## Bridge Culvert Inspection

| | | | |
|---|---|---|---|
| Bridge File Number | 85119 -1 Bridge Culvert | Form Type | CUL1 |
| Year Built | 1994 | Lot No. | 1 |
| Bridge or Town Name | TOMAHAWK | Inspector Name | Kris Bosters |
| Located Over | WATERCOURSE, WATERCRS-NI | Inspector Class | BR CLS A |
| Located On | 627:02 C1 3.078 | Assistant Name | Brian Cote |
| Water Body Cl./Year | | Assistant Class | |
| Navigabil. Cl./Year | | Inspection Date | 25-Oct-2012 |
| Legal Land Location | SE SEC 5 TWP 52 RGE 5 W5M | Data Entry By | Theresa Lacusta |
| Longitude, Latitude | -114:41:32, 53:27:15 | Data Entry Date | 06-Nov-2012 |
| Road Authority | Alberta Transportation (AIT) | Reviewer Name | Eric Carcoux |
| Contract Main. Area | CMA12 | Review Date | 04-Nov-2012 |
| Clear Roadway/Skew | 8 / | Dept. Reviewer Name | Brent Herrick |
| AADT/Year | 1,430 / 2011 (A) | Dept. Review Date | 13-Nov-2012 |
| Road Classification | RCU-209-110 | Follow-Up By | |
| Detour Length (km) | 38 | | |

### Bridge Culvert Information

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Number of Culverts | | 1 | | | | | | |
| Pipe # | Barrel | Span | Rise (or Dia.) | Type | Length | Corr. Profile | Pl./Slab Thickness | Shape |
| 1 | MAIN | - | 1600 | MP | 28.3 | 125X26 | 2.8 | ROUND |
| Special Features | | | | | | | | |
| Special Features Comment | | | | | | | | |

## Utilities (Located at)

| | | | |
|---|---|---|---|
| Utility Attachments | | | |
| Telephone | South r/w. | Gas | |
| Power | south r/w. 1 wire | Municipal | |
| Others | | Problem (Y/N) | No |
| Remarks | | | |

## Approach Road / Embankment

| | | Last | Now | Explanation of Condition |
|---|---|---|---|---|
| Horizontal Alignment | | 8 | 8 | Residential & field entrances each way. |
| Vertical Alignment | | 8 | 8 | |
| Roadway Width (m) | 9.700 | | | |
| Embankment | | 7 | 7 | |
| Sideslope (__:1) | 3.0 | | | |
| (Height of Cover(m) : **2.3**) | | | | |
| Guardrail (Y/N) | No | | | |
| **Approach Road / Embankment General Rating** | | **8** | **8** | |

## Upstream End

| Culvert Component | | Last | Now | Explanation of Condition |
|---|---|---|---|---|
| Direction | | N | | 600mm water to crown |
| 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 | | 5 | N | |
| Heaving (mm) | 100 | | | |
| Invert Above/Below Stream Bed | | | | |
| Above/Below (mm) | | | | |
| Scour Protection | | 7 | N | |
| (Type : **RIP RAP**) | | | | |
| (Avg. Rock Size(mm) : **300**) | | | | |
| Scour/Erosion | | 7 | N | |
| Beavers (Y/N) | Yes | | | |
| **Upstream End General Rating** | | **5** | **5** | GR carried forward from 08-Jul-2009 |

| Bridge Culvert Barrel | | | | |
|---|---|---|---|---|
| **Culvert Component** | | **Last** | **Now** | **Explanation of Condition** |
| (Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP**) | | | | |
| Barrel Last Accessible Date | | | | |
| **Special Features** | | | | |
| Special Feature | | | | Water too deep to access.<br>Viewed from end, shape & condition look ok. |
| (Type : ) | | | | |
| Special Feature | | | | |
| (Type : ) | | | | |
| Roof | | 7 | N | |
| Measured Rise (mm) | | | | |
| Measured At Ring No. | | | | |
| Sag (mm) | | | | |
| Percent Sag | | | | |
| Sidewall | | 7 | N | |
| Measured Span (mm) | | | | |
| Measured At Ring No. | | | | |
| Deflection (mm) | | | | |
| Percent Deflection | | | | |
| Floor | | N | N | |
| Bulge (mm) | | | | |
| Measured At Ring No. | | | | |
| Abrasion (Y/N) | | | | |
| Circumferential Seams | | N | N | |
| Separation (mm) | | | | |
| Longitudinal Seams | | N | N | |
| Total No. of Cracked Rings | | | | |
| Total No. of Rings with Two Cracked Seams | | | | |
| Min. Remaining Steel Between Cracks (mm) | | | | |
| Proper Lap (Y/N) | | | | |
| Longitudinal Stagger (Y/N) | | | | |
| Coating | | 4 | N | scalling & pitting rust on lower 2/3 of pipe as seen from ends and bevel.-08-Jul-2009 |
| Corrosion By Soil (Y/N) | | | | |
| Corrosion By Water (Y/N) | Yes | | | |
| Camber POS/ZERO/NEG | ZERO | | | |
| Ponding (Y/N) | Yes | | | 1.3m |

| Bridge Culvert Barrel | | | | |
|---|---|---|---|---|
| **Culvert Component** | | **Last** | **Now** | **Explanation of Condition** |
| (Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP**) | | | | |
| 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** | (GR 5-30Mar2006) |

| Downstream End | | | | |
|---|---|---|---|---|
| **Culvert Component** | | **Last** | **Now** | **Explanation of Condition** |
| Direction | | S | | Water 0.3m from crown |
| End Treatment (Concrete, Steel, Others, None) | STEEL | | | |
| Headwall | | X | X | |
| Collar | | X | X | |
| Wingwalls | | X | X | |
| (Shape : ) | | | | |
| Cutoff Wall | | X | X | |
| Bevel End | | 5 | N | |
| Heaving (mm) | 50 | | | |
| Invert Above/Below Stream Bed | | | | |
| Above/Below (mm) | | | | |
| Scour Protection | | 7 | N | |
| (Type : **RIP RAP**) | | | | |
| (Avg. Rock Size(mm) : **250**) | | | | |
| Scour/Erosion | | 7 | N | |
| Beavers (Y/N) | No | | | |
| **Downstream End General Rating** | | **5** | **5** | GR carried forward from 08-Jul-2009 |

| 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) | | | | Not visible |
| Drift (Y/N) | No | | | |
| Channel Bottom Degrading/Aggrading | | | | |
| 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 | 2012 | Deater and inspect. (Level II inspection) | | | | |
| OTHER ACTION | | | | | | |
| OTHER ACTION | | | | | | |
| OTHER ACTION | | | | | | |
| OTHER ACTION | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Structural Condition Rating (Last/Now) (%)** | **55.6/55.6** | **Sufficiency Rating (Last/Now) (%)** | **52.3/52.3** | Est. Repl. Yr | 2026 | Maint. Reqd. (Y/N) | Yes |

| | | | |
|---|---|---|---|
| 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 | Arnold Assenheimer | Previous Assistant's Name | |
| Next Inspection Date | 25-Jan-2016 | Previous Inspection Date | 08-Jul-2009 |
| Inspection Cycle (Default) (months) | 39 | | |
| Comment | | | |