Bridge Culvert Inspection

Bridge File Number	00723 -1 Bridge Culvert	Form Type	CUL1
Year Built	1981	Lot No.	4
Bridge or Town Name	CARSTAIRS	Inspector Name	Owen Salava
Located Over	ROSEBUD RIVER, 3.33, WATERCRS-ST	Inspector Class	BR CLS A
Located On	581:02 C1 9.554	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	26-Oct-2011
Legal Land Location	SW SEC 13 TWP 30 RGE 29 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-113:57:27, 51:33:42	Data Entry Date	22-Nov-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA29	Review Date	10-Nov-2011
Clear Roadway/Skew	10 / 17 deg. (RHF)	Dept. Reviewer Name	Andrew Smikles
AADT/Year	670 / 2010 (A)	Dept. Review Date	22-Nov-2011
Road Classification	RCU-210-110	Follow-Up By	
Detour Length (km)	4		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	6100	SP	77.4	152X51	5.0,6.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	SOUTH SIDE	Gas	
Power	OVERHEAD N SIDE-3W	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	Shallow sag curve.
Vertical Alignment		8	8	
Roadway Width (m)	9.000			10m over structure btwn guardrail.
Embankment		8	8	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **8**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**8**	**8**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		6	6	Wide cracks throughout. Extra width of concrete poured for collar. Cracked & settled 200mm on both sides.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		N	6	Rock & poured concrete.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **150**)				
Scour/Erosion		N	6	
Beavers (Y/N)	No			
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): , Rise (mm): 6100, Type: SP**)				
Barrel Last Accessible Date	06-Dec-2010			(1.8m of ice. Too wide to measure. 06Dec2010). Shape is good; viewed from ends due to 2m of water.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	N	Est roof & sidewall distortion
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		7	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		7	N	(Lower seams not seen due to ice. 06Dec2010).
Separation (mm)	0			
Longitudinal Seams		N	N	
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)	Yes			
Coating		7	7	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 6100, Type: SP**)				
Fish Passage Adequacy		9	9	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**N**	GR was 7 from 06Dec2010.

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		6	6	Medium Cracks.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	0			
Scour Protection		N	6	Rocks in streambed only. Slopes natural & pitrun gravel.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		N	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		6	6	45 degree bend 25m D/S & u/s.
Bank Stability		8	8	
HWM (m below Top of Culvert)	4.0			
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		**6**	**6**	

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) (%)	**77.8/55.6**	**Sufficiency Rating (Last/Now) (%)**	**80.3/70.3**	Est. Repl. Yr	2032	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	Owen Salava	Previous Assistant's Name			
Next Inspection Date	26-Jan-2015	Previous Inspection Date	06-Dec-2010		
Inspection Cycle (Default) (months)	39				
Comment					