

Bridge Culvert Inspection				
Bridge File Number	76937 -1 Bridge Culvert		Form Type	CULM
Year Built	1968		Lot No.	4
Bridge or Town Name	AIRDRIE		Inspector Name	Garry Roberts
Located Over	WEST NOSE CREEK, 2.13.32.1, WATERCRS-ST		Inspector Class	BR CLS A
Located On	567:02 C1 14.474		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	25-Jul-2012
Legal Land Location	NE SEC 31 TWP 26 RGE 2 W5M		Data Entry By	Lauren Korte
Longitude, Latitude	-114:15:48, 51:16:09		Data Entry Date	30-Aug-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Tom Carey
Contract Main. Area	CMA29		Review Date	07-Aug-2012
Clear Roadway/Skew	9.4 /		Dept. Reviewer Name	Tim Davies
AADT/Year	2,960 / 2011 (A)		Dept. Review Date	06-Sep-2012
Road Classification	RCU-209-110		Follow-Up By	
Detour Length (km)	5			

Bridge Culvert Information

Number of Culverts		2						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2317	2560	SPE	65.8	152X51	3.5	ELLIPSE
2	MAIN	2317	2560	SPE	65.8	152X51	3.5	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments					
Telephone	South ditch.			Gas	
Power				Municipal	
Others				Problem (Y/N)	No
Remarks					

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		4	4	Curves both sides-signed @ 70 km/hr. Sag curve.
Vertical Alignment		4	4	
Roadway Width (m)	9.400			
Embankment		5	5	
Sideslope (__:1)	1.5			
(Height of Cover(m) : 9.3)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		4	4	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		N		North end East pipe.
End Treatment (Concrete, Steel, Others, None)		STEEL		East barrel is set approx. 1 M higher than West barrel.
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		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		7	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2317, Rise (mm): 2560, Type: SPE)				
Barrel Last Accessible Date	25-Jul-2012			East pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		4	5	
Measured Rise (mm)	2405			
Measured At Ring No.	13			
Sag (mm)	155			
Percent Sag	6			
Sidewall		4	5	
Measured Span (mm)	2490			
Measured At Ring No.	13			
Deflection (mm)	173			
Percent Deflection	7			
Floor		6	6	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		6	6	Cusping of sidewall & roof seams - max 20mm.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				1N.
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	Scaling & pitting throughout barrel sidewalls. Alkali corrosion from soil - heavy @ U/S end.
Corrosion By Soil (Y/N)	Yes			
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): 2317, Rise (mm): 2560, Type: SPE)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			D/S 1/2 silted up to 500mm.
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		4	5	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		S		South end of East pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		7	7	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		N		North end West 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
(Pipe # : 2, Span Type: Secondary Span)				
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	1000			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		7	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 2317, Rise (mm): 2560, Type: SPE)				
Barrel Last Accessible Date	25-Jul-2012			West pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	5	
Measured Rise (mm)	2390			
Measured At Ring No.	9			
Sag (mm)	170			
Percent Sag	7			
Sidewall		4	4	Sidewall - cracked @ ring #8.
Measured Span (mm)	2390			
Measured At Ring No.	5			
Deflection (mm)	73			
Percent Deflection	3			
Floor		6	6	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		4	4	East seam cracked @ ring 8-110mm steel remaining.
Total No. of Cracked Rings	1			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	110			1N.
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	Some rust, some alkali. soil and water
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 2317, Rise (mm): 2560, Type: SPE)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
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		S		South end West pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		7	7	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWM NOT VISIBLE.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		8	8	

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) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	49.6/49.6	Est. Repl. Yr	2020	Maint. Req. (Y/N)	No
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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	25-Oct-2015		Previous Inspection Date	14-May-2009			
Inspection Cycle (Default) (months)	39						
Comment							