

Bridge Culvert Inspection			
Bridge File Number	75370 -1 Bridge Culvert	Form Type	CULM
Year Built	1963	Lot No.	4
Bridge or Town Name	WETASKIWIN	Inspector Name	Owen Salava
Located Over	BIGSTONE CREEK, 5.47.4, WATERCRS-ST	Inspector Class	BR CLS A
Located On	2:30 L1 3.532;2:30 R1 3.529	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	20-Feb-2013
Legal Land Location	SE SEC 25 TWP 46 RGE 26 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-113:38:37, 52:59:29	Data Entry Date	11-Mar-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA17	Review Date	27-Feb-2013
Clear Roadway/Skew	23 /	Dept. Reviewer Name	Chris Black
AADT/Year	24,410 / 2011 (A)	Dept. Review Date	14-Mar-2013
Road Classification	RAD-412.4-120	Follow-Up By	
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts	4							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2314	2552	SPE	65.7	152X51	3.5,3.5,3.5	ELLIPSE
2	MAIN	2610	2879	SPE	65.7	152X51	3.5,3.5,3.5	ELLIPSE
3	MAIN	2610	2879	SPE	65.7	152X51	3.5,3.5,3.5	ELLIPSE
4	MAIN	2314	2552	SPE	65.7	152X51	3.5,3.5,3.5	ELLIPSE
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		8	8	
Vertical Alignment		8	8	
Roadway Width (m)	23.000			
Embankment		7	7	
Sideslope (_ :1)	4.0			
(Height of Cover(m) : 2)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		8	8	

Upstream 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	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		4	N	(Small mower tears in roof. 12Jul2011) - Not visible due to snow.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		5	N	Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		4	4	GR carried forward from 12Jul2011.

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: SPE)				
Barrel Last Accessible Date	20-Feb-2013			South pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	2496			
Measured At Ring No.	5			Est 2.2%.
Sag (mm)	56			
Percent Sag	2			
Sidewall		7	7	Span @ R5 = 2355, 41mm. R12 = 2304, 10mm.
Measured Span (mm)	2357			
Measured At Ring No.	20			
Deflection (mm)	43			1.9%
Percent Deflection	2			
Floor		N	N	Silt & ice covered.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				1N.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: SPE)					
Coating		4	4	Minor pitting & scaling in lower 1/2 of pipe.	
Corrosion By Soil (Y/N)	No				
Corrosion By Water (Y/N)	Yes				
Camber POS/ZERO/NEG	ZERO				
Ponding (Y/N)	No				
Fish Passage Adequacy		6	6		
Baffle		X	X		
(Type :)					
Waterway Adequacy		6	6		
Icing (Y/N)	No				
Silting (Y/N)	Yes				
Drift (Y/N)	No				
Barrel General Rating		7	7		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Span Type: Primary Span)					
Direction		E		South pipe.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape :)					
Cutoff Wall		X	X		
Bevel End		6	6		
Heaving (mm)	150				
Invert Above/Below Stream Bed	ABOVE				
Above/Below (mm)	300				
Scour Protection		5	N	Snow covered.	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 300)					
Scour/Erosion		5	N	Snow covered.	
Beavers (Y/N)	No				
Downstream End General Rating		5	5	GR carried forward from 11Jul2011.	
Upstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: Secondary Span)					
Direction		W		2nd pipe from the North.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	150			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		5	N	Bevel projects 600mm from fill. Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	N	(Scour at side, typical from S. 12Jul2011) - Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		5	5	GR carried forward from 12Jul2011.

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 2610, Rise (mm): 2879, Type: SPE)				
Barrel Last Accessible Date	20-Feb-2013			2nd pipe from south.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Unable to measure rise due to silt.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				(Est 2%. Unknown date).
Percent Sag				
Sidewall		7	7	Span @ R12 = 2587, 23mm. R5 = 2651, 41mm.
Measured Span (mm)	2677			
Measured At Ring No.	20			
Deflection (mm)	67			2.6%
Percent Deflection	3			
Floor		N	N	Silt covered with ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				1N.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 2610, Rise (mm): 2879, Type: SPE)					
Coating		4	4	Minor pitting & scaling in lower 1/3 of pipe.	
Corrosion By Soil (Y/N)	No				
Corrosion By Water (Y/N)	Yes				
Camber POS/ZERO/NEG	ZERO				
Ponding (Y/N)	No				
Fish Passage Adequacy		6	6		
Baffle		X	X		
(Type :)					
Waterway Adequacy		6	6	Silt deposit approx 200-400mm between R7 & R12.	
Icing (Y/N)	No				
Silting (Y/N)	Yes				
Drift (Y/N)	No				
Barrel General Rating		7	7		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: Secondary Span)					
Direction		E		2nd pipe from the South.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape :)					
Cutoff Wall		X	X		
Bevel End		5	5		
Heaving (mm)	0				
Invert Above/Below Stream Bed	ABOVE				
Above/Below (mm)	200				
Scour Protection		4	4		
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 300)					
Scour/Erosion		4	4	Scour @ D/S. Hole 4m x 2m x 0.5, streambed on pipe eroded 0.5m; partially visible with snow.	
Beavers (Y/N)	No				
Downstream End General Rating		4	4		
Upstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 3, Span Type: Secondary Span)					
Direction		W		3rd pipe from South.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	5	
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection		5	N	Bevel projects 300mm beyond fill. Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		5	5	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): 2610, Rise (mm): 2879, Type: SPE)				
Barrel Last Accessible Date	20-Feb-2013			3rd pipe from S.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Unable to measure due to ice.
Measured Rise (mm)	2813			
Measured At Ring No.	10			
Sag (mm)	66			(Est 2.3%. Unknown date).
Percent Sag	2			
Sidewall		7	7	Span @ R12 = 2606, 4mm. R20 = 2689, 79mm.
Measured Span (mm)	2697			
Measured At Ring No.	5			
Deflection (mm)	87			3.3%
Percent Deflection	3			
Floor		N	N	Silt & ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				1N.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): 2610, Rise (mm): 2879, Type: SPE)				
Coating		4	4	Minor pitting & scaling in lower 1/3 of pipe.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		7	7	

Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 3, Span Type: Secondary Span)					
Direction		E		3rd pipe from South.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape :)					
Cutoff Wall		X	X		
Bevel End		5	5		
Heaving (mm)	0				
Invert Above/Below Stream Bed	ABOVE				
Above/Below (mm)	200				
Scour Protection		4	4		
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 300)					
Scour/Erosion		4	4	Scour 5mx4m @ SE, shallow basin; partially visible with snow.	
Beavers (Y/N)	No				
Downstream End General Rating		4	4		

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 4, Span Type: Secondary Span)				
Direction		W		North pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 4, Span Type: Secondary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	5	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		5	N	Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		5	5	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 4, Secondary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: SPE)				
Barrel Last Accessible Date	20-Feb-2013			North pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Unable to measure due to ice.
Measured Rise (mm)	2588			
Measured At Ring No.	12			
Sag (mm)	36			(1.4%. 12Jul2011).
Percent Sag	1			
Sidewall		7	7	Span @ R12 = 2302, 12mm. R20 = 2359, 45mm.
Measured Span (mm)	2372			
Measured At Ring No.	5			
Deflection (mm)	58			2.5%
Percent Deflection	3			
Floor		N	N	Silt & ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				1N.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 4, Secondary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: SPE)				
Coating		4	4	Minor pitting & scaling in lower 1/2 of pipe.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		7	7	

Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 4, Span Type: Secondary Span)					
Direction		E		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		5	5		
Heaving (mm)	0				
Invert Above/Below Stream Bed	ABOVE				
Above/Below (mm)	200				
Scour Protection		5	N	Snow covered.	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 300)					
Scour/Erosion		5	N	Snow covered.	
Beavers (Y/N)	No				
Downstream End General Rating		5	5		

Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	West side near 75 degree bends to South.
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading				Unknown.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		6	6	

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) (%)	77.8/77.8	Sufficiency Rating (Last/Now) (%)	65.0/65.0	Est. Repl. Yr	2033	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	No action for floor corrosion or scour at this time.		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	Owen Salava		Previous Assistant's Name				
Next Inspection Date	20-Nov-2014		Previous Inspection Date	12-Jul-2011			
Inspection Cycle (Default) (months)	21						
Comment							