

Bridge Culvert Inspection				
Bridge File Number	86258 -1 Bridge Culvert		Form Type	CULM
Year Built	1968		Lot No.	2
Bridge or Town Name			Inspector Name	Russel Vanderschaaf
Located Over	WATERCOURSE, WATERCRS-NI		Inspector Class	BR CLS B
Located On	33:12 C1 19.798		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	11-Feb-2013
Legal Land Location	SE SEC 4 TWP 68 RGE 9 W5M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-115:18:17, 54:51:15		Data Entry Date	23-Apr-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA06		Review Date	07-Apr-2013
Clear Roadway/Skew	11.4 /		Dept. Reviewer Name	
AADT/Year	1,090 / 2012 (A)		Dept. Review Date	
Road Classification	RAU-211.8-110		Follow-Up By	
Detour Length (km)	5			

Bridge Culvert Information								
Number of Culverts		3						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1220	MP	30.21			ROUND
2	MAIN	-	1070	MP	28.676			ROUND
3	MAIN	-	1220	MP	30.054			ROUND
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone		Gas	
Power	4 wire o/h along W row.		Municipal
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	
Vertical Alignment		7	7	
Roadway Width (m)	11.400			
Embankment		7	7	Snow covered and no evident problems.
Sideslope (__:1)	4.0			
(Height of Cover(m) : 2.5)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		7	7	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		E		Culverts submerged in snow-not visible. South pipe
End Treatment (Concrete, Steel, Others, None)		STEEL		
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Cutoff Wall		X	X	
Bevel End		N	N	Under snow.
Heaving (mm)	100			Pipe 1 under drift and snow.(0.05-0.3m in diameter)
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	50			
Scour Protection		N	N	Under snow.
(Type : NONE)				Pipe 1 crown pushed in 100mm.-02-Nov-2012
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow covered
Beavers (Y/N)	No			
Upstream End General Rating		N	4	GR carried over 02-Nov-2012
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1220, Type: MP)				
Barrel Last Accessible Date	02-Nov-2012			South culvert
Special Features				
Special Feature				Culvert submerged in snow
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	
Measured Rise (mm)				
Measured At Ring No.				(estimated due to ice.-02-Nov-2012)
Sag (mm)	78			
Percent Sag	6			
Sidewall		N	N	
Measured Span (mm)	1298			(9.0m from u/s end.-02-Nov-2012)
Measured At Ring No.				
Deflection (mm)	78			
Percent Deflection	6			
Floor		N	N	Surface rust present from piping u/s end.-photo-02-Nov-2012
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	20			
Longitudinal Seams		N	N	Rivetted
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		N	N	Surface rust present from heavy scaling rust and perforations with void. South wall u/s end 0.2mLx0.5mWx0.4mD-02-Nov-2012
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1220, Type: MP)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	5	
Baffle		N	X	
(Type :)				
Waterway Adequacy		N	4	Minor scouring d/s end.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		N	N	GR 5 02-Nov-2012
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		W		South pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall			X	
Collar			X	
Wingwalls			X	
(Shape :)				
Cutoff Wall			X	
Bevel End			N	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection			N	
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion			N	
Beavers (Y/N)	No			
Downstream End General Rating			5	GR carried over 02-Nov-2012
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		Center pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall			X	
Collar			X	
Wingwalls			X	
(Shape :)				
Cutoff Wall			N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Bevel End			N	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	50			
Scour Protection			N	
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion			N	
Beavers (Y/N)	No			
Upstream End General Rating			5	GR carried over 02-Nov-2012
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1070, Type: MP)				
Barrel Last Accessible Date				center pipe
Special Features				
Special Feature				1/2 full of class 1m and smaller rock.-02-Nov-2012
(Type :)				
Special Feature				Couldn't access or view due to snow barrel section.
(Type :)				
Roof		N	N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)				
Longitudinal Seams		N	N	
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		N	N	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1070, Type: MP)				
Ponding (Y/N)				
Fish Passage Adequacy		X	X	Culvert 1/2 full of rock.-02-Nov-2012
Baffle		N	N	
(Type :)				
Waterway Adequacy		N	4	Minor scouring d/s end.-02-Nov-2012
Icing (Y/N)	No			Culvert 1/2 full of rock. Drift over u/s bevel crown.
Silting (Y/N)	Yes			
Drift (Y/N)	Yes			
Barrel General Rating		N	N	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		W		center pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall			X	
Collar			X	
Wingwalls			X	
(Shape :)				
Cutoff Wall			X	
Bevel End			N	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection			N	
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion			N	
Beavers (Y/N)	No			
Downstream End General Rating			5	GR carried over 02-Nov-2012

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
Direction		E		North pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall			X	
Collar			X	
Wingwalls			X	
(Shape :)				
Cutoff Wall			X	
Bevel End			N	Bevel heaving 02-Nov-2012 snow covered
Heaving (mm)	100			

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	50			
Scour Protection			N	(Scour over crown-02-Nov-2012 3.5mLx2.4mWx0.5mD) Snow covered
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion			N	(Scour over crown-02-Nov-2012 3.5mLx2.4mWx0.5mD) Snow covered
Beavers (Y/N)	No			
Upstream End General Rating			3	GR carried over 02-Nov-2012
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1220, Type: MP)				
Barrel Last Accessible Date	02-Nov-2012			North pipe
Special Features				
Special Feature				Completely submerged in snow
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	
Measured Rise (mm)	1136			6.4m from u/s end.-02-Nov-2012
Measured At Ring No.				
Sag (mm)	89			
Percent Sag	7			
Sidewall		N	N	
Measured Span (mm)	1279			13.5m from u/s end. 02-Nov-2012
Measured At Ring No.				
Deflection (mm)	59			
Percent Deflection	5			
Floor		N	N	
Bulge (mm)				Rust from 3:00-9:00.-02-Nov-2012
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)	50			
Longitudinal Seams		N	N	Rivetted
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		N	N	Rust from 3:00 to 9:00.-02-Nov-2012
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1220, Type: MP)				
Fish Passage Adequacy		X	3	Drop off d/s end.-photo
Baffle		N	X	
(Type :)				
Waterway Adequacy		N	4	LArge scour d/s end.
Icing (Y/N)				
Silting (Y/N)				
Drift (Y/N)				
Barrel General Rating		N	5	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
Direction		W		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		N	N	hanging for 1m
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	N	Scour 4mLx3.5mWxapprox 0.5mD.
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Downstream End General Rating		N	3	GR carried over 02-Nov-2012
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		6	3	D/S degrading due to undersized culverts.-photo
HWM (m below Top of Culvert)				HWM not visible over u/s crowns-02-Nov-2012
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		7	3	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2013	Install 60m3 d/s and 20m3 u/s class 1 riprap.					
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2013	Repair d/s scour and scour over pipe 3.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	68.6/38.9	Est. Repl. Yr	2018	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Assessment being completed winter 2012/2013. Monitor perforational cord u/s end and piping pipe 1.		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	Lisbeth Medina			
Next Inspection Date	11-Nov-2014		Previous Inspection Date	06-Apr-2011			
Inspection Cycle (Default) (months)	21						
Comment							