Bridge Culvert Inspection

Bridge File Number	79377 -2 Bridge Culvert	Form Type	CULM
Year Built	2012	Lot No.	4
Bridge or Town Name	SPRUCE GROVE	Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO ATIM CREEK, 6.65.8.7, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	16:14 R1 16.869;16:14 L1 16.880	Assistant Class	
Water Body Cl./Year		Inspection Date	01-Nov-2012
Navigabil. Cl./Year		Data Entry By	Lisa Fairhurst
Legal Land Location	NE SEC 7 TWP 53 RGE 27 W4M	Data Entry Date	26-Mar-2013
Longitude, Latitude	-113:58:03, 53:34:11	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	25-Mar-2013
Contract Main. Area	CMA11	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	23.8 / -45 deg. (LHF)	Dept. Review Date	02-Apr-2013
AADT/Year	28,500 / 2011 (A)	Follow-Up By	
Road Classification	RAD-412.4-120		
Detour Length (km)			

Bridge Culvert Information

Number of Culverts	2

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1829	SSP	130			ROUND
2	MAIN	-	1829	SSP	33			ROUND

Special Features	
Special Features Comment	

Utilities (Located at)

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

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment			8	Service road to North
Vertical Alignment			7	
Roadway Width (m)	25.900			
Embankment			8	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **4**)				
Guardrail (Y/N)	Yes			North sideslope only
Approach Road / Embankment General Rating			**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type:**)				
Direction		S		West pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall			X	
Collar			X	
Wingwalls			X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type:**)				
Cutoff Wall			X	
Bevel End			9	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection			9	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion			9	
Beavers (Y/N)	Yes			100m u/s.
Upstream End General Rating			**9**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1829, Type: SSP**)				
Barrel Last Accessible Date	20-Oct-2012			During construction
Special Features				
Special Feature				West pipe
(Type :)				
Special Feature				
(Type :)				
Roof			9	
Measured Rise (mm)	1830			c.c.
Measured At Ring No.				
Sag (mm)	0			
Percent Sag	0			
Sidewall			9	
Measured Span (mm)	1830			
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection	0			
Floor			9	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams			9	
Separation (mm)				
Longitudinal Seams			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			8	Weathering steel
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1829, Type: SSP**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	Yes			Up to 0.8m in pipe due to riffle d/s
Fish Passage Adequacy			7	
Baffle			X	
(Type :)				
Waterway Adequacy			7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating			**9**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1829, Type: SSP**)				
Barrel Last Accessible Date	20-Oct-2012			East pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof			9	c.l.
Measured Rise (mm)	1830			
Measured At Ring No.				
Sag (mm)	0			
Percent Sag	0			
Sidewall			9	c.l.
Measured Span (mm)	1830			
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection	0			
Floor			9	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams			9	
Separation (mm)	0			
Longitudinal Seams			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			8	Weathering steel
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1829, Type: SSP**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	Yes			Up to 0.8m due to riffle
Fish Passage Adequacy			7	
Baffle			X	
(Type :)				
Waterway Adequacy			7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating			**9**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type:**)				
Direction		N		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall			X	
Collar			X	
Wingwalls			X	
(Shape :)				
Cutoff Wall			X	
Bevel End			9	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection			9	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion			9	
Beavers (Y/N)	No			
Downstream End General Rating			**9**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment			7	
Bank Stability			7	
HWM (m below Top of Culvert)				Not visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			100m u/s
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				10m d/s
(Fish Compensation Measure 2 : **NONE**)				

Structure Usage				
		Last	Now	Explanation of Condition
Channel General Rating			**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) (%)	**/100.0**	**Sufficiency Rating (Last/Now) (%)**	**/91.0**	Est. Repl. Yr	2060	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		Previous Assistant's Name			
Next Inspection Date	01-Aug-2014	Previous Inspection Date			
Inspection Cycle (Default) (months)	21				
Comment					