

Bridge Culvert Inspection			
Bridge File Number	83040 -1 Bridge Culvert	Form Type	CULM
Year Built	1986	Lot No.	4
Bridge or Town Name	TWO HILLS	Inspector Name	Jason Saly
Located Over	VERMILION RIVER, 6.5, WATERCRS-ST	Inspector Class	BR CLS A
Located On	LOCAL ROAD	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	30-Nov-2011
Legal Land Location	SW SEC 21 TWP 54 RGE 13 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-111:52:10, 53:40:47	Data Entry Date	22-Dec-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	UNDEFINED CMA	Review Date	15-Dec-2011
Clear Roadway/Skew	4 /	Dept. Reviewer Name	Andrew Smikles
AADT/Year	5 / 2002 (E)	Dept. Review Date	09-Jan-2012
Road Classification	RLU-207G-60	Follow-Up By	
Detour Length (km)	999		

Bridge Culvert Information								
Number of Culverts		3						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	1300	800	FP	21	68X13	2.8	ARCH
2	MAIN	1300	800	FP	21	68X13	2.8	ARCH
3	MAIN	1300	800	FP	21	68X13	2.8	ARCH
Special Features								
Special Features Comment		Pipes located 500m N of BF79061.						

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		8	8	LOCAL ROAD CROSSES DRAINAGE CHANNEL
Vertical Alignment		8	8	
Roadway Width (m)	4.000			
Embankment		7	7	
Sideslope (__:1)		4.0		
(Height of Cover(m) : 0.5)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>7</b>	<b>7</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		W		WEST SIDE - NORTH 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
<b>(Pipe # : 1, Span Type: Primary Span)</b>				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	25			
Invert Above/Below Stream Bed				AT STREAMBED.
Above/Below (mm)	0			
Scour Protection		5	5	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>100</b> )				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1300, Rise (mm): 800, Type: FP)</b>				
Barrel Last Accessible Date	19-Nov-2002			NORTH PIPE. 1300 X 1800. Viewed from ends; shape appears adequate.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		5	N	(SPAN RISE 1300 X 750 AT CENTERLINE. 19Nov2002).
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	50			
Percent Sag				
Sidewall		5	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	25			
Percent Deflection				
Floor		5	N	Ice covered.
Bulge (mm)	20			
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		5	N	
Separation (mm)	5			
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		4	4	SOME CORROSION
Corrosion By Soil (Y/N)				
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): 1300, Rise (mm): 800, Type: FP)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle			X	
(Type : )				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>5</b>	<b>N</b>	GR was 5 from 19Nov2002.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		E		EAST SIDE OF NORTH
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		5	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		5	5	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 100)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>5</b>	<b>5</b>	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		W		W side, centre pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Span Type: Secondary Span)</b>				
Bevel End		5	6	
Heaving (mm)	50			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		5	5	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>100</b> )				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 1300, Rise (mm): 800, Type: FP)</b>				
Barrel Last Accessible Date	19-Nov-2002			Middle pipe. Viewed from ends; shape appears adequate.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		5	N	(1300 X 750 AT CENTERLINE. Unknown Date).
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	50			
Percent Sag				
Sidewall		5	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	25			
Percent Deflection				
Floor		5	N	
Bulge (mm)	20			
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		5	N	
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		4	4	SOME CORROSION
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 1300, Rise (mm): 800, Type: FP)</b>				
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle			X	
(Type : )				
Waterway Adequacy		X	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>5</b>	<b>N</b>	GR was 5 from 19Nov2002.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Span Type: Secondary Span)</b>				
Direction		E		E side of middle.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		5	6	
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		5	5	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>100</b> )				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>5</b>	<b>5</b>	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 3, Span Type: Secondary Span)</b>				
Direction		W		S pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall			X	
Collar			X	
Wingwalls			X	
(Shape : )				
Cutoff Wall			X	
Bevel End			5	
Heaving (mm)				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 3, Span Type: Secondary Span)</b>				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection			5	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>100</b> )				
Scour/Erosion			5	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>			<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): 1300, Rise (mm): 800, Type: FP)</b>				
Barrel Last Accessible Date				S pipe. Viewed from ends; shape appears adequate.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof			N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall			N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor			N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams			N	
Separation (mm)				
Longitudinal Seams			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			4	Some corrosion.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG				
Ponding (Y/N)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): 1300, Rise (mm): 800, Type: FP)				
Fish Passage Adequacy			6	
Baffle			X	
(Type : )				
Waterway Adequacy			6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>			<b>N</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall			X	
Collar			X	
Wingwalls			X	
(Shape : )				
Cutoff Wall			X	
Bevel End			6	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection			5	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>100</b> )				
Scour/Erosion			5	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>			<b>5</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Unknown
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>7</b>	<b>7</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>55.0/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>64.2/61.1</b>	Est. Repl. Yr	2017	Maint. Req'd. (Y/N)	No
Special Comments for Next Inspection	Monitor corrosion.		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	Aime Theroux		Previous Assistant's Name				
Next Inspection Date	30-Aug-2016		Previous Inspection Date	19-Nov-2002			
Inspection Cycle (Default) (months)	57						
Comment							