| Bridge Culvert Inspection                             |  |        |                          |              |                   |  |                           |                 |     |                 |                       |         |  |  |
|---|--|--------|--------------------------|--------------|-------------------|--|---------------------------|-----------------|-----|-----------------|-----------------------|---------|--|--|
| Bridge File Num                                       | ber  | 74311  | -1 Bridge Culve          | rt           |                   |  | Form 7                    | Гуре            |     | CUL1            |                       |         |  |  |
| Year Built  | r Built ge or Town Name EDSON ated Over 2ND ORDER TRIBUTARY TO MCLE RIVER, 8.11.107.29.1, WATERCRS- ated On 16:06 R1 6.268;16:06 L1 6.243 er Body CI./Year igabil. CI./Year al Land Location NE SEC 7 TWP 53 RGE 17 W5M gitude, Latitude -116:29:13, 53:34:12 d Authority Alberta Transportation (AIT) tract Main. Area  CMA13 |        |                          |              |                   |  | Lot No                    |                 |     | 4               |                       |         |  |  |
| Bridge or Town  | Name   | EDSO   | N                        |              |                   |  | Inspec                    | tor Name        |     | Todd Warshawski |                       |         |  |  |
| Located Over  |  |        |                          |              |                   |  |                           | Inspector Class |     | BR CLS B        |                       |         |  |  |
| Located On  |  |        |                          |              |                   |  |                           | ant Name        |     |                 |                       |         |  |  |
| Water Body Cl./                                       | Year   |        | 3.250, 13.00 21 312 10   |              |                   |  | Assistant Class           |                 |     |                 |                       |         |  |  |
|   |  |        |                          |              |                   | Inspection Date 09-Aug-2012  Data Entry By Theresa Lacusta |                           |                 |     |                 |                       |         |  |  |
|   |  | NE SE  | C 7 TWP 53 RG            | E 17 W5      | M                 |  |                           |                 |     |                 | sta                   |         |  |  |
|   |  |        |                          |              |                   |  |                           | ntry Date       |     | 26-Aug-2012     |                       |         |  |  |
|   |  |        |                          | (AIT)        |                   |  | Reviewer Name Review Date |                 |     | Eric Carcoux    |                       |         |  |  |
|   |  |        |                          |              |                   |  |                           |                 | N.I | 21-Aug-2012     |                       |         |  |  |
| Clear Roadway/  | Skew   | 29 /   |                          |              |                   |  | Dept. Reviewer Name       |                 |     |                 |                       |         |  |  |
| AADT/Year   |  |        | 2011 (A)                 |              | Dept. Review Date |  | 30-Aug-2012               |                 |     |                 |                       |         |  |  |
| Road Classificat                                      | tion   |        | 12.4-120                 |              |                   |  | Follow-Up By              |                 |     |                 |                       |         |  |  |
| Detour Length (I                                      | km)  | 1      |                          |              |                   |  |                           |                 |     |                 |                       |         |  |  |
| Bridge Culvert Information                            |  |        |                          |              |                   |  |                           |                 |     |                 |                       |         |  |  |
| Number of Culve                                       | erts   |        | 1                        |              |                   |  |                           |                 |     |                 |                       |         |  |  |
| Pipe #  | Barrel   |        | Span                     | Rise (or Dia |                   | Туре   |                           | Length          |     | Corr. Profile   | PI./Slab<br>Thickness | Shape   |  |  |
| 1 [   | MAIN   |        | 1724                     | 1901         |                   | SPE  |                           | 50              |     | 152X51          | 2.8                   | ELLIPSE |  |  |
| Special Features                                      |  |        |                          |              |                   |  |                           |                 |     |                 |                       |         |  |  |
| Special Features Comment                              |  |        |                          |              |                   |  |                           |                 |     |                 |                       |         |  |  |
|   | Utilities (Located at)   |        |                          |              |                   |  |                           |                 |     |                 |                       |         |  |  |
| Utility Attachments                                   |  |        |                          |              |                   |  |                           |                 |     |                 |                       |         |  |  |
| Telephone North ROW                                   |  |        |                          |              |                   |  | Gas                       |                 |     |                 |                       |         |  |  |
| Power   |  |        |                          |              |                   |  | Municipal                 |                 |     |                 |                       |         |  |  |
| Others Lights both sides.                             |  |        |                          |              |                   |  | Proble                    | m (Y/N)         | No  |                 |                       |         |  |  |
| Remarks File tag North. Missing two screws East side. |  |        |                          |              |                   |  |                           |                 |     |                 |                       |         |  |  |
|   |  |        |                          | A            | pproac            | ch Road  | l / Emb                   | ankment         |     |                 |                       |         |  |  |
|   | Last   | Now    | Explanation of Condition |              |                   |  |                           |                 |     |                 |                       |         |  |  |
| Horizontal Alignment                                  |  |        |                          | 7            | 7                 | Intersection 200m east.                                    |                           |                 |     |                 |                       |         |  |  |
| Vertical Alignment                                    |  |        |                          | 7            | 7                 |  |                           |                 |     |                 |                       |         |  |  |
| Roadway Width (m)                                     |  |        | 29.000                   | 29.000       |                   |  | Includes paved median.    |                 |     |                 |                       |         |  |  |
| Embankment  |  |        |                          |              | 7                 | 7  |                           |                 |     |                 |                       |         |  |  |
| Sideslope (:  | :1)  |        | 3.0                      |              |                   |  |                           |                 |     |                 |                       |         |  |  |
| (Height of Cover(m) : 1.5)                            |  |        |                          |              |                   |  |                           |                 |     |                 |                       |         |  |  |
| Guardrail (Y/N)                                       |  | No     |                          |              |                   |  |                           |                 |     |                 |                       |         |  |  |
| Approach Road   | d / Emb  | oankme | ent General Rat          | ing          | 7                 | 7  |                           |                 |     |                 |                       |         |  |  |
|   |  |        |                          |              |                   | Upstre   | am Enc                    |                 |     |                 |                       |         |  |  |
| Culvert Component                                     |  |        | Last                     | Now          | Explar            | nation of  | Condi                     | tion            |     |                 |                       |         |  |  |
| Direction   |  |        | N                        |              |                   |  |                           |                 |     |                 |                       |         |  |  |
| End Treatment (Concrete, Steel, Others, None)         |  |        |                          |              |                   |  |                           |                 |     |                 |                       |         |  |  |
| Headwall  |  |        | Х                        | X            |                   |  |                           |                 |     |                 |                       |         |  |  |
| Collar  |  |        | Х                        | Х            |                   |  |                           |                 |     |                 |                       |         |  |  |
| Wingwalls   |  |        |                          |              | Х                 | Х  |                           |                 |     |                 |                       |         |  |  |
| (Shape: )   |  |        |                          |              |                   |  |                           |                 |     |                 |                       |         |  |  |
| Cutoff Wall   |  |        |                          | X            | X                 |  |                           |                 |     |                 |                       |         |  |  |

74311 -1 Bridge Culvert

|  |                   |      | Upstre               | am End   |
|--|-------------------|------|----------------------|--|
| Culvert Component                            |                   | Last |                      | Explanation of Condition   |
| Bevel End                                    |                   | 7    | 7                    |  |
| Heaving (mm)                                 | 0                 |      |                      |  |
| Invert Above/Below Stream Bed                | BELOW             |      |                      |  |
| Above/Below (mm)                             | 300               |      |                      |  |
| Scour Protection                             |                   | 7    | 7                    | Riprap in apron is to high and is causing water to back up in ditch. |
| (Type : <b>RIP RAP</b> )                     |                   |      |                      | 7 - 1 - 1 - 2 - 3 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2                    |
| (Avg. Rock Size(mm) : <b>300</b> )           |                   |      |                      |  |
| Scour/Erosion                                |                   | 7    | 7                    |  |
| Beavers (Y/N)                                | No                |      |                      |  |
| Upstream End General Rating                  |                   | 7    | 7                    |  |
|  |                   | Dei  | dao Cu               | lyert Perrel   |
| Culvert Component                            |                   | Last |                      | Ivert Barrel Explanation of Condition                                |
| (Pipe # : 1, Primary Span, Loca              | tion Code: MAIN S |      |                      |  |
| Barrel Last Accessible Date                  | 09-Aug-2012       |      | . <i>y.</i> <u>~</u> |  |
| Special Features                             |                   |      |                      |  |
| Special Feature                              |                   |      |                      |  |
| (Type:)                                      |                   |      |                      |  |
| Special Feature                              |                   |      |                      |  |
| (Type:)                                      |                   |      |                      |  |
| Roof   |                   | 5    | 5                    | Bulge in roof 2nd ring from North.                                   |
| Measured Rise (mm)                           | 1758              |      |                      | Distortion of roof/sidewall in R17.                                  |
| Measured At Ring No.                         | 4                 |      |                      | Distortion of fool/sidewall in KT/.                                  |
| Sag (mm)                                     | 143               |      |                      |  |
| Percent Sag                                  | 8                 |      |                      |  |
| Sidewall                                     |                   | 5    | 5                    |  |
| Measured Span (mm)                           | 1869              |      |                      | Dent in sidewall R17   |
| Measured At Ring No.                         | 4                 |      |                      |  |
| Deflection (mm)                              | 145               |      |                      |  |
| Percent Deflection                           | 8                 |      |                      |  |
| Floor  |                   | 5    | 5                    | Heavy corrosion on floor.  |
| Bulge (mm)                                   | 50                |      |                      |  |
| Measured At Ring No.                         | 10                |      |                      |  |
| Abrasion (Y/N)                               | No                |      |                      |  |
| Circumferential Seams                        |                   | 6    | 6                    | 1 bolt missing, 1 broken   |
| Separation (mm)                              | 0                 |      |                      | 1  |
| Longitudinal Seams                           |                   | 6    | 6                    |  |
| Total No. of Cracked Rings                   | 0                 |      |                      | 1  |
| Total No. of Rings with Two<br>Cracked Seams |                   |      |                      |  |
| Min. Remaining Steel<br>Between Cracks (mm)  |                   |      |                      | 1N stagger.  |
| Proper Lap (Y/N)                             | No                |      |                      |  |
| Longitudinal Stagger (Y/N)                   | Yes               |      |                      |  |
| Coating                                      |                   | 5    | 5                    |  |
| Corrosion By Soil (Y/N)                      | No                |      | , ,                  |  |
| Corrosion By Water (Y/N)                     | Yes               |      |                      |  |
| Camber POS/ZERO/NEG                          | NEG               |      |                      |  |

74311 -1 Bridge Culvert

| Bridge Culvert Barrel                         |                      |       |         |                               |  |  |  |  |  |
|---|----------------------|-------|---------|-------------------------------|--|--|--|--|--|
| •   |                      | Last  |         | •                             |  |  |  |  |  |
| (Pipe # : 1, Primary Span, Loca               | tion Code: MAIN, Spa | n (mm | ): 1724 | , Rise (mm): 1901, Type: SPE) |  |  |  |  |  |
| Ponding (Y/N)                                 | No                   |       |         |                               |  |  |  |  |  |
| Fish Passage Adequacy                         |                      | 5     | 5       |                               |  |  |  |  |  |
| Baffle  |                      | Х     | Х       |                               |  |  |  |  |  |
| (Type:)                                       |                      |       |         |                               |  |  |  |  |  |
| Waterway Adequacy                             |                      | 6     | 6       |                               |  |  |  |  |  |
| Icing (Y/N)                                   | No                   |       |         |                               |  |  |  |  |  |
| Silting (Y/N)                                 | Yes                  |       |         |                               |  |  |  |  |  |
| Drift (Y/N)                                   | No                   |       |         |                               |  |  |  |  |  |
| Barrel General Rating                         |                      |       | 5       |                               |  |  |  |  |  |
|   |                      | D     | ownstr  | ream End                      |  |  |  |  |  |
| Culvert Component                             |                      | Last  | Now     | Explanation of Condition      |  |  |  |  |  |
| Direction                                     |                      | S     |         |                               |  |  |  |  |  |
| End Treatment (Concrete, Steel, Others, None) | STEEL                |       |         |                               |  |  |  |  |  |
| Headwall                                      |                      | Х     | Х       |                               |  |  |  |  |  |
| Collar  |                      | Х     | Х       |                               |  |  |  |  |  |
| Wingwalls                                     |                      | Х     | Х       |                               |  |  |  |  |  |
| (Shape: )                                     |                      |       |         |                               |  |  |  |  |  |
| Cutoff Wall                                   |                      | Х     | Х       |                               |  |  |  |  |  |
| Bevel End                                     |                      |       | 6       |                               |  |  |  |  |  |
| Heaving (mm)                                  | 150                  |       |         |                               |  |  |  |  |  |
| Invert Above/Below Stream Bed                 | ABOVE                |       |         |                               |  |  |  |  |  |
| Above/Below (mm)                              | 100                  |       |         |                               |  |  |  |  |  |
| Scour Protection                              |                      | 6     | 6       | Small quantity of rock.       |  |  |  |  |  |
| (Type : RIP RAP)                              |                      |       |         |                               |  |  |  |  |  |
| (Avg. Rock Size(mm) : 150)                    |                      |       |         |                               |  |  |  |  |  |
| Scour/Erosion                                 |                      | 6     | 6       |                               |  |  |  |  |  |
| Beavers (Y/N)                                 | No                   |       |         |                               |  |  |  |  |  |
| Downstream End General Rating                 |                      |       | 6       |                               |  |  |  |  |  |
|   |                      | S     |         | re Usage                      |  |  |  |  |  |
|   |                      | Last  | Now     | Explanation of Condition      |  |  |  |  |  |
| Channel (U/S and D/S)                         |                      |       |         |                               |  |  |  |  |  |
| Alignment                                     |                      | 7     | 7       | 90 deg turn at inlet          |  |  |  |  |  |
| Bank Stability                                |                      |       | 7       |                               |  |  |  |  |  |
| HWM (m below Top of Culvert)                  |                      |       |         | HWM not visible.              |  |  |  |  |  |
| Drift (Y/N) No                                |                      |       |         |                               |  |  |  |  |  |
| Channel Bottom AGGRADING Degrading/Aggrading  |                      |       |         |                               |  |  |  |  |  |
| Beavers (Y/N)                                 | No                   |       |         |                               |  |  |  |  |  |
| (Fish Compensation Measure 1 :                |                      |       |         |                               |  |  |  |  |  |
| (Fish Compensation Measure 2 :                | NONE)                |       |         |                               |  |  |  |  |  |
| Channel General Rating                        |                      | 7     | 7       |                               |  |  |  |  |  |

|  |             |          | Maintena                             | nce Recommer | dations                |                  |                |                |           |       |
|--|-------------|----------|--------------------------------------|--------------|------------------------|------------------|----------------|----------------|-----------|-------|
| Inspector Recommendations                  | Year        | Inspecto | or Comments                          |              | Department Com         | ments            |                | Target Year    | Est. Cost | Cat # |
| SHOTCRETE REPAIRS                          |             |          |                                      |              |                        |                  |                |                |           |       |
| PLACE ADDITIONAL RIP RAP                   |             |          |                                      |              |                        |                  |                |                |           |       |
| REMOVE DRIFT ACCUMULATION                  |             |          |                                      |              |                        |                  |                |                |           |       |
| INSTALL CONCRETE/STEEL LINING              | 3           |          |                                      |              |                        |                  |                |                |           |       |
| INSTALL STRUTS                             |             |          |                                      |              |                        |                  |                |                |           |       |
| INSTALL CONCRETE COLLAR/CUT                | OFF         |          |                                      |              |                        |                  |                |                |           |       |
| REPAIR SEAMS                               |             |          |                                      |              |                        |                  |                |                |           |       |
| OTHER ACTION                               |             |          |                                      |              |                        |                  |                |                |           |       |
| OTHER ACTION                               |             |          |                                      |              |                        |                  |                |                |           |       |
| OTHER ACTION                               |             |          |                                      |              |                        |                  |                |                |           |       |
| OTHER ACTION                               |             |          |                                      |              |                        |                  |                |                |           |       |
| Structural Condition Rating (Last/N (%)    | ow) 55.6/5  | 5.6      | Sufficiency Rating (Last/Now)<br>(%) |              | 58.3/61.2              | Est. Repl. Yr    | 2025 Maint. Re |                | qd. (Y/N) | No    |
| Special<br>Comments for<br>Next Inspection |             |          |                                      |              | Department<br>Comments |                  |                |                |           |       |
| Maintenance Reviewed By                    |             |          |                                      |              | Date                   |                  | E              | Estimated Tota | 1 0       |       |
| Proposed Long-Term Strategy                |             |          |                                      |              |                        |                  |                |                | '         |       |
| On 3-Year Program (Y/N)                    |             |          |                                      |              |                        |                  |                |                |           |       |
| Proposed Action                            |             |          |                                      |              |                        |                  |                |                |           |       |
| Previous Inspector's Name                  | Todd Warsha | wski     |                                      | Previous     | Assistant's Name       | Assistant's Name |                |                |           |       |
| Next Inspection Date                       | 09-May-2014 |          |                                      | Previous     | Inspection Date        | 27-Sep-2010      |                |                |           |       |
| Inspection Cycle (Default) (months)        | 21          |          |                                      |              |                        |                  |                |                |           |       |
| Comment                                    |             |          |                                      |              |                        |                  |                |                |           |       |