Bridge Culvert Inspection

Bridge File Number	13527 -1 Bridge Culvert	Form Type	CUL1
Year Built	1959	Lot No.	4
Bridge or Town Name	FALLIS	Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO WABAMUN CREEK, 6.120.6, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	16:12 R1 20.369;16:12 L1 20.388	Assistant Class	
Water Body Cl./Year		Inspection Date	09-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NW SEC 16 TWP 53 RGE 5 W5M	Data Entry Date	21-Aug-2012
Longitude, Latitude	-114:41:13, 53:35:05	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	21-Aug-2012
Contract Main. Area	CMA12	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	25 / -30 deg. (LHF)	Dept. Review Date	22-Aug-2012
AADT/Year	8,640 / 2011 (A)	Follow-Up By	
Road Classification	RAD-412.4-120		
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1742	1922	SPE	143.1	152X51	2.8	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South r/w.	Gas	
Power	3 wires North r/w, 5 wires 200m South.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Approach 400m East. In gradual sag curve, limited sight distance East.
Vertical Alignment		7	7	
Roadway Width (m)	25.000			EBL 12.4m, WBL 12.6m.
Embankment		6	6	3:1 on South side.
Sideslope (__:1)	2.0			
(Height of Cover(m) : **9.6**)				
Guardrail (Y/N)	Yes			On outside shoulders only.
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
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		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		5	5	Gabion mats in ditches. Geotextile fence 3m U/S from invert, silt fence. A few rocks washed into barrel.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1742, Rise (mm): 1922, Type: SPE**)				
Barrel Last Accessible Date	09-Aug-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	
Measured Rise (mm)	1756			
Measured At Ring No.	18			
Sag (mm)	166			
Percent Sag	9			
Sidewall		6	5	50mm dent in sidewall 9 o'clock.
Measured Span (mm)	1870			
Measured At Ring No.	18			
Deflection (mm)	128			
Percent Deflection	7			
Floor		7	7	Few rocks at inlet and sand deposit D/S.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	7	Est 15%, poorly torqued.
Separation (mm)	0			
Longitudinal Seams		6	6	Some bolts look like they were never fully torqued, thread exposed beneath the head. Bolts are at least hand tight.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				R1-R13 no stagger, R14-South end. 1N stagger.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		6	6	Superficial rust along floor.
Corrosion By Soil (Y/N)	No			
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): 1742, Rise (mm): 1922, Type: SPE**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**5**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		7	7	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	Stream bends sharply D/S of the culvert.
Bank Stability		5	5	Steep high banks.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**62.3/62.3**	Est. Repl. Yr	2025	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	Kris Bosters	Previous Assistant's Name			
Next Inspection Date	09-May-2014	Previous Inspection Date	06-Oct-2010		
Inspection Cycle (Default) (months)	21				
Comment					