

Bridge Culvert Inspection			
Bridge File Number	00650 -1 Bridge Culvert	Form Type	CULM
Year Built	1955	Lot No.	3
Bridge or Town Name	LETHBRIDGE	Inspector Name	Jason Rusu
Located Over	SMR - IRRIGATION C, WATERCRS-IC	Inspector Class	BR CLS A
Located On	4:07 R1 0.760;4:07 L1 0.760	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	24-Mar-2013
Legal Land Location	NE SEC 22 TWP 8 RGE 21 W4M	Data Entry By	Lauren Korte
Longitude, Latitude	-112:46:02, 49:40:07	Data Entry Date	11-Apr-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA25	Review Date	07-Apr-2013
Clear Roadway/Skew	20 /	Dept. Reviewer Name	Tim Davies
AADT/Year	8,260 / 2012 (A)	Dept. Review Date	22-Apr-2013
Road Classification	RFD-412.4-130	Follow-Up By	
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	5484	1828	BPR	18.3			RECTANGLE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	North ROW	Gas	North ROW.
Power	North and South ROW	Municipal	
Others	Fibre Optic Cable North ROW and Street Light North and South.	Problem (Y/N)	
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	4 lane median divided 80 km/hr posted speed.
Vertical Alignment		9	9	Safety rail @ North
Roadway Width (m)	26.000			
Embankment		7	7	Concrete @ road
Sideslope (__:1)	5.0			5:1 at transitions, 3:1 at wingwalls sides.
(Height of Cover(m) : 0.3)				Guardrail not fastened to parapet at SE.
Guardrail (Y/N)	Yes			Guardrail with parapets over bridge
Approach Road / Embankment General Rating		9	9	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		South end
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		X	X	
Wingwalls		7	7	
(Shape : FLARE)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		7	7	Canal Amouring
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 100)				
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): 1828, Rise (mm): 1828, Type: BPR, Cell Sequence: 1)				
Barrel Last Accessible Date	24-Mar-2013			West cell. All cells full of 150 mm ice on floor
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	8	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		N	9	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	(Some Abrasion) 16- Oct- 2007
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		N	7	
Separation (mm)	20			
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	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1828, Rise (mm): 1828, Type: BPR, Cell Sequence: 1)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		N	8	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1828, Rise (mm): 1828, Type: BPR, Cell Sequence: 2)				
Barrel Last Accessible Date	24-Mar-2013			Center cell.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	8	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		N	9	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	(Minor Abrasion) 16-Oct-2007
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		N	8	
Separation (mm)	20			
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	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1828, Rise (mm): 1828, Type: BPR, Cell Sequence: 2)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		N	8	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1828, Rise (mm): 1828, Type: BPR, Cell Sequence: 3)				
Barrel Last Accessible Date	24-Mar-2013			East Cell
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	8	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	9	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	(Minor Abrasion)16-Oct-2007
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		N	8	(Gap @ Construction Joints)16-Oct-2007
Separation (mm)	20			
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	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1828, Rise (mm): 1828, Type: BPR, Cell Sequence: 3)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		N	8	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		North end center
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		X	X	
Wingwalls		7	7	
(Shape : FLARE)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
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		7	7	45 deg turns, both ends lined irrigation canal.
Bank Stability		7	7	
HWM (m below Top of Culvert)	0.3			
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
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	Reattach flex beam to parapet at SW.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/88.9	Sufficiency Rating (Last/Now) (%)	71.8/88.3	Est. Repl. Yr	2045	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	Jon Davies		Previous Assistant's Name				
Next Inspection Date	24-Dec-2014		Previous Inspection Date	22-Jun-2011			
Inspection Cycle (Default) (months)	21						
Comment							