

Bridge Culvert Inspection				
Bridge File Number	78894 -1 Bridge Culvert		Form Type	CUL1
Year Built	1981		Lot No.	2
Bridge or Town Name	ALDER FLATS		Inspector Name	Owen Salava
Located Over	WASHOUT CREEK, 6.146, WATERCRS-ST		Inspector Class	BR CLS A
Located On	22:28 C1 2.571		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	25-Jun-2012
Legal Land Location	NW SEC 7 TWP 46 RGE 6 W5M		Data Entry By	Marcia Chavez
Longitude, Latitude	-114:52:18, 52:57:16		Data Entry Date	15-Jul-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA17		Review Date	05-Jul-2012
Clear Roadway/Skew	11.6 /		Dept. Reviewer Name	Andrew Smikles
AADT/Year	2,380 / 2011 (A)		Dept. Review Date	19-Jul-2012
Road Classification	RAU-211.8-110		Follow-Up By	
Detour Length (km)	3			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	4095	4515	SPE	47.5	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment		No file tag.						

Utilities (Located at)			
Utility Attachments			
Telephone			Gas
Power	1 wire o/h, W r/w.		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)	11.600			
Embankment		7	7	Minor gully at SW due to ditch culvert outfall.
Sideslope ( _ :1)	4.0			
(Height of Cover(m) : 1)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>8</b>	<b>8</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	Vertical cracking.
Collar		N	4	Full collar old style with settlement under shoulder slabs - SE corner.
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		N	N	Submerged

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		6	6	Sides pushed in 300 mm as result of construction.
Heaving (mm)	225			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection (Type : <b>RIP RAP</b> ) (Avg. Rock Size(mm) : <b>300</b> )		N	4	Barrel lacks fill & weight with barrel exposed.
Scour/Erosion		N	4	Eroding under collar.
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>4</b>	<b>4</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 4095, Rise (mm): 4515, Type: SPE)				
Barrel Last Accessible Date	02-Feb-2011			Viewed from ends; 0.9m deep water, shape looks good.
<b>Special Features</b>				
Special Feature (Type : )				
Special Feature (Type : )				
Roof		6	6	Unable to measure due to ice.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		6	6	S wall ring 1, bulging inwards, minor.
Measured Span (mm)	4120			
Measured At Ring No.	6			
Deflection (mm)	25			
Percent Deflection	0			
Floor		N	N	(2 small holes in sidewall near W. end during construction 75mm - 971015).
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	N	
Separation (mm)	0			
Longitudinal Seams		6	N	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			1N stagger.
Coating		5	5	Surface rust.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 4095, Rise (mm): 4515, Type: SPE)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		N	N	
(Type : )				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>6</b>	<b>N</b>	Rating was 6 from 06Feb2011.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	Lots of large cracks.
Collar		N	4	Full collar. Settlement of 400mm under NW shoulder slab. SW shoulder slab broken off at haunch.
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		N	N	Submerged
Bevel End		6	6	
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	4	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>250</b> )				
Scour/Erosion		N	4	Scour at sides of bevel ends.
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>4</b>	<b>4</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		5	5	80 deg bend at U/S end but low banks. SW ditch culvert located approx. 10m West of D/S bevel end. Cut banks U/S & D/S
Bank Stability		5	5	Sloughing of S bank on gentle bend D/S from pipe.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			@ D/S
Channel Bottom Degrading/Aggrading				
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>5</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	2012	Place 5m3 concrete along concrete collar on both sides and both ends.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>66.7/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>63.3/58.0</b>	Est. Repl. Yr	2034	Maint. Req. (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	25-Mar-2014		Previous Inspection Date	02-Feb-2011			
Inspection Cycle (Default) (months)	21						
Comment							