Bridge Culvert Inspection

Bridge File Number	74600 E-1 Bridge Culvert	Form Type	CUL1
Year Built	2000	Lot No.	3
Bridge or Town Name	MORLEY	Inspector Name	Garry Roberts
Located Over	25125:02 R1 0.183;25125:02 L1 0.182	Inspector Class	BR CLS A
Located On	1:04 R1 22.135	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	10-Feb-2012
Legal Land Location	NE SEC 28 TWP 25 RGE 6 W5M	Data Entry By	Erin Roberts
Longitude, Latitude	-114:46:11, 51:09:42	Data Entry Date	14-Mar-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Tom Carey
Contract Main. Area	CMA28	Review Date	22-Feb-2012
Clear Roadway/Skew	13.1 / -30 deg. (LHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	18,610 / 2010 (A)	Dept. Review Date	22-Mar-2012
Road Classification	RAD-412.4-120	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	MAIN	8100	4681	BPR	40.4			RECTANGLE
Special Features								
Special Features Comment								

Posting Information

Required Vert. Clearance Posting (m)			UNDER: 25125 L1 3.9m, 25125 R1 3.9m								
Posted Vertical Clearance (Y/N)			Yes								
Posted:	Lane	NB	On Bridge (m)	4.6	In Advance (Y/N)	Yes	Lane	SB	On Bridge (m)		In Advance (Y/N)	Yes
Remarks	4.7 m measured - good. S/B posting is on W/B bridge.										

Utilities (Located at)

Utility Attachments	TELEPHONE UTILITIES-PHONE LINE		
Telephone	South R/W	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	
Vertical Alignment		6	6	
Roadway Width (m)	12.800			
Embankment		6	6	
Sideslope (__:1)	2.0			
(Height of Cover(m) : **0.2**)				
Guardrail (Y/N)	Yes			Galvanized thriebeam and posts across deck top. 6 posts with minor damage to tops. Several with insufficient thread length
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				North
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Collar		X	X	
Wingwalls		7	7	Hairline - narrow cracks
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		X	X	
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		X	X	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 8100, Rise (mm): 4681, Type: BPR**)				
Barrel Last Accessible Date	10-Feb-2012			
Special Features				
Special Feature				Safety rail on wingwalls Broken connection at NW, NE and SW top rails
(Type :)				
Special Feature				
(Type :)				
Roof		7	6	Narrow cracks in concrete wear surface are reflecting through to roof underside with staining.
Measured Rise (mm)	8100			
Measured At Ring No.				Minor high load scrapes.
Sag (mm)	0			
Percent Sag				
Sidewall		8	8	Narrow vertical cracks in sidewall.
Measured Span (mm)	8100			
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		7	7	Random cracking throughout.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		X	X	
Separation (mm)				
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): 8100, Rise (mm): 4681, Type: BPR**)				
Coating		4	4	Wingwalls & Barrel walls coated with pigmented sealer to 1/2 rise Peeling in isolated areas
Corrosion By Soil (Y/N)	No			
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			
Barrel General Rating		**7**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				South
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		X	X	
Wingwalls		7	7	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		X	X	
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		X	X	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		6	6	
Roadway Surface		6	6	
(Type : **ACP**)				
Icing (Y/N)	No			
Traffic Safety Features		7	7	
Type	PARAPETS			

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Lighting		X	X	
Barrel Leakage (Y/N)	No			
Drainage		7	7	
Structure In Use (Y/N)	Yes			
Grade Separation General Rating		**6**	**6**	

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	2012	Reconnect NW, NE and SW safety rails				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**77.8/66.7**	**Sufficiency Rating (Last/Now) (%)**	**78.7/72.7**	Est. Repl. Yr	2063	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	Garry Roberts	Previous Assistant's Name			
Next Inspection Date	10-Nov-2013	Previous Inspection Date	15-Sep-2010		
Inspection Cycle (Default) (months)	21				
Comment					