Bridge Culvert Inspection

Bridge File Number	76961 -1 Bridge Culvert	Form Type	CULM
Year Built	1986	Lot No.	4
Bridge or Town Name	BONANZA	Inspector Name	Russel Vanderschaaf
Located Over	2ND ORDER TRIBUTARY TO POUCE COUPE RIVER, 8.10.97.2.1, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	681:02 C1 1.923	Assistant Class	
Water Body Cl./Year		Inspection Date	06-Mar-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 27 TWP 80 RGE 12 W6M	Data Entry Date	27-Mar-2012
Longitude, Latitude	-119:47:48, 55:57:22	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	22-Mar-2012
Contract Main. Area	CMA05	Dept. Reviewer Name	David Morrison
Clear Roadway/Skew	10 /	Dept. Review Date	31-Oct-2012
AADT/Year	320 / 2011 (A)	Follow-Up By	
Road Classification			
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts	2

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1400	MP	23	68X13	3.5	ROUND
2	MAIN	-	1400	MP	23	68X13	3.5	ROUND

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	3 lines o/h North 16m from c/l	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	
Vertical Alignment		8	8	
Roadway Width (m)	9.100			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **2**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**8**	**8**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Direction		S		West pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	N	Covered by snow & grass Silt build up. (photo)
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	N	Snow covered
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow covered
Beavers (Y/N)	No			
Upstream End General Rating		**N**	**N**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1400, Type: MP**)				
Barrel Last Accessible Date	06-Mar-2011			West pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	7	Can't measure due to ice. Estimated.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	36			
Percent Sag	3			
Sidewall		6	7	c/l of road, 8.4m from u/s end.
Measured Span (mm)	1436			
Measured At Ring No.				
Deflection (mm)	36			
Percent Deflection	3			
Floor		N	N	Can't see due to ice/silt.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	100			
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)				

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1400, Type: MP**)				
Coating		7	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Direction		N		West pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	N	Covered by ice and snow.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	N	Covered by ice and snow.
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Covered by ice and snow.
Beavers (Y/N)	No			
Downstream End General Rating		**N**	**N**	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Direction		S		East pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	N	Snow covered.
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**N**	**N**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1400, Type: MP**)				
Barrel Last Accessible Date	06-Mar-2012			East pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Can't measure due to ice. estimated
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	60			
Percent Sag	4			
Sidewall		6	6	C/L of road, 10m from u/s end.
Measured Span (mm)	1433			
Measured At Ring No.				
Deflection (mm)	33			
Percent Deflection	22			
Floor		N	N	Can't see due to ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	90			
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)				

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1400, Type: MP**)				
Coating		6	6	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Direction		N		East pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	N	Can't see due to snow and grass.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	N	Covered by snow.
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Covered by snow.
Beavers (Y/N)	No			
Downstream End General Rating		**N**	**N**	

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)				No HWM visible.
Drift (Y/N)	No			

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel Bottom Degrading/Aggrading				Stable
Beavers (Y/N)	No			
(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						
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) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**61.5/61.5**	Est. Repl. Yr	2031	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	Laurie McCarron	Previous Assistant's Name	Russel Vanderschaaf		
Next Inspection Date	06-Jun-2015	Previous Inspection Date	19-Nov-2008		
Inspection Cycle (Default) (months)	39				
Comment					