

**Site Technical Query - Form**

SN1809-0000/XE.FRM/0001 Rev 4 03/02/2021

TQ Number:		Project:	
CW2148472	-A010- 0125	Oyu Tolgoi Underground Project	
A. To be completed by or on behalf of the Contractor			
Contractor/Sub-Contractor Name:	MCS International	Date Response	06/10/2022
Contract Title:	Haulage Truck Workshop /C-004D/	Plant Area &	1883
Contract No.	CW2148472	Contractor TQ Number:	TWS-0415-TQ-0125
Discipline Codes (Mandatory) <input type="checkbox"/> D1 (CSA) - <input type="checkbox"/> D2 (MP) - <input checked="" type="checkbox"/> D3 (E&I) - <input type="checkbox"/> D4 (Other) - <input type="checkbox"/>			
<i>Description of Technical Query (List affected drawings and specifications):</i> Sump oil separation plate mounting In drawing 1883-55-L4-1105, oil separation plate mounting is unclear.			
<input type="checkbox"/> Routine		<input checked="" type="checkbox"/> Urgent	Refer Technical Query instructions
<i>Proposed Action (List all attachments)</i> Therefore, the contractor proposes using SS L06 equal angle, SS M16 threaded rod, and SS M16x60 bolts to mount the oil separation plate to the wall (attachment 1). Also, seal the gaps between the steel frame, concrete wall, and shotcrete wall with the sealant (attachment 2).			
Effect on cost (USD):	NO		
Effect on schedule (Days):	NO		
Effect on quality:	NO		
Requested by (Name):	Delgersuren N.	Position:	SMP Field Engineer
Signature:		Date: (dd/mm/yyyy)	03/10/2022

B. To be completed by Jacobs Field Engineer

Comments/recommendations by Engineering

Proposal is acceptable subject to below comments.

- Mounting anchor rods/bolts (size and embedding length) should be confirmed by Structural Engineers prior to installation.
- Oil separating plate shall be fully sealed with a type of seal which withstands water/oil mix against the walls without any gaps.
- Plate installation detail shall be captured on the relevant redline drawings.
- A newer revision of the TQ form to be used further.

Disclaimer:

Acceptance or rejection of this TQ is only related with technical aspects.

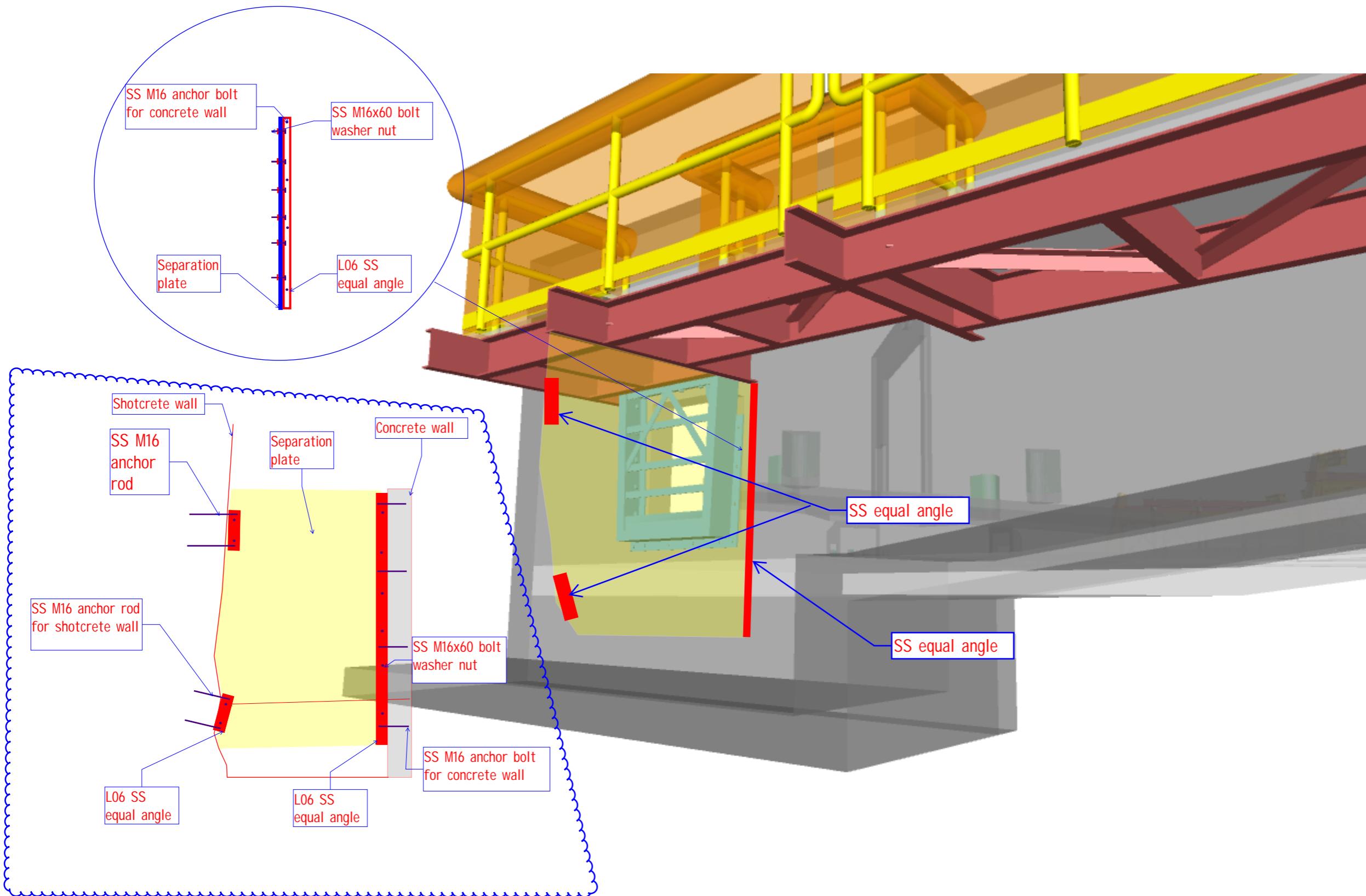
If Cost or Schedule Impact are associated with this TQ, it must be discussed separately with Jacobs Contract team.

C. Engineering Decision		D. Information		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accept with comments	Reject	Design Change Distribute to: Design Author DA	Cost Impact Distribute to: Contracts, Proj. Controls & Construction Manager	Schedule Impact Distribute to: Proj. Controls & Construction Manager

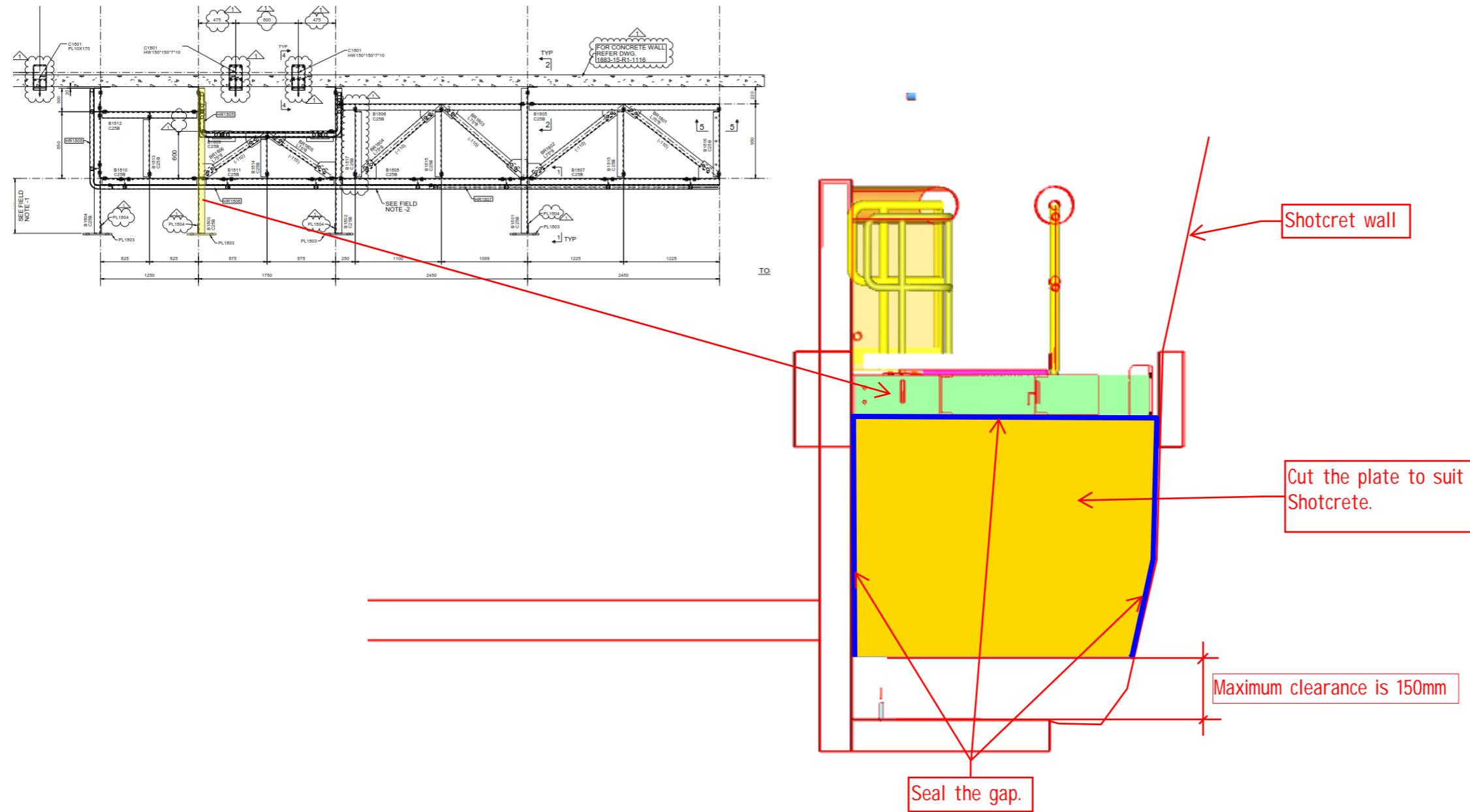
REVIEWER		APPROVER		CONSTRUCTION MANAGER	
Field Engineer OR Lead Engineer		Lead Engineer OR Chief of Engineering		(If Cost and/or Schedule Impact)	
Date: (dd/mm/yyyy)		Date: (dd/mm/yyyy)		Date: (dd/mm/yyyy)	

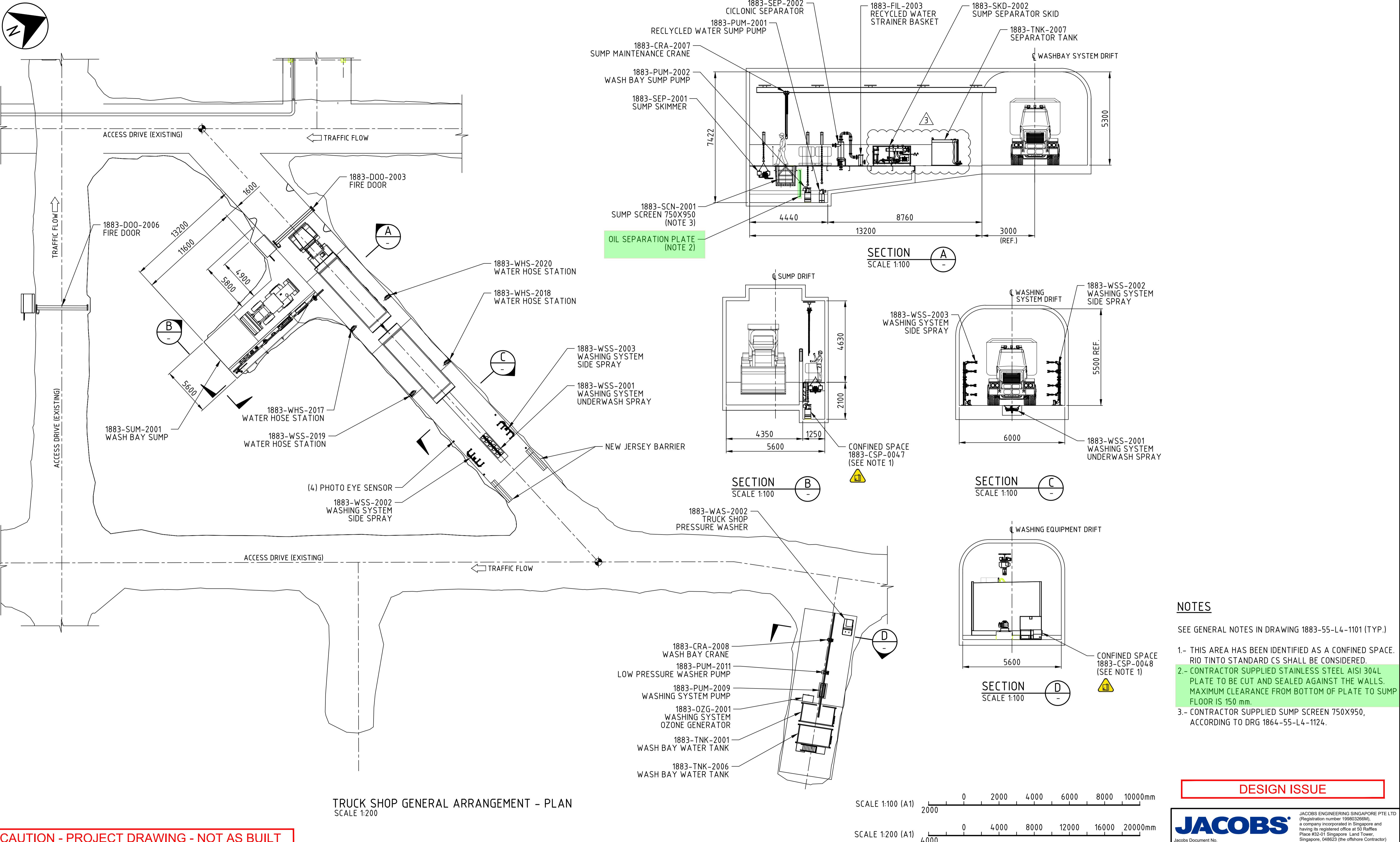
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Attachment 1 : Proposal (1/2)



Attachment 2 : Proposal (2/2)





CAUTION - PROJECT DRAWING - NOT AS BUILT



OYU TOLGOI LLC

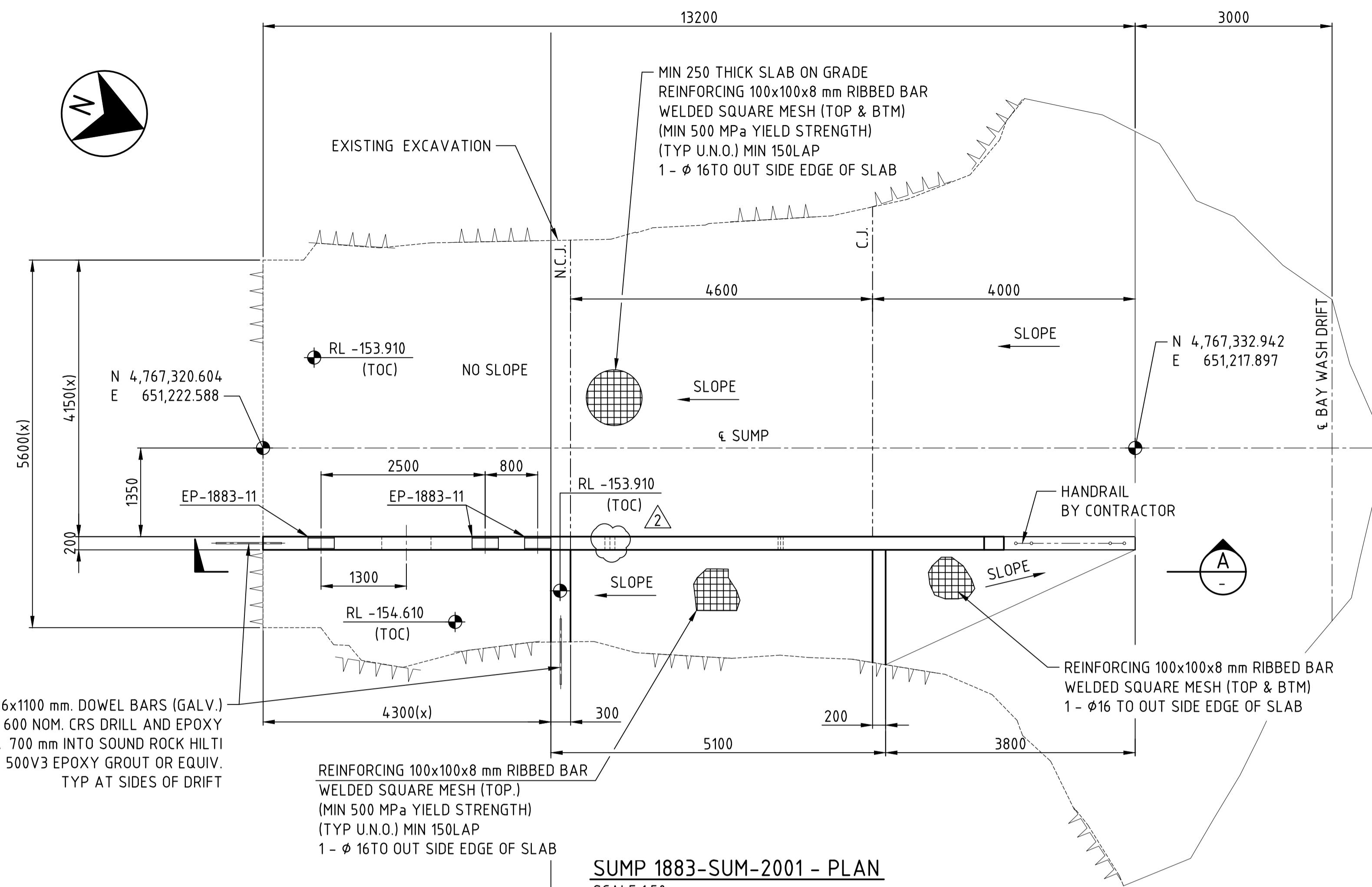
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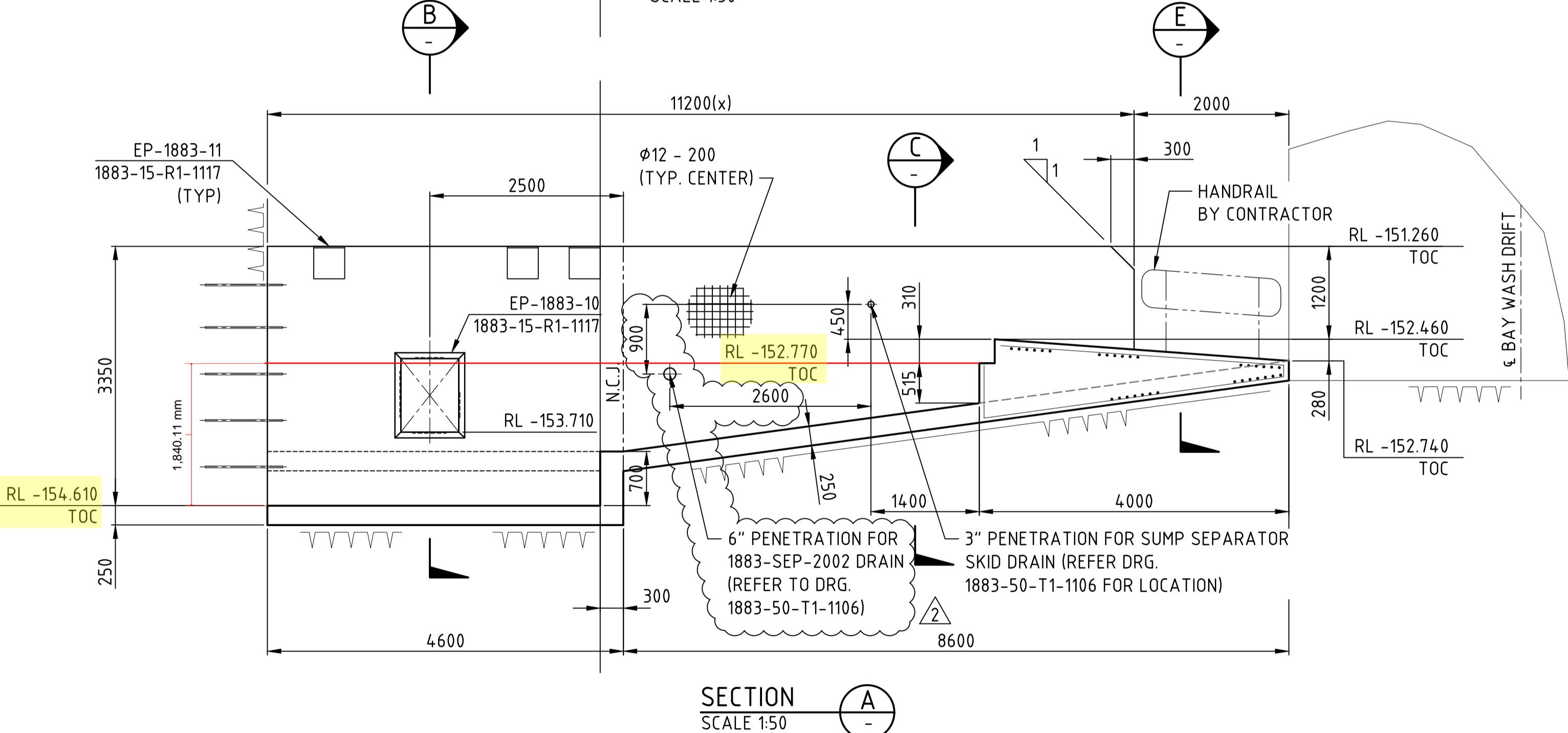
JACOBS CONSULTING ENGINEERS
1000 15th Street, N.W., Suite 1100
Washington, D.C. 20004-1100
Tel: (202) 293-1100
Fax: (202) 293-1101
Web: www.jacobs.com

YU TOLGOI UNDERGROUND PROJECT
UNDERGROUND INFRASTRUCTURE AND MINING
UNDERGROUND WORKSHOPS
CRUCK SHOP - GENERAL ARRANGEMENT - SHEET 4 OF 4

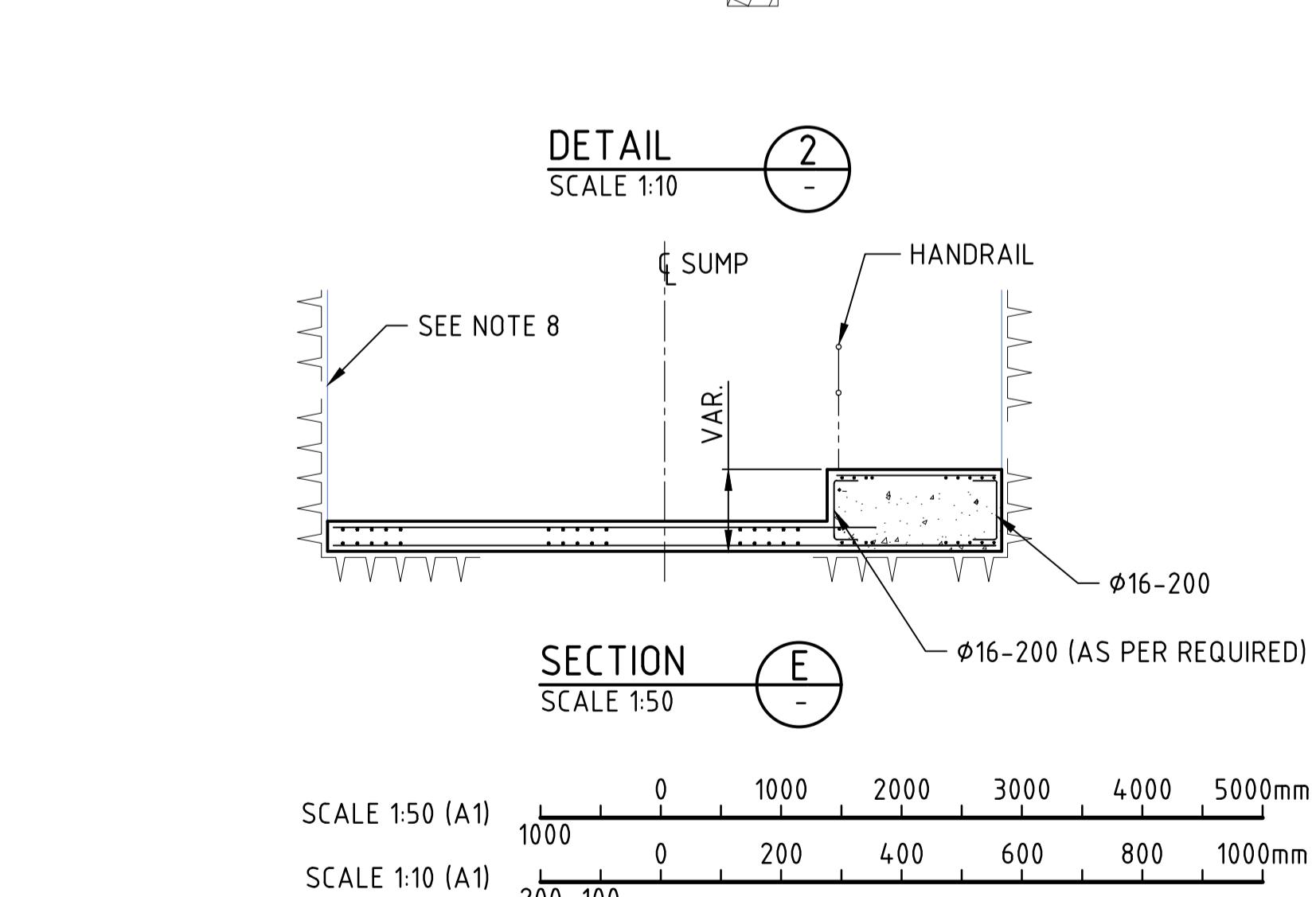
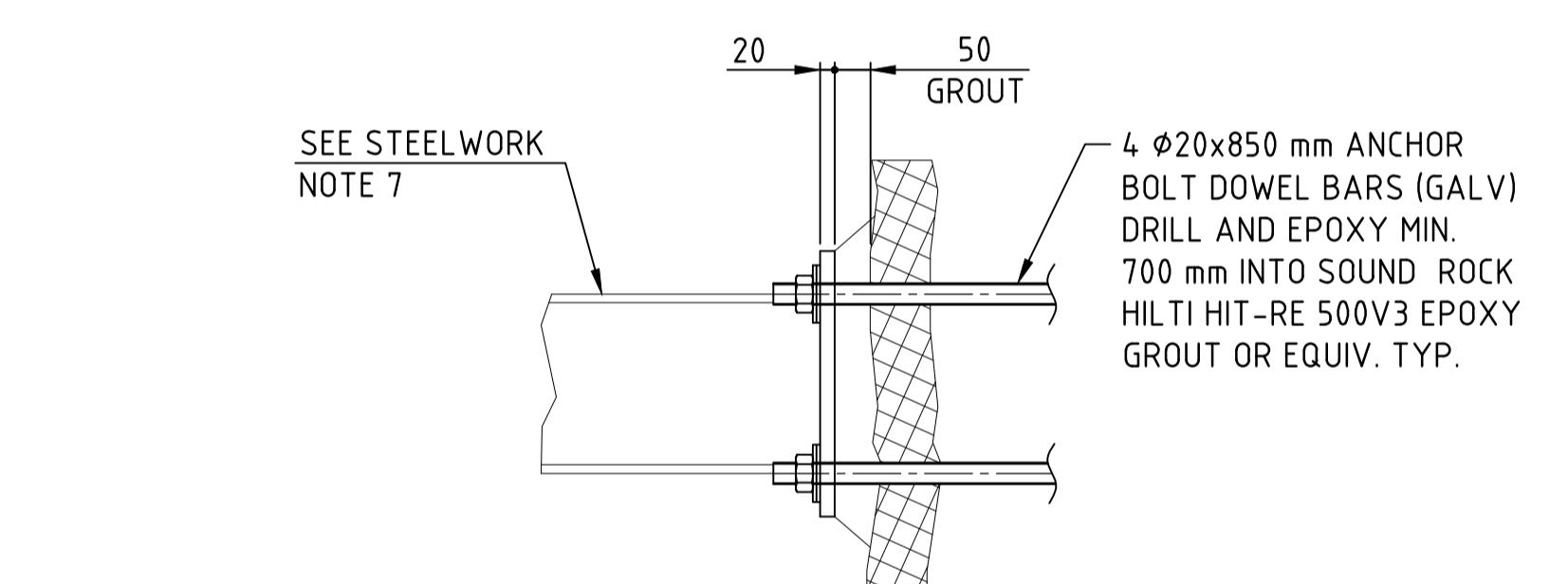
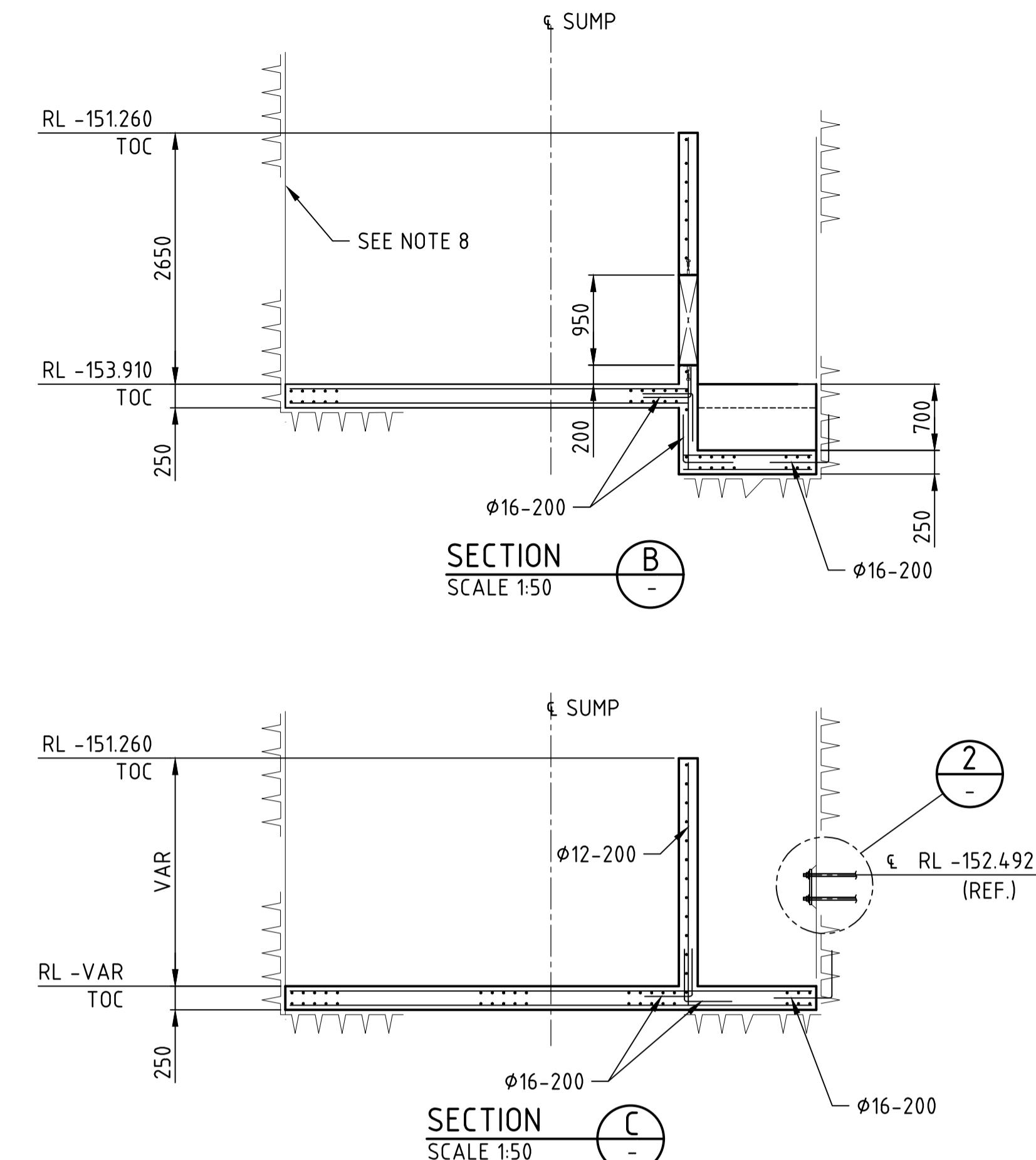
AS SHOWN	DRAWING NUMBER 1883-55-L4-1105	REV. 3
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SUMP 1883-SUM-2001 - PLAN
SCALE 1:50



CAUTION - PROJECT DRAWING - NOT AS BUILT



- NOTES**
1. DIMENSIONS IN MILLIMETRES.
 2. COORDINATES AND ELEVATIONS IN METRES IN ACCORDANCE WITH OYU TOLGOI GRID SYSTEM (OTGS).
 3. REFER TO GENERAL NOTES ON DWG N° 1883-15-R1-1101.
 4. DIMENSIONS WITH (x) SHALL BE EXTENDED UP TO THE ROCK EXCAVATED FACE.
 5. SEE EMBEDDED PLATE ON DRAWING N° 1883-15-R1-1107
 6. SHOTCRETED WALL TO COVER ALL GROUND SUPPORT INCLUDING BOLTS AND CABLE TAILS
 7. REFERENCE DRAWING:
STEELWORK : 1883-15-S1-1115
 8. SHOTCRETED WALL TO COVER ALL GROUND SUPPORT INCLUDING BOLTS AND CABLE TAILS
 9. FOR EARTHING REFER TO DRAWING N° 1883-65-H1-1104 AND DOC. N° 0000-65-H1-1401

LEGEND

N.C.J. INDICATES NO BOND CONSTRUCTION JOINT (PAINT VERTICAL FACE WITH BITUMINOUS BOND BREAKER).
C.J. INDICATES CONTROL JOINT.

CONSTRUCTION ISSUE

Oyu Tolgoi LLC ОЮУ ТОЛГОЙ ХХК										PRODUCED BY	DESIGNED BY	DRAWN BY	
										PROJECT NO	I. PALMA	O. RIVERA	J. DIAZ G.
										CHECK DESIGN		CHECK DRAWING	
										CONTRACT NO	F. ALVAREZ	APPROVAL DATE	09.07.18
										DRAWING SIZE	A1	AREA PROJECT ENGINEER	E. MARIN
										PLOT SCALE	PROJECT MANAGER	APPROVAL DATE	09.07.18
										CAD FILE NAME	1883-15-R1-1116.DWG	CLIENT	APPROVAL DATE
										SCALE	AS SHOWN	DRAWING NUMBER	1883-15-R1-1116
										REV.	2		

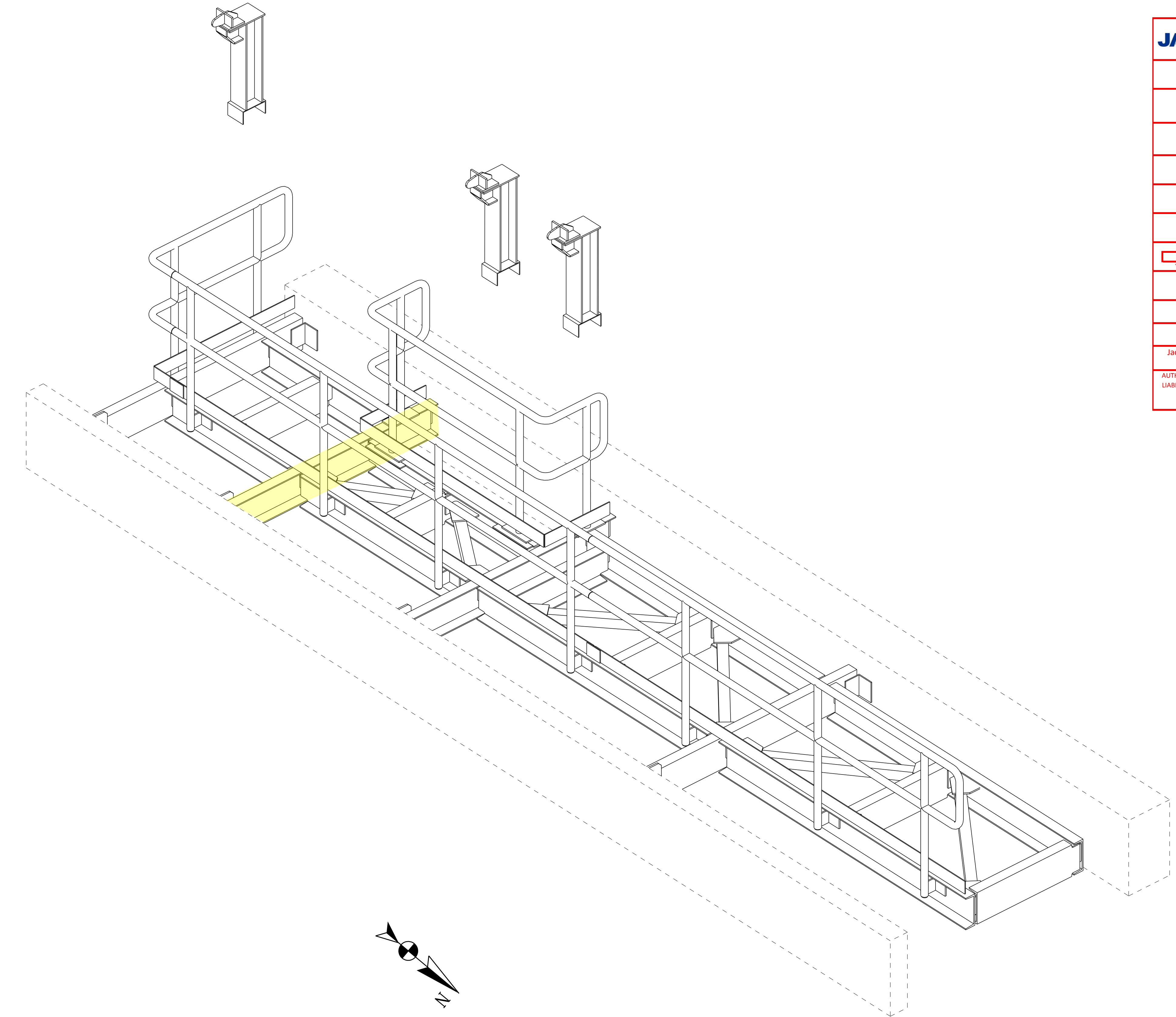
REV.	DATE	REVISION DESCRIPTION	DES. CHK	APPROVED	REV.	DATE	REVISION DESCRIPTION	DES. CHK	APPROVED	REFERENCE DRAWING No.	REFERENCE DRAWINGS
0	09.07.18	ISSUED FOR CONSTRUCTION	LSH ORG	FAF EMR						1883-55-L8-1153	MECHANICAL ENVELOPE - TRUCK SHOP BAY WASH SUMP
1	25.05.21	ISSUED FOR CONSTRUCTION	BB AK	BB FAF						1883-55-L4-1105	TRUCK SHOP - GENERAL ARRANGEMENT - SHEET 4 of 4
2	23.07.21	ISSUED FOR CONSTRUCTION	BB AK	BB TK							

JACOBS ENGINEERING SINGAPORE PTE LTD
Regd. Office: 100 Raffles Place #20-01 (1986) 266M,
a company incorporated in Singapore and
having its registered office at 50 Raffles Place #32-01 Singapore Land Tower,
Singapore, 048623 (the offshore Contractor)

Web: www.jacobs.com

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Jacobs Document No.
SN1809-1883/SC.DRG/1134

Web: www.jacobs.com



ISOMETRIC VIEW

**1. SEE MONORAIL FOR 1883-CRA-2007 ON DRAWING
G0055**

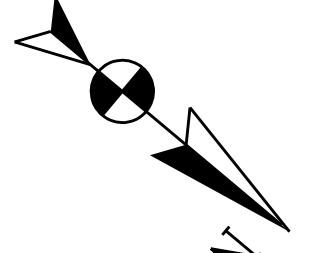
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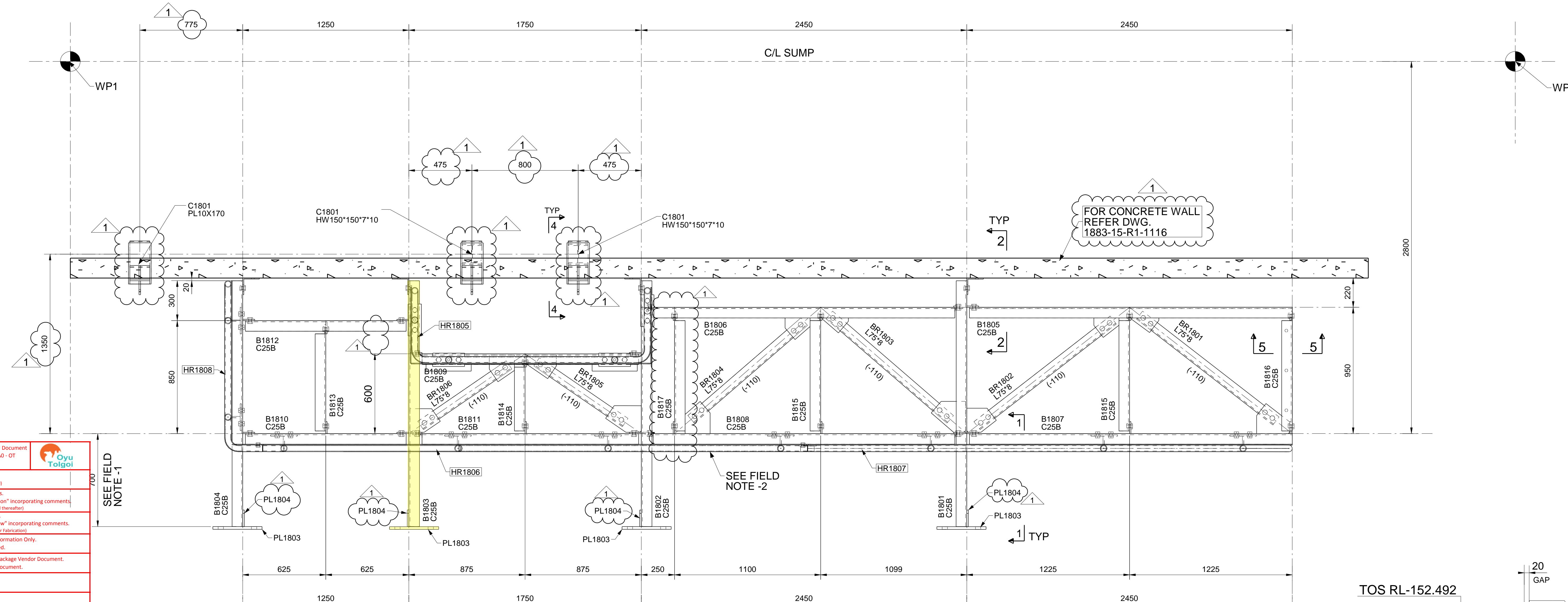
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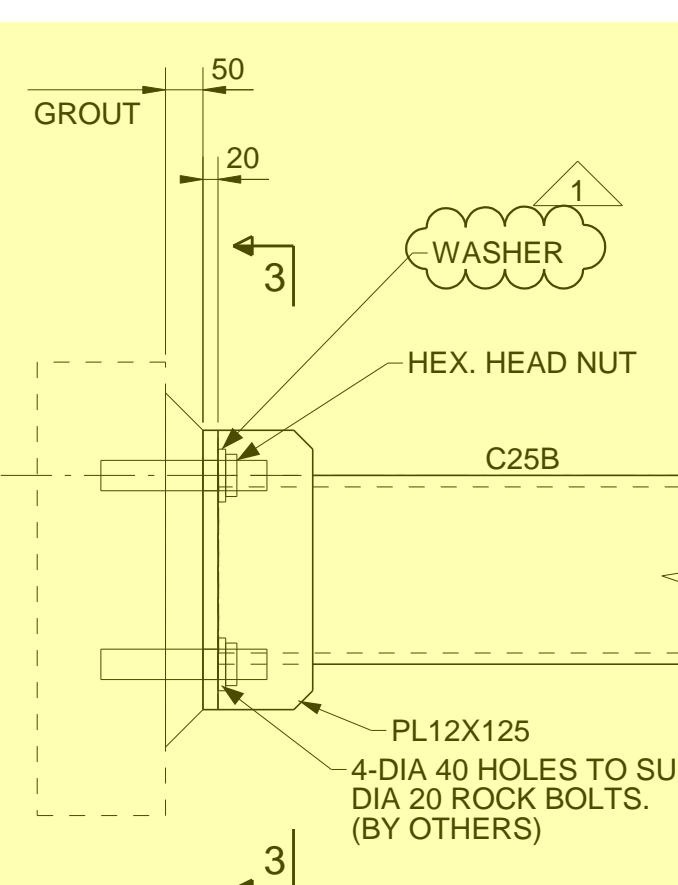
		 SinoStruct	
DRAWN BY KK	CHECK DRAWING SB	TITLE OYU TOLGOI UNDERGROUND PROJECT UNDERGROUND WORK SHOPS TRUCK SHOP HAULAGE LEVEL- SUMP 1883-SUM-2001 ISOMETRIC VIEW	
APPROVAL DATE 13/11/2020	ENGINEERING MANAGER		
APPROVAL DATE 13/11/2020			
APPROVAL DATE	SCALE NA	DRAWING NUMBER 2570-1883-G050	REV. 2



PLAN NORTH



JACOBS	Contractor/Supplier/Vendor Technical Document and Drawing Review for SN1809A0 - OT Underground Project		
	1	Reviewed with No Comments. (Construction/Fabrication may Proceed)	
	2	Reviewed with Minor Comments. Revise and resubmit "Final Version" incorporating comments. (Construction/Fabrication may proceed thereafter)	
	3	Rejected with Major Comments. Correct and resubmit "For Review" incorporating comments. (DO NOT PROCEED with Construction or Fabrication)	
	4	Not Reviewed - Received For Information Only. No further submission is required.	
	5	Received Certified/Equipment Package Vendor Document. Received As Built - Contractor Document.	
	6	Cancelled.	
<input type="checkbox"/>	<input type="checkbox"/>	Submit Certified Document.	
YES	NO		
Responsible Engineer	Name Signature Date	Francisco Alvarez F.- 11-Nov-2020	
Equipment Tag No.			
Client Document No.			
Jacobs Document No. and Revision	CW2117013-B093-0774_R2		
AUTHORISATION TO PROCEED DOES NOT RELIEVE THE VENDOR/CONTRACTOR OF ANY RESPONSIBILITY, OBLIGATION OR LIABILITY UNDER THE PURCHASE ORDER/CONTRACT. NO RESPONSIBILITY IS ASSUMED BY JACOBS FOR CORRECTNESS OF DIMENSIONS OR DETAILS. SHOP DRAWINGS ARE ACCEPTED AS FOR INFORMATION ONLY (NOT REVIEWED).			

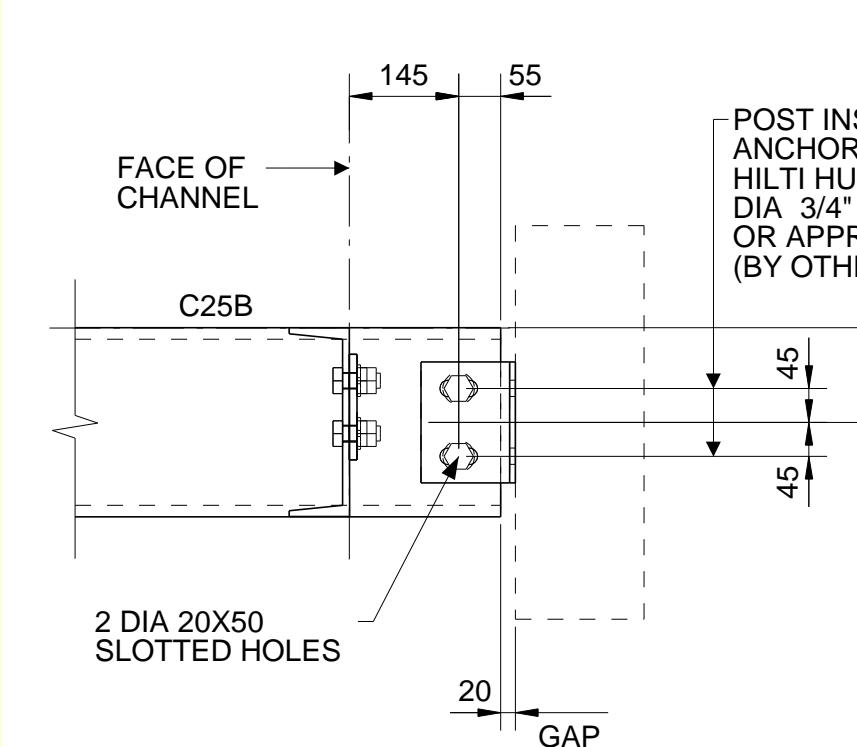


SECTION 1-1

REF. DESIGN DWG : SECTION A/1883-15-S1-111
REFER THIS DWG

REF. DESIGN DWG : SECTION B/1883-15-S1-1
REF ID: THIS DWG

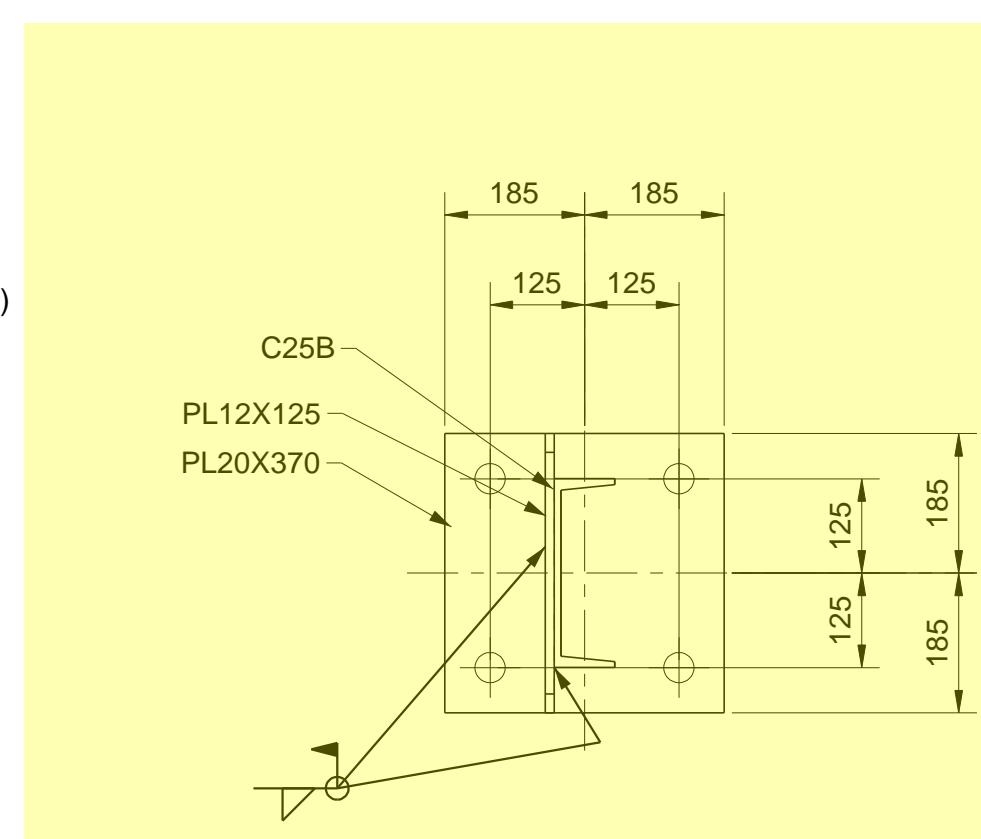
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SECTION 2

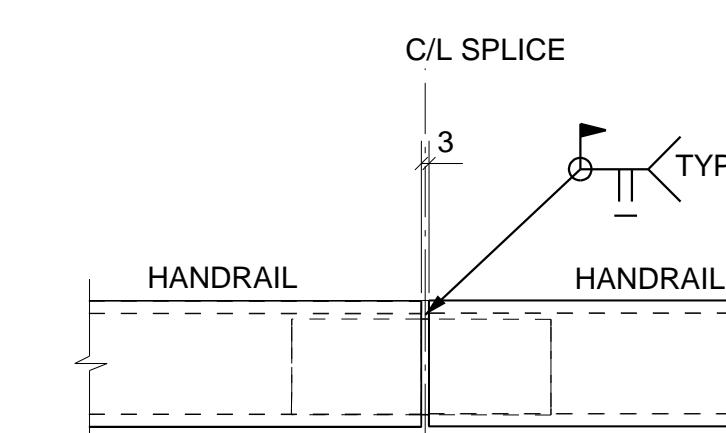
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REF ID: THIS DWG

REFER THIS DWG

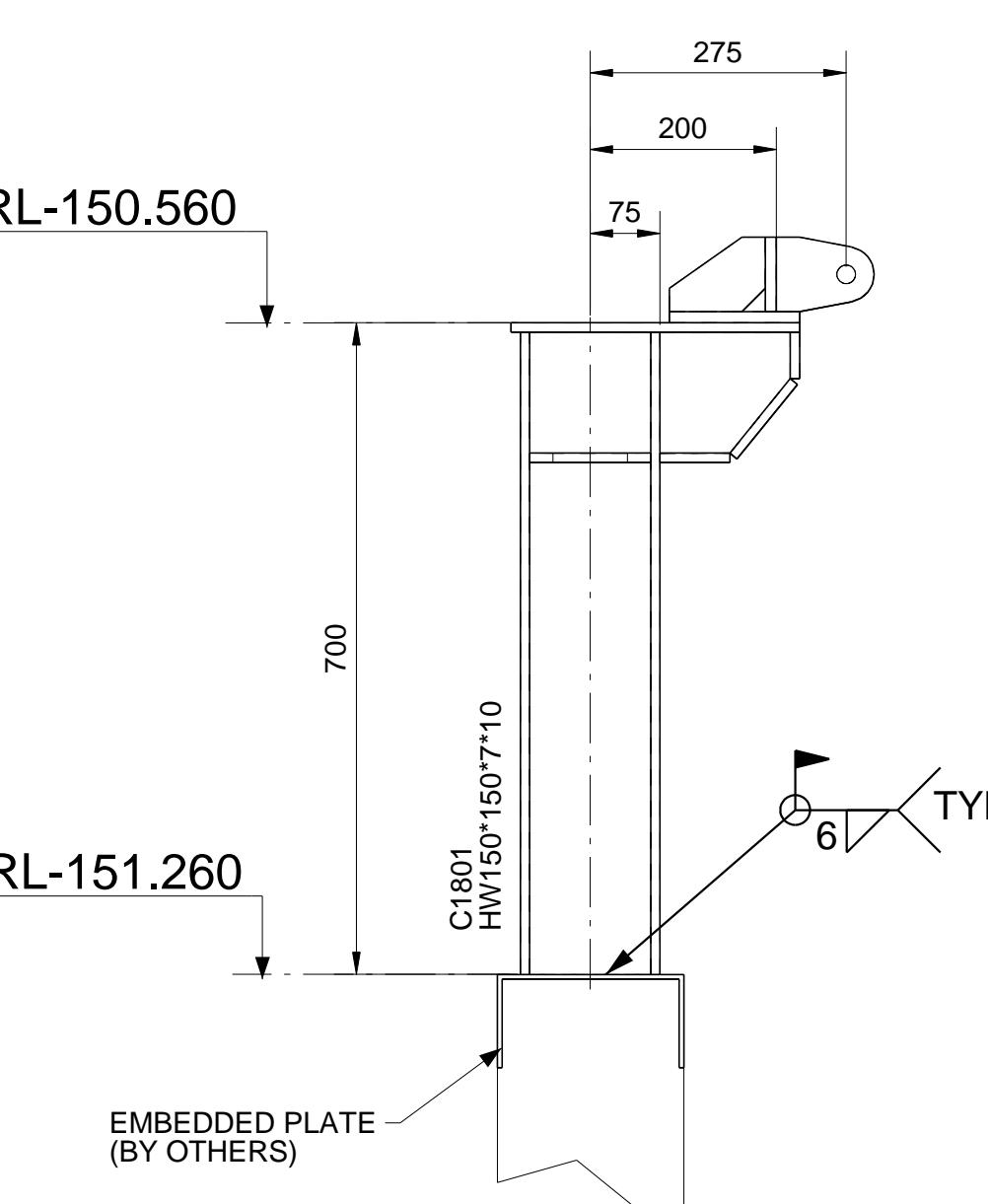


SECTION 3-

SECTION 3-3
REF. DESIGN DWG : SECTION B/1883-15-S1-111
REFER THIS DWG



TYPICAL HANDRAIL SPLICE CONNECTION DETAIL



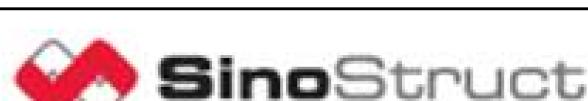
PIIMP SUPPORT SP1

SECTION 4-4



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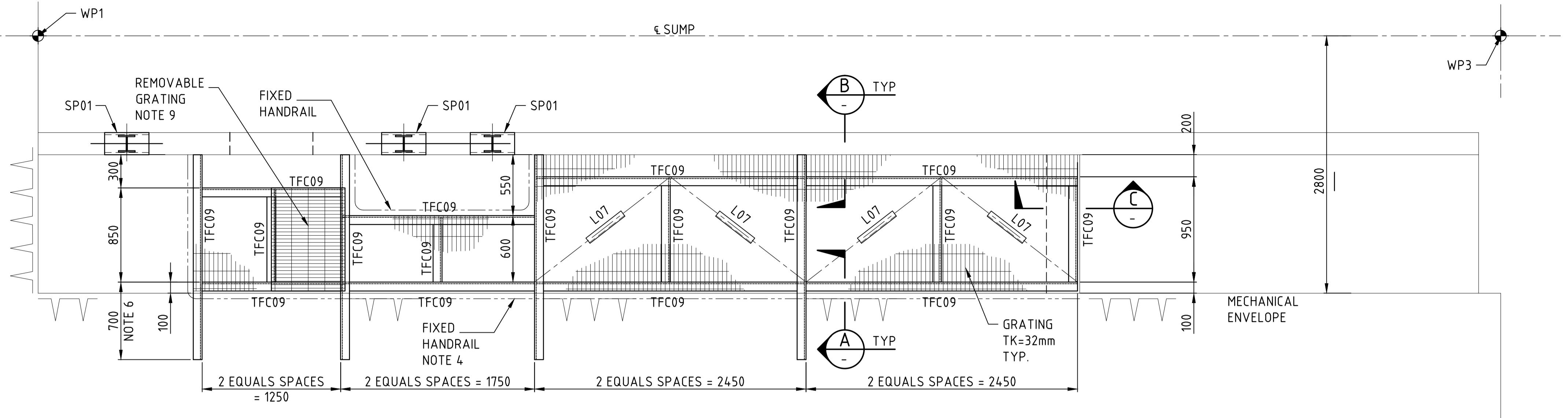
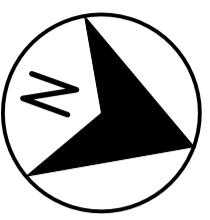
LGOI UNDERGROUND PROJECT UNDERGROUND WORK SHOPS

TOP HAULAGE LEVEL- SUMP 1883-SUM-2001

BL 152 492 TOS PLAN

FIELD NOTE :

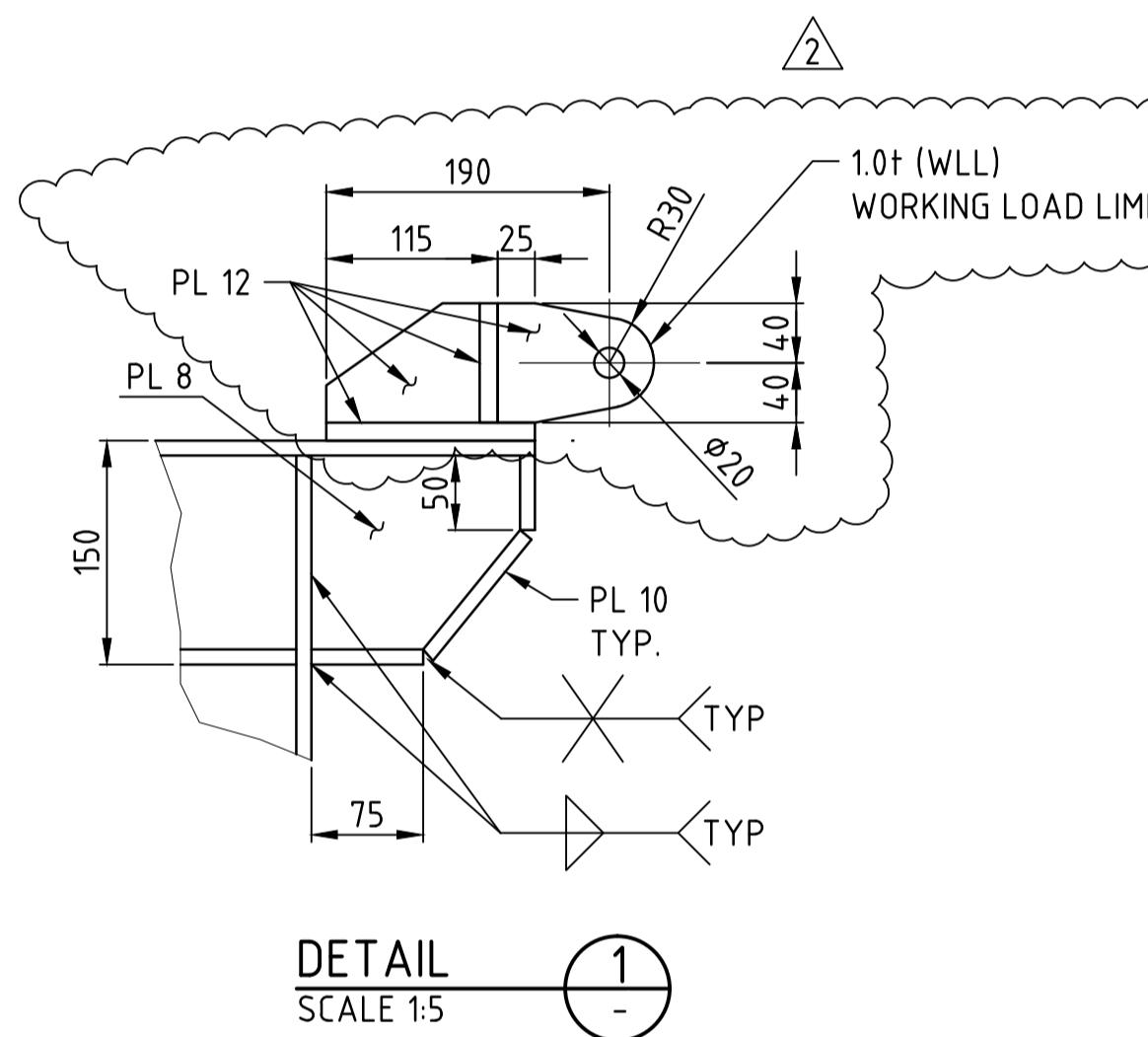
- 1. BEAM & PLATES SHALL BE CUT ON SITE AS PER REQUIRED.**
- 2. HANDRAIL WILL BE INSTALLED DEPENDING OF ROCK EXCAVATION**



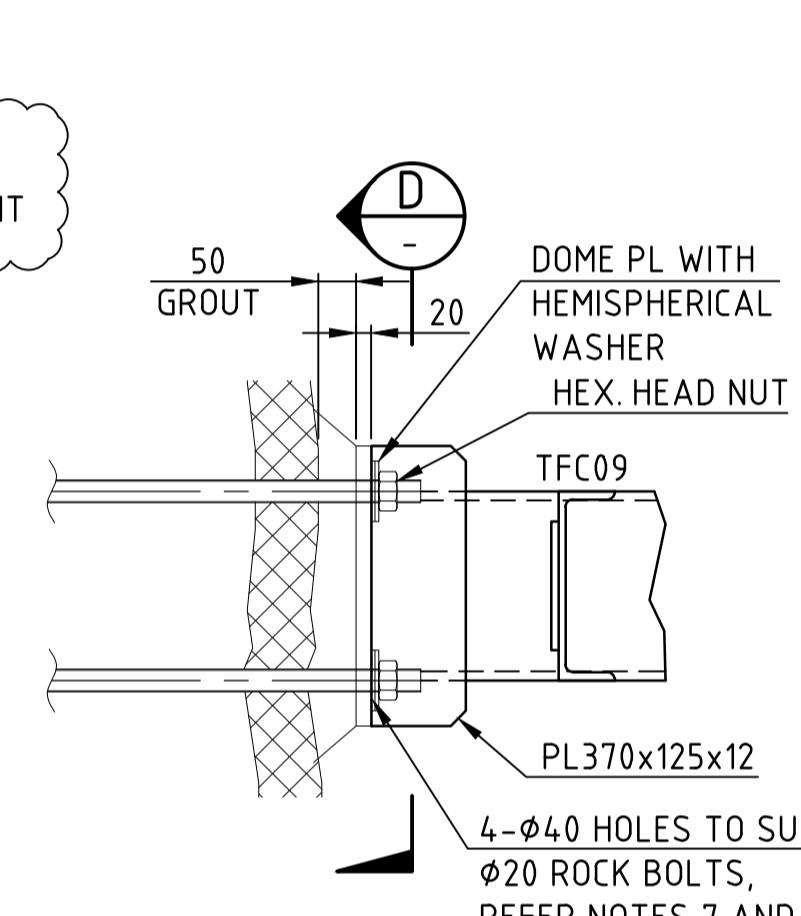
SUMP 1883-SUM-2001 PLATFORM RL-152.492 TOS - PLAN
SCALE 1:25 DESIGN LIVE LOAD = 4.1 K/P

SCALE 1:25

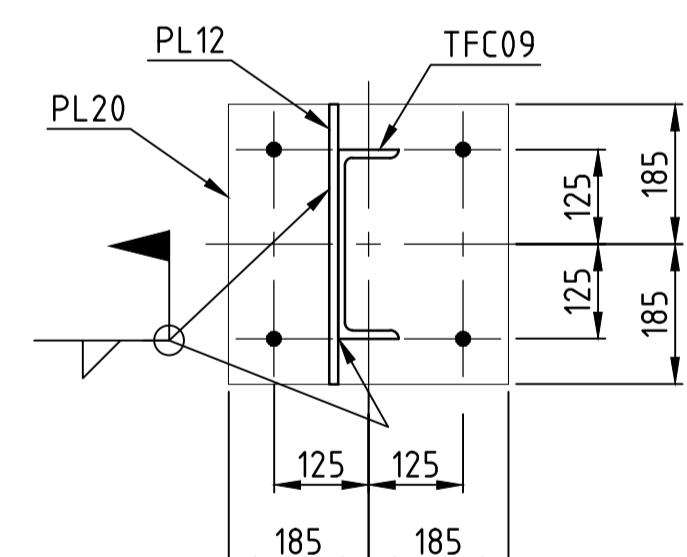
DESIGN LIVE LOAD = 4 kPa



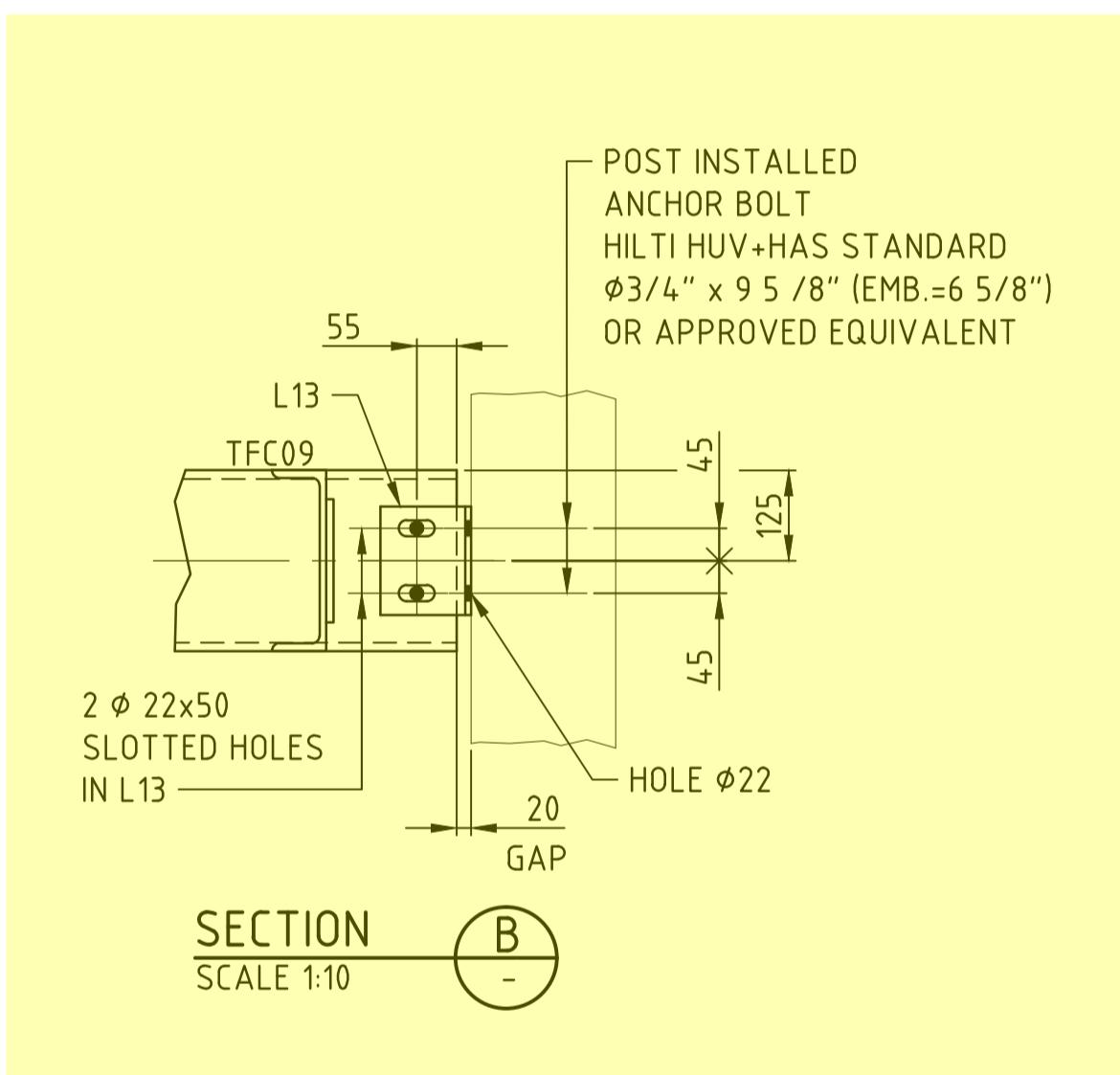
DETAIL
SCALE 1:5



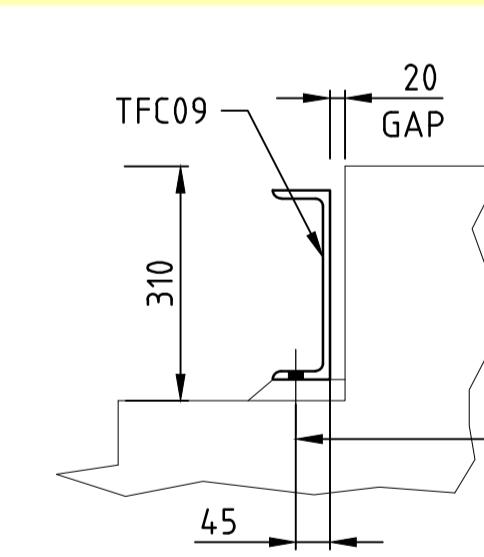
SECTION A-A
SCALE 1:10



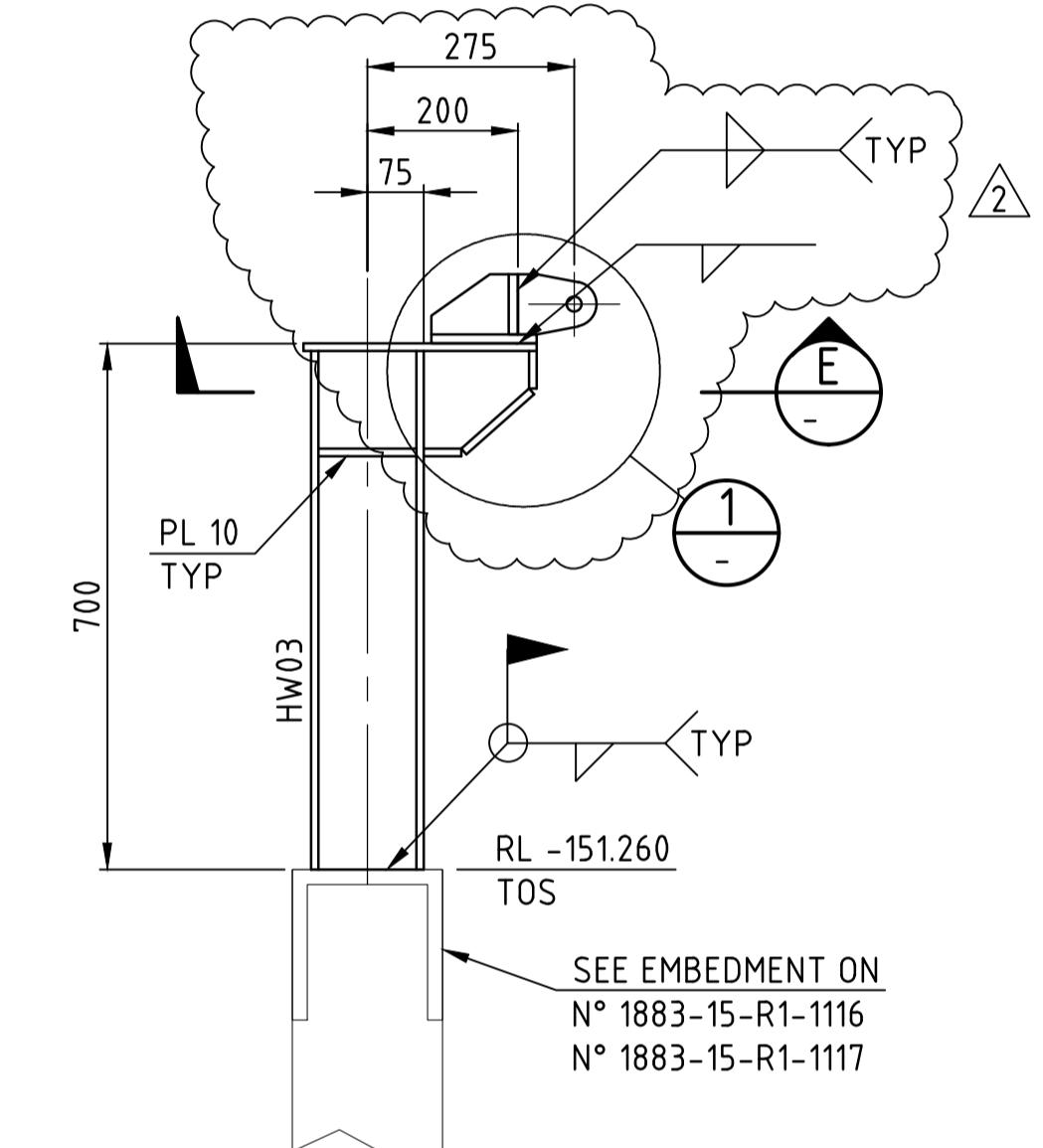
SECTION D



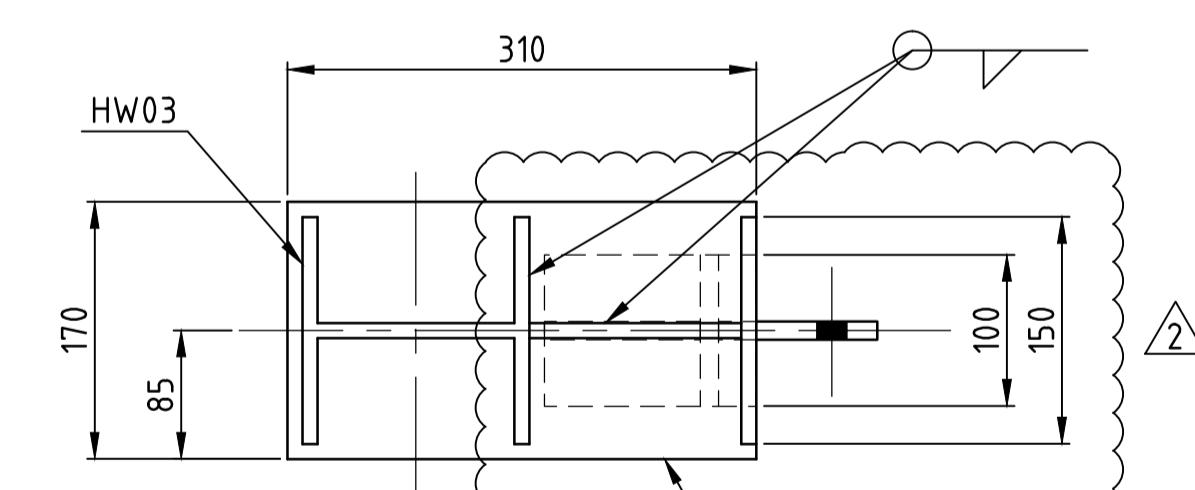
SECTION
SCALE 1:10



SECTION C
SCALE 1:10



PUMP SUPPORT SP1
SCALE 1:10 QTY - 3



SECTION
SCALE 1:5

NOTES

1. COORDINATES AND ELEVATIONS IN METRES IN ACCORDANCE WITH OYU TOLGOI GRID SYSTEM (OTGS)
 2. DIMENSIONS EN MILLIMETRES
 3. REFER TO GENERAL NOTES ON DRG N° 1883-15-S1-1101
 4. HANDRAIL WILL BE INSTALLED DEPENDIG OF ROCK EXCAVATION
 5. REFERENCE DRAWINGS:
CONCRETE: 1883-15-R1-1116.
 6. BEAM AND STIFFENER PLATES SHALL BE SUPPLIED ON THE MARKED LENGTHS AND CUT ON SITE AS PER REQUIRED.
 7. ROCK BOLTS, GROUT AND TESTING REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE GENERAL NOTES ON DRAWING 1800-15-S1-1201.
 8. 100% OF ROCK BOLTS SHALL BE INDIVIDUALLY PROOF TESTED TO THE NOMINATED TENSILE CAPACITY.
 9. REMOVABLE GRATING DETAILING SHALL CONSIDER A MAXIMUM WEIGHT OF 33 KG PFR PANFI

CONSTRUCTION ISSUE

JACOBS ENGINEERING SINGAPORE PTE LTD
(Registration number 199803266M),
a company incorporated in Singapore and
having its registered office at 50 Raffles
Place #32-01 Singapore Land Tower,
Singapore, 048623 (the offshore Contractor)



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