

IOWA DEPARTMENT OF TRANSPORTATION
IOWA STRUCTURE INVENTORY AND APPRAISAL SHEET

Date Printed: 2/27/2014

* Sufficiency Rating 017-

* Do Not Change

Note:

<p style="text-align: center;">IDENTIFICATION COUNTY ENGR.</p> <p>*COUNTY/CITY POWESHIEK</p> <p>COUNTY ID 8016170065</p> <p>*8 STRUCTURE NO 293840</p> <p>*5 INVENTORY ROUTE 0</p> <p>2 STATE AREA NO 1</p> <p>6 FEATURES CROSSED OVER IAIS RR</p> <p>7 FACILITY CARRIED LOCAL</p> <p>9 LOCATION 080161712</p> <p>11 MILE POINT 0.000</p> <p>98 BORDER BRIDGE CODE 000 SHARE 00 %</p> <p>*99 BORDER BRIDGE NO</p>	<p style="text-align: center;">INSPECTIONS</p> <p>90 INSPECTION DATE 01 / 14</p> <p>91 FREQUENCY 12 MO</p> <p>92 CRITICAL FEATURE INSPECTION Y/N</p> <p>A FRACTURE CRIT DETAIL Y 24 MO A MO _____ YR _____</p> <p>B UNDERWATER INSP N MO B MO _____ YR _____</p> <p>C OTHER SPECIAL INS Y 12 MO C MO 12-01 YR 14</p> <p>Inspected By: CHRISTOPHER G. JONES</p> <p>Consulting Firm Name: CALHOUN-BURNS & ASSOC.</p>
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STRUCTURE TYPE AND MATERIAL

43 MAIN STRUCTURE TYPE **303**

44 APPROACH TYPE NEAR **0** FAR **0**

45 NO OF SPANS - MAIN **3**

46 NO OF APPR SPANS NEAR **00** FAR **00**

107 DECK TYPE **8**

108 WEARING SURFACE/PROTECTIVE SYSTEM **7 0 0**

CONDITION	RATING (9-0)
58 DECK DECAYED & ROTTED PLANKS, NAILS WORKING UP, BROKEN & DECAYED RAILING	4
59 SUPER BEARINGS BURIED, SHIMMED BEAM SEVERE CORROSION, FLOOR BEAM CRACKING	3 2
60 SUB WING PLANK SEPARATING, DECAYED PIER CAPS, PILE DECAY, 'X'-BRACING DECAY	3
61 CHAN & PROT	N
62 CULV	N

AGE AND SERVICE

27 YEAR BUILT **1900**

106 YEAR RECONST **0000**

42 TYPE OF SERVICE **12**

28 LANES: ON **1** UNDER **0**

*29 EST AVE DAILY TRAFFIC **230**

*30 YEAR ADT **2006**

*109 TRUCK ADT **00** % (PRIMARY ONLY)

19 BYPASS, DETOUR LENGTH **5.000**

LOAD RATING AND POSTING

31 DESIGN LOAD **0** 64 OPERATING RATING **03.4** 66 INVENTORY RATING **01.7**

63 METHOD USED - OPERATING RATING **2** 65 METHOD USED - INVENTORY RATING **2**

70 BRIDGE POSTING **0** 41 STRUCTURE OPEN, POSTED OR CLOSED **P**

POSTED **903** **"ONE LANE"**

CALC OPER	403	503	603
CALC INV	401	501	601

GEOMETRIC DATA

48 LONGEST SPAN **61** 112 NBIS BR **0**

49 STRUCTURE LENGTH **158**

50 CURB OR SIDEWALK: RT **1.0** LT **1.0**

51 BR RDWY WIDTH C-C **13.1**

52 DECK WIDTH O-O **14.1**

32 APPR RDWY WIDTH (W/ SHOULDERS) **24**

33 BRIDGE MEDIAN **NONE**

34 SKEW **27**

35 STRUCTURE FLARED **NO**

10 MIN VERT CLEAR 3m LANE **99 99**

47 TOTAL HORIZ CLEAR RT **0 00** LT

53 VERT CLEAR OVER BR RDWY RT **99 99** LT

54 VERT UNDERCLEAR RT **R 21 01**

55 LAT UNDERCLEAR RT **R 18 01**

56 LAT UNDERCLEAR LT **18 01**

APPRAISAL	RATING (9-0)
67 STRUC EVAL VERY LOW CAPACITY	2
68 DECK GEO ONE LANE	5
69 UNDERCLEAR, VERT & HORI	5
71 WATER ADQ	N
72 APP RDWY ALIG STEEP CREST	5
36 TRAFFIC SAFETY FEATURES 0000 113 SCOUR CRIT BR N	

NAVIGATION DATA

38 NAVIGATION CONTROL **N**

111 PIER PROTECTION

39 NAV VERT CLEARANCE **0**

116 VERT-LIFT BR NAV MIN VERT CLEAR **00.0**

40 NAVIGATION HORIZ CLEAR **0**

PROPOSED IMPROVEMENTS

75 TYPE OF WORK **311** 76 LENGTH OF STRUCT. IMP **190**

94 BRIDGE IMP. COST (1000's) **669** 95 RDWY. IMPROVE COST (1000's) **70**

96 TOTAL PROJ. COST (1000's) **1003** 97 YEAR IMPROVE ESTIMATE MADE **2008-2012**

CLASSIFICATION

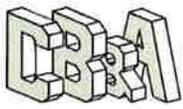
101 PARALLEL HIGHWAY **N** 103 TEMPORARY STRUCTURE

102 DIRECTION OF TRAFFIC **3** *26 FUNC. CL **09 LOCAL**

20 TOLL **3** 21 MAINTAIN **27** 22 OWNER **27**

LAST RECORDED INSPECTION 12/ 2012

CLOSE BRIDGE. PROVIDE THE RAILROAD A COPY OF THIS CURSORY REVIEW. CONTACT RAILROAD ABOUT REPLACEMENT OPTIONS.



POWESHIEK COUNTY

8016170065
JANUARY 24, 2014



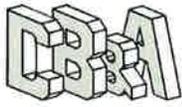
ROAD VIEW LOOKING NORTH



SIDE VIEW LOOKING SOUTHWEST



UNDER VIEW LOOKING SOUTH

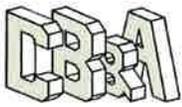


**FAILED X-BRACING AT NORTH
ABUTMENT (TYPICAL)**

**CORRODED GIRDER & X-BEAM AT
NORTH SPAN (TYPICAL)**



**CRACKED/SPLITTING FLOORBEAM,
1ST FROM NORTH**



**FAILED X-BRACING AT NORTH PIER
(TYPICAL AT SOUTH PIER)**

**DETERIORATED MASON FOUNDATION AT
SOUTH PIER (TYPICAL AT NORTH PIER)**





Bridge No. <u>8016170065</u>	Bridge Type <u>STEEL GIRDER</u>	Date <u>1/24/2014</u>
FHWA No. <u>293840</u>	Crossing (over) <u>I.A.I.S. RAILROAD</u>	Inspector <u>CGJ</u>
Sect. <u>17 T 80 N, R 16 W</u>	Township <u>GRANT</u>	County <u>POWESHIEK</u>
Operating Rating <u>03.1</u> Inventory Rating <u>01.7</u>	Est. Remaining Life <u>0</u> Yrs	ADT <u>230</u> Year Built <u>1900</u>
Sufficiency Rating <u>17</u>	Fracture Critical <input checked="" type="checkbox"/>	Item 113 Code <u>N</u> Yr. Reconst. _____

POSTED LOAD LIMITS

Posted Loading	<input checked="" type="checkbox"/> One Lane	Object Markers
	<input type="checkbox"/> Narrow	
Legibility: <u>7</u>	<u>7</u>	<u>7</u>
Visibility: <u>7</u>	<u>7</u>	<u>6</u>
Comments: <u>3 TONS</u>		

72. APPR. ALIGNMENT COND. RATING REMARKS

1. Alignment	<u>5</u>	<u>STEEP CREST</u>
2. Approach Slab	<u>-</u>	
3. Relief Joints	<u>-</u>	
4. Approach - Guardrail	<u>NONE</u>	
Pavement	<u>-</u>	
Embankment	<u>5</u>	
INSPECTOR'S CONDITION RATING	<u>5</u>	

58. DECK ITEM CONDITION RATING REMARKS

1. Wearing Surface	<u>6</u>	<u>PLANKS HAVE BEEN SPOT REPLACED, BUMPY, NAILS WORKING UP</u>
2. Deck- Structural Condition	<u>4</u>	<u>SOME DECAYED, ROTTING OR CRACKING</u>
3. Curbs	<u>-</u>	
4. Median	<u>-</u>	
5. Sidewalks	<u>-</u>	
6. Parapet	<u>-</u>	
7. Railing	<u>5</u>	<u>AGED, SPOT REPLACED, DECAYED, BROKEN</u>
8. Paint	<u>-</u>	
9. Drains	<u>-</u>	
10. Lighting Standards	<u>-</u>	
11. Utilities	<u>7</u>	<u>CONDUIT E.</u>
12. Joint Leakage	<u>-</u>	
13. Expansion Joints and Devices	<u>-</u>	
14. Record Elevations (if available) @ CL Brgs and Spans	<u>-</u>	

INSPECTOR'S CONDITION RATING **4**

59. SUPERSTRUCTURE

1. Bearing Devices	<u>-</u>	<u>BURIED @ ABUTMENTS</u>
2. Stringers	<u>6</u>	<u>10- TIMBER 16 x 8 @ 16" ±</u>
Lateral Support (<u>FULL</u>)		
3. Girders/Beams	<u>2</u>	<u>SEVERE CORROSION - FLAKING OFF -- ESP. BOTTOM FLANGE & WEB @ BOTTOM, SEVERELY DETERIORATED CROSS BRACING</u>
Lateral Support (<u>DIAPH.</u>)		
4. Floor Beams	<u>2</u>	<u>STEEL REPLACED w/ 14 x 12 TIMBER, N. CRACKING (MONITOR)</u>
Lateral Support (<u>NONE</u>)		
5. Trusses - General	<u>-</u>	
Portals	<u>-</u>	
Bracing	<u>-</u>	
6. Paint	<u>-</u>	
7. Machinery (Movable Spans)	<u>-</u>	
8. Rivets or Bolts	<u>3</u>	<u>SOME COMPLETELY CORRODED</u>
9. Welds - Cracks	<u>-</u>	
10. Rust	<u>2</u>	
11. Timber Decay	<u>6</u>	
12. Concrete Cracking	<u>-</u>	
13. Collision Damage	<u>-</u>	
14. Deflection Under Load	<u>3</u>	
15. Alignment of Members	<u>7</u>	
16. Vibration Under Load	<u>3</u>	

INSPECTOR'S CONDITION RATING **2**

CONDITION RATING

(Use for SIA items 58, 59, 60, 61, 62, 62)

 Date: 1/24/2014
 County: POWESHIEK
 Bridge No. 8016170065

- N Not Applicable
 9 Excellent Condition
 8 Very Good Condition - No problems noted.
 7 Good Condition - Some minor problems.
 6 Satisfactory Condition - Structural Elements show minor deterioration
 5 Fair Condition - Primary structural elements have minor section loss, spalling, cracking or scour.
 4 Poor Condition - Advanced section loss, deterioration, spalling or scour. Posting for some truck traffic is warranted.
 3 Serious Condition - Primary structural elements affected by section loss, deterioration, cracking or scour. Posting for most truck traffic is warranted immediately.
 2 Critical Condition - Advanced deterioration of concrete or steel and/or critical scour. Structure should be closed to all traffic.
 1 "Imminent" Failure Condition - Major deterioration of structural elements. Structure is closed but corrective action may allow light service.
 0 Failed Condition - Out of service and beyond repair.

<u>ITEM</u>	<u>CONDITION RATING</u>	<u>REMARKS</u>
60. SUBSTRUCTURE		
1. Abutments - Caps	7	14 x 14 TIMBER, SE. SHIMMED - LIKELY SETTLEMENT OF GIRDER
Wings	5	PLANKS SEPARATING, DECAY
Backwall	6	
Footing	-	
Piles	5	MOSTLY BURIED, 2 ONLY VISIBLE S. ABUTMENT
Erosion	7	
Settlement	-	
2. Piers or Bents - Caps	6	DECAY, CHECKING
Columns	-	
Footings	3	DETERIORATED MASONRY
Piles	5	SOME DECAY, CHECKING, #1 F.W. @ 3rd PIER F.N. SPLIT
Scour	-	
Settlement	-	
3. Pile Bents	5	BRACING DECAY
4. Concrete Cracking	-	
5. Steel Corrosion	-	
6. Timber Decay	5	
7. Debris on Seats	-	
8. Paint	-	
9. Collision Damage	-	
INSPECTOR'S CONDITION RATING		3

61. CHANNEL AND CHANNEL PROTECTION		
1. Channel Scour	-	
2. Embankment Erosion	-	
3. Drift	-	
4. Vegetation	-	
5. Channel Change	-	
6. Fender System	-	
7. Spur Dikes and Jetties	-	
8. Riprap	-	
9. Adequacy of Opening	-	
10. Channel Depth (Top of Deck to Streambed)	-	
INSPECTOR'S CONDITION RATING		N

62. CULVERT AND RETAINING WALLS		
1. Barrel - Concrete	-	
Steel	-	
Timber	-	
2. Headwall	-	
3. Cut-off Wall	-	
4. Adequacy	-	
5. Debris	-	
INSPECTOR'S CONDITION RATING		N