

Bridge Inspection										
Bridge File Number	73429 -1 Bridge				Form Type	SG				
Year Built/Year Supstr	1967/1967				Lot No.	1				
Bridge or Town Name	NORDEGG				Inspector Name	Owen Salava				
Located Over	CLINE RIVER, 6.180, WATERCRS-ST				Inspector Class	BR CLS A				
Located On	11:04 C1 0.070				Assistant Name					
Water Body Cl./Year					Assistant Class					
Navigabil. Cl./Year					Inspection Date	08-Feb-2012				
Legal Land Location	NE SEC 10 TWP 37 RGE 18 W5M				Data Entry By	Marcia Chavez				
Longitude, Latitude	-116:28:50, 52:10:17				Data Entry Date	01-Mar-2012				
Road Authority	Alberta Transportation (AIT)				Reviewer Name	John O'Brien				
Contract Main. Area	CMA18				Review Date	22-Feb-2012				
Clear Roadway/Skew	9.1 / 0 deg.				Dept. Reviewer Name	Andrew Smikles				
AADT/Year	840 / 2010 (A)				Dept. Review Date	21-Mar-2012				
Road Classification	RAU-213.4-120				Follow-Up By					
Detour Length (km)	300									
Allowable Load (t):	Single	CS1 40 GIRDER	Semi	CS2 49	Train	CS3 65 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	EB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No	
Posted:	Lane	WB	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	Too low.								
Other Sign Types	Cline River, information, slippery, narrow bridge.								

Utilities (Located at)										
Utility Attachments	TELEPHONE UTILITIES-PHONE LINE; POWER UTILITIES-POWER LINE									
Telephone	Steel conduit under deck. Between G3 & G4 length of bridge.				Gas					
Power					Municipal					
Others					Problem (Y/N)	No				
Remarks	Between G3 & G4 length of bridge.									

Approach Road									
			Last	Now	Explanation of Condition				
Horizontal Alignment			6	6	Crest curve to the west. Sag curve to the east. No passing.				
Vertical Alignment			6	6					
Roadway Width (m)			12.400		Minor bump at each end.				
Approach Bump			5	5					
Guardrail (Y/N)			Yes		Minor damages to rail at S end. Creased in several places, functional.				
Guardrail			5	5					
Length (m)			91.200		Not attached to bridge; improper post spacing @ bridge; not thrie beam.				
Current Standard (Y/N)			No						
Termination Type			Turn Down						
Drainage			7	7	Gap between curb and approach slab at all corners. Concrete deteriorated at NW & NE drain troughs.				
Approach Road General Rating			6	6					

Superstructure						
Bridge Component		Last	Now	Explanation of Condition		
(Primary Span : WG, 3 Spans, Lengths(m): 34.7-51.8-27.7, A-Ident Number: A0562-01)						
Special Features						
Special Feature			X	Viewed from ground with binoculars, appears to be moving. Viewed from curb. Hanger and pins require snooper for access.		
(Type :)						
Hinge		5	5			
(Hinge Type : PIN HANGER)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)		
Last						
Now	0.0	0.0	0.0	0.0		
Wearing Surface			6	5	Chip seal missing in patches. (Concrete on approach slabs cracking. 28/July/2007). Delaminated areas along W curb.	
(Material Type : CONCRETE - CONVENTIONAL CHIP SEAL COAT)						
(Thickness(mm) : 50)						
Deck Top			N	N		
Deck Rideability			5	5	Rough ride across entire bridge.	
Deck Joints			7	7	Chips were left in the joints.	
Temperature (deg. C)		-6				
(Expansion Type : FINGER PLATES)						
(Fixed Type : GLAND (WABO-MAUER, TRANSFLEX, ETC))						
Gap Size (mm)		Gap Location				
75		North abutment - fixed - gland				
120		North pier - exp - finger				
78		South pier - fixed - gland				
73		South abutment - fixed - gland				
Deck Drainage			7	7	Drains to North abutment.	
Drains Clogged (Y/N)		No				
Curbs/Median			6	6	Two spalls on E curb face, minor and from curb face at NW corner.	
(Curb Type : Standard)						
Scaling (Percent Area)		1				
Bridge Rail			7	7	10-15% post grout pad delam/spalled - photo. Approx. 5% post A/B have insufficient threads.	
(Type : GALVANIZED STEEL VERTICAL BAR)						
Bridge Rail Posts		4	4			
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)						
Bridge Rail/Posts Coating		7	7			
(Type : GALVANIZED)						
Sidewalk			X	X		
Girder/Beam						
Cover Plate			7	X	Viewed from ground with binoculars, appears good. Girders bottom flange is twisted slightly with minor undulations & sag. Bird dropping accumulating on bottom flange splice locations, inside & outside.	
Flange			5	5		
Web			7	7		
Stiffeners			7	7		
Splice			7	7		
Weld			7	7		
Diaphragms/Cross Frame			7	7		

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : WG, 3 Spans, Lengths(m): 34.7-51.8-27.7, A-Ident Number: A0562-01)				
Paint Condition		5	5	Some peeling on bottom flange.
(Colour Description :)				Blue.
(Colour Code :)				
Touchup Required (Y/N)	Yes			
Bearings		5	5	One interior bearing @ S abut covered with rock/grass debris - photo. S1G3. S3G2, G3 bearings covered with grass/twig debris - photo.
Temperature (deg. C)	-6			
(Expansion Type : STEEL SLIDING PLATES WITH BRONZE PLATE IN BETWEEN)				
(Fixed Type : PINNED BEARING)				
Coating Adequate (Y/N)	No			Bearings rusty. SE bearing A/B missing top nut (2).
Functioning (Y/N)	Yes			
Deck Underside		5	5	4 shallow delams on SW soffit.
Stains (Percent Area)	1			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		5	5	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
Abutments				
Bearing Seats/Caps		7	7	Gravel buildup at abutment #1 and debris at abutment #2.
(Type : CONCRETE)				
Backwalls/Breastwalls		5	5	
Wingwalls		6	6	
Piles		N	N	
Paint/Coating		X	X	
Abutment Stability		7	7	
Scour/Erosion		7	7	
Piers/Bents				
(Type : PIER-SOLID)				Hanger and pins require snooper for access.
Bearing Seats/Caps		7	7	
(Type : CONCRETE)				
(Total Number of Bearing Piles : 0:0)				
Pier Shaft/Piles		7	7	Single shafts.
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		X	X	
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		7	7	
Debris (Y/N)	No			

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Substructure General Rating		7	7	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : W)				Slight meander U/S left bend to D/S into dam. Solid rock throughout.
(D/S Direction : E)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	Yes			
Slope Protection		7	7	
(Type : NATURAL; NATURAL)				
Guidebank/Spurs		X	X	
Adequacy of Opening		9	9	
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		7	7	

Maintenance Recommendations										
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #				
REPAIR/REPLACE BRIDGE RAIL										
GALVANIZE/PAINT BRIDGE RAIL										
RETROFIT BRIDGE RAIL										
SEAL CURBS	2012	Patch spalled curbs & seal.								
PATCH DECK										
SEAL DECK										
OVERLAY DECK	2012	Redo chip seal.								
REPAIR/REPLACE DECK JOINTS										
RESET/ PAINT BEARINGS										
REPAINT SUPERSTRUCTURE										
STRAIGHTEN/REPLACE MEMBERS										
WASHING	2012	Wash & remove debris on S1G3, S3G2/G3 abutment bearings.								
SHOTCRETE REPAIRS										
REPAIR ABUTMENT SCOUR/EROSION										
PLACE ADDITIONAL RIP RAP										
REMOVE DRIFT ACCUMULATION										
OTHER ACTION	2012	Patch spalled South approach/roof slab NB. If not done.								
OTHER ACTION	2012	Patch deteriorated drain troughs at NW & NE.								
OTHER ACTION	2012	Upgrade approach rail to meet standard.								
OTHER ACTION	2012	Clean bottom flange splice locations (15).								
OTHER ACTION	2012	Level 2 inspection of hanger/pins with snoopers.								
OTHER ACTION										
OTHER ACTION										
OTHER ACTION										
OTHER ACTION										
OTHER ACTION										
OTHER ACTION										
OTHER ACTION										
OTHER ACTION										
Structural Condition Rating (Last/Now) (%)	66.7/66.7	Sufficiency Rating (Last/Now) (%)	54.0/54.0	Est. Repl. Yr	2038	Maint. Req'd. (Y/N)	0	Yes		
Special Comments for Next Inspection	(Lvl 2 inspection of hanger & piers required every 2nd inspection, 42mths. 23Jun1996). Schedule for next inspection.		Department Comments							
Maintenance Reviewed By		Date				Estimated Total	0			
Proposed Long-Term Strategy	Chip seal placed in 2007. CSE still rising. Deck should be ok until 2016 (rehab before corrosion reaches reinforcement level). RS									
On 3-Year Program (Y/N)	Y									
Proposed Action	Data suggests that transverse cracks which were repaired are failing and allowing corrosion to re-establish. Check next CSE for trend. RS									

Previous Inspector's Name	Owen Salava	Previous Assistant's Name	
Next Inspection Date	08-Nov-2013	Previous Inspection Date	05-May-2010
Inspection Cycle (Default) (months)	21		
Comment			

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL							
GALVANIZE/PAINT BRIDGE RAIL							
RETROFIT BRIDGE RAIL							
SEAL CURBS	2012	Patch spalled curbs & seal.	At next rehab	2015			
PATCH DECK							
SEAL DECK							
OVERLAY DECK	2012	Redo chip seal.	At next rehab	2015			
REPAIR/REPLACE DECK JOINTS							
RESET/ PAINT BEARINGS							
REPAINT SUPERSTRUCTURE							
STRAIGHTEN/REPLACE MEMBERS							
WASHING	2012	Wash & remove debris on S1G3, S3G2/G3 abutment bearings.	To Operations				
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2012	Patch spalled South approach/roof slab NB. If not done.	At next rehab	2015			
OTHER ACTION	2012	Patch deteriorated drain troughs at NW & NE.	At next rehab	2015			
OTHER ACTION	2012	Upgrade approach rail to meet standard.	To Operations				
OTHER ACTION	2012	Clean bottom flange splice locations (15).	At next rehab	2015			
OTHER ACTION	2012	Level 2 inspection of hanger/pins with snoopers.	Defer				
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	66.7/66.7	Sufficiency Rating (Last/Now) (%)	54.0/54.0	Est. Repl. Yr	2038	Maint. Req. (Y/N)	Yes

Special Comments for Next Inspection	(Lvl 2 inspection of hanger & piers required every 2nd inspection, 42mths. 23Jun1996). Schedule for next inspection.	Department Comments	Currently programmed for bridge deck rehab in 2015.		
Maintenance Reviewed By	Andrew Smikles	Date	30-Oct-2012	Estimated Total	0
Proposed Long-Term Strategy	Chip seal placed in 2007. CSE still rising. Deck should be ok until 2016 (rehab before corrosion reaches reinforcement level). RS				
On 3-Year Program (Y/N)	Y				
Proposed Action	Data suggests that transverse cracks which were repaired are failing and allowing corrosion to re-establish. Check next CSE for trend. RS				
Previous Inspector's Name	Owen Salava	Previous Assistant's Name			
Next Inspection Date	08-Nov-2013	Previous Inspection Date	05-May-2010		
Inspection Cycle (Default) (months)	21				
Comment					