BRIDGE NO. SA2500000000260
FEATURES INTERSECTED: ICGRR (MILL STREET)
FACILITY CARRIED: WOODROW WILSON
LOCATION: SEC 33 T 6N R 1E
HINDS COUNTY
JACKSON CITY
ADT 28,000

BRIDGE INSPECTION REPORT

In-Depth Periodic Inspection Dated – October 23, 2013

Prepared For

Mississippi Department of Transportation
Office of State Aid Road Construction

Prepared By

Baker

FIELD INSPECTED BY: _____
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Michael Baker Jr., Inc.

REPORT BY: _____
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Michael Baker Jr., Inc.

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2/14/14
STATE OF MISSISSIPPI

DISCLAIMER

The assessments given in this report are opinions given in good faith at the time of inspection. Due to inaccessibility and hidden conditions, not all structural members, connections or conditions could be completely assessed. No representation is made that all defects have been discovered or that defects will not appear in the future. This report should not be used as the sole basis for repair, construction or capital improvement plans.

The opinions, findings, and conclusions in this publication are those of the author(s) and not necessarily those of the Office of State Aid Road Construction, Mississippi Department of Transportation, the State of Mississippi or the Federal Highway Administration

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I. PHOTOS – ELEVATION, APPROACH & CHANNEL VIEW

South Elevation, Looking Northeast

North Elevation, Looking Southeast

West Approach

East Approach

General View Looking South

General View Looking North

II. PROCEDURE

A. Dates and Personnel

This inspection was conducted on October 23, 2013. The inspection team included the following members:

Daniel K. Fint, P.E., Inspector in Charge
Adam D. Wriston, P.E.

This report was compiled by Adam D. Wriston from field and office data.

B. Inspection Procedure

The field inspection of Bridge SA2500000000260 consisted of an arm's length visual examination of all structural components above ground. The limits of inspection were from Bent 1 to Bent 22 inclusive, and form the basis for this report.

Access to the underside of the bridge was accomplished by the use of a hydraplatform and ladder. Traffic control consisted of flagmen controlling local traffic for brief periods to allow access to portions of the structure. There were no limited hours for inspection or restrictions for traffic control. Special access permits and railroad flagging were required. See Appendix C for procedures and contacts. Estimated inspection time is 20 hours.

C. Previous Inspection

The 2012 In-Depth Periodic Inspection, completed on October 15, 2012, by Michael Baker Jr., Inc., was the last inspection. The inspector in charge was Daniel K. Fint, P.E. The structure was rated in fair condition at that time.

III. SUMMARY AND RECOMMENDATIONS

A. Statement of Condition

Based on the 2013 In-Depth Periodic Inspection, Bridge SA2500000000260 is generally in fair condition. The previous report was available for this structure. A more detailed discussion of the condition can be found below.

B. Recommendations

The bridge needs repair work and maintenance as summarized in Section C, below.

C. Summary of Deficiencies

The most significant deficiencies on the bridge are presented in order of importance, with the first item being the highest priority. For each item, the deficiency is described first, with a following recommendation.

1. Cracked Cover Plate Welds

Deficiency: Twelve feet from Bent 17 in Span 16, there is a bottom flange cover plate splice that is welded for all 8 girders. The weld appears to be of poor quality and has cracked through on Girders 4 – 7 (See Photos 21 – 24).

Recommendations: Repair by installing bolted splice plates.

2. Bent 22 Leaning

Deficiency: The abutment stem of Bent 22 is leaning 5" westward at the top (See Photo 4).

Recommendation: Monitor movement. Consider rehabilitation for end bent.

3. Bearings

Deficiency: Several bearings have heavy laminated rust, missing anchor bolts, or appear to be frozen (See Photos 9 – 16).

Recommendation: Clean, paint, and lubricate bearings. Reset bearings which are excessively tilted. Replace damaged components.

4. Deck Joints

Deficiency: The deck expansion joints and the open joints above Bents 2 – 6 are completely closed. The joint above Bent 1 is debris filled (See Photos 30 & 31).

Recommendation: Clean all deck joints. Jack open joints apart and install compression seals.

5. Damaged Bridge Rail

Deficiency: The north rail in Span 18 has 2 missing/damaged sections of rail. The south rail in Span 19 has 1 missing/damaged section of rail. Both currently have temporary barriers in place (See Photos 33 & 34).

Recommendation: Replace the missing/damaged sections of rail.

6. Bent Column Cracks

Deficiency: The columns of Bents 2 – 5 have transverse cracks on their west face (See Photo 7).

Recommendation: Monitor Bents 2 -5 for signs of movement or further distress.

7. Cross Frames

Deficiency: The cross frames in Spans 15 and 16 have areas of section loss, pack rust, and broken gusset connection plates (See Photos 26 – 28).

Recommendation: Install repair plates where necessary. Clean and paint cross frames.

8. Web Stiffener Holes

Deficiency: Web stiffeners in Span 15 have exhibit section loss with through-holes (See Photo 20).

Recommendation: Clean and paint stiffeners, install repair plates where needed.

9. Sidewalk Spalls

Deficiency: Both sidewalks have spalls with exposed reinforcing bars.

Recommendation: Patch all spalls where reinforcing is exposed.

10. Sidewalk Cantilevers

Deficiency: The concrete encased sidewalk cantilevers typically have areas of cracked, delaminated, and spalled concrete (See Photo 29).

Recommendation: Patch concrete or remove concrete and paint steel cantilever brackets.

11. Clogged Scuppers

Deficiency: All scuppers are clogged.

Recommendation: Clear debris from scuppers.

D. Interim Inspections

Based on the findings of this inspection, it is recommended that the inspection frequency remain at 12 months.

E. Load Ratings and Posting Recommendations

The load rating computations and recommendations may be found in a separate report, SA2500000000260- Load Rating Report 2013-10-23.pdf. Based on the load rating and current conditions of the bridge, it is recommended that the bridge should be posted with the following weight restrictions:

- **H Truck: 29 Tons**
- **HS Short Truck: 39 Tons**

IV. TRAFFIC CONDITIONS AND RESTRICTIONS

The structure is classified and used as other principal arterial. The structure has an ADT of 28,000. The vertical clearance on the bridge is not restricted. The curb-to-curb width is 44 feet. The bridge is posted for 15 Tons-H Truck, 24 Tons – HS Short Truck and 28 Tons HS Long Truck.

V. WATERWAY

This structure is over a multiple railroad tracks.

VI. ENVIRONMENTAL CONDITIONS

Railroad traffic beneath the bridge causes staining to the underside of the slab and girders.

VII. SUBSTRUCTURE CONDITION

The substructure condition rating based on this inspection was determined to be NBI Code 5. See below and refer to Appendix B, for more details.

A. End Bents

The end bents consist of full height reinforced concrete abutments (See Photos 1 & 2). Both have delaminated and cracked end diaphragms. The girder end concrete encasement at the Bent 1 has an 8” diameter x 3” deep spall with an adjacent 4’ diagonal crack adjacent to Girder 8 (See Photo 3). Bent 22 is leaning west 5” at the top (See Photo 4), and has a 10’ x 3’ area of delamination with an adjacent crack on the abutment stem.

B. Interior Bents

The interior bents consist of concrete caps with 2 concrete columns each, supported on pile foundations (See Photos 5 & 6). Bents 2 – 5 have transverse cracks on the west face of the columns (See Photo 7), other bents have random horizontal and vertical cracks up to 109" long. Bent 2 has delaminated and map cracked areas along the bottom 3' of Column 1. The concrete caps have cracks at random locations. Bent 15 has a tie-back/keeper system installed on the cap riser consisting of steel plates and lag bolts (See Photo 8).

VIII. SUPERSTRUCTURE CONDITION

Overall, the superstructure is generally in fair condition (NBI code 5). A load rating analysis was performed as part of this inspection. Refer to the separate load rating summary report dated October 23, 2013.

A. Bearings

The bearings are generally in fair condition. The expansion bearings have areas of moderate to heavy laminated rust and random bearings appear to be frozen. There are also random bearings that are missing anchor bolts or do not have their anchor bolts seated. The sole plate for Bearing 2 on Bent 13 is rusted out (See Photos 9 – 12). The majority of the anchor bolts at Bent 15 are bent to the west. The sole plate is not attached to the bearing at Bearing 8 in Span 17 over Bent 17 (See Photo 14).

B. Girders

The rolled steel girders (Spans 1 – 14 & 17 – 21) are in fair condition. The girders in these spans typically have random areas of rust. The fascia girders in these spans appear to sag at the sidewalk cantilever locations (See Photo 19). Girder 8 in Span 21 over the east abutment has section loss in the web up to 1/16" deep.

The riveted plate girders (Spans 15 & 16) have random areas of rust. The most serious defect found was cracked welds at a splice location for the bottom flange cover plate of Girders 4 - 7, 12' from Bent 17 in Span 16 (See Photos 21 – 24). The cracks have not propagated into the bottom flange angles. The Girder 8 bearing stiffener over Bent 16 in span 15 has a 4" x 2" rusted through hole along the bottom. The web stiffeners for Girders 1 8 in Span 15 have rusted through holes at top and bottom (See Photo 20). The girder webs adjacent to sidewalk cantilevers have losses up to 12" x 2" x 1/16".

C. Cross Frames, Diaphragms, Sidewalk Overhang Brackets

The spans with rolled steel girders have rolled steel diaphragms. The riveted plate girder spans have cross frames. All spans have concrete-encased steel brackets supporting the sidewalk cantilevers.

The steel diaphragms are in good condition with minor paint failures and surface rust (See Photo 25). The cross frame members in Span 15 typically have deterioration, rusted through holes, laminated rust and pack rust (See Photos 26 & 27). One cross frame between Girders 5 & 6 in Span 15 is severed at the upper gusset plate connection to the girder. There is a 4.5" vertical crack in the gusset plate which connects the cross frame lower angle to the Girder 4 stiffener in Span 15 (See Photo 28).

The concrete-encased sidewalk cantilevers typically have areas of cracked, delaminated and spalled concrete (See Photo 29). The concrete encasement for north cantilever over Bent 15 is completely deteriorated, exposing the steel. Loose concrete was removed at the time of inspection at several locations

IX. EXPANSION JOINTS AND OPENINGS

The structure has expansion joints at both end bents and Bents 15 and 17. The joint over Bent 15 is missing the steel header plate for the full length of the joint. The deck expansion joints and the open joints above Bents 2 – 6 are completely closed. The joint above Bent 1 is debris filled (See Photo 30). Other joints typically have spalls.

X. DECK

The 8" reinforced concrete deck is in satisfactory condition (NBI code 6). There is moderate to heavy wear on the deck. The aggregates are exposed and polished smooth. The underside of deck has transverse hairline cracks (See Photo 32). The deck header in Span 8 over Bent 9 in bay 7 has a 2'' x 1' x 2" deep spall with exposed reinforcement. Also, the deck header at the south cantilever over Bent 15 has a 3' x 1' x 6" deep spall with exposed reinforcement (typical at other locations). There is an isolated 1/16" wide transverse crack in Span 18

XI. SIDEWALKS

There are concrete sidewalks, 5'- 6" wide, along both the north and south side of the bridge. The sidewalks are generally in fair condition, typically exhibiting minor to severe spalls at joint locations with exposed reinforcement.

XII. PARAPETS AND BRIDGE RAIL

The bridge rail with concrete posts is generally in fair condition, with the exception of two damaged areas due to impact. There are cracked posts and damaged railing in Spans 5, 15, 17, 18, and 19. Spans 18 and 19 have temporary barriers in place at the damaged rail locations (See Photos 33 & 34).

XIII. SIGNS

The existing weight restriction posting signs are in good condition.

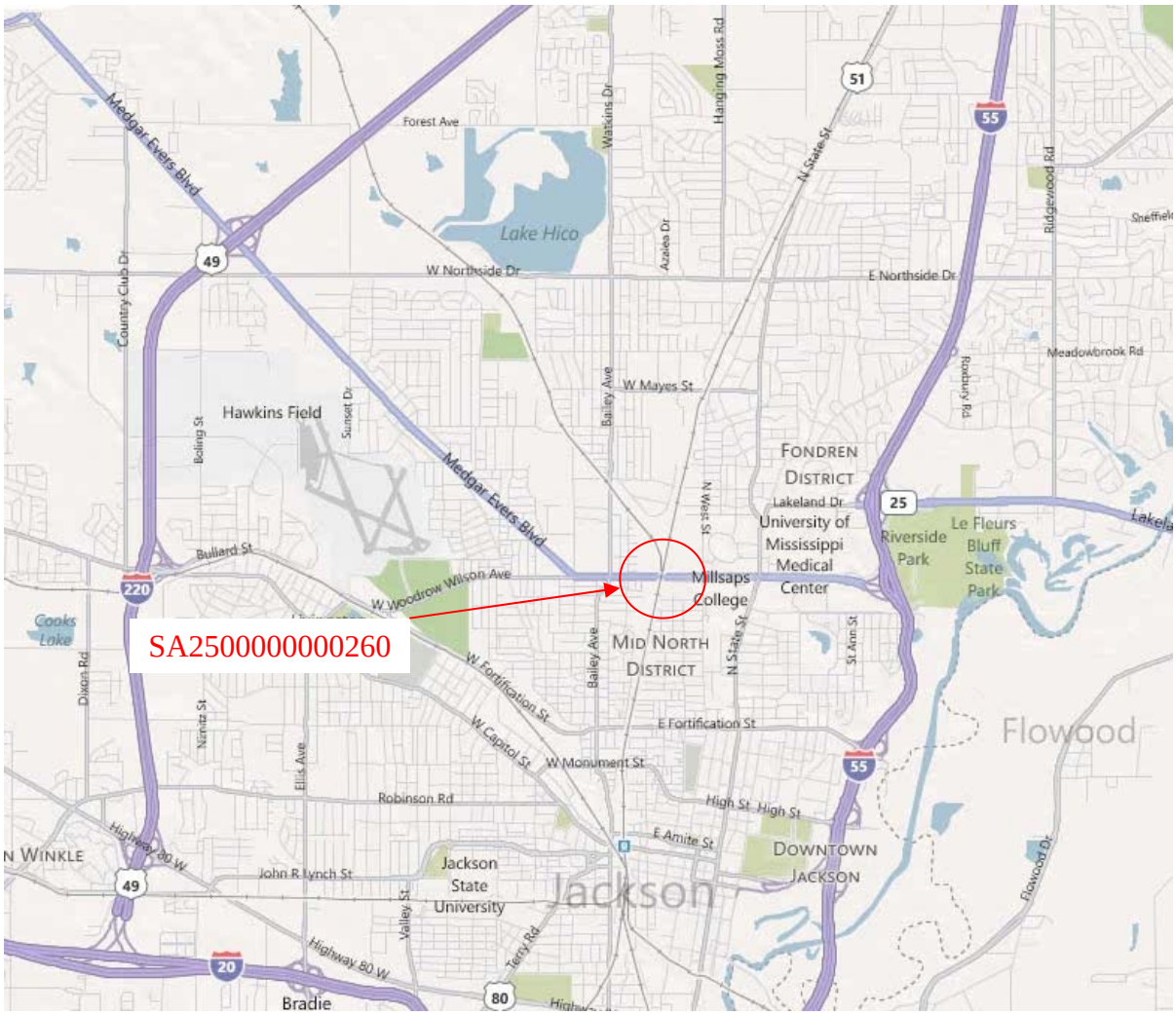
XIV. PAINT

The paint on the bridge is generally in poor condition. Over 50% of the painted surfaces have scattered surface rust.

XV. APPROACH SLABS AND APPROACH PAVEMENT

Both approaches are paved with asphalt and in good condition with no notable deficiencies.

XVI. LOCATION MAP



Appendix A

Condition Photographs

Photo 1
Location: Bent 1
Description: General view

Photo 2
Location: Bent 22
Description: General view

Photo 3
Location: Bent 22 Beam End Encasement
Description: Cracked and delaminated end diaphragm (typ.)

Photo 4
Location: Bent 22, North End
Description: Top of end bent leaning 5”

Photo 5
Location: Bent 6, Looking Southwest
Description: General view

Photo 6
Location: Bent 20, Looking West
Description: General view

Photo 7
Location: Bent 7, North Column
Description: Transverse cracks (typ.)

Photo 8
Location: Bent 15 Cap
Description: Steel plate tie back/keep system

Photo 9
Location: Sole Plate and Bearing Plate
Description: Typical condition

Photo 10
Location: Bent 13, Span 13, Girder 2 Bearing
Description: Typical bearing condition

Photo 11
Location: Bent 15, Span 15, Girder 5 Bearing
Description: Laminate rust and debris (typ.)

Photo 12
Location: Bent 16, Span 16, Girder 2 Bearing
Description: Anchor nut not seated, anchor bolts and nuts exhibit section loss (typ.)

Photo 13
Location: Bent 17, Span 16, Girder 8 Bearing
Description: Contracted at 55 degrees (typ. at Bent 17)

Photo 14
Location: Bent 17, Span 17, Girder 8 Bearing
Description: Sole plate and bearing plates not connected, misaligned

Photo 15
Location: Bent 17, Span 17, Girder 8 Bearing
Description: Concrete crushing beneath pedestal, missing anchor bolt

Photo 16
Location: Bent 17, Span 16, Girder 2 Bearing
Description: Missing anchor bolt, excessively tilted

Photo 17
Location: Span 9, Looking West
Description: General underside view

Photo 18
Location: Span 16, Looking West
Description: General underside view

Photo 19
Location: Girder 1 Sidewalk Cantilever Bracket
Description: Girder corrosion at bracket connection

Photo 20
Location: Girder 1, 2nd Stiffener in Span 15
Description: Hole through bottom of stiffener (typ.)

Photo 21
Location: Span 16, Girder 4 Bottom Cover Plate Welded Splice
Description: Cracked weld

Photo 22
Location: Span 16, Girder 5 Bottom Cover Plate Welded Splice
Description: Cracked weld

Photo 23
Location: Span 16, Girder 6 Bottom Cover Plate Welded Splice
Description: Cracked weld

Photo 24
Location: Span 16, Girder 7 Bottom Cover Plate Welded Splice
Description: Cracked weld

Photo 25
Location: Diaphragm, Span 12, Girders 3 - 4
Description: Typical diaphragm condition

Photo 26
Location: Span 16 Cross Frame, Girders 5 - 6
Description: Typical cross frame condition

Photo 27
Location: Diaphragm at Bent 15, Girders 6 - 7
Description: Laminate rust between bottom angles (typ.)

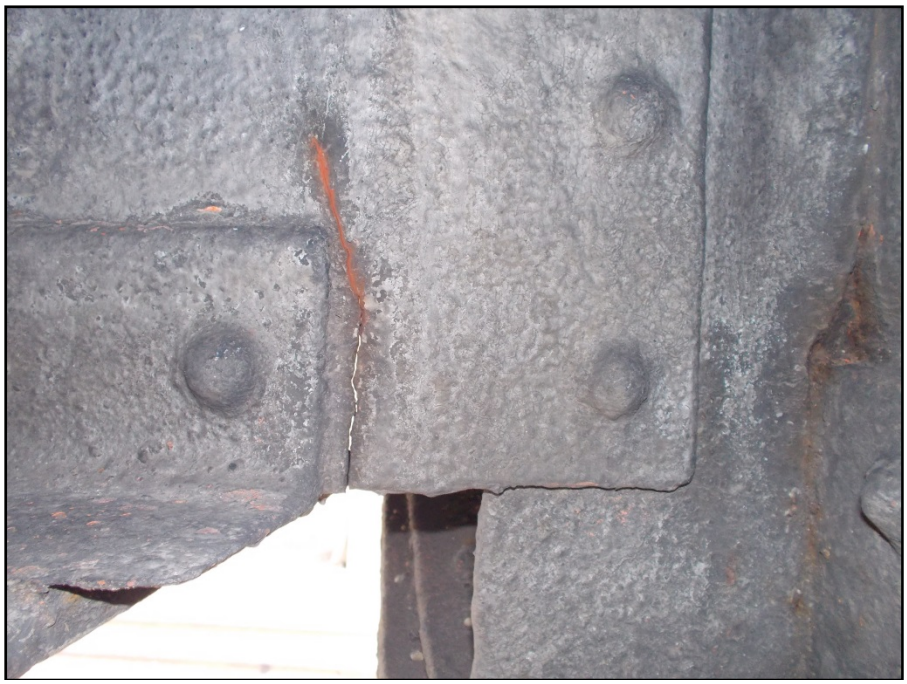


Photo 28
Location: Span 15, 1st Diaphragm, Girder 7
Description: Cracked connection plate

Photo 29
Location: South Sidewalk Cantilever, Bent 10
Description: Large spalls with exposed bracket steel, cracks, efflorescence (typ.)

Photo 30
Location: Deck Joint over Bent 1
Description: Debris filled

Photo 31
Location: Deck Joint over Bent 22
Description: General view

Photo 32
Location: Underside of Deck, Span 11
Description: Transverse hairline cracks (typ.)

Photo 33
Location: North Rail, Span 18
Description: Damaged rail with temporary barriers

Photo 34
Location: South Rail, Span 19
Description: Damaged rail with temporary barriers

Appendix B

Field Notes

INTERIM

OSARC STANDARD BRIDGE INSPECTION FORM

COUNTY HINDS

STRUCTURE NUMBER: SA25-260 **INSPECTION DATE:** 10/23/13

GENERAL INFORMATION:

Inspection Type: Initial: ____ Routine X In-Depth ___ Damage ____ Special ___

Facility Carried (7): _____

Feature Intersected (6): _____

Location (9): _____

Last Inspection Date _____ Inspection Freq (91): _____ mo

FRACTURE CRITICAL: Yes ___ **No** X

FRACTURE CRITICAL MEMBER: _____

TEMPORARY STRUCTURE: Yes ___ **No** X _____

BRIDGE ENDS:

Bridge Open/Posted/Closed (41): POSTED - 15T, 28T, 24T

Posting Signs: Required: Yes ___ No ___ In Place: Yes X No ____

							Comments
		(G=good, F=fair, P=poor, C=Critical)					
Bridge Rail	(36a): ___	G ___	F ___	P X	C ___		
Rail Transitions	(36b): ___	G ___	F ___	P ___	C ___		NONE
Approach G'Rail	(36c): ___	G ___	F ___	P ___	C ___		NONE
Guard Rail Ends	(36d): ___	G X	F ___	P ___	C ___		

Bridge Ends General Comments:

BLUNT CONCRETE END TREATMENTS W/NO APPROAL OR TRANSITION

DECK DESCRIPTIVE CONDITIONS

(G=good; F=fair; P=poor; C=critical)

Joints:	G ___	F ___	P ___	C ___	
Drains:	G ___	F ___	P X	C ___	100% CLOGGED
Rail:	G ___	F ___	P X	C ___	
Sidewalks:	G ___	F X	P ___	C ___	

Live Load Deflection/

Vibration: Light: X Moderate: ____ Severe ____ _____

Debris Accumulation: Light: X Moderate: ____ Severe ____ _____

Overall Structural: G ___ F X P ___ C ___ _____

Surface Roughness Rating: 1(Poor) ____ 2(Average) ____ 3(Smooth) X

NBI Deck Condition (58) 6

Deck General Comments:

SPALLS @ SIDEWALKS & DECK JOINTS

EXPANSION JOINTS CLOSED, MISSING HEADER PLATES

2 DAMAGED RAIL SECTIONS REMOVED, TEMPORARY BARRIERS IN PLACE

SUPERSTRUCTURE DESCRIPTIVE CONDITIONS:

(G=good; F=fair; P=poor; C=critical)

Girders: G___ F X P___ C___ _____

Diaphragms: G___ F X P___ C___ CROSS FRAMES, PACK RUST BETWEEN MEMBERS

Stringers: G___ F___ P___ C___ _____

Floor Beams: G___ F___ P___ C___ _____

Sway Bracing: G___ F___ P___ C___ _____

Hinge Pins/

Hangers: G___ F___ P___ C___ _____

Paint: G X F___ P___ C___ _____

Cap/Girder Debris: Light X Moderate ____ Severe ____ _____

Collision Damage: Yes ____ No X _____

Have Flood Waters Reached Superstructure? Yes ____ No ____ _____

NBI Superstructure Rating (59): 5 _____

General Superstructure Comments: SPAN 16 COVER & SPLICES HAVE CRACKED BUTT WELDS
CRACKED CROSS FRAME GUSSET PLATES, SPAN 15
SPAN 15 - HOLES IN WEB & BRG. STIFFENERS
RANDOM AREAS OF PAINT FAILURE & MODERATE SURFACE CORROSION & PITTING

SUBSTRUCTURE DESCRIPTIVE CONDITIONS:

(G=good; F=fair; P=poor; C=critical)

ABUTMENTS

Bearings G___ F X P___ C___ _____

Cap G___ F X P___ C___ _____

Piling/Foundations G___ F___ P___ C___ _____

Pile Type(s) _____

Back Wall G___ F___ P___ C___ _____

Wing walls G___ F___ P___ C___ _____

Embankment G___ F___ P___ C___ _____

Slope Protection G___ F___ P___ C___ _____

Scour Light____ Moderate ____ Severe ____ _____

INTERMEDIATE BENTS

Bearings G___ F X P___ C___ _____

Cap G___ F X P___ C___ _____

Columns/Piles G X F___ P___ C___ _____

Pile Type(s) CONCRETE COLUMN BENTS

Footings G___ F___ P___ C___ _____

Web Walls G___ F___ P___ C___ _____

Bracing G___ F___ P___ C___ _____

Scour Light____ Moderate ____ Severe ____ _____

Underwater Inspection Required (92B): ___ - _____

NBI Substructure Rating (60): 5 - _____

General Substructure Comments:

END BENTS - CRACKED & DELAM END DIAPHAGMS
BENT 22 - ABUTMENT STEM LEANING 5" WESTWARD, CRACKED
BENTS 2-5 - TRANSV. CRACKS ON W/FACE
MINOR CRACKING TYP.
BENT 15 - RISER HAS STEEL PLATE ANCHORED TO CONCRETE

SCOUR / WATERWAY APPRAISAL

Scour Critical Bridge (113): _____ Scour Indicator _____
Scour Countermeasures in Place: Yes ___ No ___
Debris/Drift: Upstream: _____ Site: _____ Downstream: _____
Overall Channel Condition: _____
Indications that High Waters Overtop Structure and/or Approach Roadway:
Yes____ No _____ Rarely ____ Frequently_____ Unknown_____
Waterway Adequacy (71):_____ Route Functional Classification (26):___
NBI Channel/Channel Protection Rating (61):_____

General Waterway/Scour Comments:

OVER RAILROAD

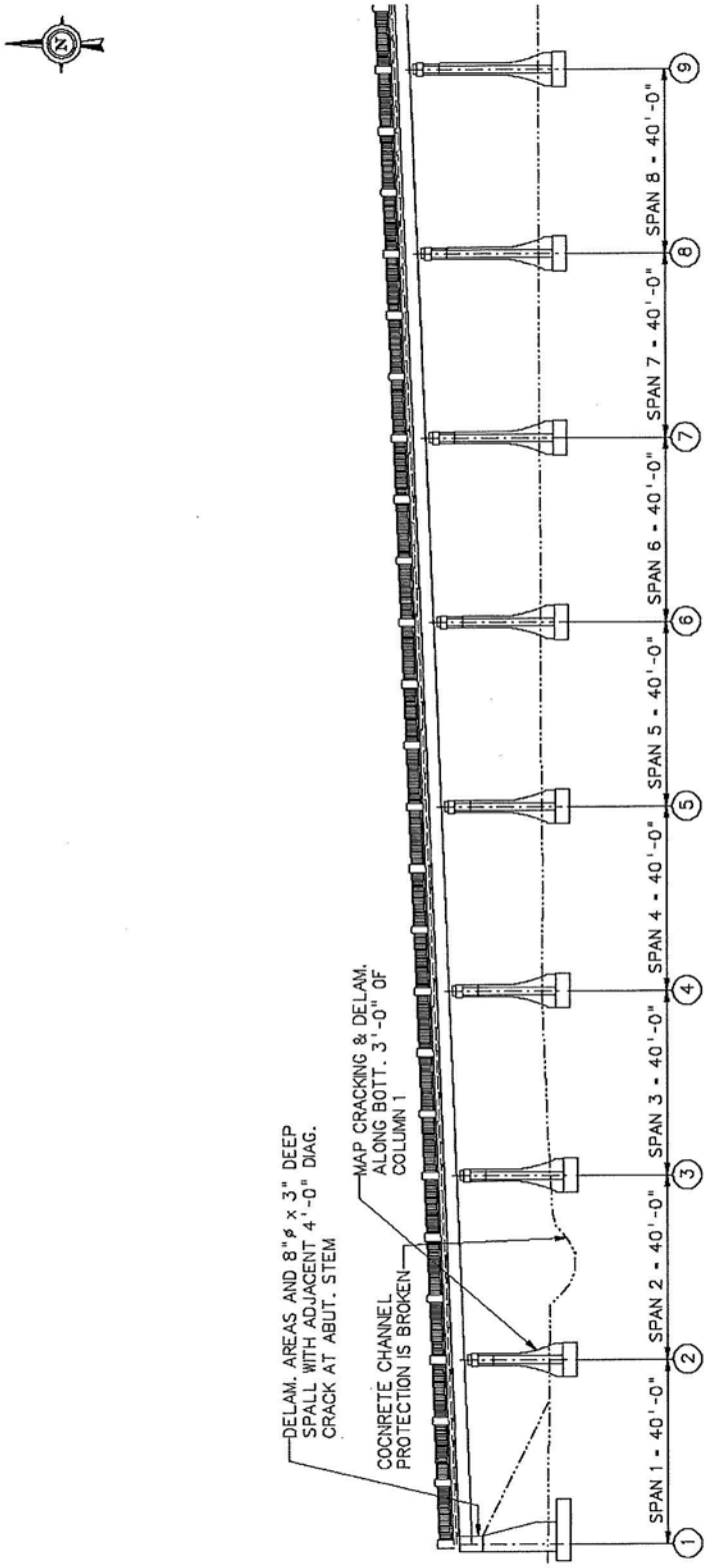
INSPECTION TEAM SUMMARY:

Team Leader: _____ Signature: _____
Date: _____

Field Sketch Form

OSARC
GENERAL SKETCH SHEET

By: DKF	Date:	Checked By:	Date:	Bridge No.:	Sheet
SML	10/2012	JDD	11/2012	SA2500000000260	B-1 of B-10



ELEVATION SHEET 1 OF 3

NOTE:
TYPICAL: CONCRETE COLUMNS HAVE RANDOM HORZONTAL AND VERTICAL CRACKS.
CONCRETE CAPS HAVE CRACKS AT RANDOM LOCATIONS.

Field Sketch Form

OSARC
GENERAL SKETCH SHEET

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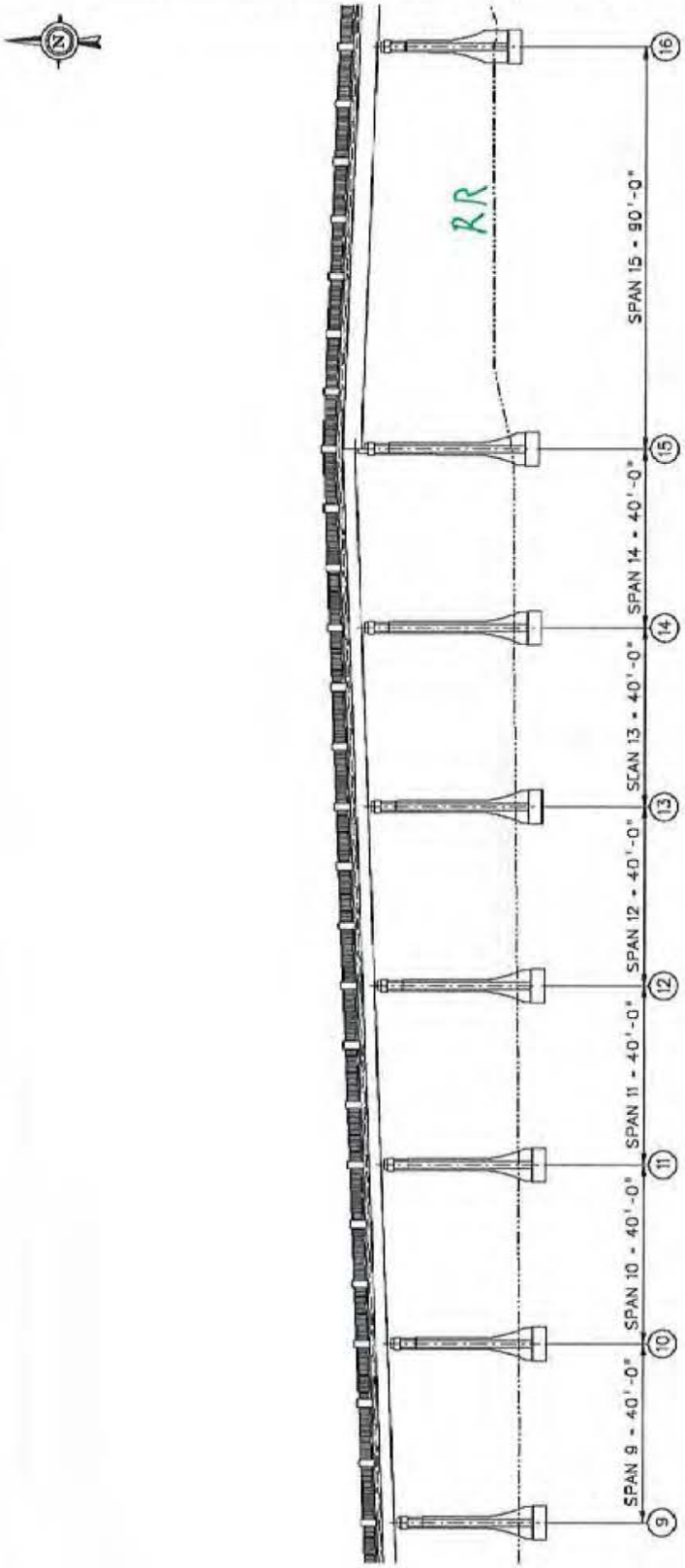

ELEVATION SHEET 2 OF 3

Field Sketch Form

OSARC
GENERAL SKETCH SHEET

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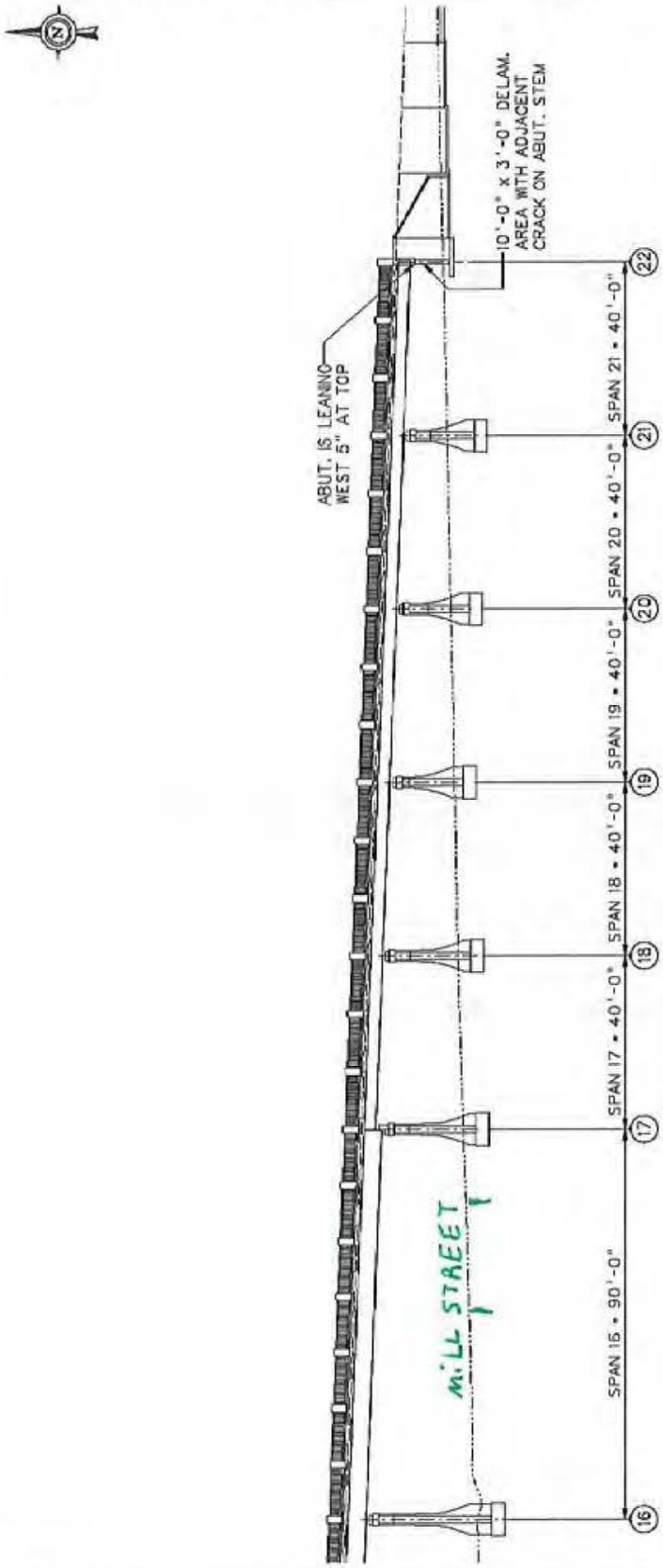

ELEVATION SHEET 3 OF 3

Field Sketch Form

OSARC
GENERAL SKETCH SHEET

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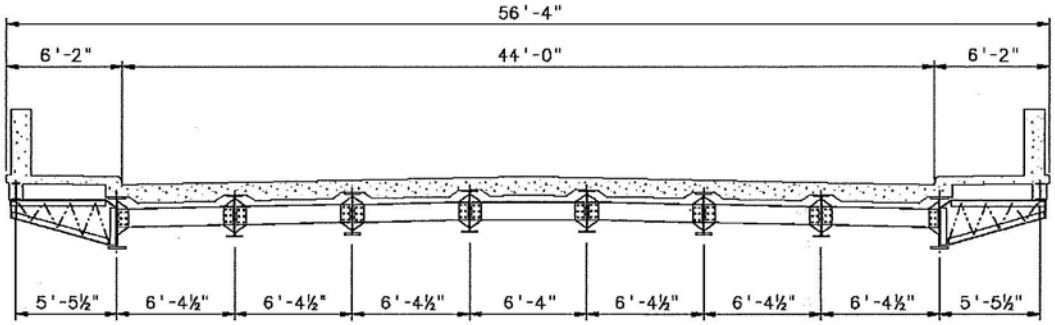
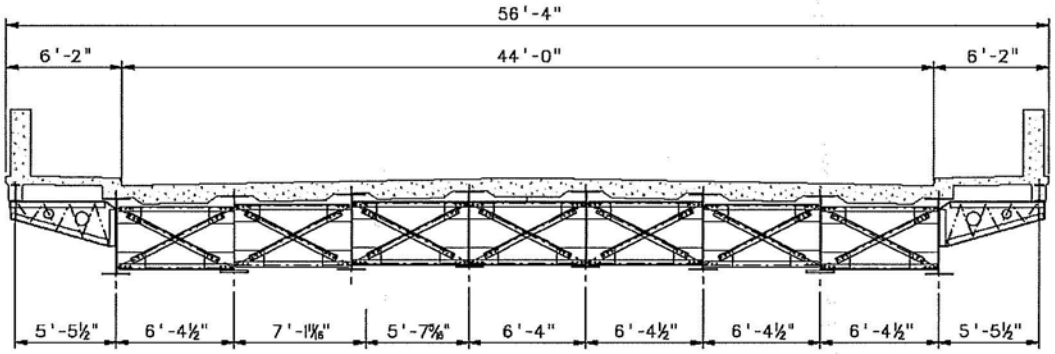


TYPICAL SECTION 40'-0" SPANS



TYPICAL SECTION 90'-0" SPANS

Field Sketch Form

OSARC
GENERAL SKETCH SHEET

By: DKF	Date:	Checked By:	Date:	Bridge No.:	Sheet
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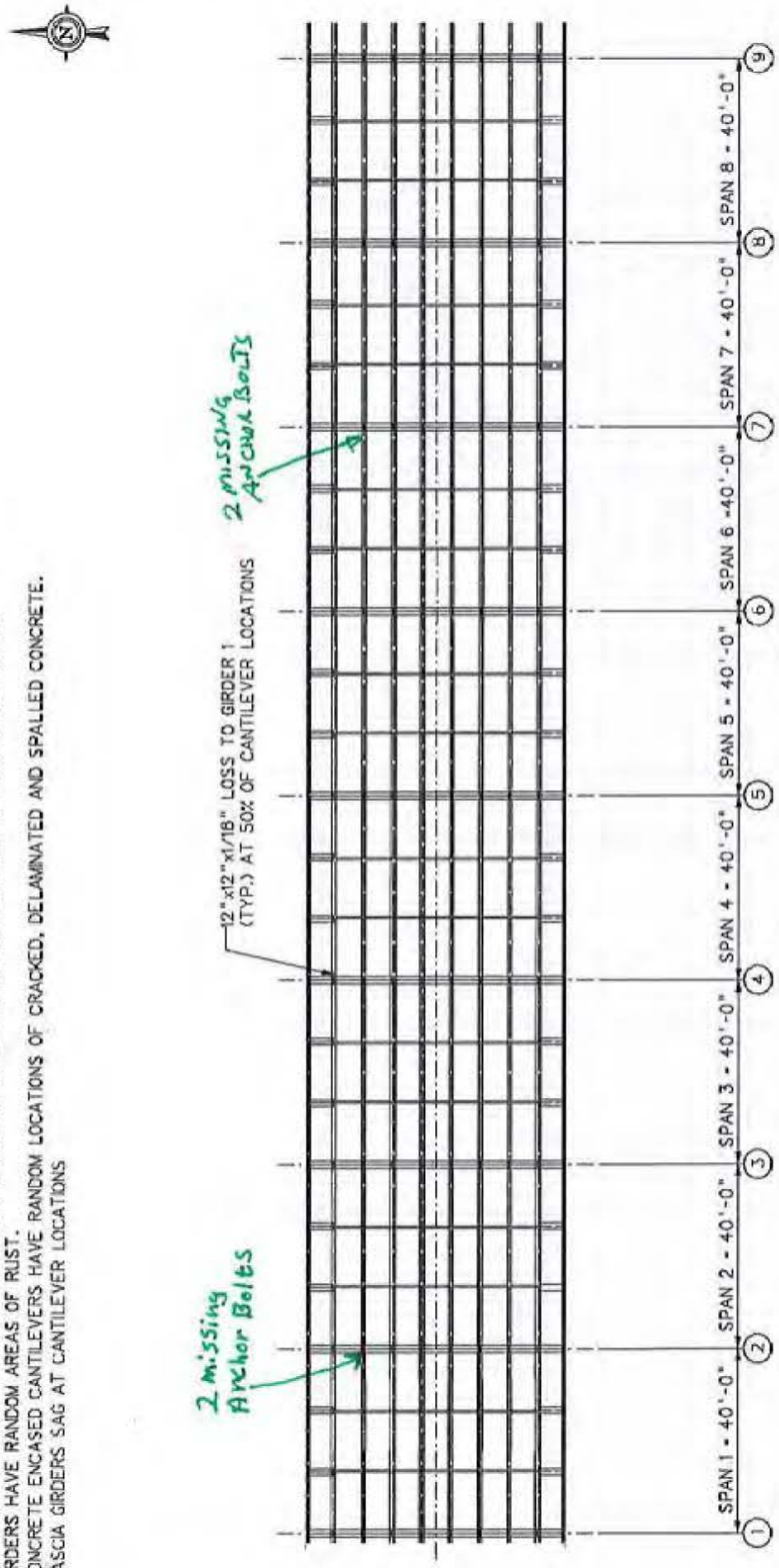


TYPICAL:

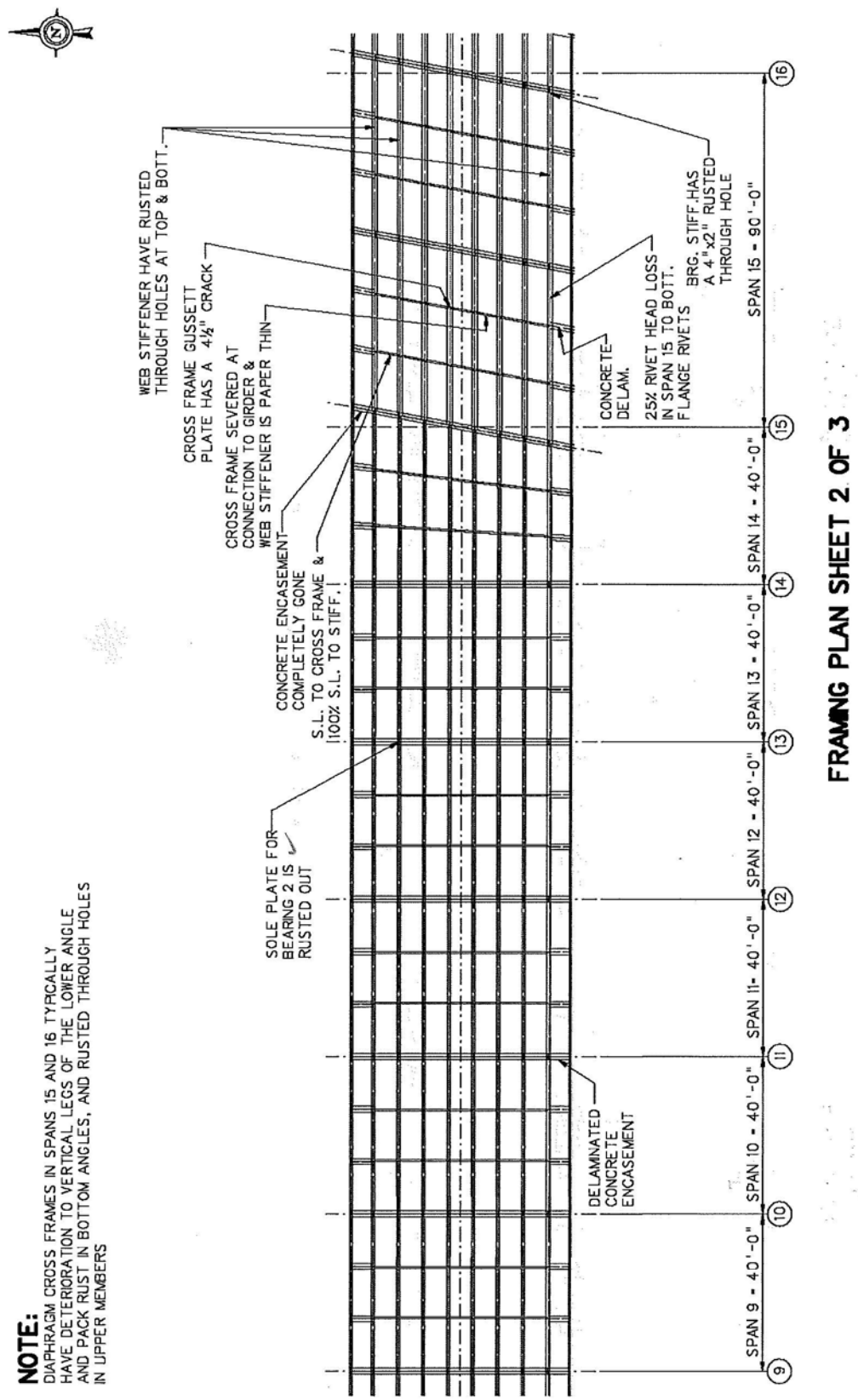
1. EXPANSION BEARINGS HAVE AREAS OF HEAVY LAMINATED RUST AND RANDOM BEARINGS APPEAR TO BE FROZEN.
2. GIRDERS HAVE RANDOM AREAS OF RUST.
3. CONCRETE ENCASED CANTILEVERS HAVE RANDOM LOCATIONS OF CRACKED, DELAMINATED AND SPALLED CONCRETE.
4. FASCIA GIRDERS SAG AT CANTILEVER LOCATIONS

FRAMING PLAN SHEET 1 OF 3

Field Sketch Form

OSARC
GENERAL SKETCH SHEET

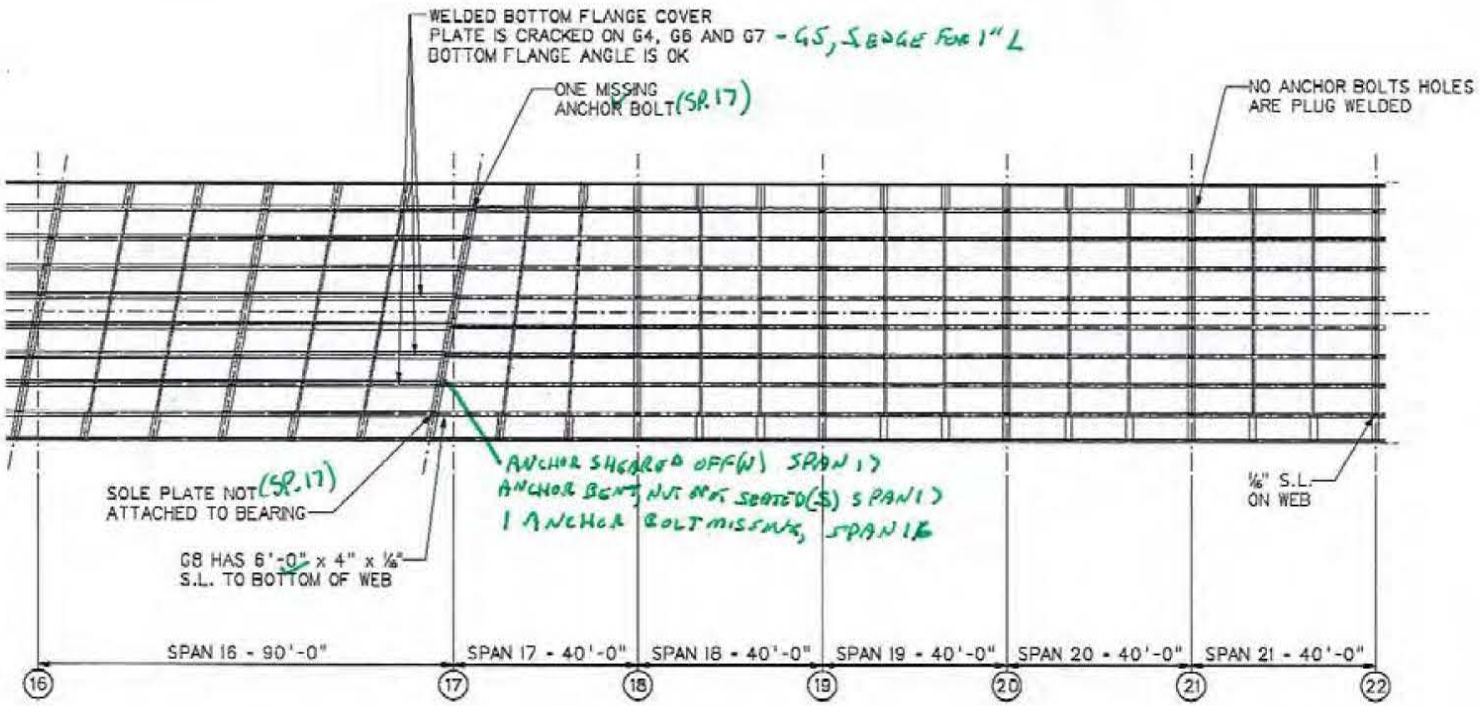
By: DKF	Date:	Checked By:	Date:	Bridge No.:	Sheet
SML	10/2012	JDD	11/2012	SA2500000000260	B-6 of B-10



NOTE:
DIAPHRAGM CROSS FRAMES IN SPANS 15 AND 16 TYPICALLY HAVE DETERIORATION TO VERTICAL LEGS OF THE LOWER ANGLE AND PACK RUST IN BOTTOM ANGLES, AND RUSTED THROUGH HOLES IN UPPER MEMBERS

FRAMING PLAN SHEET 2 OF 3

BENT 16 BRG. - ANCHOR BOLTS W/S2, NUTS NOT SEATED, TYP. 50% OF ANCHORS
- PIGEON NESTS & MANURE ON/ARNUND BEAM ENDS
BENT 17 - ALL BRG. CONTRACTED @ 55°



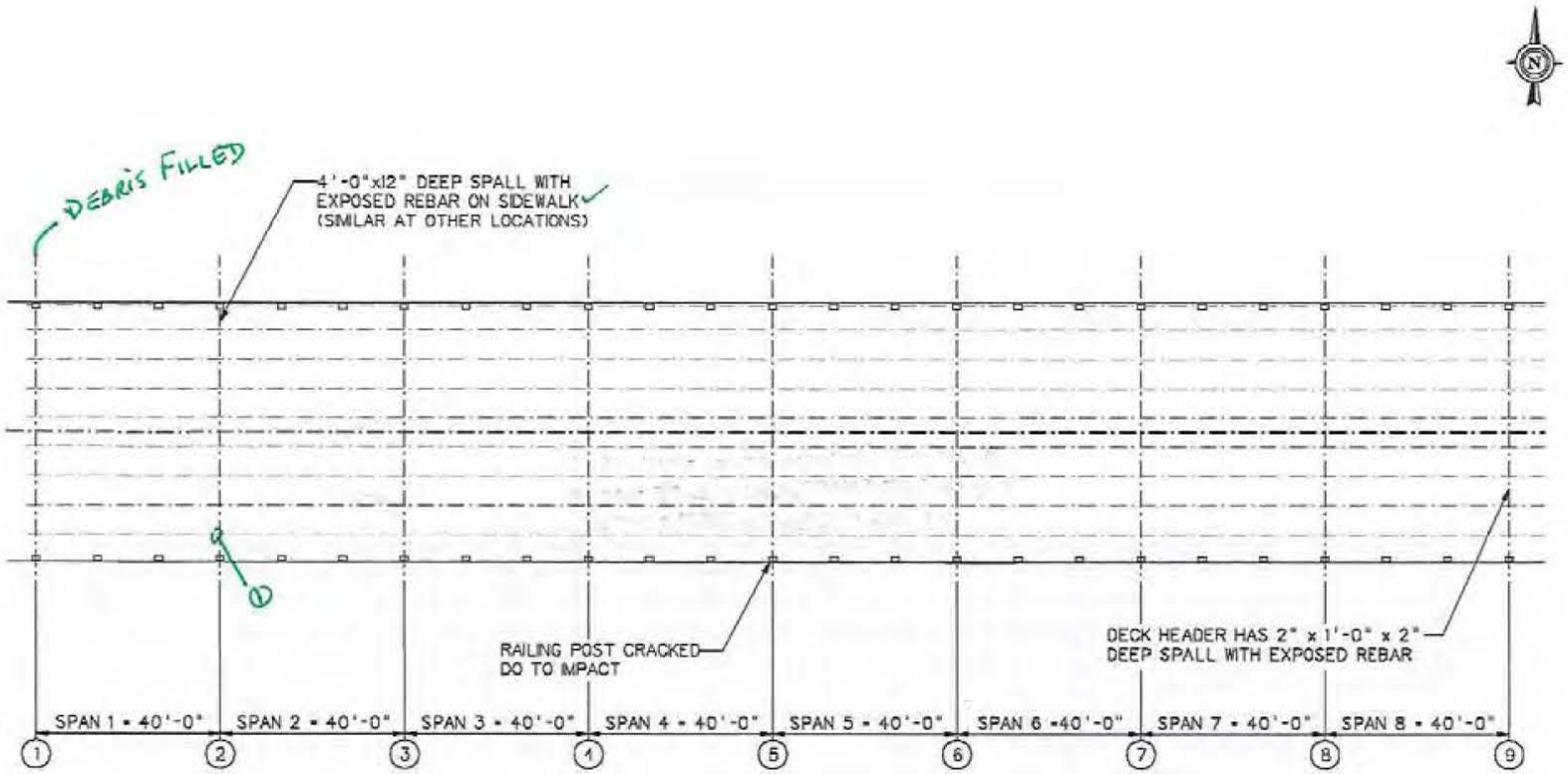
FRAMING PLAN SHEET 3 OF 3

Field Sketch Form

OSARC
GENERAL SKETCH SHEET

By: DKF SML	Date: 10/2012	Checked By: JDD	Date: 11/2012	Bridge No.: SA2500000000260	Sheet B-7 of B-10

① SIDEWALK SPALL 18"x12" W x 1" D, 3 EXP. REBAR



DECK PLAN SHEET 1 OF 3

TYPICAL DECK NOTES:

DECK JTS 2-6 CLOSED

- UNDERSIDE HAS TRANSVERSE H.L. CRACKS
- MODERATE TO HEAVY WEAR ON DECK AND AGGREGATE EXPOSED AND POLISHED SMOOTH
- APPROXIMATELY 90% OF SCUPPERS ARE CLOGGED
- SIDEWALK IS SPALLING AT JOINT LOCATIONS

Field Sketch Form

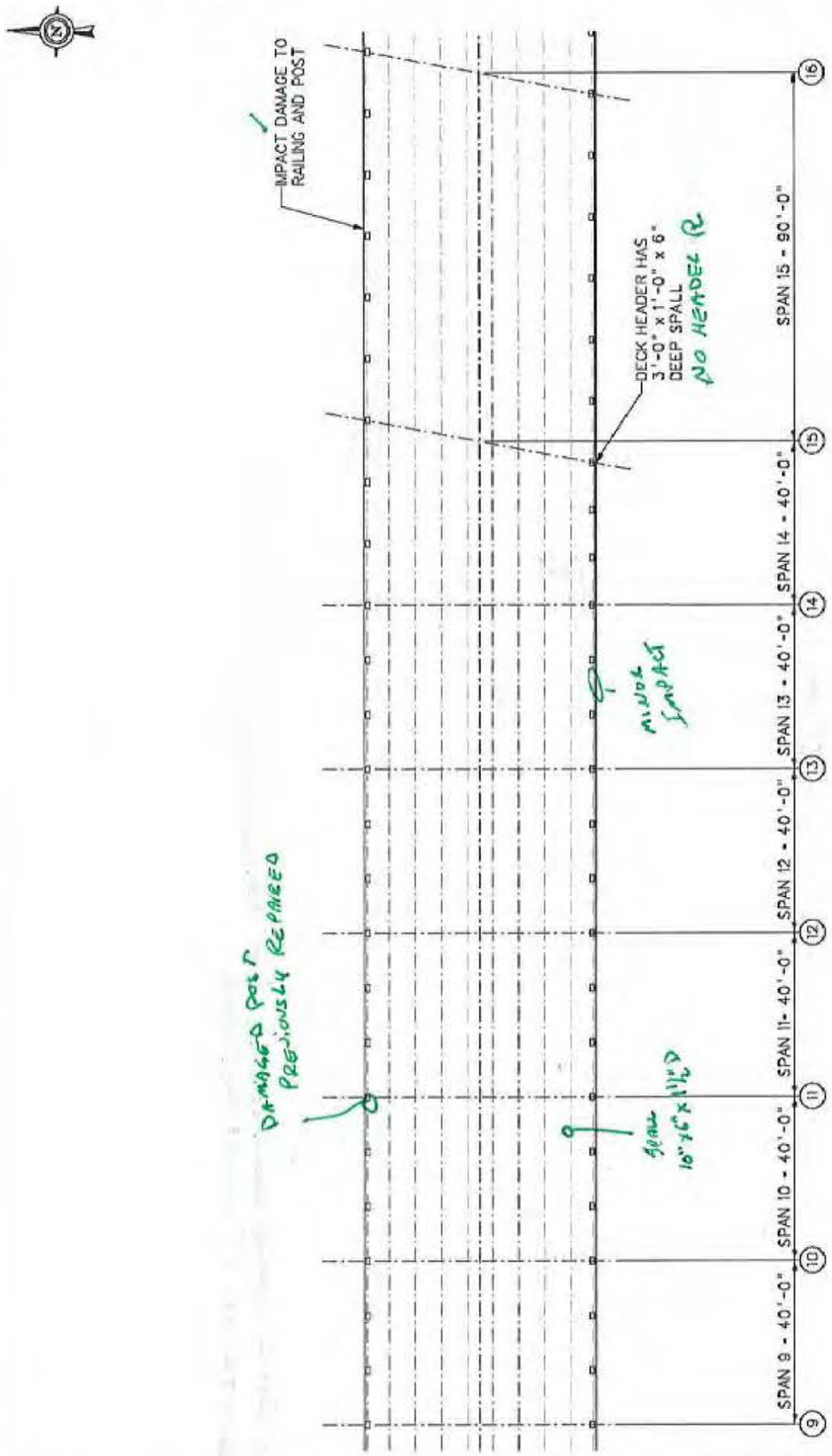
OSARC
GENERAL SKETCH SHEET

By: DKF SML	Date: 10/2012	Checked By: JDD	Date: 11/2012	Bridge No.: SA2500000000260	Sheet B-8 of B-10

Field Sketch Form

OSARC
GENERAL SKETCH SHEET

By: DKF	Date:	Checked By:	Date:	Bridge No.:	Sheet
SML	10/2012	JDD	11/2012	SA2500000000260	B-9 of B-10

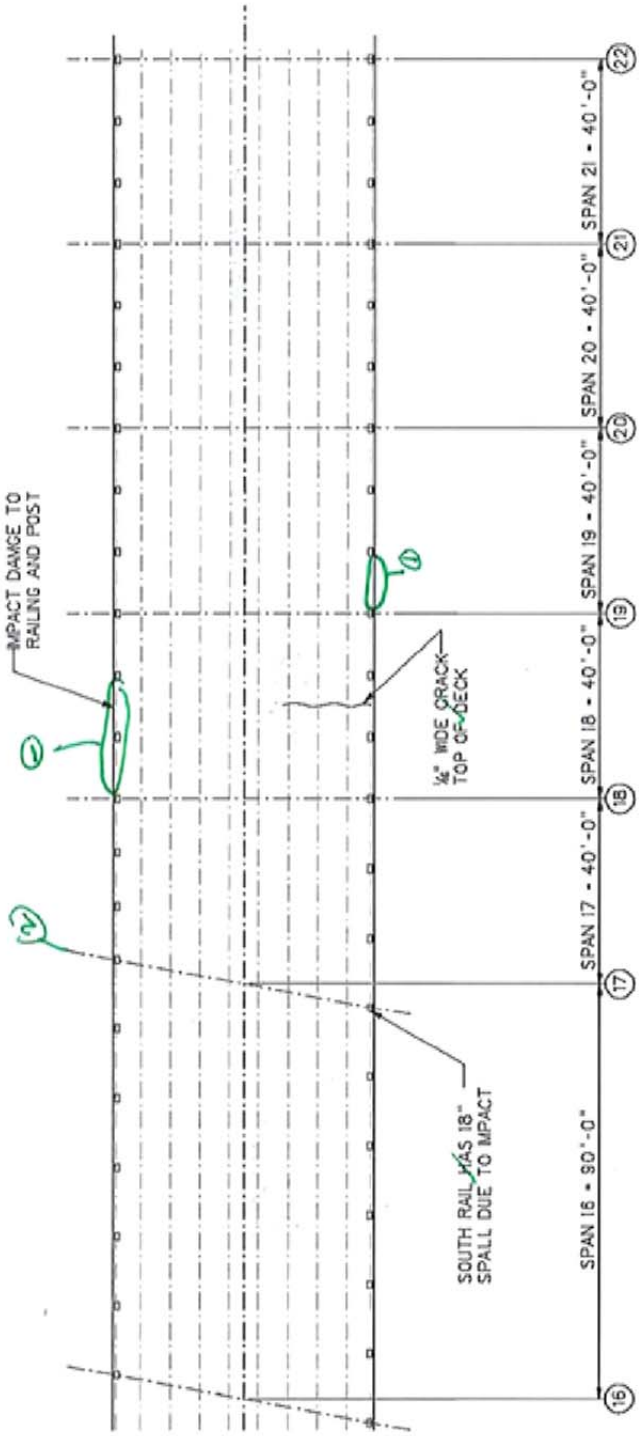


DECK PLAN SHEET 2 OF 3

Field Sketch Form

OSARC
GENERAL SKETCH SHEET

By: DKF	Date:	Checked By:	Date:	Bridge No.:	Sheet
SML	10/2012	JDD	11/2012	SA2500000000260	B-10 of B-10



DECK PLAN SHEET 3 OF 3

1 IMPACT DAMAGED RAILING REMOVED, TEMP. BARRIER IN PLACE
2 DECK EXP. JT COMPLETELY CLOSED

Appendix C

Railroad Permit Process

Railroad Permit Process

This bridge crosses over Right-Of-Way belonging to a railroad. The Right-Of-Way includes all the airspace above the actual limits on the ground. Any work above or on the ground over the Right-Of Way requires special insurance policies, access permits and services of approved railroad flagmen during the inspection. The contact personnel, procedures and forms involved in the approval process vary depending on the railroad company and from year to year with the individual railroad. The companies are large with offices scattered across the US and even Canada. Many use contractors to process their access permits and multiple contractors for flagging services. The approval process is usually complicated and takes several weeks or months and therefore, should be started as soon as possible. Generally, the railroad company has a web site that may be queried for their general requirements and forms. However, the local contact for the railroad company is always the best resource for the most up-to-date information.

This bridge crosses over Right-Of-Way belonging to the **Illinois Central Railroad Company (also known as Canadian National or CN)**. The local contact information is as follows:

John Dining
Title: Manager Public Works
Canadian National
2151 N. Mill Street
Jackson, MS 39202
Office Phone: 601-914-2658
Office Fax: 601-592-1815
Email Address: John.Dining@cn.ca

A brief outline of the approval is shown below:

I. Obtain bridge/railroad specific crossing location from local contact. (Rail Subdivision and Mile Post)
II. Obtain contact information for the railroad company's administrative processor. For CN this was as follows:
    Mary Ellen Carmody
    US-Audit Officer CN
    Canadian National
    700 Pershing Street
    Pontiac, Michigan 48340
    Phone: 248-452-4705
    Email: MaryEllen.Carmody@cn.ca
III. From the railroad company's local contact, obtain the application for "Right-Of-Entry Agreement" and "Request for Flagging Services and Cable Location" application. The "Right-Of-Entry Agreement" is also sometimes referred to as the ROE permit or license. The local contact provides an agreement which is specifically customized for your company and specific railroad crossings.
IV. Sign the "Right-Of-Entry Agreement" and return with processing fee (this year was $750) to the railroad company's local contact.

V. While waiting for the ROE agreement, obtain insurance as specified by the ROE application. Insurance certificates must be provided back to the railroad company's administrative processor when submitting signed copies of the ROE agreement.

VI. Complete the Request for Flagging Services and Cable Location" application and return it to the railroad company's administrative processor along with a prepayment check for flagging services as described in the application and a copy of the insurance certificates.

VII. When the unsigned copies of the ROE agreement are received, return them signed along with insurance certificates. An executed copy will be returned and is required to be in the vehicle at the bridge site during inspection.

VIII. Once the ROE agreement has been executed, the railroad company's administrative processor will arrange for flagging services with one of their contractors. You will receive an email giving contact information for coordination purposes and a service order number.

IX. When executed ROE agreement received and flagging is schedules, contact the railroad company's administrative processor and the flagging company a minimum of 5 days in advance of actual date of inspection.

Appendix D

Recommendations

BRIDGE NO. SA2500000000260
FEATURES INTERSECTED: ICGRR (MILL STREET)
FACILITY CARRIED: WOODROW WILSON
LOCATION: SEC 33 T 6N R 1E
HINDS COUNTY

Weight Restrictions

Based on the current condition of the structure and the load rating results, it is recommended that the bridge should be posted with the following weight restrictions:

H Truck: 29
HS Short Truck: 39

See SECTION III – E: Load Ratings and Posting Recommendations for more information.

Inspection Intervals

Based on the results of this inspection, it is recommended that the routine inspection frequency remain at 12 months.

Recommended Repairs

1. Install bolted splice plates at cracked cover plate splices in Span 16.
2. Monitor Bent 22 movement; consider rehabilitation.
3. Clean, paint, and lubricate bearings. Reset excessively tilted bearings. Replace deteriorated components.
4. Clean all deck joints. Jack closed joints open and install compression seals in open joints.
5. Replace missing and damaged sections of bridge rail.
6. Monitor cracked columns at Bents 2 – 5 for signs of movement or further distress.
7. Install repair plates on cross frames in Spans 15 and 16 as necessary. Clean and paint all cross frames.
8. Clean and paint all stiffeners. Install repair plates at holes and areas of excessive section loss.
9. Patch sidewalk spalls where reinforcing steel is exposed.
10. Patch or remove the concrete encasement on sidewalk cantilever brackets.
11. Clear debris from all scuppers.

NBI Item Recommendations

Item 36 Traffic Safety Features: 1000
Item 41 Structure Open, Posted, or Closed to Traffic: B
Item 58 Deck: 6
Item 59 Superstructure: 5
Item 60 Substructure: 5

Item 61 Channel and Channel Protection: N
Item 63 Method used to determine Operating Rating: 1
Item 64 Operating Rating (Metric Tons): 391
Item 65 Method used to determine Inventory Rating: 1
Item 66 Inventory Rating (Metric Tons): 218
Item 70 Bridge Posting: 5
Item 71 Waterway Adequacy: N
Item 90 Inspection Date: 1013
Item 91 Designated Inspection Frequency: 12
Item 92 Critical Feature Inspection: NNN
Item 93 Critical Feature Inspection Date:
Item 113 Scour Critical Bridges: N