PLANS

OF PROPOSED

R.C. BOX CULVERT IN COULEE DES NAULT

ON P.T.H. No. 59

DESIGN DATA

SPECIFICATIONS:

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2004 WITH 2005 & 2006 INTERIMS

LOADING:

LIVE LOAD: HSS-25 & HL-93

EARTH LOAD: AT REST EARTH PRESSURE COEFFICIENT K_o = 0.426
SOIL DENSITY ASSUMED MAX = 1937 kg/m³
MIN = 968.5 kg/m³

STRUCTURAL CONCRETE:

EXPOSURE CLASS S-1 WITH AIR CONTENT CATEGORY 1
CONCRETE DESIGN STRENGTH = 35 MPa AT 28 DAYS

REINFORCING STEEL CAN/CSA G30.18 M92 GRADE 400W
CLEAR COVER 50 mm UNLESS NOTED OTHERWISE

FOUNDATION DATA:

FACTORED RESISTANCE

STRENGTH LIMIT STATE 172 kPa
SERVICE LIMIT STATE 95 kPa

HYDRAULIC DESIGN DATA

DESIGN DISCHARGE:

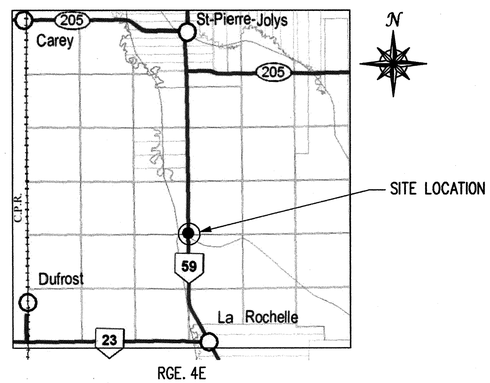
Q_{50} = 16.6 m³/sec.
$3dQ_{50}$ = 8.5 m³/sec
V_{50x3d} = 0.9 m/s

TYPE	DOUBLE 3 600 X 3 000 REINFORCED CONCRETE BOX CULVERT
LENGTH	41.254 OUT TO OUT OF HEADWALL 5.7° SKEW
ROADWAY WIDTH	13 900 ROADWAY WIDTH WITH SHOULDERS & 4:1 SIDE SLOPES
LOCATION	S.E. 1/4 SEC. 16-05-04E. R.M. OF DE SALABERRY

SHEET LEGEND

1. COVER SHEET
2. GENERAL ELEVATION
3. SITE SEDIMENT AND EROSION CONTROL DETAILS
4. STANDARD EROSION CONTROL DETAILS
5. CONCRETE DETAILS
6. SLAB REINFORCING DETAILS
7. SLAB REINFORCING DETAILS
8. WALL REINFORCING DETAILS
9. HEADWALL REINFORCING DETAILS
10. REINFORCING DETAILS
11. REINFORCING DETAILS

TP. 5



LOCATION PLAN

Not to Scale

MANITOBA INFRASTRUCTURE AND TRANSPORTATION

WATER CONTROL AND STRUCTURES

RELEASED FOR CONSTRUCTION BY :

FOR DIRECTOR
STRUCTURES, DESIGN & CONSTRUCTION BRANCH

DATE Nov. 09/09

ENVIRONMENTAL APPROVALS

- [ ] MANITOBA ENVIRONMENT LICENCE RECEIVED
  LICENCE No. _____
- [x] FISHERIES AND OCEANS CANADA - LETTER OF ADVICE/ AUTHORIZATION TO HARMFULLY ALTER, DISRUPT OR DESTRUCT HABITAT SUBJECT TO CONDITIONS IN LETTER
  DATED July 27, 2007
  DFO FILE No. WI-07-3123
- [x] TRANSPORT CANADA - LETTER OF APPROVAL SUBJECT TO CONDITIONS IN LETTER DATED Not navigable
  NWPA FILE No. 8200-07-10046 (dated March 8, 2007)
- [ ] FISHERIES AND OCEANS CANADA -
  WORK SHALL BE COMPLETED IN ACCORDANCE WITH DFO'S OPERATIONAL STATEMENT, AS PER LETTER/MEMO
  DATED _____
  FROM _____
- [ ] NO ENVIRONMENTAL CLEARANCE REQUIRED

COMPLETED BY: Daniel Blais DATE: Nov 10/09

ALL DIMENSIONS ARE IN MILLIMETRES (mm) AND ALL ELEVATIONS AND STATIONS ARE IN METRES (m) UNLESS SHOWN OTHERWISE.

DRAWN BY:	M.S.	DATE:	OCTOBER, 2009	SHEET No.	1
CHECKED BY:	A.H.P.	DATE:	OCTOBER, 2009	SITE No.	2290-10

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