

Bridge Culvert Inspection			
Bridge File Number	75063 -1 Bridge Culvert	Form Type	CULM
Year Built	1960	Lot No.	2
Bridge or Town Name	SEXSMITH	Inspector Name	Brian Pientsch
Located Over	BAD HEART RIVER, 8.10.58.11, WATERCRS-ST	Inspector Class	BR CLS A
Located On	2:72 C1 3.181	Assistant Name	Brian Cote
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	05-Jul-2011
Legal Land Location	SW SEC 27 TWP 74 RGE 5 W6M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-118:41:11, 55:26:13	Data Entry Date	03-Aug-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Arnold Assenheimer
Contract Main. Area	CMA05	Review Date	13-Jul-2011
Clear Roadway/Skew	12.2 / 37 deg. (RHF)	Dept. Reviewer Name	Steve Pasquan
AADT/Year	4,290 / 2010 (A)	Dept. Review Date	18-Nov-2011
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	40		

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1724	1901	SPE	75	152X51	3.0	ELLIPSE
2	MAIN	1429	1575	SPE	75	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	Single OH line in E. r/w	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	DRIVEWAY ENTRANCE 100M S., BOTH SIDES
Vertical Alignment		8	8	
Roadway Width (m)	12.200			
Embankment		4	5	East embankment damaged by off road vehicles for 90m length.
Sideslope (_ :1)	3.0			
(Height of Cover(m) : 5.5)				
Guardrail (Y/N)	Yes			7 posts and 7 sections damaged.
Approach Road / Embankment General Rating		7	7	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		W		NORTH CULV
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	5	minor damage along top
Heaving (mm)	200			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		4	5	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		4	5	
Beavers (Y/N)	Yes			Small dam u/s.
Upstream End General Rating		4	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE)				
Barrel Last Accessible Date	05-Jul-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)	1840			
Measured At Ring No.	15			
Sag (mm)	61			
Percent Sag	3			
Sidewall		2	2	100 x 150mm hole in sidewall @ 4:00 at ring 27. void 300mm deep (Photo)
Measured Span (mm)	1773			
Measured At Ring No.	15			
Deflection (mm)	49			Ring 23 - sidewall failed @ 5:00 over 1.5m length due to corrosion/cracking.-12-Nov-2009
Percent Deflection	3			Ring 25 failed over full length.-photo
Floor		2	2	Ring 5,6 floor failed @ 7:00 due to corrosion.-photo
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		2	2	Ring 6, 23 & 25 cracked/failed due to corrosion.-photos
Total No. of Cracked Rings	2			
Total No. of Rings with Two Cracked Seams	2			
Min. Remaining Steel Between Cracks (mm)				1N stagger.
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE)				
Coating		2	2	Deep pitting, scaling rust on floor and sidewalls.4-8 o'clock.-photo 25mm perf. ring 4 @ 7:00-photo Numerous 20-40mm perf. in ring 5. -photo Ring 6-floor completely failed @ 7:00 position and holes @ 5:00 position.-photo Ring 7 has perforations. Ring 23 sidewall failed @ 5:00 position over 1.5m length. Ring 25 failed @ 8:00 position over full length.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	Water very fast.
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		2	2	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		E		NORTH CULV
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	5	
Heaving (mm)	100			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		N	4	Scour hole est 1.5 m deep x 12 m wide x 15 m long, 8 m d/s.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		N	4	Two rows lock blocks added to protect outlet.
Beavers (Y/N)	No			
Downstream End General Rating		4	4	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		W		SOUTH CULV
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 250)		7	7	
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): 1429, Rise (mm): 1575, Type: SPE)				
Barrel Last Accessible Date	05-Jul-2011			
Special Features				
Special Feature (Type :)				
Special Feature (Type :)				
Roof		7	7	
Measured Rise (mm)	1555			
Measured At Ring No.	11			
Sag (mm)	20			
Percent Sag	1			
Sidewall		7	7	
Measured Span (mm)	1450			
Measured At Ring No.	11			
Deflection (mm)	21			
Percent Deflection	1			
Floor		4	6	Deep pitting & scaling 5-7 o'clock.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				1N stagger.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 1429, Rise (mm): 1575, Type: SPE)				
Coating		4	4	Deep pitting & scaling rust on floor 5-7 o'clock.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Water very fast.
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
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 # : 2, Span Type: Secondary Span)				
Direction		E		SOUTH CULV
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	500			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 400)		6	4	Bevel being undermined fro the last 1m.
Scour/Erosion		6	4	
Beavers (Y/N)		No		
Downstream End General Rating		6	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		5	5	
HWM (m below Top of Culvert)				Hwm not visible.
Drift (Y/N)		No		

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		6	6	

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	2011	Replace damaged section guardrail.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	22.2/22.2	Sufficiency Rating (Last/Now) (%)	26.7/27.6	Est. Repl. Yr	2013	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor corrosion. Monitor erosion @ u/s end of North pipe. No repairs untill assesment complete. Low advisory rating sent. Replacement culvert design complete.		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	Shane Hall		Previous Assistant's Name				
Next Inspection Date	05-Apr-2013		Previous Inspection Date	12-Nov-2009			
Inspection Cycle (Default) (months)	21						
Comment							