Bridge Culvert Inspection

Bridge File Number	07165 -1 Bridge Culvert	Form Type	CUL1
Year Built	1984	Lot No.	2
Bridge or Town Name	HEINSBURG	Inspector Name	Kris Bosters
Located Over	FROG CREEK, 6.7, WATERCRS-ST	Inspector Class	BR CLS A
Located On	646:04 C1 37.498	Assistant Name	Brian Cote
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	10-Dec-2012
Legal Land Location	NW SEC 19 TWP 55 RGE 3 W4M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-110:26:44, 53:46:18	Data Entry Date	15-Jan-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA08	Review Date	19-Dec-2012
Clear Roadway/Skew	9 / 0 deg.	Dept. Reviewer Name	Paul Catt
AADT/Year	630 / 2011 (A)	Dept. Review Date	18-Jan-2013
Road Classification	RCU-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	-	2610	SP	57.9	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Pipe located between a series of horizontal curves. No passing WB.
Vertical Alignment		7	7	
Roadway Width (m)	9.000			
Embankment		5	5	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **8**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
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		6	6	(Bevel exposed 300mm East side. 2003/03/07) Snow covered Superficial rust, but missing material visible.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	N	(Riprap lost when beaver dam was removed.- 2003/03/07) Large beaver dam covers rock.-photo
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		N	N	Not visible under beaver dam & snow.
Beavers (Y/N)	Yes			
Upstream End General Rating		**5**	**5**	G.R. carried forward.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2610, Type: SP**)				
Barrel Last Accessible Date	07-Oct-2009			Not accessible, due to water depth. Barrel viewed from ends and looks good.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	N	
Measured Rise (mm)	2475			
Measured At Ring No.	11			
Sag (mm)	135			
Percent Sag	5			
Sidewall		5	N	
Measured Span (mm)	2762			
Measured At Ring No.	11			
Deflection (mm)	152			
Percent Deflection	6			
Floor		N	N	Water too deep- not visible.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	N	
Separation (mm)	0			
Longitudinal Seams		6	N	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				Seam at 2:00 position is properly lapped.-07-Oct-2009
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	N	Minor superficial rust on water side. Corrosion on sidewall from leakage through bolt holes indicates corrosion by soil is more severe.-07-Oct-2009
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			A viewed from ends.
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): 2610, Type: SP**)				
Fish Passage Adequacy		4	4	Beaver dam blocks fish passage.
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**N**	Last rated 5 on 07-Oct-2009

Downstream 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	
Bevel End		6	N	(Bevel projects 300mm.- 2003/03/07) Not visible, under snow.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		6	N	Snow covered , no signs of erosion through snow.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	N	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**6**	Carried over.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		6	6	
HWM (m below Top of Culvert)				Not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			Large beaver dam blocking inlet.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**6**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS						
PLACE ADDITIONAL RIP RAP	2013	Armour North end if not done already.(approx 5m3class 2)				
REMOVE DRIFT ACCUMULATION	2013	Remove beaver dam.				
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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**57.3/56.7**	Est. Repl. Yr	2033	Maint. Reqd. (Y/N)	Yes

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	Shane Hall	Previous Assistant's Name	
Next Inspection Date	10-Mar-2016	Previous Inspection Date	07-Oct-2009
Inspection Cycle (Default) (months)	39		
Comment			