Bridge Culvert Inspection

Bridge File Number	78273 -1 Bridge Culvert	Form Type	CUL1
Year Built	1997	Lot No.	1
Bridge or Town Name	RICINUS	Inspector Name	Owen Salava
Located Over	TAY RIVER, 6.159.14, WATERCRS-ST	Inspector Class	BR CLS A
Located On	752:02 C1 3.330	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	09-Feb-2012
Legal Land Location	NE SEC 15 TWP 36 RGE 11 W5M	Data Entry By	Marcia Chavez
Longitude, Latitude	-115:29:08, 52:05:50	Data Entry Date	06-Mar-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA18	Review Date	23-Feb-2012
Clear Roadway/Skew	15 / 25 deg. (RHF)	Dept. Reviewer Name	Andrew Smikles
AADT/Year	150 / 2010 (A)	Dept. Review Date	15-Mar-2012
Road Classification	RCU-209G-90	Follow-Up By	
Detour Length (km)	50		

Bridge Culvert Information

Number of Culverts	1

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3360	SP	62.8	152X51		ROUND

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Curve in both directions.
Vertical Alignment		7	7	In bottom of sag, uphill grade both directions. 3.2km North of jct Hwy 734/732.
Roadway Width (m)	10.800			
Embankment		4	6	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **4.3**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		5	5	Cracking both sides - photo.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		4	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		4	N	(SW embankment settled - photo. 05Jul2005).
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**4**	GR carried forward from 05Jul2005.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3360, Type: SP**)				
Barrel Last Accessible Date	09-Feb-2012			Ice to 1m of roof.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	6	Unable to measure due to ice.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	6	Unable to measure due to ice.
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	6	
Separation (mm)				
Longitudinal Seams		N	6	(4mm gap in sidewall seam D/S end / last ring. 2mm gap in roof seam R2. 00/01/26).
Total No. of Cracked Rings				
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		N	6	
Corrosion By Soil (Y/N)	No			
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): , Rise (mm): 3360, Type: SP**)				
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		8	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		7	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	Based on scour from 05Jul2005.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		4	4	Minor vertical cutbank at NW bank.
HWM (m below Top of Culvert)				HWM not visible. Deadfall in d/s channel.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(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	2012	Dewater and Level II inspection.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**71.4/71.0**	Est. Repl. Yr	2050	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Check ASAP, barrel measurements, sag & deflection	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	Dave Lam	Previous Assistant's Name			
Next Inspection Date	09-May-2015	Previous Inspection Date	05-Jul-2005		
Inspection Cycle (Default) (months)	39				
Comment					