Bridge Culvert Inspection

Bridge File Number	07809 -2 Bridge Culvert	Form Type	CUL1
Year Built	2006	Lot No.	4
Bridge or Town Name	GRIMSHAW	Inspector Name	Brian Pientsch
Located Over	TRIBUTARY TO PEACE RIVER, 8.10.62, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	740:02 C1 50.650	Assistant Class	
Water Body Cl./Year		Inspection Date	14-Dec-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 8 TWP 82 RGE 23 W5M	Data Entry Date	13-Jan-2013
Longitude, Latitude	-117:33:37, 56:05:59	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	08-Jan-2013
Contract Main. Area	CMA04	Dept. Reviewer Name	David Morrison
Clear Roadway/Skew	9 / 0 deg.	Dept. Review Date	19-Mar-2013
AADT/Year	330 / 2011 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	20		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	4300	SP	42.06	152X51		ROUND
Special Features		CONC FLOOR						
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	10m East	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Farm entrances to the west, vertical & horizontal curves to the east. Road posted to 80km/hr.
Vertical Alignment		7	7	
Roadway Width (m)	9.000			
Embankment		8	8	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **2.8**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**5**	**5**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		9	N	Snow covered.
Collar		9	N	Snow covered.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		9	9	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		9	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **800**)				
Scour/Erosion		9	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**9**	**9**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 4300, Type: SP**)				
Barrel Last Accessible Date	14-Dec-2012			
Special Features				
Special Feature		N	N	Floor lined with concrete on 2006/12/05&06, with new installation
(Type : **CONC FLOOR**)				
Special Feature				
(Type :)				
Roof		9	9	Rise measured on 2006/11/11 prior to concrete floor pour.(2007-05-25)
Measured Rise (mm)	4317			
Measured At Ring No.	6			Sag estimated to similar to rise.
Sag (mm)	17			
Percent Sag	0			
Sidewall		9	9	
Measured Span (mm)	4308			
Measured At Ring No.	6			
Deflection (mm)	8			
Percent Deflection	0			
Floor		N	N	Culvert filled in with gravel during 2007 spring run-off, to above concrete floor lining.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		9	9	
Separation (mm)	0			
Longitudinal Seams		9	9	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			2N stagger
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		9	9	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	POS			
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): 4300, Type: SP**)				
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**9**	**9**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		9	N	Snow covered.
Collar		9	N	Snow covered.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		9	9	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		8	4	Erosion scar NE bank adjacent to outlet.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **800**)				
Scour/Erosion		8	4	
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	Cut slopes d/s
Bank Stability		5	5	
HWM (m below Top of Culvert)	1.0			(08-Oct-2009)
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**5**	

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) (%)	**100.0/100.0**	**Sufficiency Rating (Last/Now) (%)**	**92.1/87.6**	Est. Repl. Yr	2047	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor erosion at d/s NE bank.	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	Kris Bosters	Previous Assistant's Name			
Next Inspection Date	14-Mar-2016	Previous Inspection Date	08-Oct-2009		
Inspection Cycle (Default) (months)	39				
Comment					