

Bridge Culvert Inspection			
Bridge File Number	86158 -1 Bridge Culvert	Form Type	CULE
Year Built	2007	Lot No.	4
Bridge or Town Name	North Star	Inspector Name	Russel Vanderschaaf
Located Over	WATERCOURSE, WATERCRS-NI	Inspector Class	BR CLS B
Located On	35:06 C1 35.940	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	16-Nov-2011
Legal Land Location	NE SEC 32 TWP 90 RGE 23 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-117:37:33, 56:51:14	Data Entry Date	13-Dec-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA04	Review Date	12-Dec-2011
Clear Roadway/Skew	10.5 / 7 deg. (RHF)	Dept. Reviewer Name	Steve Pasquan
AADT/Year	1,950 / 2010 (A)	Dept. Review Date	09-Jan-2012
Road Classification	RAU-210-110	Follow-Up By	
Detour Length (km)	3		

**Bridge Culvert Information**

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	U/S	-	2000	MP	8.4	125X26	2.8	ROUND
1	MAIN	-	1829	SSP	18		12.5	ROUND
1	D/S	-	2000	MP	10.4	125X26	2.8	ROUND
2	U/S	-	2000	MP	7.4	75X25	2.8	ROUND
2	MAIN	-	1829	SSP	18		12.5	ROUND
2	D/S	-	2000	MP	10.4	75X25	2.8	ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

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

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	6	6	Super evaluation on curve.
Vertical Alignment	7	7	
Roadway Width (m)	10.200		
Embankment	7	7	
Sideslope (__:1)	4.0		
(Height of Cover(m) : )			
Guardrail (Y/N)	Yes		
<b>Approach Road / Embankment General Rating</b>	<b>6</b>	<b>6</b>	

**Upstream End**

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: )			
Direction			West
End Treatment (Concrete, Steel, Others, None)	STEEL		

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: )				
Headwall		X	X	
Collar		X	X	x
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		8	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		8	8	
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>8</b>	<b>7</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2000, Type: MP)				
Barrel Last Accessible Date	16-Nov-2011			South pipe
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		8	8	U/S end.-May 15, 2008 Floor covered with ice.
Measured Rise (mm)	2024			
Measured At Ring No.				Est
Sag (mm)	24			
Percent Sag	0			
Sidewall		8	8	
Measured Span (mm)	1973			dt cl of u/s end.
Measured At Ring No.				
Deflection (mm)	27			deflection inward.
Percent Deflection	0			
Floor		N	N	Covered with ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, 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		7	5	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		9	5	
Baffle		X	X	
(Type : )				
Waterway Adequacy		9	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel Extension General Rating</b>		<b>8</b>	<b>5</b>	

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	16-Nov-2011			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		8	8	Est
Measured Rise (mm)	1821			
Measured At Ring No.				
Sag (mm)	8			
Percent Sag	1			
Sidewall		8	8	
Measured Span (mm)	1823			
Measured At Ring No.				
Deflection (mm)	6			defelction inward.
Percent Deflection	1			
Floor		N	N	Covered with ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		X	X	
Separation (mm)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1829, Type: SSP)</b>				
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	Minor superficial corrosion lower 1/2.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		9	8	
Baffle		X	X	
(Type : )				
Waterway Adequacy		9	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>8</b>	<b>8</b>	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Secondary Span, Location Code: U/S, Span (mm): , Rise (mm): 2000, Type: MP)</b>				
Barrel Last Accessible Date	16-Nov-2011			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		8	8	D/S end.-May 15, 2008 est Floor covered with ice.
Measured Rise (mm)	2018			
Measured At Ring No.				
Sag (mm)	18			
Percent Sag	0			
Sidewall		8	8	dt cl of d/s end-10-Feb-2010  deflection inward.
Measured Span (mm)	1962			
Measured At Ring No.				
Deflection (mm)	38			
Percent Deflection	2			
Floor		N	N	Floor covered with ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: U/S, Span (mm): , Rise (mm): 2000, Type: MP)				
Circumferential Seams		8	8	
Separation (mm)				
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	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		9	8	
Baffle		X	X	
(Type : )				
Waterway Adequacy		9	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel Extension General Rating</b>		<b>8</b>	<b>8</b>	
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	16-Nov-2011			North pipe
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		8	8	Est
Measured Rise (mm)	1819			Floor covered with ice.
Measured At Ring No.				
Sag (mm)	10			
Percent Sag	1			
Sidewall		8	8	@ cl
Measured Span (mm)	1822			Deflection inward
Measured At Ring No.				
Deflection (mm)	7			
Percent Deflection				
Floor		N	N	Covered with ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (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)					
Circumferential Seams		X	X		
Separation (mm)					
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		7	7	Minor superficial corrosion lower 1/2.	
Corrosion By Soil (Y/N)	No				
Corrosion By Water (Y/N)	Yes				
Camber POS/ZERO/NEG	ZERO				
Ponding (Y/N)	No				
Fish Passage Adequacy		9	8		
Baffle		X	X		
(Type : )					
Waterway Adequacy		9	8		
Icing (Y/N)	No				
Silting (Y/N)	No				
Drift (Y/N)	No				
<b>Barrel General Rating</b>		<b>8</b>	<b>8</b>		

Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: )					
Direction				East	
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)					
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	450				
Scour Protection		8	8		
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 300)					
Scour/Erosion		8	8		
Beavers (Y/N)	No				
<b>Downstream End General Rating</b>		<b>8</b>	<b>8</b>		

Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		5	6	45 degree bend at U/S end.
Bank Stability		7	8	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Stable
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>5</b>	<b>6</b>	

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							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>88.9/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>88.8/59.3</b>	Est. Repl. Yr	2057	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	Brian Pientsch		Previous Assistant's Name	Lisbeth Medina			
Next Inspection Date	16-Aug-2013		Previous Inspection Date	10-Feb-2010			
Inspection Cycle (Default) (months)	21						
Comment							