

Bridge Culvert Inspection			
Bridge File Number	08307 -1 Bridge Culvert	Form Type	CULM
Year Built	1987	Lot No.	3
Bridge or Town Name	HOLDEN	Inspector Name	Jason Saly
Located Over	TRIBUTARY TO VERMILION RIVER, 6.5.44, WATERCRS-ST	Inspector Class	BR CLS A
Located On	855:12 C1 21.330	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	03-Jun-2010
Legal Land Location	SW SEC 11 TWP 49 RGE 16 W4M	Data Entry By	Jill Potts
Longitude, Latitude	-112:14:45, 53:12:33	Data Entry Date	01-Jul-2010
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA16	Review Date	24-Jun-2010
Clear Roadway/Skew	12 /	Dept. Reviewer Name	Chris Black
AADT/Year	520 / 2009 (A)	Dept. Review Date	06-Jul-2010
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1600	MP	24	68X13	2.8	ROUND
2	MAIN	-	1600	MP	24	68X13	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

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

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	9	8	
Vertical Alignment	9	8	
Roadway Width (m)	12.000		There are cracks in the asphalt over the pipe. There are several tire marks along these cracks.
Embankment	N	7	
Sideslope (_:1)	3.0		
(Height of Cover(m) : 1.8)			
Guardrail (Y/N)	Yes		West side only.
Approach Road / Embankment General Rating	9	8	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)			
Direction	W		North pipe.
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		X	5	(Spot corrosion in roof - photo. 07/11/2003)
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
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): , Rise (mm): 1600, Type: MP)				
Barrel Last Accessible Date	07-Nov-2003			(North pipe. Measured span 1680 near c/l. 07/11/2003) Unable to access due to water.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(Roof est 5% sag. Slight flattening. 07/11/2003)
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	80			
Percent Sag				
Sidewall		N	N	(5.0% deflection. 07/11/2003)
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	80			
Percent Deflection				
Floor		N	N	(Silted over, ice 300mm. 07/11/2003)
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	(Dirt infiltration @ 2nd seam from West - photo. 1st seam from East. 07/11/2003)
Separation (mm)	70			
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)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP)				
Coating		N	N	(Spot corrosion on roof near East end - photo. 07/11/2003)
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			(Caused by silt buildup @ both ends. 07/11/2003)
Fish Passage Adequacy		X	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		N	5	(300mm.)
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		4	4	G.R. carried forward since 07/Nov/2003.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		E		North 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	5	(Torn bevel edge in roof - photo. 07/11/2003)
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Downstream End General Rating		4	5	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		W		South pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		N	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): , Rise (mm): 1600, Type: MP)				
Barrel Last Accessible Date	07-Nov-2003			South pipe. (Measured span 1680 near c/l. 07/11/03) Pipe not accessible due to water levels.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(Roof est 5%. Slight flattening. 07/11/2003)
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	70			
Percent Sag				
Sidewall		N	N	(Measured span 1670 near c/l. 5.0% deflection. 07/11/2003)
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	70			
Percent Deflection				
Floor		N	N	(Silted over, ice 300mm. 07/11/2003)
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	(Dirt infiltration @ 2nd seam from West - photo. 1st seam from East. 07/11/2003)
Separation (mm)	125			
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)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP)				
Coating		N	N	(Spot corrosion on roof near East end - photo. 07/11/2003)
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			(Caused by silt buildup @ both ends. 07/11/2003)
Fish Passage Adequacy		X	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		N	5	(300mm)
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		4	4	G.R. carried forward since 07/Nov/2003.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		South 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	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Downstream End General Rating		4	7	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	7	(Control gate in U/S channel used to divert water to Holden water reservoir. 07/11/2003)
Bank Stability		N	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading				Unknown.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		8	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	2010	Seal cracks in ACP above pipes.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	63.3/51.9	Est. Repl. Yr	2023	Maint. Reqd. (Y/N)	Yes
Special Comments for Next Inspection	(Area appears corrosive. Monitor spot corrosion. 07/Nov/2003) (North pipe East bevel from bevel edge does not need to be repaired at this time. D.L. 07/Nov/2003)		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	03-Sep-2013		Previous Inspection Date	22-Mar-2007			
Inspection Cycle (Default) (months)	39						
Comment							