

Navigation Protection Program (NPP)  
820-800 Burrard Street  
Vancouver, BC  
V6Z 2J8

Our file: **2022-508116**  
Registry number: **6766**

## APPROVAL

**OWNER:** **James Thomas/BC Hydro**  
**333 Dunsmuir Street**  
**Vancouver, BC V6B 5R3**  
**Canada**

**SITE LOCATION:** **Located in Peace River, approximately at 56° 13' 38.3" N, 121° 25' 30.48" W, Parcel B (P37272) of the West 1/2 of Section 28 Township 83 Range 22 West of the 6th Meridian Peace River District; and the Fractional East 1/2 of Section 29 Township 83 Range 22 West of the 6th Meridian Peace River District., in Charlie Lake, in the Province of British Columbia.**

**WORKS:**

- **Slipway and boat-launching ramp - recreational**

As per the application (detailed above) to the Minister of Transport, submitted pursuant to the *Canadian Navigable Waters Act*, for an approval of the work per the attached three (3) plans, the Minister hereby approves the work pursuant to subsection 7(6) for the construction of the above-mentioned work, in accordance with the following terms and conditions:

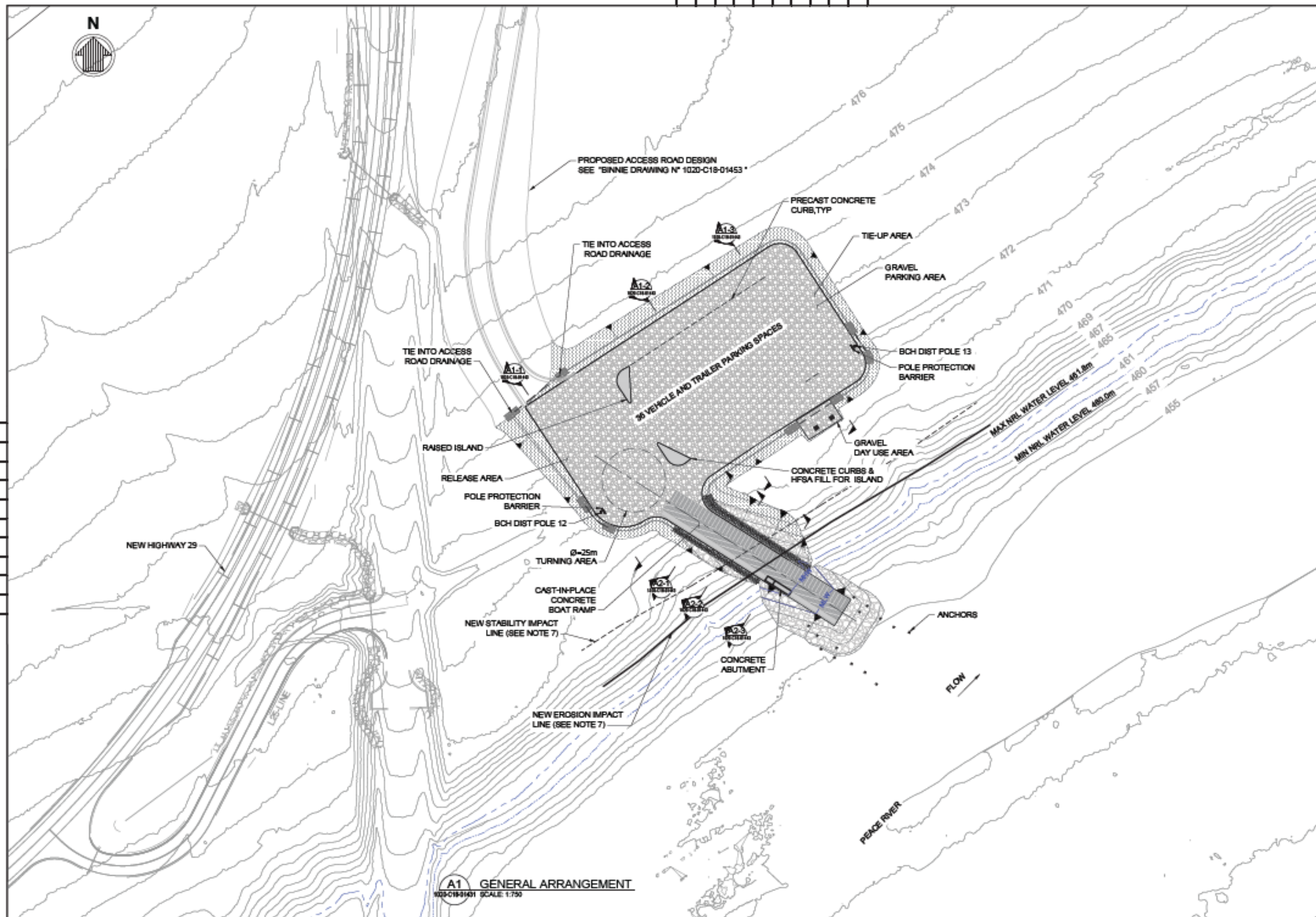
1. The works are to be constructed or installed in accordance with the reviewed plans.
2. The CNWA Approval and its Terms and Conditions shall be posted at an easily accessible place at the worksite.
3. In the event that the operation of the above works is terminated, it will be the proponent's responsibility to remove the works and associated equipment in its entirety including any anchors and pilings.
4. Construction equipment used in conjunction with this project shall be stored in such a manner that it does not obstruct navigation.
5. Equipment used in construction must not prevent vessels from navigating past the work site.
6. Construction machinery left in the water during darkness or limited visibility shall be marked with a flashing yellow light, visible to upstream and downstream traffic.
7. Any construction equipment anchored or left in or on the waterway shall be marked with a yellow flashing light placed on the outermost extremity if left overnight.
8. The owner shall conduct an Airborne LIDAR survey of the reservoir area post construction and clearing, but prior to the filling of the reservoir. This survey shall be the basis for mapping of the reservoir for boating.

**SIGNED ON JANUARY 31, 2023**  
**at the NPP regional office of Pacific**

**Leung,**  
**Eric**

Digitally signed by Leung, Eric  
DN: C=CA, O=GC, OU=TC-TC, CN  
="Leung, Eric"  
Reason: I have reviewed this  
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Date: 2023.01.31 13:34:31-08'00'  
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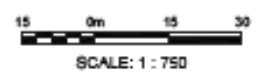
Eric Leung  
NPP Officer  
Programs Group  
Transport Canada  
Pacific Region  
For the Minister of Transport



- NOTES:**
1. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
  2. BASE PLAN BASED ON BC HYDRO LIDAR DATA FOR HALFWAY RIVER.
  3. CONTOURS ARE IN METERS WITH RESPECT TO GEODETIC DATUM.
  4. EXCAVATION MAY ENCOUNTER POTENTIALLY ACID-GENERATING (PAG) ROCKS. WOVEN GEOTEXTILE AND LIMESTONE FOR DITCHES SHALL BE INSTALLED IN AREAS WITH PAG EXPOSURES CONFIRMED ON SITE.
  5. BCH LIGHT POLE TO BE COMPLETED BY OTHERS.
  6. FENCING, TOILET BUILDING, GARBAGE RECEPTACLE, SIGNS, GANGWAY AND FLOAT WILL BE CONSTRUCTED IN PHASE 3.
  7. NEW EROSION IMPACT LINE AND STABILITY IMPACT LINE FOR THE SITE PROVIDED BY WOOD.
  8. FOR CONTROL AND ORGANIC STRIPPING, SEE BINNIE DRAWING 1020-C18-01457.

**Reviewed/Examiné**  
 Date: 2023-01-26  
 By/par:   
 ERIC LEUNG  
 2022-508116 1 of 3  
 Navigation Protection Program/  
 Programme de protection de la navigation

- LEGEND:**
- MAX NRL
  - MIN NRL
  - XXXX --- EXISTING GRADE
  - RIPRAP FOR DRAINAGE PIPE EROSION CONTROL
  - EROSION IMPACT LINE
  - STABILITY IMPACT LINE
  - GRAVEL
  - LIMESTONE
  - RIPRAP
  - HYDROSEED



**A1 GENERAL ARRANGEMENT**  
1020-C18-01431 SCALE: 1:750

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**BC Hydro**

HALFWAY RIVER BOAT LAUNCH RAMP  
 GENERAL ARRANGEMENT



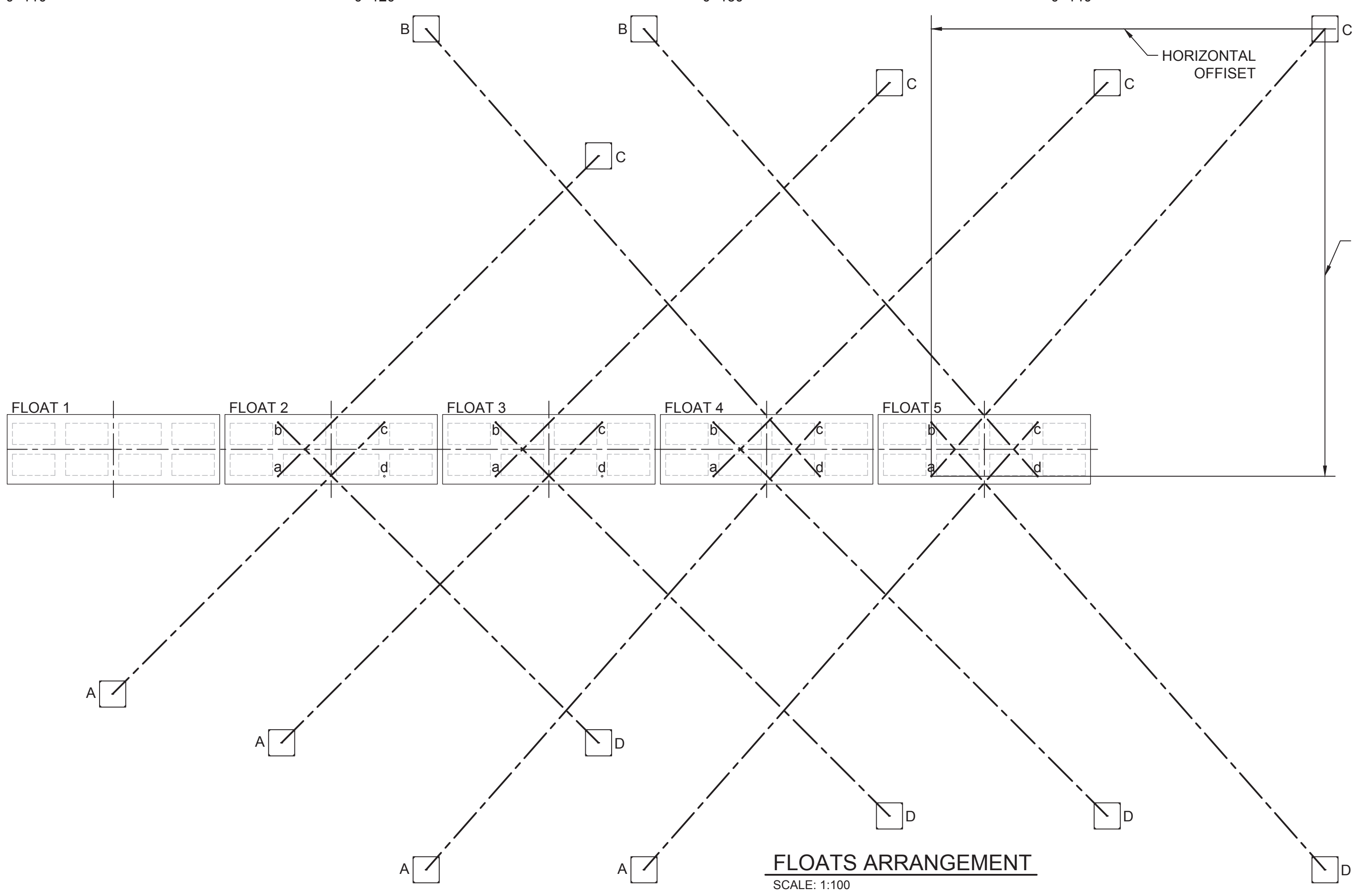
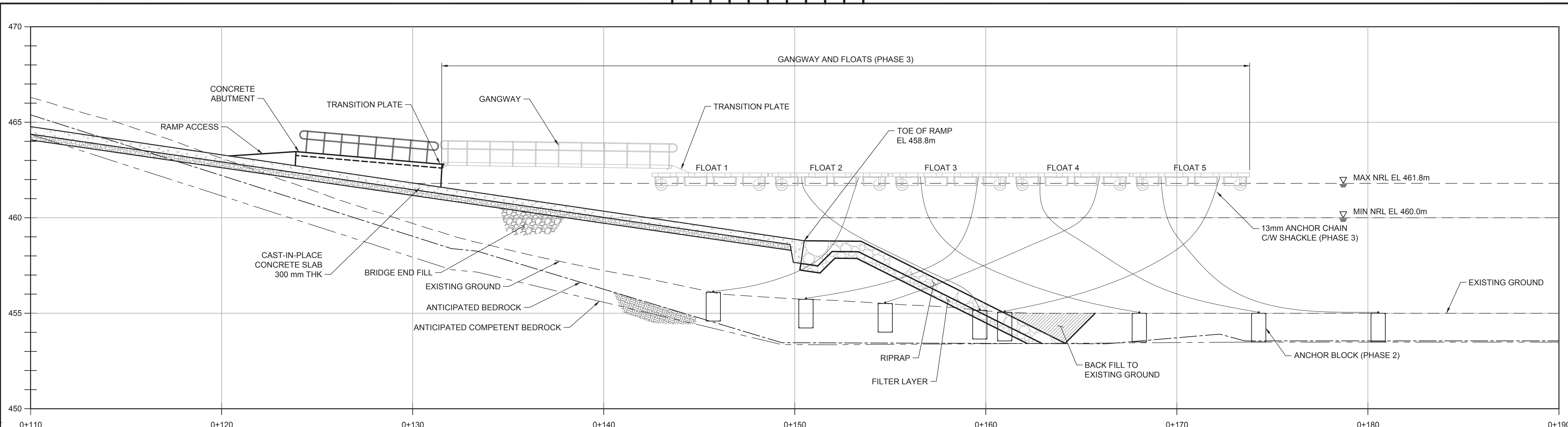
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WORK ORDER NUMBER		INSP	PH
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		DPTS	TM
		INSP	PH
		REV	PH
		ACPT	
BASE ACCURACY LEVEL:			
ASB ACCURACY LEVEL:			

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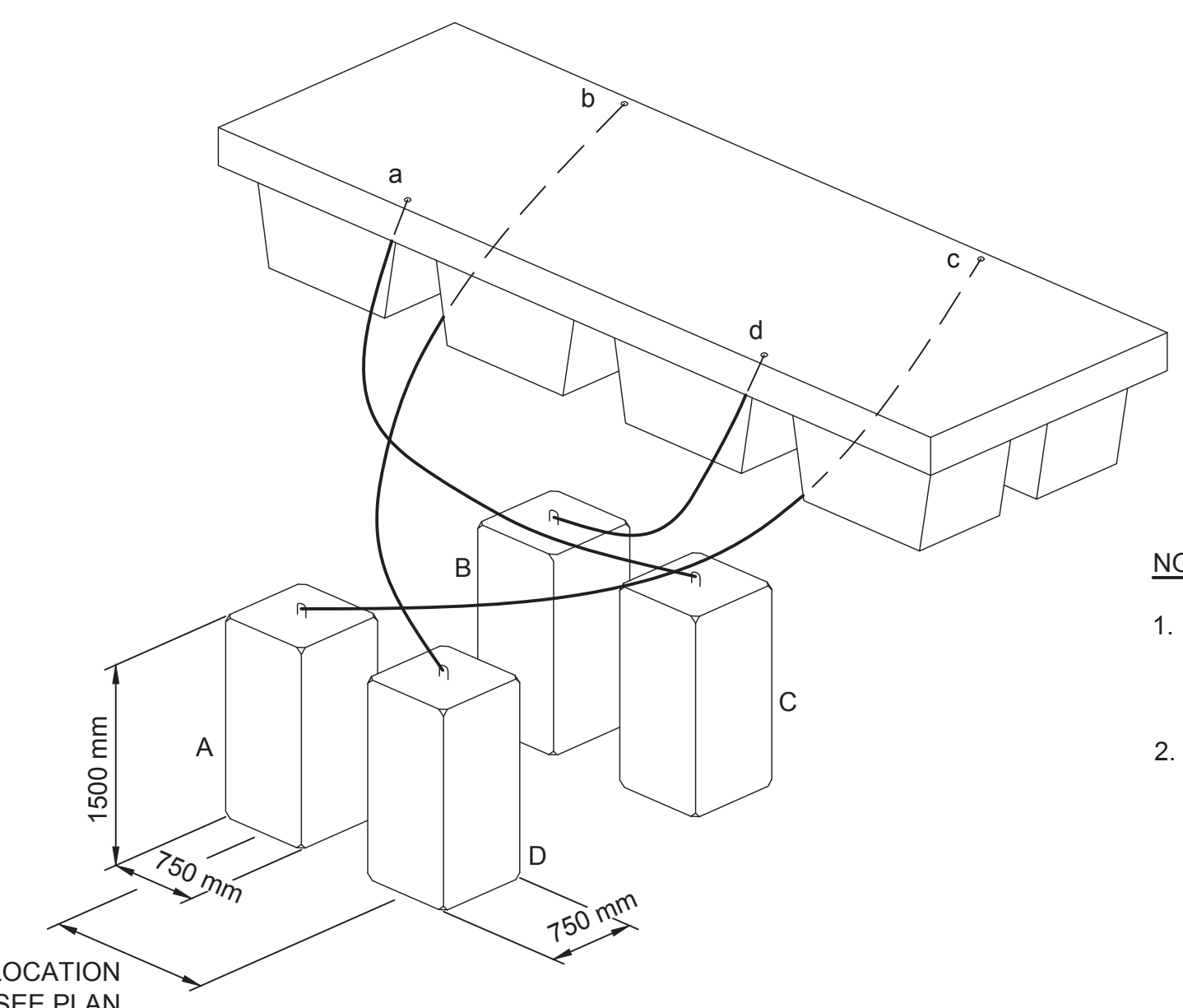
NO	REMARKS	DATE

DATE	2022-05-31	DIST		DRAWING NUMBER	1020-C18-01431	REPORT NUMBER		FIGURE NUMBER	S	SDS	D	REV	E
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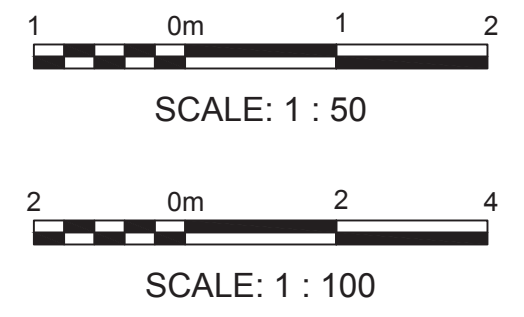


**BOAT LAUNCH PROFILE - FLOAT @ MIN WATER LEVEL**  
 SCALE: 1:100



Transport Canada / Transport Canada  
**Reviewed/Examiné**  
 Date: **2023-01-26**  
 By: **ÉRIC LEUNG**  
**2022-508116** 2 of 3  
 Navigation Protection Program / Programme de protection de la navigation

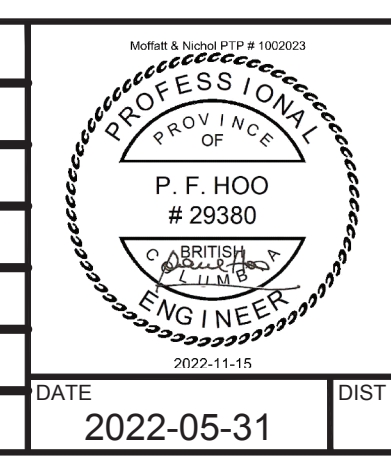
- NOTES:**
1. ALL ELEVATIONS ARE IN METERS AND REFERENCED TO GEODETIC DATUM (1928 CANADIAN VERTICAL DATUM).
  2. ALL DIMENSIONS IN METERS.



**moffatt & nichol**  
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<b>BC Hydro</b>	
<b>HALFWAY RIVER BOAT LAUNCH RAMP</b>	
<b>ABUTMENT, GANGWAY AND FLOAT SECTION</b>	
DRAWING NUMBER	1020-C18-01437
REPORT NUMBER	
FIGURE NUMBER	12
SIZE	D
REV	E

DESIGN NUMBER	DSGN	DLH
WORK ORDER NUMBER	INDEP CHK	PH
	DFTG	MM
	DFTG CHK	TM
BASE ACCURACY LEVEL:	INSP	PH
ASB ACCURACY LEVEL:	REV	PH
	ACPT	

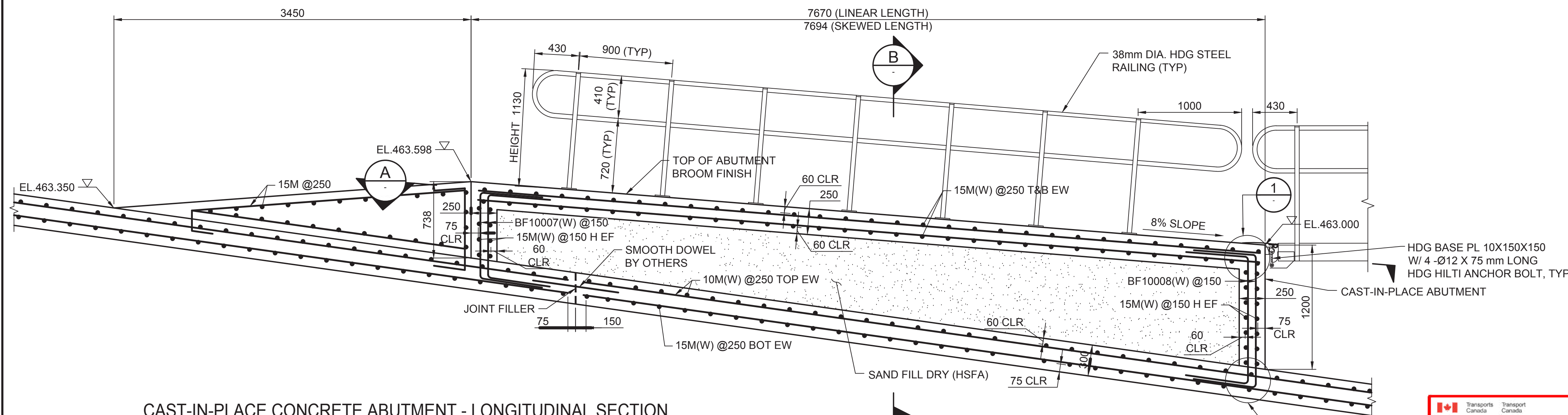


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REVISIONS

REFERENCE DRAWINGS

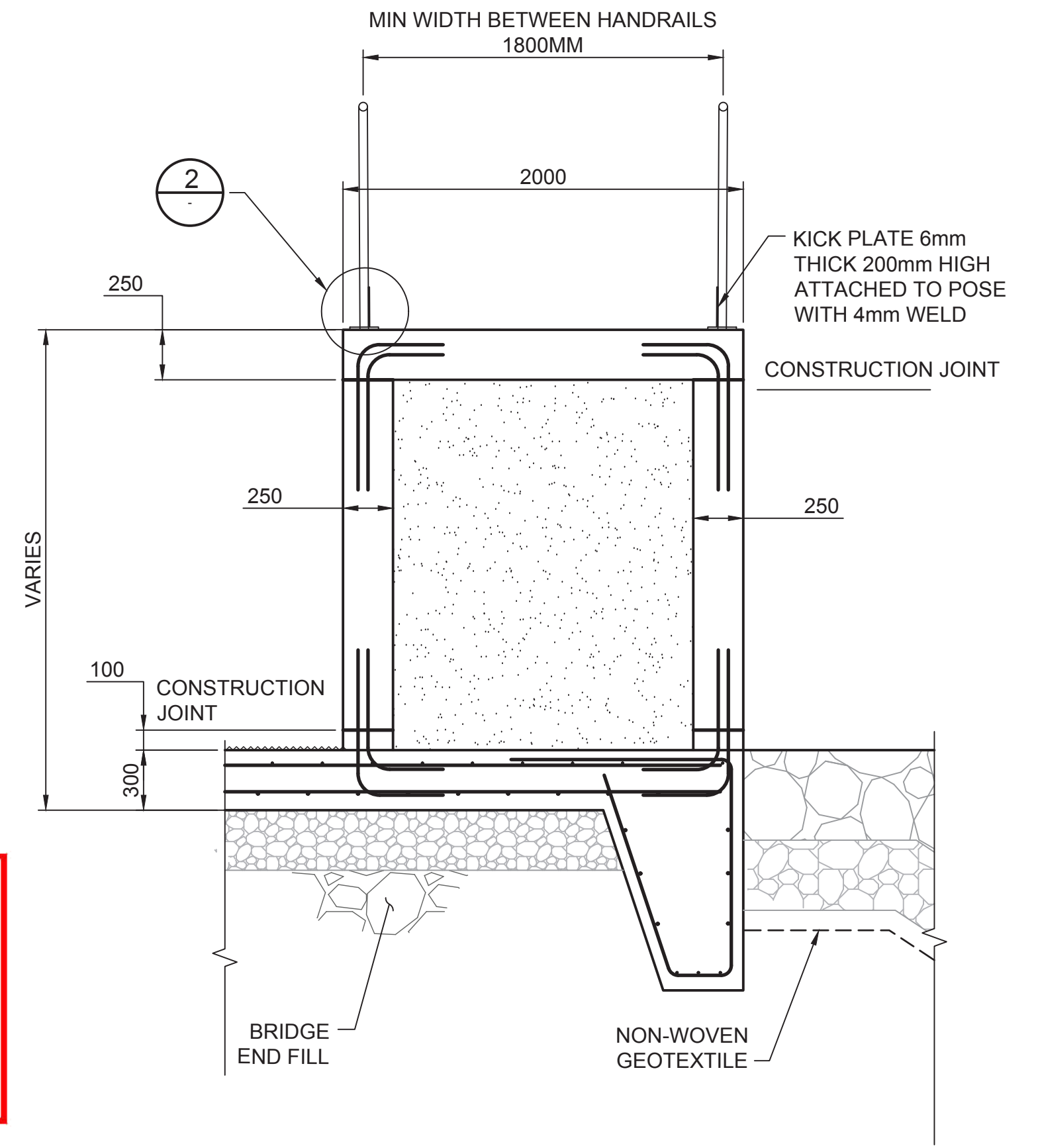
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**CAST-IN-PLACE CONCRETE ABUTMENT - LONGITUDINAL SECTION**

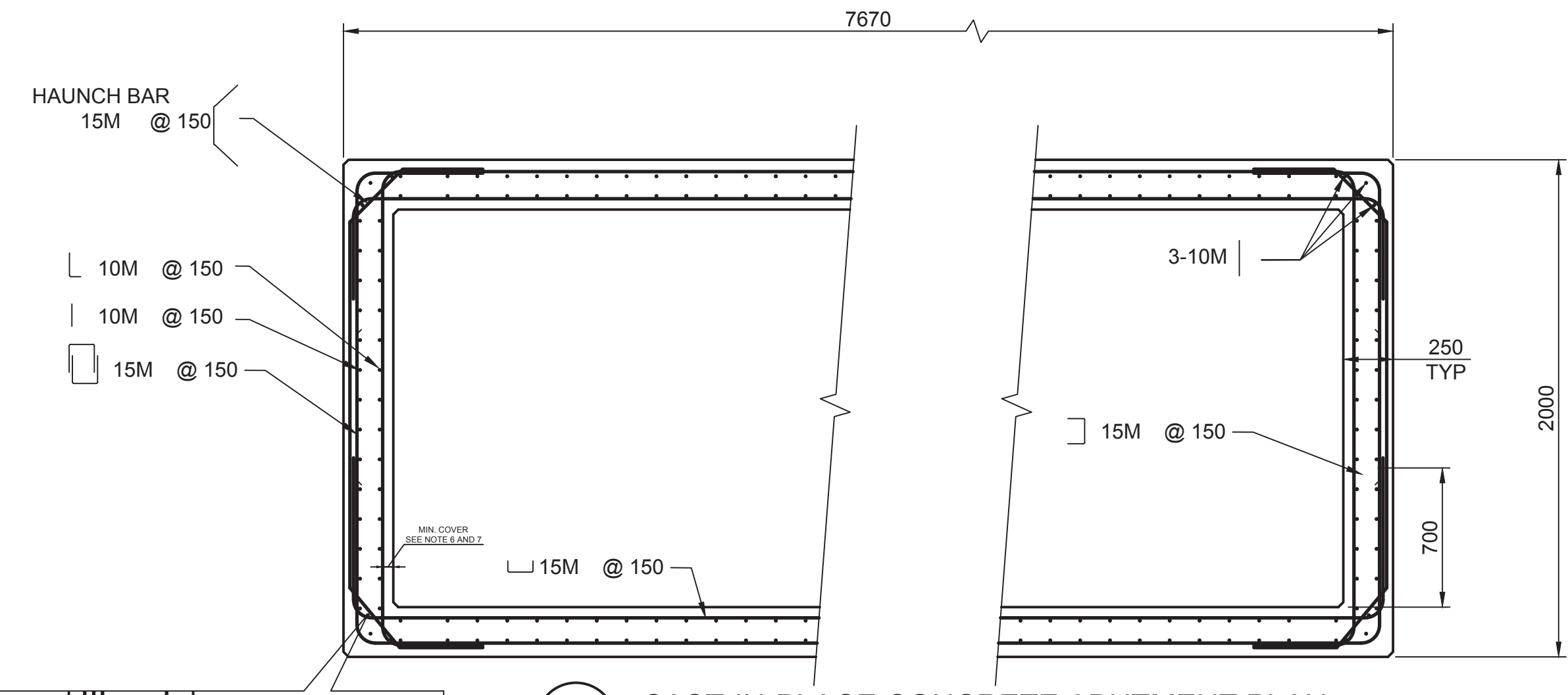
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\* - BARS TO BE STAGGERED BY 75mm TO AVOID CLASH DURING INSTALLATION  
BRIDGE END FILL NOT SHOWN FOR CLARITY



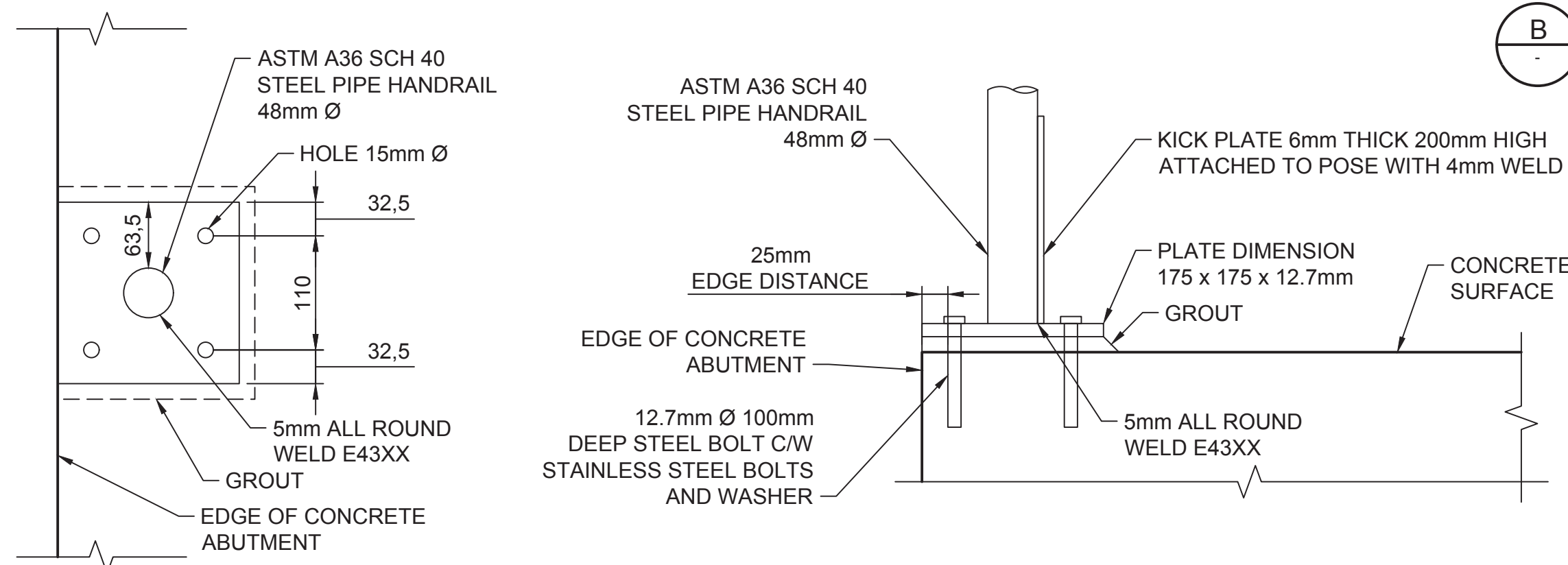
**CAST-IN-PLACE CONCRETE ABUTMENT SECTION**

SCALE: 1:25



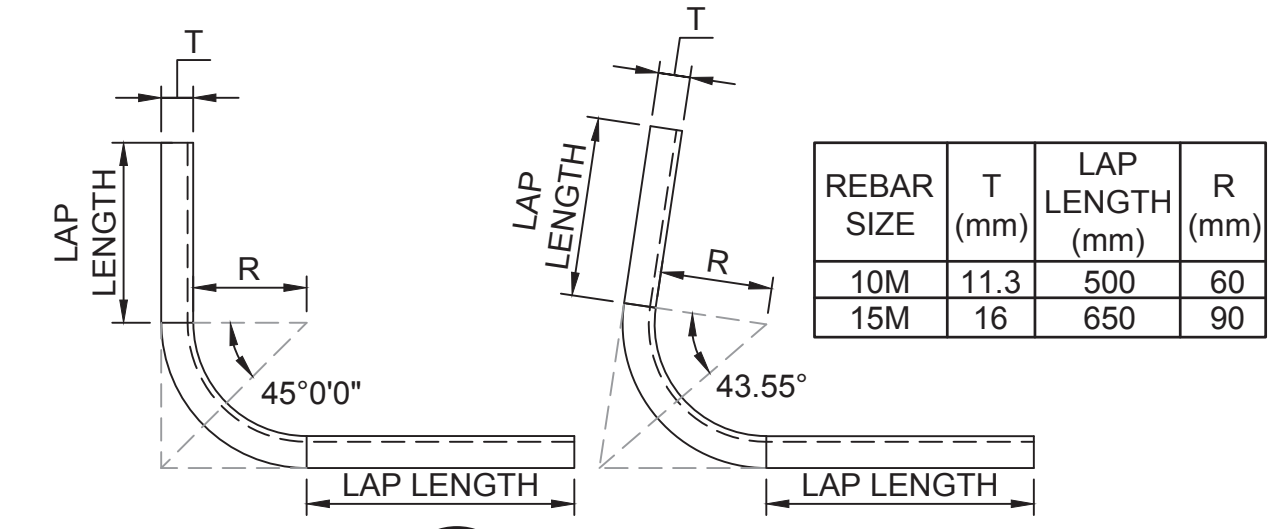
**CAST-IN-PLACE CONCRETE ABUTMENT PLAN**

SCALE: 1:25



**HANDRAIL PEDESTAL DETAIL**

SCALE: 1:5

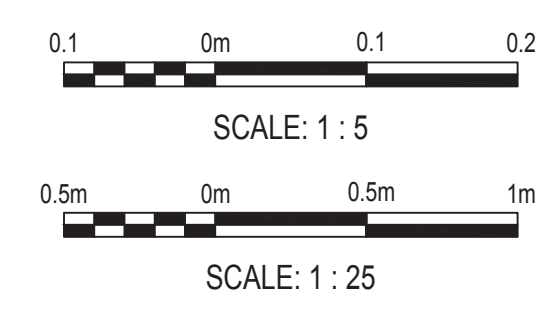


**BENDS DETAIL 1**

NTS

**NOTES:**

1. CONCRETE BOAT RAMP AND ABUTMENT MEMBERS SHALL INSTALLED WITH DIMENSIONS NOT EXCEEDING A TOLERANCE OF 10mm.
2. ALL SURFACE FINISHES SHALL BE SMOOTH SURFACE EXCEPT FOR WALKING SURFACES.
3. ALL WALKING SURFACE FINISHES TO BE STIFF BROOM SURFACE.
4. MINIMUM 25mm CHAMFER AT ALL CORNERS U.N.O.
5. MINIMUM CONCRETE STRENGTH SHALL BE 35MPa
6. CLEAR COVER FROM OUTER FACES SHALL BE 75mm U.N.O.
7. CLEAR COVER FROM INNER FACES SHALL BE 60mm U.N.O.
8. ALL DIMENSIONS IN MILLIMETERS U.N.O.
9. 28 DAY CONCRETE STRENGTHS AND EXPOSURE REQUIREMENT ALONG WITH SPECIFICATION FOR REINFORCING AND FABRICATED STEEL.
10. ALL STEEL SURFACE HOT DIP GALVANIZED.



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**HALFWAY RIVER BOAT LAUNCH RAMP**

**ABUTMENT DETAILS**

DATE	2022-05-31	DIST		DRAWING NUMBER	1020-C18-01438	REPORT NUMBER		FIGURE NUMBER	13	SIZE	D	REV	E
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DESIGN NUMBER		DSGN	DLH
WORK ORDER NUMBER		INDEP CHK	PH
		DFTG CHK	MM
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BASE ACCURACY LEVEL:		INSP	PH
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		ACPT	

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REMARKS  
REVISIONS

REFERENCE DRAWINGS

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