Bridge Culvert Inspection

Bridge File Number	75618 -1 Bridge Culvert	Form Type	CULM
Year Built	1964	Lot No.	2
Bridge or Town Name	WETASKIWIN	Inspector Name	Owen Salava
Located Over	TRIBUTARY TO MASKWA CREEK, 5.47.4.1.2, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	2:28 R1 28.223;2:28 L1 28.224	Assistant Class	
Water Body Cl./Year		Inspection Date	21-Feb-2013
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	NE SEC 36 TWP 45 RGE 26 W4M	Data Entry Date	11-Mar-2013
Longitude, Latitude	-113:38:37, 52:55:45	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	27-Feb-2013
Contract Main. Area	CMA17	Dept. Reviewer Name	Chris Black
Clear Roadway/Skew	23 / -30 deg. (LHF)	Dept. Review Date	14-Mar-2013
AADT/Year	24,530 / 2011 (A)	Follow-Up By	
Road Classification	RAD-412.4-120		
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts	2

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2311	1473	CPE	68			ELLIPSE
2	MAIN	2311	1473	CPE	68			ELLIPSE

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	Yes - no marker.	Gas	
Power	1 wire 50m North.	Municipal	
Others	Fibre optics West r/w.	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			Transverse cracks in roadway over pipes - previously sealed.
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1.7**)				
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		North pipe.
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		5	N	Snow covered.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**N**	GR was 5 from 12Jul2011.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2311, Rise (mm): 1473, Type: CPE**)				
Barrel Last Accessible Date	21-Feb-2013			North pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Unable to measure due to ice.
Measured Rise (mm)	1473			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag	0			
Sidewall		6	6	At mid pipe.
Measured Span (mm)	2294			
Measured At Ring No.				
Deflection (mm)	17			0.7%
Percent Deflection	1			
Floor		N	N	Silt & ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	24			
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	Random rust spots along concrete.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2311, Rise (mm): 1473, Type: CPE**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	200mm silt easily flushes during flood.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**6**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Direction		E		North pipe.
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		5	N	Snow covered.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**N**	GR was 5 from 12Jul2011.

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Direction		W		South pipe.
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		5	N	Snow covered.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**N**	GR was 5 from 12Jul2011.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): 2311, Rise (mm): 1473, Type: CPE**)				
Barrel Last Accessible Date	21-Feb-2013			South pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Unable to measure due to ice.
Measured Rise (mm)	1473			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag	0			
Sidewall		4	4	Exposed reinforcement @ random locations, due to insufficient concrete cover (photo).
Measured Span (mm)	2298			
Measured At Ring No.				At mid pipe.
Deflection (mm)	13			0.6%
Percent Deflection	1			
Floor		N	N	Silt & ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	23			
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	Random rust spots along the concrete.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): 2311, Rise (mm): 1473, Type: CPE**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	200mm silt easily flushes during flood.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**4**	**4**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Direction		E		South pipe.
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		5	N	Snow covered.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**N**	GR was 5 from 12Jul2011.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)				No HWM visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Unknown.
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	2013	Chip out at exposed repair; patch to increase cover.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**54.7/54.6**	Est. Repl. Yr	2043	Maint. Reqd. (Y/N)	Yes

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	Owen Salava	Previous Assistant's Name	
Next Inspection Date	21-Nov-2014	Previous Inspection Date	12-Jul-2011
Inspection Cycle (Default) (months)	21		
Comment			