

Bridge Culvert Inspection				
Bridge File Number	75620 -1 Bridge Culvert		Form Type	CULM
Year Built	1964		Lot No.	4
Bridge or Town Name	HOBHEMA		Inspector Name	Owen Salava
Located Over	TRIBUTARY TO MASKWA CREEK, 5.47.4.1.3, WATERCRS-ST		Inspector Class	BR CLS A
Located On	2:28 R1 23.153;2:28 L1 23.154		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	21-Feb-2013
Legal Land Location	NE SEC 13 TWP 45 RGE 26 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-113:38:37, 52:53:01		Data Entry Date	11-Mar-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA17		Review Date	27-Feb-2013
Clear Roadway/Skew	23 / -10 deg. (LHF)		Dept. Reviewer Name	Chris Black
AADT/Year	24,530 / 2011 (A)		Dept. Review Date	14-Mar-2013
Road Classification	RAD-412.4-120		Follow-Up By	
Detour Length (km)	1			

Bridge Culvert Information

Number of Culverts		2						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2314	2552	SPE	74	152X51	2.8,2.8,2.8	ELLIPSE
2	MAIN	2314	2552	SPE	74	152X51	2.8,2.8,2.8	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone	Yes - no marker.		Gas	
Power	2 wire 40m East of c/l.		Municipal	
Others	Fibre optics @ West r/w.		Problem (Y/N)	Yes
Remarks	(Telus cable exposed along toe of East sideslope. 05/03/06).			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	
Vertical Alignment		8	8	
Roadway Width (m)	23.000			
Embankment		7	7	
Sideslope (_:1)	3.0			
(Height of Cover(m) : 3)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		8	8	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		W		North pipe.
End Treatment (Concrete, Steel, Others, None)		STEEL		
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	5	(Bevel has heaved 75mm above bed leaving gap. 03/05/21).
Heaving (mm)	200			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	75			
Scour Protection		5	N	Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		N	N	(Minor scour under bevel - photo. 03/05/21) - Not visible due to snow.
Beavers (Y/N)	No			
Upstream End General Rating		4	4	G.R. carried forward from unknown date.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: SPE)				
Barrel Last Accessible Date	21-Feb-2013			North pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Unable to measure due to ice.
Measured Rise (mm)	2596			
Measured At Ring No.	15			
Sag (mm)	44			(1.7% upwards. 12Jul2011).
Percent Sag	2			
Sidewall		7	7	Span @ R4 = 2297, 17mm. R22 = 2317, 3mm. R27 = 2310, 4mm.
Measured Span (mm)	2271			
Measured At Ring No.	15			
Deflection (mm)	43			
Percent Deflection	2			1.9% inwards.
Floor		6	N	Ice
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		5	5	1 bolt missing North side ring #5.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			1N

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: SPE)					
Coating		5	5	Minor superficial rusting.	
Corrosion By Soil (Y/N)	No				
Corrosion By Water (Y/N)	Yes				
Camber POS/ZERO/NEG	ZERO				
Ponding (Y/N)	No				
Fish Passage Adequacy		6	6		
Baffle		X	X		
(Type :)					
Waterway Adequacy		7	7		
Icing (Y/N)	No				
Silting (Y/N)	No				
Drift (Y/N)	Yes				
Barrel General Rating		5	5		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Span Type: Primary Span)					
Direction		E		North pipe.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape :)					
Cutoff Wall		X	X		
Bevel End		5	5		
Heaving (mm)	0				
Invert Above/Below Stream Bed	ABOVE				
Above/Below (mm)	300				
Scour Protection		5	N	Snow covered.	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 300)					
Scour/Erosion		5	N	Snow covered.	
Beavers (Y/N)	Yes				
Downstream End General Rating		5	5		
Upstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: Secondary Span)					
Direction		W		South pipe.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	5	Bevel projects from fill 0.2m (& has heaved 75mm above bed leaving gap. 12Jul2011).
Heaving (mm)	150			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	75			
Scour Protection		5	N	Bushes growing at the entrance. Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		5	5	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: SPE)				
Barrel Last Accessible Date	21-Feb-2013			South pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Unable to measure due to ice. Minor damage to D/S end of barrel. 5.4% upward.
Measured Rise (mm)	2690			
Measured At Ring No.	11			
Sag (mm)	138			
Percent Sag	5			
Sidewall		7	7	Span @ R7 = 2290, 24mm. R21 = 2281, 33mm. R25 = 2301, 13mm. 2.2% inward.
Measured Span (mm)	2261			
Measured At Ring No.	14			
Deflection (mm)	51			
Percent Deflection	2			
Floor		5	N	Ice
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		6	6	1N
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: SPE)				
Coating		5	5	Minor superficial rusting.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	Yes			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		6	6	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		South pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	5	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection		5	N	Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		5	5	

Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	Outlet empties into ditch area before entering service road inlets causing swirling currents.
Bank Stability		6	6	
HWM (m below Top of Culvert)				No HWM visible.
Drift (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading				Stable.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		6	6	

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) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	58.5/58.4	Est. Repl. Yr	2033	Maint. Req. (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	Owen Salava		Previous Assistant's Name				
Next Inspection Date	21-Nov-2014		Previous Inspection Date	12-Jul-2011			
Inspection Cycle (Default) (months)	21						
Comment							