 42

PHOTO LOG

Form BRI-13, Rev. 9/97

Bridge Information System

Image Inventory

Bridge No. 2375 Date 12/1/06

Town: EAST HARTFORD Photographer: SW

Carried / Crossed: SR 500 TR 801 / I-84 EB & I-84 TR 833

Film Frame #	Image Description
1	SP 5 @ P5 G4 FIX BRG w/ PACK RUST BTWN BRG PL'S
2	P5 S. ELEV CAP BTWN G5 & G6 SPALL w/ EXP REB
3	SP5 BTWN G1 & G2 2ND BAY FROM P4 SPALL IN DECK & HOLLOW
4	SP5 G6 BRG @ P4 SLIDING PL TWISTED
5	SP5 G6 BRG @ P4 W. AB SHEARED OFF
6	SP5 G5 BRG @ P4 PACK RUST BTWN SOLE PL & SLID. PL
7	P4 SP5 DECK END BTWN G4 & G5 SPALL w/ EXP REB
8	SP4 G2 E. SIDE BAY 1 BOT FLG & WEB w/ SEC LOSS
9	P2 N. ELEV @ C3 SCUPPER MISALIGNED & DISCONNECTED
10	SP 3 @ P2 G6 BRG W. GUIDE PL MISSING
11	P3 S. ELEV @ C1 SCUPPER PIPE ELBOW IS CRACKED & LEAKING
12	SP 2 BTWN G5 & G6 2ND BAY FROM P2 SP & 17A OVER LEFT LANE (NO CHANGE)
13	SP 2 BTWN G2 & G3 @ END DIAPH OVER P2 PACK RUST BTWN DECK & DIAPH
14	E. ELEV.
15	SP2, TYP V/S, LKG N
16	W. ELEV.
17	S. APP OVERLAY
18	JT OVER S. ABUT
19	JT OVER P1
20	JT OVER P2
21	SP 3 OVERLAY
22	JT OVER P3
23	JT OVER P4
24	JT OVER P5

PHOTO LOG

Form BRI-13, Rev. 9/97

Bridge Information System

Image Inventory

Bridge No. 2375 Date 12/7/06

Town: EAST HARTFORD Photographer: PDG

Carried / Crossed: SR 500 TR 801 / I-84 EB & I-84 TR 833

Film Frame #	Image Description
25	JT OVER P6
26	N. APPROACH
27	BRIDGE FROM N. APP
28	SP 7 WEST PPT LIGHT STD REMOVED
29	SP 6 SCUPPER CLOGGED
30	SP5 WEST SAFETY WALK W/ SEVERE SCALE
31	JT OVER N. ABUT
32	SP1 POTHOLE
33	S. APPROACH
34	BRIDGE FROM S. APP
35,38	P6 G4 PED W/SPALL NOTE LAM RUST ON BRG
36	SP6 G3 @ P6 W. SIDE SL TO WEB
37	SP6 G6 @ P6 W. SIDE BOT FLG SL AROUND AB
39,40,41	P6 DOWNSPOUT ON COL 1
42	P6 S. ELEV @ G1
43	SP 7 G1 NEAR P6 BOT FLG & WEB LOSS
44	P5 N. ELEV COL 2 SPALLS
45,46	P5 COL 3 N. ELEV / W. ELEV
47	S. APPROACH POTHOLES PATCHED
48	SP3 SEVERE RAVELLING IN RT SHLD, NOTE PATCHED POTHOLE
49	JT OVER P3 CR IN HEADER

Garg Consulting Services, Inc.
ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS

DATE:	01/02/07
JOB NO.:	170-2357

BRIDGE IDENTIFICATION:	2375
FEATURE CARRIED:	SR 500 TR 801
FEATURE CROSSED:	I-84 Eastbound & I-84 TR 833
LOCATION:	East Hartford

DESCRIPTION: **Bridge Identification Number. ID plate is bent and disconnected on one side.**

PHOTO: 1

DESCRIPTION: **South approach from bridge.**

PHOTO: 2

Garg Consulting Services, Inc. ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS		BRIDGE IDENTIFICATION:	2375
DATE:	01/02/07	FEATURE CARRIED:	SR 500 TR 801
JOB NO.:	170-2357	FEATURE CROSSED:	I-84 Eastbound & I-84 TR 833
		LOCATION:	East Hartford

DESCRIPTION: Bridge from south approach.

PHOTO: 3

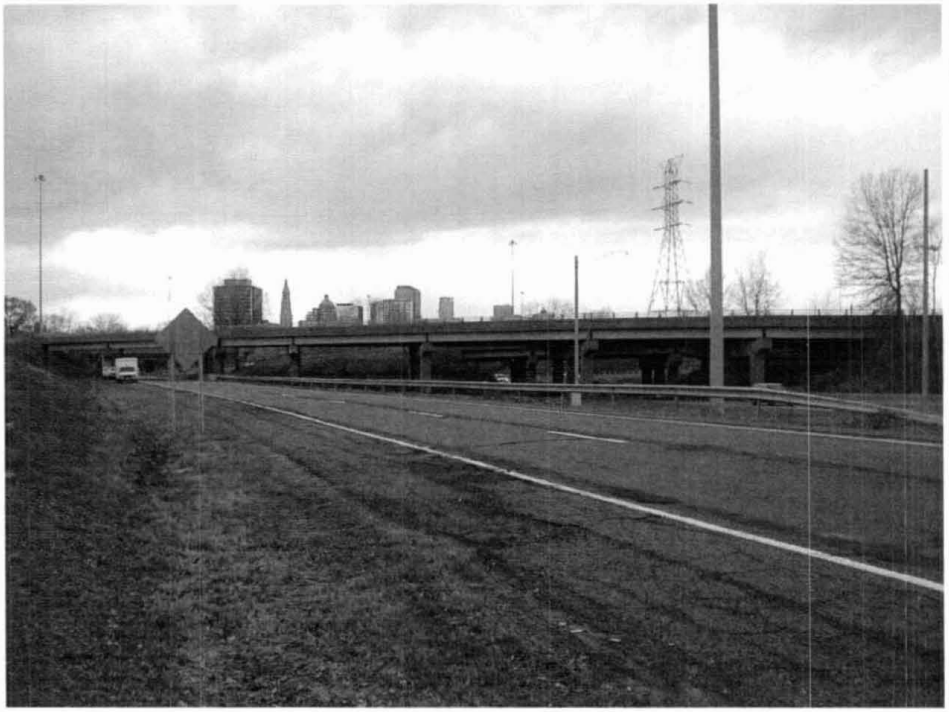
DESCRIPTION: Bridge from north approach.

PHOTO: 4

Garg Consulting Services, Inc. ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS	BRIDGE IDENTIFICATION:	2375
DATE: 01/02/07	FEATURE CARRIED:	SR 500 TR 801
JOB NO.: 170-2357	FEATURE CROSSED:	I-84 Eastbound & I-84 TR 833
	LOCATION:	East Hartford

DESCRIPTION: **North approach from bridge.**

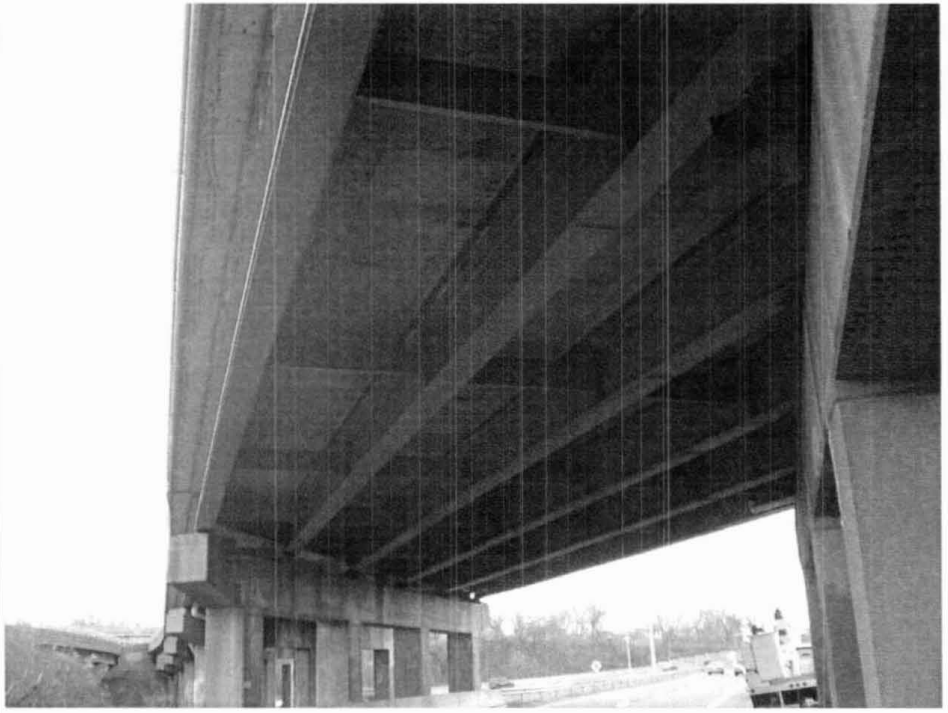
PHOTO: 5



DESCRIPTION: **East elevation.**

PHOTO: 6

Garg Consulting Services, Inc. ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS	BRIDGE IDENTIFICATION:	2375
DATE: 01/02/07	FEATURE CARRIED:	SR 500 TR 801
JOB NO.: 170-2357	FEATURE CROSSED:	I-84 Eastbound & I-84 TR 833
	LOCATION:	East Hartford



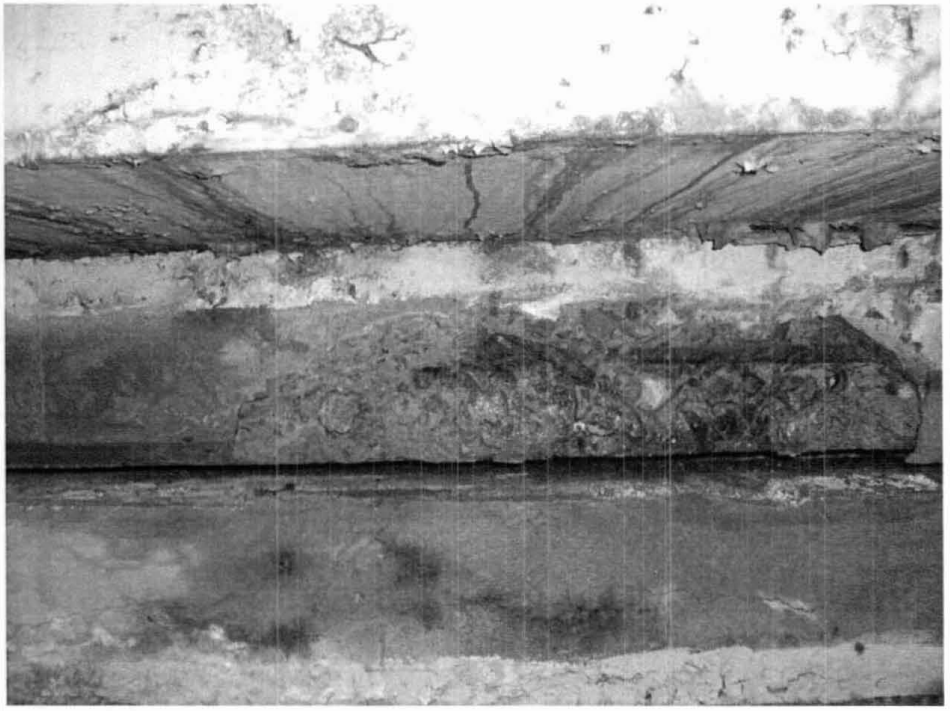
DESCRIPTION: Span 2, looking north. Typical underside.

PHOTO: 7

DESCRIPTION: Span 3, overlay has severe raveling with water ponding in right shoulder. Note: Patched pothole in right lane.

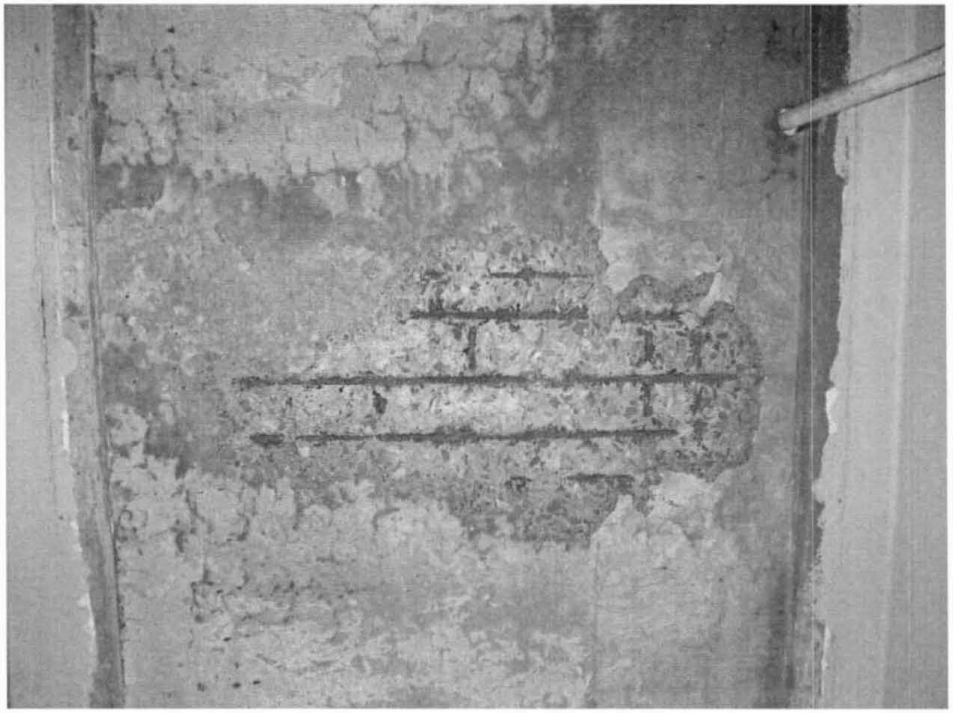
PHOTO: 8

Garg Consulting Services, Inc. ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS	BRIDGE IDENTIFICATION:	2375
	FEATURE CARRIED:	SR 500 TR 801
DATE: 01/02/07	FEATURE CROSSED:	I-84 Eastbound & I-84 TR 833
JOB NO.: 170-2357	LOCATION:	East Hartford



DESCRIPTION: **Span 5, pier 4, deck end between girder 4 and girder 5. Spall with exposed rebar.**

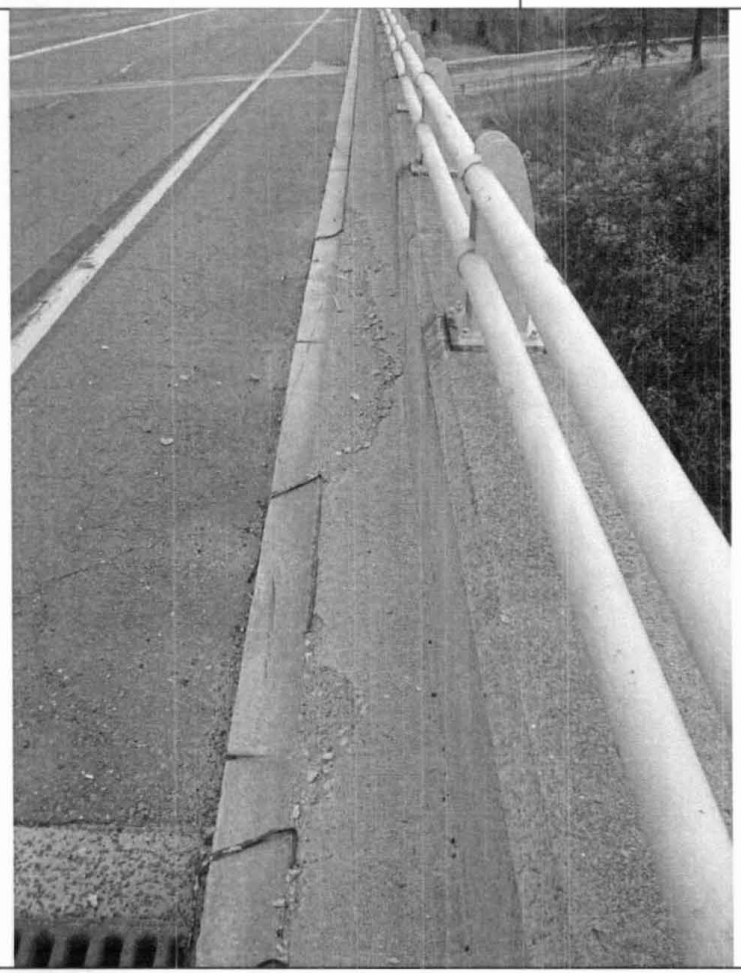
PHOTO: 9



DESCRIPTION: **Span 5 between girder 1 and girder 2, 2nd bay from pier 5. Hollow area and spall in deck.**

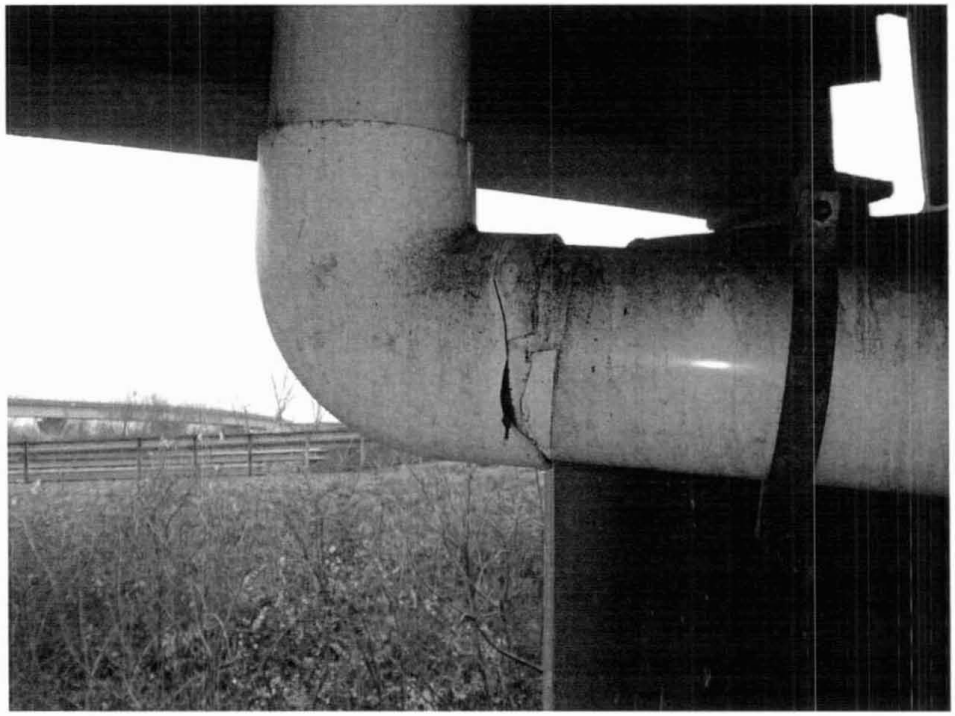
PHOTO: 10

Garg Consulting Services, Inc. ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS	BRIDGE IDENTIFICATION:	2375
DATE: 01/02/07	FEATURE CARRIED:	SR 500 TR 801
JOB NO.: 170-2357	FEATURE CROSSED:	I-84 Eastbound & I-84 TR 833
	LOCATION:	East Hartford



DESCRIPTION: **Span 5, west safety walk has severe scale.**

PHOTO: 11



DESCRIPTION: **Pier 3, south elevation at column 1. Scupper pipe elbow is cracked and leaking.**

PHOTO: 12

Garg Consulting Services, Inc. ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS	BRIDGE IDENTIFICATION:	2375
DATE: 01/02/07	FEATURE CARRIED:	SR 500 TR 801
JOB NO.: 170-2357	FEATURE CROSSED:	I-84 Eastbound & I-84 TR 833
	LOCATION:	East Hartford

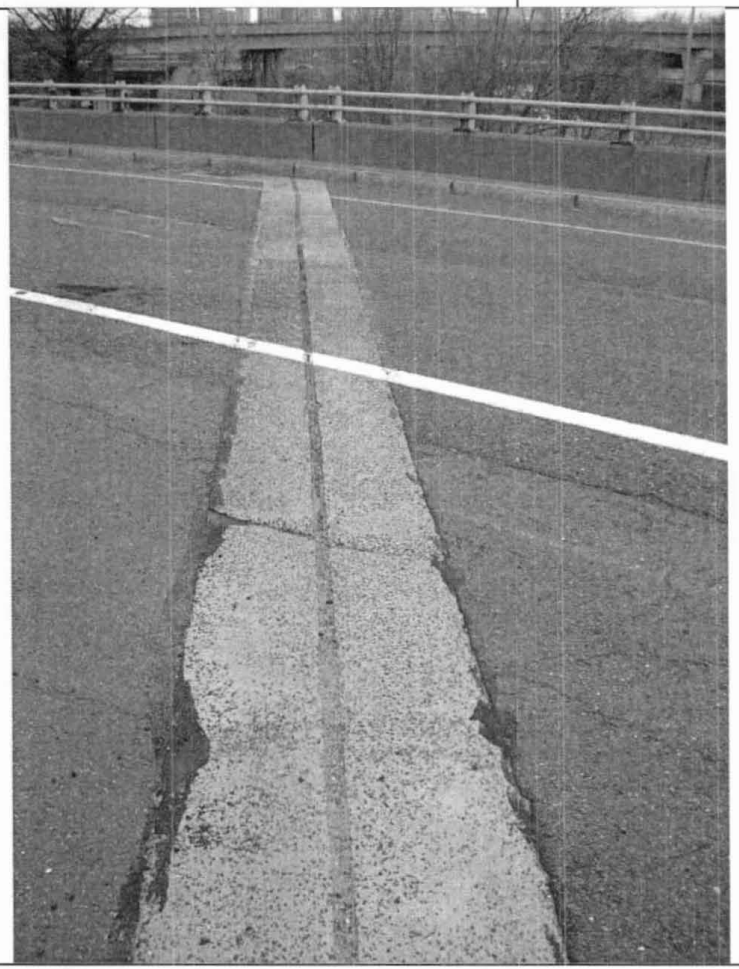
DESCRIPTION: **Span 6, left shoulder. Scupper clogged.**

PHOTO: 13

DESCRIPTION: **Pier 6, south elevation at girder 1. Cast iron downspout has section loss with perforations. Note: Pier cap has spall at corner.**

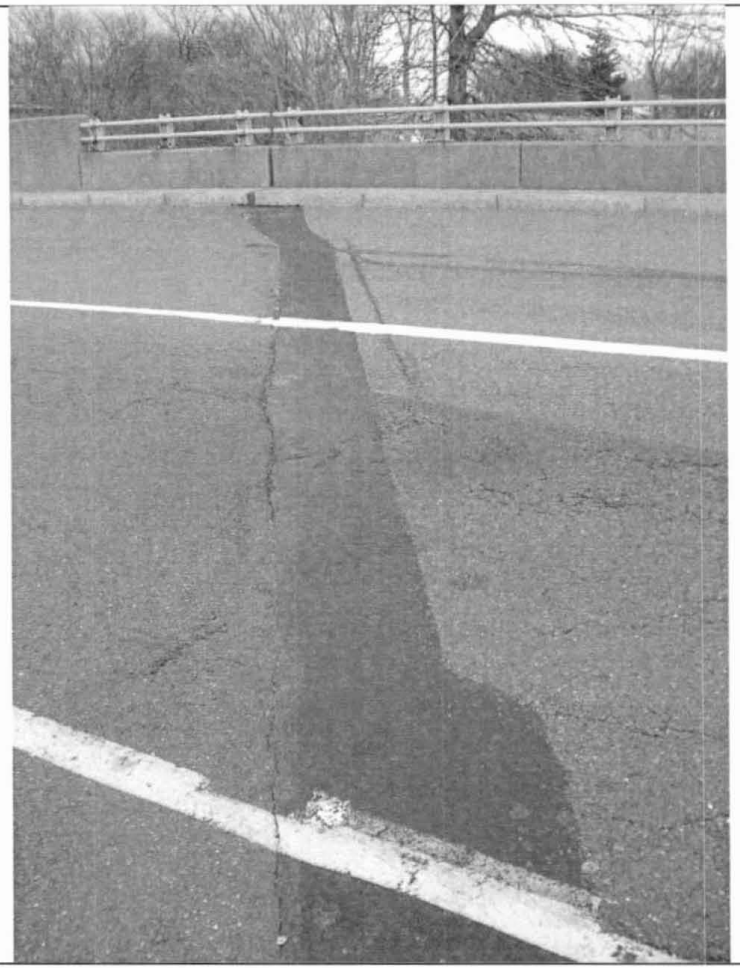
PHOTO: 14

Garg Consulting Services, Inc. ENGINEERS • CONSULTANTS • CONSTRUCTION MANAGERS	BRIDGE IDENTIFICATION:	2375
DATE: 01/02/07	FEATURE CARRIED:	SR 500 TR 801
	FEATURE CROSSED:	I-84 Eastbound & I-84 TR 833
JOB NO.: 170-2357	LOCATION:	East Hartford



DESCRIPTION: **Joint over pier 3. Crack in header and holes/separations in pourable seal.**

PHOTO: 15



DESCRIPTION: **Asphaltic plug joint over north abutment. Adhesion cracks in joint.**

PHOTO: 16

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DATE: 01/02/07	FEATURE CARRIED:	SR 500 TR 801
JOB NO.: 170-2357	FEATURE CROSSED:	I-84 Eastbound & I-84 TR 833
	LOCATION:	East Hartford

DESCRIPTION: **Span 5, girder 5 bearing at pier 4. Pack rust between sole plate and sliding plate.**

PHOTO: 17

DESCRIPTION: **Span 5, girder 6 bearing at pier 4. West anchor bolt is missing.**

PHOTO: 18

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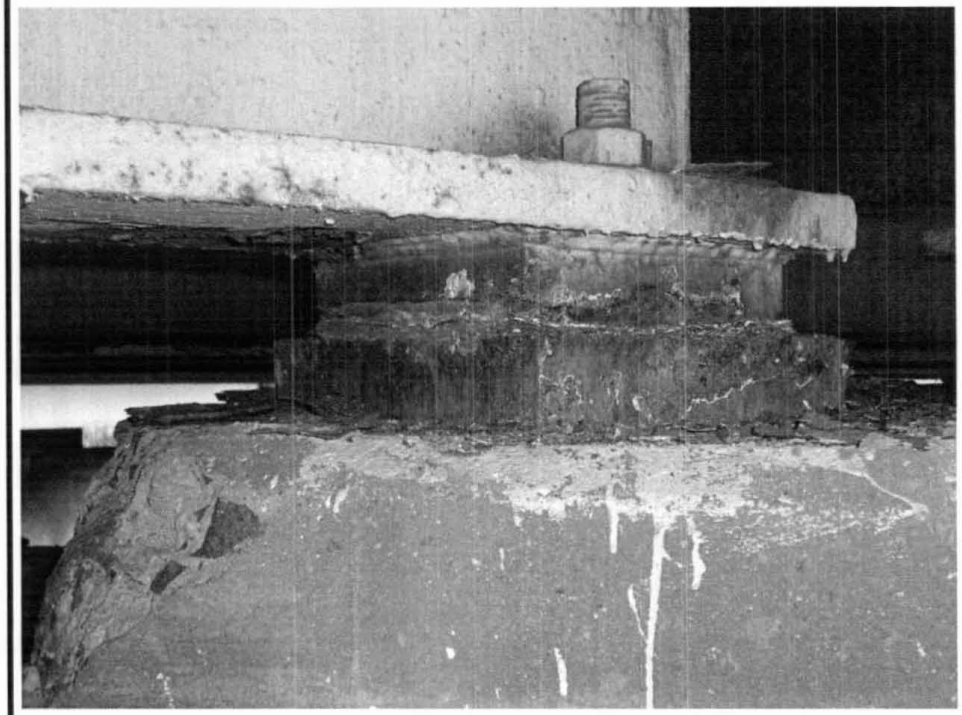
DATE: 01/02/07	FEATURE CARRIED:	SR 500 TR 801
JOB NO.: 170-2357	FEATURE CROSSED:	I-84 Eastbound & I-84 TR 833
	LOCATION:	East Hartford



DESCRIPTION: **Span 5, girder 4 bearing at pier 5. Pack rust between bearing plates.**

PHOTO: 19

DESCRIPTION: **Span 4, girder 2, east side in bay 1. Bottom flange and web have laminated rust with section loss.**

PHOTO: 20

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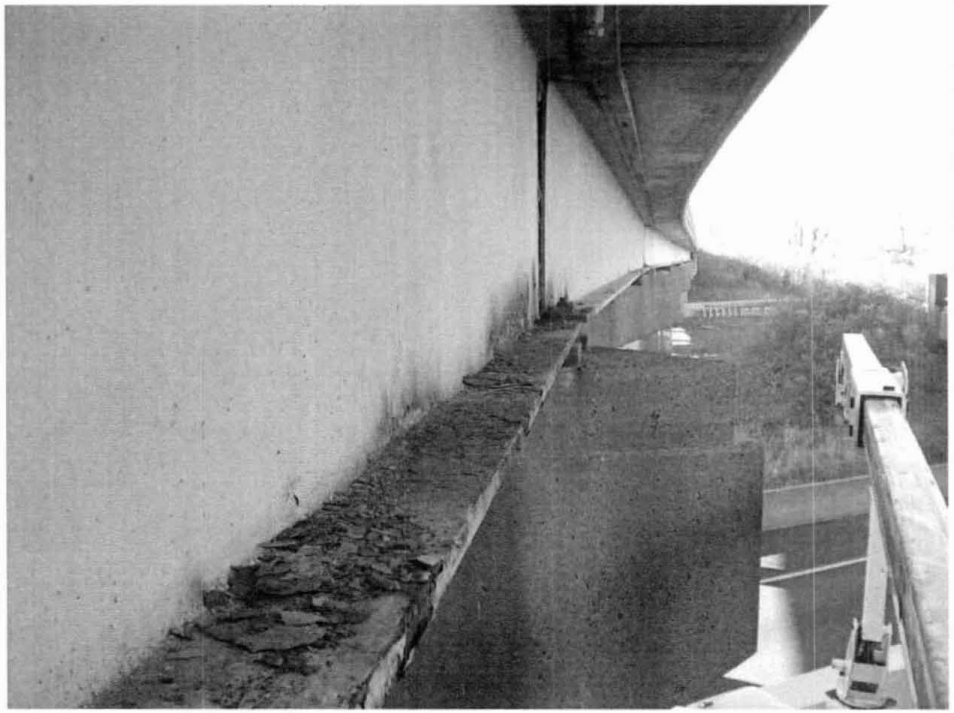
JOB NO.:	170-2357	FEATURE CROSSED:	I-84 Eastbound & I-84 TR 833
		LOCATION:	East Hartford

DESCRIPTION: **Span 6, girder 3 at pier 6, west side. Web has laminated rust with section loss.**

PHOTO: 21



DESCRIPTION: **Span 7, girder 1 near pier 6. Bottom flange and web have laminated rust with section loss. Note: abandoned conduit extending from deck underside.**

PHOTO: 22

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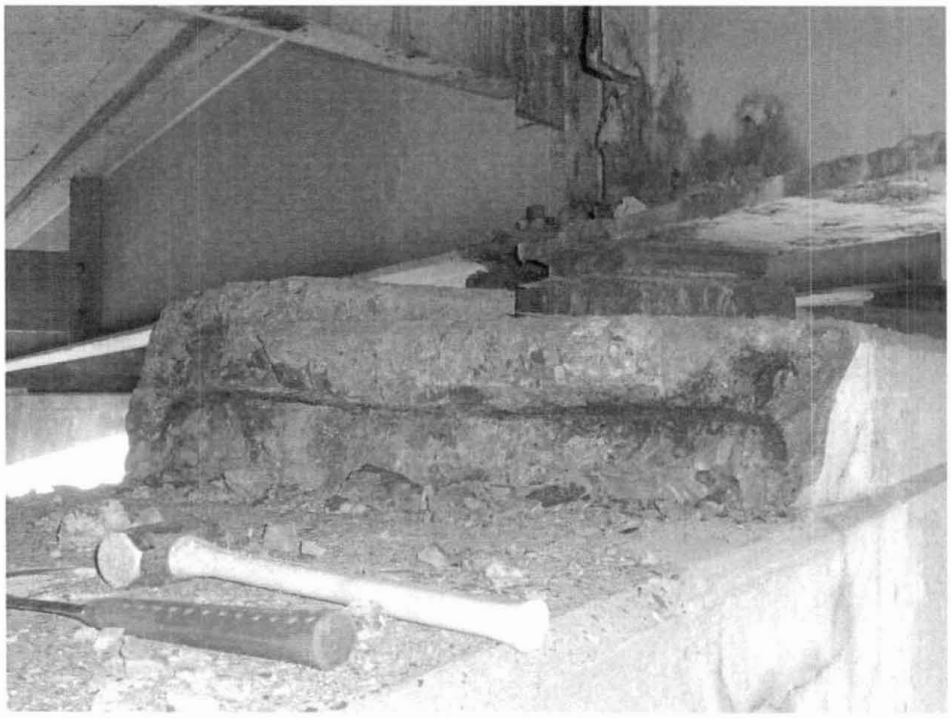
	FEATURE CARRIED:	SR 500 TR 801
DATE: 01/02/07	FEATURE CROSSED:	I-84 Eastbound & I-84 TR 833
JOB NO.: 170-2357	LOCATION:	East Hartford

DESCRIPTION: **Pier 5 between girders 5 and 6, south elevation. Spalls with exposed rusted rebar.**

PHOTO: 23



DESCRIPTION: **Pier 6 pedestal at girder 4. Spall with exposed rusted rebar. Bearing is not undermined. Note: Laminated rust on bearing.**

PHOTO: 24

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DATE: 01/02/07	FEATURE CARRIED:	SR 500 TR 801
JOB NO.: 170-2357	FEATURE CROSSED:	I-84 Eastbound & I-84 TR 833
	LOCATION:	East Hartford

DESCRIPTION: **Pier 5, column 3, north elevation. Spalls with exposed rebar.**

PHOTO: 25

DESCRIPTION: **South approach. Potholes in pavement have been patched, but roadway is still uneven.**

PHOTO: 26