

Bridge Culvert Inspection				
Bridge File Number	75963 -1 Bridge Culvert		Form Type	CUL1
Year Built	1967		Lot No.	2
Bridge or Town Name	NORDEGG		Inspector Name	Owen Salava
Located Over	2ND ORDER TRIBUTARY TO NORTH SASKATCHEWAN RIVER, 6.178, WATERCRS-ST		Inspector Class	BR CLS A
			Assistant Name	
Located On	11:04 C1 7.108		Assistant Class	
Water Body Cl./Year			Inspection Date	08-Feb-2012
Navigabil. Cl./Year			Data Entry By	Marcia Chavez
Legal Land Location	NE SEC 35 TWP 37 RGE 18 W5M		Data Entry Date	06-Mar-2012
Longitude, Latitude	-116:27:17, 52:13:43		Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)		Review Date	22-Feb-2012
Contract Main. Area	CMA18		Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	13.2 / -20 deg. (LHF)		Dept. Review Date	09-Mar-2012
AADT/Year	840 / 2010 (A)		Follow-Up By	
Road Classification	RAU-213.4-120			
Detour Length (km)	300			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	4267	2946	RP	55.5	152X51	3.5	PIPE ARCH
Special Features		CONC FLOOR						
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	East r/w.		Gas
Power			Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Built over a curve. Superelevated. Limited sight distance. No passing. Crest to West.
Vertical Alignment		6	6	
Roadway Width (m)	13.200			
Embankment		7	7	
Sideslope ( __:1)	3.0			
(Height of Cover(m) : 3.3)				
Guardrail (Y/N)	Yes			East side only.
<b>Approach Road / Embankment General Rating</b>		<b>6</b>	<b>6</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		7	7	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		N	N	Buried.

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		7	N	Class I rock. Snow covered.
(Type : <b>CONCRETE</b> )				
(Avg. Rock Size(mm) : <b>350</b> )				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 4267, Rise (mm): 2946, Type: RP)				
Barrel Last Accessible Date	08-Feb-2012			
<b>Special Features</b>				
Special Feature		3	3	Center worn out - photo.
(Type : <b>CONC FLOOR</b> )				
Special Feature				
(Type : )				
Roof		7	7	
Measured Rise (mm)	2924			
Measured At Ring No.	7			
Sag (mm)	22			
Percent Sag	0			
Sidewall		7	7	
Measured Span (mm)	4293			
Measured At Ring No.	7			
Deflection (mm)	26			
Percent Deflection	0			
Floor		4	4	Concrete covered. 30% exposed by wear to concrete. Superficial corrosion. Damage and deformation to floor by gravel transport including tears in plate - photo.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	Staggered roof & floor only, 1N. 3 & 9 o'clock seams not staggered.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		6	6	Superficial corrosion. Floor abrasion.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 4267, Rise (mm): 2946, Type: RP)				
Fish Passage Adequacy		X	X	Very steep.
Baffle (Type : )		X	X	
Waterway Adequacy		7	7	Large drift in channel, passes.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
<b>Barrel General Rating</b>		<b>7</b>	<b>7</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)		STEEL		
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape : )		X	X	
Cutoff Wall		X	X	
Bevel End		6	6	(Minor damage to floor. 08/Sep/2005) Gravel covered.
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)		0		
Scour Protection		4	4	
(Type : <b>NONE</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		4	4	Some scour at shoulders - photo.
Beavers (Y/N)		No		
<b>Downstream End General Rating</b>		<b>4</b>	<b>4</b>	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)		Yes		
Channel Bottom Degrading/Aggrading		DEGRADING		
Beavers (Y/N)		No		
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>7</b>	<b>7</b>	

Maintenance Recommendations										
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #				
SHOTCRETE REPAIRS										
PLACE ADDITIONAL RIP RAP	2012	10m3 / Class II @ D/S.								
REMOVE DRIFT ACCUMULATION										
INSTALL CONCRETE/STEEL LINING										
INSTALL STRUTS										
INSTALL CONCRETE COLLAR/CUTOFF										
REPAIR SEAMS										
OTHER ACTION	2012	Repair erosion around D/S bevel & armour.								
OTHER ACTION	2012	Remove and recast concrete floor or install armour plates.								
OTHER ACTION										
OTHER ACTION										
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>77.8/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>71.6/71.6</b>	<b>Est. Repl. Yr</b>	<b>2024</b>	<b>Maint. Req. (Y/N)</b>	<b>Yes</b>			
Special Comments for Next Inspection			Department Comments							
Maintenance Reviewed By			Date			Estimated Total	0			
Proposed Long-Term Strategy										
On 3-Year Program (Y/N)										
Proposed Action										
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 #
SHOTCRETE REPAIRS						
PLACE ADDITIONAL RIP RAP	2012	10m3 / Class II @ D/S.	Programmed and completed	2012		
REMOVE DRIFT ACCUMULATION						
INSTALL CONCRETE/STEEL LINING						
INSTALL STRUTS						
INSTALL CONCRETE COLLAR/CUTOFF						
REPAIR SEAMS						
OTHER ACTION	2012	Repair erosion around D/S bevel & armour.	Programmed and completed	2012		
OTHER ACTION	2012	Remove and recast concrete floor or install armour plates.	Programmed and completed	2012		
OTHER ACTION						
OTHER ACTION						
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>77.8/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>71.6/71.6</b>	Est. Repl. Yr	2024	Maint. Req. (Y/N) Yes
Special Comments for Next Inspection			Department Comments	DA		
Maintenance Reviewed By	Darron Ahlstedt		Date	05-Nov-2012	Estimated Total	0
Proposed Long-Term Strategy						
On 3-Year Program (Y/N)						
Proposed Action						
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						