

| Bridge Culvert Inspection | | | | |
|---------------------------|---|--|---------------------|--------------------|
| Bridge File Number | 76149 -1 Bridge Culvert | | Form Type | CUL1 |
| Year Built | 1976 | | Lot No. | 4 |
| Bridge or Town Name | SLAVE LAKE | | Inspector Name | Wade Nanninga |
| Located Over | PASTECHO RIVER, 8.10.18.22.1, WATERCRS-ST | | Inspector Class | BR CLS B |
| Located On | 754:02 C1 16.441 | | Assistant Name | |
| Water Body Cl./Year | | | Assistant Class | |
| Navigabil. Cl./Year | | | Inspection Date | 07-Jan-2011 |
| Legal Land Location | SE SEC 33 TWP 76 RGE 5 W5M | | Data Entry By | Theresa Lacusta |
| Longitude, Latitude | -114:42:03, 55:37:18 | | Data Entry Date | 02-Feb-2011 |
| Road Authority | Alberta Transportation (AIT) | | Reviewer Name | Arnold Assenheimer |
| Contract Main. Area | CMA06 | | Review Date | 12-Jan-2011 |
| Clear Roadway/Skew | 9.5 / | | Dept. Reviewer Name | Brent Herrick |
| AADT/Year | 660 / 2009 (A) | | Dept. Review Date | 02-Feb-2011 |
| Road Classification | RCU-209-110 | | Follow-Up By | |
| Detour Length (km) | 100 | | | |

Bridge Culvert Information

| | | | | | | | | |
|--------------------------|--------|------|----------------|------|--------|---------------|--------------------|-------|
| Number of Culverts | 1 | | | | | | | |
| Pipe # | Barrel | Span | Rise (or Dia.) | Type | Length | Corr. Profile | Pl./Slab Thickness | Shape |
| 1 | MAIN | - | 2400 | SP | 32.9 | | | ROUND |
| Special Features | | | | | | | | |
| Special Features Comment | | | | | | | | |

Utilities (Located at)

| | | | |
|---------------------|---|---------------|----|
| Utility Attachments | | | |
| Telephone | | Gas | |
| Power | | Municipal | |
| Others | | Problem (Y/N) | No |
| Remarks | BF tag installed on top of South bevel. | | |

Approach Road / Embankment

| | Last | Now | Explanation of Condition |
|--|----------|----------|--|
| Horizontal Alignment | 6 | 6 | Curve to west and sag in road. No passing West bound. |
| Vertical Alignment | 6 | 6 | |
| | | | Crack across roadway over pipe, sealed. |
| Roadway Width (m) | 9.500 | | |
| Embankment | 6 | 6 | |
| Sideslope (__:1) | 4.0 | | |
| (Height of Cover(m) : 1.7) | | | |
| Guardrail (Y/N) | No | | |
| Approach Road / Embankment General Rating | 6 | 6 | |

Upstream End

| Culvert Component | Last | Now | Explanation of Condition |
|---|-------|-----|--------------------------|
| Direction | S | | |
| End Treatment (Concrete, Steel, Others, None) | STEEL | | |
| Headwall | X | X | |
| Collar | X | X | |

| Upstream End | | | | |
|---|-------------|----------|----------|--|
| Culvert Component | | Last | Now | Explanation of Condition |
| Wingwalls (Shape :) | | X | X | |
| Cutoff Wall | | X | X | |
| Bevel End | | 6 | 6 | |
| Heaving (mm) | 100 | | | |
| Invert Above/Below Stream Bed | | | | |
| Above/Below (mm) | 0 | | | |
| Scour Protection (Type :) (Avg. Rock Size(mm) :) | | 6 | 6 | Grassed in. |
| 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): 2400, Type: SP) | | | | |
| Barrel Last Accessible Date | 07-Jan-2011 | | | CROWN TO ICE 1.0M, appears to be no change in shape. |
| Special Features | | | | |
| Special Feature (Type :) | | | | |
| Special Feature (Type :) | | | | |
| Roof | | 5 | 5 | |
| Measured Rise (mm) | | | | |
| Measured At Ring No. | | | | EST |
| Sag (mm) | 90 | | | |
| Percent Sag | 4 | | | |
| Sidewall | | N | N | (Measured 2475mm span near c/l. 2001/03/20) |
| Measured Span (mm) | | | | (Deflection is 7.0%. 80mm between cracks. 3 bolts missing east side. 2001/03/29) |
| Measured At Ring No. | | | | |
| Deflection (mm) | 161 | | | |
| Percent Deflection | 7 | | | |
| Floor | | N | N | |
| Bulge (mm) | | | | |
| Measured At Ring No. | | | | |
| Abrasion (Y/N) | | | | |
| Circumferential Seams | | N | 7 | (Cracked ring #3 and #5 at 3:00 o'clock. 2001/03/29) |
| Separation (mm) | 0 | | | |
| Longitudinal Seams | | N | N | (Poor nesting of plates. 2001/03/29) |
| Total No. of Cracked Rings | 2 | | | |
| Total No. of Rings with Two Cracked Seams | | | | |
| Min. Remaining Steel Between Cracks (mm) | | | | |
| Proper Lap (Y/N) | No | | | |
| Longitudinal Stagger (Y/N) | No | | | |

| Bridge Culvert Barrel | | | | | |
|---|-------|----------|----------|---|--|
| Culvert Component | | Last | Now | Explanation of Condition | |
| (Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: SP) | | | | | |
| Coating | | N | 6 | Superficial rust at ice level. | |
| Corrosion By Soil (Y/N) | | | | | |
| Corrosion By Water (Y/N) | Yes | | | | |
| Camber POS/ZERO/NEG | NEG | | | | |
| Ponding (Y/N) | Yes | | | approx 1.0m | |
| Fish Passage Adequacy | | 8 | 8 | | |
| Baffle | | N | N | | |
| (Type :) | | | | | |
| Waterway Adequacy | | 7 | 7 | | |
| Icing (Y/N) | No | | | | |
| Silting (Y/N) | No | | | | |
| Drift (Y/N) | No | | | | |
| Barrel General Rating | | 4 | 4 | (G.R. carried forward from 21/Mar/2001) | |
| Downstream End | | | | | |
| Culvert Component | | Last | Now | Explanation of Condition | |
| Direction | | N | | | |
| 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) | 300 | | | | |
| Scour Protection | | 5 | 5 | Grassed in. | |
| (Type :) | | | | | |
| (Avg. Rock Size(mm) :) | | | | | |
| Scour/Erosion | | 5 | 5 | | |
| Beavers (Y/N) | Yes | | | | |
| Downstream End General Rating | | 6 | 5 | | |
| 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 | | | | |

| Structure Usage | | | | |
|--|-----------|----------|----------|--------------------------|
| | | Last | Now | Explanation of Condition |
| Channel Bottom Degrading/Aggrading | DEGRADING | | | 40m d/s. |
| 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) (%) | 44.4/44.4 | Sufficiency Rating (Last/Now) (%) | 56.3/55.3 | Est. Repl. Yr | 2019 | Maint. Req'd. (Y/N) | No |
| Special Comments for Next Inspection | Cracks appear stable. COntinue to monitor. 19-Jul-2004 Barrel not accessible to inspect cracks since 29-March-2001 | | 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 | Dave Lam | | Previous Assistant's Name | | | | |
| Next Inspection Date | 07-Apr-2014 | | Previous Inspection Date | 16-Aug-2007 | | | |
| Inspection Cycle (Default) (months) | 39 | | | | | | |
| Comment | | | | | | | |