Bridge Culvert Inspection

Bridge File Number	71886 -1 Bridge Culvert	Form Type	CUL1
Year Built	1952	Lot No.	1
Bridge or Town Name	CHIP LAKE	Inspector Name	Todd Warshawski
Located Over	TRIBUTARY TO LOBSTICK RIVER, 8.11.84.51.20, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	16:08 L1 36.633	Assistant Class	
Water Body Cl./Year		Inspection Date	16-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 32 TWP 53 RGE 10 W5M	Data Entry Date	28-Aug-2012
Longitude, Latitude	-115:25:49, 53:37:01	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	24-Aug-2012
Contract Main. Area	CMA12	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	12.7 /	Dept. Review Date	30-Aug-2012
AADT/Year	6,230 / 2011 (A)	Follow-Up By	
Road Classification	RAD-412.4-120		
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	-	1830	SP	32.9	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	North r/w	Gas	
Power	1 wire North r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	BF TAG ON U/S BEVEL.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection 500m East. On a curve turning North.
Vertical Alignment		8	8	
Roadway Width (m)	12.700			WBL.
Embankment		7	6	1:1 over pipe. 2:1 on shoulders.
Sideslope (__:1)	1.0			
(Height of Cover(m) : **4.5**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream 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	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		N	N	Under water.
Heaving (mm)	450			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		6	N	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	N	
Beavers (Y/N)	Yes			Large beaver dam 10m u/s.
Upstream End General Rating		**6**	**N**	Previous rating was 6

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1830, Type: SP**)				
Barrel Last Accessible Date	08-Oct-2003			Pipe submerged.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(@ c/l, rise 1762mm (7.3% def). 2003/10/08)
Measured Rise (mm)	1762			
Measured At Ring No.				
Sag (mm)	139			
Percent Sag	7			
Sidewall		N	N	(@ c/l, span 1879mm (9.0% def). 2003/10/08)
Measured Span (mm)	1879			
Measured At Ring No.				
Deflection (mm)	155			
Percent Deflection	9			
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
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)				(1N stagger. 08/Mar/2007)
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		N	N	(Some pitting on lower sidewall. 2003/10/08)
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): 1830, Type: SP**)				
Fish Passage Adequacy		5	5	
Baffle		N	N	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		**4**	**4**	G.R. carried forward from 05/June/2005 but barrel last accessed in 2003.

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		Under water.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	N	(Bevel end west corner bent over 300mm. 05/June/2005) Under water.
Heaving (mm)	300			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		N	N	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	
Beavers (Y/N)	Yes			Large beaver dam 10m d/s.
Downstream End General Rating		**N**	**N**	Previous G.R. was "5" from 05/June/2005, bevel governed.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	Stream misaligned with culvert at South end.
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			(Degrading D/S. Beaver dams 10m u/s and d/s.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**5**	

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	Remove beaver dam u/s and d/s.				
OTHER ACTION	2012	Culvert due for replacement. Dewater and inspect actual conditions.				
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**48.9/47.7**	Est. Repl. Yr	2015	Maint. Reqd. (Y/N)	Yes

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	Todd Warshawski	Previous Assistant's Name	
Next Inspection Date	16-May-2014	Previous Inspection Date	13-Sep-2010
Inspection Cycle (Default) (months)	21		
Comment			