

Bridge Culvert Inspection			
Bridge File Number	01201 -1 Bridge Culvert	Form Type	CULE
Year Built/Lined	1967/1989	Lot No.	1
Bridge or Town Name	MORNINGSIDE	Inspector Name	Owen Salava
Located Over	WHELP BROOK, 5.56.2, WATERCRS-ST	Inspector Class	BR CLS A
Located On	604:02 C1 13.916	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	04-Feb-2013
Legal Land Location	SE SEC 5 TWP 42 RGE 26 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-113:42:36, 52:34:47	Data Entry Date	30-Mar-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA17	Review Date	13-Feb-2013
Clear Roadway/Skew	10 / -15 deg. (LHF)	Dept. Reviewer Name	Chris Black
AADT/Year	250 / 2011 (A)	Dept. Review Date	09-Apr-2013
Road Classification	RLU-208-100	Follow-Up By	
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
2	U/S FULL LINER	-	3990	SP	4.578	152X51	3.0	ROUND
2	MAIN FULL LINER	-	3200	MP	61.655	125X26	2.8	ROUND
2	D/S FULL LINER	-	3990	SP	18.507	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	4 wire 10m North of centerline, crosses road 200m E.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Access road SW.
Vertical Alignment		5	7	
Roadway Width (m)	12.600			
Embankment		7	7	No topsoil.
Sideslope (___:1)	2.0			40m ECM SW, NE; 20m SE
(Height of Cover(m) : 8)				
Guardrail (Y/N)	Yes			4 wire cable both sides.
Approach Road / Embankment General Rating		5	7	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		9	N	Snow covered.

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		9	N	Buried.
Bevel End		9	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		8	N	Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		8	N	Snow covered.
Beavers (Y/N)	Yes			20m u/s
Upstream End General Rating		8	8	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 3990, Type: SP)				
Barrel Last Accessible Date	04-Feb-2013			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	Unable to measure due to ice.
Measured Rise (mm)	4010			(d/s end. 13Sep2012).
Measured At Ring No.				(Upwards
Sag (mm)	20			0.5%. 13Sep2012).
Percent Sag	1			
Sidewall		8	8	d/s end
Measured Span (mm)	3960			Inwards
Measured At Ring No.				0.8%
Deflection (mm)	30			
Percent Deflection	1			
Floor		8	N	Ice covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		8	8	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 3990, Type: SP)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		4	5	Step up from bevel to liner about 150mm.
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		8	8	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3200, Type: MP)				
Barrel Last Accessible Date	04-Feb-2013			3310 rise x 3111 span at inlet. Rigid structure due to grouted liner.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		3	3	Isolated bulges in roof from construction; no action - as constructed shape, rigid liner.
Measured Rise (mm)	2850			
Measured At Ring No.				c/l
Sag (mm)	350			
Percent Sag	11			10.9%
Sidewall		3	3	Isolated bulges in sidewall at grout nipples; no action - as constructed shape, rigid liner.
Measured Span (mm)	3550			
Measured At Ring No.				c/l
Deflection (mm)	350			
Percent Deflection	11			10.9%
Floor		7	7	Concrete on floor.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	Void at u/s end of concrete connection btwn pipes.
Separation (mm)	30			
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		6	6	Water staining on floor.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3200, Type: MP)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		4	5	Step up to liner from bevel approx. 150mm.
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		4	4	Increase due to concrete liner.
Downstream 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	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		8	N	Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		8	8	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	5	
Bank Stability		4	4	Sloughing banks d/s; no action required.
HWM (m below Top of Culvert)	1.5			Flow line on sidewall.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			D/S only.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		4	4	

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) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	53.0/59.2	Est. Repl. Yr	2031	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor shape. No action for deflection at grout ports.		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	Wade Nanninga		Previous Assistant's Name				
Next Inspection Date	04-May-2016		Previous Inspection Date	13-Sep-2012			
Inspection Cycle (Default) (months)	39						
Comment							