Bridge Culvert Inspection

Bridge File Number	74818 -1 Bridge Culvert	Form Type	CULM
Year Built	1958	Lot No.	3
Bridge or Town Name	INNISFAIL	Inspector Name	Owen Salava
Located Over	TRIBUTARY TO WASKASOO CREEK, 3.81.3, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	2:24 R1 11.035;2:24 L1 11.037	Assistant Class	
Water Body Cl./Year		Inspection Date	14-Mar-2013
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	SW SEC 20 TWP 36 RGE 27 W4M	Data Entry Date	26-Mar-2013
Longitude, Latitude	-113:49:55, 52:06:17	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	16-Mar-2013
Contract Main. Area	CMA19	Dept. Reviewer Name	Chris Black
Clear Roadway/Skew	26 / 15 deg. (RHF)	Dept. Review Date	28-Mar-2013
AADT/Year	30,150 / 2011 (A)	Follow-Up By	
Road Classification	RFD-412.4-130		
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	3658	1829	BP	65.9			RECTANGLE
Special Features		STORM WATER DRAIN						
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	Yes - no marker.	Gas	
Power	Single wire 60m East of Hwy 2 c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	
Vertical Alignment		7	7	
Roadway Width (m)	26.000			
Embankment		7	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **3**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		E		BF81182 30m u/s.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		X	X	
Wingwalls		6	6	Wide cracks. Spall on NE wingwall (minor).
(Shape : **FLARE**)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	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): 1829, Rise (mm): 1829, Type: BP, Cell Sequence: 1**)				
Barrel Last Accessible Date	14-Mar-2013			South cell.
Special Features				
Special Feature		7	7	Typical hairline cracks on walls.
(Type : **STORM WATER DRAIN**)				
Special Feature				
(Type :)				
Roof		6	6	300mm diameter x 50mm deep spall with rust stain beside median drain.
Measured Rise (mm)	1829			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag	0			
Sidewall		6	6	
Measured Span (mm)	1829			
Measured At Ring No.	1			
Deflection (mm)	0			
Percent Deflection	0			
Floor		6	N	(Unevenly poured during construction, no problem. 12Aug2011) - Ice covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	One joint repaired. Form left in place.
Separation (mm)	20			
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	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1829, Type: BP, Cell Sequence: 1**)				
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1829, Type: BP, Cell Sequence: 2**)				
Barrel Last Accessible Date	14-Mar-2013			North cell.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	
Measured Rise (mm)	1829			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag	0			
Sidewall		8	8	
Measured Span (mm)	1829			
Measured At Ring No.	1			
Deflection (mm)	0			
Percent Deflection	0			
Floor		6	N	Ice covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	1 joint repaired with a form and foam.
Separation (mm)	20			
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	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1829, Type: BP, Cell Sequence: 2**)				
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**8**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		X	X	
Wingwalls		6	6	Spall on the SW wingwall, minor. Tree growing in gap at NW wing.
(Shape : **FLARE**)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		6	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	N	Snow covered.
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				
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	2013	Remove tree from NW wingwall.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**70.9/70.8**	Est. Repl. Yr	2043	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor conrete around median drain.	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	14-Dec-2014	Previous Inspection Date	12-Aug-2011
Inspection Cycle (Default) (months)	21		
Comment			