Bridge Culvert Inspection

Bridge File Number	73633 -1 Bridge Culvert	Form Type	CUL1
Year Built	1974	Lot No.	4
Bridge or Town Name	WILD HORSE	Inspector Name	Jason Rusu
Located Over	TRIBUTARY TO SAGE CREEK, 29.7, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	41:02 C1 19.966	Assistant Class	
Water Body Cl./Year		Inspection Date	15-Jan-2012
Navigabil. Cl./Year		Data Entry By	Alyssa Boynton
Legal Land Location	SE SEC 31 TWP 2 RGE 2 W4M	Data Entry Date	01-Mar-2012
Longitude, Latitude	-110:15:07, 49:09:58	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	24-Jan-2012
Contract Main. Area	CMA23	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	9.6 /	Dept. Review Date	11-Mar-2012
AADT/Year	150 / 2010 (A)	Follow-Up By	
Road Classification	RAU-209-110		
Detour Length (km)	27		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2920	3230	SPE	46.3	152X51	2.8,2.8,2.8	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

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

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	In sag curve, good sight distance.
Vertical Alignment		6	6	
Roadway Width (m)	9.600			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **3.6**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		E		West
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		5	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		5	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		5	6	
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2920, Rise (mm): 3230, Type: SPE**)				
Barrel Last Accessible Date	15-Jan-2012			2700mm liner;existing SPE not accessible.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	Measurements for 2700mm CSP. No change.
Measured Rise (mm)	2660			
Measured At Ring No.	2			
Sag (mm)	40			
Percent Sag	1			
Sidewall		3	4	Lined - Unsure why previous rating is 3. D/S section of liner sounds hollow - no grout for three meters completely around pipe.
Measured Span (mm)	2760			
Measured At Ring No.	2			
Deflection (mm)	60			
Percent Deflection	2			
Floor		8	8	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		X	X	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		8	8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
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): 2920, Rise (mm): 3230, Type: SPE**)				
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**4**	Existing barrel has been lined

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		East
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	

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)				HWM Not Visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
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) (%)	**88.9/44.4**	**Sufficiency Rating (Last/Now) (%)**	**81.6/62.5**	Est. Repl. Yr	2050	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	Jason Rusu	Previous Assistant's Name			
Next Inspection Date	15-Oct-2013	Previous Inspection Date	06-Aug-2010		
Inspection Cycle (Default) (months)	21				
Comment					