

Bridge Culvert Inspection			
Bridge File Number	76797 -1 Bridge Culvert	Form Type	CULM
Year Built	1968	Lot No.	4
Bridge or Town Name	ENTRANCE	Inspector Name	Todd Warshawski
Located Over	JARVIS CREEK, 8.11.118.3.4, WATERCRS-ST	Inspector Class	BR CLS B
Located On	40:30 C1 19.633	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	30-Oct-2012
Legal Land Location	SE SEC 8 TWP 52 RGE 26 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-117:47:19, 53:28:21	Data Entry Date	19-Nov-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA13	Review Date	13-Nov-2012
Clear Roadway/Skew	8.5 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	2,040 / 2011 (A)	Dept. Review Date	20-Nov-2012
Road Classification	RAU-209-110	Follow-Up By	
Detour Length (km)	420		

**Bridge Culvert Information**

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2019	2226	SPE	33.5	152X51	2.8	ELLIPSE
2	MAIN	2019	2226	SPE	33.5	152X51	2.8	ELLIPSE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	East r/w.	Gas	
Power	1 wire East r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	File tag in place.		

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Curve to the south.
Vertical Alignment		7	7	
Roadway Width (m)	8.500			
Embankment		N	N	Snow cover, no problems apparent.
Sideslope (__:1)	3.0			
(Height of Cover(m) : 3)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>6</b>	<b>6</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Span Type: Primary Span)</b>				
Direction		W		South pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			Water/ice to 0.8m from crown.
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Span Type: Primary Span)</b>				
Cutoff Wall		X	X	
Bevel End		N	N	No evident problem.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	N	Snow cover.
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	G.R. was 7 in 16/Aug/2005 but elements not rated in 2005 either.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE)</b>				
Barrel Last Accessible Date				Viewed from ends. Overall shape seems deflected but no measurements with lack of access.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	N	Est sag.-Aug,2005
Measured Rise (mm)				Estimates appear high
Measured At Ring No.				
Sag (mm)	300			
Percent Sag	13			
Sidewall		N	N	Est deflection.-Aug,2005
Measured Span (mm)				Estimates appear high.
Measured At Ring No.				
Deflection (mm)	300			
Percent Deflection	14			
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)				
Longitudinal Seams		N	N	
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		N	N	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		9	8	
Baffle		X	X	
(Type : )				
Waterway Adequacy		5	6	(16/Aug/2005)
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>3</b>	<b>3</b>	G.R. carried forward, previously G.R.=3 from 20/Apr/2007 inspection.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		E		South culvert.
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	No evident problems. Under water/ice.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	N	Snow cover. No problem evident.
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	G.R. was 7 since 16/Aug/2005 but elements not rated in 2005 either.
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		W		North pipe. Ice 0.8m from crown.
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
<b>(Pipe # : 2, Span Type: Secondary Span)</b>				
Bevel End		N	N	No evident problems.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	N	Snow covered. No problems evident.
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	G.R. was '7' since 16/Aug/2005 but elements not rated in 2005 either.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE)</b>				
Barrel Last Accessible Date				Viewed from ends. Overall shape seems deflected but no dimensions due to lack of access.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	N	Est only.-Aug, 2005
Measured Rise (mm)				Estimate appears to be high.
Measured At Ring No.				
Sag (mm)	300			
Percent Sag	13			
Sidewall		N	N	Est deflection. -Aug, 2005 Estimate appears to be high.
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	300			
Percent Deflection	13			
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)				
Longitudinal Seams		N	N	
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	N	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type : )				
Waterway Adequacy		7	6	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>3</b>	<b>3</b>	G.R. carried forward. Previous G.R. was "3" from 20/Apr/2007 inspection.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		North pipe.
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	No evident problems.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	N	Snow covered. No problems evident.
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	G.R. carried forward since 16/Aug/2005 but elements not rated in 2005 either.
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	5	90 deg turn 20m d/s.
Bank Stability		N	5	Vertical banks d/s.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			0.7m in Nov 2010.
Channel Bottom Degrading/Aggrading				Unknown.
Beavers (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>7</b>	<b>5</b>	

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							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>33.3/33.3</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>45.2/47.2</b>	Est. Repl. Yr	2025	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Last barrel inspection date is unknown. Based on shape of roof Level 2 inspection not required at this time. Estimated sag/defl appears aggressive.		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	Shane Hall		Previous Assistant's Name				
Next Inspection Date	30-Jul-2014		Previous Inspection Date	24-Nov-2010			
Inspection Cycle (Default) (months)	21						
Comment							