Bridge Culvert Inspection

Bridge File Number	73568 -1 Bridge Culvert	Form Type	CUL1
Year Built	1959	Lot No.	4
Bridge or Town Name	FAWCETT	Inspector Name	Todd Warshawski
Located Over	FRENCH CREEK, 8.11.84.4, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	44:02 C1 49.422	Assistant Class	
Water Body Cl./Year		Inspection Date	16-Apr-2013
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 16 TWP 64 RGE 1 W5M	Data Entry Date	24-Apr-2013
Longitude, Latitude	-114:04:60, 54:32:30	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	21-Apr-2013
Contract Main. Area	CMA10	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	11.2 / -20 deg. (LHF)	Dept. Review Date	01-May-2013
AADT/Year	2,250 / 2012 (A)	Follow-Up By	
Road Classification	RAU-210-110		
Detour Length (km)	5		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	6100	6100	AP	61			ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	3 wire OH East r/w	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Entrance to Fawcett 100 m north.
Vertical Alignment		7	7	Sag curve no passing to NB.
Roadway Width (m)	11.200			
Embankment		5	5	4:1 top 1m so then 2 1/2:1.
Sideslope (__:1)	2.5			1 x 0.5 x 10m(lwd) erosion scour in SE ditch.-grassed and stable.
(Height of Cover(m) : **8**)				
Guardrail (Y/N)	Yes			NW terminal end is not buried.
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	5	Few wide cracks.
Collar		X	X	
Wingwalls		4	4	40mm wide cracks NE wing.-photo
(Shape : **FLARE**)				NE wing has detached 18mm & moved in 380mm at top. Concrete repair has failed. photo

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		N	N	
Bevel End		X	X	Snow/ice covered
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			Water 2m deep
Above/Below (mm)	300			
Scour Protection		6	N	Snow/ice covered
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	N	Snow/ice covered
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 6100, Rise (mm): 6100, Type: AP**)				
Barrel Last Accessible Date	16-Apr-2013			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	6	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		N	5	Efflorescence stains showing through vertical cracks. Wide longitudinal crack on South side of wall, 10m from U/S. Several wide vertical cracks with stains.
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	4	Concrete spalls at construction joints along SE wall.
Separation (mm)	30			
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	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): 6100, Rise (mm): 6100, Type: AP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		N	N	150 x 650 concrete median. Chipped and broken at inlet end.-10-Sep-2009
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**5**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	Medium cracks
Collar		X	X	
Wingwalls		4	4	Typical wide diagonal cracks in each wingwall void behind wingwall. SE wing detached 70mm from barrel and moved in 150mm at top.
(Shape :)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			Water 2m deep
Above/Below (mm)	300			
Scour Protection		6	N	
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	N	
Beavers (Y/N)	No			
Downstream End General Rating		**4**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		5	5	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Trails and cuttings evident.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**7**	

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) (%)**	**57.4/58.6**	Est. Repl. Yr	2036	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor wingwalls for instability.	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	Eric Carcoux	Previous Assistant's Name			
Next Inspection Date	16-Jan-2015	Previous Inspection Date	13-Jul-2011		
Inspection Cycle (Default) (months)	21				
Comment					