Bridge Culvert Inspection

Bridge File Number	73048 -1 Bridge Culvert	Form Type	CUL1
Year Built	1965	Lot No.	4
Bridge or Town Name	WINFIELD	Inspector Name	Owen Salava
Located Over	TRIBUTARY TO POPLAR CREEK, 6.132.13, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	20:06 C1 36.359	Assistant Class	
Water Body Cl./Year		Inspection Date	09-Jul-2012
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	NW SEC 8 TWP 46 RGE 3 W5M	Data Entry Date	01-Aug-2012
Longitude, Latitude	-114:24:42, 52:57:25	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	31-Jul-2012
Contract Main. Area	CMA17	Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	10 /	Dept. Review Date	02-Aug-2012
AADT/Year	2,220 / 2011 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	26		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1724	SP	50.6	152X51	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	In r/w to West.	Gas	
Power	3 lines 25m West of c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Hwy 13 intersection 400 m N. No passing. Curve to the S - limited sight distance. TWP Rd 461 A int 50m S.
Vertical Alignment		5	5	
Roadway Width (m)	10.000			
Embankment		7	7	Grade to the N starts at 250 m N. 4:1 sideslope then a 10 m bench both sides with a 3:1 sideslope at toe.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**5**	**5**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
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**
Bevel End		6	6	
Heaving (mm)	200			
Invert Above/Below Stream Bed	ABOVE			Beaver control device placed on inlet.
Above/Below (mm)	100			
Scour Protection		N	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		N	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): 1724, Type: SP**)				
Barrel Last Accessible Date	23-Mar-2006			Could not access due to water level. D/S outlet is 500mm from crown. Depth of water is 500mm at inlet; viewed from ends, shape looks OK.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	
Measured Rise (mm)	1875			
Measured At Ring No.				(23Mar2006).
Sag (mm)	26			
Percent Sag	1			
Sidewall		N	N	(Sidewall has leakage through seams. 23-Mar-2006).
Measured Span (mm)	1758			
Measured At Ring No.				
Deflection (mm)	34			(23Mar2006).
Percent Deflection	2			
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		N	N	(Scaling & some pitting lower 1/4. 23-Mar-2006).
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1724, Type: SP**)				
Ponding (Y/N)	Yes			High normal water level.
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**N**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	5	Bevel projects 200 mm from fill.
Heaving (mm)	70			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		N	5	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		N	5	
Beavers (Y/N)	No			
Downstream End General Rating		**N**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		5	5	Timber guide banks at D/S (old bridge abutment). Cut banks @ D/S - between culvert & guide banks, but stable. Culvert set on steeper grade than channel.
HWM (m below Top of Culvert)	0.3			
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Can't determine deg. or agg.
Beavers (Y/N)	Yes			
(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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**53.2/53.0**	Est. Repl. Yr	2030	Maint. Reqd. (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	Owen Salava	Previous Assistant's Name			
Next Inspection Date	09-Apr-2014	Previous Inspection Date	08-Dec-2010		
Inspection Cycle (Default) (months)	21				
Comment					