

Bridge Culvert Inspection			
Bridge File Number	78535 -1 Bridge Culvert	Form Type	CUL1
Year Built	1988	Lot No.	4
Bridge or Town Name	GRANADA	Inspector Name	Todd Warshawski
Located Over	TRIBUTARY TO LOBSTICK RIVER, 8.11.84.51.14, WATERCRS-ST	Inspector Class	BR CLS B
Located On	16:10 R1 3.662	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	10-Aug-2012
Legal Land Location	NW SEC 26 TWP 53 RGE 10 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-115:22:16, 53:36:48	Data Entry Date	27-Aug-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA12	Review Date	27-Aug-2012
Clear Roadway/Skew	12.5 / 10 deg. (RHF)	Dept. Reviewer Name	Brent Herrick
AADT/Year	6,530 / 2011 (A)	Dept. Review Date	30-Aug-2012
Road Classification	RAD-412.4-120	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	-	2740	SP	59.2	152X51	3.0	ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments				
Telephone	North r/w.	Gas		
Power	3 lines O/H South r/w.	Municipal		
Others		Problem (Y/N)	No	
Remarks	File tag on S bevel.			

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	In gradual curve with good sight distance.
Vertical Alignment		6	6	Crest to W, rise to E.
Roadway Width (m)	12.500			EBL. - Repaved in 2009
Embankment		6	6	
Sideslope (__:1)	2.0			
(Height of Cover(m) : 6.4)				
Guardrail (Y/N)	Yes			3.5 m off of shoulders, both sides.
<b>Approach Road / Embankment General Rating</b>		<b>6</b>	<b>6</b>	

**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		5	5	
Heaving (mm)	300			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		4	5	Settlement of fill 900mm East side, 950mm West side. Area is well grassed.
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>400</b> )				
Scour/Erosion		4	5	Loss of fill around bevel. 2mx1mx1.5m Area is grassed in.
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>4</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2740, Type: SP)				
Barrel Last Accessible Date	09-Mar-2007			Viewed from ends, shape and condition appear ok. Silt in barrel up to 1m thick.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	N	(Outlet 2718mm. 2003/10/07)
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	100			
Percent Sag	4			
Sidewall		N	N	U/S - 2697. Deep silt & water. -March, 2007 (4.1%. 09/Mar/2007)
Measured Span (mm)	2852			
Measured At Ring No.	3			
Deflection (mm)	112			
Percent Deflection	4			
Floor		N	N	Silt on floor.-21-Nov-2008
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	1N stagger.
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)	Yes			
Coating		6	N	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2740, Type: SP)				
Fish Passage Adequacy		8	8	
Baffle (Type : )		X	7	
Waterway Adequacy		7	7	(Grass caught on top bolts. Has flowed full at some point. Silted 1200mm. 2000/04/18) 1m of silt in barrel.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>N</b>	<b>N</b>	Previously rated "6" on 09/Mar/2007.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)		STEEL		
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape : )		X	X	
Cutoff Wall		X	X	
Bevel End		N	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed		BELOW		
Above/Below (mm)	1000			
Scour Protection (Type : <b>RIP RAP</b> ) (Avg. Rock Size(mm) : <b>300</b> )		6	6	
Scour/Erosion		6	6	
Beavers (Y/N)		No		
<b>Downstream End General Rating</b>		<b>6</b>	<b>6</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		5	5	Meandering creek. Creek ponds and twists for 400m along median before crossing WB lane at BF 71885.
Bank Stability		5	5	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)		Yes		
Channel Bottom Degrading/Aggrading		AGGRADING		
Beavers (Y/N)		No		
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>5</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>55.6/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>59.2/60.1</b>	Est. Repl. Yr	2030	Maint. Reqd. (Y/N)	No
Special Comments for Next Inspection	As this structure has not been accessed for 2 or more cycles, a Level 2 inspection is required as per Bim Manual Section 13.9.1.5 Based on observed site evaluations we are recommending that this be deferred to a later date. Monitor erosion at inlet.		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	10-May-2014		Previous Inspection Date	16-Sep-2010			
Inspection Cycle (Default) (months)	21						
Comment							