

April 11, 2016

North Dakota Department of Transportation
Bridge Inventory - Structure Inventory And Appraisal Sheet

SEC 409

Structure Number: 49-129-10.0

Table with multiple columns containing bridge details: 200 System Designation, 201 Status, 202 Sufficiency Rating, Identification (02 Highway District, 03 County, etc.), Structure Type and Material (43 Main Struct Type, 44 Approach Struct Type), Age and Service (27 Yr Built, 28 Lanes on Structure), Geometric Data (10 Min Vert Clearance, 32 Approach Roadway Width), Classification (12 Base Highway Network, 20 Toll), Condition (58 Deck, 59 Superstructure), Appraisal (67 Structural Condition, 68 Deck Geometry), and Inspections (90 Date of Last Inspection, 91 Designated Inspection Frequency).

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Element / Env. / Description	Units	Total Qty	1 %	1-Qty St	2 %	2-Qty St	3 %	3-Qty St	4 %	4-Qty St
113/1:Steel Stringer	ft	1,447	0	0	0	0	0	0	100	1,447
515/1:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
12/1:Re Concrete Deck	sq.ft	9,408	0	0	63	5,927	0	0	37	3,481
120/1:Steel Tuss	ft	725	0	0	0	0	0	0	100	725
515/1:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
152/1:Steel Floor Beam	ft	312	0	0	0	0	0	0	100	312
515/1:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
210/3:Re Conc Pier Wall	ft	26	92	24	8	2	0	0	0	0
215/2:Re Conc Abutment	ft	52	77	40	23	12	0	0	0	0
234/1:Re Conc Pier Cap	ft	30	93	28	7	2	0	0	0	0
301/1:Pourable Joint Seal	ft	364	0	0	0	0	0	0	100	364
303/1:Assem Jnt With Seal	ft	26	0	0	0	0	0	0	100	26
311/1:Moveable Bearing	each	4	0	0	0	0	0	0	100	4
515/1:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
313/1:Fixed Bearing	each	4	0	0	0	0	0	0	100	4
515/1:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
330/1:Metal Bridge Railing	ft	725	0	0	0	0	100	725	0	0
515/1:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
331/1:Re Conc Bridge Railing	ft	725	95	691	5	34	0	0	0	0
7357/1:Pack Rust	each	1	100	1	0	0	0	0	0	0
7360/1:Settlement	each	1	0	0	100	1	0	0	0	0
7361/3:Scour	each	1	0	0	100	1	0	0	0	0
7362/1:Superstructure Traffic Impact	each	1	0	0	100	1	0	0	0	0

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7363/1:Steel Section Loss	each	1	0	0	0	0	100	1	0	0
8401/2:Wings	each	4	100	4	0	0	0	0	0	0

**Remarks:** 12/3/2002 - Joints have been repaired with asphalt. Fracture critical done in 2012. Scour in se quad. B&a end markers at 4 comers. Vert & horiz curves to west. Signed do not pass & no passing zone to east. signed rough road 35 mph from west. Debris at center pier. 9/15/2015 - Bridge closed by county due to 3' diameter hole in deck. Many core holes have been drilled in deck since closure.

**Alert Code 1:** Varying degrees of rust and deterioration throughout structure. Some soffit efflorescence visible. Collision damage to rail. E slope was rip rapped in 2012, continues to erode.

**Alert Code 2:** Moderate to heavy transverse joint spalling & deterioration has resulted in heavy rusting of floor beams. Bent and/or damaged members: span 1 - lateral struts in portals, u5-l5 rt., u6-l6 rt. Span 2 - lateral struts in portals, u1-l2 rt, u4-l3 rt. Addl. Bent and/or damaged members:u5-l4 lt. Lower. Random deck cracking & spalling. Spalls at deck joints patched with hbp. Lower laterals are loose & continue to shake after vehicles are off the structure.

**Alert Code 3:** Abutments appear to be pushing in due to bearing plates being 1 1/2 - 2' off pad at all abutment bearings, pier rockers are maxed, railing has been cut off all corners. E half of structure has a 0.2'/ft slope on the rail while the W half is level. The approach roadway indicates that the hill to the W is sliding from halfway up & the E within 50' of the structure. Large rust sheets are dropping off girders.