

| Bridge Culvert Inspection | | | |
|---------------------------|--|---------------------|----------------|
| Bridge File Number | 13600 -1 Bridge Culvert | Form Type | CUL1 |
| Year Built | 1979 | Lot No. | 4 |
| Bridge or Town Name | HARDISTY | Inspector Name | Owen Salava |
| Located Over | TRIBUTARY TO IRON CREEK, 5.16.1, WATERCRS-ST | Inspector Class | BR CLS A |
| Located On | 869:02 C1 3.146 | Assistant Name | |
| Water Body Cl./Year | | Assistant Class | |
| Navigabil. Cl./Year | | Inspection Date | 28-Jun-2012 |
| Legal Land Location | NW SEC 10 TWP 42 RGE 12 W4M | Data Entry By | Marcia Chavez |
| Longitude, Latitude | -111:39:37, 52:36:28 | Data Entry Date | 15-Jul-2012 |
| Road Authority | Alberta Transportation (AIT) | Reviewer Name | John O'Brien |
| Contract Main. Area | CMA16 | Review Date | 05-Jul-2012 |
| Clear Roadway/Skew | 8.4 / 30 deg. (RHF) | Dept. Reviewer Name | Andrew Smikles |
| AADT/Year | 510 / 2011 (A) | Dept. Review Date | 19-Jul-2012 |
| Road Classification | RAU-209-110 | Follow-Up By | |
| Detour Length (km) | 5 | | |

Bridge Culvert Information

| | | | | | | | | |
|--------------------------|--------|------|----------------|------|--------|---------------|--------------------|-------|
| Number of Culverts | 1 | | | | | | | |
| Pipe # | Barrel | Span | Rise (or Dia.) | Type | Length | Corr. Profile | Pl./Slab Thickness | Shape |
| 1 | MAIN | 3495 | 3854 | SPE | 43.9 | 152X51 | 3.5 | ROUND |
| Special Features | | | | | | | | |
| Special Features Comment | | | | | | | | |

Utilities (Located at)

| | | | | |
|---------------------|----------------------|---------------|----|--|
| Utility Attachments | | | | |
| Telephone | West r/w. | Gas | | |
| Power | 3 wire O/H East r/w. | Municipal | | |
| Others | | Problem (Y/N) | No | |
| Remarks | | | | |

Approach Road / Embankment

| | | Last | Now | Explanation of Condition |
|--|-------|----------|----------|--|
| Horizontal Alignment | | 8 | 8 | Intersection 70m North. In pronounced sag curve with no passing on hills. |
| Vertical Alignment | | 7 | 7 | |
| Roadway Width (m) | 8.400 | | | |
| Embankment | | 7 | 7 | |
| Sideslope (__:1) | 3.0 | | | |
| (Height of Cover(m) : 2) | | | | |
| Guardrail (Y/N) | No | | | |
| Approach Road / Embankment General Rating | | 7 | 7 | |

Upstream End

| Culvert Component | | Last | Now | Explanation of Condition |
|---|-------|------|-----|--------------------------|
| Direction | | W | | |
| 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 | | 7 | 7 | |
| Heaving (mm) | 100 | | | |
| Invert Above/Below Stream Bed | BELOW | | | |
| Above/Below (mm) | 400 | | | |
| Scour Protection | | 7 | 7 | |
| (Type : RIP RAP) | | | | |
| (Avg. Rock Size(mm) : 300) | | | | |
| 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): 3495, Rise (mm): 3854, Type: SPE) | | | | |
| Barrel Last Accessible Date | 13-Feb-2006 | | | Viewed from ends. Water 1.5m deep. |
| Special Features | | | | |
| Special Feature | | | | |
| (Type :) | | | | |
| Special Feature | | | | |
| (Type :) | | | | |
| Roof | | 7 | 7 | Shape looks good. |
| Measured Rise (mm) | | | | |
| Measured At Ring No. | | | | |
| Sag (mm) | 0 | | | |
| Percent Sag | | | | |
| Sidewall | | 7 | 7 | Minor superficial staining at bolt line. |
| Measured Span (mm) | | | | |
| Measured At Ring No. | | | | |
| Deflection (mm) | 100 | | | |
| Percent Deflection | | | | |
| Floor | | N | N | |
| Bulge (mm) | 0 | | | |
| Measured At Ring No. | | | | |
| Abrasion (Y/N) | No | | | |
| Circumferential Seams | | N | N | |
| Separation (mm) | 0 | | | |
| Longitudinal Seams | | N | N | |
| Total No. of Cracked Rings | 0 | | | |
| Total No. of Rings with Two Cracked Seams | | | | 1N |
| Min. Remaining Steel Between Cracks (mm) | | | | |
| Proper Lap (Y/N) | No | | | |
| Longitudinal Stagger (Y/N) | Yes | | | |
| Coating | | 6 | 6 | |
| Corrosion By Soil (Y/N) | Yes | | | |
| Corrosion By Water (Y/N) | Yes | | | |
| Camber POS/ZERO/NEG | ZERO | | | |
| Ponding (Y/N) | No | | | |

| Bridge Culvert Barrel | | | | |
|--|-------|----------|----------|--------------------------------|
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3495, Rise (mm): 3854, Type: SPE) | | | | |
| Fish Passage Adequacy | | 7 | 7 | |
| Baffle | | X | X | |
| (Type :) | | | | |
| Waterway Adequacy | | 7 | 7 | |
| Icing (Y/N) | No | | | |
| Silting (Y/N) | No | | | |
| Drift (Y/N) | No | | | |
| Barrel General Rating | | N | N | G.R. was "6" from 13/Feb/2006. |
| Downstream End | | | | |
| Culvert Component | | Last | Now | Explanation of Condition |
| Direction | | E | | |
| End Treatment (Concrete, Steel, Others, None) | STEEL | | | |
| Headwall | | X | X | |
| Collar | | X | X | |
| Wingwalls | | X | X | |
| (Shape :) | | | | |
| Cutoff Wall | | X | X | |
| Bevel End | | 7 | 7 | |
| Heaving (mm) | 100 | | | |
| Invert Above/Below Stream Bed | BELOW | | | |
| Above/Below (mm) | 300 | | | |
| Scour Protection | | 7 | 7 | |
| (Type : RIP RAP) | | | | |
| (Avg. Rock Size(mm) : 300) | | | | |
| Scour/Erosion | | 7 | 7 | |
| Beavers (Y/N) | No | | | |
| Downstream End General Rating | | 7 | 7 | |
| Structure Usage | | | | |
| | | Last | Now | Explanation of Condition |
| Channel (U/S and D/S) | | | | |
| Alignment | | 6 | 6 | Curve 20m U/S. |
| Bank Stability | | 6 | 6 | |
| HWM (m below Top of Culvert) | | | | HWM not visible. |
| Drift (Y/N) | No | | | |
| Channel Bottom Degrading/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) (%) | 55.6/55.6 | Sufficiency Rating (Last/Now) (%) | 66.1/66.1 | Est. Repl. Yr | 2031 | Maint. Req. (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 | Owen Salava | | Previous Assistant's Name | | | | |
| Next Inspection Date | 28-Sep-2015 | | Previous Inspection Date | 28-Aug-2009 | | | |
| Inspection Cycle (Default) (months) | 39 | | | | | | |
| Comment | | | | | | | |