Bridge Culvert Inspection

Bridge File Number	08929 -1 Bridge Culvert	Form Type	CUL1
Year Built	1984	Lot No.	4
Bridge or Town Name	CHIN	Inspector Name	Garry Roberts
Located Over	TRIBUTARY TO CHIN COULEE WEST, 2.12.10.4, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	512:02 C1 23.723	Assistant Class	
Water Body Cl./Year		Inspection Date	20-Mar-2012
Navigabil. Cl./Year		Data Entry By	Lauren Korte
Legal Land Location	NW SEC 11 TWP 9 RGE 19 W4M	Data Entry Date	12-Apr-2012
Longitude, Latitude	-112:29:18, 49:43:24	Reviewer Name	Tom Carey
Road Authority	Alberta Transportation (AIT)	Review Date	23-Mar-2012
Contract Main. Area	CMA24	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	10.2 / -10 deg. (LHF)	Dept. Review Date	17-Apr-2012
AADT/Year	470 / 2011 (A)	Follow-Up By	
Road Classification	RCU-209-110		
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	3900	2500	RPE	37.8	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West ditch.	Gas	
Power	3 lines on East side.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	
Vertical Alignment		8	8	
Roadway Width (m)	10.200			
Embankment		8	8	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **3.6**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**8**	**8**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		West invert.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		6	6	Concrete collar cracked near bottom, both sides. No problems.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	Buried.

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	550			
Scour Protection		6	5	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	5	Very little riprap left.
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 3900, Rise (mm): 2500, Type: RPE**)				
Barrel Last Accessible Date	20-Mar-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	5	(1 ring from U/S 2340mm, centerline 2315mm, 1 ring from D/S 2380mm).
Measured Rise (mm)				
Measured At Ring No.				(15-mar-2002)
Sag (mm)	185			
Percent Sag				(7.4% sag) Rating on previous measurements and visual.
Sidewall		N	7	
Measured Span (mm)	3930			
Measured At Ring No.	5			
Deflection (mm)	30			
Percent Deflection	1			
Floor		5	N	500 rock and silt.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	7	Staggered.
Separation (mm)	0			
Longitudinal Seams		N	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	5	Superficial corrosion.
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 3900, Rise (mm): 2500, Type: RPE**)				
Fish Passage Adequacy		X	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	5	500mm silt.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**4**	**5**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		East.
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	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		6	5	Very little rip rap left.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	5	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		4	4	Small CSP U/S - road drainage. Comes in at 40 deg. angle U/S.
Bank Stability		5	4	Banks sloughing both ends.
HWM (m below Top of Culvert)	1.0			No visible HWM.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel 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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/55.6**	**Sufficiency Rating (Last/Now) (%)**	**58.2/55.1**	Est. Repl. Yr	2033	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	Glen Mikesh	Previous Assistant's Name	Bernie Roseke		
Next Inspection Date	20-Jun-2015	Previous Inspection Date	22-Apr-2009		
Inspection Cycle (Default) (months)	39				
Comment					