

Bridge Culvert Inspection			
Bridge File Number	86141 -1 Bridge Culvert	Form Type	CUL1
Year Built	2010	Lot No.	2
Bridge or Town Name	SPIRIT RIVER	Inspector Name	Russel Vanderschaaf
Located Over	HOWARD CREEK, 8.1.65.2, WATERCRS-ST	Inspector Class	BR CLS B
Located On	727:02 C1 4.841	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	29-Jun-2012
Legal Land Location	NE SEC 3 TWP 79 RGE 7 W6M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-119:00:11, 55:49:24	Data Entry Date	13-Aug-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA05	Review Date	13-Aug-2012
Clear Roadway/Skew	9 /	Dept. Reviewer Name	David Morrison
AADT/Year	240 / 2011 (A)	Dept. Review Date	30-Oct-2012
Road Classification	RLU-209G-90	Follow-Up By	
Detour Length (km)	18		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	10000	5500	AP	116			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, Howard 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 end on u/s end and N. end on d/s end at ends of wingwalls.
Sideslope (__:1) (Height of Cover(m) : 7.8)	4.5		
Guardrail (Y/N)	Yes		At toe of slopes.
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	3	Exposed anchors rusting from old rail location.-photo
Collar	9	9	Vertical wall between barrel and wingwall.
Wingwalls (Shape :)	8	3	Narrow cracks (shrinkage) North wall. Flexible joint filler failing. Diagonal cracking off drains in winwall.-photo
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)	1450			
Scour Protection		9	9	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 800)				
Scour/Erosion		9	9	
Beavers (Y/N)	No			
Upstream End General Rating		8	3	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 10000, Rise (mm): 5500, Type: AP)				
Barrel Last Accessible Date	29-Jun-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		9	9	Narrow shrinkage cracks throughout structure. Estimated due to water/silt/gravel.
Measured Rise (mm)	5475			
Measured At Ring No.				
Sag (mm)	25			
Percent Sag				
Sidewall		8	3	Measured span 10006 at CL. Narrow heat and shrinkage cracks throughout structure. Small void 0.25x0.03m at N wall GB/58 joint-photo Form tie h/oles leaking small u/s transition, and N wall at 1/2 joint.- photos
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	6			
Percent Deflection	0			
Floor		8	8	Near centerline 850mm silt-gravel d/s end.
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			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 10000, Rise (mm): 5500, Type: AP)				
Fish Passage Adequacy		9	9	
Baffle		N	N	Only able to view some tops.
(Type : SPOILER)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Siltting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		8	3	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		9	9	
Collar		9	9	Vertical wall between barrel and wingwall.
Wingwalls		9	3	Flexible joint filler failing.-photo
(Shape :)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	250			
Scour Protection		9	9	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 800)				
Scour/Erosion		9	9	
Beavers (Y/N)	No			
Downstream End General Rating		9	3	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		7	7	Vertical banks u/s and d/s.
HWM (m below Top of Culvert)				NO HWM visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		8	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	2012	Repair cracks in wingwalls off drains.					
OTHER ACTION	2012	Repair erosion at ends of wingwalls.					
OTHER ACTION	2012	Repair leaking form tie holes.					
OTHER ACTION	2012	Repair caulking at wingwalls.					
OTHER ACTION	2012	Repair void at GB/5B joint.					
OTHER ACTION	2012	Remove exposed anchors at headwall and patch.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	88.9/33.3	Sufficiency Rating (Last/Now) (%)	92.1/56.3	Est. Repl. Yr	2070	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Warranty work - Letter sent to ARA 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							