

Bridge Culvert Inspection								
Bridge File Number	86142 -1 Bridge Culvert				Form Type	CUL1		
Year Built	2010				Lot No.	2		
Bridge or Town Name	SPIRIT RIVER				Inspector Name	Russel Vanderschaaf		
Located Over	KSITUAN RIVER, 8.1.65, WATERCRS-ST				Inspector Class	BR CLS B		
Located On	727:02 C1 6.874				Assistant Name			
Water Body Cl./Year					Assistant Class			
Navigabil. Cl./Year					Inspection Date	29-Jun-2012		
Legal Land Location	SW SEC 15 TWP 79 RGE 7 W6M				Data Entry By	Theresa Lacusta		
Longitude, Latitude	-119:00:35, 55:50:26				Data Entry Date	08-Aug-2012		
Road Authority	Alberta Transportation (AIT)				Reviewer Name	Eric Carcoux		
Contract Main. Area	CMA05				Review Date	06-Aug-2012		
Clear Roadway/Skew	9 /				Dept. Reviewer Name	David Morrison		
AADT/Year	240 / 2011 (A)				Dept. Review Date	30-Oct-2012		
Road Classification	RCU-209G-90				Follow-Up By			
Detour Length (km)	23							
Bridge Culvert Information								
Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	11000	6200	AP	89			ARCH
Special Features								
Special Features Comment								
Utilities (Located at)								
Utility Attachments								
Telephone					Gas			
Power					Municipal			
Others					Problem (Y/N)	No		
Remarks								
Approach Road / Embankment								
			Last	Now	Explanation of Condition			
Horizontal Alignment			7	7	No snowmobile sign at top of slopes, creek signs at culvert. Curves at top of hills & in sag.			
Vertical Alignment			6	6				
Roadway Width (m)	9.000							
Embankment			9	3	Erosion occuring at N & S ends on the u/s & d/s wingwall ends.-photo			
Sideslope (_ :1)	4.5							
(Height of Cover(m) : 4.5)					SE corner not vegetated.			
Guardrail (Y/N)	No							
Approach Road / Embankment General Rating			6	6				
Upstream End								
Culvert Component			Last	Now	Explanation of Condition			
Direction			W					
End Treatment (Concrete, Steel, Others, None)	CONCRETE							
Headwall			9	9	Efflorescence at form tie holes at 10 locations on u/s end.-photo			
Collar			9	9				
Wingwalls			7	3	Flexible joint filler failing.-photo			
(Shape :)								
Cutoff Wall			N	N				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		9	9	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 800)				
Scour/Erosion		9	9	
Beavers (Y/N)	No			
Upstream End General Rating		7	3	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 11000, Rise (mm): 6200, Type: AP)				
Barrel Last Accessible Date	29-Jun-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		9	9	Near centerline.
Measured Rise (mm)				Estimated due to water/silt/rock.
Measured At Ring No.				
Sag (mm)	20			
Percent Sag	0			
Sidewall		9	3	Note: Span - 10975 - not able to take at base due to water level.
Measured Span (mm)				Near centerline.
Measured At Ring No.				
Deflection (mm)	19			2 leaking form tie holes w/rust, R6 North side near outlet.-photo
Percent Deflection	0			3 leaking form tie holes with rust R7, South side near outlet.-photo
				Narrow cracking near floor R4 both sides @ K2 point mark.-photo
Floor		N	N	Silt Covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		9	9	Concrete cold joints.
Separation (mm)	0			
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)				
Coating		X	X	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 11000, Rise (mm): 6200, Type: AP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		9	9	
Baffle		N	N	
(Type : SPOILER)				
Waterway Adequacy		9	9	One at u/s end to 0.5m at d/s end.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		9	3	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		9	3	11 form tie holes with efflorescence R6 & R7 at outlet transition both sides. -photo
Collar		9	9	
Wingwalls (Shape :)		7	3	Flexible joint filler failing.-photo
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 800)		9	9	
Scour/Erosion		9	9	
Beavers (Y/N)	No			
Downstream End General Rating		7	3	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		7	3	Some erosion d/s - vertical banks. Drainage system for wingwalls and drainage blankets North bank - scoured and damaged.-photo
HWM (m below Top of Culvert)				No HWM visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				stable
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		8	3	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2012	D/S end along North bank to protect drains 300m3 Class 2.					
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2012	Repair North d/s wingwall drain system.					
OTHER ACTION	2012	Repair erosion at ends of wingwalls.					
OTHER ACTION	2012	Repair leaking form tie holes.					
OTHER ACTION	2012	Repair caulking.					
OTHER ACTION	2012	Seed SE corner.					
OTHER ACTION	2012	Repair cracking at R4.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	100.0/33.3	Sufficiency Rating (Last/Now) (%)	94.8/52.9	Est. Repl. Yr	2070	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Warranty work -Letter sent to ARA Engineering July 12, 2012.		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	Brian Pientsch		Previous Assistant's Name	Clem Guenette			
Next Inspection Date	29-Sep-2015		Previous Inspection Date	05-Mar-2012			
Inspection Cycle (Default) (months)	39						
Comment							