

| Bridge Culvert Inspection | | | | |
|---------------------------|--|--|---------------------|----------------|
| Bridge File Number | 00320 -1 Bridge Culvert | | Form Type | CUL1 |
| Year Built | 1988 | | Lot No. | 4 |
| Bridge or Town Name | OKOTOKS | | Inspector Name | Jon Davies |
| Located Over | SPRING CREEK, 2.13.27.2.5, WATERCRS-ST | | Inspector Class | BR CLS B |
| Located On | 7:08 C1 13.753 | | Assistant Name | |
| Water Body Cl./Year | | | Assistant Class | |
| Navigabil. Cl./Year | | | Inspection Date | 25-Oct-2011 |
| Legal Land Location | NE SEC 15 TWP 20 RGE 1 W5M | | Data Entry By | Alyssa Boynton |
| Longitude, Latitude | -114:03:14, 50:42:11 | | Data Entry Date | 25-Nov-2011 |
| Road Authority | Alberta Transportation (AIT) | | Reviewer Name | Garry Roberts |
| Contract Main. Area | CMA27 | | Review Date | 07-Nov-2011 |
| Clear Roadway/Skew | 12.7 / 4 deg. (RHF) | | Dept. Reviewer Name | Tim Davies |
| AADT/Year | 5,450 / 2010 (A) | | Dept. Review Date | 01-Dec-2011 |
| Road Classification | RAU-210-110 | | Follow-Up By | |
| Detour Length (km) | 4 | | | |

Bridge Culvert Information

| | | | | | | | | |
|--------------------------|--------|------|----------------|------|--------|---------------|--------------------|-------|
| Number of Culverts | 1 | | | | | | | |
| Pipe # | Barrel | Span | Rise (or Dia.) | Type | Length | Corr. Profile | Pl./Slab Thickness | Shape |
| 1 | MAIN | - | 3962 | SP | 75 | 152X51 | 4.0 | ROUND |
| Special Features | | | | | | | | |
| Special Features Comment | | | | | | | | |

Utilities (Located at)

| | | | | | | | |
|---------------------|-------------------------------------|--|--|---------------|-----------------|--|--|
| Utility Attachments | | | | | | | |
| Telephone | SOUTH DITCH | | | Gas | 40 m S OF INLET | | |
| Power | N FENCELINE (4 wire) and South row. | | | Municipal | | | |
| Others | | | | Problem (Y/N) | No | | |
| Remarks | | | | | | | |

Approach Road / Embankment

| | | Last | Now | Explanation of Condition |
|--|--------|----------|----------|--|
| Horizontal Alignment | | 7 | 7 | Int 100m E Hill 250m W |
| Vertical Alignment | | 7 | 7 | |
| Roadway Width (m) | 12.700 | | | |
| Embankment | | 6 | 5 | Ditch erosion @ NW - 3mx10mx1m deep - rock lined |
| Sideslope (__:1) | 3.0 | | | |
| (Height of Cover(m) : 8.5) | | | | |
| Guardrail (Y/N) | Yes | | | |
| Approach Road / Embankment General Rating | | 7 | 7 | |

Upstream End

| Culvert Component | | Last | Now | Explanation of Condition |
|---|----------|------|-----|--------------------------|
| Direction | | S | | South end. |
| End Treatment (Concrete, Steel, Others, None) | CONCRETE | | | |
| Headwall | | 8 | 8 | |
| Collar | | 6 | 6 | MEDIUM WIDTH CRACKS |
| Wingwalls | | X | X | |
| (Shape :) | | | | |
| Cutoff Wall | | N | N | |

| Upstream End | | | | |
|---|-------------|----------|----------|--|
| Culvert Component | | Last | Now | Explanation of Condition |
| Bevel End | | 7 | 7 | |
| Heaving (mm) | 0 | | | |
| Invert Above/Below Stream Bed | BELOW | | | |
| Above/Below (mm) | 1000 | | | |
| Scour Protection | | 6 | 6 | Minor settlement of rock |
| (Type : RIP RAP) | | | | |
| (Avg. Rock Size(mm) : 350) | | | | |
| Scour/Erosion | | 6 | 6 | |
| Beavers (Y/N) | No | | | |
| Upstream End General Rating | | 7 | 6 | |
| Bridge Culvert Barrel | | | | |
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 1 , Primary Span, Location Code: MAIN , Span (mm): , Rise (mm): 3962 , Type: SP) | | | | |
| Barrel Last Accessible Date | 07-Oct-2009 | | | Not accessible due to high water and silt level. |
| Special Features | | | | |
| Special Feature | | | | |
| (Type :) | | | | |
| Special Feature | | | | |
| (Type :) | | | | |
| Roof | | 7 | N | (Est) 07-OCT-2009 PR7. Viewed from U/S end general shape it good. |
| Measured Rise (mm) | | | | |
| Measured At Ring No. | | | | |
| Sag (mm) | 181 | | | |
| Percent Sag | 5 | | | |
| Sidewall | | 7 | N | PR7 |
| Measured Span (mm) | 4143 | | | |
| Measured At Ring No. | 9 | | | |
| Deflection (mm) | 181 | | | |
| Percent Deflection | 5 | | | |
| Floor | | N | N | (0.9m silt) 07-OCT-2009 PR7 |
| Bulge (mm) | | | | |
| Measured At Ring No. | | | | |
| Abrasion (Y/N) | | | | |
| Circumferential Seams | | 8 | N | PR8 |
| Separation (mm) | 0 | | | |
| Longitudinal Seams | | 7 | N | PR7 |
| Total No. of Cracked Rings | 0 | | | |
| Total No. of Rings with Two Cracked Seams | 0 | | | (1N stagger) 07-OCT-2009 |
| Min. Remaining Steel Between Cracks (mm) | | | | |
| Proper Lap (Y/N) | Yes | | | |
| Longitudinal Stagger (Y/N) | Yes | | | |
| Coating | | 6 | N | (SOME ALKALI STAINS @ BOLT LINES @ LONGITUDINAL SEAMS.)07-OCT-2009 (Minor superficial corrosion) 07-OCT-2009 PR6. |
| 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): , Rise (mm): 3962, Type: SP) | | | | |
| Fish Passage Adequacy | | 5 | 5 | |
| Baffle | | X | X | |
| (Type :) | | | | |
| Waterway Adequacy | | 6 | 6 | 700mm silt |
| Icing (Y/N) | No | | | |
| Silting (Y/N) | Yes | | | |
| Drift (Y/N) | No | | | |
| Barrel General Rating | | 7 | N | PR7 |
| Downstream End | | | | |
| Culvert Component | | Last | Now | Explanation of Condition |
| Direction | | N | | NORTH END |
| End Treatment (Concrete, Steel, Others, None) | | STEEL | | |
| Headwall | | X | X | |
| Collar | | X | X | |
| Wingwalls | | X | X | |
| (Shape :) | | | | |
| Cutoff Wall | | N | N | |
| Bevel End | | 7 | 7 | |
| Heaving (mm) | 0 | | | |
| Invert Above/Below Stream Bed | | BELOW | | |
| Above/Below (mm) | 1200 | | | |
| Scour Protection | | 5 | 5 | |
| (Type : RIP RAP) | | | | |
| (Avg. Rock Size(mm) : 350) | | | | |
| Scour/Erosion | | 5 | 5 | Localized scour hole 6m D/S not affecting pipe. |
| Beavers (Y/N) | | No | | |
| Downstream End General Rating | | 7 | 5 | |
| Structure Usage | | | | |
| | | Last | Now | Explanation of Condition |
| Channel (U/S and D/S) | | | | |
| Alignment | | 7 | 7 | |
| Bank Stability | | 5 | 5 | Cut banks d/s |
| HWM (m below Top of Culvert) | 1.9 | | | (931027) No HWM visible. |
| Drift (Y/N) | | No | | |
| Channel Bottom Degrading/Aggrading | | AGGRADING | | |
| Beavers (Y/N) | | No | | |
| (Fish Compensation Measure 1 : NONE) | | | | |
| (Fish Compensation Measure 2 : NONE) | | | | |
| Channel General Rating | | 5 | 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 | | | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| OTHER ACTION | | | | | | | |
| Structural Condition Rating (Last/Now) (%) | 77.8/55.6 | Sufficiency Rating (Last/Now) (%) | 69.3/55.6 | Est. Repl. Yr | 2033 | 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 | Garry Roberts | | Previous Assistant's Name | | | | |
| Next Inspection Date | 25-Jul-2013 | | Previous Inspection Date | 07-Oct-2009 | | | |
| Inspection Cycle (Default) (months) | 21 | | | | | | |
| Comment | | | | | | | |