## Bridge Culvert Inspection

| | | | |
|---|---|---|---|
| Bridge File Number | 02361 -1 Bridge Culvert | Form Type | CUL1 |
| Year Built | 1985 | Lot No. | 4 |
| Bridge or Town Name | LONGVIEW | Inspector Name | Garry Roberts |
| Located Over | BULL CREEK, 2.13.27.14, WATERCRS-ST | Inspector Class | BR CLS A |
| Located On | 22:10 C1 36.066 | Assistant Name | |
| Water Body Cl./Year | | Assistant Class | |
| Navigabil. Cl./Year | | Inspection Date | 06-Jun-2012 |
| Legal Land Location | NW SEC 8 TWP 18 RGE 2 W5M | Data Entry By | Kelsey Roberts |
| Longitude, Latitude | -114:15:04, 50:30:46 | Data Entry Date | 05-Jul-2012 |
| Road Authority | Alberta Transportation (AIT) | Reviewer Name | Tom Carey |
| Contract Main. Area | CMA27 | Review Date | 18-Jun-2012 |
| Clear Roadway/Skew | 10 / -15 deg. (LHF) | Dept. Reviewer Name | Tim Davies |
| AADT/Year | 1,850 / 2011 (A) | Dept. Review Date | 12-Jul-2012 |
| Road Classification | RAU-209-110 | Follow-Up By | |
| Detour Length (km) | 32 | | |

### Bridge Culvert Information

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Number of Culverts | | 1 | | | | | | |
| Pipe # | Barrel | Span | Rise (or Dia.) | Type | Length | Corr. Profile | Pl./Slab Thickness | Shape |
| 1 | MAIN | - | 3360 | SP | 82.3 | 152X51 | 4.0 | ROUND |
| Special Features | | | | | | | | |
| Special Features Comment | | | | | | | | |

## Utilities (Located at)

| | | | |
|---|---|---|---|
| Utility Attachments | | | |
| Telephone | In West sideslope. | Gas | |
| Power | | Municipal | |
| Others | | Problem (Y/N) | No |
| Remarks | | | |

## Approach Road / Embankment

| | | Last | Now | Explanation of Condition |
|---|---|---|---|---|
| Horizontal Alignment | | 5 | 5 | S curve sag curve<br>Located 1km South if coordinates |
| Vertical Alignment | | 6 | 6 | |
| Roadway Width (m) | 10.000 | | | |
| Embankment | | 6 | 6 | Ditch armoured @ NW.<br>Gully @ SW - well vegetated |
| Sideslope (__:1) | 2.5 | | | |
| (Height of Cover(m) : **15**) | | | | |
| Guardrail (Y/N) | Yes | | | |
| **Approach Road / Embankment General Rating** | | **5** | **5** | |

## Upstream End

| Culvert Component | | Last | Now | Explanation of Condition |
|---|---|---|---|---|
| Direction | | W | | West |
| End Treatment (Concrete, Steel, Others, None) | CONCRETE | | | |
| Headwall | | 7 | 7 | |
| Collar | | 7 | 7 | Wide cracks in collar-both sides. |
| Wingwalls | | X | X | |
| (Shape : ) | | | | |
| Cutoff Wall | | 7 | N | |

| Upstream End | | | | |
|---|---|---|---|---|
| **Culvert Component** | | **Last** | **Now** | **Explanation of Condition** |
| Bevel End | | 7 | 7 | |
| Heaving (mm) | 0 | | | |
| Invert Above/Below Stream Bed | BELOW | | | |
| Above/Below (mm) | 100 | | | |
| Scour Protection | | 7 | 7 | |
| (Type : **RIP RAP**) | | | | |
| (Avg. Rock Size(mm) : **400**) | | | | |
| Scour/Erosion | | 7 | 7 | |
| Beavers (Y/N) | No | | | |
| **Upstream End General Rating** | | **7** | **7** | |

| Bridge Culvert Barrel | | | | |
|---|---|---|---|---|
| **Culvert Component** | | **Last** | **Now** | **Explanation of Condition** |
| (Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3360, Type: SP**) | | | | |
| Barrel Last Accessible Date | 09-Oct-2010 | | | Water running too deep/fast to enter. Viewed from ends, appears good. |
| **Special Features** | | | | |
| Special Feature | | | | |
| (Type : ) | | | | |
| Special Feature | | | | |
| (Type : ) | | | | |
| Roof | | 7 | N | (3370 ring 3, could not confirm previous in R11 due to rock on floor) P.R. 7 |
| Measured Rise (mm) | 3260 | | | |
| Measured At Ring No. | 12 | | | |
| Sag (mm) | 100 | | | |
| Percent Sag | 2 | | | |
| Sidewall | | 7 | N | P.R. 7 |
| Measured Span (mm) | 3455 | | | |
| Measured At Ring No. | 11 | | | |
| Deflection (mm) | 95 | | | |
| Percent Deflection | 2 | | | |
| Floor | | 7 | N | (Upper are of floor is visible) P.R. 7 |
| Bulge (mm) | 0 | | | |
| Measured At Ring No. | | | | |
| Abrasion (Y/N) | No | | | |
| Circumferential Seams | | 7 | N | P.R. 7 |
| Separation (mm) | 0 | | | |
| Longitudinal Seams | | 7 | N | P.R. 7 |
| 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) | No | | | |
| Longitudinal Stagger (Y/N) | No | | | |
| Coating | | 5 | N | Minor corrosion at floor and lower haunch |
| Corrosion By Soil (Y/N) | No | | | |
| 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): 3360, Type: SP**) | | | | |
| Ponding (Y/N) | No | | | |
| Fish Passage Adequacy | | 5 | 5 | Invert D/S is 1m higher than streambed, 5:1 rip rap armoured slope |
| Baffle | | X | X | |
| (Type : ) | | | | |
| Waterway Adequacy | | 7 | 7 | |
| Icing (Y/N) | No | | | |
| Silting (Y/N) | No | | | |
| Drift (Y/N) | No | | | |
| **Barrel General Rating** | | **7** | **N** | |

| 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 | | 8 | 8 | Good transition from bevel to stream bed with rock |
| Heaving (mm) | 0 | | | |
| Invert Above/Below Stream Bed | ABOVE | | | |
| Above/Below (mm) | 1000 | | | |
| Scour Protection | | 8 | 8 | |
| (Type : **RIP RAP**) | | | | |
| (Avg. Rock Size(mm) : **400**) | | | | |
| Scour/Erosion | | 8 | 8 | |
| Beavers (Y/N) | No | | | |
| **Downstream End General Rating** | | **8** | **8** | |

| Structure Usage | | | | |
|---|---|---|---|---|
| | | **Last** | **Now** | **Explanation of Condition** |
| **Channel (U/S and D/S)** | | | | |
| Alignment | | 6 | 6 | |
| Bank Stability | | 6 | 6 | South bank vertical 10 m from u/s end 1.5 m high. |
| HWM (m below Top of Culvert) | 1.1 | | | No visible HWM (Grass in top row of bolts in barrel) - 2007/01/08 |
| Drift (Y/N) | No | | | |
| Channel Bottom Degrading/Aggrading | 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) (%)** | **77.8/55.6** | **Sufficiency Rating (Last/Now) (%)** | **74.9/63.5** | 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 | Garry Roberts | Previous Assistant's Name | |
|---|---|---|---|
| Next Inspection Date | 06-Mar-2014 | Previous Inspection Date | 09-Oct-2010 |
| Inspection Cycle (Default) (months) | 21 | | |
| Comment | | | |