

Bridge Inspection										
Bridge File Number	07484 -1 Bridge				Form Type	PSR				
Year Built/Year Supstr	1961/1961				Lot No.	2				
Bridge or Town Name	ONOWAY				Inspector Name	Wade Nanninga				
Located Over	STURGEON RIVER, 6.65, WATERCRS-ST				Inspector Class	BR CLS A				
Located On	777:01 C1 1.175				Assistant Name					
Water Body Cl./Year					Assistant Class					
Navigabil. Cl./Year					Inspection Date	13-Mar-2013				
Legal Land Location	NW SEC 1 TWP 55 RGE 2 W5M				Data Entry By	Theresa Lacusta				
Longitude, Latitude	-114:10:31, 53:43:34				Data Entry Date	02-Apr-2013				
Road Authority	Alberta Transportation (AIT)				Reviewer Name	Eric Carcoux				
Contract Main. Area	CMA09				Review Date	25-Mar-2013				
Clear Roadway/Skew	8.4 /				Dept. Reviewer Name	Brent Herrick				
AADT/Year	870 / 2011 (A)				Dept. Review Date	02-Apr-2013				
Road Classification	RCU-209-110				Follow-Up By					
Detour Length (km)	5									
Allowable Load (t):	Single	H 28	Semi	HS 49	Train	CS3 67 GIRDER	---> On Critical Spans --->Critical Member			
Design Loading:	HS20						---> Primary Span			

Posting Information									
Required Load Posting (t)	Single			Semi			Truck Train		
Posted Loading (t)	Single			Semi			Truck Train		
Posted:	Lane	NB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No	
Posted:	Lane	SB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No	
Remarks	Not required.								
Hazard Marker At Bridge (Y/N)	Yes								
Remarks	NW missing, SW leaning, SE leaning. All hazard markers at various heights, do not meet standard.								
Other Sign Types									

Utilities (Located at)										
Utility Attachments										
Telephone	West r/w.				Gas					
Power	Single line East r/w.				Municipal					
Others					Problem (Y/N)	No				
Remarks	Conduit attached to West exterior girders but sections detached, not in use.									

Approach Road									
		Last	Now	Explanation of Condition					
Horizontal Alignment		7	7	Intersection to North. Sag curve. No passing SBL. Steep grades both directions.					
Vertical Alignment		6	6						
Roadway Width (m)		9.200							
Approach Bump		7	7	Minor dents to rail. (section of rail improperly lapped SW-Jul, 2012.) Insufficient length/posts @ NW, SW & SE. NE - 67.5m; NW - 44.7m; SW - 19.0m; SE - 33.3m.					
Guardrail (Y/N)		Yes							
Guardrail		4	4						
Length (m)		19.000							
Current Standard (Y/N)		No							
Termination Type		Turned Down							
Drainage		7	7						
<b>Approach Road General Rating</b>		<b>6</b>	<b>6</b>						

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : PJ, 3 Spans, Lengths(m): 9.1-10.7-9.1, A-Ident Number: )					
<b>Special Features</b>					
Special Feature			X		
(Type : )					
Special Feature			X		
(Type : )					
<b>Wearing Surface/Deck Top Detail Ratings</b>					
	N (%)	1 (%)	2 (%)	3 (%)	
<b>Last</b>					
<b>Now</b>	80.0	0.0	0.0	0.0	
Wearing Surface			4	4	Numerous patches - photo. Chipseal worn off 20%.  Mostly snow covered.
(Material Type : <b>CONCRETE - CONVENTIONAL CHIP SEAL COAT</b> )					
(Thickness(mm) : <b>50</b> )					
Lateral Connection Problem (Y/N)	No				
Deck Top			N	N	
Deck Rideability			4	4	Patches provide rough ride.
Deck Joints			4	4	Crack over piers and abut. Type I joints @ piers.
Temperature (deg. C)		-10			
(Expansion Type : )					
(Fixed Type : )					
Gap Size (mm)		Gap Location			
Deck Drainage			4	N	Gravel impeding drainage along E curb.
Drains Clogged (Y/N)		No			
Curbs/Median			4	4	Medium-heavy scaling. Shallow cover on S3G10 outside fascia.
(Curb Type : <b>Standard</b> )					
Scaling (Percent Area)		20			
Bridge Rail			4	4	Double layer. Improper splice.  Post A/B with insufficient thread on nuts & 3 must not tight - photo.  Dirty/surface spot corrosion on A/B's.
(Type : <b>GALVANIZED STEEL FLEX BEAM</b> )					
Bridge Rail Posts		4	4		
(Type : <b>GALVANIZED POST STEEL;GALVANIZED POST STEEL</b> )					
Bridge Rail/Posts Coating		4	4		
(Type : <b>GALVANIZED</b> )					
Sidewalk			X	X	
<b>Girder Detail Ratings</b>					
	N (count)	1 (count)	2 (count)	3 (count)	SP3G4 WLC in AZ with efflorescence.  S2G2, S1G3, S3G7 & G3, all cracking along underside, no corrosion. S1G6, 3 wide delam cracks in AZ-corrosion.-photo S3G6 3 wide delam cracks in AZ-no corrosion.
<b>Last</b>	0	0	2	5	
<b>Now</b>	0	0	2	5	

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : PJ, 3 Spans, Lengths(m): 9.1-10.7-9.1, A-Ident Number: )				
Girders		2	2	G7, SP3 narrow to wide longitudinal cracking. South end extending into AZ. SP1G3 wide longitudinal crack into AZ @ P1 - photo. SP2G2 corner is spalling near N pier.
Cracking (Y/N)	Yes			
Spalling (Percent Area)	1			
(Number Of Girders : 30)				
Diaphragms/Cross Frame		X	X	
Bearings		7	7	
Temperature (deg. C)	-15			
(Expansion Type : )				
(Fixed Type : <b>NEOPRENE STRIP BEARING</b> )				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		2	2	See girder ratings.
Stains (Percent Area)	0			
<b>Span Alignment Problems</b>				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
<b>Superstructure General Rating</b>		<b>2</b>	<b>2</b>	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
<b>Abutments</b>				
Bearing Seats/Caps (Type : <b>STEEL</b> )		7	6	Ext piles @ 1.5m. 356 x 356, H iron caps.
Backwalls/Breastwalls		6	5	
Wingwalls		6	6	
Piles		4	2	Cored in 2013 A1 P4 & P5 -5mm wide vertical split - photo. 7 TT piles/abutment. Rot with voids in P6,7 Abutment 1, & P2 Abutment 2.
Paint/Coating		4	4	Steel caps scaling rust.
Abutment Stability		5	5	
Scour/Erosion		5	5	Bottom sheathing visible exposing fill S abut.
<b>Piers/Bents</b>				
(Type : <b>PIER-COLUMN</b> )				356 x 356 H steel caps. Angle bracket installed at exterior corners to hold girders from lateral movement. P1 cap minor rotation - 5 degrees towards river.
Bearing Seats/Caps (Type : <b>STEEL</b> )		5	5	
(Total Number of Bearing Piles : 9:9)				
Pier Shaft/Piles		4	4	3 piles @ P2 with wide vertical split.-05-May-2008 Pier 2 piles not fully bearing on cap.-photo  Cored in 2013  Pier 2 pile 5 with beginning rot @ waterline.
Bracing/Struts/Sheathing		5	5	Full height sheathing. Sheathing missing @ bottom of both piers .-08-Sep-2011
Nose Plate		X	X	
Paint/Coating		4	4	Scaling rust on caps.
(Colour Description : )				
(Colour Code : )				

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Pier Stability		6	6	
Scour		N	N	
Debris (Y/N)	Yes			Old piles @ beaver dam.
<b>Substructure General Rating</b>		<b>4</b>	<b>2</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel</b>				
(U/S Direction : <b>W</b> )				On bend. Turns 90 deg, 20m d/s.
(D/S Direction : <b>E</b> )				
Alignment		5	5	
Bank Stability		7	7	
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	Yes			
Slope Protection		5	5	Bottom planks exposing fill S abut. (Type : <b>NATURAL; NATURAL</b> )
Guidebank/Spurs		X	X	
Adequacy of Opening		4	4	Beaver dam across U/S end of bridge - photo. )4.5m deck to SB.-May, 2008)
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>4</b>	<b>4</b>	

Maintenance Recommendations						
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL	2013	Rehab & upgrade to meet standard.				
GALVANIZE/PAINT BRIDGE RAIL						
SEAL CURBS	2013					
PATCH DECK						
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS						
RESET/ PAINT BEARINGS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION	2013	Remove beaver dam in U/S side of bridge in channel. Remove old piles.				
OTHER ACTION	2013	Schedule for replacement.				
OTHER ACTION	2013	Upgrade approach guardrail to meet standard.				
OTHER ACTION	2013	Install nose plate on piers if rehab.				
OTHER ACTION	2013	Reinstall hazard markers to meet standard.				
OTHER ACTION	2013	Replace 7 girders.				
OTHER ACTION	2013	Treat and band P4/5 AB 1.				
OTHER ACTION	2013	Replace rotten piles.				
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>33.3/22.2</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>48.3/46.6</b>	<b>Est. Repl. Yr</b>	<b>2015</b>	<b>Maint. Req. (Y/N)</b>
Special Comments for Next Inspection	Monitor cracked girders. Inspect annually until repaired/replaced. Issue LRA to Rizwan Hussain via e-mail 20-March-2013. Coring done in 2009, discovered rot in 5/18 pier piles. Beginning rot in an additional 11/18. Delay reaps until replacement option determined.		Department Comments			Yes
Maintenance Reviewed By		Date			Estimated Total	0
Proposed Long-Term Strategy						
On 3-Year Program (Y/N)						
Proposed Action						
Previous Inspector's Name	Wade Nanninga	Previous Assistant's Name				
Next Inspection Date	13-Jan-2014	Previous Inspection Date	24-Jul-2012			
Inspection Cycle (Modified) (months)	10					
Comment						

Maintenance Recommendations						
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
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GALVANIZE/PAINT BRIDGE RAIL						
SEAL CURBS	2013					
PATCH DECK						
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS						
RESET/ PAINT BEARINGS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
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Maintenance Reviewed By			Date			Estimated Total 0
Proposed Long-Term Strategy						
On 3-Year Program (Y/N)						

Proposed Action			
Previous Inspector's Name	Wade Nanninga	Previous Assistant's Name	
Next Inspection Date	13-Jan-2014	Previous Inspection Date	24-Jul-2012
Inspection Cycle (Modified) (months)	10		
Comment			