Bridge Culvert Inspection

Bridge File Number	76015 -1 Bridge Culvert	Form Type	CUL1
Year Built	1964	Lot No.	4
Bridge or Town Name	BONANZA	Inspector Name	Russel Vanderschaaf
Located Over	2ND ORDER TRIBUTARY TO POUCE COUPE RIVER, 8.10.97.1.2, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	681:02 C1 10.734	Assistant Class	
Water Body Cl./Year		Inspection Date	06-Mar-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NW SEC 32 TWP 80 RGE 11 W6M	Data Entry Date	27-Mar-2012
Longitude, Latitude	-119:41:49, 55:58:45	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	9.1 /	Dept. Review Date	30-Oct-2012
AADT/Year	320 / 2011 (A)	Follow-Up By	
Road Classification	RCU-209-110		
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	1828	1117	FP	44.6	68X13	2.8	ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	3 wire East r/w	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Field entrance just North of Pipe.
Vertical Alignment		8	8	
Roadway Width (m)	9.100			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1.5**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		E		
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		N	4	(Bevel is dented in 300mm on both sides. End iron is damaged.)
Heaving (mm)	60			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		4	4	Minor scour behind bevel.
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	4	Minor scour behind bevel.
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1828, Rise (mm): 1117, Type: FP**)				
Barrel Last Accessible Date	06-Mar-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	4	C/L of road Estimated due to ice.
Measured Rise (mm)	930			
Measured At Ring No.				
Sag (mm)	87			
Percent Sag	8			
Sidewall		6	7	C/L of road. 11m from u/s end.
Measured Span (mm)	1903			
Measured At Ring No.				
Deflection (mm)	75			
Percent Deflection	4			
Floor		6	6	Bulging 50-100mm in some areas due to construction damage.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	60			
Longitudinal Seams		6	6	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		3	4	Deep pitting rust on floor & sidewalls.
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1828, Rise (mm): 1117, Type: FP**)				
Fish Passage Adequacy		4	4	Culvert is below streambed 1000mm
Baffle		X	X	on d/s end.
(Type :)				
Waterway Adequacy		4	4	Culvert is lower than streambed 1000mm which reduces waterway adequacy.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**4**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	4	Bevel pushed in 300mm on N. Side.
Heaving (mm)	60			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		N	4	Scour 3mWx9mLx1mD
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	4	Scour 3mWx9mLx1mD
Beavers (Y/N)	No			
Downstream End General Rating		**4**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWM NOT VISIBLE
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			NO DEFINED CHANNEL U/S. The ditch is alot higher than the invert.
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) (%)	**55.6/44.4**	**Sufficiency Rating (Last/Now) (%)**	**45.3/40.3**	Est. Repl. Yr	2019	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			