

Bridge Culvert Inspection			
Bridge File Number	72014 -1 Bridge Culvert	Form Type	CULM
Year Built	1970	Lot No.	2
Bridge or Town Name	SPIRIT RIVER	Inspector Name	Brian Pientsch
Located Over	SPIRIT RIVER, 8.10.72.6, WATERCRS-ST	Inspector Class	BR CLS A
Located On	731:02 C1 16.021	Assistant Name	Brian Cote
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	07-Jul-2011
Legal Land Location	NW SEC 3 TWP 78 RGE 6 W6M	Data Entry By	Lisa Fairhurst
Longitude, Latitude	-118:51:13, 55:44:10	Data Entry Date	12-Aug-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Arnold Assenheimer
Contract Main. Area	CMA05	Review Date	13-Jul-2011
Clear Roadway/Skew	10.1 /	Dept. Reviewer Name	Steve Pasquan
AADT/Year	590 / 2010 (A)	Dept. Review Date	18-Nov-2011
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	5852	6468	SPE	57.9	152X51	3.0,6.0	ELLIPSE
2	MAIN	-		SPE	57.9	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	25m East.	Gas	
Power	28m West of c.l. -7 wire	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Entrances to North & south In sag curve, limited sight distance in both directions.
Vertical Alignment		6	6	
Roadway Width (m)	10.100			
Embankment		7	7	
Sideslope (_ :1)	3.0			
(Height of Cover(m) : 6.4)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		6	6	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		N	3	Scaling with exposed rebar.
Wingwalls		N	X	
(Shape :)				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Cutoff Wall		N	N	
Bevel End		N	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		N	6	
Beavers (Y/N)	No			
Upstream End General Rating		5	3	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 5852, Rise (mm): 6468, Type: SPE)				
Barrel Last Accessible Date	07-Jul-2011			Silt on floor, no rise measurements possible.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Barrel shape looks good.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	230			Estimated.
Percent Sag	5			
Sidewall		6	6	could not measure because of size
Measured Span (mm)	6138			
Measured At Ring No.	9			
Deflection (mm)	286			
Percent Deflection	4			
Floor		N	N	Under silt
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	Alkali build up on bolts.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				1N
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	Superficial rust on floor.
Corrosion By Soil (Y/N)	Yes			
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): 5852, Rise (mm): 6468, Type: SPE)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	7	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		7	6	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		N	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		N	N	
Bevel End		N	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection (Type : NONE) (Avg. Rock Size(mm) :)		N	4	30 x 15 x 1m scour hole d/s of outlet
Scour/Erosion		N	4	Scour hole d/s of outlet.
Beavers (Y/N)	No			
Downstream End General Rating		7	4	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	N	
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Bevel End		N	7	CSP (1800mm dia) extension at u/s end.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		N	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Upstream End General Rating		8	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): , Type: SPE)				
Barrel Last Accessible Date	07-Jul-2011			2050 x 2250, 1800 csp ext@u/s end only accessible to first 6 rings.
Special Features				
Special Feature				Shape appears adequate.
(Type :)				
Special Feature				
(Type :)				
Roof		5	6	Not able to inspect due to silt on floor. Estimated upward.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	53			
Percent Sag	3			
Sidewall		5	5	Inward.
Measured Span (mm)	1970			
Measured At Ring No.	9			
Deflection (mm)	80			
Percent Deflection	4			
Floor		N	N	Can't inspect due to silt.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	4	Clay from circumferential space between pipes washed onto floor of culvert at u/s end.
Separation (mm)	0			
Longitudinal Seams		N	5	Only first 6 rings accessible.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	5	
Corrosion By Soil (Y/N)	Yes			
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): , Type: SPE)				
Ponding (Y/N)	Yes			
Fish Passage Adequacy		3	3	u/s and d/s above the river.
Baffle		X	X	
(Type :)				
Waterway Adequacy		4	4	D/S end full of silt to 200mm below crown.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		5	5	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	N	Silt to 200mm below crown.
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1500			
Scour Protection		N	6	
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	6	
Beavers (Y/N)	No			
Downstream End General Rating		7	N	Last rated 7 on 8-Feb-2006

Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	Rating for main channel. Secondary span out of main channel 200m.South
Bank Stability		8	8	
HWM (m below Top of Culvert)	5.0			HWM not visible. (98-09-02)
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				

Structure Usage				
		Last	Now	Explanation of Condition
Channel General Rating		6	8	

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	2011	Patch collar.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	47.4/44.0	Est. Repl. Yr	2025	Maint. Req. (Y/N)	Yes
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	07-Oct-2014		Previous Inspection Date	18-Dec-2008			
Inspection Cycle (Default) (months)	39						
Comment							