

| Bridge Culvert Inspection | | | |
|---------------------------|-----------------------------------------------------------------|---------------------|--------------------|
| Bridge File Number | 81028 -1 Bridge Culvert | Form Type | CUL1 |
| Year Built | 1986 | Lot No. | 4 |
| Bridge or Town Name | DRAYTON VALL | Inspector Name | Wade Nanninga |
| Located Over | 2ND ORDER TRIBUTARY TO PEMBINA RIVER, 8.11.84.61.1, WATERCRS-ST | Inspector Class | BR CLS B |
| Located On | 753:02 C1 22.782 | Assistant Name | |
| Water Body Cl./Year | | Assistant Class | |
| Navigabil. Cl./Year | | Inspection Date | 24-Jan-2011 |
| Legal Land Location | NW SEC 33 TWP 49 RGE 10 W5M | Data Entry By | Theresa Lacusta |
| Longitude, Latitude | -115:24:56, 53:16:26 | Data Entry Date | 15-Feb-2011 |
| Road Authority | Alberta Transportation (AIT) | Reviewer Name | Arnold Assenheimer |
| Contract Main. Area | CMA11 | Review Date | 14-Feb-2011 |
| Clear Roadway/Skew | 9.7 / -25 deg. (LHF) | Dept. Reviewer Name | Brent Herrick |
| AADT/Year | 510 / 2009 (A) | Dept. Review Date | 22-Feb-2011 |
| Road Classification | RCU-209-110 | Follow-Up By | |
| Detour Length (km) | 35 | | |

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 | 35 | 125X26 | 2.8 | ROUND |
| Special Features | | | | | | | | |
| Special Features Comment | | | | | | | | |

Utilities (Located at)

| | | | |
|---------------------|-------------------------------------------|---------------|----|
| Utility Attachments | | | |
| Telephone | West r/w. | Gas | |
| Power | 3 wires East r/w. | Municipal | |
| Others | Pipeline 20 m north, 25m East & 50m West. | Problem (Y/N) | No |
| Remarks | BF tag installed on top of West roof. | | |

Approach Road / Embankment

| | Last | Now | Explanation of Condition |
|--------------------------------------------------|----------|----------|---------------------------|
| Horizontal Alignment | 7 | 7 | On curve with no passing. |
| Vertical Alignment | 8 | 8 | |
| Roadway Width (m) | 9.700 | | |
| Embankment | N | 7 | |
| Sideslope (__:1) | 4.0 | | |
| (Height of Cover(m) : 2.7) | | | |
| 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 | | N | N | |
| Heaving (mm) | 100 | | | |
| Invert Above/Below Stream Bed | BELOW | | | (16/Sept/2004) Iced over. |
| Above/Below (mm) | 300 | | | |
| Scour Protection | | N | N | |
| (Type : RIP RAP) | | | | |
| (Avg. Rock Size(mm) :) | | | | |
| Scour/Erosion | | N | N | |
| Beavers (Y/N) | Yes | | | One log across inlet. |
| Upstream End General Rating | | 7 | 7 | G.R. carried forward from 16/Sept/2006. |
| 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 | 18-Apr-2001 | | | Ice to 600mm from crown, shape appears good, no change. |
| Special Features | | | | |
| Special Feature | | | | |
| (Type :) | | | | |
| Special Feature | | | | |
| (Type :) | | | | |
| Roof | | 7 | 7 | |
| Measured Rise (mm) | | | | |
| Measured At Ring No. | | | | |
| Sag (mm) | | | | |
| Percent Sag | | | | |
| Sidewall | | N | N | (Measured 2400mm span near c/l. 18/Apr/2001) |
| Measured Span (mm) | 2400 | | | |
| Measured At Ring No. | | | | |
| Deflection (mm) | 0 | | | |
| Percent Deflection | 0 | | | |
| Floor | | N | N | |
| Bulge (mm) | 0 | | | |
| Measured At Ring No. | | | | |
| Abrasion (Y/N) | No | | | |
| Circumferential Seams | | N | 5 | |
| Separation (mm) | 100 | | | |
| 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 | | 4 | 4 | Pitting rust at ice line. |
| Corrosion By Soil (Y/N) | | | | |
| Corrosion By Water (Y/N) | Yes | | | |
| Camber POS/ZERO/NEG | NEG | | | |
| Ponding (Y/N) | Yes | | | |

| Bridge Culvert Barrel | | | | |
|-----------------------------------------------------------------------------------------|-----|----------|----------|-----------------------------------------------|
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: MP) | | | | |
| Fish Passage Adequacy | | 7 | 7 | |
| Baffle | | N | N | |
| (Type :) | | | | |
| Waterway Adequacy | | 5 | 5 | (16/Sept/2004) Iced over. |
| Icing (Y/N) | Yes | | | |
| Silting (Y/N) | No | | | |
| Drift (Y/N) | No | | | |
| Barrel General Rating | | N | N | (G.R. was 6 from 18/Apr/2001) |
| 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 | | N | N | |
| Heaving (mm) | 100 | | | |
| Invert Above/Below Stream Bed | | BELOW | | (16/Sept/2004) Iced over, no sign of problem. |
| Above/Below (mm) | 200 | | | |
| Scour Protection | | N | N | Snow covered. |
| (Type :) | | | | |
| (Avg. Rock Size(mm) :) | | | | |
| Scour/Erosion | | N | N | |
| Beavers (Y/N) | | No | | |
| Downstream End General Rating | | 7 | 7 | G.R. carried forward from 16/Sept/2004. |
| Structure Usage | | | | |
| | | Last | Now | Explanation of Condition |
| Channel (U/S and D/S) | | | | |
| Alignment | | 8 | 8 | HWM not visible. |
| Bank Stability | | 8 | 8 | |
| HWM (m below Top of Culvert) | | 0.5 | | Log lodged at top of inlet. |
| Drift (Y/N) | | Yes | | |
| Channel Bottom Degrading/Aggrading | | | | |
| Beavers (Y/N) | | Yes | | |
| (Fish Compensation Measure 1 : NONE) | | | | |
| (Fish Compensation Measure 2 : NONE) | | | | |
| Channel General Rating | | 8 | 8 | |

| 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) (%) | 58.7/58.6 | Est. Repl. Yr | 2027 | Maint. Req'd. (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 | 24-Apr-2014 | | Previous Inspection Date | 16-Dec-2007 | | | |
| Inspection Cycle (Default) (months) | 39 | | | | | | |
| Comment | | | | | | | |