

Bridge Culvert Inspection			
Bridge File Number	74990 -1 Bridge Culvert	Form Type	CUL1
Year Built	1983	Lot No.	2
Bridge or Town Name	HOLYOKE	Inspector Name	Todd Warshawski
Located Over	TRIBUTARY TO MURIEL CREEK, 7.5.8, WATERCRS-ST	Inspector Class	BR CLS B
Located On	657:04 C1 2.331	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	14-Dec-2011
Legal Land Location	NW SEC 19 TWP 59 RGE 4 W4M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-110:36:18, 54:07:08	Data Entry Date	14-Jan-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA08	Review Date	04-Jan-2012
Clear Roadway/Skew	9.7 / 9 deg. (RHF)	Dept. Reviewer Name	Brent Herrick
AADT/Year	940 / 2010 (A)	Dept. Review Date	18-Jan-2012
Road Classification	RCU-210-110	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	-	2430	SP	48.8	152X51	3.0	ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	West r/w.	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag installed @ top of East end roof.		

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Curve to south.
Vertical Alignment	7	7	Slight sag, grade to North.
Roadway Width (m)	9.700		
Embankment	7	7	
Sideslope ( __:1)	3.0		
(Height of Cover(m) : 5.4)			
Guardrail (Y/N)	No		
<b>Approach Road / Embankment General Rating</b>	<b>7</b>	<b>7</b>	

**Upstream End**

Culvert Component	Last	Now	Explanation of Condition
Direction	E		
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		7	6	
Heaving (mm)	200			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	7	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		7	7	
Beavers (Y/N)	Yes			Beaver dam debris in pipe.
<b>Upstream End General Rating</b>		<b>7</b>	<b>6</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : <b>1</b> , Primary Span, Location Code: <b>MAIN</b> , Span (mm): , Rise (mm): <b>2430</b> , Type: <b>SP</b> )				
Barrel Last Accessible Date	14-Dec-2011			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		7	7	Not measured due to ice. Shape and condition appear good.
Measured Rise (mm)				
Measured At Ring No.				(20/Mar/2002)
Sag (mm)	75			
Percent Sag	3			
Sidewall		7	7	Ice to high to measure.
Measured Span (mm)	2370			(20/Mar/2002)
Measured At Ring No.				
Deflection (mm)	54			
Percent Deflection	2			
Floor		N	N	Ice covered.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	7	
Separation (mm)	0			
Longitudinal Seams		N	6	Some plates not nested properly, appears to be a problem with the radius of the plates. Sections of lower seam under water/ice. Upper 1/2 inspected.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		6	6	Minor superficial rust water level down.-Aug, 2008
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			0.8 m - Aug, 2008

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2430, Type: SP)					
Fish Passage Adequacy		7	7		
Baffle		X	X		
(Type : )					
Waterway Adequacy		8	6	Debris caught in pipe.	
Icing (Y/N)	No				
Silting (Y/N)	No				
Drift (Y/N)	Yes				
<b>Barrel General Rating</b>		<b>N</b>	<b>6</b>		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
Direction		W			
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape : )					
Cutoff Wall		X	X		
Bevel End		7	7		
Heaving (mm)	150				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	300				
Scour Protection		4	N	Insufficient rock as fill around bevel is scoured out 0.5m deep at existing water level.-Aug,2008	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 300)					
Scour/Erosion		4	N		
Beavers (Y/N)	No				
<b>Downstream End General Rating</b>		<b>4</b>	<b>4</b>	GR carried fwd from Aug 10,2008.	
Structure Usage					
		Last	Now	Explanation of Condition	
<b>Channel (U/S and D/S)</b>					
Alignment		7	7		
Bank Stability		4	N	Large scour hole @ both ends which may indicate pipe is under sized.-Aug, 2008	
HWM (m below Top of Culvert)				HWM not visible.	
Drift (Y/N)	Yes				
Channel Bottom Degrading/Aggrading					
Beavers (Y/N)	Yes				
(Fish Compensation Measure 1 : NONE)					
(Fish Compensation Measure 2 : NONE)					
<b>Channel General Rating</b>		<b>4</b>	<b>4</b>	GR carried fwd from Aug 10, 2008.	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2012	30m3 around West bevel, if not already done.					
REMOVE DRIFT ACCUMULATION	2012	Remove beaverdam debris from pipe.					
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>55.6/66.7</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>62.1/59.5</b>	Est. Repl. Yr	2035	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Watch for worsening of scout holes at both ends.		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	14-Mar-2015		Previous Inspection Date	10-Aug-2008			
Inspection Cycle (Default) (months)	39						
Comment							