

Bridge Culvert Inspection			
Bridge File Number	74150 -1 Bridge Culvert	Form Type	CUL1
Year Built	1955	Lot No.	1
Bridge or Town Name	ROCKY RAPIDS	Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO NORTH SASKATCHEWAN RIVER, 6.139, WATERCRS-ST	Inspector Class	BR CLS A
Located On	22:30 C1 18.064	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	18-Oct-2011
Legal Land Location	SW SEC 28 TWP 49 RGE 7 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-114:58:36, 53:15:20	Data Entry Date	25-Oct-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA11	Review Date	25-Oct-2011
Clear Roadway/Skew	10.7 / -15 deg. (LHF)	Dept. Reviewer Name	Brent Herrick
AADT/Year	6,500 / 2010 (A)	Dept. Review Date	26-Oct-2011
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2019	2226	SPE	40.2	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West and East r/w.	Gas	
Power	6 wires East r/w, 20m from c/l.	Municipal	
Others	Pipeline 30m south.	Problem (Y/N)	No
Remarks	File tag @ West end.		

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Access roads to North. No passing crest curve to North.
Vertical Alignment	7	7	Campground access West of pipe, parallel to Hwy.
Roadway Width (m)	11.400		Deceleration lane over pipe.
Embankment	8	8	
Sideslope (__:1)	3.0		
(Height of Cover(m) : 3)			
Guardrail (Y/N)	Yes		Flexbeam dented at many locations but still functional. West guardrail torn 0.5m long. East side too low - 100mm
Approach Road / Embankment General Rating	7	7	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
Direction	W		A 3050mm dia SPCSP @ 20m U/S.
End Treatment (Concrete, Steel, Others, None)	STEEL		
Headwall	X	X	
Collar	X	X	
Wingwalls	X	X	
(Shape :)			
Cutoff Wall	X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		5	5	Pitting rust on floor.
Heaving (mm)	400			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection		4	4	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		4	4	Scour 0.5m x 1m x 1m next to bevel. Not much rock visible.
Beavers (Y/N)	Yes			10m u/s
Upstream End General Rating		4	4	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE)				
Barrel Last Accessible Date	18-Oct-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	6	
Measured Rise (mm)	2180			
Measured At Ring No.	7			
Sag (mm)	46			
Percent Sag	2			
Sidewall		7	3	
Measured Span (mm)	2080			Perforations extending inot lower sidewall-isolated.
Measured At Ring No.	7			
Deflection (mm)	61			
Percent Deflection	3			
Floor		4	3	Heavy pitting rust, extensive perforations.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		6	6	
Total No. of Cracked Rings	0			1N.
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	3	Leaking through bolt holes. Heavy pitting rust, extensive perforations on floor, extending into lower sidewall.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE)				
Fish Passage Adequacy		4	4	350mm outfall @ D/S.
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		6	3	
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		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		4	4	Pitting rust on floor. Hanging outlet
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)				
Scour Protection		4	4	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		4	4	Scour hole off outlet. 5m x 10m x 1m deep. Vertical banks.
Beavers (Y/N)	No			
Downstream End General Rating		4	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	5	Stream makes sharp turn off D/S end of pipe.
Bank Stability		4	4	2m high vertical bank @ D/S.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		4	4	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2011	Assessment					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	66.7/33.3	Sufficiency Rating (Last/Now) (%)	53.3/38.0	Est. Repl. Yr	2016	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor downstream scour and perforations.		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	Kris Bosters		Previous Assistant's Name	Sara Wadlow			
Next Inspection Date	18-Jul-2013		Previous Inspection Date	05-Nov-2009			
Inspection Cycle (Default) (months)	21						
Comment							