

Bridge Culvert Inspection			
Bridge File Number	73708 -1 Bridge Culvert	Form Type	CULE
Year Built/Lined	1976/2005	Lot No.	4
Bridge or Town Name	NAMAO	Inspector Name	Melanie Johnson
Located Over	TRIBUTARY TO STURGEON RIVER, 6.65.4, WATERCRS-ST	Inspector Class	BR CLS B
Located On	37:04 C1 11.620	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	08-Nov-2011
Legal Land Location	SW SEC 2 TWP 55 RGE 24 W4M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-113:27:53, 53:42:58	Data Entry Date	19-Nov-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA09	Review Date	13-Nov-2011
Clear Roadway/Skew	10 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	5,620 / 2010 (A)	Dept. Review Date	15-Dec-2011
Road Classification	RAU-209-110	Follow-Up By	
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts	3							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
3	U/S FULL LINER	-	1400	MP	8.5	68X13	2.8	ROUND
3	MAIN FULL LINER	-	1219	SSP	22			ROUND
3	D/S FULL LINER	-	1400	MP	8.5	68X13	2.8	ROUND
4	U/S FULL LINER	-	1400	MP	8.5	68X13	2.8	ROUND
4	MAIN FULL LINER	-	1219	SSP	22			ROUND
4	D/S FULL LINER	-	1400	MP	8.5	68X13	2.8	ROUND
5	U/S	-	2000	MP	8.5	125X26	2.8	ROUND
5	MAIN	-	1829	SSP	22			ROUND
5	D/S	-	2000	MP	8.5	125X26	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South r/w.	Gas	
Power	3 wires North r/w. 1 wire 150m West.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Farm entrances both sides. Crest curve to west, limited sight distances. No passing.
Vertical Alignment		7	7	
Roadway Width (m)	9.100			4m berms West each side of Hwy 37.
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : 2.7)				
Guardrail (Y/N)	No			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Approach Road / Embankment General Rating		7	7	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3 , Span Type: Secondary Span)				
Direction		S		West pipe
End Treatment (Concrete, Steel, Others, None)		CONCRETE		
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		N	N	(Few narrow cracks - 29/May/08)
Bevel End		8	8	
Heaving (mm)		0		
Invert Above/Below Stream Bed				
Above/Below (mm)		0		
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 500)		9	8	
Scour/Erosion		9	8	
Beavers (Y/N)		No		
Upstream End General Rating		8	8	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3 , Secondary Span, Location Code: U/S , Span (mm): , Rise (mm): 1400 , Type: MP)				
Barrel Last Accessible Date		08-Nov-2011		West pipe, both extensions.
Special Features				
Special Feature (Type :)				
Special Feature (Type :)				
Roof		8	8	Est.
Measured Rise (mm)		1390		
Measured At Ring No.				
Sag (mm)		10		
Percent Sag		1		
Sidewall		8	8	At c/l.
Measured Span (mm)		1400		
Measured At Ring No.				
Deflection (mm)		0		
Percent Deflection		0		
Floor		N	N	Under water and silt.
Bulge (mm)		0		
Measured At Ring No.				
Abrasion (Y/N)		No		
Circumferential Seams		8	8	
Separation (mm)		0		

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: U/S, Span (mm): , Rise (mm): 1400, Type: MP)				
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		8	8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
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 Extension General Rating		8	8	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1219, Type: SSP)				
Barrel Last Accessible Date	08-Nov-2011			West pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	
Measured Rise (mm)	1200			
Measured At Ring No.				
Sag (mm)	19			
Percent Sag	2			
Sidewall		8	8	At c/l.
Measured Span (mm)	1190			
Measured At Ring No.				
Deflection (mm)	29			
Percent Deflection	2			
Floor		8	8	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	0			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1219, Type: SSP)				
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			
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		8	8	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
Direction		N		West pipe
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	BELOW			
Above/Below (mm)	600			
Scour Protection		9	8	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		9	8	
Beavers (Y/N)	No			
Downstream End General Rating		8	8	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 4, Span Type: Secondary Span)				
Direction		S		East pipe
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		N	N	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	250			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 500)		8	8	
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		8	8	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 4, Secondary Span, Location Code: U/S, Span (mm): , Rise (mm): 1400, Type: MP)				
Barrel Last Accessible Date	08-Nov-2011			East pipe extensions.
Special Features				
Special Feature (Type :)				
Special Feature (Type :)				
Roof		8	8	
Measured Rise (mm)	1400			
Measured At Ring No.				
Sag (mm)	0			
Percent Sag	0			
Sidewall		8	8	
Measured Span (mm)	1398			
Measured At Ring No.				
Deflection (mm)	2			
Percent Deflection	0			
Floor		N	N	Water/silt.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	0			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 4, Secondary Span, Location Code: U/S, Span (mm): , Rise (mm): 1400, Type: MP)				
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		8	8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
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 Extension General Rating		8	8	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 4, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1219, Type: SSP)				
Barrel Last Accessible Date	08-Nov-2011			East pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	
Measured Rise (mm)	1390			at c/l
Measured At Ring No.				
Sag (mm)	10			
Percent Sag	1			
Sidewall		8	8	
Measured Span (mm)	1405			at c/l
Measured At Ring No.				
Deflection (mm)	5			
Percent Deflection	1			
Floor		8	8	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	0			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 4, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1219, Type: SSP)				
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		8	8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
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		8	8	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 4, Span Type: Secondary Span)				
Direction		N		East pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		8	8	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		8	8	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 5, Span Type: Primary Span)				
Direction		S		Center pipe
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		N	N	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 500)		8	8	
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		8	8	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 5, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2000, Type: MP)				
Barrel Last Accessible Date	08-Nov-2011			Center pipe.
Special Features				
Special Feature (Type :)				
Special Feature (Type :)				
Roof		8	8	At D/S.
Measured Rise (mm)	1990			5 m from u/s.
Measured At Ring No.				
Sag (mm)	10			.5%
Percent Sag	1			
Sidewall		8	7	At c/l.
Measured Span (mm)	2025			5m from u/s.
Measured At Ring No.				
Deflection (mm)	25			
Percent Deflection	3			
Floor		N	N	Covered with water.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 5, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2000, Type: MP)				
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	Minor superficial rust along floor.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
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 Extension General Rating		8	7	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 5, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1829, Type: SSP)				
Barrel Last Accessible Date	08-Nov-2011			Center pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	7	@ cl est due to silt on floor
Measured Rise (mm)	1774			
Measured At Ring No.				
Sag (mm)	55			
Percent Sag	3			
Sidewall		8	7	Deep silt U/S, D/S - 1883. At c/l. 2.95%
Measured Span (mm)	1883			
Measured At Ring No.				
Deflection (mm)	54			
Percent Deflection	3			
Floor		N	N	Silt covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	7	Joints misaligned @ U/S connection.
Separation (mm)	10			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 5, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1829, Type: SSP)				
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	Minor superficial rust, no pitting.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
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		8	7	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 5, Span Type: Primary Span)				
Direction		N		Center pipe
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	BELOW			
Above/Below (mm)	200			
Scour Protection		8	8	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		8	8	

Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		7	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) (%)	88.9/77.8	Sufficiency Rating (Last/Now) (%)	82.8/76.8	Est. Repl. Yr	2060	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	Arnold Assenheimer		Previous Assistant's Name				
Next Inspection Date	08-Aug-2013		Previous Inspection Date	16-Mar-2010			
Inspection Cycle (Default) (months)	21						
Comment							