

Bridge Culvert Inspection				
Bridge File Number	71986 -1 Bridge Culvert		Form Type	CULM
Year Built	1962		Lot No.	4
Bridge or Town Name	NANTON		Inspector Name	Garry Roberts
Located Over	CHAFFEN CREEK, 2.12.25.18.3, WATERCRS-ST		Inspector Class	BR CLS A
Located On	22:08 C1 36.412		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	05-Jun-2012
Legal Land Location	SE SEC 26 TWP 13 RGE 2 W5M		Data Entry By	Kelsey Roberts
Longitude, Latitude	-114:10:11, 50:06:22		Data Entry Date	05-Jul-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Tom Carey
Contract Main. Area	CMA27		Review Date	18-Jun-2012
Clear Roadway/Skew	12.2 /		Dept. Reviewer Name	Tim Davies
AADT/Year	1,980 / 2011 (A)		Dept. Review Date	12-Jul-2012
Road Classification	RAU-211.8-110		Follow-Up By	
Detour Length (km)	60			

**Bridge Culvert Information**

Number of Culverts		2						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2900	3200	SPE	55.5	152X51	3.5,3.5,3.5	ELLIPSE
2	MAIN	2900	3200	SPE	55.5	152X51		ELLIPSE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments				
Telephone	Plowed in ditch @ West r/w.		Gas	
Power			Municipal	
Others	Fibre optics plowed in East ditch.		Problem (Y/N)	No
Remarks				

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Local road intersects 100m North. Blind crest curve 100m North.
Vertical Alignment		6	6	
Roadway Width (m)	12.200			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : 4.1)				
Guardrail (Y/N)	Yes			
<b>Approach Road / Embankment General Rating</b>		<b>6</b>	<b>6</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		W		South pipe - West end.
End Treatment (Concrete, Steel, Others, None)		CONCRETE		
Headwall		8	8	Narrow cracks
Collar		8	7	Narrow cracks.
Wingwalls		X	X	
(Shape : )				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Span Type: Primary Span)</b>				
Cutoff Wall		7	N	Buried
Bevel End		7	7	
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		8	8	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 1000)				
Scour/Erosion		8	8	
Beavers (Y/N)	Yes			Partial beaver dam located 100m U/S
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2900, Rise (mm): 3200, Type: SPE)</b>				
Barrel Last Accessible Date	08-Oct-2010			South pipe. Water too deep and running too fast to enter pipe, viewed from both ends appears good.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		7	N	(Roof leaks @ ring #2 from D/S.) 96/05/08 P.R. 7
Measured Rise (mm)	3120			
Measured At Ring No.	3			
Sag (mm)	80			
Percent Sag	2			
Sidewall		7	N	P.R. 7
Measured Span (mm)	3025			
Measured At Ring No.	3			
Deflection (mm)	125			
Percent Deflection	7			
Floor		7	N	P.R. 7
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	N	P.R. 7
Separation (mm)	0			
Longitudinal Seams		7	N	P.R. 7
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				3N stagger
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		6	N	(Superficial corrosion @ U/S bevel and abrasion.)
Corrosion By Soil (Y/N)	No			
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): 2900, Rise (mm): 3200, Type: SPE)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		N	N	
(Type : WEIR)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>7</b>	<b>N</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		E		South pipe East end.
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	Minor bend of 200mm along South bevel from rock placement.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 1000)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>6</b>	<b>6</b>	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		W		North pipe West end.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	Narrow cracks
Collar		8	7	Narrow cracks.
Wingwalls (Shape : )		X	X	
Cutoff Wall		7	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Span Type: Secondary Span)</b>				
Bevel End		7	7	
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>1000</b> )				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 2900, Rise (mm): 3200, Type: SPE)</b>				
Barrel Last Accessible Date	08-Oct-2010			North pipe. Water too deep and running too fast to enter pipe. Viewed from ends- appears good.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		7	N	(Roof leaks @ ring #2 from d/s) 96/05/08 P.R. 7
Measured Rise (mm)	3310			
Measured At Ring No.	3			
Sag (mm)	90			
Percent Sag	3			
Sidewall		7	N	P.R. 7
Measured Span (mm)	2965			
Measured At Ring No.	10			
Deflection (mm)	65			
Percent Deflection	2			
Floor		7	N	P.R. 7
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	N	P.R. 7
Separation (mm)	0			
Longitudinal Seams		7	N	P.R. 7
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				3N stagger
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	N	Superficial corrosion @ u/s bevel and abrasion.
Corrosion By Soil (Y/N)	No			
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): 2900, Rise (mm): 3200, Type: SPE)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		N	N	
(Type : )				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>7</b>	<b>N</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		North pipe East end.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		6	6	Minor bend along South bevel due to large rock placement.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 1000)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>6</b>	<b>6</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	
Bank Stability		6	6	
HWM (m below Top of Culvert)	0.8			Drift between bevels- 0.8m from top of pipe.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>7</b>	<b>7</b>	

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							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>77.8/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>73.4/62.0</b>	Est. Repl. Yr	2030	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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	05-Mar-2014		Previous Inspection Date	08-Oct-2010			
Inspection Cycle (Default) (months)	21						
Comment							