


MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 8251

BRIDGE SAFETY INSPECTION REPORT

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
BALL ST	42.8552 / -83.4478	635505000003B01	Good Condition(8)	
Feature	Length / Width / Spans	Owner		
KEARSLEY CREEK	38 / 31.8 / 1	City: ORTONVILLE(5050)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
IN ORTONVILLE	2014 / / /	Oakland(23)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Metro(7) / Oakland(63)	5 Prestressed Concrete / 05 Box Bm/Gird- Multiple	09/28/2017 / QBVA	5 Stable w/in footing	

NBI INSPECTION

QBVA

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Amanda Hemeyer	Rowe Professional Services Company	24	09/28/2017

GENERAL NOTES

Assisted by: James Brock

DECK

12/14 09/15 09/17

1. Surface (SIA-58A)	8	8	7	Concrete deck. E ref line: 4 diagonal cracks, 2 longitudinal cracks. W ref line: 5 diagonal cracks, 1 longitudinal crack. Minor edge debris noted. (09/17) Concrete deck. Diagonal cracks propagating from each reference line. Minor edge debris noted. (09/15) New tined concrete composite deck. Isolated minor diagonal crack noted in southeast propagating from reference line. Minor edge debris noted. (12/14)
2. Expansion Joints	N	N	N	Construction joints between deck and approach slabs along each reference line. (09/17) Construction joints between deck and approach slabs along each reference line. (09/15) Construction joints between deck and approach slabs along each reference line. (12/14)
3. Other Joints	9	8	8	Sawed and sealed joint along centerline. (09/17) Sawed and sealed joint along centerline. (09/15) Sawed and sealed joint along centerline. (12/14)
4. Railings	9	8	8	Aesthetic parapet tube railing. Vertical cracking between posts, efflorescence on back side of rail. Diagonal crack in SEQ, SWQ, NWQ end block. (09/17) Aesthetic parapet railing. Isolated minor vertical crack in south railing near midspan appears to be sealed with concrete surface sealer. Diagonal crack in SEQ end block. (09/15) New aesthetic parapet railing. Isolated minor vertical crack in south railing near midspan appears to be sealed with concrete surface sealer. (12/14)
5. Sidewalks or Curbs	9	8	8	Raised concrete sidewalk on south side of structure. No deficiencies noted. (09/17) Raised concrete sidewalk on south side of structure. No deficiencies noted. (09/15) New concrete sidewalk on south side of structure. (12/14)
6. Deck Bottom Surface (SIA-58B)	N	N	N	Adjacent box beams. (09/17) Adjacent box beams. (09/15) Side by side box beams. (12/14)
7. Deck (SIA-58)	8	8	8	Concrete deck. Diagonal cracks propagating from each reference line. Minor edge debris noted. (09/17) Concrete deck. Diagonal cracks propagating from each reference line. Minor edge debris noted. (09/15) New composite concrete deck. Isolated minor diagonal crack noted in southeast propagating from reference line. (12/14)
8. Drainage				Drains to catch basins in curbed approaches. (09/17) Drains to catch basins in curbed approaches. (09/15) Structure is fairly flat. Surface drains east to west to catch basins in curbed approach. (12/14)


SUPERSTRUCTURE

12/14 09/15 09/17

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9. Stringer (SIA-59)	9	8	8	Adjacent concrete box beams, post tensioned, grouted. Joint grout is uneven. Grout is incomplete in areas along joint 1S. Scattered spray foam remains. (09/17) Adjacent concrete box beams, post tensioned, grouted. Joint grout is uneven. Grout is incomplete in areas along joint 1S. Scattered spray foam remains. (09/15) New concrete box beams. Joint grout is uneven. Grout is incomplete in areas along joint 1S. Scattered spray foam remains. (12/14)
10. Paint (SIA-59A)	N	N	N	(09/17) (09/15) New concrete surface coating on abutments, beam, sidewalk and deck fascia and railings. (12/14)
11. Section Loss	N	N	N	(09/17) (09/15) (12/14)
12. Bearings	N	8	8	Elastomeric pads set back from face of abutments. (09/17) Elastomeric pads set back from face of abutments. (09/15) New elastomeric pads set back from face of abutments. (12/14)

SUBSTRUCTURE

	12/14	09/15	09/17	
13. Abutments (SIA-60)	9	8	8	Concrete cantilever abutments with spread footing and tremie seal support. Spring water is seeping from the ground in 2 locations in the NWQ 3 ft from the wingwall corner. Standing water along NWQ abutment edge. Monitor. East abutment has a 1/16" crack near centerline. (09/17) Concrete cantilever abutments with spread footing and tremie seal support. Water is seeping from the ground in the NWQ along abutment. Monitor. (09/15) New abutments with spread footing and tremie seal support. (12/14)
14. Piers (SIA-60)	N	N	N	(09/17) (09/15) (12/14)
15. Slope Protection	9	7	7	Heavy riprap in place around both abutments with sheeting left in place. Some geotextile fabric is visible. (09/17) Heavy riprap in place around both abutments with sheeting left in place. Some geotextile fabric is visible. (09/15) New heavy riprap in place around both abutments. (12/14)
16. Channel (SIA-61)	7	7	7	Riprap banks beneath and adjacent to structure. Low but steep banks beyond with minor to moderate erosion. (09/17) Riprap banks beneath and adjacent to structure. Low but steep banks beyond with minor to moderate erosion. (09/15) Riprap banks beneath and adjacent to structure. Low but steep banks beyond with minor to moderate erosion. (12/14)
17. Scour Inspection			7	No scour, riprap protects abutments. (09/17) (09/15) (12/14)

APPROACH

	12/14	09/15	09/17	
18. Approach Pavement	9	8	8	Concrete approach slabs with HMA paving beyond. No deficiencies noted. (09/17) Concrete approach slabs with HMA paving beyond. No deficiencies noted. (09/15) New concrete approach slabs with new HMA paving beyond. (12/14)

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19. Approach Shoulders Sidewalks 9 8 8 Curbed section with no striped shoulders. Concrete sidewalk on south side. No deficiencies noted. (09/17)
 Curbed section with no striped shoulders. Concrete sidewalk on south side. No deficiencies noted. (09/15)
 Curbed section with no striped shoulders. New sidewalk on south side. (12/14)

20. Approach Slopes Well vegetated. (09/17)
 Well vegetated. (09/15)
 New guardrail in the northeast and southwest quadrants. Slopes are moderate and clear of brush/trees. Mulch blanket is in place with no noticeable growth at time of inspection. Scattered silt fence remains. (12/14)

21. Utilities Overhead crossings north and west of the structure. Conduit with broken wires protruding from the northeast slope. (09/17)
 Overhead crossings north and west of the structure. Conduit with broken wires protruding from the northeast slope. (09/15)
 Overhead crossings north and west of the structure. Conduit with broken wires protruding from the northeast slope. (12/14)

22. Drainage Culverts Outlets in the northeast and northwest quadrants. (09/17)
 Outlets in the northeast and northwest quadrants. (09/15)
 New outlets in the northeast and northwest quadrants. (12/14)

MISCELLANEOUS

Guard Rail

<u>Item</u>	<u>Rating</u>
36A. Bridge Railings	1
36B. Transitions	1
36C. Approach Guardrail	1
36D. Approach Guardrail Ends	1

Other Items

<u>Item</u>	<u>Rating</u>
71. Water Adequacy	8
72. Approach Alignment	8
Temporary Support	0 No Temporary Supports
High Load Hit (M)	No
Special Insp. Equipment	2
Underwater Insp. Method	1

False Decking (Timber) Removed to Complete Inspection N/A - No False Decking

Critical Feature Inspections (SIA-92)

	<u>Freq</u>	<u>Date</u>
92A. Fracture Critical		
92B. Underwater		
92C. Other Special		
92D. Fatigue Sensitive		

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SUPPORTING IMAGES

QBVA 09/28/2017



Document Name: DSCN0422.JPG
 Category: Elevation
 Comments:



Document Name: DSCN0416.JPG
 Category: Deck
 Comments: Diagonal cracks



Document Name: DSCN0417.JPG
 Category: Deck
 Comments:

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STRUCTURE INVENTORY AND APPRAISAL

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Bridge History, Type, Materials

27 - Year Built	2014
106 - Year Reconstructed	
202 - Year Painted	
203 - Year Overlay	
43 - Main Span Bridge Type	5 05
44 - Appr Span Bridge Type	
77 - Steel Type	0
78 - Paint Type	0
79 - Rail Type	7
80 - Post Type	
107 - Deck Type	1
108A - Wearing Surface	1
108B - Membrane	0
108C - Deck Protection	1

Structure Dimensions

34 - Skew	20
35 - Struct Flared	0
45 - Num Main Spans	1
46 - Num Apprs Spans	0
48 - Max Span Length	36.7
49 - Structure Length	38
50A - Width Left Curb/SW	0
50B - Width Right Curb/SW	6.5
33 - Median	0
51 - Width Curb to Curb	22.8
52 - Width Out to Out	31.8
112 - NBIS Length	Y

Inspection Data

90 - Inspection Date	09/28/2017
91 - Inspection Freq	24
92A - Frac Crit Req/Freq	N
93A - Frac Crit Insp Date	
92B - Und Water Req/Freq	N
93B - Und Water Insp Date	
92C - Oth Spec Insp Req/Freq	N
93C - Oth Spec Insp Date	
92D - Fatigue Req/Freq	N
93D - Fatigue Insp Date	
176A - Und Water Insp Method	1
58 - Deck Rating	8
58A/B - Deck Surface/Bottom	7 N
59 - Superstructure Rating	8
59A - Paint Rating	N
60 - Substructure Rating	8
61 - Channel Rating	7
62 - Culvert Rating	N

Navigation Data

38 - Navigation Control	0
39 - Vertical Clearance	0
40 - Horizontal Clearance	0
111 - Pier Protection	
116 - Lift Brdg Vert Clear	0

Route Carried By Structure(ON Record)

5A - Record Type	1
5B - Route Signing	5
5C - Level of Service	0
5D - Route Number	00000
5E - Direction Suffix	0
10L - Best 3m Unclr-Lt	0 0
10R - Best 3m Unclr-Rt	99 99
PR Number	
Control Section	
11 - Mile Point	0
12 - Base Highway Network	0
13 - LRS Route-Subroute	0000006702 07
19 - Detour Length	1
20 - Toll Facility	3
26 - Functional Class	09
28A - Lanes On	2
29 - ADT	550
30 - Year of ADT	2009
32 - Appr Roadway Width	23
32A/B - Ap Pvt Type/Width	6 20.01
42A - Service Type On	1
47L - Left Horizontal Clear	0.0
47R - Right Horizontal Clear	23.0
53 - Min Vert Clr Ov Deck	99 99
100 - STRAHNET	0
102 - Traffic Direct	2
109 - Truck %	0
110 - Truck Network	0
114 - Future ADT	698
115 - Year Future ADT	2033
Freeway	0

Structure Appraisal

36A - Bridge Railing	1
36B - Rail Transition	1
36C - Approach Rail	1
36D - Rail Termination	1
67 - Structure Evaluation	8
68 - Deck Geometry	4
69 - Underclearance	N
71 - Waterway Adequacy	8
72 - Approach Alignment	8
103 - Temporary Structure	
113 - Scour Criticality	5

Miscellaneous

37 - Historical Significance	5
98A - Border Bridge State	
98B - Border Bridge %	
101 - Parallel Structure	N
EPA ID	
Stay in Place Forms	
143 - Pin & Hanger Code	
148 - No. of Pin & Hangers	

Route Under Structure (UNDER Record)

5A - Record Type	
5B - Route Signing	
5C - Level of Service	
5D - Route Number	
5E - Direction Suffix	
10L - Best 3m Unclr-Lt	
10R - Best 3m Unclr-Rt	
PR Number	
Control Section	
11 - Mile Point	
12 - Base Highway Network	
13 - LRS Route-Subroute	
19 - Detour Length	
20 - Toll Facility	
26 - Functional Class	
28B - Lanes Under	
29 - ADT	
30 - Year of ADT	
42B - Service Type Under	5
47L - Left Horizontal Clear	
47R - Right Horizontal Clear	
54A - Left Feature	
54B - Left Underclearance	99 99
54C - Right Feature	
54D - Right Clearance	99 99
Under Clearance Year	
55A - Reference Feature	N
55B - Right Horiz Clearance	99.9
56 - Left Horiz Clearance	0
100 - STRAHNET	
102 - Traffic Direct	
109 - Truck %	
110 - Truck Network	
114 - Future ADT	
115 - Year Future ADT	
Freeway	

Proposed Improvements

75 - Type of Work	
76 - Length of Improvement	0
94 - Bridge Cost	0
95 - Roadway Cost	0
96 - Total Cost	0
97 - Year of Cost Estimate	0

Load Rating and Posting

31 - Design Load	B
41 - Open, Posted, Closed	A
63 - Fed Oper Rtg Method	8
64F - Fed Oper Rtg Load	2.24
64MA - Mich Oper Rtg Method	8
64MB - Mich Oper Rtg	2.17
64MC - Mich Oper Truck	17
65 - Inv Rtg Method	8
66 - Inventory Load	1.73
70 - Posting	5
141 - Posted Loading	
193 - Overload Class	

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WORK RECOMMENDATIONS

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WORK RECOMMENDATIONS

QBVA

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Amanda Hemeyer	Rowe Professional Services Company	24	09/28/2017

CREW RECOMMENDATIONS

CONTRACT RECOMMENDATIONS

Recommendation Type	Priority	Description	Recommendation Type	Priority	Description
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