

Bridge Culvert Inspection			
Bridge File Number	08374 -1 Bridge Culvert	Form Type	CULE
Year Built	1956	Lot No.	4
Bridge or Town Name	CROSSFIELD	Inspector Name	Garry Roberts
Located Over	CROSSFIELD CREEK, 3.33.20, WATERCRS-ST	Inspector Class	BR CLS A
Located On	2:18 L1 28.018;2:18 R1 28.024	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	06-Sep-2011
Legal Land Location	SW SEC 12 TWP 29 RGE 1 W5M	Data Entry By	Alyssa Boynton
Longitude, Latitude	-114:01:24, 51:27:40	Data Entry Date	21-Oct-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Ash Morjaria
Contract Main. Area	CMA29	Review Date	09-Oct-2011
Clear Roadway/Skew	28 /	Dept. Reviewer Name	Tim Davies
AADT/Year	29,530 / 2010 (A)	Dept. Review Date	28-Oct-2011
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	Pl./Slab Thickness	Shape
1	U/S	-	1600	MP	36	125X26	2.8	ROUND
1	MAIN	3600	1800	BP	79.3			RECTANGLE
1	D/S	-	2150	SP	39			ROUND
Special Features	STORM WATER DRAIN, BARREL ELBOW							
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w	Gas	
Power	3 wire west r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Hwy 2 N & S lanes & east service road.
Vertical Alignment	7	7	
Roadway Width (m)	28.000		
Embankment	7	7	Ditch erosion @SE of Service road. Erosion measures 7mx2mx0.8m deep -Well vegetated and stable
Sideslope (__:1)	3.0		
(Height of Cover(m) : 9.6)			
Guardrail (Y/N)	Yes		
Approach Road / Embankment General Rating	7	7	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
Direction	W		West end. - csp extensions
End Treatment (Concrete, Steel, Others, None)	STEEL		
Headwall	X	X	
Collar	7	7	Concrete collar between pipes - Minor cracking.
Wingwalls	X	X	
(Shape :)			

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		8	8	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		8	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1 , Primary Span, Location Code: U/S , Span (mm): , Rise (mm): 1600 , Type: MP , Cell Sequence: 1)				
Barrel Last Accessible Date	06-Sep-2011			CSP - SOutH pipe.
Special Features				
Special Feature		7	8	
(Type : STORM WATER DRAIN)				
Special Feature			X	
(Type : BARREL ELBOW)				
Roof		7	8	
Measured Rise (mm)	1600			
Measured At Ring No.	3			
Sag (mm)	0			
Percent Sag				
Sidewall		5	8	
Measured Span (mm)	1600			
Measured At Ring No.	3			
Deflection (mm)	0			
Percent Deflection				
Floor		N	8	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	8	Sealed with spray foam.
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	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 1600, Type: MP, Cell Sequence: 1)				
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		5	8	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 1600, Type: MP, Cell Sequence: 2)				
Barrel Last Accessible Date	06-Sep-2011			CSP- South pipe.
Special Features				
Special Feature			8	
(Type : BARREL ELBOW)				
Special Feature				
(Type :)				
Roof		7	8	
Measured Rise (mm)	1600			
Measured At Ring No.	3			
Sag (mm)	0			
Percent Sag	0			
Sidewall		5	8	
Measured Span (mm)	1600			
Measured At Ring No.	3			
Deflection (mm)	0			
Percent Deflection	0			
Floor		N	8	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	8	Sealed with spray foam.
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	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 1600, Type: MP, Cell Sequence: 2)				
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		7	8	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1800, Rise (mm): 1800, Type: BP, Cell Sequence: 1)				
Barrel Last Accessible Date	06-Sep-2011			Concrete box - South cell.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	7	Isolated transverse cracks - narrow.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		8	5	Minor spalls, isolated narrow to wide vertical cracks.
Measured Span (mm)	1600			
Measured At Ring No.	2			
Deflection (mm)				
Percent Deflection				
Floor		N	N	400mm silt.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	5	Minor spalls.
Separation (mm)	100			
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		8	X	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1800, Rise (mm): 1800, Type: BP, Cell Sequence: 1)				
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	400mm silt.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		8	5	

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1800, Rise (mm): 1800, Type: BP, Cell Sequence: 2)					
Barrel Last Accessible Date	06-Sep-2011			Concrete box - North.	
Special Features					
Special Feature					
(Type :)					
Special Feature					
(Type :)					
Roof		8	7	Isolated narrow transverse cracks.	
Measured Rise (mm)					
Measured At Ring No.					
Sag (mm)					
Percent Sag					
Sidewall		8	5	Minor spalls, Narrow to wide vertical cracks.	
Measured Span (mm)					
Measured At Ring No.					
Deflection (mm)					
Percent Deflection					
Floor		N	N	400mm silt.	
Bulge (mm)	0				
Measured At Ring No.					
Abrasion (Y/N)	No				
Circumferential Seams		8	5	Minor spalls.	
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		8	X		
Corrosion By Soil (Y/N)	No				
Corrosion By Water (Y/N)	No				
Camber POS/ZERO/NEG	ZERO				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1800, Rise (mm): 1800, Type: BP, Cell Sequence: 2)				
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	400mm silt.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		8	5	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: D/S, Span (mm): , Rise (mm): 2150, Type: SP)				
Barrel Last Accessible Date	08-Sep-2011			SPCSP
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	8	
Measured Rise (mm)	2115			
Measured At Ring No.	3			
Sag (mm)	35			
Percent Sag	2			
Sidewall		7	7	
Measured Span (mm)	2120			
Measured At Ring No.	3			
Deflection (mm)	30			
Percent Deflection	1			
Floor		N	N	500mm silt.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)				
Coating		7	6	Isolated rust spots
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: D/S, Span (mm): , Rise (mm): 2150, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	6	0.5m of silt.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel Extension General Rating		7	7	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		East end of SP
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
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		4	4	Meandering stream. Enters at 90 deg. and exits 45 deg
Bank Stability		6	6	
HWM (m below Top of Culvert)	0.5			0.5 mm from roof in BP
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		4	4	

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							
Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	63.0/58.5	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	06-Jun-2013		Previous Inspection Date	14-Jan-2010			
Inspection Cycle (Default) (months)	21						
Comment							