Bridge Culvert Inspection

Bridge File Number	08244 -1 Bridge Culvert	Form Type	CUL1
Year Built	1997	Lot No.	4
Bridge or Town Name	THORHILD	Inspector Name	Eric Carcoux
Located Over	KENNEDY CREEK, 6.57.3, WATERCRS-ST	Inspector Class	BR CLS A
Located On	18:12 C1 32.536	Assistant Name	Brian Cote
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	26-Aug-2011
Legal Land Location	SW SEC 1 TWP 60 RGE 22 W4M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-113:09:52, 54:09:08	Data Entry Date	27-Sep-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Arnold Assenheimer
Contract Main. Area	CMA07	Review Date	26-Sep-2011
Clear Roadway/Skew	11.8 / 0 deg.	Dept. Reviewer Name	Brent Herrick
AADT/Year	1,220 / 2010 (A)	Dept. Review Date	28-Sep-2011
Road Classification	RAU-209-110	Follow-Up By	
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	6649	3759	RPA	26.8	152X51	5.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	1 wire North r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Field entrances East & West.
Vertical Alignment		7	7	Suttle crest curve over pipe to provide sufficient cover.
Roadway Width (m)	9.200			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **0.5**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		7	7	Narrow transverse cracks @ 300mm spacing.
Wingwalls		7	7	
(Shape : **FLARE**)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1180			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 6649, Rise (mm): 3759, Type: RPA**)				
Barrel Last Accessible Date	17-Dec-2009			Not accessible due to depth of water.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	7	(Measured near centerline. 00/09/29)
Measured Rise (mm)	3780			Viewed from ends-shape looks good.
Measured At Ring No.				
Sag (mm)	21			
Percent Sag	1			
Sidewall		7	7	
Measured Span (mm)	6540			
Measured At Ring No.	5			
Deflection (mm)	109			
Percent Deflection	2			
Floor		N	N	Water covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	N	
Separation (mm)	0			
Longitudinal Seams		7	N	
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)	No			
Coating		6	N	(Leaking through bolt holes.-14-Mar-2000)
Corrosion By Soil (Y/N)	No			Minor superficial rust at lower half.-17-Dec-2009
Corrosion By Water (Y/N)	Yes			
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): 6649, Rise (mm): 3759, Type: RPA**)				
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**N**	Last rated 7 on 17-Dec-2009

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	Narrow transverse cracks.
Collar		7	7	Wide crack @ lower East side.
Wingwalls		7	7	
(Shape : **FLARE**)				
Cutoff Wall		N	N	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1180			
Scour Protection		6	6	.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**6**	

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 #
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						

Structural Condition Rating (Last/Now) (%)	**77.8/55.6**	**Sufficiency Rating (Last/Now) (%)**	**76.7/66.6**	Est. Repl. Yr	2054	Maint. Reqd. (Y/N)	No

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	Eric Carcoux	Previous Assistant's Name			
Next Inspection Date	26-May-2013	Previous Inspection Date	17-Dec-2009		
Inspection Cycle (Default) (months)	21				
Comment					