Bridge Culvert Inspection

Bridge File Number	72573 -1 Bridge Culvert	Form Type	CUL1
Year Built	1987	Lot No.	1
Bridge or Town Name	TALBOT	Inspector Name	Owen Salava
Located Over	TRIBUTARY TO RIBSTONE CREEK, 5.2.8, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	599:06 C1 9.715	Assistant Class	
Water Body Cl./Year		Inspection Date	29-Jun-2012
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	SE SEC 1 TWP 38 RGE 10 W4M	Data Entry Date	15-Jul-2012
Longitude, Latitude	-111:17:28, 52:13:49	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	05-Jul-2012
Contract Main. Area	CMA22	Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	9.6 / 8 deg. (RHF)	Dept. Review Date	19-Jul-2012
AADT/Year	720 / 2011 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts	1

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2607	1628	RPE	57	152X51	3.0	ELLIPSE

Special Features	VERT TIMBER STRUTS
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	South r/w.	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks	Telus crossing 200m East.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection 30m East. In sag. No passing. Poor sight distance to West.
Vertical Alignment		6	6	
Roadway Width (m)	9.600			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **5**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		4	4	Scour @ underside of bevel. Bevel sounds hollow to 1m in barrel.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		4	4	
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2607, Rise (mm): 1628, Type: RPE**)				
Barrel Last Accessible Date	06-Oct-2009			Upper 1/4 accessible before water too deep to continue; struts in good condition, stable.
Special Features				
Special Feature		8	8	150 x 200mm treated timber. Struts placed Sept. 1990.
(Type : **VERT TIMBER STRUTS**)				
Special Feature				
(Type :)				
Roof		2	N	Struts appear to have stabilized the roof.
Measured Rise (mm)	1360			
Measured At Ring No.	7			
Sag (mm)	268			(16.5%. 06Oct2009).
Percent Sag	17			
Sidewall		3	N	(Sidewall buckling - photo. Ring 11 worst. 06Oct2009).
Measured Span (mm)	2710			
Measured At Ring No.	9			
Deflection (mm)	103			
Percent Deflection	4			
Floor		N	N	Floor silt covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		6	6	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	No			
Coating		6	6	Through bolt holes.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2607, Rise (mm): 1628, Type: RPE**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**3**	**2**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	Ingrown.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		7	7	
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)	Yes			
(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) (%)	**33.3/22.2**	**Sufficiency Rating (Last/Now) (%)**	**49.7/44.4**	Est. Repl. Yr	2021	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	No action on roof & sidewalls, strutted & stable. Emailed LRA to Donald Saunders 05Jul2012.	Department Comments	

Maintenance Reviewed By		Date		Estimated Total	0
Proposed Long-Term Strategy	2004.09.23 Install liner in culvert if it continuew to deflect (2010).				
On 3-Year Program (Y/N)					
Proposed Action					
Previous Inspector's Name	Owen Salava	Previous Assistant's Name			
Next Inspection Date	29-Sep-2015	Previous Inspection Date	06-Oct-2009		
Inspection Cycle (Default) (months)	39				
Comment					