Bridge Culvert Inspection

Bridge File Number	70524 -1 Bridge Culvert	Form Type	CULM
Year Built	1994	Lot No.	4
Bridge or Town Name	HIGH PRAIRIE	Inspector Name	Brian Pientsch
Located Over	2ND ORDER TRIBUTARY TO IROQUOIS CREEK, 8.11.80.54.7.1.1.1, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Clem Guenette
Located On	2:52 C1 26.953	Assistant Class	BR CLS B
Water Body Cl./Year		Inspection Date	12-Dec-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 27 TWP 74 RGE 17 W5M	Data Entry Date	12-Jan-2013
Longitude, Latitude	-116:31:21, 55:26:02	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	09-Jan-2013
Contract Main. Area	CMA06	Dept. Reviewer Name	David Morrison
Clear Roadway/Skew	11.9 /	Dept. Review Date	19-Mar-2013
AADT/Year	2,350 / 2011 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	350		

Bridge Culvert Information

Number of Culverts		2						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1600	MPB	16	125X26	2.8	ROUND
2	MAIN	-	1600	MPB	16	125X26	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	S & W sides 15 m.	Gas	
Power		Municipal	
Others	259 m S. railroad	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	On blind curve with limited sight distance. No passing. 50km/h posted @ SE approach.
Vertical Alignment		7	7	
Roadway Width (m)	11.400			
Embankment		6	6	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1.5**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**5**	**5**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	(Scaling patches 300mm x 200mm. May 1, 2009)
Collar		X	X	
Wingwalls		N	N	(Top plank sinking @ aprroach South wing. Top plank broken @ North wing. Small amount of fill lost. not affecting structure. May 1, 2009) Snow covered.
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			(Cast in place above the streambed. May 1, 2009) Snow covered.
Above/Below (mm)	200			
Scour Protection		N	N	Snow covered.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**4**	GR carried forward.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MPB**)				
Barrel Last Accessible Date	12-Dec-2012			South barrel. 1281MM ICE TO ROOF
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	Construction tears in roof - 25mm Estimated - ice on floor
Measured Rise (mm)	1484			
Measured At Ring No.				3/4 from u/s
Sag (mm)	116			
Percent Sag	7			
Sidewall		4	4	3/4 from u/s
Measured Span (mm)	1729			
Measured At Ring No.				
Deflection (mm)	129			
Percent Deflection	8			
Floor		6	6	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	20			
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		6	6	Minor superficial rust on floor.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MPB**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Invert above SB at low flow.
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**4**	**4**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	
Collar		X	X	
Wingwalls		N	N	Under snow.
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		N	N	Under snow.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	GR carried forward.

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Direction		E		North Pipe.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	
Collar		X	X	
Wingwalls		N	N	Snow covered.
(Shape :)				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		N	N	Snow covered.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**5**	GR carried forward.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MPB**)				
Barrel Last Accessible Date	12-Dec-2012			North barrel. 1418mm ice to roof
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	3/4 from u/s.
Measured Rise (mm)	1555			estimated - iceon floor
Measured At Ring No.				
Sag (mm)	45			
Percent Sag	3			
Sidewall		7	7	3/4 from u/s.
Measured Span (mm)	1603			
Measured At Ring No.				
Deflection (mm)	3			
Percent Deflection	0			
Floor		6	6	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	20			
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		6	6	Minor superficial rust on floor.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MPB**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Invert above SB @ low flow.
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	Vertical cracks above culvert. Narrow/medium.
Collar		X	X	
Wingwalls		N	N	Snow covered.
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		N	N	Snow covered.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	GR carried forward.

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)	0.4			(Grass/debris in trees in channel. May 1, 2009)
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			Couldn't tell - snow covered.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				

Structure Usage				
		Last	Now	Explanation of Condition
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) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**46.1/46.0**	Est. Repl. Yr	2040	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	(Monitor wingwalls, May 2009) Deflection in pipes.	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	Brian Pientsch	Previous Assistant's Name	Lisbeth Medina		
Next Inspection Date	12-Sep-2014	Previous Inspection Date	25-Jan-2011		
Inspection Cycle (Default) (months)	21				
Comment					