Bridge Culvert Inspection

Bridge File Number	82042 -1 Bridge Culvert	Form Type	CUL1
Year Built	1910	Lot No.	2
Bridge or Town Name	EDMONTON	Inspector Name	Todd Warshawski
Located Over	TRAIL-ANIMAL, OVER SP	Inspector Class	BR CLS B
Located On	21:28 C1 1.314	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	07-Jan-2013
Legal Land Location	SW SEC 6 TWP 52 RGE 22 W4M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-113:14:46, 53:27:31	Data Entry Date	23-Jan-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA09	Review Date	17-Jan-2013
Clear Roadway/Skew	10.7 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	8,820 / 2011 (A)	Dept. Review Date	23-Jan-2013
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2130	MP	30.5	75X25	2.8	ROUND
Special Features		CONC FLOOR						
Special Features Comment		BF tag on West end.						

Posting Information

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

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	45 m north.
Power	2 line east r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Approach 50m North & South. Intersection with Hwy 14, 800m South. Crest curve to south.
Vertical Alignment		8	8	
Roadway Width (m)	10.700			Recently repaired.
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1.2**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	100			
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	N	Snow covered.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**7**	GR carried fwd.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2130, Type: MP**)				
Barrel Last Accessible Date	07-Jan-2013			
Special Features				
Special Feature		N	N	Only 10% visible - cracked.-May, 2009
(Type : **CONC FLOOR**)				Ice/snow covered.
Special Feature				
(Type :)				
Roof		4	4	Damage to roof 200mm dia. 10m from D/S end - photos. 100mm dia 10m from U/S end.-loss of fill. Measured from 1 o'clock to 7 o'clock.-Feb,2011
Measured Rise (mm)	2000			
Measured At Ring No.	5			Rise not measured due to ice.
Sag (mm)	130			
Percent Sag	6			
Sidewall		5	5	12m from E end.
Measured Span (mm)	2235			
Measured At Ring No.	4			
Deflection (mm)	108			
Percent Deflection	5			
Floor		N	N	Ice covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	5	Cut seams not welded.-photo
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): 2130, Type: MP**)				
Coating		6	6	Minor superficial rust along lower 1/4.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			Approx 250mm of water ponded in pipe due to negative camber and poor drainage @ ends.
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		X	X	150mm.-May, 2009
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**4**	**4**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	100			
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	N	Snow covered
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	GR carried fwd.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		7	7	
Roadway Surface		7	7	
(Type :)				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type				

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Lighting		X	X	
Barrel Leakage (Y/N)	No			
Drainage		4	4	Poor drainage away from end pipe due to neg camber.
Structure In Use (Y/N)	Yes			As ski-doo underpass only - no fences for cattle.
Grade Separation 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	2013	Patch holes in roof.				
OTHER ACTION	2013	Weld corrugation seams				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**61.8/61.8**	Est. Repl. Yr	2024	Maint. Reqd. (Y/N)	Yes

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	Todd Warshawski	Previous Assistant's Name	
Next Inspection Date	07-Oct-2014	Previous Inspection Date	09-Feb-2011
Inspection Cycle (Default) (months)	21		
Comment			