

Bridge Culvert Inspection			
Bridge File Number	74042 -1 Bridge Culvert	Form Type	CULM
Year Built	1958	Lot No.	2
Bridge or Town Name	VAUXHALL	Inspector Name	Jon Davies
Located Over	TRIBUTARY TO BOW RIVER, 2.13.7, WATERCRS-ST	Inspector Class	BR CLS B
Located On	36:04 C1 50.760	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	02-Jan-2012
Legal Land Location	NW SEC 35 TWP 14 RGE 16 W4M	Data Entry By	Alyssa Boynton
Longitude, Latitude	-112:05:50, 50:13:21	Data Entry Date	22-Feb-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA24	Review Date	20-Jan-2012
Clear Roadway/Skew	10.6 /	Dept. Reviewer Name	Tim Davies
AADT/Year	1,610 / 2010 (A)	Dept. Review Date	24-Feb-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	Pl./Slab Thickness	Shape
1	MAIN	3660	2440	BP	17.7			RECTANGLE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone	W. ditch-conduit over headwall	Gas		
Power	3 line crosses road 20 m north	Municipal		
Others	Fibre optic cable west ditch	Problem (Y/N)	No	
Remarks				

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Int 100m N
Vertical Alignment		5	5	Bottom of sag, no passing NB on north and no passing SB on south.
Roadway Width (m)	10.600			
Embankment		7	6	
Sideslope (__:1)	2.0			
(Height of Cover(m) : 1.1)				
Guardrail (Y/N)	Yes			Turn down ends not attached to post at SW or SE.
Approach Road / Embankment General Rating		5	5	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		West end.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	6	
Collar		X	X	
Wingwalls		7	3	Concrete slab has a full length longitudinal crack 20-60mm wide with a 300mm heave. Broken out sections up to 200mm in diameter exist.
(Shape : FLARE)				
Cutoff Wall		N	N	buried

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection		6	6	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		6	3	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1830, Rise (mm): 2440, Type: BP, Cell Sequence: 1)				
Barrel Last Accessible Date	02-Jan-2012			
Special Features				
Special Feature				North cell
(Type :)				
Special Feature				
(Type :)				
Roof		N	6	
Measured Rise (mm)	2440			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag	0			
Sidewall		N	5	Spall & vertical crack 3 m from u/s end south wall-rebar exposed. Medium width vertical and longitudinal crack on North and South sidewall.
Measured Span (mm)	1820			
Measured At Ring No.	1			
Deflection (mm)	0			
Percent Deflection	0			
Floor		N	5	(Exposed rebar-100mm water on flr minor abrasion) 20021009 Minor abrasion seen throughout.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		N	6	
Separation (mm)	30			
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	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	POS			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1830, Rise (mm): 2440, Type: BP, Cell Sequence: 1)				
Fish Passage Adequacy		X	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)		No		
Siltting (Y/N)		No		
Drift (Y/N)		No		
Barrel General Rating		N	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1830, Rise (mm): 2440, Type: BP, Cell Sequence: 2)				
Barrel Last Accessible Date		02-Jan-2012		South cell.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	6	
Measured Rise (mm)		2440		
Measured At Ring No.		1		
Sag (mm)		0		
Percent Sag				
Sidewall		N	5	Wide vert cracks throughout (Rebar exposed 1m from u/s N wall)
Measured Span (mm)		1850		
Measured At Ring No.		1		
Deflection (mm)		0		
Percent Deflection				
Floor		N	6	
Bulge (mm)		0		
Measured At Ring No.				
Abrasion (Y/N)		No		
Circumferential Seams		N	6	
Separation (mm)		30		
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	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG		POS		
Ponding (Y/N)		No		

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1830, Rise (mm): 2440, Type: BP, Cell Sequence: 2)				
Fish Passage Adequacy		X	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		N	5	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		EAST.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			And Treated Timber
Headwall		7	6	
Collar		X	X	
Wingwalls		8	6	T. Timber walls/4 piles per side.
(Shape : FLARE)				
Cutoff Wall		X	N	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		5	5	Large scour hole 7 m x 10 m x 1.2 m deep appears well protected on bottom - June 23 2010. Unable to confirm depth.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Downstream End General Rating		5	5	
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)	1.5			1m high drift at center wall at U/S. No HWM visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
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	2012	Remove drift at U/S center wall					
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2012	Install post at SE T.D. reattach SW T.D.					
OTHER ACTION	2012	Install new concrete apron at U/S.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	62.8/59.9	Est. Repl. Yr	2026	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	Tom Carey		Previous Assistant's Name				
Next Inspection Date	02-Oct-2013		Previous Inspection Date	23-Jun-2010			
Inspection Cycle (Default) (months)	21						
Comment							