

| Bridge Culvert Inspection | | | | |
|---------------------------|------------------------------|--|---------------------|----------------|
| Bridge File Number | 80586 -1 Bridge Culvert | | Form Type | CUL1 |
| Year Built | 1987 | | Lot No. | 3 |
| Bridge or Town Name | SUNDRE | | Inspector Name | Owen Salava |
| Located Over | TRAIL-ANIMAL, OVER SP | | Inspector Class | BR CLS A |
| Located On | 22:20 C1 9.019 | | Assistant Name | |
| Water Body Cl./Year | | | Assistant Class | |
| Navigabil. Cl./Year | | | Inspection Date | 19-Oct-2012 |
| Legal Land Location | NW SEC 33 TWP 33 RGE 5 W5M | | Data Entry By | Marcia Chavez |
| Longitude, Latitude | -114:39:47, 51:52:34 | | Data Entry Date | 09-Nov-2012 |
| Road Authority | Alberta Transportation (AIT) | | Reviewer Name | John O'Brien |
| Contract Main. Area | CMA29 | | Review Date | 30-Oct-2012 |
| Clear Roadway/Skew | 14.5 / | | Dept. Reviewer Name | Andrew Smikles |
| AADT/Year | 2,270 / 2011 (A) | | Dept. Review Date | 13-Nov-2012 |
| Road Classification | RAU-211.8-110 | | Follow-Up By | |
| Detour Length (km) | 3 | | | |

| Bridge Culvert Information | | | | | | | | |
|----------------------------|--------|------------|----------------|------|--------|---------------|--------------------|-------|
| Number of Culverts | | 1 | | | | | | |
| Pipe # | Barrel | Span | Rise (or Dia.) | Type | Length | Corr. Profile | Pl./Slab Thickness | Shape |
| 1 | MAIN | - | 2400 | MP | 28 | 125X26 | 2.8 | ROUND |
| Special Features | | CONC FLOOR | | | | | | |
| 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 fence. | | Gas |
| Power | 3 wires located at West end. | | Municipal |
| Others | | | Problem (Y/N) No |
| Remarks | | | |

| Approach Road / Embankment | | | | |
|--|--------|----------|----------|---|
| | | Last | Now | Explanation of Condition |
| Horizontal Alignment | | 7 | 7 | Climbing lane NB. Intersection 200m North. No passing. |
| Vertical Alignment | | 6 | 6 | |
| Roadway Width (m) | 14.500 | | | |
| Embankment | | 6 | 6 | Wide transverse crack over pipe, not sealed - photo. 4:1 then to 2.5:1. |
| Sideslope (___:1) | 2.5 | | | |
| (Height of Cover(m) : 1.5) | | | | |
| Guardrail (Y/N) | Yes | | | |
| 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 | |
| Collar | | X | X | |

| Upstream End | | | | |
|---|-------------|----------|----------|---|
| Culvert Component | | Last | Now | Explanation of Condition |
| Wingwalls | | X | X | |
| (Shape :) | | | | |
| Cutoff Wall | | X | X | |
| Bevel End | | X | X | Gate @ opening. |
| Heaving (mm) | 0 | | | |
| Invert Above/Below Stream Bed | BELOW | | | |
| Above/Below (mm) | 200 | | | |
| Scour Protection | | X | 7 | |
| (Type : NATURAL) | | | | |
| (Avg. Rock Size(mm) :) | | | | |
| 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): 2400, Type: MP) | | | | |
| Barrel Last Accessible Date | 19-Oct-2012 | | | |
| Special Features | | | | |
| Special Feature | | 7 | 7 | |
| (Type : CONC FLOOR) | | | | |
| Special Feature | | | | |
| (Type :) | | | | |
| Roof | | 7 | 7 | 1 dent in roof caused by construction equipment @ West 100mm - photo. |
| Measured Rise (mm) | 2370 | | | |
| Measured At Ring No. | 2 | | | |
| Sag (mm) | 30 | | | |
| Percent Sag | 1 | | | 1.3%. |
| Sidewall | | 8 | 8 | |
| Measured Span (mm) | 2430 | | | |
| Measured At Ring No. | 2 | | | 1.3% |
| Deflection (mm) | 30 | | | |
| Percent Deflection | 1 | | | |
| Floor | | N | N | Concrete on floor. |
| Bulge (mm) | 0 | | | |
| Measured At Ring No. | | | | |
| Abrasion (Y/N) | No | | | |
| Circumferential Seams | | 8 | 8 | |
| Separation (mm) | 40 | | | |
| 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) | | | | |
| Coating | | 6 | 6 | Superficial corrosion @ crown @ West. |
| Corrosion By Soil (Y/N) | Yes | | | |
| Corrosion By Water (Y/N) | No | | | |

| Bridge Culvert Barrel | | | | |
|---|------|----------|----------|--------------------------|
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: MP) | | | | |
| Camber POS/ZERO/NEG | ZERO | | | |
| Ponding (Y/N) | No | | | |
| Fish Passage Adequacy | | X | X | |
| Baffle | | X | X | |
| (Type :) | | | | |
| Waterway Adequacy | | X | X | |
| Icing (Y/N) | No | | | |
| Siltng (Y/N) | No | | | |
| Drift (Y/N) | No | | | |
| Barrel General Rating | | 7 | 7 | |

| Downstream End | | | | |
|---|-------|----------|----------|--------------------------|
| Culvert Component | | Last | Now | Explanation of Condition |
| Direction | | E | | Gate at opening. |
| 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) | 0 | | | |
| Invert Above/Below Stream Bed | BELOW | | | |
| Above/Below (mm) | 100 | | | |
| Scour Protection | | X | 7 | |
| (Type : NATURAL) | | | | |
| (Avg. Rock Size(mm) :) | | | | |
| 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 | | 6 | 6 | Hills both ends. |
| Roadway Surface | | 6 | 6 | |
| (Type : CONCRETE) | | | | |
| Icing (Y/N) | Yes | | | (500mm ice in barrel - photo. Feb/25/06). |
| Traffic Safety Features | | X | X | |
| Type | | | | |
| Lighting | | X | X | |
| Barrel Leakage (Y/N) | No | | | |

| Structure Usage | | | | |
|--|-----|-------------|------------|--|
| | | Last | Now | Explanation of Condition |
| Drainage | | 5 | 5 | 600mm ditch drainage culvert 5m D/S, no problem. |
| Structure In Use (Y/N) | Yes | | | |
| Grade Separation General Rating | | 5 | 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 | 2013 | Seal transverse crack in ACP over pipe, minor. | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| Structural Condition Rating (Last/Now) (%) | 77.8/77.8 | Sufficiency Rating (Last/Now) (%) | 81.0/81.0 | Est. Repl. Yr | 2031 | Maint. Req. (Y/N) | Yes |
| Special Comments for Next Inspection | (Improve drainage if causing problems. 05Oct2006). | | 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 | 19-Jul-2014 | | Previous Inspection Date | 03-Feb-2011 | | | |
| Inspection Cycle (Default) (months) | 21 | | | | | | |
| Comment | | | | | | | |