Bridge Culvert Inspection

Bridge File Number	75431 -1 Bridge Culvert	Form Type	CULM
Year Built	1961	Lot No.	3
Bridge or Town Name	LACOMBE	Inspector Name	Jason Saly
Located Over	WHELP BROOK, 5.56.2, WATERCRS-ST	Inspector Class	BR CLS A
Located On	2:26 L1 20.493;2:26 R1 20.482	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	20-Mar-2013
Legal Land Location	NW SEC 36 TWP 40 RGE 27 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-113:45:42, 52:29:09	Data Entry Date	01-Apr-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA19	Review Date	26-Mar-2013
Clear Roadway/Skew	22.5 /	Dept. Reviewer Name	Chris Black
AADT/Year	25,890 / 2011 (A)	Dept. Review Date	09-Apr-2013
Road Classification	RFD-412.4-130	Follow-Up By	
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	3656	2438	BP	64.4			RECTANGLE
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		7	7	Curve at North end. Crest to the South. In bottom of sag.
Vertical Alignment		7	7	
Roadway Width (m)	22.500			
Embankment		7	7	(Erosion @ South side of D/S 0.5m x 0.5m x 5m long. 03/05/16). Unable to verify erosion due to vegetative and snow cover. Cracking in the asphalt over the pipe.
Sideslope (__:1)	4.0			
(Height of Cover(m) : **3**)				
Guardrail (Y/N)	Yes			Timber blocking broken at 2 posts, W rail.
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		X	X	
Wingwalls		5	5	Separated at seam from barrel 40mm and inward 95mm. 2 vertical cracks in wings.
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		5	N	Snow covered.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1828, Rise (mm): 2438, Type: BP, Cell Sequence: 1**)				
Barrel Last Accessible Date	20-Mar-2013			South box.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	7	Could not measure due to ice.
Measured Rise (mm)	2438			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag	0			
Sidewall		N	7	Span at E end=1831=3mm Span at W end=1824=4mm At mid span.
Measured Span (mm)	1805			
Measured At Ring No.				
Deflection (mm)	23			Inwards 1.3%
Percent Deflection	1			
Floor		N	N	Ice covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	6	
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)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1828, Rise (mm): 2438, Type: BP, Cell Sequence: 1**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1828, Rise (mm): 2438, Type: BP, Cell Sequence: 2**)				
Barrel Last Accessible Date	20-Mar-2013			North box.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	7	Could not measure rise due to ice.
Measured Rise (mm)	2438			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag	0			
Sidewall		N	7	Span at mid=1830=2mm Span at W end=1830=2mm At E end.
Measured Span (mm)	1812			
Measured At Ring No.				
Deflection (mm)	16			Inwards
Percent Deflection	1			0.9%
Floor		N	N	Ice covered.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	6	
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)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1828, Rise (mm): 2438, Type: BP, Cell Sequence: 2**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		X	X	
Wingwalls		5	5	Separated at seam from barrel 50mm at SE. Vertical cracking & delam at NE.
(Shape :)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		7	N	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	

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 #
OVERLAY DECK						
SHOTCRETE REPAIRS						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
INSTALL CONCRETE/STEEL LINING						
INSTALL STRUTS						
INSTALL CONCRETE COLLAR/CUTOFF						
REPAIR SEAMS						
OTHER ACTION	2013	Replace 2 guardrail blocks.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/77.8**	**Sufficiency Rating (Last/Now) (%)**	**60.1/71.1**	Est. Repl. Yr	2043	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	(Monitor erosion at d/s, S side, with photos. 05/03/26). Monitor separation at seam on wingwalls.	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	20-Dec-2014	Previous Inspection Date	15-Sep-2011
Inspection Cycle (Default) (months)	21		
Comment			