Bridge Culvert Inspection

Bridge File Number	83035 -1 Bridge Culvert	Form Type	CULM
Year Built	1986	Lot No.	4
Bridge or Town Name	ANDREW	Inspector Name	Dave Lam
Located Over	EGG CREEK, 6.48, WATERCRS-ST	Inspector Class	BR CLS A
Located On	LOCAL ROAD	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	17-Jul-2011
Legal Land Location	SW SEC 4 TWP 57 RGE 16 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-112:19:55, 53:53:36	Data Entry Date	22-Aug-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	UNDEFINED CMA	Review Date	28-Jul-2011
Clear Roadway/Skew		Dept. Reviewer Name	Andrew Smikles
AADT/Year	1 / 2011 (E)	Dept. Review Date	23-Aug-2011
Road Classification		Follow-Up By	
Detour Length (km)	999		

Bridge Culvert Information

Number of Culverts		2						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1600	MP	13.9	68X13	2.8	ROUND
2	MAIN	-	1600	MP	13.9	68X13	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Land access over drainage ditch in middle of field N on RR165 1.0km off HWY45 E into field access. Follow creek bank on N side to culvert site.
Vertical Alignment		5	5	
Roadway Width (m)				
Embankment		5	5	
Sideslope (__:1)	1.0			
(Height of Cover(m) :)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**5**	**5**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Direction		S		WEST PIPE.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Cutoff Wall		X	X	
Bevel End		6	7	
Heaving (mm)	25			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	6	Covered with straw & small twigs.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP**)				
Barrel Last Accessible Date	17-Jul-2011			WEST PIPE
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)	1555			Midspan.
Measured At Ring No.				
Sag (mm)	45			2.8%
Percent Sag	3			
Sidewall		6	6	
Measured Span (mm)	1645			Midspan.
Measured At Ring No.				
Deflection (mm)	45			2.8%.
Percent Deflection	3			
Floor		6	N	0.7m water.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			
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		6	5	
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle			X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	Yes			Lots of small drift inside barrel.
Drift (Y/N)	Yes			
Barrel General Rating		**6**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Direction		N		WEST PIPE
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	(Bulge (photo 3). 19Nov2002). Under water; not visible.
Heaving (mm)	25			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**6**	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Direction		S		EAST PIPE
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Bevel End		6	7	
Heaving (mm)	25			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP**)				
Barrel Last Accessible Date	17-Jul-2011			EAST PIPE
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)	1570			
Measured At Ring No.				
Sag (mm)	30			
Percent Sag				
Sidewall		6	6	
Measured Span (mm)	1630			
Measured At Ring No.				
Deflection (mm)	30			
Percent Deflection				
Floor		6	N	0.7m water.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			
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		6	6	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle			X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	Yes			Lots of small drift inside barrel.
Drift (Y/N)	Yes			
Barrel General Rating		**6**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Direction		N		EAST PIPE
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Unknown.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**7**	**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) (%)	**66.0/66.7**	**Sufficiency Rating (Last/Now) (%)**	**71.9/71.7**	Est. Repl. Yr	2022	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Land access only & not a major concern if drift not cleaned out regularly - 17Jul2011.	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	Aime Theroux	Previous Assistant's Name			
Next Inspection Date	17-Apr-2016	Previous Inspection Date	19-Nov-2002		
Inspection Cycle (Default) (months)	57				
Comment					