

Bridge Culvert Inspection				
Bridge File Number	79182 -1 Bridge Culvert		Form Type	CULM
Year Built	1982		Lot No.	1
Bridge or Town Name	BOW CITY		Inspector Name	Tom Carey
Located Over	EID - KITSIM INLET, WATERCRS-IC		Inspector Class	BR CLS A
Located On	539:04 C1 11.101		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	10-Feb-2010
Legal Land Location	SW SEC 26 TWP 17 RGE 16 W4M		Data Entry By	Kelsey Roberts
Longitude, Latitude	-112:06:42, 50:27:46		Data Entry Date	03-Mar-2010
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Garry Roberts
Contract Main. Area	CMA23		Review Date	23-Feb-2010
Clear Roadway/Skew	9.3 / 30 deg. (RHF)		Dept. Reviewer Name	Lorenz Bohnert
AADT/Year	650 / 2008 (A)		Dept. Review Date	08-Mar-2010
Road Classification	RCU-209-110		Follow-Up By	
Detour Length (km)	30			

Bridge Culvert Information								
Number of Culverts		2						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	3610	2500	RPE	39.6	152X51		ELLIPSE
2	MAIN	3610	2500	RPE	39.6	152X51		ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)				
Utility Attachments				
Telephone	South r/w		Gas	X's road 100 m E.
Power	7 - wire N., X's road 30m W		Municipal	
Others	Goes S. 50 m W.		Problem (Y/N)	No
Remarks				

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Canal banks ent - all 4 corners
Vertical Alignment		9	9	
Roadway Width (m)	9.300			
Embankment		7	N	Snow
Sideslope (__:1)	4.0			
(Height of Cover (m) : 2.2)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		8	8	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		N		North end west pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
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		N	N	(MINOR CORROSION) 990128 Snow covered
Heaving (mm)	60			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		N	N	snow covered
(Type :)				
(Avg. Rock Size (mm) :)				
Scour/Erosion		N	N	snow covered
Beavers (Y/N)	No			
Upstream End General Rating		6	N	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3610, Rise (mm): 2500, Type: RPE)				
Barrel Last Accessible Date	10-Feb-2010			West pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	ESTIMATE
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		7	7	INWARD
Measured Span (mm)	3510			
Measured At Ring No.	4			
Deflection (mm)	100			
Percent Deflection	2			
Floor		N	N	ice covered
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		7	7	
Separation (mm)				
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		6	5	Surface corrosion throughout @ sidewalls
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): 3610, Rise (mm): 2500, Type: RPE)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
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		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		N	6	
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		N	N	snow covered
(Type :)				
(Avg. Rock Size (mm) :)				
Scour/Erosion		N	N	snow covered
Beavers (Y/N)	No			
Downstream End General Rating		6	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		N		North end of 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		N	N	(MINOR CORROSION) 990128 snow covered
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		N	N	snow covered
(Type :)				
(Avg. Rock Size (mm) :)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Upstream End General Rating		5	N	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 3610, Rise (mm): 2500, Type: RPE)				
Barrel Last Accessible Date				
Special Features				
Special Feature				East pipe
(Type :)				
Special Feature				
(Type :)				
Roof		8	3	Estimated Corrosion perforation @ Ring #2
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		8	8	INWARD
Measured Span (mm)	3510			
Measured At Ring No.	3			
Deflection (mm)	100			
Percent Deflection	2			
Floor		N	N	ice covered
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		7	7	
Separation (mm)				
Longitudinal Seams		7	7	
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)	No			
Coating		6	3	Surface corrosion throughout @ sidewalls. Isolated 25mm Dia. corrosion perforation @ roof @ Ring 2. Several areas of corrosion spots @ Roof @ Ring 2.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 3610, Rise (mm): 2500, Type: RPE)				
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		7	3	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary 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		N	6	
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		N	N	snow covered
(Type :)				
(Avg. Rock Size (mm) :)				
Scour/Erosion		N	N	snow covered
Beavers (Y/N)	No			
Downstream End General Rating		5	N	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	(460mm CSP in SE corner of canal bank)
Bank Stability		6	N	Snow
HWM (m below Top of Culvert)				
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		7	7	G.R. carried forward

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) (%)	77.8/33.3	Sufficiency Rating (Last/Now) (%)	70.8/50.0	Est. Repl. Yr	2023	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	Tim Davies		Previous Assistant's Name				
Next Inspection Date	10-May-2013		Previous Inspection Date	22-Feb-2007			
Inspection Cycle (Default) (months)	39						
Comment							