Bridge Culvert Inspection

Bridge File Number	74364 -1 Bridge Culvert	Form Type	CUL1
Year Built	1957	Lot No.	1
Bridge or Town Name	CANMORE	Inspector Name	Garry Roberts
Located Over	BOW RIVER, 2.13, WATERCRS-ST	Inspector Class	BR CLS A
Located On	1:02 R1 8.906;1:02 L1 8.854	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	06-Feb-2012
Legal Land Location	SE SEC 28 TWP 24 RGE 10 W5M	Data Entry By	Anne Roberts
Longitude, Latitude	-115:19:46, 51:04:18	Data Entry Date	12-Mar-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Tom Carey
Contract Main. Area	CMA28	Review Date	21-Feb-2012
Clear Roadway/Skew	26.4 /	Dept. Reviewer Name	Tim Davies
AADT/Year	16,520 / 2010 (A)	Dept. Review Date	22-Mar-2012
Road Classification	RAD-412.4-120	Follow-Up By	
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	2490	1753	RPP	80.5	152X51	4.0	PIPE ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	North ditch + median	Gas	
Power		Municipal	
Others	Fibre optics cable located in median (AGT)	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	On a grade down to the east. INSTALLED UNDER EAST APPROACH TO FILE 74352W/E
Vertical Alignment		6	6	
Roadway Width (m)	26.400			
Embankment		7	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **4.5**)				
Guardrail (Y/N)	Yes			Culvert located approx 32m from end of guardrail Part of bridge approach rail
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				South end.
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		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	50			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2490, Rise (mm): 1753, Type: RPP**)				
Barrel Last Accessible Date	06-Feb-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	1725			
Measured At Ring No.	23			
Sag (mm)	28			
Percent Sag				
Sidewall		3	3	cracked rings
Measured Span (mm)	2503			
Measured At Ring No.	23			
Deflection (mm)	13			
Percent Deflection				
Floor		7	7	SOUNDS HOLLOW UNDER APPROX. 5% OF FLOOR @ RANDOM SPOTS. Mostly @ u/s 1/3
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		3	3	WEST SIDEWALL HAS CRACKS @ LONGIT SEAM @ RINGs #4,6,12,16&23 &6,25
Total No. of Cracked Rings	6			
Total No. of Rings with Two Cracked Seams	0			70 mm REMAINING STEEL @ RING #23 ROOF HAS STAGGER SIDEWALL HAS NO STAGGER No change in crack growth or rings for last several inspections. Appears stable
Min. Remaining Steel Between Cracks (mm)	70			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		6	6	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2490, Rise (mm): 1753, Type: RPP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	Dry streambed
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**3**	**3**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				North end.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**6**	

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)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
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) (%)	**33.3/33.3**	**Sufficiency Rating (Last/Now) (%)**	**53.3/53.3**	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	06-Nov-2013	Previous Inspection Date	25-Sep-2010		
Inspection Cycle (Default) (months)	21				
Comment					