

Bridge Culvert Inspection				
Bridge File Number	75700 -1 Bridge Culvert		Form Type	CULM
Year Built	1963		Lot No.	2
Bridge or Town Name	WANHAM		Inspector Name	Russel Vanderschaaf
Located Over	BAD HEART RIVER, 8.10.58.11, WATERCRS-ST		Inspector Class	BR CLS B
Located On	733:04 C1 8.277		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	08-Nov-2011
Legal Land Location	NW SEC 28 TWP 75 RGE 3 W6M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-118:24:06, 55:31:56		Data Entry Date	13-Dec-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA05		Review Date	20-Nov-2011
Clear Roadway/Skew	9.1 / 0 deg.		Dept. Reviewer Name	Steve Pasquan
AADT/Year	610 / 2010 (A)		Dept. Review Date	11-Jan-2012
Road Classification	RCU-209-110		Follow-Up By	Consultant hired and design under way
Detour Length (km)	20			

**Bridge Culvert Information**

Number of Culverts		2						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3670	SP	81.1	152X51	4.0	ROUND
2	MAIN	-	3990	SP	81.1	152X51	4.0	ROUND
Special Features		CONC FLOOR						
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	5	5	On a super. Bottom of deep sag.
Vertical Alignment	5	5	
Roadway Width (m)	9.100		
Embankment	7	7	
Sideslope (__:1)	2.5		
(Height of Cover(m) : <b>10.1</b> )			
Guardrail (Y/N)	Yes		
<b>Approach Road / Embankment General Rating</b>	<b>5</b>	<b>5</b>	

**Upstream End**

Culvert Component	Last	Now	Explanation of Condition
<b>(Pipe # : 1, Span Type: Secondary Span)</b>			
Direction	W		North culvert.
End Treatment (Concrete, Steel, Others, None)	CONCRETE		
Headwall	X	X	
Collar	6	6	
Wingwalls	X	X	
(Shape : )			

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Span Type: Secondary Span)</b>				
Cutoff Wall		N	N	
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 500)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>6</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3670, Type: SP)</b>				
Barrel Last Accessible Date	08-Nov-2011			Damage to S. end of drift.Driftcatcher frame.13 verticals standing.-photo
<b>Special Features</b>				
Special Feature		4	3	25% of floor missing.-photo
(Type : CONC FLOOR)				
Special Feature				
(Type : )				
Roof		7	6	
Measured Rise (mm)	3671			
Measured At Ring No.	10			
Sag (mm)	1			
Percent Sag				
Sidewall		4	4	
Measured Span (mm)	3622			
Measured At Ring No.	10			
Deflection (mm)	48			
Percent Deflection	2			
Floor		7	5	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	6	
Separation (mm)	0			
Longitudinal Seams		4	4	106 mm steel remaining at ring 16.
Total No. of Cracked Rings	13			Rings 4-17 cracked @ 8:00. 106mm steel remaining at ring 16.
Total No. of Rings with Two Cracked Seams	13			
Min. Remaining Steel Between Cracks (mm)	106			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	Some pitting rust on floor. And soil.
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3670, Type: SP)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		3	3	1.4m drop d/s.-photo
Baffle		X	X	
(Type : )				
Waterway Adequacy		4	5	
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
<b>Barrel General Rating</b>		<b>4</b>	<b>4</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Secondary Span)				
Direction		E		North culvert.
End Treatment (Concrete, Steel, Others, None)	OTHERS			
Headwall		X	X	
Collar		X	X	
Wingwalls		8	7	Timber
(Shape : )				
Cutoff Wall		N	7	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	3000			
Scour Protection		8	5	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 500)				
Scour/Erosion		8	5	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>8</b>	<b>7</b>	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Primary Span)				
Direction		W		South culvert. Covered in drift
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		6	N	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Span Type: Primary Span)</b>				
Bevel End		4	N	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		8	N	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>500</b> )				
Scour/Erosion		8	N	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>4</b>	<b>N</b>	GR was 6 on 26-July-2005
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3990, Type: SP)</b>				
Barrel Last Accessible Date	26-Jul-2005			Buldge in roof @ 1:00 between 13 & 16 with slight reverse curvature at ring 15. Concrete floor looks like it might be about 15% gone. U/S end covered in drift, d/s end large dropoff. Inaccessible
<b>Special Features</b>				
Special Feature		4	N	
(Type : <b>CONC FLOOR</b> )				
Special Feature				
(Type : )				
Roof		2	N	from 1-7 o'clock.-26-Jul-2005
Measured Rise (mm)	3527			
Measured At Ring No.	15			
Sag (mm)	463			
Percent Sag	12			
Sidewall		5	N	
Measured Span (mm)	1205			
Measured At Ring No.	4			
Deflection (mm)				
Percent Deflection	5			
Floor		6	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	N	
Separation (mm)				
Longitudinal Seams		2	N	Rings 3,4 cracking at 9 o'clock Rings 5-10 @ 3 o'clock with 38mm steel remaining at ring 4.-26-Jul-2005
Total No. of Cracked Rings	8			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	N	32 Rings in total and soil.-26-Jul-2005
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3990, Type: SP)				
Camber POS/ZERO/NEG	POS			
Ponding (Y/N)	No			
Fish Passage Adequacy		3	N	600mm drop d/s.
Baffle		X	X	
(Type : )				
Waterway Adequacy		4	N	
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>2</b>	<b>2</b>	Carried fwd from 26-Jul-2005
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Primary Span)				
Direction		E		South culvert.
End Treatment (Concrete, Steel, Others, None)	OTHERS			
Headwall		X	X	
Collar		X	X	
Wingwalls		8	7	Timber.
(Shape : )				
Cutoff Wall		N	7	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	3000			
Scour Protection		5	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 500)				
Scour/Erosion		5	6	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>8</b>	<b>6</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	4	South culvert blocked by drift. Flow directed through one culvert.  Erosion 10m u/s. Large size. Sloughing banks.
Bank Stability		4	5	
HWM (m below Top of Culvert)				HWM not visible South culvert blocked by drift.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	Yes			

Structure Usage				
		Last	Now	Explanation of Condition
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>4</b>	<b>4</b>	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION	2012	Remove drift from South culvert.					
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>22.2/22.2</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>29.8/32.5</b>	Est. Repl. Yr	2012	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Current design underway for replacemenmt with Dialog.		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	Russel Vanderschaaf		Previous Assistant's Name				
Next Inspection Date	08-Feb-2015		Previous Inspection Date	17-Sep-2010			
Inspection Cycle (Default) (months)	39						
Comment							