

Bridge Culvert Inspection				
Bridge File Number	77792 -1 Bridge Culvert		Form Type	CUL1
Year Built	1973		Lot No.	4
Bridge or Town Name	CALGARY		Inspector Name	Garry Roberts
Located Over	CPR		Inspector Class	BR CLS A
Located On	2:15 R1 33.792;2:15 L1 33.889		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	15-Jan-2013
Legal Land Location	SW SEC 24 TWP 24 RGE 1 W5M		Data Entry By	Kelsey Roberts
Longitude, Latitude	-114:01:11, 51:03:16		Data Entry Date	03-Feb-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Tom Carey
Contract Main. Area	DEERFOOT/STONEV		Review Date	22-Jan-2013
Clear Roadway/Skew	44 / -45 deg. (LHF)		Dept. Reviewer Name	Tim Davies
AADT/Year	159,880 / 2011 (A)		Dept. Review Date	04-Feb-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	7300	8830	RPE	148	152X51	5.0	ELLIPSE
Special Features								
Special Features Comment								

**Posting Information**

Required Vert. Clearance Posting (m)												
Posted Vertical Clearance (Y/N)	No											
Posted:	Lane	EB	On Bridge (m)		In Advance (Y/N)	No	Lane	WB	On Bridge (m)		In Advance (Y/N)	No
Remarks	Not required											

**Utilities (Located at)**

Utility Attachments												
Telephone	@ SW.					Gas						
Power	Multiple wires to East & West.					Municipal						
Others	Light standards.					Problem (Y/N)	No					
Remarks												

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Curves.
Vertical Alignment		6	6	On crest curve.
Roadway Width (m)	44.000			B4308
Embankment		7	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : 1.2)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>6</b>	<b>6</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction				West end.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Collar		6	6	Random medium width cracks @ collar.
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	2000			
Scour Protection		7	7	
(Type : <b>CONCRETE</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>6</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 7300, Rise (mm): 8830, Type: RPE)				
Barrel Last Accessible Date	15-Jan-2013			
<b>Special Features</b>				
Special Feature				Safety pipe railing @ ends.
(Type : )				
Special Feature				
(Type : )				
Roof		7	7	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		4	4	Tight cracks @ rings 16 & 17 @ North side - no change
Measured Span (mm)				To high to measure
Measured At Ring No.				Pipe on curve @ East 1/4.
Deflection (mm)				
Percent Deflection				
Floor		X	N	Railway & gravel.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		4	4	Only lower seams seen.
Total No. of Cracked Rings	2			Rings 16 & 17 @ North side - 115mm remaining steel @ cracks. No growth in cracks Jan. 2013 inspection.
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	115			
Proper Lap (Y/N)	No			No stagger at sidewall seams
Longitudinal Stagger (Y/N)	No			4N stagger at roof seams

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 7300, Rise (mm): 8830, Type: RPE)				
Coating		5	5	Alkali @ 50% of top sidewall & roof plates & seams. Some minor corrosion stains @ roof @ ring 20.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type : )				
Waterway Adequacy		X	X	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>4</b>	<b>4</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction				East end.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	A few wide cracks @ headwall.
Collar		6	6	Random medium width cracks @ collar.
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	2000			
Scour Protection		7	7	
(Type : <b>CONCRETE</b> )				
(Avg. Rock Size(mm) : )				
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>Grade Separation</b>				
Road Alignment		X	X	Railway.
Roadway Surface		7	7	

Structure Usage				
		Last	Now	Explanation of Condition
(Type : GRAVEL)				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type				
Lighting		X	X	
Barrel Leakage (Y/N)	Yes			Leakage at both sidewalls and roof of rings 15-20
Drainage		7	7	
Structure In Use (Y/N)	Yes			
<b>Grade Separation 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>44.4/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>61.8/61.8</b>	Est. Repl. Yr	2033	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	15-Oct-2014		Previous Inspection Date	16-Jan-2012			
Inspection Cycle (Default) (months)	21						
Comment							