Bridge Culvert Inspection

Bridge File Number	79744 -1 Bridge Culvert	Form Type	CUL1
Year Built	1983	Lot No.	1
Bridge or Town Name	WAPITI	Inspector Name	Russel Vanderschaaf
Located Over	2ND ORDER TRIBUTARY TO BIG MOUNTAIN CK, 8.10.58.18.3.1.1, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	40:42 C1 12.689	Assistant Class	
Water Body Cl./Year		Inspection Date	21-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 12 TWP 69 RGE 6 W6M	Data Entry Date	24-Sep-2012
Longitude, Latitude	-118:46:49, 54:57:25	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	24-Sep-2012
Contract Main. Area	CMA05	Dept. Reviewer Name	David Morrison
Clear Roadway/Skew	12.3 / 23 deg. (RHF)	Dept. Review Date	18-Dec-2012
AADT/Year	2,640 / 2011 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	300		

Bridge Culvert Information

Number of Culverts	1

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1800	MP	58	125X26	2.8	ROUND

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	3 wire o/h line	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Passing both directions. TWP rd 692 100mm north.
Vertical Alignment		8	8	
Roadway Width (m)	12.300			
Embankment		4	4	Ditch erosion at SE 2.0 x 1.0x20m.-vegetated
Sideslope (__:1)	3.0			
(Height of Cover(m) : **4.1**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		CULVERT BURIED TOO LOW, ALWAYS SUBMERGED,
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		X	X	
Bevel End		N	N	Water covered.
Heaving (mm)	25			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1200			
Scour Protection		N	N	Water covered.
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Water covered.
Beavers (Y/N)	Yes			Snow covered.
Upstream End General Rating		**5**	**5**	GEN. RATING CARRIED FORWARD

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Barrel Last Accessible Date				Water over crown.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)				
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		N	N	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Icing-24-Nov-2010
Baffle		X	X	
(Type :)				
Waterway Adequacy		4	4	Icing over crown.-24-Nov-2010
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**4**	**4**	G.R. CARRIED FORWARD

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		Water over.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	X	Water covered.
Heaving (mm)	25			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1200			
Scour Protection		N	N	Water covered.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Water covered.
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	GEN. RATING CARRIED FORWARD

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		6	6	
HWM (m below Top of Culvert)	0.4			Water frozen above crown.29-Nov-2010
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				stable u/s
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**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	2013	Level 2 inspection, if not done				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**36.2/36.6**	Est. Repl. Yr	2024	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor ditch erosion. THis barrel has been inaccessible for 7 inspections. As per the Bim manual, a level 2 inspection is recommended.	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	Russel Vanderschaaf	Previous Assistant's Name			
Next Inspection Date	21-May-2014	Previous Inspection Date	24-Nov-2010		
Inspection Cycle (Default) (months)	21				
Comment					