

January 05, 2016

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

SEC 409

Table with columns for Structure Number (0094-001.849), Classification (1 - State, 12 Base Highway Network, etc.), and chaindate. Includes sections for Identification, Structure Type and Material, Age and Service, Geometric Data, and Inspections.

Structure Number: 0094-001.849

chaindate

Element / Env. / Description	Units	Total Qty	1 %	1-Qty St	2 %	2-Qty St	3 %	3-Qty St	4 %	4-Qty St
107/1:Steel Opn Girder/Beam	ft	1,060	50	530	25	265	25	265	0	0
515/1:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
12/1:Re Concrete Deck	sq.ft	7,955	83	6,603	17	1,352	0	0	0	0
205/1:Re Conc Column	each	6	100	6	0	0	0	0	0	0
215/1:Re Conc Abutment	ft	72	100	72	0	0	0	0	0	0
234/1:Re Conc Pier Cap	ft	92	100	92	0	0	0	0	0	0
311/1:Moveable Bearing	each	12	100	12	0	0	0	0	0	0
515/1:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
313/1:Fixed Bearing	each	8	100	8	0	0	0	0	0	0
515/1:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
321/1:Re Conc Approach Slab	sq.ft	100	100	100	0	0	0	0	0	0
331/1:Re Conc Bridge Railing	ft	531	100	531	0	0	0	0	0	0
333/1:Other Bridge Railing	ft	531	100	531	0	0	0	0	0	0
7363/1:Steel Section Loss	each	1	0	0	100	1	0	0	0	0
8399/1:Slope Protection, RC	each	2	0	0	100	2	0	0	0	0
8401/1:Wings	each	4	100	4	0	0	0	0	0	0

**Remarks:** NBI Remarks: Curb has transverse cracking also map cracking. Abutment walls have cracks next to and under beams. Efflorescence staining by cracks and moisture coming through cracks at construction joints. Slope protection pulled away by abutments. Buckling by piers. SE bridge connection damaged. 11/18/2011 - Paint beginning to peel on interior beams. 11/18/2011 - Space between slope protection and abutment has been filled with grout. Also along space around pier columns. 11/18/2011 - Section loss at steel beam ends tying into abutment wall. 11/18/2011 - Approach slabs have been replaced. 11/18/2013 - Placed 265 ft of outside beams into state 4. Because paint system has failed. Oxide color dark brown. 11/18/2013 - 3 spalls on deck. Approximatly less than 1/4" deep. Less then 6" x 6" area. 11/18/2013 - Guardrail on all 4 corners have minor damage. 11/18/2013 - Bridge delamination done 4/3/2013. Delamination 16.6% 11/18/2013 - Lowered deck on Pontis and SIA sheets because of delamination.

**Alert Code 1:** Paint peeling on east and west outside beams.

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Bridge Inventory - Structure Inventory And Appraisal Sheet

SEC 409

Structure Number: 0094-166.531

chaindate

Table with 4 columns: Item ID, Description, Value, and Classification/Condition. Rows include System Designation, Status, Sufficiency Rating, Identification (Highway District, County, City, Route, etc.), Condition (Deck, Superstructure, etc.), Age and Service (Yr Built, Type of Service), Geometric Data (Clearance, Width, etc.), and Inspections (Date of Last Inspection, Frequency, etc.).

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Bridge Inventory - Structure Inventory And Appraisal Sheet**

SEC 409

Structure Number: 0094-166.531

chaindate

Element / Env. / Description	Units	Total Qty	1 %	1-Qty St	2 %	2-Qty St	3 %	3-Qty St	4 %	4-Qty St
107/2:Steel Opn Girder/Beam	ft	715	0	0	100	715	0	0	0	0
515/2:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
12/1:Re Concrete Deck	sq.ft	7,201	100	7,201	0	0	0	0	0	0
205/2:Re Conc Column	each	3	0	0	100	3	0	0	0	0
215/2:Re Conc Abutment	ft	59	0	0	100	59	0	0	0	0
234/2:Re Conc Pier Cap	ft	72	0	0	100	72	0	0	0	0
312/3:Enclosed Bearing	each	6	0	0	100	6	0	0	0	0
313/2:Fixed Bearing	each	9	0	0	100	9	0	0	0	0
515/2:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
330/2:Metal Bridge Railing	ft	479	100	479	0	0	0	0	0	0
515/2:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
331/2:Re Conc Bridge Railing	ft	479	0	0	100	479	0	0	0	0
8399/2:Slope Protection, RC	each	2	0	0	100	2	0	0	0	0
8401/2:Wings	each	4	0	0	100	4	0	0	0	0

**Remarks:** Date 02-25-2004: Both abutments cracked along breastwall lines with efflorescence. Salt spray from driving lane causing rust on beam above traffic. NBI Remarks: Numerous small popouts in deck. Minor spalls on backwalls under beams with seepage and efflorescence. Small chip south pier column. Gap between slope protection s and n abutments have been filled with grout minor scrapes on wb w&w1 beams from high loads. Paint on flanges throughout bridge is starting to show failure, no section loss.

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

SEC 409

Structure Number: 0052-168.801

chaindate

200 System Designation	1 - State	<b>Classification</b>	
201 Status	Not Deficient	12 Base Highway Network	On Base Network
202 Sufficiency Rating	89.60	20 Toll	3 On free road
<b>Identification</b>		21 Maint Responsibility	01 State Highway Agency
02 Highway District	Minot District	22 Owner	01 State Highway Agency
03 County	Wells	26 Functional	Rural, Principal Arterial - Other
04 City	FORWARD TOWNSHIP	37 Historical Significance	5 Not eligible for NRHP
05 Inventory Route	Route On Structure	100 Defense Highway Designation	0 Not a STRAHNET hwy
2 U.S. Number: 1 Mainline	00052 0 N/A (NBI)	101 Parallel Structure Designation	No    bridge exists
06 Feats Intersect	SHEYENNE RIVER	102 Direction of Traffic	2 2-way traffic
09 Location	1 NORTHWEST OF ND 3 SOUTH	103 Temporary Structure Designation	Not Applicable (P)
11 Milepoint	168.765	104 Highway System of Inventory Rte	1 On the NHS
13 LRS Inv Route. Subroute	0000000000 00	105 Federal Lands Highways	Not applicable
16 Latitude	47d 45' 25.00"	110 Designated National Network	1 Part of natl network
17 Longitude	99d 56' 15.00"	112 NBIS Bridge Length	
GPS Coordinates XY	429747.8 5289719.0	226 Functional Under	
98 Border Bridge	Unknown (P) 0.00 %	<b>Condition</b>	
99 Border Bridge Struct No.	-	58 Deck	7 Good
<b>Structure Type and Material</b>		59 Superstructure	7 Good
43 Main Struct Type	Steel continuous	60 Substructure	8 Very Good
Stringer		61 Chan. & Chan. Protection	8 Protected
44 Approach Struct Type	Unknown (NBI)	62 Culvert and Retaining Walls	N N/A (NBI)
	Unknown (P)	<b>Load Rating and Posting</b>	
45 No. Spans in Main Unit	3	31 Design Load	
46 No. Approach Spans	0		MS 18 (HS 20) (live load for which structure was designated)
107 Deck Struct Type	1 Concrete-Cast-in-Place	41 Structure Open, Closed or Posted	A Open, no restriction
108 Wearing Surface	4 Low Slump Concrete	63 Operating Rating Method	1 LF Load Factor
Membrane	0 None	64 Oper. Rating	HS 31 57 Tons
Dk Protect	None	65 Inventory Rating Method	1 LF Load Factor
208 Dk Overburden	1 None	66 Inv. Rating	HS 19 34 Tons
<b>Age and Service</b>		70 Bridge Posting	5 At/Above Legal Loads
27 Yr Built	1962 106 Yr Reconstructed 1999	209 Posted in "Tons"	00 Tons
42 Type of Service	1 Highway - On	<b>Appraisal</b>	
	5 Waterway - Under	67 Structural Condition	7 Above Min Criteria
28 Lanes on Structure	2	68 Deck Geometry	5 Above Tolerable
29 ADT	1,300 30 Year of ADT 2013	69 Underclear. Vert & Horiz	N Not applicable (NBI)
109 Average Daily Truck Traffic	27.00	71 Waterway Adequacy	8 Equal Desirable
19 Bypass, Detour Length	2 Miles	72 App. Rdwy. Alignment	7 Above Min Criteria
<b>Geometric Data</b>		36 Traffic Safety Features	1 1 1 1
10 Min Vert Clearance	328 Ft. 1 In.	113 Scour Critical	8 Stable Above Footing
32 Approach Roadway Width	38 Feet	<b>Inspections</b>	
33 Bridge Median	0 No median	90 Date of Last Inspection	May 04, 2015
34 Skew	0.00	91 Designated Inspection Frequency	24 Months
35 Structure Flared	0 No flare	92 Critical Feature Inspected / 93 Critical Feature Last Insepction Dt	
47 Total Horizontal Clearance	29.9 Feet	Fracture Critical	N
48 Length of Max Span	48 Feet	Underwater	Y 60 08/11/2013
49 Structure Length	129.92 Feet	Other Special	N
50 Curb/Sidewalk Widths	2.6 Ft Rt-Side	218 Channel Profile	- 01/01/1901
	2.6 Ft Lt-Side	Chaining Date	None
51 Bridge Rdwy Width - Curb to Curb		207 Transporter Erector Routes and Sites	-1
	29.9 Feet	212 Structure Load Rated	08/12/2015
52 Deck Width	35.8 Feet	213 Federal Aid Project Number	F-3-052(00)167
53 Min Vert Clear. Over Bridge	328 Ft. 1 In.	214 Delayed Inspection	Not Applicable
54 Min Vert Underclearance	0 Ft. 0 In.	216 Inspector	Beavers Lawson
	N Feature not hwy or RR	<b>Navigation Data</b>	
55 Min Lateral UnderClear. - Rt	327.8 Feet	38 Navigation Control	Permit Not Required
	N Feature not hwy or RR	39 Navigation Vertical Clearance	0 Feet
56 Min Lateral UnderClear. - Lt	0.0 Feet	40 Navigation Horizontal Clearance	0 Feet
210 Culvert / 211 Description		111 Pier or Abutment Protection	Unknown (NBI)
		116 Minimum Navigation Vertical Clearance	Feet

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Structure Number: 0052-168.801

chaindate

Element / Env. / Description	Units	Total Qty	1 %	1-Qty St	2 %	2-Qty St	3 %	3-Qty St	4 %	4-Qty St
107/1:Steel Opn Girder/Beam	ft	518	0	0	100	518	0	0	0	0
1000/1:Corrosion	each	158	0	0	100	158	0	0	0	0
515/1:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
12/1:Re Concrete Deck	sq.ft	3,897	0	0	100	3,897	0	0	0	0
1130/1:Cracking (RC and Other)	each	362	0	0	100	362	0	0	0	0
210/1:Re Conc Pier Wall	ft	59	100	59	0	0	0	0	0	0
215/1:Re Conc Abutment	ft	72	94	68	1	1	4	3	0	0
1080/1:Delamination/Spall/Patched Area	each	1	0	0	25	0	75	1	0	0
311/1:Moveable Bearing	each	8	100	8	0	0	0	0	0	0
515/1:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
313/1:Fixed Bearing	each	8	100	8	0	0	0	0	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	259	99	256	0	0	1	3	0	0
1080/1:Delamination/Spall/Patched Area	each	1	0	0	0	0	100	1	0	0
8398/1:Slope Protection	each	2	100	2	0	0	0	0	0	0
8401/1:Wings	each	4	100	4	0	0	0	0	0	0

**Remarks:** Bottom of lower outside flange on both outside girders has paint system failure. NBI Remarks: 0.013" cracks in railings, rail posts, curbs and dia- phragms. Top flange of outside girder, left side, center span, has approx. 10 inch square area of rust with moder- ate delamination. 3 sq. Ft. Delamination on east abutment diaphragm. Bottom flange of outside i-beams beginning to rust due to paint failure. A couple 1.5 ft x1 ft areas of deterioration in deck surface in eastbound lane approx. 35 ft. In from west approach spall in north curb,under second retro-fit guardrail post from west end. 0.01" map cracking underside of deck. 0.013" cracking in diaphragms. Spall around 2nd guardrail post from west end 1.5'x1.5'. 0.013" cracks in east abutment.

**Alert Code 1:** 5' x 5' area of deterioration of full depth repair (1999) near mid-point of bridge on north underside of deck; due to inadequate consolidation of concrete.

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SEC 409

Structure Number: 0031-084.239

chaindate

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, 42 Type of Service), Geometric Data (10 Min Vert Clearance, 32 Approach Roadway Width, etc.), and Condition (58 Deck, 59 Superstructure, etc.).

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North Dakota Department of Transportation

Bridge Inventory - Structure Inventory And Appraisal Sheet

SEC 409

Structure Number: 0031-084.239

chaindate

Element / Env. / Description	Units	Total Qty	1 %	1-Qty St	2 %	2-Qty St	3 %	3-Qty St	4 %	4-Qty St
107/2:Steel Opn Girder/Beam	ft	518	100	518	0	0	0	0	0	0
515/2:Steel Protective Coating	sq.ft	100	90	90	0	0	0	0	10	10
12/2:Re Concrete Deck	sq.ft	2,357	83	1,956	17	401	0	0	0	0
1120/2:Efflorescence/Rust Staining	each	1	100	1	0	0	0	0	0	0
1130/2:Cracking (RC and Other)	each	37	0	0	100	37	0	0	0	0
215/2:Re Conc Abutment	ft	79	100	79	0	0	0	0	0	0
311/2:Moveable Bearing	each	8	0	0	100	8	0	0	0	0
515/2:Steel Protective Coating	sq.ft	100	0	0	0	0	100	100	0	0
313/2:Fixed Bearing	each	8	0	0	100	8	0	0	0	0
515/2:Steel Protective Coating	sq.ft	100	0	0	100	100	0	0	0	0
333/2:Other Bridge Railing	ft	131	100	131	0	0	0	0	0	0
7362/1:Superstructure Traffic Impact	each	1	100	1	0	0	0	0	0	0
8398/2:Slope Protection	each	1	0	0	100	1	0	0	0	0
8401/2:Wings	each	4	100	4	0	0	0	0	0	0

**Remarks:** HAIRLINE CRACKS TO 1/8" AT MIDSPAN UNDERSIDE ONLY. SOME VERTICAL HL TO 1/16" ON ABUTMENTS AND WINGS. ROCKERS TIPPED AWAY FROM FIXED END AT 27 DEGREES F. BOTH EXTERIOR BEAMS HAVE SOME MINOR RUSTING ON FLANGES. \_SPALL UNDERSIDE OF DECK 1'X6" REBAR EXPOSED NO SECTION LOSS.THERE ARE FOUR AREAS WHERE SHOTGUN SHOTS HAVE TAKEN PAINT OFF OF BEAMS.  
3/21/2013: Guardrail and wooden post have not been repaired yet.

**Alert Code 1:** Deck cracks underside show rust, staining. nw approach guardrail damaged. 12' of west beam and 1 post. North side of bottom of deck has 20 ft spalled with rebar exposed where deck meets the abutment. No section loss. Also a 20 ft long spall on south end where the deck meets the abutment.

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Bridge Inventory - Structure Inventory And Appraisal Sheet

SEC 409

Structure Number: 0021-106.109

chaindate

200 System Designation	1 - State	<b>Classification</b>	
201 Status	Not Deficient	12 Base Highway Network	On Base Network
202 Sufficiency Rating	85.40	20 Toll	3 On free road
<b>Identification</b>		21 Maint Responsibility	01 State Highway Agency
02 Highway District	Bismarck District	22 Owner	01 State Highway Agency
03 County	Morton	26 Functional	Rural, Principal Arterial - Other
04 City	Unknown	37 Historical Significance	4 Hist sign not determin
05 Inventory Route	Route On Structure	100 Defense Highway Designation	0 Not a STRAHNET hwy
3 State Hwy 1 Mainline	00021 0 N/A (NBI)	101 Parallel Structure Designation	No    bridge exists
06 Feats Intersect	LOUSE CREEK	102 Direction of Traffic	2 2-way traffic
09 Location	1 WEST OF FLASHER	103 Temporary Structure Designation	Not Applicable (P)
11 Milepoint	106.086	104 Highway System of Inventory Rte	1 On the NHS
13 LRS Inv Route. Subroute	0000000000 00	105 Federal Lands Highways	Not applicable
16 Latitude	46d 27' 18.00"	110 Designated National Network	0 Not part of natl netwo
17 Longitude	101d 15' 08.00"	112 NBIS Bridge Length	
GPS Coordinates XY	327040.4 5147070.1	226 Functional Under	
98 Border Bridge	Unknown (P) 0.00 %	<b>Condition</b>	
99 Border Bridge Struct No.	-	58 Deck	5 Fair
<b>Structure Type and Material</b>		59 Superstructure	7 Good
43 Main Struct Type	Steel continuous	60 Substructure	7 Good
Stringer		61 Chan. & Chan. Protection	6 Bank Slumping
44 Approach Struct Type	Unknown (NBI)	62 Culvert and Retaining Walls	N N/A (NBI)
	Unknown (P)	<b>Load Rating and Posting</b>	
45 No. Spans in Main Unit	2	31 Design Load	
46 No. Approach Spans	0	MS 13.5 (HS 15) (live load for which structure was designated)	
107 Deck Struct Type	1 Concrete-Cast-in-Place	41 Structure Open, Closed or Posted	A Open, no restriction
108 Wearing Surface	1 Monolithic Concrete	63 Operating Rating Method	1 LF Load Factor
Membrane	0 None	64 Oper. Rating HS 32	58 Tons
Dk Protect	None	65 Inventory Rating Method	1 LF Load Factor
208 Dk Overburden 1	None	66 Inv. Rating HS 19	35 Tons
<b>Age and Service</b>		70 Bridge Posting	5 At/Above Legal Loads
27 Yr Built 1954 106 Yr Reconstructed	-1	209 Posted in "Tons"	00 Tons
42 Type of Service	1 Highway - On	<b>Appraisal</b>	
	5 Waterway - Under	67 Structural Condition	7 Above Min Criteria
28 Lanes on Structure	2	68 Deck Geometry	5 Above Tolerable
29 ADT 900 30 Year of ADT 2015		69 Underclear. Vert & Horiz	N Not applicable (NBI)
109 Average Daily Truck Traffic	11.00	71 Waterway Adequacy	6 Equal Minimum
19 Bypass, Detour Length	58 Miles	72 App. Rdwy. Alignment	6 Equal Min Criteria
<b>Geometric Data</b>		36 Traffic Safety Features	1 1 1 1
10 Min Vert Clearance	328 Ft. 1 In.	113 Scour Critical	8 Stable Above Footing
32 Approach Roadway Width	28 Feet	<b>Inspections</b>	
33 Bridge Median	0 No median	90 Date of Last Inspection	April 06, 2015
34 Skew	30.00	91 Designated Inspection Frequency	24 Months
35 Structure Flared	0 No flare	92 Critical Feature Inspected / 93 Critical Feature Last Inpspection Dt	
47 Total Horizontal Clearance	27.9 Feet	Fracture Critical	N
48 Length of Max Span	56 Feet	Underwater	N
49 Structure Length	120.08 Feet	Other Special	N
50 Curb/Sidewalk Widths	1.3 Ft Rt-Side	218 Channel Profile	Y 48 05/15/2013
	1.3 Ft Lt-Side	Chaining Date	10/22/2014
51 Bridge Rdwy Width - Curb to Curb		207 Transporter Erector Routes and Sites	-1
	27.9 Feet	212 Structure Load Rated	07/02/2015
52 Deck Width	33.1 Feet	213 Federal Aid Project Number	F-1-021(00)102
53 Min Vert Clear. Over Bridge	328 Ft. 1 In.	214 Delayed Inspection	Not Applicable
54 Min Vert Underclearance	0 Ft. 0 In.	216 Inspector	Demaree
	N Feature not hwy or RR	<b>Navigation Data</b>	
55 Min Lateral UnderClear. - Rt	327.8 Feet	38 Navigation Control	Permit Not Required
	N Feature not hwy or RR	39 Navigation Vertical Clearance	0 Feet
56 Min Lateral UnderClear. - Lt	0.0 Feet	40 Navigation Horizontal Clearance	0 Feet
210 Culvert / 211 Description		111 Pier or Abutment Protection	Unknown (NBI)
		116 Minimum Navigation Vertical Clearance	Feet

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Bridge Inventory - Structure Inventory And Appraisal Sheet**

SEC 409

Structure Number: 0021-106.109

chaindate

Element / Env. / Description	Units	Total Qty	1 %	1-Qty St	2 %	2-Qty St	3 %	3-Qty St	4 %	4-Qty St
107/2:Steel Opn Girder/Beam	ft	466	0	0	100	466	0	0	0	0
515/2:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
12/1:Re Concrete Deck	sq.ft	3,358	0	0	100	3,358	0	0	0	0
1130/1:Cracking (RC and Other)	each	312	0	0	100	312	0	0	0	0
210/3:Re Conc Pier Wall	ft	33	0	0	100	33	0	0	0	0
215/2:Re Conc Abutment	ft	69	100	69	0	0	0	0	0	0
301/2:Pourable Joint Seal	ft	52	0	0	0	0	100	52	0	0
311/2:Moveable Bearing	each	8	0	0	100	8	0	0	0	0
515/2:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
313/2:Fixed Bearing	each	4	0	0	100	4	0	0	0	0
515/2:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
333/1:Other Bridge Railing	ft	236	100	236	0	0	0	0	0	0
8401/2:Wings	each	4	0	0	100	4	0	0	0	0

**Remarks:** NBI Remarks: Minor cracks in rail posts. Ice nose rusted at water line. Rockers all leaning away 1 1/4"@ 5 f. Paint on fascia beams showing wear, some minor rusting. Some aggradation downstream. 4/6/2015: Debris build up at west side of pier. North end of bridge has a steel plate over the expansion joint, leaving only 26' of pourable joint seal.

**Alert Code 1:** Map cracking entire deck. sw rail has 2 posts broken. minor local scour around pier. some minor washing behind sw & se wings.

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<b>Structure Number:</b> 0002-149.111 R		<u>chaindate</u>	
200 System Designation	1 - State	<b>Classification</b>	
201 Status	Not Deficient	12 Base Highway Network	On Base Network
202 Sufficiency Rating	92.90	20 Toll	3 On free road
<b>Identification</b>		21 Maint Responsibility	01 State Highway Agency
02 Highway District	Minot District	22 Owner	01 State Highway Agency
03 County	Ward	26 Functional	Urban, Other Principal Arterial
04 City	MINOT CITY	37 Historical Significance	4 Hist sign not determin
05 Inventory Route	Route On Structure	100 Defense Highway Designation	0 Not a STRAHNET hwy
2 U.S. Number: 1 Mainline	00002 0 N/A (NBI)	101 Parallel Structure Designation	Right of    bridge
06 Feats Intersect	CP RAILWAY	102 Direction of Traffic	1 1-way traffic
09 Location	NE JCT U.S. HWY 2 & 52	103 Temporary Structure Designation	Not Applicable (P)
11 Milepoint	149.079	104 Highway System of Inventory Rte	1 On the NHS
13 LRS Inv Route. Subroute	0000000000 00	105 Federal Lands Highways	Not applicable
16 Latitude	48d 12' 39.00"	110 Designated National Network	1 Part of natl network
17 Longitude	101d 14' 36.00"	112 NBIS Bridge Length	
GPS Coordinates XY	333346.7 5342177.9	226 Functional Under	
98 Border Bridge	Unknown (P) 0.00 %	<b>Condition</b>	
99 Border Bridge Struct No.	-	58 Deck	7 Good
<b>Structure Type and Material</b>		59 Superstructure	8 Very Good
43 Main Struct Type	Steel continuous	60 Substructure	7 Good
Stringer		61 Chan. & Chan. Protection	N N/A (NBI)
44 Approach Struct Type	Unknown (NBI)	62 Culvert and Retaining Walls	N N/A (NBI)
	Unknown (P)	<b>Load Rating and Posting</b>	
45 No. Spans in Main Unit	3	31 Design Load	
46 No. Approach Spans	0	MS 18 (HS 20) (live load for which structure was designated)	
107 Deck Struct Type	1 Concrete-Cast-in-Place	41 Structure Open, Closed or Posted	A Open, no restriction
108 Wearing Surface	1 Monolithic Concrete	63 Operating Rating Method	1 LF Load Factor
Membrane	0 None	64 Oper. Rating HS 45	82 Tons
Dk Protect	8 Unknown	65 Inventory Rating Method	1 LF Load Factor
208 Dk Overburden 1	None	66 Inv. Rating HS 21	39 Tons
<b>Age and Service</b>		70 Bridge Posting	5 At/Above Legal Loads
27 Yr Built 1960	106 Yr Reconstructed 1981	209 Posted in "Tons"	00 Tons
42 Type of Service	1 Highway - On	<b>Appraisal</b>	
	2 Railroad - Under	67 Structural Condition	7 Above Min Criteria
28 Lanes on Structure	2	68 Deck Geometry	9 Above Desirable Crit
29 ADT 4,150	30 Year of ADT 2013	69 Underclear. Vert & Horiz	6 Equal Minimum
109 Average Daily Truck Traffic	8.00	71 Waterway Adequacy	N Not applicable
19 Bypass, Detour Length	6 Miles	72 App. Rdwy. Alignment	7 Above Min Criteria
<b>Geometric Data</b>		36 Traffic Safety Features	1 1 1 1
10 Min Vert Clearance	328 Ft. 1 In.	113 Scour Critical	N Not Over Waterway
32 Approach Roadway Width	68 Feet	<b>Inspections</b>	
33 Bridge Median	1 Open median	90 Date of Last Inspection	May 24, 2013
34 Skew	4.00	91 Designated Inspection Frequency	24 Months
35 Structure Flared	0 No flare	92 Critical Feature Inspected / 93 Critical Feature Last Inpection Dt	
47 Total Horizontal Clearance	44.9 Feet	Fracture Critical	N
48 Length of Max Span	51 Feet	Underwater	N
49 Structure Length	140.09 Feet	Other Special	N
50 Curb/Sidewalk Widths	1.3 Ft Rt-Side	218 Channel Profile	N
	1.3 Ft Lt-Side	Chaining Date	None
51 Bridge Rdwy Width - Curb to Curb		207 Transporter Erector Routes and Sites	-1
	44.9 Feet	212 Structure Load Rated	01/01/1901
52 Deck Width	47.2 Feet	213 Federal Aid Project Number	F-4-002(10)147
53 Min Vert Clear. Over Bridge	328 Ft. 1 In.	214 Delayed Inspection	Not Applicable
54 Min Vert Underclearance	22 Ft. 5 In.	216 Inspector	Olson, Harbaugh, Medler
	R Railroad beneath struc	<b>Navigation Data</b>	
55 Min Lateral UnderClear. - Rt	18.0 Feet	38 Navigation Control	NA-no waterway
	R Railroad beneath struc	39 Navigation Vertical Clearance	0 Feet
56 Min Lateral UnderClear. - Lt	0.0 Feet	40 Navigation Horizontal Clearance	0 Feet
210 Culvert / 211 Description		111 Pier or Abutment Protection	Unknown (NBI)
		116 Minimum Navigation Vertical Clearance	-1 Feet

January 05, 2016

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

SEC 409

Structure Number: 0002-149.111 R

chaindate

Element / Env. / Description	Units	Total Qty	1 %	1-Qty St	2 %	2-Qty St	3 %	3-Qty St	4 %	4-Qty St
107/1:Steel Opn Girder/Beam	ft	830	72	597	28	233	0	0	0	0
515/1:Steel Protective Coating	sq.ft	100	100	100	0	0	0	0	0	0
12/1:Re Concrete Deck	sq.ft	6,297	100	6,297	0	0	0	0	0	0
205/1:Re Conc Column	each	14	0	0	100	14	0	0	0	0
215/1:Re Conc Abutment	ft	98	100	98	0	0	0	0	0	0
234/1:Re Conc Pier Cap	ft	92	100	92	0	0	0	0	0	0
313/1:Fixed Bearing	each	12	100	12	0	0	0	0	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	279	0	0	100	279	0	0	0	0
8399/1:Slope Protection, RC	each	2	0	0	100	2	0	0	0	0
8401/1:Wings	each	4	100	4	0	0	0	0	0	0

**Remarks:** NBI Remarks: -Well defined vertical crack in both abutment. -Large spall by second pedestal from NE corner. -Small spalls by girders in south abutment. -Slope protection settled 1' and cracked. -Horizontal, hairline cracks in all of the pier columns. -Small spalls developing on outside of jersey barriers at base of some of dummy joints. Numerous popouts of jersey barriers and hairline cracks. -NE corner behind wing has minor erosion. NE curb & gutter and end of bridge has settled 6.5". -North abutment bearings 1, 4, 5, & 6 are rusting. -Sink hole, north slope protection, west side towards top. -T-e stress:21549 allow=24750