Bridge Culvert Inspection

Bridge File Number	74664 -1 Bridge Culvert	Form Type	CULE
Year Built	1957	Lot No.	4
Bridge or Town Name	CANMORE	Inspector Name	Garry Roberts
Located Over	STEWART CREEK, 2.13.64, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	1:02 R1 12.090;1:02 L1 12.026	Assistant Class	
Water Body Cl./Year		Inspection Date	07-Feb-2012
Navigabil. Cl./Year		Data Entry By	Erin Roberts
Legal Land Location	NW SEC 14 TWP 24 RGE 10 W5M	Data Entry Date	16-Mar-2012
Longitude, Latitude	-115:18:06, 51:03:00	Reviewer Name	Tom Carey
Road Authority	Alberta Transportation (AIT)	Review Date	22-Feb-2012
Contract Main. Area	CMA28	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	26 /	Dept. Review Date	22-Mar-2012
AADT/Year	16,520 / 2010 (A)	Follow-Up By	
Road Classification	RAD-412.4-120		
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts	1

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2430	2430	BP	16			RECTANGLE
1	D/S	2160	1370	FP	39.5			ARCH

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	At North and South ditch.	Gas	
Power		Municipal	
Others	Fibre optics cable in median	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	
Vertical Alignment		7	7	
Roadway Width (m)	26.000			
Embankment		7	7	
Sideslope (__:1)	5.0			
(Height of Cover(m) : **0.5**)				
Guardrail (Y/N)	Yes			Guardrail at North end only.
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		SOUTH END OF FP
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		7	7	
Beavers (Y/N)	Yes			Beaver dam 3m from U/S end
Upstream End General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2430, Rise (mm): 2430, Type: BP**)				
Barrel Last Accessible Date	07-Feb-2012			FP SECTION
Special Features				
Special Feature				Pipe is fenced off
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)	1290			
Measured At Ring No.	5			
Sag (mm)	80			
Percent Sag	5			
Sidewall		7	7	
Measured Span (mm)	2170			
Measured At Ring No.	5			
Deflection (mm)	10			
Percent Deflection				
Floor		6	6	FLOOR SOUNDS HOLLOW @ TRANSITION TO 2m South. Worst bulge @ 10m from d/s end-50mm
Bulge (mm)	50			
Measured At Ring No.	4			
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	50			
Longitudinal Seams		6	6	Rivetted seams
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	ALKALINE STAINS IN ROOF @ CIRCUM. SEAMS. Minor corrosion on floor
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2430, Rise (mm): 2430, Type: BP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	6	Debris build-up in barrel @ mid span
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: D/S, Span (mm): 2160, Rise (mm): 1370, Type: FP**)				
Barrel Last Accessible Date	07-Feb-2012			Concrete box
Special Features				
Special Feature				Pipe is fenced off
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		7	7	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		6	6	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		X	X	
Separation (mm)	0			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: D/S, Span (mm): 2160, Rise (mm): 1370, Type: FP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		**6**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		NORTH END OF BP
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	Minor spall in headwall @ NE
Collar		X	X	
Wingwalls		5	5	Cracked extensively
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	No defined channel
Bank Stability		8	8	
HWM (m below Top of Culvert)	0.0			No visible HWM
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(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 #
SHOTCRETE REPAIRS						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
INSTALL CONCRETE/STEEL LINING						
INSTALL STRUTS						
INSTALL CONCRETE COLLAR/CUTOFF						
REPAIR SEAMS						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**67.1/63.7**	Est. Repl. Yr	2025	Maint. Reqd. (Y/N)	No

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	Garry Roberts	Previous Assistant's Name	
Next Inspection Date	07-Nov-2013	Previous Inspection Date	28-Sep-2010
Inspection Cycle (Default) (months)	21		
Comment			