

Bridge Culvert Inspection				
Bridge File Number	02370 -1 Bridge Culvert		Form Type	CULM
Year Built	1996		Lot No.	4
Bridge or Town Name	LUNDBRECK		Inspector Name	Garry Roberts
Located Over	TODD CREEK, 2.12.37.3, WATERCRS-ST		Inspector Class	BR CLS A
Located On	22:06 C1 16.308		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	16-Jun-2012
Legal Land Location	SW SEC 14 TWP 9 RGE 2 W5M		Data Entry By	Erin Roberts
Longitude, Latitude	-114:10:26, 49:43:55		Data Entry Date	16-Jul-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Joel Wozney
Contract Main. Area	CMA26		Review Date	27-Jun-2012
Clear Roadway/Skew	13.7 /		Dept. Reviewer Name	Tim Davies
AADT/Year	2,360 / 2011 (A)		Dept. Review Date	17-Jul-2012
Road Classification	RAU-211.8-110		Follow-Up By	
Detour Length (km)	10			

Bridge Culvert Information

Number of Culverts	3							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	6287	3888	RPB	15.9	152X51	4.0	ELLIPSE
2	MAIN	-	3000	MPB	16	125X26	3.5	ROUND
3	MAIN	-	3000	MPB	16	125X26	3.5	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone	East r/w.		Gas	
Power			Municipal	
Others	Fibre optics @ East r/w.		Problem (Y/N)	No
Remarks				

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	In sag curve.
Vertical Alignment		6	6	
Roadway Width (m)	12.000			
Embankment		7	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : 0.8)				
Guardrail (Y/N)	Yes			Double layer flexbeam bridgerail.
Approach Road / Embankment General Rating		6	6	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		W		West end of center pipe.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	Some cracks & leaching. Parging patched.
Collar		X	X	
Wingwalls (Shape :)		7	7	Timber with steel piles

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Cutoff Wall		N	N	Buried.
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		8	8	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	8	
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): 6287, Rise (mm): 3888, Type: RPB)				
Barrel Last Accessible Date	16-Jun-2012			Centre pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		8	8	(6250mm span @ mid - no def - as built.)
Measured Span (mm)	6233			
Measured At Ring No.	3			
Deflection (mm)	54			
Percent Deflection	1			
Floor		N	N	Silt & rock 1300mm deep.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		8	8	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				3N stagger at roof only
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	No			
Coating		6	6	Alkali and calcium stains at seams.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 6287, Rise (mm): 3888, Type: RPB)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			Minor drift in barrel.
Barrel General Rating		7	7	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		E		East end of centre pipe.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	Cracks & leaching - parging patched.
Collar		X	X	
Wingwalls		7	7	Timber with steel piles
(Shape :)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		8	8	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	8	
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		W		West end South pipe
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	Narrow cracks.
Collar		X	X	
Wingwalls		7	7	Timber with steel piles.
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		8	8	Well ingrown - South CSP.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		8	8	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3000, Type: MPB)				
Barrel Last Accessible Date	16-Jun-2012			South pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		8	8	
Measured Span (mm)	2885			
Measured At Ring No.	2			
Deflection (mm)	15			
Percent Deflection				
Floor		N	N	800mm silt
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	8	
Separation (mm)	10			
Longitudinal Seams		X	X	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		7	7	
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 # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3000, Type: MPB)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	800mm silt and rock.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		8	8	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		East end south pipe
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	Cracking & leaching, parging patches.
Collar		X	X	
Wingwalls		7	7	Timber with steel piles.
(Shape :)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection		8	8	Well ingrown - South CSP.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		6	6	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
Direction		W		West end North pipe
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	Cracking & Leaching, parging patches
Collar		X	X	
Wingwalls		7	7	Timber with steel piles.
(Shape :)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)	0			

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		8	8	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		6	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3000, Type: MPB)				
Barrel Last Accessible Date	07-Oct-2010			North Pipe Handles low flows. Water too deep/ fast to enter - viewed from both ends.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	N	PR 8
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		8	N	PR 8
Measured Span (mm)	2980			
Measured At Ring No.	2			
Deflection (mm)	20			
Percent Deflection				
Floor		N	N	(500mm rock)
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		7	N	(Stitch welded) PR 7
Separation (mm)	10			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		7	N	PR 7
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3000, Type: MPB)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		8	N	PR 8
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
Direction		E		East end North Pipe
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		X	X	
Wingwalls		7	7	Timber with steel piles
(Shape :)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		8	8	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		7	7	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	Curves both ends
Bank Stability		6	6	Steep cut @ d/s
HWM (m below Top of Culvert)	2.0			Trees @ u/s
Drift (Y/N)	Yes			No visible HWM
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel 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							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	77.8/77.8	Sufficiency Rating (Last/Now) (%)	71.5/71.5	Est. Repl. Yr	2052	Maint. Req. (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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	16-Mar-2014		Previous Inspection Date	07-Oct-2010			
Inspection Cycle (Default) (months)	21						
Comment							