



**Infrastructure and Transportation**  
Highway Planning and Design Branch  
Environmental Services Section  
1420-215 Garry Street, Winnipeg, MB R3C 3P3  
T 204-619-4359 F 204-945-0593  
www.manitoba.ca

April 10, 2015

Tracey Braun, M.Sc.  
Director, Environmental Approvals Branch  
Manitoba Conservation and Water Stewardship  
123 Main Street, Suite 160  
Winnipeg, MB R3C 1A5

Dear Ms. Braun:

**SUBJECT: Notice of Alteration - Environment Act Licence No. 3131  
St. Adolphe Ring Dike Expansion**

In accordance with the *Environment Act*, Section 14(1)(b), Manitoba Infrastructure and Transportation (MIT) is hereby providing Notice of Alteration to the St. Adolphe Ring Dike Expansion Project, which was licenced with Manitoba Conservation and Water Stewardship (MCWS) under Environment Act Licence No. 3131.

#### Background

The project involves the construction and operation of a flood protection dike expansion on the east side of the community of St. Adolphe in the Rural Municipality of Ritchot. MIT is proposing to make minor alterations to the proposed alignment of the dike and location of borrow areas.

#### Alteration to Dike Alignment

The dike alignment in the southeast corner of the project has been changed to allow for two borrow areas (A-3 and B-1) to be dug outside of the flood protected area. The location of the flood control structure will be moved to the southeast corner of the new dike to drain urban storm water from within the diked area into borrow area A-3 (see Attachment 1).

### Alteration to Location of Borrow Areas

Originally, all borrow areas were proposed to be located within the diked area and included as part of the storm water management system. With this alteration, borrow material will now be sourced from outside the flood protected zone, in an area between the proposed dike and the St. Adolph Coulee. There will still be the same number of storm water retention basins within the diked area to constitute the storm water management system, but their size will be reduced from what was originally proposed. To clarify, storm water management functions will continue to be provided within the diked area and are not affected by this alteration.

### Alteration to Environmental Effects

Borrow areas will now be located outside of the flood protected area, between the proposed dike and the St. Adolph Coulee. Borrow site B-1 will be located within 20 m of the Coulee. Borrow site A-3 will be located within approximately 80 m of the Coulee. Neither borrow area will encroach on the riparian area of the coulee.

Borrow area B-1 will be excavated to a depth of 3 m and is expected to remain dry.

Borrow area A-3 will be excavated to a depth of 6 m and will function as a wet retention pond for urban storm water run-off originating from within the expanded ring dike. Water will enter the retention pond in a controlled manner through a flood control structure built into the new dike alignment. Attachment 2 shows the draft outlet configuration from the development area to borrow area A-3 (borrow pond) to the St. Adolphe Coulee.

The weir manhole controls the Sewer Retention Basin (SRB) system in the upstream development area, and provides attenuation to allow for solids to settle before leaving the development's drainage system. The weir manhole and the Flood Protection Structure (FPS) are connected via a 600 mm Land Drainage Sewer (LDS). The FPS will be located on the dry side and adjacent to the proposed Ring Dike, and will be set to an elevation to accommodate the 1:200 year level. The FPS is connected to the borrow pond via a 750 mm LDS, which will discharge to the bottom of the borrow pond where rip rap will be placed to negate erosion.

Similar to the outlet of the 750 mm LDS, the inlet of the outfall from the borrow pond to the St. Adolphe Coulee will consist of rip rap to negate erosion at the bottom of the pond area. The 750 mm outfall pipe will be sloped upward to discharge to the St Adolphe Coulee at an elevation of 230.1 m, which will be the Normal Water Level of the borrow pond. It is not anticipated that sediment laden runoff will enter the borrow pond, as settlement is provided in the developments LDS system (via catch basin sump pits and SRBs) and very little local runoff is anticipated to the pond.

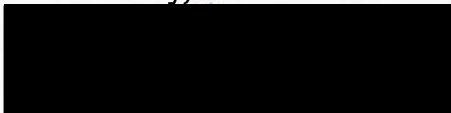
Potential impact may occur during flood events, when water from the St. Adolphe Coulee or the Red River flows into the borrow areas potentially resulting in fish stranding when the flood waters recede. The frequency of such an event is unknown and the resulting impact to the fish population will likely be insignificant. It is our opinion that this alteration will not result in any

other potential significant changes to the environmental effects assessed and addressed by Environment Act Licence No. 3131.

Fee for NoA

We understand that a \$500 application fee will apply to this alteration, payable to the Minister of Finance. Payment of this fee will be handled through interdepartmental fund transfer.

Sincerely,

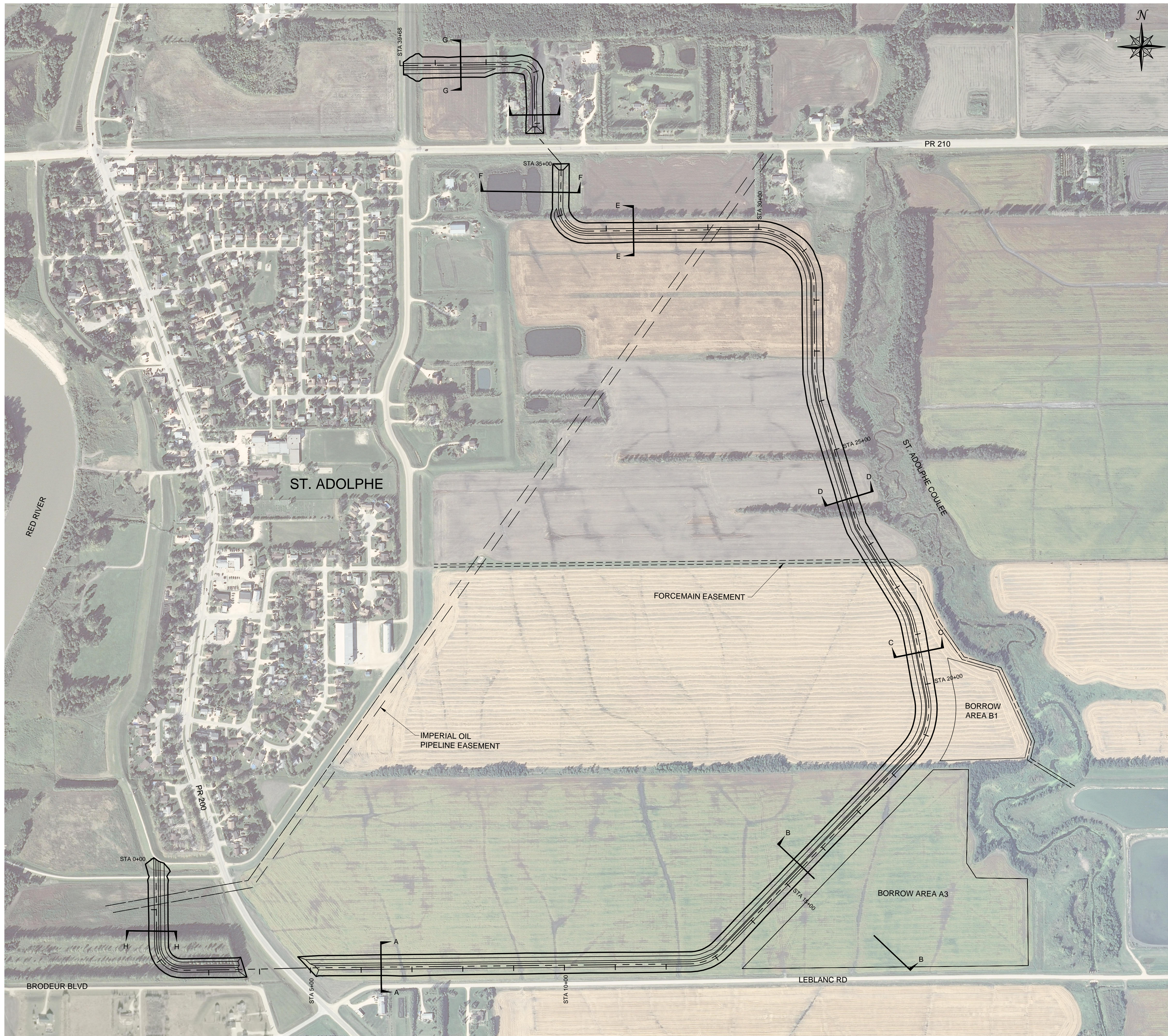


Ryan Coulter, M.Sc., P. Eng.  
Manager of Environmental Services

cc. Ron Richardson (MIT)  
Alena James (MIT)

Attachment 1  
Plan View Drawing





LEGEND	
PROPOSED DIKE TOES	———
PROPOSED DIKE ELEMENTS	———
PROPOSED DIKE C	———

**75% FOR REVIEW**

NOTICE: THE EXISTENCE, LOCATION AND ELEVATION OF UTILITIES AND/OR CONCEALED STRUCTURES AT THE PROJECT SITE ARE NOT GUARANTEED BY AECOM.

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

STANDARD No. :		APPROVED BY SIGNATURE :															
		TITLE :															
		DATE :															
<b>R.M. OF RITCHOT</b> <b>DETAILED CROSS SECTIONS LOCATION PLAN</b> <b>OF</b> <b>ST. ADOLPHE RING DIKE EXPANSION</b> ( PART OF R.L. 233 TO 240 PARISH OF ST. NORBERT TWP. 08, RGE. 03E )																	
<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>15/03/31</td> <td>CM</td> <td>75% ISSUED FOR REVIEW</td> </tr> </tbody> </table>		REVISIONS			DATE	BY	DESCRIPTION	15/03/31	CM	75% ISSUED FOR REVIEW	<table border="1"> <tr> <td>DESIGN</td> <td>BY: A. KALUZNIAK</td> <td rowspan="2">         RELEASED FOR CONSTRUCTION BY:           DIRECTOR DATE          WATER MANAGEMENT ENGINEERING &amp; CONSTRUCTION       </td> </tr> <tr> <td>DETAILS</td> <td>CHECKED: F. KHALIL</td> </tr> </table>		DESIGN	BY: A. KALUZNIAK	RELEASED FOR CONSTRUCTION BY:  DIRECTOR DATE WATER MANAGEMENT ENGINEERING & CONSTRUCTION	DETAILS	CHECKED: F. KHALIL
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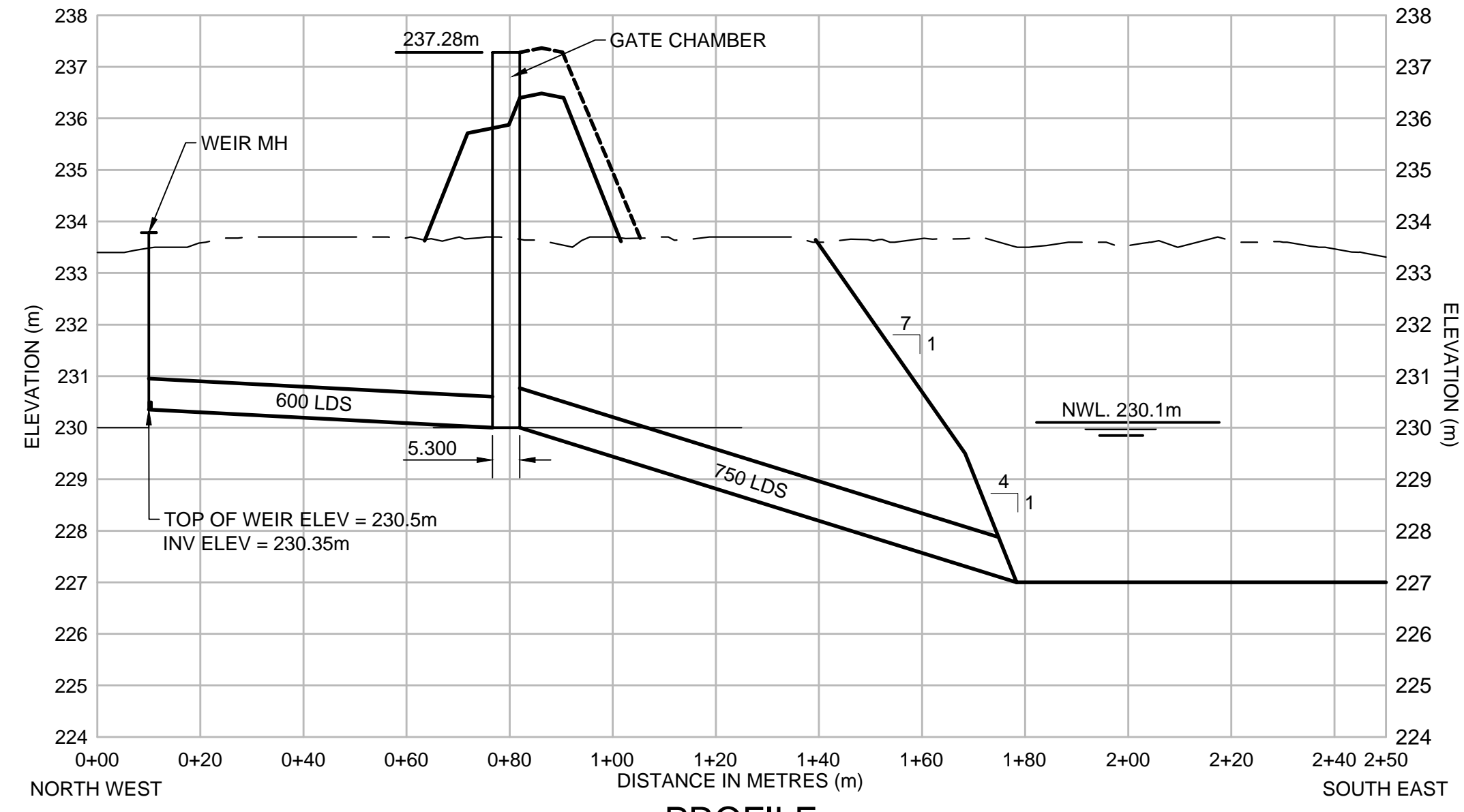


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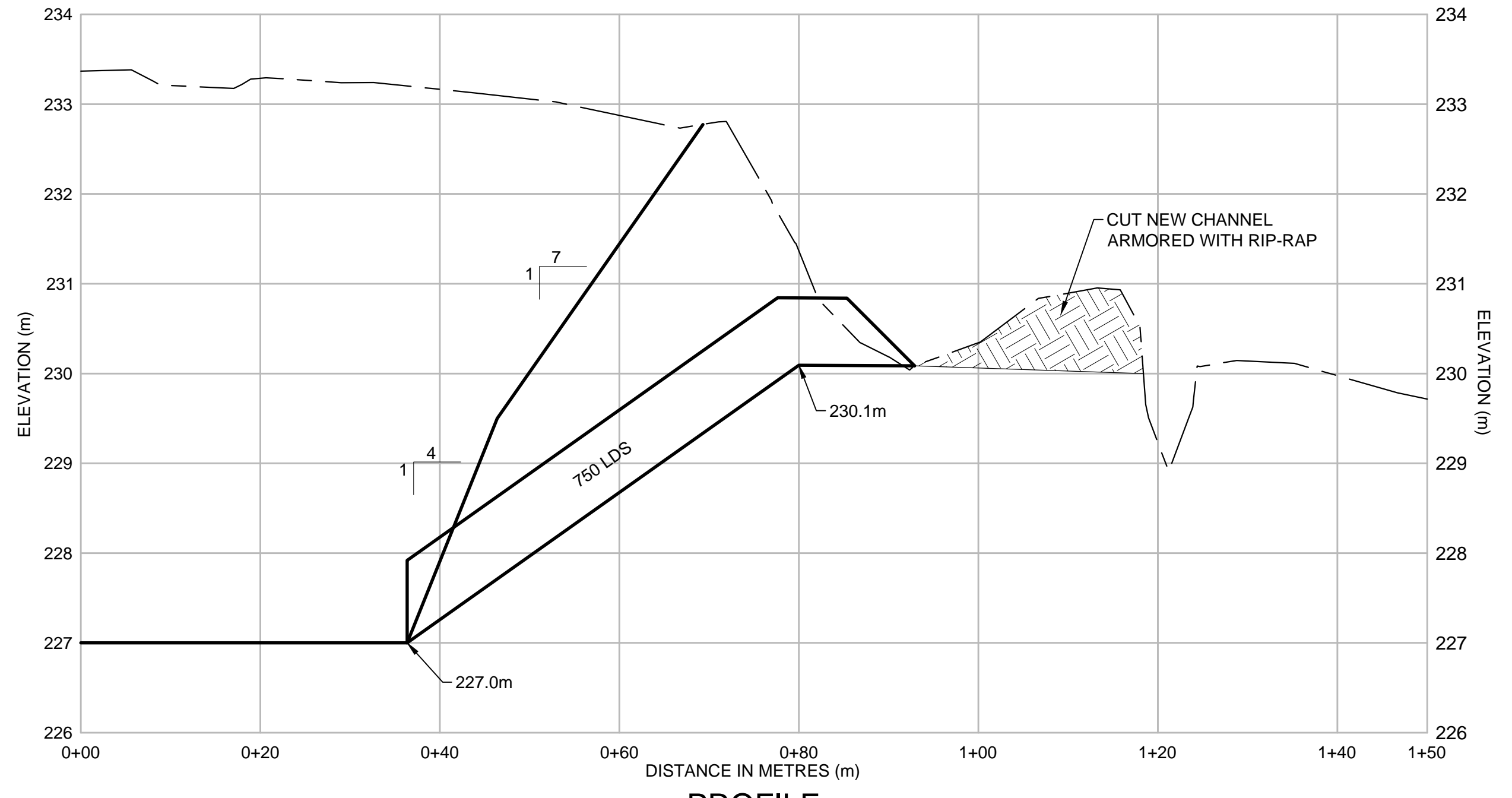
Attachment 2  
Plan and Profile View of the Outlet Configuration





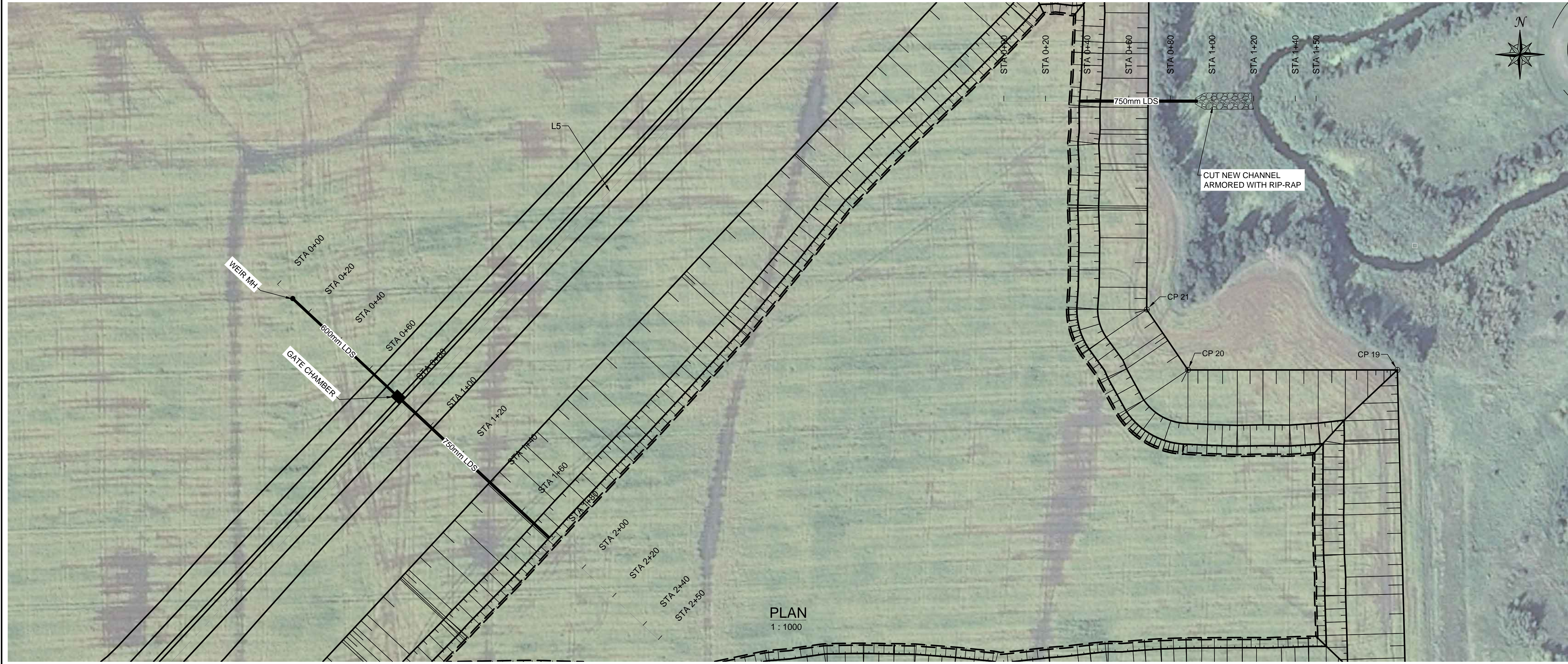
**PROFILE**

HORIZONTAL SCALE = 1:1000  
VERTICAL SCALE = 1:100



**PROFILE**

HORIZONTAL SCALE = 1:500  
VERTICAL SCALE = 1:50



**PLAN**  
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**Issue Status: DRAFT**