

California Avenue Bridge Over the Chicago Sanitary and Ship Canal ****

Appendix G: BRIDGE INSPECTION REPORT



CITY OF CHICAGO - DEPARTMENT OF TRANSPORTATION BRIDGE INVENTORY REPORT

Structure No. 016-6005

California Avenue over the Sanitary & Ship Canal

Inspection Date: August 3, 2022





A Joint Venture Teaming of Alfred Benesch & Company and Collins Engineers, Inc.

EXECUTIVE SUMMARY

On August 3, 4 and 17, 2022, CBIT performed a routine, fracture critical, and element level inspection of this structure in accordance with NBIS, FHWA, IDOT, and CDOT guidelines. The findings from this inspection indicate the following general ratings for this structure:

- Deck is in satisfactory condition (overall condition rating = 6)
- Superstructure is in serious condition (overall condition rating = 3)
- Substructure is in fair condition (overall condition rating = 5)

These overall condition ratings correspond to the rating terminology defined by both NBIS and IDOT guidelines. According to the Illinois Highway Information System Structure Information and Procedure Manual, the structural evaluation of a bridge is generally coded no higher than the lower of the deck's overall condition rating, the superstructure's overall condition rating, or the substructure's overall condition rating. Consequently, this structure is in serious overall condition, which corresponds to an NBIS and IDOT general condition rating of 3.

Condition Rating History

	2012	2014	2016	2018	2020
Deck	6	6	6	6	6
Superstructure	6	4	5	5	5
Substructure	4	5	5	5	5

GENERAL STRUCTURE INFORMATION

<u>Structure:</u>	California Avenue over the Sanitary & Ship Canal							
Structure No.:	016-6005							
Bridge Description:	The structure is a single span structure with three approach spans where the main span is a double-leaf trunnion type bascule bridge. The structure has an overall length of approximately 324 feet and an out-to-out deck width of approximately 62 feet.							
<u>Year Built:</u>	1926, Reconstruction	on 1991						
ADT:	2018 – 18,900 (20%	6 trucks)						
Inspection Date/Duration:	8/3/22 - 3 inspectors @ 5.75 hrs. = 17.25 hrs. (Movable span) 8/4/22 - 2 inspectors @ 4 hrs. = 8 hrs. (Movable span & t/deck) 8/17/22 - 3 inspectors @ 7.25 hrs. = 21.75 hrs. (bridge houses & truss above deck) 47 hrs. (total)							
Temp./Weather Condition:	77°F / Overcast (8/3 80°F / Sunny (8/4/2 71°F / Sunny (8/17/	3/22) 2) 22)						
Required Inspections:	<u>Type</u> Routine Element Level Fracture Critical Special Underwater	Frequency 24 months 24 months 24 months N/A 60 months	Previous Date 08/12/20 08/12/20 08/12/20 - 05/27/22					
Bridge Status:	The bridge is open	to traffic with no r	estrictions.					
Additional Information:	See Master Structu additional structure	re Report (S-107 information.) at the end of this report for					
<u>Access & Equipment:</u>	The underside of the boat. The remaining from the ground and foot ladder where no hatches in the sidew the structure. Since inspection and use	e movable span v g portions of the k d from within the ecessary. The br walk at the northv movable bridge, CDOT keys to ac	was inspected from a bucket oridge were visually inspected counterweight pits with an 18- idge houses have access vest and southeast corners of inform CDOT of date of ccess bridge house.					

Span 4 below the bridge was accessed through stairs adjacent to the southeast access hatch. During the 2022 inspection, there was access to the underside of Span 4 through a hole in the east enclosure fence below the bridge; however, both enclosure fences have access gates as well.

The roadway stringers and fixed bearings along the counterweight pit backwalls within Span 1 and Span 3 are inaccessible for inspection due to the position of the counterweight.

Traffic Control: None.

<u>Firm – Inspectors Present:</u> Alfred Benesch & Co. – Denise Soehrman, Brian Moreno and Amber (no initials) DeCarlo

<u>Remarks:</u> The movable leaves of the bridge are not operable.

<u>Terminology:</u> For the purpose of this report, the spans are numbered from north to south, and the stringers are numbered from east to west.

Section loss described in this report ranges as follows:

- Minor up to 10%
 - Moderate > 10% up to 30%
- Heavy > 30%



Location Map:

INVENTORY INFORMATION

I. DECK

• The deck is in satisfactory overall condition corresponding to a NBIS and IDOT condition rating of 6.

Wearing Surface

- The concrete filled steel grating adjacent to the breaks typically exhibits scattered pop-outs throughout and there is a one-foot strip of minor surface corrosion at the northeast corner of the north leaf (see Photograph 1).
- The open grid steel grating between the sections of concrete filled steel grating has a few scattered locations of missing secondary grid bars (see Photographs 2).
- There is debris along the outer edges of the roadway in the movable span and sections of the open grid filled with debris.



- Fixed spans, the bituminous wearing surface exhibits a few wide full width transverse and full-length longitudinal cracks.
- Span 1, there is heavy wide alligator cracking above the North Counterweight Pit backwall and along the southbound lane, and rutting in the southbound lane inside wheel line (see Photograph 3).
- Span 3, there is a 2 SF steel repair plate in the southbound lane and a 3 SF spall filled with bituminous material along the centerline of roadway (see Photograph 4).
- Span 4, there is a 4 SF pothole filled with bituminous material in the southbound lane.
- Pavement markings are not visible on the structure.



3. Span 1, wearing surface, looking southwest.



4. Span 3, wearing surface, looking northwest.



5. Span 4, East Steel Bridge Railing, looking down and east.

Parapets / Bridge Railings

- The steel bridge railings in the Movable Span exhibit isolated areas of minor paint peeling and there is a 2-inch horizontal misalignment in the west railing at the center break.
- The Fixed Span steel bridge railings exhibit scattered paint peeling, minor corrosion at the base of a few railing posts in the southeast quadrant, and one approximately 9-square inch corrosion hole at the base of the east steel bridge railing post immediately north of the south expansion joint (see Photograph 5).

Curbs

- Movable Span, the steel plate curbs exhibit minor paint peeling scattered throughout.
- Movable Span, the underside of the cover plate spanning the truss gap typically exhibits minor to moderate pack rust and minor corrosion along the joint with the curb angle (see Photograph 6); the top of the cover plates exhibit paint peeling with minor corrosion and there are a few loose plates in the South Leaf.
- The concrete curbs in the fixed spans exhibit scattered narrow vertical and horizontal cracks and minor edge spalls.
- In Span 1, there is an approximately 2-foot long spall with exposed corroded reinforcement in the West Curb.
- Span 4, the east curb exhibits a 7-foot section of hairline map cracking on the vertical and top faces and spalling along the bottom edge for almost the entire length (see Photograph 7).



 Movable Span, cover plate, looking east.



7. Span 4, East Curb, looking east.

Median

• There is no median on the structure.

Sidewalks

- The sidewalks in the Movable Span typically exhibits minor surface corrosion of the exposed steel grating and scattered areas of minor spalling.
- Movable Span, along the rear break of the South Leaf west sidewalk, the edge plate is detached for most of the sidewalk width (see Photograph 8).
- The underside of the Movable Span sidewalks exhibit minor to moderate corrosion of the steel pans, primarily along the outer 2 feet and inside 1 foot, and there are some instances of corrosion holes in the pans.



8. Movable Span, West Sidewalk, looking down and south.

- The Fixed Span sidewalks exhibit scattered light scaling and debris along the edges.
- Span 3, the east sidewalk at the south counterweight pit back wall has an approximately 3-foot length of missing joint filler adjacent to the bridge railing and a 5-inch by 16-inch through hole adjacent to the curb (see Photograph 9).
- Span 4, there is a 3 SF spall in the edge of the west sidewalk near the south counterweight pit back wall (see Photograph 10).
- The underside of the sidewalks in the Fixed Spans exhibit a few scattered hairline diagonal and transverse cracks, areas of delamination up to 2 SF, and spalls up to 2 SF with corrosion staining at the embedded steel plates in Span 4.
- The navigation light platform hatches near the Center Break are all unsecured.
- The northeast approach sidewalk has a vertical settlement of up to 1-inch.



9. Span 3, East Sidewalk, looking down.



10. Span 4, West Sidewalk, looking northeast.

Drain System

• The deck drains in Spans 1 and 3 are fully clogged (see Photograph 11).



11. Span 3, east deck drain, looking down.

 Light Standards The east light standard in the north approach sidewalk has graffiti (see Photograph 12). 	
	12. North Approach, east light standard, looking north.
 Expansion Joints / Relief Joints / Breaks The rear and center breaks exhibit minor wear in the wheel lines and minor surface corrosion along the east curbline. The South Expansion Joint has missing bolt covers, the joint cover plates are loose at the curbs, there are a few minor gouges in the steel angles and there is minor debris accumulation along the gland (see Photograph 13). 	13. South Expansion Joint, looking west.
 Deck Soffit The deck soffit in Spans 1 and 3 exhibits scattered hairline transverse cracks, areas of delamination and spalls with exposed reinforcing steel up to 10 SF on less than 10% of the soffit area (see Photograph 14). 	Image: Additional state of the sector of

14. Span 3, deck soffit, looking south.

- The buckle plates along the deck soffit in Span 4 exhibit minor to moderate corrosion over the South Abutment at the cut sections and there are isolated areas of corrosion holes along the counterweight pit backwall (see Photograph 15).
- Movable Span, there is a 6-inch strip of exposed concrete along the full width at the edges of the concrete filled sections and the deck panels have scattered areas of minor surface corrosion (see Photograph 16).



15. Span 4, deck soffit, looking up and north.



16. Movable Span, deck soffit, looking south.

Approaches

 The approach pavements exhibit wide alligator cracking along the South Expansion Joint and above the backwall of the North Counterweight Pit, wide longitudinal cracks along the centerline of the roadway and along the centerline of each lane (see Photograph 17).



southwest.

Approach Guardrails

• There are no approach guardrails on the structure.

Fences

• There are no fences on the structure.

Utilities

• There are no utilities above the deck on this structure.

Signage

• There are no signs on the structure.

Other

- Life preservers are in place at the northwest and southeast corners of the bridge and there is minor graffiti on the southeast live preserver box (see Photograph 18).
- The railings along the stairs in the southeast corner of the structure are missing most of the railing spindles (see Photograph 19).
- There is vegetation encroachment over both sidewalks in Span 4.



18. Southeast life preserver box, looking northeast.



II. SUPERSTRUCTURE

• The superstructure is in serious overall condition which corresponds to a NBIS and IDOT condition rating of 3.



20.Overall underside of the movable span, looking north.

Bearings

- The bearings that support the roadway stringers at the backwall of the counterweight pit in Spans 1 and 3 are inaccessible for inspection due to the position of the counterweight.
- The sidewalk stringer bearings in the fixed spans typically exhibit minor to moderate corrosion; Span 1, the west sidewalk stringer bearing exhibits moderate corrosion with moderate section loss and approximately 15% bearing area loss (see Photograph 22).
- The bearings on the South Abutment exhibit minor corrosion and the elastomers are slightly deformed out-of-plane; Stringer 2 and Stringer 5 exhibit 2-inches of bearing area loss along the full width at the face of the abutment (see Photograph 23).



21. Overall underside of the fixed span, looking west.



22. Span 1, west sidewalk stringer bearing, looking northeast.



23. Span 4, Stringer 5 bearing, looking southwest.

- The live load bearings exhibit minor surface corrosion with minor pitting (see Photograph 24).
- The trunnion bearings typically exhibit minor pitting that has been painted over (see Photograph 25).
- The secondary live load bearings exhibit moderate to heavy corrosion with minor pitting and pack rust between the strike plates (see Photograph 26). There is no gap at any of these bearings.



24. Northwest live load bearing, looking east.



25. Northwest Trunnion Bearing, looking east.



26. Southeast Secondary Live Load Bearing, looking west.

Stringers

- Movable Span, a majority of the roadway stringer ends over Floorbeam 16-16 at the rear breaks exhibit heavy corrosion with full height section loss and/or a vertical crack in the web that emanate from the longitudinal plate welded to the web (see Photographs 27 & 28). For additional details, see Exhibit 2 included at the end of this report.
- The roadway stringers in the movable span typically exhibit isolated areas of minor corrosion, minor to moderate pitting along the bottom of the web and bottom flange that has been painted over, with isolated areas of corrosion holes up to 2-inches in diameter, and there is isolated moderate section loss along the height of the web at the splice plates above the floorbeams (see Photographs 29).
- Spans 1 and 3, the roadway stringers exhibit moderate to heavy pitting near the rear breaks that has been painted over. The visible portions of the fascia stringer ends at the counterweight pit backwalls exhibit moderate corrosion and flaking along the bottom 6-inches.
- Spans 1 and 3, the roadway stringers 2 through 7 ends at the counterweight pit backwalls are not visible for inspection due to the position of the counterweight.



27. Movable Span, south roadway stringer end, looking south.



28. Movable Span, north roadway stringer end, looking north.



29. Movable Span, Panel 1 roadway stringers, looking southwest.

- Span 4, the roadway stringers exhibit minor to moderate corrosion at the back face of the counterweight pit backwall and minor corrosion at the stringer ends above the abutment (see Photograph 30).
- The sidewalk stringers in the movable span and fixed spans have no defects.



30. Span 4, roadway stringers, looking northeast.

Girders

- South Trunnion Girder, in the northeast lower gusset plate there is a 6.5-inch vertical crack between the end of the bottom chord and the edge of the trunnion post, and a 5.25-inch diagonal crack with a ³/₄-inch corrosion hole immediately adjacent at the end of the diagonal member; the portion of the plate above the diagonal crack is slightly out of plane to the north (see Photograph 31).
- South Trunnion Girder, in the middle third of the bottom chord there are several small diameter corrosion holes along the bottom of the north web (see Photograph 32).
- South Trunnion Girder, the lower south gusset plates exhibit signs of moderate pack rust and are up to approximately ½-inch out-of-plane along the top of the bottom chord.
- North Trunnion Girder, the southwest lower gusset plate has a 4-inch diameter corrosion hole at the end of the diagonal member.



31.South Trunnion Girder, northeast lower gusset plate, looking south.



32. South Trunnion Girder, bottom chord, looking south.

 North Trunnion Girder, the two east interior gusset plates along both faces exhibit signs of moderate pack rust and are up to approximately ½-inch out-of-plane along the top of the bottom chord (see Photograph 33); the south lower gusset plate below Stringer 4 has a corrosion hole at the east edge along the top of the bottom chord (see Photograph 34).



33. North Trunnion Girder, south gusset plates, looking northwest.



34.North Trunnion Girder, south gusset plate, looking northwest.



35. Floorbeam 0-0N, looking north.

Floorbeams

- The floorbeams in the movable span typically exhibit minor to moderate pitting that has been painted over primarily along the bottom of the bottom flanges and along the height of the web at the end connections, with areas of moderate to heavy debris accumulations along both flanges below the open grid deck.
- Floorbeam 0-0N, at the east end there is minor to moderate corrosion and section loss along the height of the web and the strap bar connection beam above the top flange has full section loss around the perimeter (see Photograph 35).

- Floorbeam 12-12N and 12-12S have isolated corrosion holes up to 3-inches in diameter in the diagonal members and bottom chord and there are repair plates at several top chord end connections and along some diagonals (see Photographs 36); the strap bar connection plates exhibit section loss up to 3-inches wide by 15-inches long.
- Floorbeam 16-16S exhibits full height moderate to heavy corrosion with several corrosion holes in the east half of the original web; there is a repair plate welded to the south face of the web (see Photograph 37).
- Floorbeam 16-16N is newer than Floorbeam 16-16S and has areas of minor corrosion.
- The sidewalk brackets typically exhibit minor pitting that has been painted over; the sidewalk bracket at PP2NE exhibits one missing bolt to the lateral bracing connection plate.
- Several fixed span sidewalk floorbeams exhibit full depth corrosion holes in the web; however, there are additional repair members in place below (see Photograph 38).



36. Floorbeam 12-12N, looking northeast.





38. Span 3, east sidewalk floorbeam, looking south.

Cross Frames

• Spans 1 and 3, the cross frames above the trunnion girders exhibit moderate to heavy corrosion.



39. Span 3, cross frame, looking southeast.

Lateral Bracing

- Movable span, the roadway framing lateral bracing exhibits minor pitting that has been painted over and minor section loss along the bottom of the bottom flanges, with areas of debris accumulations along the flanges (see Photograph 40).
- Movable span, the sidewalk stringer lateral bracing has no noted defects.
- The trusses bracing the live load bearings exhibit minor corrosion with isolated areas of heavy corrosion with corrosion holes up to 16"x3" (see Photograph 41).
- The lattice trusses have numerous areas of corrosion holes up to 3-inches in diameter and moderate to heavy section loss of the connection plates and lacing bars (see Photographs 42).



40. Movable Span, lateral bracing, looking south.



41.Span 3, south live load bearing support truss, looking northwest.



42.Span 3, south lattice truss, looking southwest.

- PP4SW has scrape marks with 5 sheared bolts in the lateral gusset plate (see Photograph 43).
- There are a few locations with missing bolts in the lateral gusset plates.



43.PP4SW lateral gusset plate, looking up.

Trusses

- Top chord members exhibit minor to moderate pack rust in isolated locations between web plates and between flanges and batten plates (see Photograph 44).
- The diagonal and vertical members typically exhibit minor pitting that has been painted over, with a few corrosion holes up to 3-inches in diameter in the web at the roadway level, and moderate pack rust in diagonal members between the flange angles and flange cover plates (see Photograph 45).
- Several vertical member webs typically exhibit heavy corrosion and corrosion holes between the bottom chord gusset plates.
- The vertical and diagonal truss members have the steel curb angle field welded to the inside flanges and there are old field welded attachments along both faces a few feet above the roadway; a few of the old weldments exhibit cracks but the crack has not transferred into the truss member.
- Bottom chord members typically exhibit areas of minor flaking and corrosion along he inside faces of the webs and bottom lacing bars.



44. Top Chord 13-15SE, looking southwest.



45. Vertical Member 8-9SE, looking down.

- Bottom chord members 0-2 and 2-4 of both leaves exhibit moderate to heavy corrosion and section loss of the bottom flange angles (see Photograph 46).
- The bottom chord gusset plates typically exhibit minor to moderate pitting that has been painted over, isolated areas of flaking paint with minor to moderate corrosion generally on the inside faces along the top of the bottom chord, and isolated areas of corrosion holes up to 2-inches in diameter (see Photograph 47).
- The bottom chord gusset plates have torch cut holes near the floorbeam- sidewalk bracket tie bar; no defects were noted.
- The following locations have minor to moderate bends in the plates:
 - PP10NE bottom edge of inside and outside gusset plate and there is a tear in the outside plates (see Photograph 48).
 - PP10SW bottom edge of inside and outside gusset plates.



46. Bottom Chord Member 0-2NW, looking northwest.



47. PP8NE Inside Gusset Plate, looking southeast.



48. PP10NE Gusset Plates, looking up.

Counterweights

- The counterweights typically exhibit scattered cracks and surface spalls.
- The link members connecting the counterweights to the truss all exhibit moderate to heavy corrosion with corrosion holes and section loss; the Northwest Link is corroded through (see Photograph 49).
- The counterweight hangers attached to the truss and embedded in the counterweight concrete exhibit moderate to heavy corrosion at the concrete interface.

Bridge Houses

- North Bridge House:
 - The stairs that lead down to the machinery level have corrosion holes in the stringers at the base and there are large corrosion holes in the adjacent support column (see Photograph 50).
 - The elevated connection platform that goes over the west machinery has railing posts that are corroded through at the base and large corrosion holes in the support stringers (see Photograph 51).
 - Both suspended inspection platforms leading to the backwall are in working order at the time of inspection; however, there are several small diameter corrosion holes in the walking surface at the south end of the east platform.
 - The southwest outside face of the bridge house has a 3 SF spall with exposed reinforcement.
 - There are two red navigation lights mounted on the outside faces of the enclosure walls along the river; both lights were off during the time of inspection.



49. Northwest Counterweight Link, looking east.



50.Northwest Machinery Level Stairs, looking north.



51.Northwest Elevated Connection Platform, looking south.

- The access catwalk along the back face of the river pier is heavily deteriorated (see Photograph 52).
- South Bridge House:
 - The last step in the stairs at the midplatform leading down to the machinery level is missing and the stringers have large corrosion holes.
 - The stairs that lead down to the machinery level have large corrosion holes in the stringers and the adjacent support column exhibits heavy corrosion and section loss (see Photograph 53).
 - The elevated platform that goes over the east machinery is in working order at the time of inspection.
 - Both suspended inspection platforms leading to the backwall are in working order at the time of inspection.
 - There are two red navigation lights mounted on the outside faces of the enclosure walls along the river; both lights were off during the time of inspection.
 - The access catwalk along the back face of the river pier is heavily deteriorated.



52. North river pier catwalk, looking east.



53. Southeast Machinery Level Stairs, looking northeast.

Utilities

• There are no utilities on the superstructure.

Other

- The southeast truss guard has scattered corrosion holes.
- The horizontal steel plate between the top chord of Floorbeam 12-12 and the web of Floorbeam 16-16 exhibits scattered large corrosion holes with a loose section in the south plate (see Photograph 54).



54. North horizontal steel plate, looking up.

- The east and west center lock mechanisms are not engaged with a 1/2-inch gap creating noticeable vibration under live load (see Photograph 55).
- There are navigation lights in place at both fascias at the center break, and the missing one on the east side of the North Leaf was replaced prior to the current inspection. The lights were on at the time of inspection (see Photograph 56).
- At the center break, the southeast, southwest and northwest navigation light platform grates are loose.



55. West Center Lock, looking east.



56. East Center Break Navigation Lights, looking southwest.

III. SUBSTRUCTURE

• The substructure is in fair overall condition corresponding to a NBIS and IDOT condition rating of 5.

Abutments/Wingwalls

- The North Abutment and North Counterweight Pit back wall are one in the same. Comments for this element can be found in the Counterweight Pits section of this report.
- The South Abutment exhibits scattered hairline vertical cracking in the stem, wide horizontal cracks in the backwall, 80 SF of delamination in the stem below Stringer 7, and approximately 8 SF of edge spalling up to 2-inches deep along the bearing seats of Stringers 2 and 5 (see Photograph 57).



57. South Abutment, Stringer 5 bearing seat, looking southwest.

- The West Wingwall has narrow map cracks, spalls in the coping up to 3 SF, and a 3 SF spall at the south end with a minor amount of soil spilling through the vertical joint (see Photograph 58).
- The East Wingwall is buried and not visible for inspection.



58. West Wingwall end, looking east.

Piers

- The river piers exhibit moderate to heavy scaling along the waterline with up to 5-inches of penetration and there is debris buildup along the face and cap.
- The South River Pier has an 8 SF spall below the East Truss and there is a wide vertical crack near midspan (see Photograph 59).
- The North River Pier exhibits a 6-foot long by 1.5-foot wide edge spall with up to 4-inches of penetration and one exposed and corroded reinforcing bar near the West Truss (see Photograph 60).



59. South River Pier, looking south.



60. North River Pier, looking northwest.

Columns

- The partially encased trunnion posts typically exhibit minor to moderate corrosion with minor flaking along the base and several corroded through lacing bars in the lateral supports (see Photograph 61).
- The A-frame supports for the outside trunnion posts exhibit minor corrosion and flaking predominantly at the bases.
- The sidewalk columns in the fixed spans exhibit minor to moderate corrosion and section loss with corrosion holes up to almost the full flange width at the bases. Many of them have welded web plate repairs (see Photograph 62).



61. Northeast trunnion post, looking north.



62. Southwest Sidewalk Column, looking northeast.

Counterweight Pits

- The pit face of the counterweight pit backwalls under the sidewalks and below the counterweight are the only visible portions of the walls due to the position of the counterweight. The visible portions exhibit scattered hairline vertical and horizontal cracks with efflorescence and isolated delaminations and spalls up to 2 SF.
- The south face of the South Counterweight Pit Backwall exhibits corrosion stains, several scattered areas of delamination up to 4 SF and hairline to narrow radial cracks emanating from the embedded stringers (see Photograph 63).



63. South Counterweight Pit Backwall, South Face, looking northwest.

- The east and west pit walls exhibit hairline to narrow leaching vertical and horizontal cracks.
- Both counterweight pits have shoring towers, but they are not supporting the counterweight (see Photograph 64).
- Both pits have minor debris; the North Counterweight Pit has approximately 12-feet of standing water and the South Counterweight Pit has approximately 3-feet of standing water.



64. South Counterweight Pit shoring, looking southwest.

Fender System

- The timber fenders exhibit minor to moderate deterioration with large missing sections at both ends of the river piers (see Photograph 65).
- There are timber dolphins in place at all corners of the structure, and all exhibit broken piles and moderate to heavy deterioration around the waterline.
- The southwest timber dolphin has failed (see Photograph 66).



65. North timber fenders, looking northwest.



66. Southwest Timber Dolphin, looking southwest.

Other

- The east and west fences in Span 4 have been cut/gates broken allowing unauthorized access (see Photograph 67).
- There is graffiti on the outside of the bridge house walls and on the South Abutment.



67. Span 4 west fence, looking west.

IV. STEEL PROTECTIVE COATING

• On a scale of 5 to 1 (5 being new; 1 being failed), the paint system for this structure is rated a 3 (fair).

Superstructure

• The protective coating exhibits random areas of flaking paint and the exposed steel has varying degrees of corrosion (see Photograph 68).



68. Superstructure protective coating, looking southeast.

Substructure

 The protective coating typically exhibits paint fading except at the bottom 1' of columns and along the trunnion posts laterals where it has failed and led to heavy corrosion and section loss (see Photograph 69).



69. Substructure protective coating, looking south.

V. CHANNEL

• The channel is in good condition which corresponds to a NBIS and IDOT general condition rating of 7.



71. Downstream channel, looking west.

VI. UNDERWATER INVESTIGATION

• The underwater investigation was conducted by Collins Engineers, Inc. on May 27, 2022. Based on the underwater inspection, the affected elements are rated satisfactory and given a NBIS and IDOT general condition rating of 6. Please refer to the underwater inspection report for specific inspection findings regarding the underwater bridge elements.







City of Chicago – Department of Transportation California Avenue over the Sanitary & Ship Canal







SN: 016-6005 District: 1 Spans: 1 Appr. Spans: 3 Skew: 23 ADT: 18900 Truck Pct: 23	20						
ADT Un: Maint. Co: COOK Twsp: WEST CHICAGO (CHICAGO) Status: OPEN - NO RESTRICT							
Facility Carried: S. CALIFORNIA AVE Feature Crossed: SANITARY&SHIP CANAL							
Location 3300 S & 2800 W Municipality: CHICAGO Team/Sub: / Insp/Rte:							
Bridge Name: S CALIFORNIA AVE BR Material & Type: STEEL/MOVEABLE - BASCULE							
Insp. Intervals Routine: 24 Fracture Critical: 24 Underwater: 60 Special: N/A Element Level: 2	24						
90 – Inspection Date: 08/03/22 90C – Temp. (°F) 77 90B1 – In-Depth							
Is Delinquent: Reason:							
90A – Agency Program Manager: Jurca, V.							
90A1 – Team Leader: Soehrman, D. 90A2 – Inspector: Moreno, B.							
90B – Previous Inspection Remarks:							
Joint Openings (In.): South Joint = 3/4"111- The timber dolphins exhibit broken piles and moderate to heavy weathering around							
the waterline. Missing sections of timber fender are present at all corners of both river piers.							
Resources							
Time to Inspect (H:M): 9:0 17:00 Traffic Control: N Boat: N Waders: N Snooper: N							
Ladder: LS Y Manlift: N Bucket Truck: N Other: Bucket Boat Bucket Boat							
Inspector's Appraisals							
Prev New Comments							
spalls with exposed and corroded reinforcement up to 10 SF on less than 10% of the soffi	ina it.						
50 Superstructure Cond: 1.5.1.2 Movable Span roadway stringer ends at the rear breaks exhibit full height corrosion holes	s in						
the web and several have full height cracks in the webs.							
60 – Substructure Cond: 5 5 River piers exhibit moderate to heavy scaling along the waterline, wide vertical cracks an	ıd						
spalls up to 9 SF with exposed and corroded reinforcement.							
62 – Culvert Condition: N N							
61 – Channel Condition: 7 7 7							
71 – Waterway Adequacy: 9 9							
72 – Approach Rdw Align: 8 8							
111 – Pier Navig Protection: 3 3 The timber dolphins all exhibit broken piles and mod. to heavy deterioration along the							
waterline. The timber fenders exhibit min. to mod. deterioration with missing sections.							
36A – Bridge Railing Adequacy: 2 2							
Prev New Pre							
Additional Inventory Data - To Be Verified During Routine Inspection							
108A – Wearing Surface Type: P 108B – Type of Membrane: F 108C – Deck Protection: J							
108D – Total Deck Thickness (in): 5.0							
59A – Paint Date (Mo/Yr): 08/2016 59B – Paint Type: Z							
59C – Utilities Attached: 9NN							
113A - Scour Critical Analysis Date: 8/18/1997 113 - Scour Critical Rating: 8 113B - Evaluatin Method: 8							
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Printed 08/30/2022

(formerly BBS BIR) ''

Routine Inspection Report Structure Number: 0166005

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

90B – Inspection Remarks

Jt. Openings (In.): South Joint, 1" (measured @ E. gutterline)

Deck: The concrete filled steel grating exhibits scattered pop-outs throughout; the open grid steel grating has a few scattered locations

of missing secondary grid bars. Superstructure: see FC1 remarks for further information. Bottom Chord members 0-2 and 2-4 in all quadrants exhibit moderate to heavy corrosion and section loss of the bottom flange angles. Both gusset plates at PP10NE and

PP10SW exhibit damage and are bent, with PP10NE outside plate having a tear in this location. Substructure: The South Abutment

exhibits scattered hairline vertical cracking, delaminations up to 80 SF, and up to 2-inch deep edge spalls along the bearing seats of

Stringers 2 and 5. The trunnion posts exhibit minor to moderate corrosion.

	Signature	Date
Inspection Team Leader:	Jani Jadhin	09/ 13 /22
Agency Program Manager:	Varile Miki Jun	10/ 11/2022

Use Additional Forms as Needed

Printed 08/30/2022

BBS-RIR (Rev. 06/29/21) (formerly BBS BIR)



SN: 016-6	3005	District:	1	Spans:	1	Appr. S	pans:	3	Skew	: 23	3 AD	Г:	18900	Truck F	'ct:	20
ADT Un:	M	laint. Co: C	OOK		Twsp	: WEST	CHIC/	\GO ((CHICAC	GO)	Status	s: C	PEN - NC) RESTR	ICT	
Facility C	arried: S. C	CALIFORNIA	A AVE				Featur	e Cro	ssed:	SANIT/	ARY&SH	HIP (CANAL			
Location	3300 S & 2	2800 W			Muni	cipality:	CHICA	GO		T	eam/Su	b:	/	Insp/R	te:	
Bridge Na	ame: SCA	LIFORNIA A	VE BI	R		Material &	& Туре	: STE	EL/MO	VEABL	E - BAS	CUL	.E			
Insp. Inte	rvals Routi	ne: 24	Fract	ture Criti	ical:	24 Ur	nderwa	iter:	60	Specia	il: N	J/A	Ele	ment Le	vel:	24
93D – Ins	pection Date	e: 08/03/20	022				90	C – Te	۳p. (°F	-) 77						
ls Delinqu	ient: 🔲 F	Reason:														
90E – Age	ency Progra	m Manager:	Jurc	a, V.			90E	E3 – C	onsulta	nt Prog	ram Mar	nage	er: Bend	lok, M.		
90E1 – Te	am Leader:	Soehrma	n, D.				90E	2 – In	spector	r: Mo	reno, B.					
						Re	sourc	es								
Time to In	spect (H:M)	: 9:0 17 :	: <mark>00</mark> :	Fraffic Cc	ontrol:	1	N Boa	at:	Ν	Wader	s:	Ν	Snooper		Ν	
Ladder: I	LS Y Man	lift: N	N Buc	cket Truc	:k:	N	Other:	bucke	et boat					Bucke	et Boa	at
						Inspecto	or's Ap	praisa	ls							
Element		Elem	ent De	scription			Env	/ Q.	antity	Unit	CS1		CS2	CS3		CS4
-8013	Concrete De	ck Unprotecte	ed w/ H	MA Overl	ay –		4	+	4161	SF	 	\dashv			+	
	Remarks	DECK SOFF	TT HAS	SCATT.	AREA	S OF SPAL	LS W/	EXP. C	ORROE	ED REI	NFORCIN	NG S	TEEL	<u></u>		
28	Steel Deck C	Open Grid					4		6326	SF	6,258	8	63	5		0
	Remarks	There are a	few sca	attered loc	ations	of missing	seconda	ary grid	bars.							
29	Steel Deck C	Concrete Filled	d Grid				4	Τ	1692	SF	1,353	3	339	0		0
	Remarks						1			<u>.</u>						
8058	Sidewalk (SF	-)					4	6	i, 3 40	SF	4,603	3	1,731	3	T	3
	Remarks	Through spa	II in the	SE fixed	sidewa	alk with exp	osed re	inf. and	l spalled	through	conc. in	filled	grid sidewa	alk.		
8118	Non-Lead Pa	ainted Steel O)pen Gi	rder			4	1	1,595	SF	10,51	9	50	1,026		0
	Remarks	Moderate to	heavy	corrosion	and mi	inor section	loss at	counte	rweight	pit back ^y	walls.					
8119	Non-Lead Pa	ainted Steel S	tringer				4	1	5,030	SF	13,83	5	1,145	0	T	50
	Remarks	Movable Roa	adway 🤅	Stringers e	exhibit i	isolated sm	nall diam	ieter co	prrosion	holes in ^t	the web.					
8122	Non-Lead Pa	ainted Steel B	ottom (Chord Thr	ough T	russ	4		8516	SF	7,062	2	1,278	88		88
	Remarks	Bottom chore	d memł	pers 0-2 a	nd 2-4	exhibit more	derate to	o heavy	/ corrosi	on and s	ection los	ss of	the bottom	flanges.		
8123	Non-Lead Pa	ainted Steel T	hru Tru	iss Exclud	ling Bo	ttom	4		15501	SF	13,07	9	2,326	0		96
	Remarks	Heavy corros	sion an	d small di:	ameter	corrosion	holes in	severa	I vertica	l and dia	gonal me	mbe	rs.			
8129	Non-Lead Pa	ainted Steel F	loor Be	am			4	Τ	11758	SF	9,689	9	2,024	0		45
	Remarks	Corrosion ho	oles in t	runnion cr	ross gir	rder gusset	plates a	and out	-of-plane	e deform	ation.					
8163	Non-Lead Pa	ainted Gusset	Plate				4		144	EA	88		50	2		4
	Remarks	Bent gusset	plates :	at PP10N	E & PP	10SW, hea	avy SL a	it PP2N	IW and o	corr. hole	in PP8N	IE.				
8179	Non-Lead St	eel Stringer E	inds Inc	cluding Dia	aphrag	jms	4		68	EA	24		22	0		22
	Remarks	The movable	e span r	stringer er	nds at t	the rear bre	aks exh	ibit hea	avy corr.	with full	height se	ectior	ı loss.			
8192	Non-Lead Pa	ainted Steel F	loor Be	am Below	/ Deck	Joint	4	2	2,578	SF	1,698	8	302	333		245
	Remarks	FB 16-16S h	ias hea	vy corr. w	/severa	al large corr	r. holes	in E. 1/	2 of web	o; FB 0-0	N has mi	n. Sl	along E. e	nd connec	tion.	
8200	Non-Lead Pa	ainted Steel C	olumn	or Pile Ex	tensior	n	1	2	2,641	SF	1,932	2	537	156		16
	Remarks	Moderate co	rrosion	and corrc	sion h	oles at the	base of	the sid	ewalk co	olumns ir	i both brid	dge l	nouses.			
210	Reinforced C	onc Pier Wal	íl.				1	1	3,885	SF	10,99	2	2,414	479		0
	Remarks	The river pie	rs have	∍ heavy sc	aling w	vith some a	reas of	expose	d reinfo	rcement	along the	; rive	r face.			
215	Reinforced C	onc Abutmer	nt				1	7	′,150	SF	5,727	7	1,423	0	T	0
	Remarks															
234	Reinforced C	onc Pier or A	butmer	nt Cap			1		280	LF	179		101	0		0
	Remarks															
304	Open Expans	sion Joint		-			4		187	LF	105		6	0		76
	Remarks	Significant d	amage	to movab	le span	n stringer er	nds belc	w the r	ear brea	aks.						

8308	Continuous Seal Neopre	ne Expansion Joint	4	66	LF	57	4	5	0	
	Remarks Minor corrosion on stringer ends below joint and a few gouges in armor angles.									
-311	Movable Discontinous Br	g .	4	14	EA					
	Remarks									
313	Fixed Bearing		4	32	EA	16	12	4	0	
	Remarks Secondary	LL bearings exhibit mod. to heavy cor	r., mino	pitting and p	ack rust l	oetween stri	ke plates.			
8323	Approach Pavement		4	2	EA	0	0	2	0	
	Remarks Both appro	ach pavements exhibit wide alligator c	racking	along ends o	fstructure	e and wide l	ong. cracks			
330	Metal Bridge Railing		4	835	LF	750	83	0	2	
	Remarks Corrosion h	ole in railing post along East Railing ju	ust north	of South Exp	oansion J	oint.				
8413	Steel Gusset Plate		4	4	EA	0	0	4	0	
	Remarks Torn and bent gusset plates at PP10NE and PP10SW.									
			Sig	nature				Da	ate	
Inspectio	on Team Leader:	Jarie Joskin	Sig	nature				Da 09/ 13	ate 3 / 22	
Inspectio Consulta	on Team Leader: nt Program Manager:	Jarrie Joskin	Sig	nature				09/ 13	ate 3 / 22 /	
Inspectio Consulta Agency P	on Team Leader: nt Program Manager: Program Manager:	Jori Joku Varile Miki Jun	Sig	nature				09/13 / 10/05	ate 3 / 22 / 5 / 2022	
Inspectio Consulta Agency P 8014	on Team Leader: Int Program Manager: Program Manager: Concrete Deck Protecter	Jaribaku Varile Miki Jun W/HMA Overlay	Sig	6,762	SF	5,819	154	09/ 13 / 10/ 05	ate 3 / 22 / 5 / 2022	
Inspectio Consultar Agency P 8014	on Team Leader: Int Program Manager: Program Manager: Concrete Deck Protected Remarks Spalls with	Jani Jaka Varila Mirka Jun d w/HMA Overlay exposed and corr. reinf. in Spans 1 a	Sig 4 nd 3 sof	6,762 fit and heavy	SF rutting in	5,819 5pan 1 wea	154 aring surface	09/ 13 / 10/ 05 789	ate 3 / 22 / 5 / 2022 0	
Inspectio Consultar Agency P 8014 8176	on Team Leader: Int Program Manager: Program Manager: Concrete Deck Protecter Remarks Spalls with Non-Lead Painted Steel	Janife Mirka Jun Varile Mirka Jun d w/HMA Overlay exposed and corr. reinf. in Spans 1 a Open Girder Ends Including Diaphra	Sig 4 nd 3 sof	nature 6,762 fit and heavy 30	SF rutting in EA	5,819 Span 1 wea	154 aring surface 22	09/ 13 / 10/ 05 789	ate 3 / 22 / 5 / 2022 0 0	
Inspectio Consultar Agency P 8014 8176	on Team Leader: Int Program Manager: Program Manager: Concrete Deck Protected Remarks Spalls with Non-Lead Painted Steel Remarks	Janifordin Varile Mirka: Jun d w/HMA Overlay exposed and corr. reinf. in Spans 1 a Open Girder Ends Including Diaphra	Sig 4 nd 3 sof	6,762 fit and heavy 30	SF rutting in EA	5,819 Span 1 wea 8	154 aring surface 22	09/ 13 / 10/ 05 789 e. 0	ate 3 / 22 / 5 / 2022 0	
Inspectio Consultar Agency P 8014 8176 310	on Team Leader: Int Program Manager: Program Manager: Concrete Deck Protecter Remarks Spalls with Non-Lead Painted Steel Remarks Elastomeric Bearing	Janile Michai Jam Varile Michai Jam d w/HMA Overlay exposed and corr. reinf. in Spans 1 a Open Girder Ends Including Diaphra	Sig - - 4 4 4	6,762 fit and heavy 30	SF rutting in EA EA	5,819 Span 1 wea 8	154 aring surface 22 14	09/ 13 / 10/ 05 789 e. 0	ate 3 / 22 / 5 / 2022 0 0 0	

Illinois Department of Transportation

SN: 016-6005	District:	1	Spans:	1	Appr.	Spans:	3	Skew:	23	ADT:	18900	Truck Pct:	20
ADT Un:	Maint. Co: C	OOK		Twsp	: WES	ST CHIC	AGO (CHICAGO) S	status:	OPEN - NO	RESTRICT	
Facility Carried: S. CALIFORNIA AVE Feature Crossed: SANITARY&SHIP CANAL													
Location 3300 S &	Location 3300 S & 2800 W Municipality: CHICAGO Team/Sub: / Insp/Rte:												
Bridge Name: S CA	ALIFORNIA A	VE B	R		Materia	I & Type	: STE	EL/MOVE	ABLE -	BASCU			
Insp. Intervals Rout	i ne: 24	Frac	ture Criti	ical:	24	Underwa	ater:	60 S p	pecial:	N/A	Eler	nent Level:	24
93A – Inspection Dat	te: 08/ 0	3 / 22	2 93A4	– Ten	np. (°F)	. 77							
Is Delinquent:	Reason:												
90A – Agency Progra	am Manager:	Jurc	a, V.			90A3	– Con	sultant Pr	ogram N	/lanager:	Bendok,	М.	
93A3 – Team Leade	: Soehrma	an, D.			93/	45 – Insp	ector:	Moren	io, B.				
						Resourc	es						
Time to Inspect (H:M): 4:0 15	45	Traffic Co	ontrol:		N Boa	at:	N W	aders:	N	Snooper:	Ν	
Ladder: LS Y Mai	nlift: N	Bu	cket Truc	k:	Ν	Other:			Bucket	Boat	•	Bucket Bo	at
					Inspec	tor's Ap	praisa	als					
92A1 – Type: X1	If "X4-0	Other"	Descriptio	n:									
93A1 – Rating: Pre	ev 5 Ne	ew:	5 F	C Me	thod:	Prev V				New:	MP 🔲 DP		VX
93A2 – Remarks: <mark>S</mark> e	veral vertical a	nd dia	gonal mem	bers e	xhibit up	to 10% s	ection l	oss near the	e top cur	b. Bottom	Chord memb	oer 0-2 in all q	uadrants
exhibits moderate to he	eavy corrosion	and se	ction loss	of the l	bottom fl	ange angl	es. Rei	maining me	mbers ty	pically ext	nibit minor pit	ting and section	on loss
that has been painted of	over and minor	to mo	derate pac	k rust k	petween	member o	compor	nents. Steel	curb ang	les are w	elded to the i	nside flanges	of
vertical and diagonal m	embers, and the	nere ar	e old field	welded	d attachn	nents alor	ig both	faces; a fev	v are cra	cked but h	naven't transf	erred into mer	nbers.
92A1 – Type: X2	lf "X4-0	Other"	Descriptio	n:									
93A1 – Rating: Pre	ev 5 Ne	ew:	4 F	C Me	thod:	Prev V			I	New:	MP 🔲 DP		VX
93A2 – Remarks: Th	e trunnion girde	er truss	ses exhibit	up to a	approx. 1	/2" of out	of-plan	ne bending i	n the low	er gusset	plates along	the top of the	bott.
chord; S. Trunnion Girc	ler has a 6.5-ir	ich and	1 5.25-inch	crack	in the ea	ist end no	rth lowe	er gusset pl	ate. FB's	12-12 ex	hibit iso. corr	holes up to 3	-inches
in diam. in diag. memb	in diam. in diag. members and the bott. chord and several repair plates throughout. FB 16-16S exhibits full height heavy corr. with corr. holes in the E.												
half of the original web	and a repair pl	ate alc	ong the bad	ck face	. FB 0-0I	N exhibits	min. to	mod. corr.	and SL a	along the I	height of the	web at the E.	end.
			0 0			S	ignat	ure				Date	
Inspection Team Le	ader:	F	teris Lack	him	_							09/ 13	/22
Consultant Program	n Manager:			0								/	/
Agency Program Ma	anager:		Varile	This	hi C	m						10 / 05	/2022
					/								

Two Girder

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

Truss System

- B1- Eyebar & Pin Tension Members B2- Simple Span Welded Truss Tension Members
- B3- Hanger Link & Pin of Suspended
- Trusses B4- Single element Tension Members
- B5- Simple Span riveted/Bolted Tension Members
- B6- Continous Truss System-Welded, Riveted or Bolted Tension Members

Cable Stayed & Suspension

C1- Suspension Bridge-Cables C2- Cable Stayed-Cables

Tied Arches

D1- Welded Box Ties D2- Riveted/Bolted Box Ties

D3- Stiffened Girders

Framed Steel Substructure

- E1- Welded or Rolled Pier Cap
- E2- Riveted or Bolted Pier Cap E3- Welded or Rolled Pier Column
- E4- Riveted or Rolled Pier Column

Box Beams

- F1- Single Welded Box
- F2- Single Riveted/Bolted Box
- F3- Double Box Beam-Welded,

Riveted or Bolted

Other Types

- X1- Bascule X2- Floorbeams supporting other steel members or spacing > 15 ft.
- X3- Cross Frames or Transfer Beams

X4- Other

Illinois Department of Transportation Structures Information Management System Inventory Turnaround Report (S-105)

Structure Numbe	r: 016-6005							
District: 1	Maintenance County:	COOK		Municipality:	CHICAGO		Bridge Status:	OPEN - NO RESTRICT
	Maintenance Township:	WEST CHIC	CAGO (CHICA	GO)			Status Date:	5/1/1994
Key Route On: FI	EDERAL-AID URBAN 2839	S	Sta: 3.6100	Seg:	Spur/Alt:	Main Route	Sufficiency Rating:	77.8
Key Rt Under:		S	Sta:	Seg:	Spur/Alt:		HBP Eligible:	No
Item No. / Name	• • • • • • • • • • • • • • • • • • •	* * * * * * * * * * * * ting Values	* * * * * * * * * *	* * * * * * * * * S Revisions	creen 1 * * * * Item No.	* * * * * * * * * * * * * * * * * * *	Existing Values	Revisions
(7) Facility Carried	S CALIFORNIA AVE				(101) Par	allel Designation	N	
(6) Feature Crossed:	SANITARY&SHIP CANA				Parallel	SN:		
(9) Location:	3300 S & 2800 W	-			(8E) Rep	laced By Struct Number:		-
(7A) Bridge Name:	S CALIFORNIA AVE BR				(8D) Rep	laces Structure Number:		
(3B) Maintenance Con	unty:	016			(49) Stru	cture Length (Ft.):	314.0	
(3B1) Maintenance To	wnship:	86			(112) AA	SHTO Bridge Length (Ft.):	99.9	
(21) Maintenance Res	p:	40			(51) Brid	ge Roadway Width (Ft.):	38.0	
Other Resp:		-			(32) App	roach Roadway Width (Ft.):	38.0	
Other Sec Resp:		-			(52) Decl	k Width (Ft.):	62.2	
(42) Service On/Unde	r:	15			(107/A) D	eck Type/Thickness (In.):	G 5.0	/
Other Service On:		-			Other De	ck Type:		
Other Service Under:					(48) Leng	gth of Longest Span (Ft.):	224.0	
(22A) Reporting Agen	icy:	4			(45/6) Nb	r Spans Main/Approach:	1 3	/
Other Reporting Agcy	/:				(43A/B) N	/lain Span Material/Type:	3 16	/
(20) Toll Facility:		0			Other Sp	an Material:		
(35) Structure Flared:		0			Other Sp	an Type:		
(31) Design Load:		02			(44AN/BI	N) Near Appr Span Matrl/Typ	e #1: 3 02	/
(31A) Struct Steel We	ight (Lbs.):	2600000	_		(44AN/BI	N) Near Appr Span Matrl/Typ	e #2:	/
(60A/B) Substr Matrl:		55			(44AF/BF	F) Far Appr Span Matrl/Type	#1: 3 02	/
(8A1) Bridge Remarks	s (Existing):				(44AF/BF	F) Far Appr Span Matrl/Type	#2:	/
BRIDGE REHABB	ED IN 1991PUBLIC OVER R	R CROSSING	G: 840379H		Bridge R	emarks (Revised):		

Item No. / Name	Existing Values	Revisions	Item No. / Name
(34A) Skew Dir/Angle (DEG):	R / 23	/	(202) Traffic Permits Rte
(33) Bridge Median Type:	0		(8B) Multi-Level Structur
(33A) Bridge Median Width (Ft):	0		(62A) Culvert Cells (Cour
(38) Navigation Control:	1		(62B) Culvert Cell Width
(39) Navigation Vert Clear (Ft):	15		(62C) Culvert Cell Height
(40) Navigation Horiz Clea (Ft):	140		(62D) Culvert Opening A
(50A) Sidewalk Width On - Right (Ft):	8.5		(62E) Culvert Fill Depth (
(50B) Sidewalk Width On - Left (Ft):	8.5		(16) Latitude:
(50C) Sidewalks Under Structure:	0		(17) Longitude:
(36E) Guardrails On - Right:	0		(98A) Border Bridge Stat
Other Guardrail Right:			(98B) BorderBridge Adj
(36F) Guardrails On - Left:	0		(99) Border Bridge Numb
Other Guardrail Left:			Border Bridge Remarks
(8C) RR Crossing Numbers:	004178M 289806D	LEAVE BLANK	-
(55B1) RR Lateral Underclearance (Ft.):	0.0		
(54B3) RR Vert Underclearance (Ft In	.): 0 - 0		

	Existing Values	Revisions
202) Traffia Barmita Bto Soo Nhri	Existing values	11011310113
202) Trainc Permis Rie Sec Nor.		
B) Multi-Level Structure Number:		
S2A) Culvert Cells (Count):	0	
S2B) Culvert Cell Width (Ft.):	0.00	<u> </u>
S2C) Culvert Cell Height (Ft.):	0.00	
62D) Culvert Opening Area (Sq. Ft.):	0.0	
62E) Culvert Fill Depth (Ft.):	0.0	
I6) Latitude:	41.83461368	
I7) Longitude:	87.69495709	
98A) Border Bridge State Number:		
88) BorderBridge Adj State (% Resp):	0	
99) Border Bridge Number Existing:		
order Bridge Remarks (Existing):		

Illinois Department of Transportation Structures Information Management System Key Route Turnaround Report (S-111)

Structure Number: 016	5-6005				
District: 1 Maintenance Co	unty: COOK	Municipality:	CHICAGO		
Maintenance To	wnship: WEST CHICAGO (CHICAG	60 1			
Facility Carried: S. CALI	FORNIA AVE	Bridge Name:	S CALIFORNIA AVE BR	Sufficiency Rating	1: 77.8
Feature Crossed: SANITA	RY&SHIP CANAL	Location:	3300 S & 2800 W	HBP Fligible	No
Bridge Remarks: BRIDGE	REHABBED IN 1991PUBLIC OVER R	R CROSSING: 840379H			
Bridge Status: OPEN		Bridge Status Date:	5/1/100/		
Status Remarks PER RA	HEEM MEMO 6-16-94	Bridge Status Date.	5/1/1994		
			1		
	KEY ROUTE ON			<u>KEY ROUTE UNDER</u>	
Item No. / Name	Value	Revision	Item No. / Name	Value	Revision
(1A, B, C) Key Route Number:	9 2839		(1A, B, C) Key Route Number:		
(1D) Appurtenance Type:	0		(1D) Appurtenance Type:		
(1E) Key Route Segment:			(1E) Key Route Segment:		
(1F) Appurtenance Number:	00000	·	(1F) Appurtenance Number:		·
(1G) Key Route Station:	3.6100	·	(1G) Key Route Station:		·
(1H) Dir Of Inventory:			(1H) Dir Of Inventory:		
(3A) Inventory County:	016		(3A) Inventory County:		
(3A1) Inv Township/Rd Dist:	86		(3A1) Inv Township/Rd Dist:		
(4) Municipality:	1051		(4) Municipality:		
(25) Urban Area:	1051		(25) Urban Area:		
(26) Functional Class:	5		(26) Functional Class:		
(104) National Hwy System:	5 2040		(104) National Hwy System:		
(30) Estimated AADT Year:	2018		(30) Estimated AADT Year:		
(29) Estimated AADT:	10900		(29) Estimated AADT:		
(20) Number Of Lanes:	2		(20) Number Of Lanes:		
(102) One Of Two way france.	2	—	(102) One Of Two way frame.		
(109) Estimated % Trucks.	20		(105) Estimated % Hucks.		
(114) Future AADT:	10570		(114) Future AADT Teal.		
(114) Puture AADT. (110) Desig Natl Truck Rte:	19570		(114) Future AADT. (110) Desig Natl Truck Rte:		
(19) Bynass Longth:	1	—	(19) Bypass Longth:		
Key Rte On Remarks:	•		Key Rte Under Remarks:		
	KEY BOUTE ON	CLEARANCE I	NEORMATION	KEY ROUTE UNDER	
	South Or East	North Or West		South Or East	North Or West
	Value Revision Va	lue Revision		Value Revision	Value Revision
(47) Max Rdwy Width (Ft.)	38.0		(47) Max Rdwy Width (Ft):		
(47A/B) Horizontal (Ft.):	38.0	0.0 .	(47A/B) Horizontal (Ft.):	;	
(53A/B) Min Vert (FtIn.):	9911	9911 BLANK	(54B1/2) Min Vert (FtIn.):		
(10A/B) 10 Ft Vert (FtIn.):	9911	9911 BLANK	(10A/B) 10 Ft Vert (FtIn.):		
(1012) 1011 1011(1011)			(55B/56) Min Lateral (Ft.):		
	KEY ROUTE ON	MARKED ROUTE		KEY ROUTE UNDER	
Pouto	#1 Pouto #2	Bouto #2	Ban	10 #1 Doute #2	Doute #2
Value Re	<u>** Koule #2</u> Vision Value Revision \	/alue Revision	Kou Value	Revision Value Povision	Value Povision
				value <u>Revision</u>	value <u>Revision</u>
			(5B) Kind:	<u> </u>	
	·i	I	(5C) Desig:	— —	
			(5D) Number:		

Illinois Department of Transportation Structures Information Management System Inspector's Inventory Report (S-114)

Structure Number:	016-6005		Itom No. / Nomo	Construction Information				
District: 1 Municipality: CHICAGO Facility Carried: S. CALIFORNIA AVE Feature Crossed: SANITARY&SHIP CANAL (21) Maintenance Resp: MUNICIPALITY Other Resp: (22A) Reporting Agency: MUNICIPALITY Other Reporting Agery: (41) Bridge Status: 1 (OPEN - NO RESTRICT) (41A) Status Date: 5/1/1004		Maintenance County: COOK Maint Township: WEST CHICAGO (CHICAGO) Bridge Name: S CALIFORNIA AVE BR Location: 3300 S & 2800 W UNKNOWN Other Sec Resp:		(27/27A) Year/Type: (27B) Route: (27C) Section: (27D) Station: (27E) Contract : (27F) Project: (27G) Built By:	Original 1926 S CALIFORNIA AVE 17 00000000000 CITY	Values Reconstruction 1991 FAU 2839 84-E-4411-00-BR 10+00.00 M-5000(687) CITY		
(41B) Status Remarks: (42) Service On/Under: Other Service On:	PER RAHEEM MEMO 6-16-94	5 WATERW Other Service Under:	/AY		****	****		
Item No. / Name (101) Parallel Designation: Parallel SN: (35) Structure Flared: (31) Design Load: (31A) Struct Steel Weight (LI (60A/B) Substr Matrl: (8A1) Bridge Remarks (Exist Bridge Remarks (Revi	Existing Value (0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	s <u>Revis</u> N 2 2 0 5 N 1991 PUBLIC OVER RR	sions Item No. / Name (49) Structure Leng (112) AASHTO Bridg (51) Bridge Roadwa (32) Approach Road (52) Deck Width (Ft (48) Length of Long CROS- (107/A) Deck Type/T Other Deck Type: (45/6) Nbr Spans Main (43A/B) Main Span	th (Ft.): ge Length (Ft.): ay Width (Ft.): dway Width (Ft.): .): gest Span (Ft.): fhickness (In.): ain/Approach: Material/Type:	Existing Values - 314.0- 99.9 38.0 38.0 62.2 224.0 G 5.0 1 3 3 16	Revisions 323.9		
Border Bridge Remarks:	****	****	Other Span Materia (44AN/BN) Near App (44AN/BN) Near App (44AF/BF) Far Appr (44AF/BF) Far Appr (44AF/BF) Far Appr	l: pr Span Matrl/Type #1: pr Span Matrl/Type #2: Span Matrl/Type #1: Span Matrl/Type #2:	3 02 3 02	///////		
Item No. / Name (34A) Skew Dir/Angle (DEG): (33) Bridge Median Type: (33A) Bridge Median Width ((38) Navigation Control: (39) Navigation Vert Clear (F (40) Navigation Horiz Clea (F (50A) Sidewalk Width On - R (50B) Sidewalk Width On - L (50C) Sidewalks Under Strue	Existing Values R / 23- Ft): t): (14) ight (Ft): eft (Ft): cture:	Revis LEAVE/E 0 0 1 15 40 3.5 3.5 0	sions Item No. / Name BLANK (36E) Guardrails Or (36F) Guardrails Or (55B1) RR Lateral U (54B3) RR Vert Und (62A) Culvert Cells (62B) Culvert Cell F (62D) Culvert Cell O (62E) Culvert Fill De	n - Right: n - Left: Inderclearance (Ft.): lerclearance (Ft In.): (Count): Vidth (Ft.): leight (Ft.): Opening Area (Sq. Ft.): epth (Ft.):	Existing Values 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Revisions		

Illinois Department of Transportation Structures Information Management System Inspector's Inventory Report (S-114)



Illinois Department of Transportation Structures Information Management System Master Structure Report (S-107)

Structure Number: 016-6005 District: 1

			Inventory Da	ta						
Facility Carried:	S. CALIFORNIA AVE	Bridge Name:	S CALIFORNIA AVE BR		Sufficiency Rating:	I	77.8	Structure Length:		314.0
Feature Crossed:	SANITARY&SHIP CANAL	Location:	3300 S & 2800 W		HBP Eligible:	I	No	AASHTO Bridge Le	ngth:	99.9
Bridge Remarks:	BRIDGE REHABBED IN 1991	PUBLIC OVER RR CROS	SING: 840379H		Replaced By:			Length of Long Sp	an:	224.0
Bridge Status:	1 OPEN - NO RESTRICT	Replaces: Bridge Roadway			Bridge Roadway W	/idth:	38.0			
Status Remarks:	PER RAHEEM MEMO 6-16-94	Last Update Date: 03/30/2021 Appr Roadway			Appr Roadway Wid	lth:	38.0			
Maint County:	016 COOK Mair	t Township: 86 WES	ST CHICAGO (CHICAGO)		Parallel Structure: None Deck Width:					62.2
Maint Responsibility:	40 MUNICIPALITY	UNKI	NOWN		Multi-Level Structure Nbr: Sidewalk Width Right:					8.5
Service On/Under:	1 HIGHWAY	/ 5 WA	TERWAY		Skew Direction: Right Sidewalk Width Left:					8.5
Reporting Agency:	4 MUNICIPALITY				Skew Angle: 23	D		Navigation Contr	ol:	1 Yes
Main Span Matl/Type:	3 STEEL	/ 16 MOVEA	BLE - BASCULE		Structure Flared:		No	Navigation Horiz	Clear:	140
Nbr Of Main Spans:	1 Nbr Of Approach Spans	: 3			Historical Significar	nce:	No	Navigation Vert C	lear:	15
Approaches					Border Bridge S	tate:		Culvert Fill Dep	oth:	0.0
Near #1 Matl/Type: 3	STEEL	/ 02 STRINGE	R/MULTI-BEAM/GIRDER		Bdr State SN:			Number Culver	t Cells:	0
Near #2 Matl/Type:		/			Bdr State % Res	ponsibil	ity:	0 Culvert Openin	g Area:	0.0
Far #1 Matl/Type: 3	STEEL	/ 02 STRINGE	R/MULTI-BEAM/GIRDER		Structural Steel	Wt:	2,600,0	000 Culvert Cell He	ight:	0.00
Far #2 Matl/Type:		/			Substructure Ma	aterial:		55 Culvert Cell Wi	dth:	0.00
Median Width/Type:	0 Ft. / 0 None			Rated By:	3 Consultant		Rate Met	hod: 6 LOAD F	ACTOF	≀ (LF) REP
Guardrail Type L/R:	0 None / 0	None	nventory Rating: 0	.840 (30)	Load Rating Date: 1	2/29/201	7	***Railroad Crossi	ng Info*	:**
Toll Facility Indicator:	0 No Toll	(Operating Rating: 1	.400 (50)			Cross	sing 1 Nbr:	004178	ЗM
Latitude: 41.83461	368 Longitude: 87.69495	709 C	Design Load: 02 HS20				Cross	sing 1 Nbr:	289806	3D
Deck Structure Type:	G OPEN STEEL GRATII	NG Deck Struc	ture Thickness:	5.0 SD: N	I FO: N		RR La	ateral Underclear:	0.	0
Sidewalks Under Struc	ture: 0 None						RR Ve	ertical Underclear:	0 F f	t 0 in
	Key Route	On Data			Ke	y Route	e Unde	r Data		
Key Route Nbr: FEDER	RAL-AID URBAN	2839 Station: 3.6100)				Station	:		
Appurtenances Main R	Route 00000	Segment:					Segme	nt:		
Inventory County: 0	16 COOK	Linked:	Υ				Linked:	:		
Township/Road Dist: 8	6 WEST CHICAGO (CHICAG	O) Natl. Hwy System:	On NHS				Natl. Hv	wy System:		
Municipality: 1051	CHICAGO	Inventory Direction	:				Invento	ory Direction:		
Urban Area: 1051		Curr AADT Yr/Coun	nt: 2018 / 18900				Curr A/	ADT Yr/Count:	/	
Functional Class: 5	MAJOR COLLECTOR	Est Truck Percenta	ge: 20 %				Est Tru	ck Percentage:		%
** CLEARANCES ** So	uth/East North/West	Number Of Lanes:	2	South/East	North/West		Numbe	r Of Lanes:		
Max Rdwy Width:	38.0	One Or Two Way:	2 Two-Way				One Or	Two Way:		
Horizontal:	38.0 0.0	Bypass Length:	1				Bypass	Length:		
Min Vertical: 99	Ft <u>11</u> In <u>99</u> Ft <u>11</u> In	Future AADT Yr/Cn	t: 2032 / 19570	Ft	In Ft In		Future	AADT Yr/Cnt:	/	
10 Ft Vertical: 99	Ft 11In 99Ft 11In	Designated Truck F	Rte: NONE	Ft	In Ft In		Design	ated Truck Rte:		
Lateral:		Special Systems:	No		Ft Ft		Special	Systems:		
	*** Marked Route Under Data ***									
	Designation	Kind	Number		Designation			Kind	N	umber
Route #1: 1 Mainli	ne	3 Other				[_	
Route #2: 1 Mainli	ne								ļļ	
Route #3: 1 Mainli	ne									

Illinois Department of Transportation Structures Information Management System Master Structure Report (S-107)

Structure Number:	016-6005	District:	1								
			Data Rela	ated to Ins	pection Information	on					
***Inspection Intervals *** *** Maximum Allow					vable Posting Limits ***			Bridge Posting Level:			
Routine NBIS: 24 M	OS Underwater:	60 MOS	One Truck At A Time:	0	Combination Type 3	3S-1:	Tons	5 No Pos	ting Required		
Fracture Critical: 24 M	OS Special:	Ν	Single Unit Vehicles:	Tons	Combination Type 3	3S-2:	Tons				
			Inspe	ction/Appr	aisal Information						
Inspection Date:	08/12/202	20 Inspe	ction Temperature:	77 Deg. F	Insp by (Name):	Sawuls	ski, Piotr	** A	ctual Posted Li	mits **	
Deck:	6 SATISI	FACTORY CO	NDITION - MINOR DETER	RIORATION	Insp by (Name):	Simpso	on, J.	Single U	nit Vehicles:	Tons	
Superstructure:	5 FAIR C	CONDITION - M	IINOR SECTION LOSS, C	CRACKS	Utilities Attached:	9	ELECTRIC	Combina	ation Type 3S-1	: Tons	
Substructure:	5 FAIR C	CONDITION - M	IINOR SECTION LOSS, C	CRACKS		Ν	N/A	Combina	ation Type 3S-2	2: Tons	
Culvert:	N NOT A	PPLICABLE				Ν	N/A	One True	ck At A Time:	0	
Channel and Protection:	7 GOOD	CONDITION -	SOME MINOR PROBLEM	ИS	Deck Wearing Surf:	Р	GRATING		Last Pa	aint Type:	
Structural Evaluation:	5 BETTE	R THAN ADEC	QUATE TO BE LEFT IN P	LACE	Deck Membrane:	F	NONE		Z FIELD O	Z E&P	
Deck Geometry:	5 BETTE	R THAN ADEC	QUATE TO BE LEFT IN P	LACE	Deck Protection:	J	NONE				
Underclearance-Vert/Lat.	N NOT A	PPLICABLE			Total Deck Thick:	5.0					
Waterway Adequacy:	9 SUPEF	RIOR TO PRES	SENT DESIRABLE CRITE	RIA	Last Paint Date:	08/20	016				
Approach Roadway Align	: 8 EQUAL	_ TO PRESEN	T DESIRABLE CRITERIA		Inspection Remarks	:				1	
Bridge Railing Appraisal:	2 Doesn'	t Meet Standar	ds		Joint Openings (In.): S	South Jo	int = 3/4"111- Th	ne timber dolphins exhi	bit broke n piles	and	
Approach Guardrail:	111 Does N	lot Exist D	oes Not Exist Does N	ot Exist	present at all corners	of both i	river piers.	ternine. Missing section	is of timber len		
Pier Navig Protection:	3 IN PLA	CE BUT IN A I	DETERIORATED CONDIT	FION	•		•				
			Underwater	Inspection	n/Appraisal Inform	nation					
Inspection Date: 11/29)/2017				1						
Temperature: 4	0 Inspe	ction Method:	DPSV Diver		Probe	Sona	r	Visual			
Inspected By: Dilwor	hB Inspe	ected By:	SAWULSKI,P Appra	aisal Rating:	6 SATISFACTOR	RY CONI	DITION				
Inspection Remarks: S			WITH UP TO 8 INCHES (TION.CRACKING AT B						
Ċ	RCING STEEL AT	THE SOUTH F	RIVER PIER WITH UP TO	6 INCHES O	F PENETRATION.TIMB	BER					
		See	ur Critical Informati	~ ~				Mie	collonoouo		
		SCO		ON Mathadu r	Detional Analysia			IVIIS Exections Critics		Vee	
		FOOTING		vietnoa:]	Fracture Critica	Peopredadu	res	
	Constr		Andrysis by.	. <u>L</u>				WICTOININ Data I	tecorded.	NO	
Veer: 1026				1							
Pouto:	Sta:			sta:							
Soction Nhr: SCALIE		2]	old.							
Contract Nhr		,0									
Fed Aid Pr #: 0000000]						
Built By: 4 CITY			4 CITY								
			p	Pronosad li	mprovement						
Cost	Estimate Year	1996	Length: 3	327	nprovement			*** Costs in F)ollars ***		
Type	of Work	31 REPLAC			APACITY OR GEOMETRICS Bridge Cost:			10	45		
Done	Bv:	1 Contrac	t					Roadway Cost	1	05	
Rem	arks:		-				·	Total Project Cost	15	68	
Actin		L							.,0		