## Bridge Culvert Inspection

| | | | |
|---|---|---|---|
| Bridge File Number | 80513 -1 Bridge Culvert | Form Type | CUL1 |
| Year Built | 1980 | Lot No. | 4 |
| Bridge or Town Name | ARDMORE | Inspector Name | Todd Warshawski |
| Located Over | TRAIL-ANIMAL, OVER SP | Inspector Class | BR CLS B |
| Located On | 892:04 C1 6.184 | Assistant Name | |
| Water Body Cl./Year | | Assistant Class | |
| Navigabil. Cl./Year | | Inspection Date | 15-Dec-2011 |
| Legal Land Location | NW SEC 1 TWP 64 RGE 4 W4M | Data Entry By | Theresa Lacusta |
| Longitude, Latitude | -110:28:43, 54:30:43 | Data Entry Date | 11-Jan-2012 |
| Road Authority | Alberta Transportation (AIT) | Reviewer Name | Eric Carcoux |
| Contract Main. Area | CMA08 | Review Date | 30-Dec-2011 |
| Clear Roadway/Skew | 12.3 / | Dept. Reviewer Name | Brent Herrick |
| AADT/Year | 2,260 / 2010 (A) | Dept. Review Date | 18-Jan-2012 |
| Road Classification | RCU-210-110 | 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 | - | 2000 | MP | 39 | 68X13 | 2.8 | ROUND |
| Special Features | | | | | | | | |
| Special Features Comment | | | | | | | | |

## Posting Information

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Required Vert. Clearance Posting (m) | | | | | | | | | | | |
| Posted Vertical Clearance (Y/N) | | No | | | | | | | | | |
| Posted: | Lane | NB | On Bridge (m) | | In Advance (Y/N) | | Lane | SB | On Bridge (m) | | In Advance (Y/N) |
| Remarks | Not required. | | | | | | | | | | |

## Utilities (Located at)

| | | | |
|---|---|---|---|
| Utility Attachments | | | |
| Telephone | West r/w. | Gas | |
| Power | 3 wires 27.0m East of c/l. | Municipal | |
| Others | | Problem (Y/N) | No |
| Remarks | BF tag installed @ top of West end roof. | | |

## Approach Road / Embankment

| | | Last | Now | Explanation of Condition |
|---|---|---|---|---|
| Horizontal Alignment | | 6 | 6 | Structure located on a curve. |
| Vertical Alignment | | 7 | 7 | Superelevation. No passing NB.<br><br>Numerous wide transverse cracks in ACP over pipe. |
| Roadway Width (m) | 12.300 | | | |
| Embankment | | 8 | 8 | |
| Sideslope (__:1) | 5.0 | | | |
| (Height of Cover(m) : **2.2**) | | | | |
| Guardrail (Y/N) | No | | | |
| **Approach Road / Embankment General Rating** | | **6** | **6** | |

## Upstream End

| **Culvert Component** | | **Last** | **Now** | **Explanation of Condition** |
|---|---|---|---|---|
| Direction | | W | | |
| End Treatment (Concrete, Steel, Others, None) | NONE | | | |
| Headwall | | X | X | |

| Upstream End | | | | |
|---|---|---|---|---|
| **Culvert Component** | | **Last** | **Now** | **Explanation of Condition** |
| Collar | | X | X | |
| Wingwalls | | X | X | |
| (Shape : ) | | | | |
| Cutoff Wall | | X | X | |
| Bevel End | | X | X | |
| Heaving (mm) | 100 | | | |
| Invert Above/Below Stream Bed | | | | |
| Above/Below (mm) | | | | |
| Scour Protection | | X | X | |
| (Type : **RIP RAP**) | | | | |
| (Avg. Rock Size(mm) : **150**) | | | | |
| Scour/Erosion | | X | X | |
| 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): 2000, Type: MP**) | | | | |
| Barrel Last Accessible Date | 15-Dec-2011 | | | |
| **Special Features** | | | | |
| Special Feature | | | | |
| (Type : ) | | | | |
| Special Feature | | | | |
| (Type : ) | | | | |
| Roof | | 4 | 4 | Pipe is horizontally compressed and twisted. |
| Measured Rise (mm) | | | | |
| Measured At Ring No. | | | | |
| Sag (mm) | | | | |
| Percent Sag | | | | |
| Sidewall | | 4 | 4 | |
| Measured Span (mm) | 1860 | | | Inward deflection |
| Measured At Ring No. | | | | |
| Deflection (mm) | 140 | | | |
| Percent Deflection | | | | |
| Floor | | N | N | Dirt covered. |
| Bulge (mm) | 0 | | | |
| Measured At Ring No. | | | | |
| Abrasion (Y/N) | No | | | |
| Circumferential Seams | | 8 | 6 | Gaps in seams from distored pipes. |
| Separation (mm) | 80 | | | |
| Longitudinal Seams | | X | X | |
| 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) | | | | |

| Bridge Culvert Barrel | | | | |
|---|---|---|---|---|
| **Culvert Component** | | **Last** | **Now** | **Explanation of Condition** |
| (Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2000, Type: MP**) | | | | |
| Coating | | 7 | 7 | |
| Corrosion By Soil (Y/N) | | | | |
| Corrosion By Water (Y/N) | No | | | |
| Camber POS/ZERO/NEG | NEG | | | |
| Ponding (Y/N) | No | | | |
| Fish Passage Adequacy | | X | X | |
| Baffle | | X | X | |
| (Type : ) | | | | |
| Waterway Adequacy | | 8 | X | |
| Icing (Y/N) | No | | | |
| Silting (Y/N) | No | | | |
| Drift (Y/N) | No | | | |
| **Barrel General Rating** | | **4** | **4** | |

| Downstream End | | | | |
|---|---|---|---|---|
| **Culvert Component** | | **Last** | **Now** | **Explanation of Condition** |
| Direction | | E | | |
| End Treatment (Concrete, Steel, Others, None) | NONE | | | |
| Headwall | | X | X | |
| Collar | | X | X | |
| Wingwalls | | X | X | |
| (Shape : ) | | | | |
| Cutoff Wall | | X | X | |
| Bevel End | | X | X | |
| Heaving (mm) | 100 | | | |
| Invert Above/Below Stream Bed | | | | |
| Above/Below (mm) | | | | |
| Scour Protection | | X | X | |
| (Type : **RIP RAP**) | | | | |
| (Avg. Rock Size(mm) : **150**) | | | | |
| Scour/Erosion | | X | X | |
| Beavers (Y/N) | No | | | |
| **Downstream End General Rating** | | **7** | **7** | |

| Structure Usage | | | | |
|---|---|---|---|---|
| | | **Last** | **Now** | **Explanation of Condition** |
| **Grade Separation** | | | | |
| Road Alignment | | 7 | 7 | |
| Roadway Surface | | N | N | Dirt covering concrete floor. |
| (Type : **CONCRETE**) | | | | |
| Icing (Y/N) | No | | | |

| Structure Usage | | | | |
|---|---|---|---|---|
| | | **Last** | **Now** | **Explanation of Condition** |
| Traffic Safety Features | | X | X | |
| Type | | | | |
| Lighting | | X | X | |
| Barrel Leakage (Y/N) | No | | | |
| Drainage | | 5 | 5 | |
| Structure In Use (Y/N) | Yes | | | |
| **Grade Separation General Rating** | | **7** | **5** | |

| 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) (%)** | **60.9/63.0** | Est. Repl. Yr | 2035 | 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 | Dave Lam | Previous Assistant's Name | | | |
| Next Inspection Date | 15-Mar-2015 | Previous Inspection Date | 14-Aug-2008 | | |
| Inspection Cycle (Default) (months) | 39 | | | | |
| Comment | | | | | |