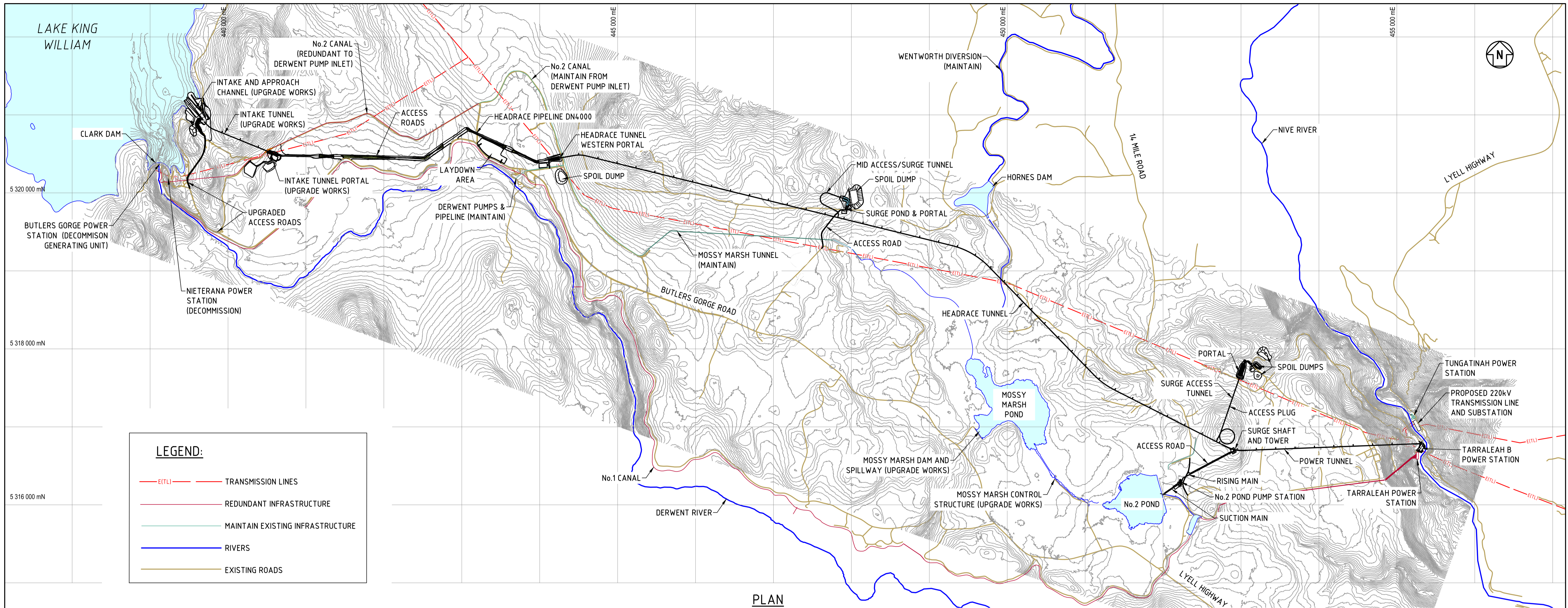




Appendix K

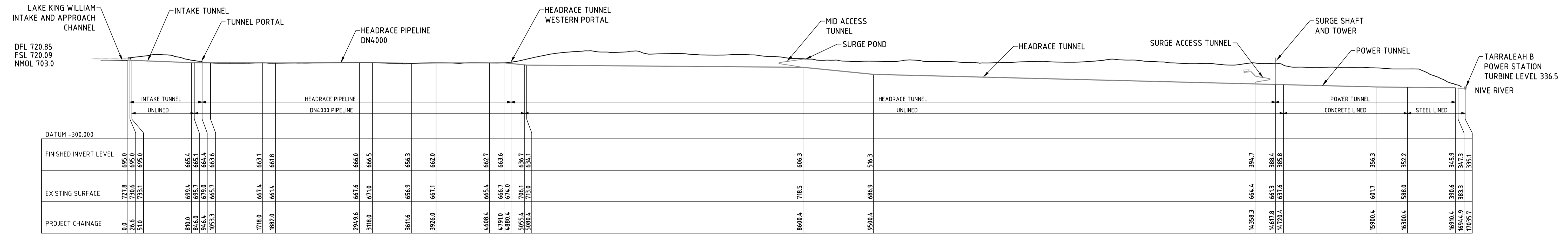
Structural Designs and Layouts



LEGEND:

- (ETL)— TRANSMISSION LINES
- REDUNDANT INFRASTRUCTURE
- MAINTAIN EXISTING INFRASTRUCTURE
- RIVERS
- EXISTING ROADS

PLAN
SCALE 1:25000



LONGITUDINAL SECTION
SCALE 1:25000

NOTE:

- ALL CHAINAGES ARE IN GRID METRES
- ELEVATIONS, LEVELS, FULL SUPPLY LEVEL (FSL), DESIGN FLOOD LEVEL (DFL), NORMAL MINIMUM OPERATING LEVEL (NMOL) ARE IN METRES AHD 1983.

PROJECT CHAINAGE	CHAINAGE REFERENCES		
	PROJECT CHAINAGE	HEADRACE PIPELINE CHAINAGE	HEADRACE/POWER TUNNEL CHAINAGE
0.0		0.000	
846.0	846.010	0.000	
4880.4	4880.427	4034.417	-20.000
4900.4	4900.427	4054.417	0.000
14617.8	14617.805	9717.378	
16910.4	16910.427	12010.000	

ALTERATIONS

REV	DATE	DESCRIPTION
X1	17/12/2023	ALIGNMENT UPDATED FOR ISSUE FOR RFP
X2	17/12/2023	ALIGNMENT UPDATED FOR ISSUE FOR RFP
X3	22/12/2024	UPDATES FOR REFERENCE DESIGN
X4	16/07/2024	ISSUE

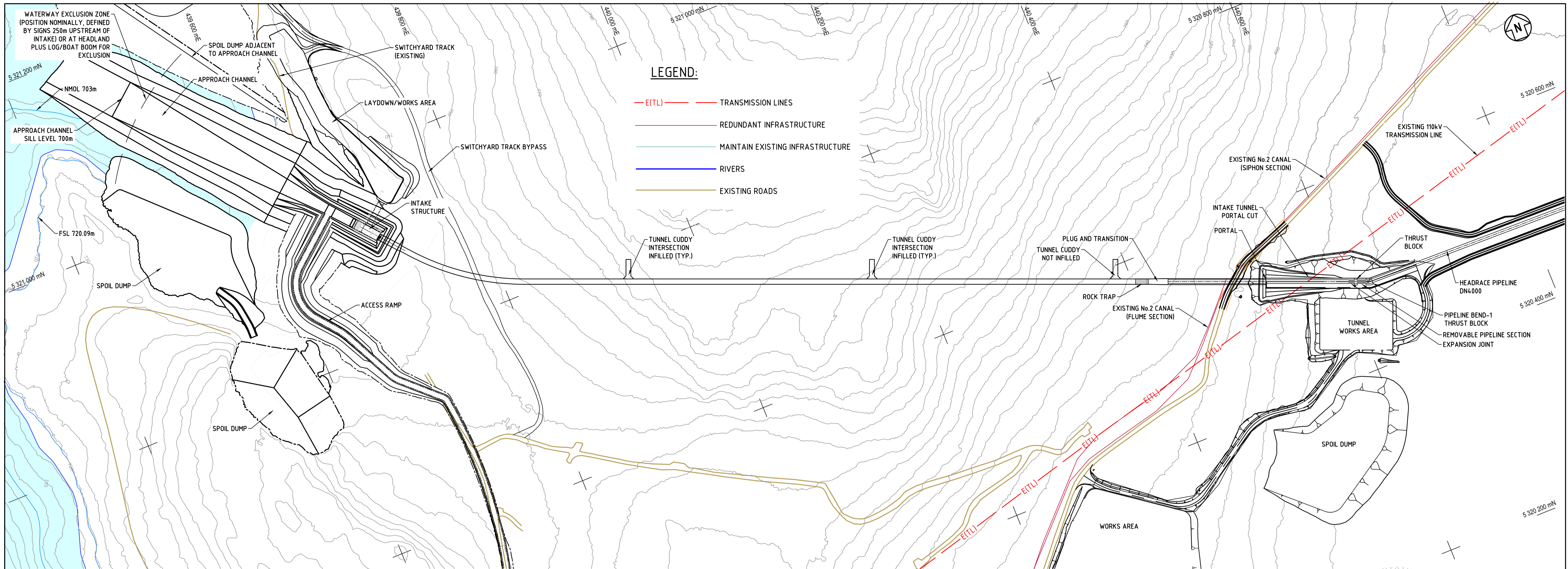
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 ELECTRONIC DOCUMENT CONTROL - UNCONTROLLED IF PRINTED

REFERENCES	DRAWN	PO/SB
A22817 DERWENT CATCHMENT POWER DEVELOPMENTS	CHECKED	RJ/JC
A5968 TARRALEAH POWER DEVELOPMENT GENERAL ARRANGEMENT	DESIGNED	RJ
TARDEV-HYD-SUR-XX-DR-C-0001 TARRALEAH REDEVELOPMENT POWER SCHEME REFERENCE POINTS	CHECKED	RVDK
	APPROVED	ES/GB
DATE	-	-
HT AGREED	-	-
HT ACCEPTED	-	-

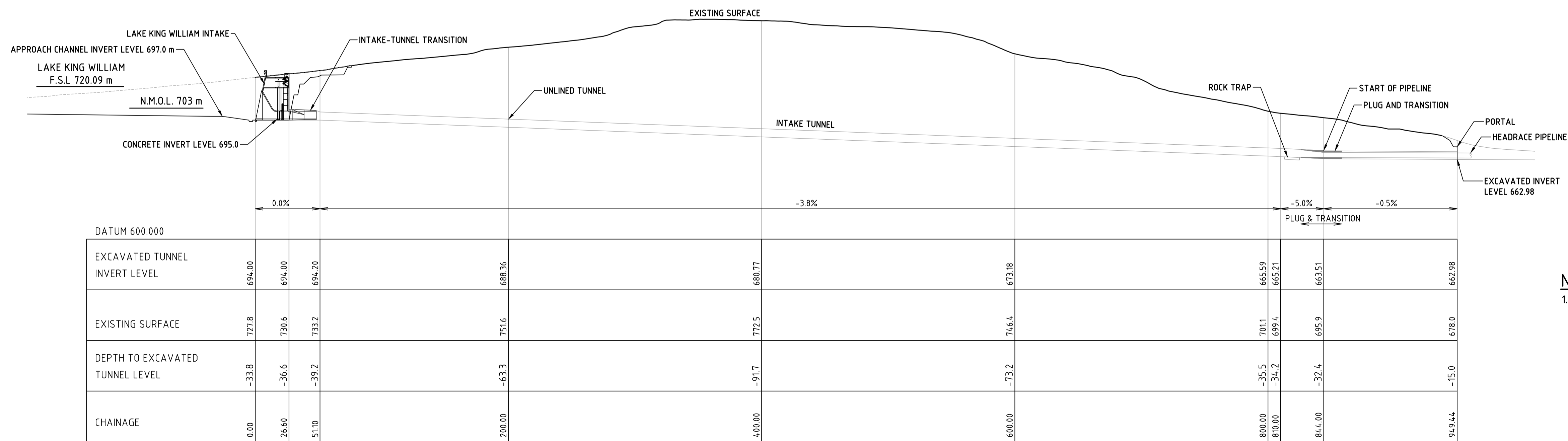
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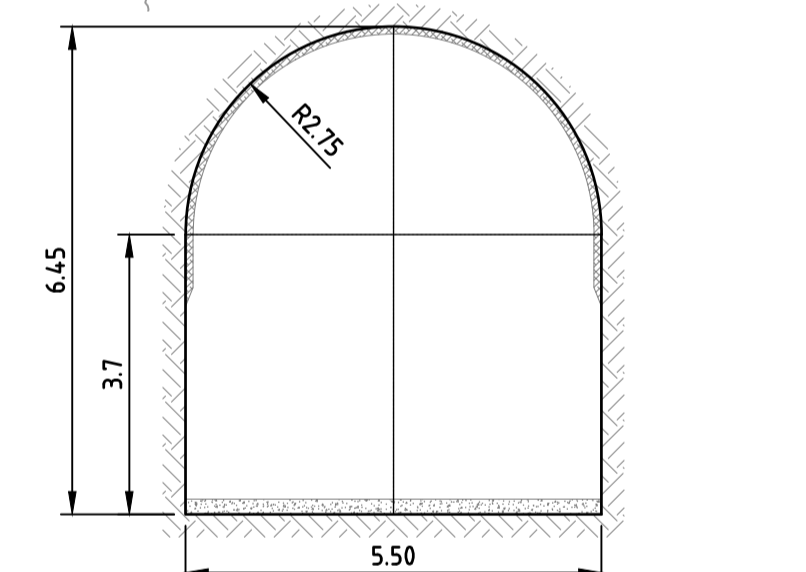
CLIENT	HYDRO TASMANIA	SCALE	AS SHOWN
TITLE	TARRALEAH REDEVELOPMENT GENERAL ARRANGEMENT PROJECT-WIDE SCHEMATIC PLAN AND LONGITUDINAL SECTION	REV	X4
DRAWING	TARDEV-HYD-AGA-XX-DR-C-0001	SIZE	A1



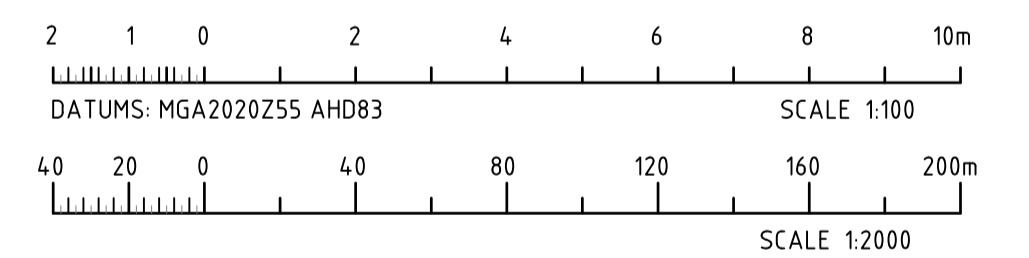
INTAKE TUNNEL - PLAN
SCALE 1:2000



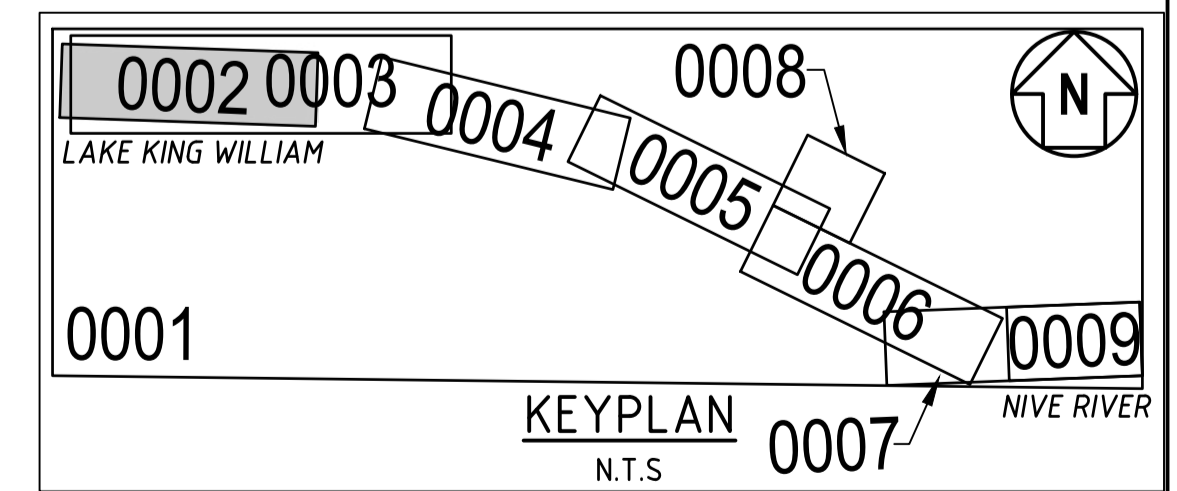
INTAKE TUNNEL - SECTION
SCALE 1:2000



TYPICAL INTAKE TUNNEL PROFILE
SCALE 1:100 (A1)



NOTE:
1. ALL DIMENSIONS, CHAINAGES ARE IN m AND ELEVATIONS, LEVELS, FULL SUPPLY LEVEL (FSL), DESIGN FLOOD LEVEL (DFL), NORMAL MINIMUM OPERATING LEVEL (NMOL) ARE IN m AHD 1983.



REV	DATE	BY	CHKD	DESCRIPTION
X2	17/12/2023	HT	HT	ALIGNMENT UPDATED FOR ISSUE FOR RFP
X3	22/12/2024	HT	HT	UPDATES FOR REFERENCE DESIGN
X4	14/02/2024	HT	HT	ISSUE

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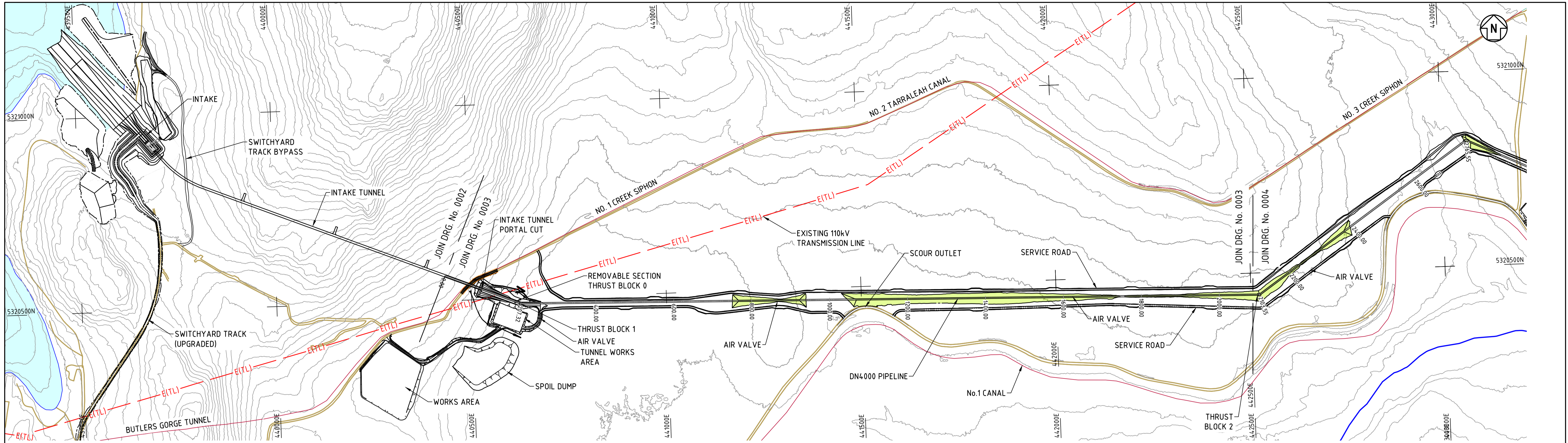
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REP'D FROM	-	-	-	-
REV	-	-	-	-

REF	DESCRIPTION	STATUS	DATE
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A1678	TARRALEAH REDEVELOPMENT POWER SCHEME REFERENCE POINTS	DESIGNED	RJ
	TARRALEAH POWER DEVELOPMENT NO.2 CANAL GENERAL ARRANGEMENT PLAN, PROFILE & SECTIONS SHEET 1 OF 2	CHECKED	RVDK
	TARRALEAH POWER DEVELOPMENT NO.2 CANAL GENERAL ARRANGEMENT TYPICAL SECTIONS OF MAJOR STRUCTURES SHEET 2 OF 2	APPROVED	ES/GB
	DATE	-	-
	HT AGREED	-	-
	HT ACCEPTED	-	-



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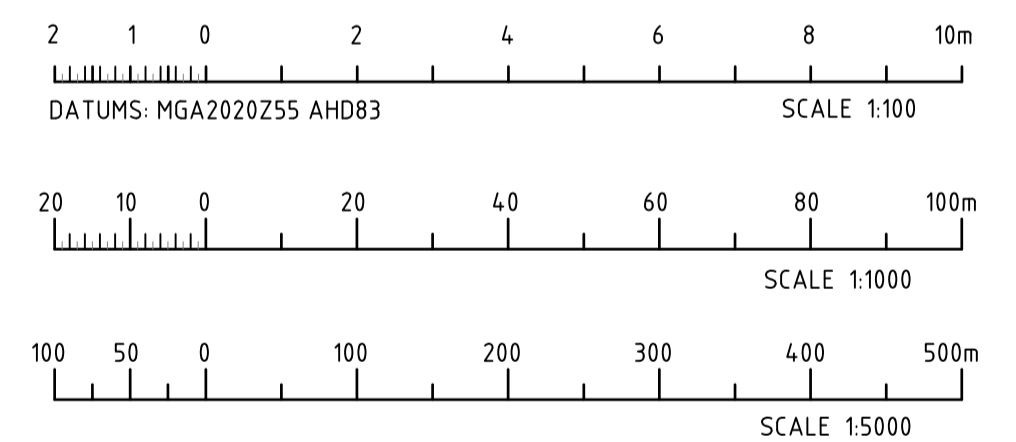
CLIENT	HYDRO TASMANIA	SCALE	1:100
TITLE	TARRALEAH REDEVELOPMENT GENERAL ARRANGEMENT INTAKE AND INTAKE TUNNEL PLAN AND LONGITUDINAL SECTION	SCALE	1:2000
DRAWING	TARDEV-HYD-AGA-XX-DR-C-0002	REV	X4
SIZE	A1		



PLAN
SCALE 1:5000 (A1)

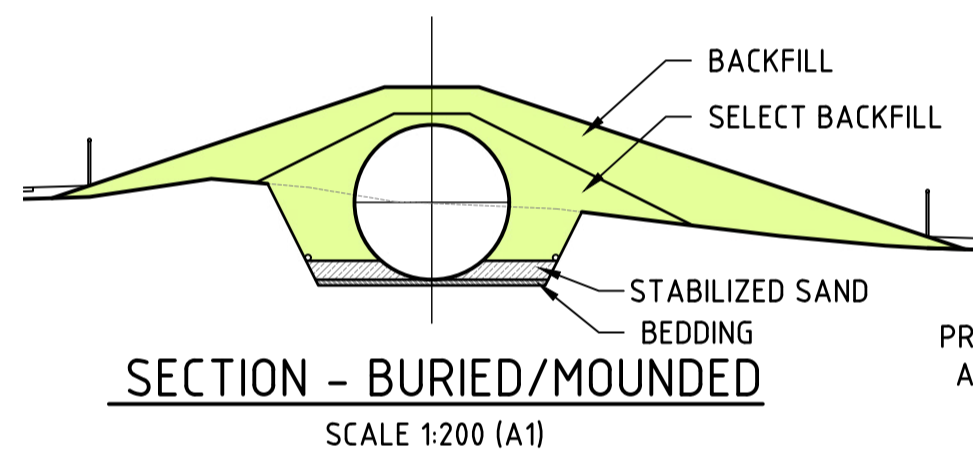
LEGEND:

- E(TL) - TRANSMISSION LINES
- REDUNDANT INFRASTRUCTURE
- MAINTAIN EXISTING INFRASTRUCTURE
- RIVERS
- EXISTING ROADS
- BURIED/MOUNDED PIPE
- CONCRETE

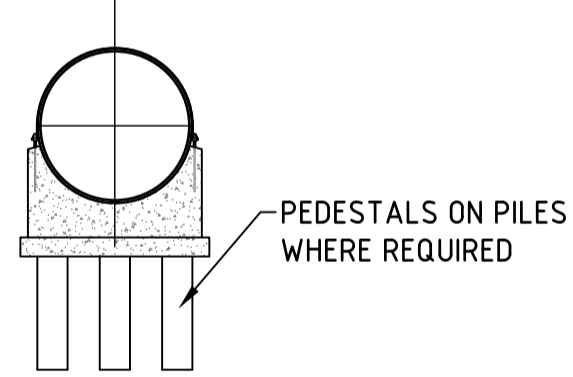


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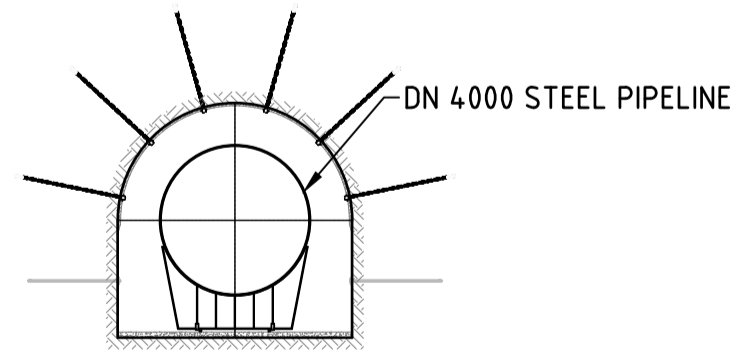
1. ALL DIMENSIONS, CHAINAGES ARE IN m AND ELEVATIONS, LEVELS, FULL SUPPLY LEVEL (FSL), DESIGN FLOOD LEVEL (DFL), NORMAL MINIMUM OPERATING LEVEL (NMOL) ARE IN m AHD 1983.



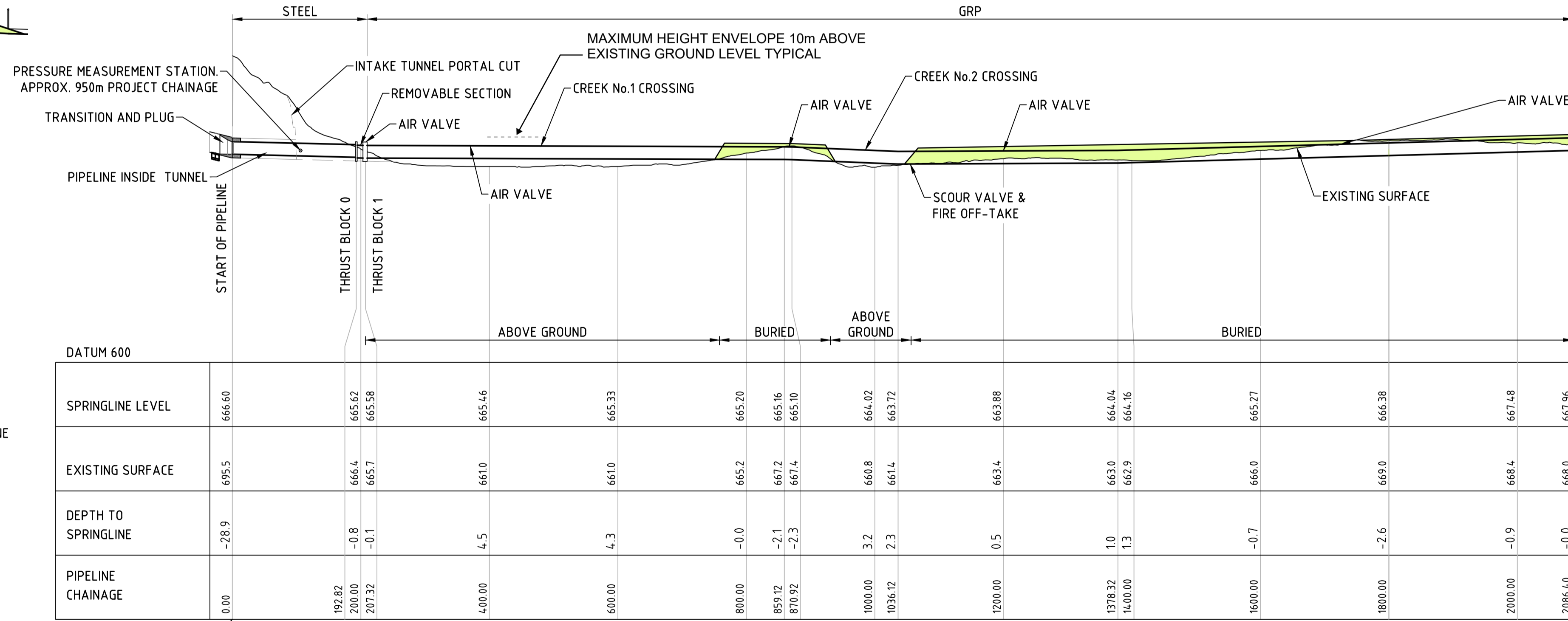
SECTION - BURIED/MOUNDED
SCALE 1:200 (A1)



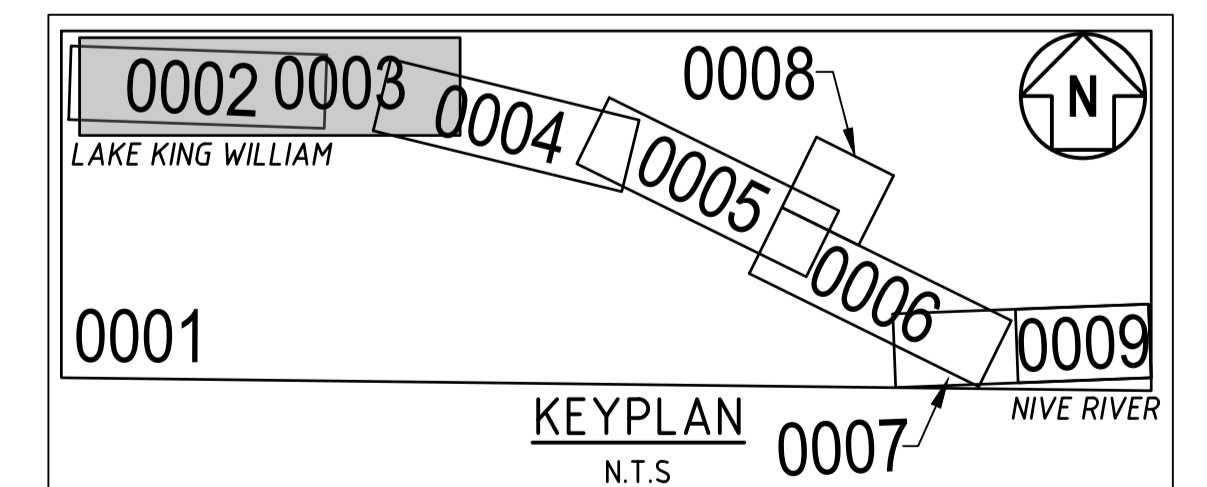
SECTION - ABOVE GROUND
SCALE 1:200 (A1)



TYPICAL PIPE WITHIN INTAKE TUNNEL PROFILE
SCALE 1:200 (A1)



LONGITUDINAL SECTION - HEADRACE PIPELINE - DN4000
HOR. SCALE 1:5000 (A1) VER. SCALE 1:1000 (A1)



REV	DATE	DESCRIPTION
X1	17/12/2023	ALIGNMENT UPDATED FOR ISSUE FOR RFP
X2	22/02/2024	UPDATES FOR REFERENCE DESIGN
X3	16/02/2024	UPDATES FOR REFERENCE DESIGN
X4	16/02/2024	UPDATES FOR REFERENCE DESIGN

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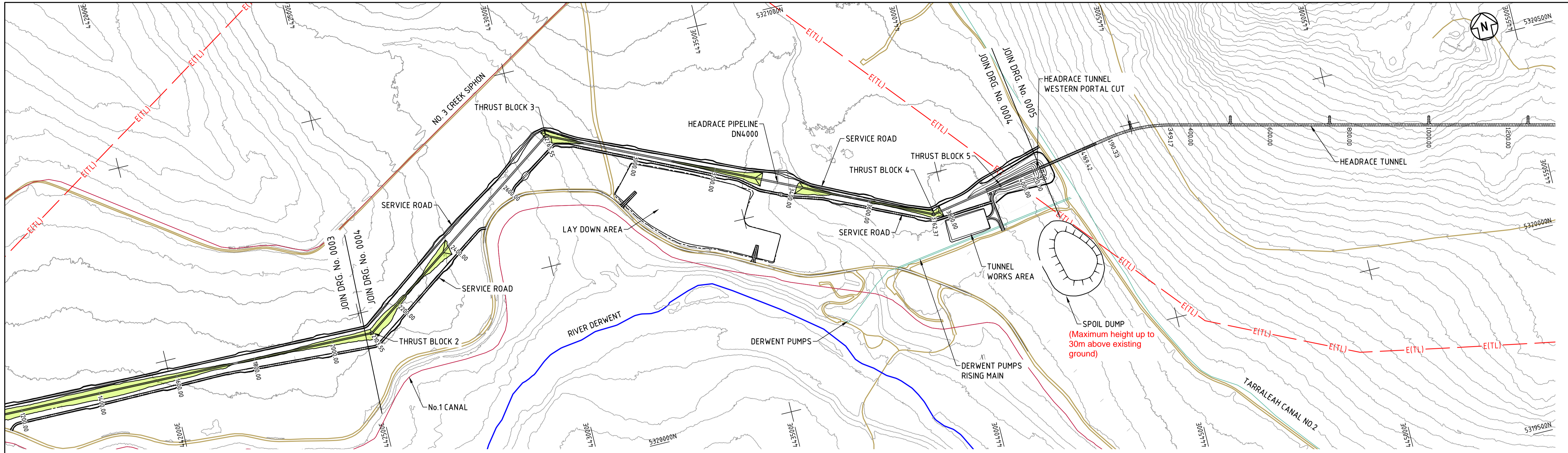
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A1678		TARRALEAH REDEVELOPMENT POWER SCHEME REFERENCE POINTS
A1678		TARRALEAH POWER DEVELOPMENT NO. 2 CANAL
A1625		GENERAL ARRANGEMENT PLAN PROFILE & SECTIONS SHEET 1 OF 2
A1625		TARRALEAH POWER DEVELOPMENT NO. 2 CANAL GENERAL ARRANGEMENT TYPICAL SECTIONS OF MAJOR STRUCTURES SHEET 2 OF 2

REV	DATE	DESCRIPTION
RO/SB		CHECKED
RJ/JC		DESIGNED
RJ		DESIGNED
RVDK		CHECKED
EB/GB		APPROVED
		DATE
		HT AGREED
		HT ACCEPTED

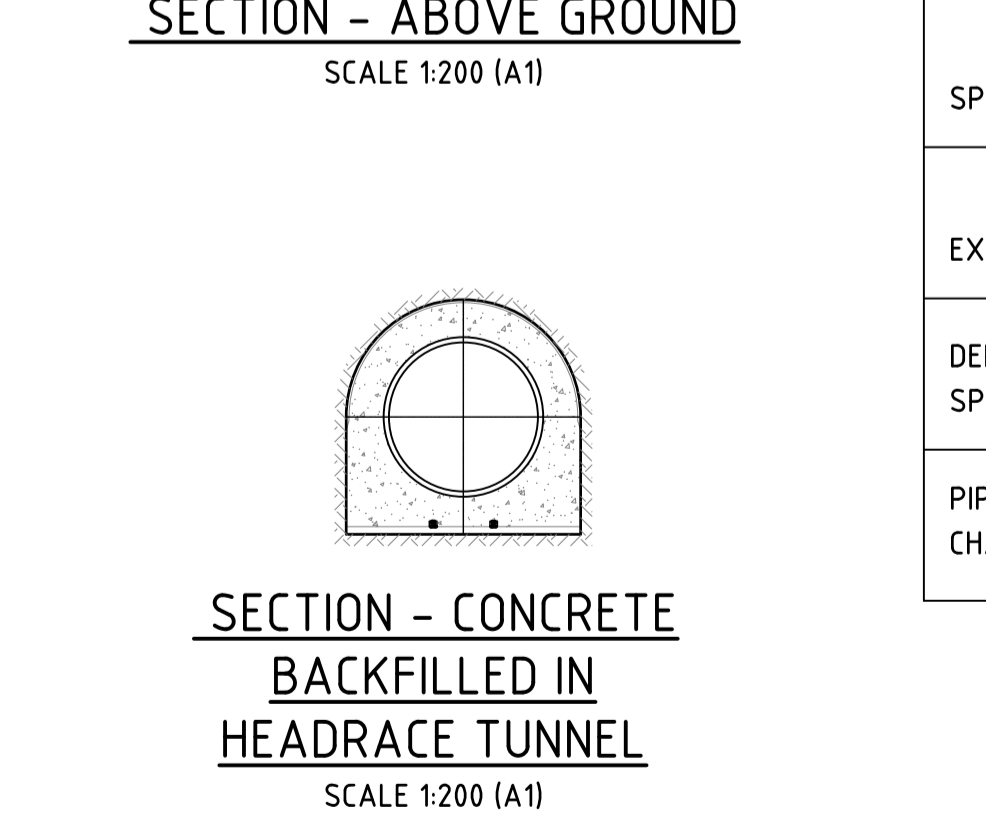
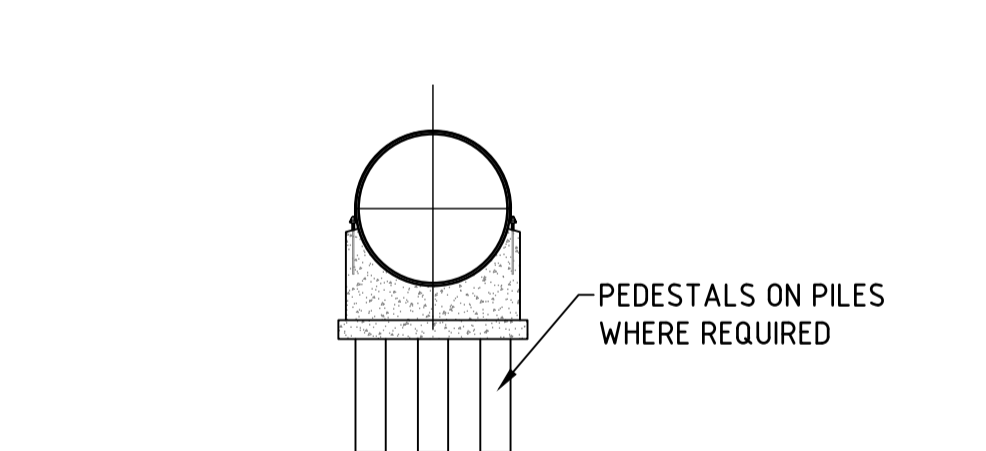
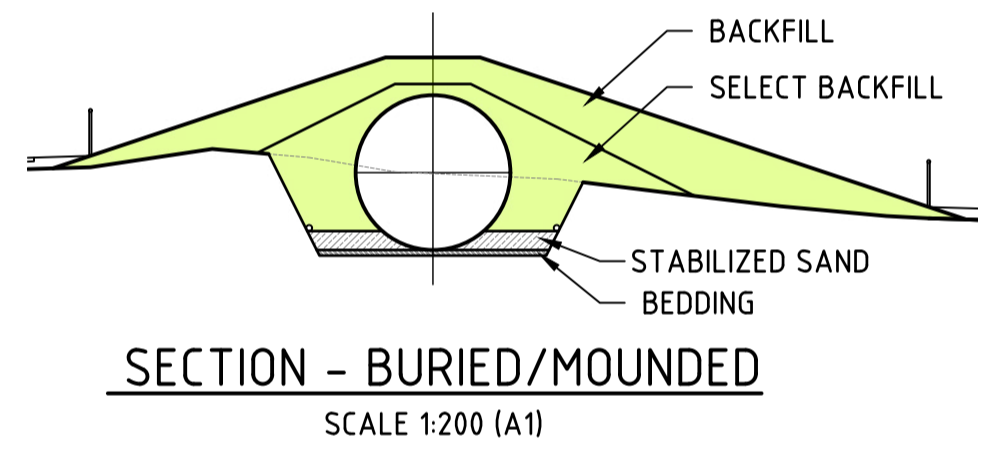


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CLIENT	HYDRO TASMANIA	SCALE	AS SHOWN
TITLE	TARRALEAH REDEVELOPMENT GENERAL ARRANGEMENT HEADRACE PIPELINE PLAN AND LONGITUDINAL SECTION 1	REV	X4
DRAWING	TARDEV-HYD-AGA-XX-DR-C-0003	SIZE	A1



PLAN
SCALE 1:5000 (A1)



LEGEND:

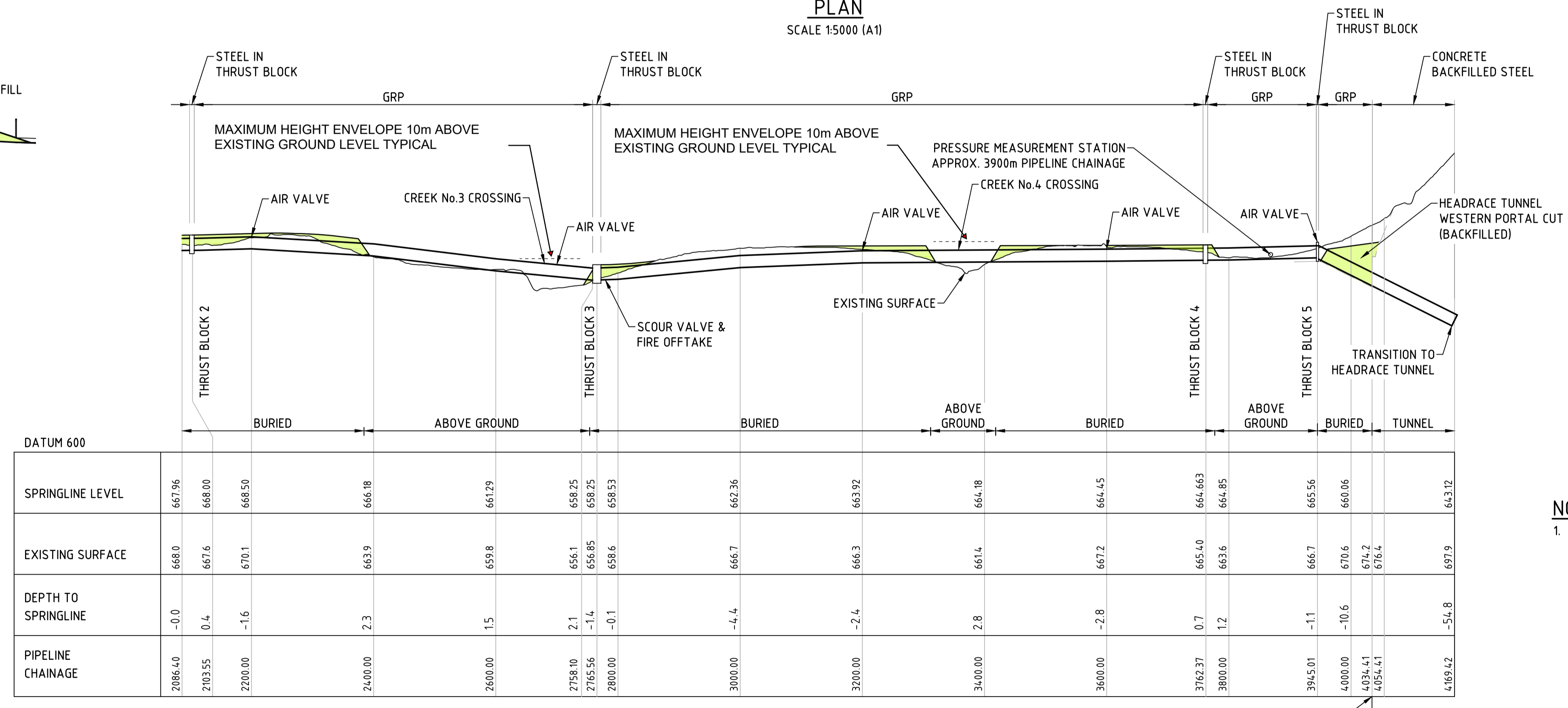
- E(TL)- TRANSMISSION LINES
- REDUNDANT INFRASTRUCTURE
- MAINTAIN EXISTING INFRASTRUCTURE
- RIVERS
- EXISTING ROADS
- BURIED/MOUNDED PIPE
- CONCRETE

DATUMS: MGA2020Z55 AHD83

SCALE 1:200

SCALE 1:1000

SCALE 1:5000

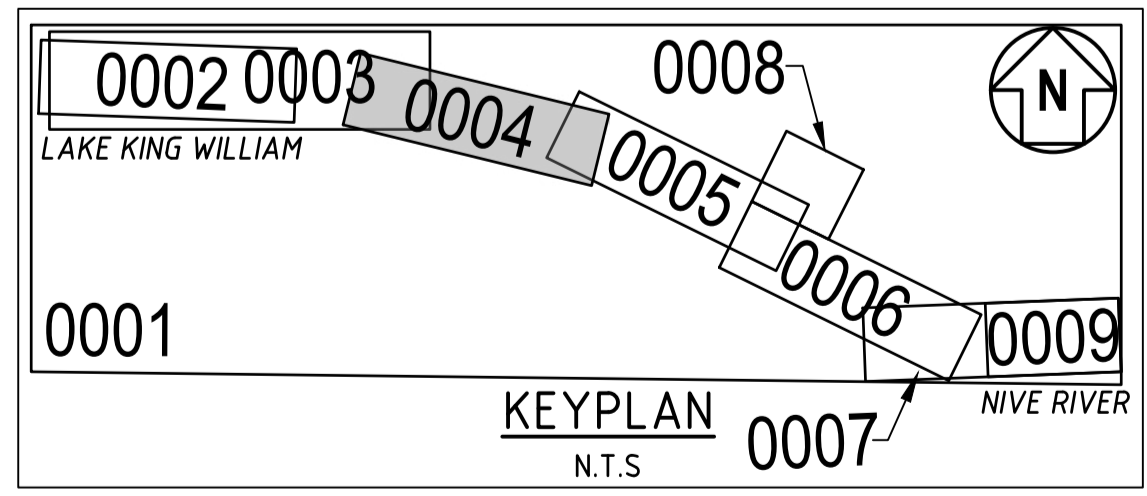


	DATUM 600																		
SPRINGLINE LEVEL	2086.40	2103.55	2200.00	2400.00	2600.00	2758.10	2765.56	2800.00	3000.00	3200.00	3400.00	3600.00	3762.37	3800.00	3945.01	4000.00	4034.41	4054.41	4169.42
EXISTING SURFACE	668.0	667.6	670.1	663.9	659.8	656.1	656.85	658.6	666.7	666.3	661.4	667.2	665.40	663.6	666.7	670.6	674.2	676.4	697.9
DEPTH TO SPRINGLINE	-0.0	0.4	-1.6	2.3	1.5	2.1	-1.4	-0.1	-4.4	-2.4	2.8	-2.8	0.7	1.2	-1.1	-10.6	4.034.41	4.054.41	-54.8
PIPELINE CHAINAGE	2086.40	2103.55	2200.00	2400.00	2600.00	2758.10	2765.56	2800.00	3000.00	3200.00	3400.00	3600.00	3762.37	3800.00	3945.01	4000.00	4034.41	4054.41	4169.42

LONGITUDINAL SECTION - HEADRACE PIPELINE - DN4000
HOR. SCALE 1:5000 (A1) VER. SCALE 1:1000 (A1)

PROJECT CHAINAGE 4880.427m
TUNNEL CHAINAGE -20.0m
PIPELINE CHAINAGE 4034.417m

NOTE:
1. ALL DIMENSIONS, CHAINAGES ARE IN m AND ELEVATIONS, LEVELS, FULL SUPPLY LEVEL (FSL), DESIGN FLOOD LEVEL (DFL), NORMAL MINIMUM OPERATING LEVEL (NMOL) ARE IN m AHD 1983.



ALTERATIONS

NO.	DATE	BY	HT	DESCRIPTION
X2	17/12/2023	HT	HT	ALIGNMENT UPDATED FOR ISSUE FOR RFP
X3	22/02/2024	HT	HT	UPDATES FOR REFERENCE DESIGN
X4	14/06/2024	HT	HT	ISSUE

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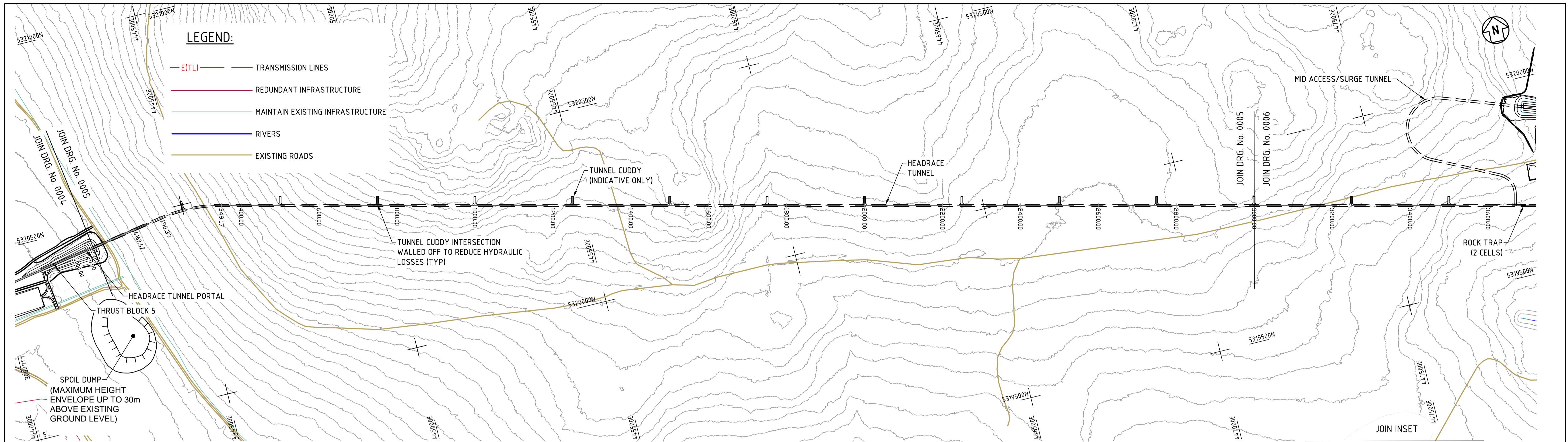
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TARDEV-HYD-SUR-XX-DR-C-0001	TARRALEAH REDEVELOPMENT POWER SCHEME REFERENCE POINTS	DESIGNED
A1678	TARRALEAH POWER DEVELOPMENT NO. 2 CANAL GENERAL ARRANGEMENT PLAN, PROFILE & SECTIONS SHEET 1 OF 2	CHECKED
A1625	TARRALEAH POWER DEVELOPMENT NO. 2 CANAL GENERAL ARRANGEMENT TYPICAL SECTIONS OF MAJOR STRUCTURES SHEET 2 OF 2	APPROVED
A6426	TARRALEAH POWER DEVELOPMENT PUMPING FROM DERWENT RIVER GENERAL LAYOUT AND TYPICAL SECTIONS	HT AGREED

DRAWN PO/SB
DESIGNED RJ/JC
CHECKED RJ
APPROVED RV/DK
DATE ES/GB
HT AGREED -
HT ACCEPTED -

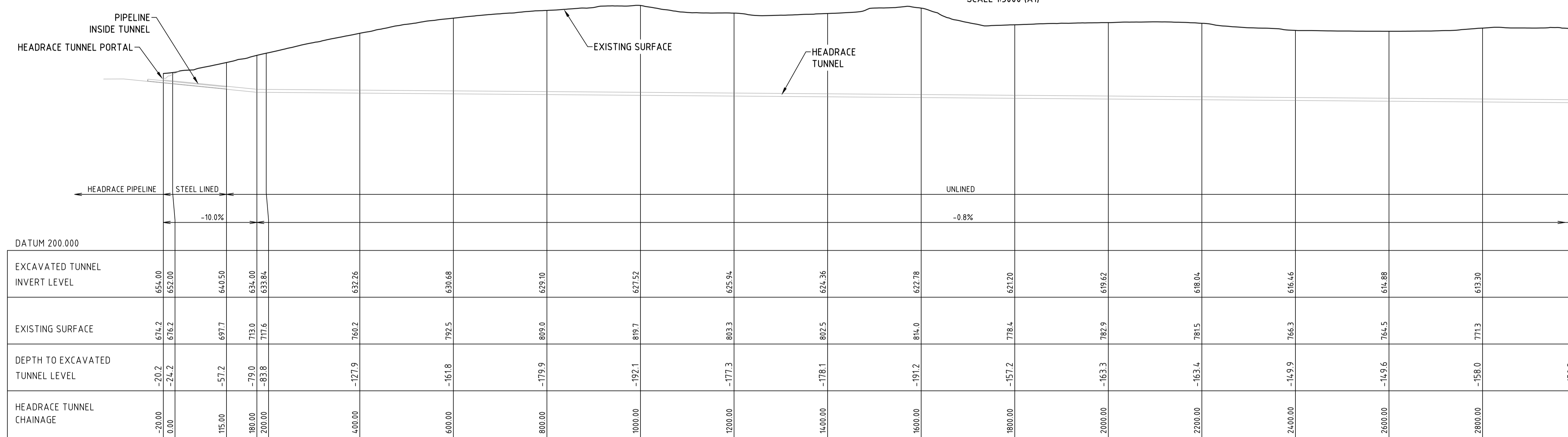
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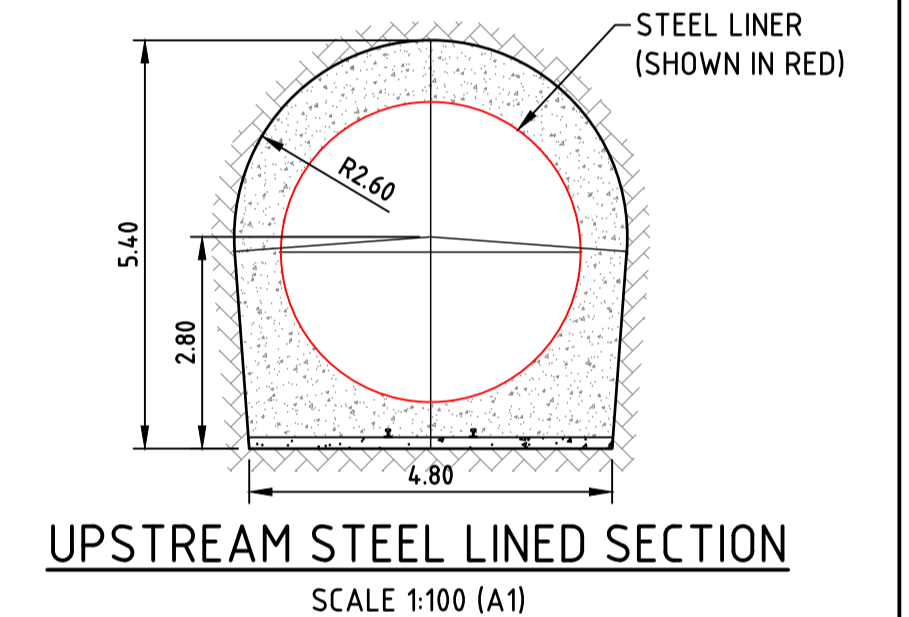
CLIENT	HYDRO TASMANIA	SCALE	AS SHOWN
TITLE	TARRALEAH REDEVELOPMENT GENERAL ARRANGEMENT HEADRACE PIPELINE PLAN AND LONGITUDINAL SECTION 2	REV	X4
DRAWING	TARDEV-HYD-AGA-XX-DR-C-0004	SIZE	A1



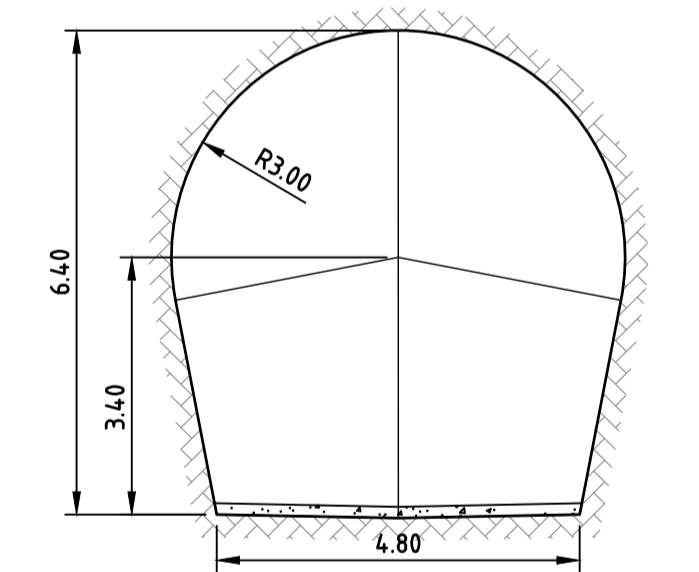
PLAN
SCALE 1:5000 (A1)



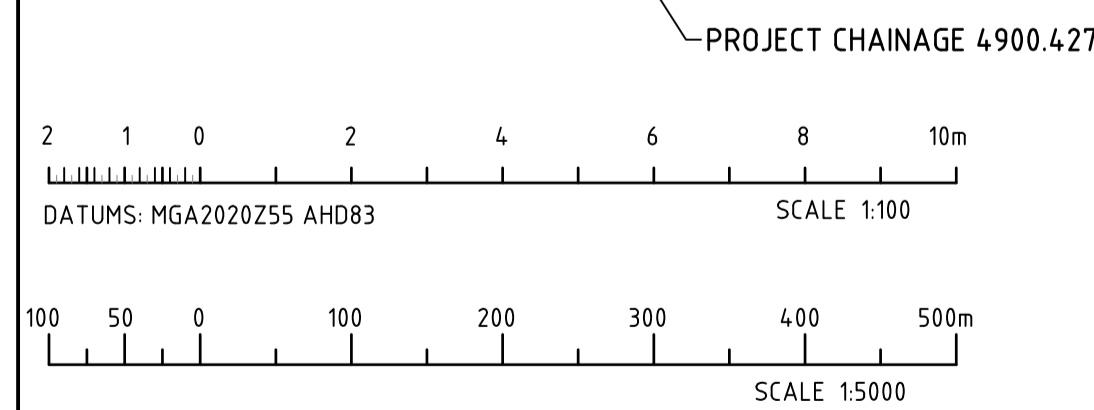
LONGITUDINAL SECTION - HEADRACE TUNNEL
HOR. SCALE 1:5000 (A1)



UPSTREAM STEEL LINED SECTION
SCALE 1:100 (A1)

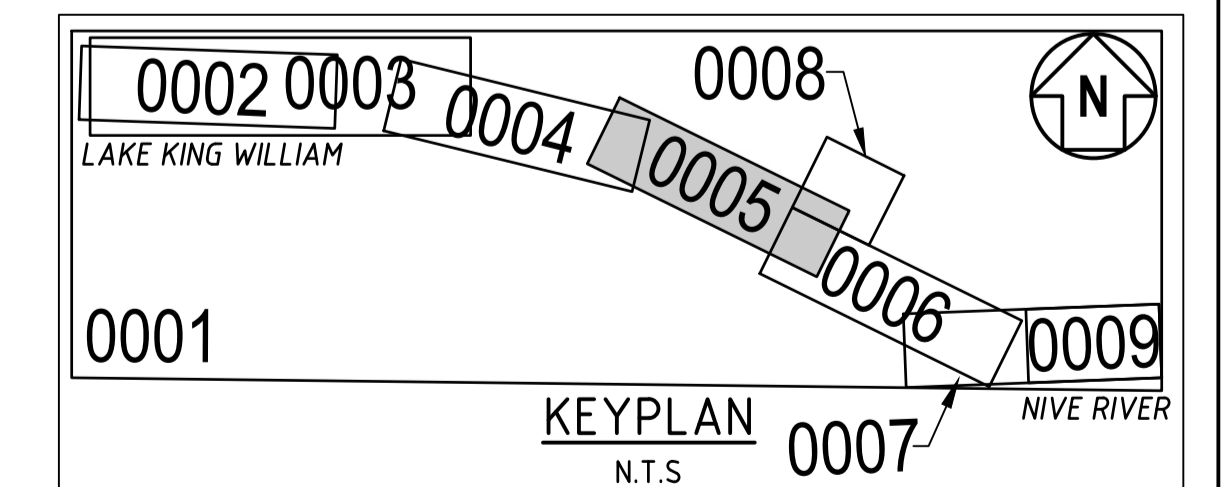


UNLINED EXCAVATION PROFILE
SCALE 1:100 (A1)



NOTE:

1. ALL DIMENSIONS ARE IN METRES
2. HORIZONTAL DATUM GDA2020, ZONE 55
3. ELEVATIONS ARE IN METRES AHD 1983
4. CHAINAGES ARE IN METRES (GRID)
5. CUDDY LOCATIONS ARE INDICATIVE ONLY



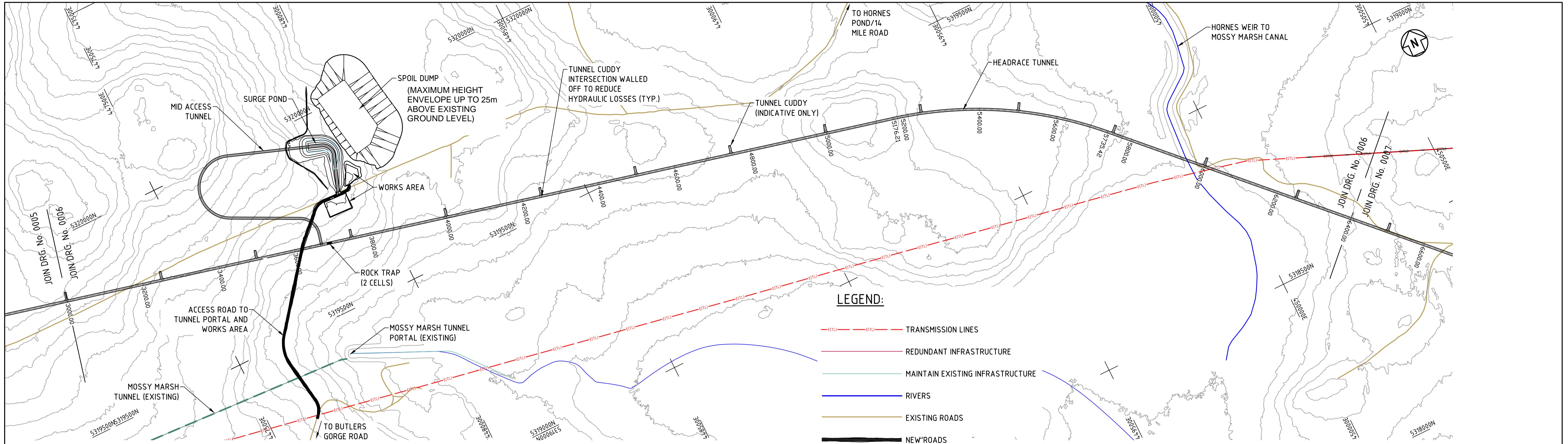
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X3	16/8/2024	HT	HT		UPDATES FOR REFERENCE DESIGN
X4		HT	HT		UPDATES FOR REFERENCE DESIGN

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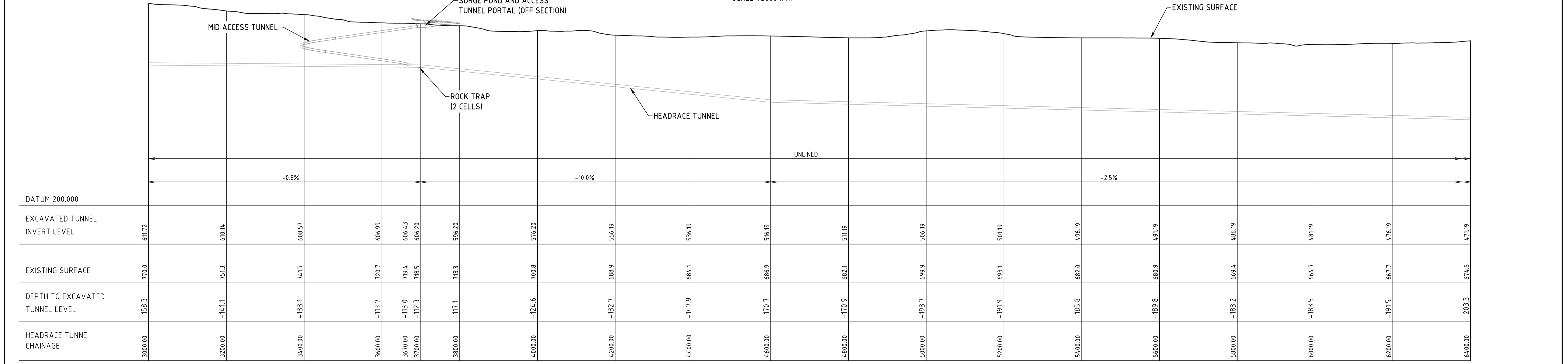
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1					TARDEV-HYD-SUR-XX-DR-C-0001 TARRALEAH REDEVELOPMENT POWER SCHEME REFERENCE POINTS
1					A1625 TARRALEAH POWER DEVELOPMENT NO.2 CANAL GENERAL ARRANGEMENT

NO.	DATE	BY	CHKD	HT	DESCRIPTION
1					REFERENCES
1					TARDEV-HYD-AGA-XX-DR-C-0001 TARRALEAH REDEVELOPMENT PROJECT WIDE SCHEMATIC
1					TARDEV-HYD-SUR-XX-DR-C-0001 TARRALEAH REDEVELOPMENT POWER SCHEME REFERENCE POINTS
1					A1625 TARRALEAH POWER DEVELOPMENT NO.2 CANAL GENERAL ARRANGEMENT

CLIENT	HYDRO TASMANIA	SCALE	1:5000
TITLE	TARRALEAH REDEVELOPMENT GENERAL ARRANGEMENT HEADRACE TUNNEL PLAN AND LONGITUDINAL SECTION 1	REV	X4
DRAWING	TARDEV-HYD-AGA-XX-DR-C-0005	SIZE	A1



PLAN
SCALE 1:5000 (A1)

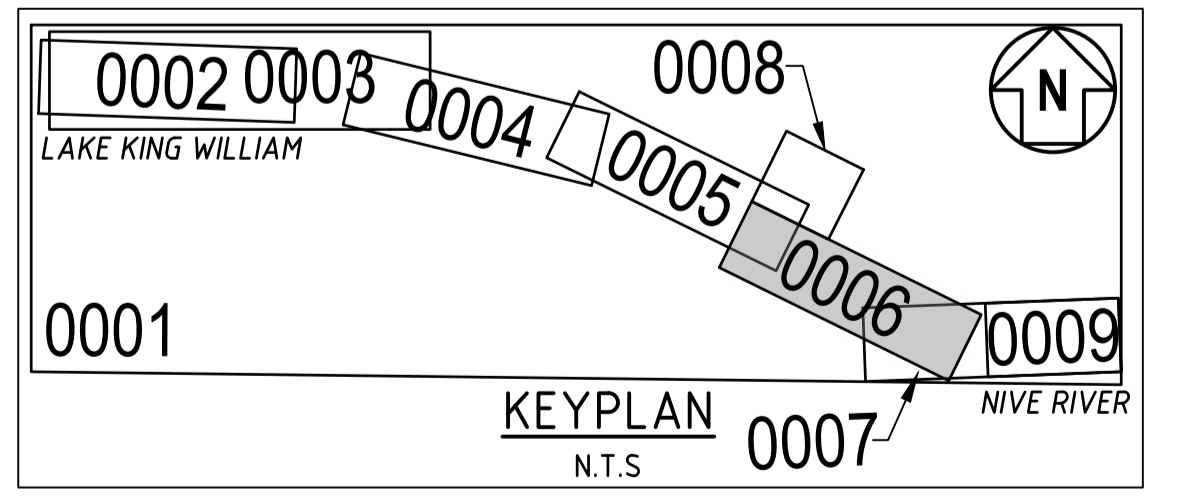


LONGITUDINAL SECTION - HEADRACE TUNNEL
HOR. SCALE 1:5000 (A1)

NOTE:

1. ALL DIMENSIONS ARE IN METRES
2. HORIZONTAL DATUM GDA2020, ZONE 55
3. ELEVATIONS ARE IN METRES AHD 1983
4. CHAINAGES ARE IN METRES (GRID)
5. CUDDY LOCATIONS ARE INDICATIVE ONLY

FOR TUNNEL PROFILE PLEASE REFER -
TARDEV-HYD-AGA-XX-DR-C-0002



NOT FOR CONSTRUCTION
REFERENCE DESIGN
PRINT DATE: 14/06/2024 3:41:05 PM
ELECTRONIC DOCUMENT CONTROL - UNCONTROLLED IF PRINTED

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X3	22/12/2024	HT	HT		UPDATES FOR REFERENCE DESIGN
X4	14/06/2024	HT	HT		ISSUE

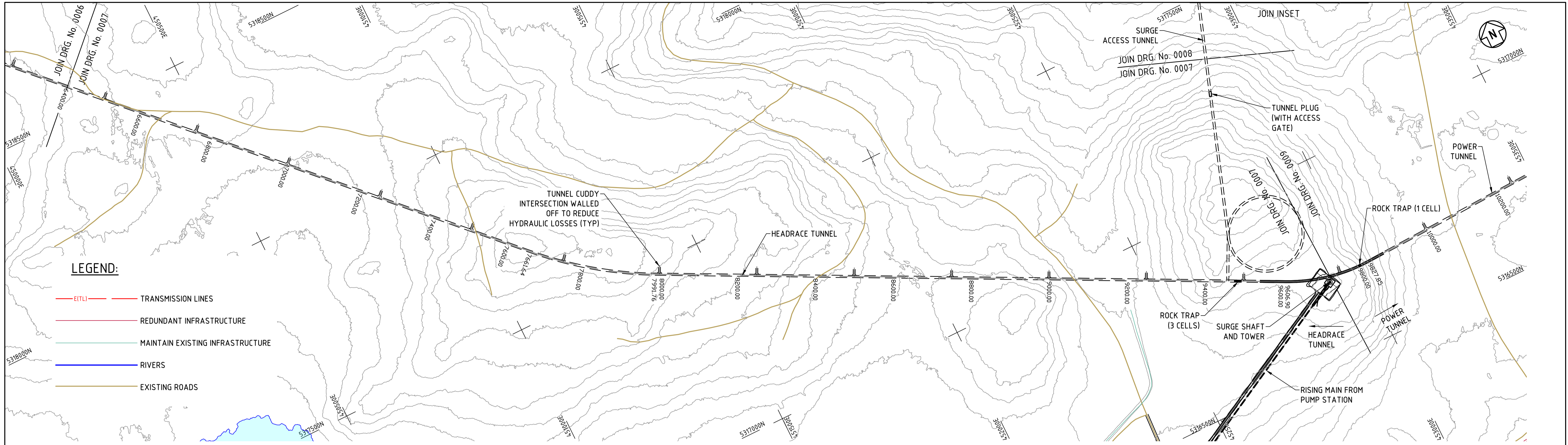
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REF ID	DESCRIPTION	STATUS	DATE
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TARDEV-HYD-SUR-XX-DR-C-0001	TARRALEAH REDEVELOPMENT POWER SCHEME REFERENCE POINTS	DESIGNED	RJ
A1625	TARRALEAH POWER DEVELOPMENT NO.2 CANAL GENERAL ARRANGEMENT	CHECKED	RVDK
B1343	TARRALEAH NO.2 CANAL MOSSY MARSH TUNNEL REVISED TUNNEL SECTIONS	APPROVED	ES/GB
		DATE	-
		HT AGREED	-
		HT ACCEPTED	-

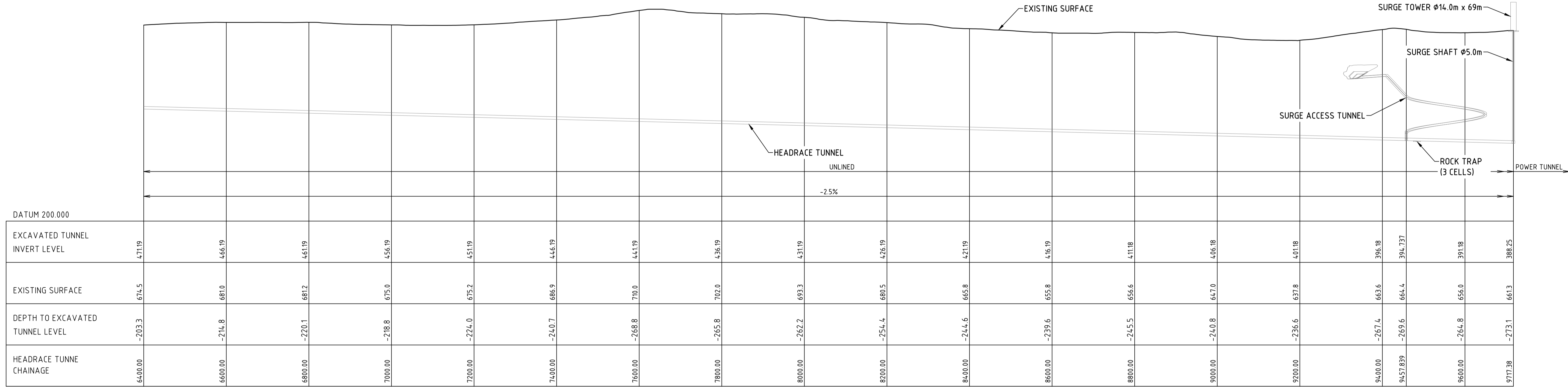
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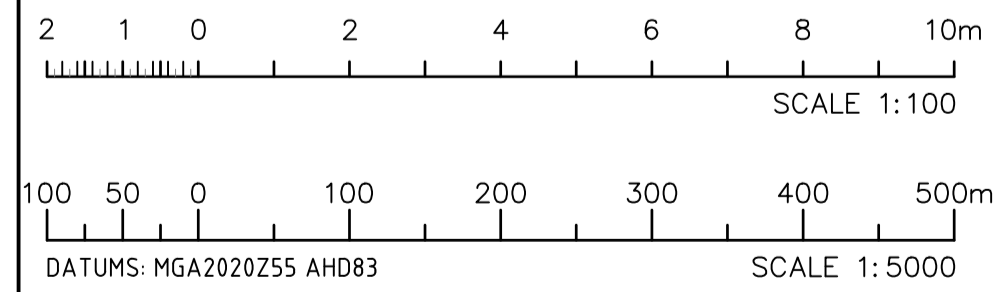
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DRAWING	TARDEV-HYD-AGA-XX-DR-C-0006	SIZE	A1



PLAN
SCALE 1:5000 (A1)

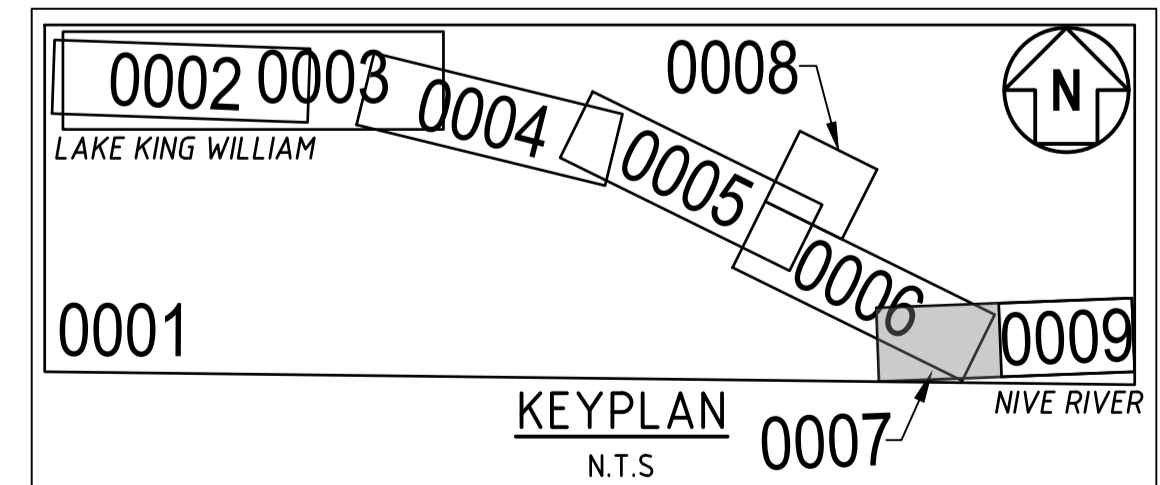


LONGITUDINAL SECTION - HEADRACE TUNNEL
HOR. SCALE 1:5000 (A1)



NOTE:

1. ALL DIMENSIONS ARE IN METRES
2. HORIZONTAL DATUM GDA2020, ZONE 55
3. ELEVATIONS ARE IN METRES AHD 1983
4. CHAINAGES ARE IN METRES (GRID)
5. CUDDY LOCATIONS ARE INDICATIVE ONLY



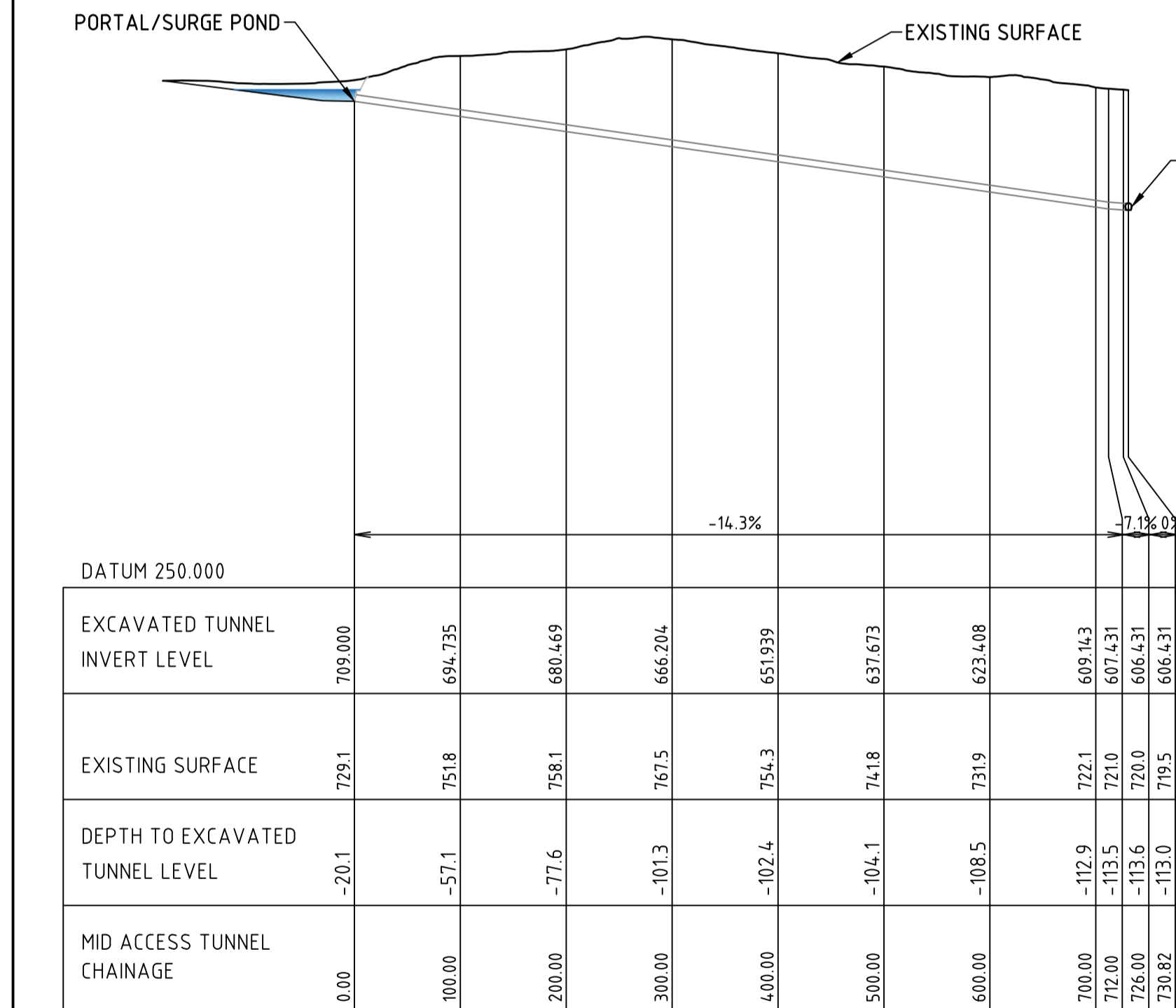
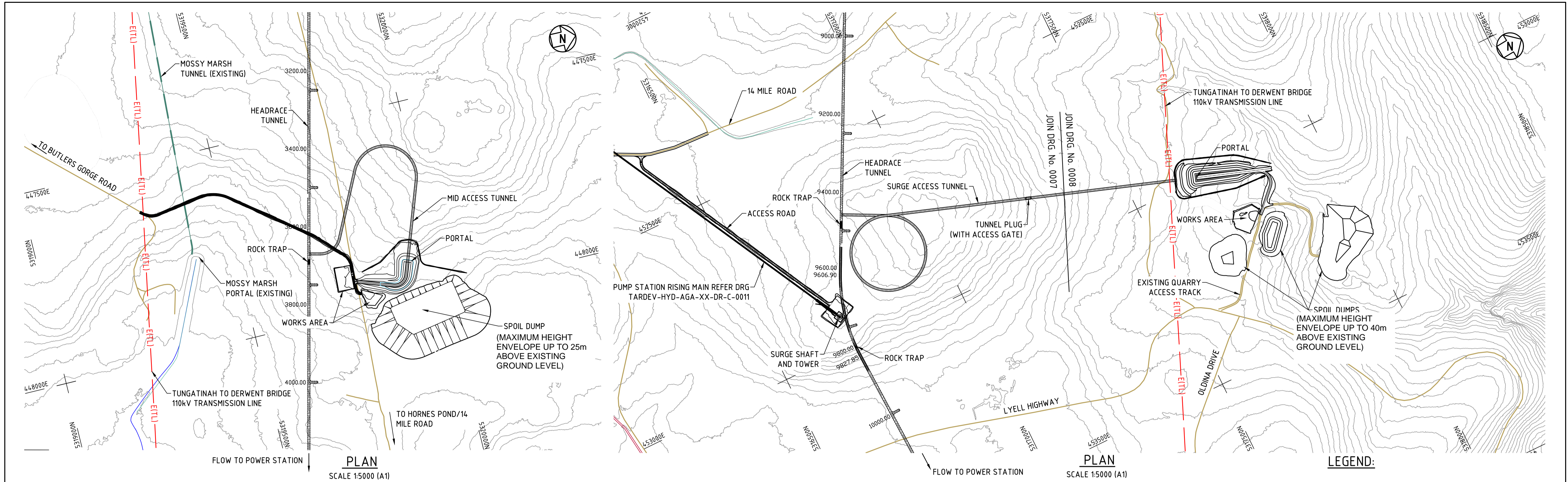
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X3	22/07/2024	HT	HT		ALIGNMENT UPDATED FOR ISSUE FOR RFP
X4	16/07/2024	HT	HT		UPDATES FOR REFERENCE DESIGN ISSUE

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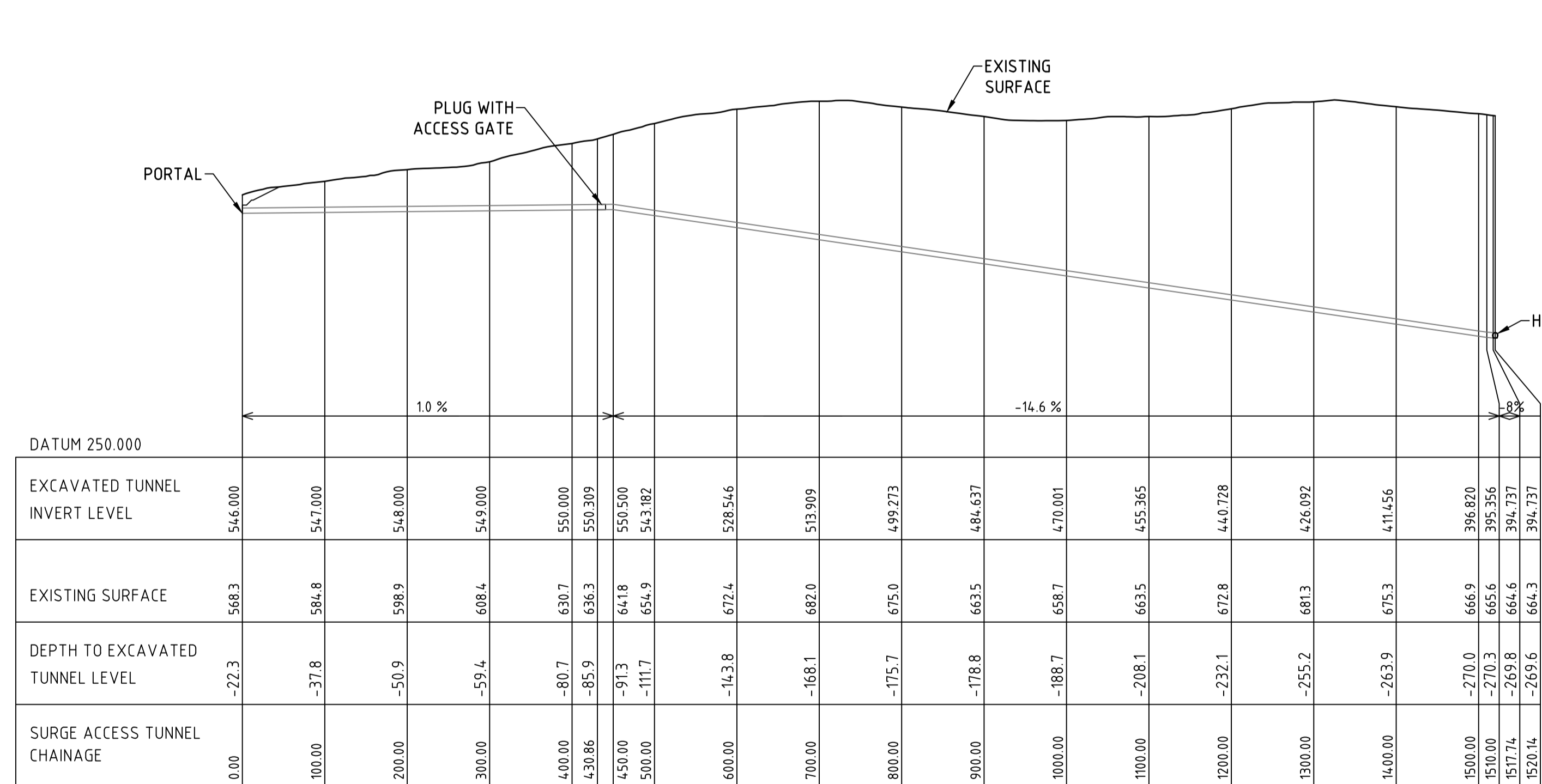
REVISION	DATE	BY	CHKD	HT	DESCRIPTION
REP'D FROM	-	-	-	-	-
REV	-	-	-	-	HT ACCEPTED



CLIENT	HYDRO TASMANIA	SCALE	1:100
TITLE	TARRALEAH REDEVELOPMENT GENERAL ARRANGEMENT HEADRACE TUNNEL PLAN AND LONGITUDINAL SECTION 3	SCALE	1:5000
DRAWING	TARDEV-HYD-AGA-XX-DR-C-0007	REV	X4
SIZE	A1		

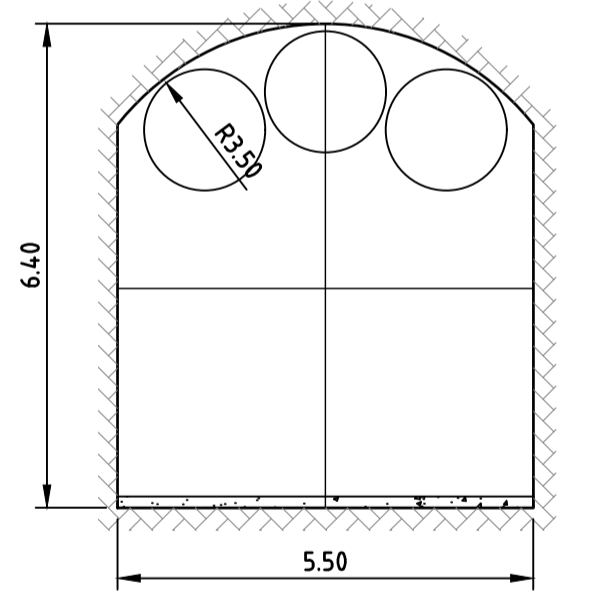


LONGITUDINAL SECTION - MID-ACCESS TUNNEL
HOR. SCALE 1:5000 (A1)

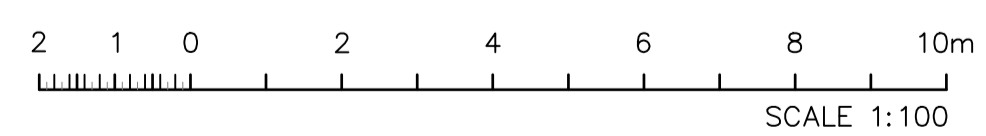
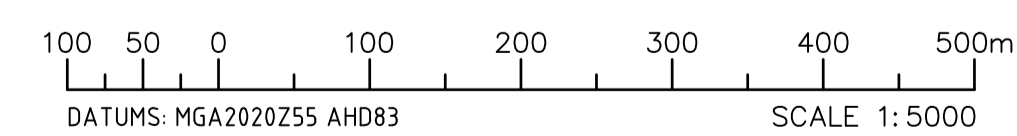


LONGITUDINAL SECTION - SURGE ACCESS TUNNEL
HOR. SCALE 1:5000 (A1)

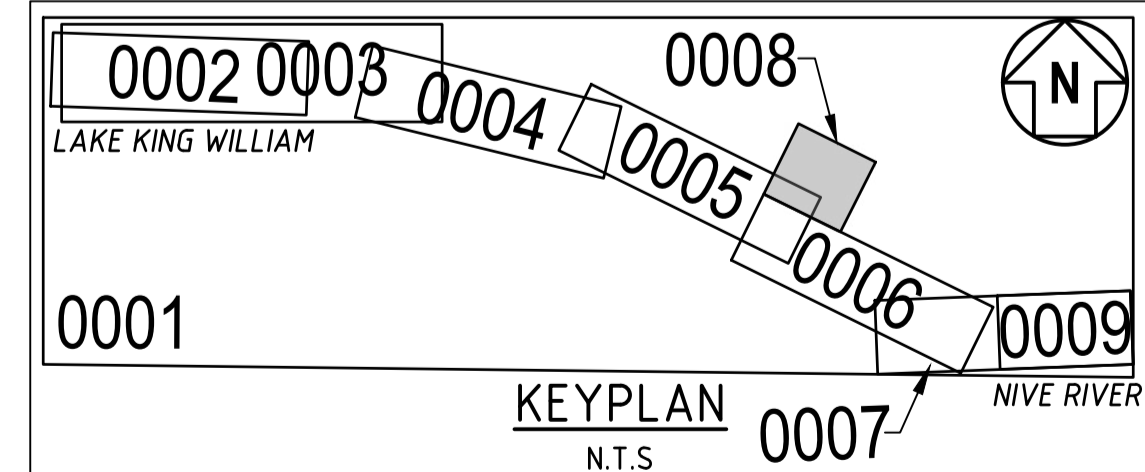
- LEGEND:**
- E(TL) TRANSMISSION LINES
 - REDUNDANT INFRASTRUCTURE
 - MAINTAIN EXISTING INFRASTRUCTURE
 - RIVERS
 - EXISTING ROADS
 - NEW ROADS



ACCESS TUNNEL PROFILE
SCALE 1:100 (A1)



- NOTE:**
- ALL DIMENSIONS ARE IN METRES
 - HORIZONTAL DATUM GDA2020, ZONE 55
 - ELEVATIONS ARE IN METRES AHD 1983
 - CHAINAGES ARE IN METRES (GRID)
 - CUDDY LOCATIONS ARE INDICATIVE ONLY



ALTERATIONS

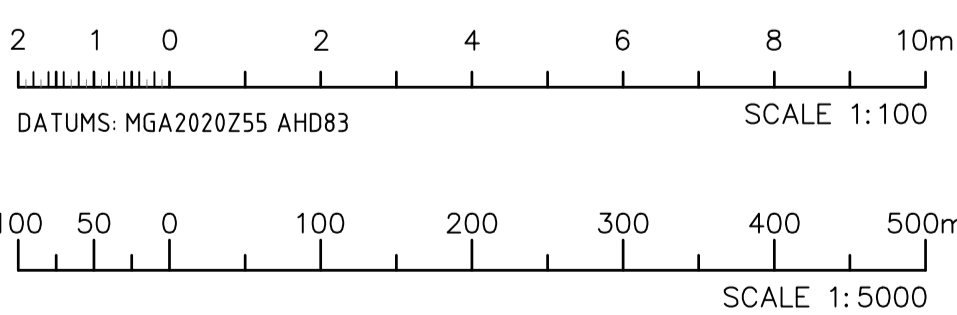
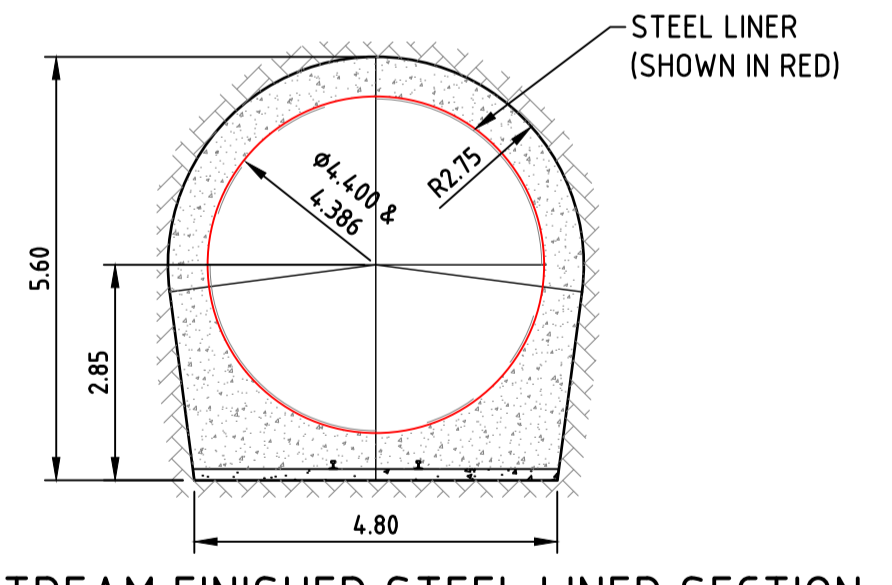
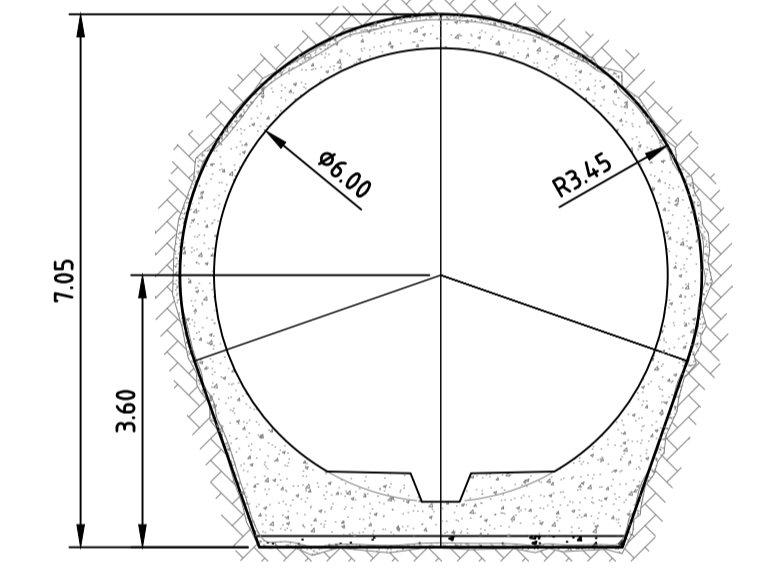
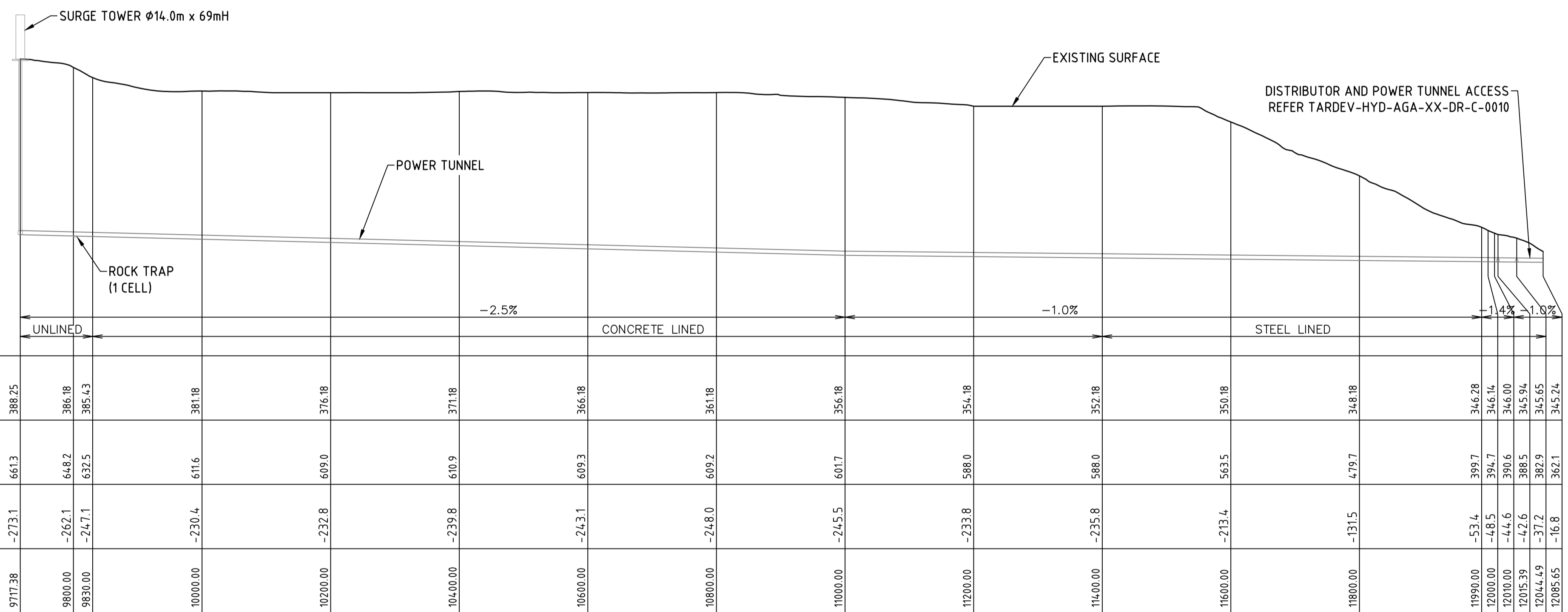
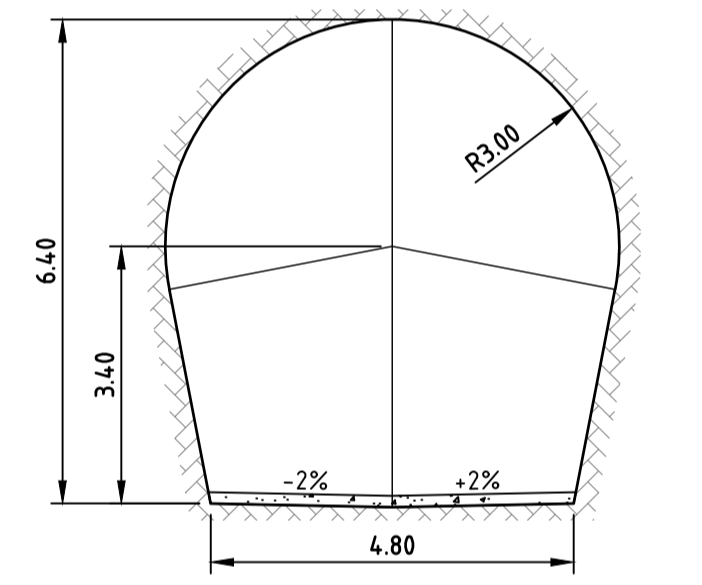
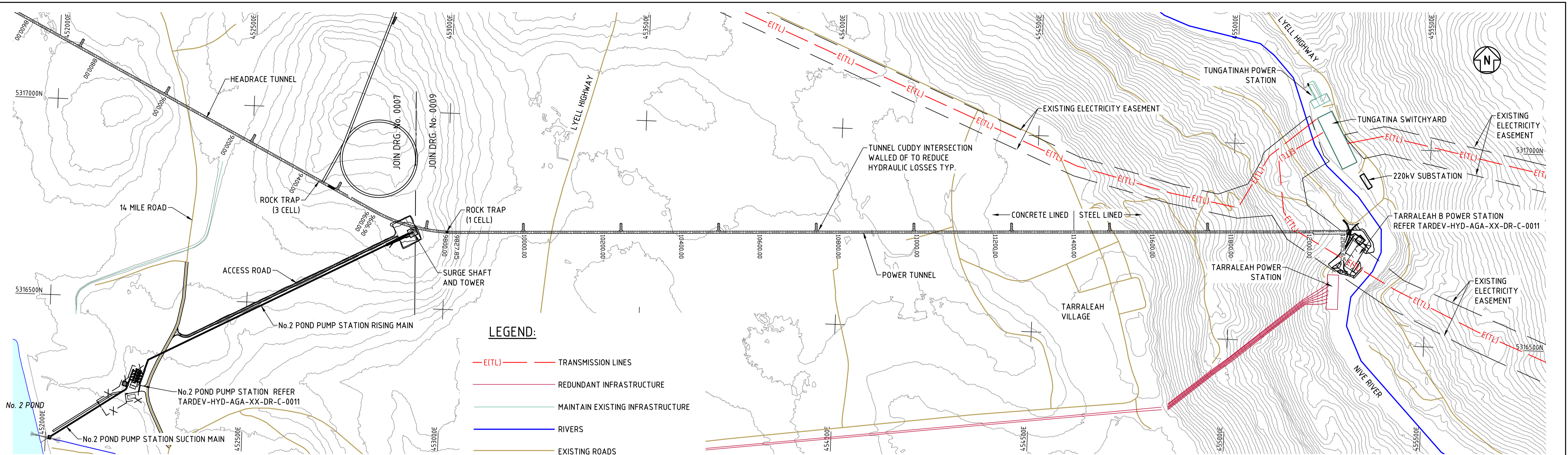
REV	DATE	DESCRIPTION
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X3	27/07/2024	UPDATES FOR REFERENCE DESIGN
X4	16/07/2024	ISSUE

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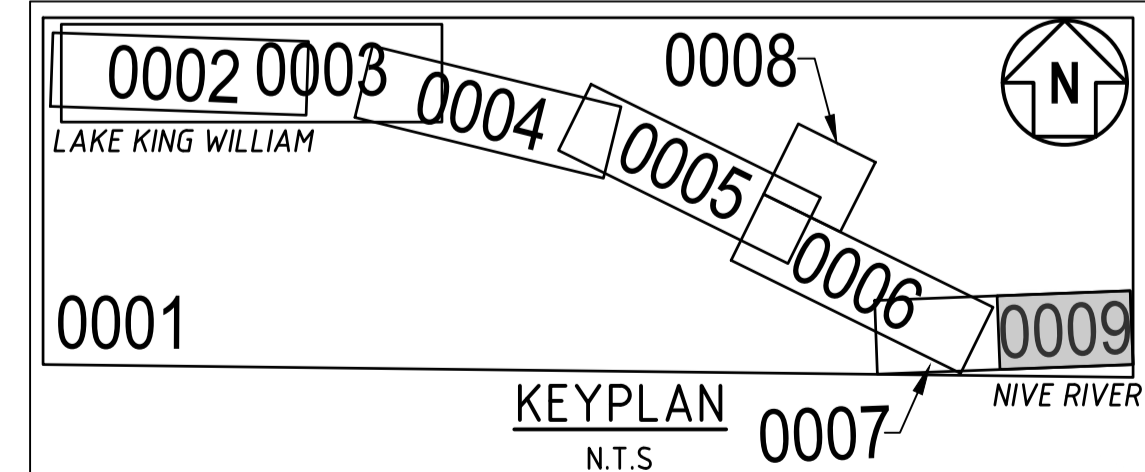
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REP'D FROM	-	-
REV	-	HT ACCEPTED

REVISION	DATE	BY	CHKD
A1625		RJJ/C	
B1343		RJ	
		RVDK	
		ES/GB	

CLIENT	HYDRO TASMANIA	SCALE	1:100
TITLE	TARRALEAH REDEVELOPMENT GENERAL ARRANGEMENT HEADRACE ACCESS TUNNELS PLAN AND LONGITUDINAL SECTIONS	REV	X4
DRAWING	TARDEV-HYD-AGA-XX-DR-C-0008	SIZE	A1



- NOTE:**
- ALL DIMENSIONS ARE IN METRES
 - HORIZONTAL DATUM GDA2020, ZONE 55
 - ELEVATIONS ARE IN METRES AHD 1983
 - CHAINAGES ARE IN METRES (GRID)
 - CUDDY LOCATIONS ARE INDICATIVE ONLY



ALTERATIONS

REV	DATE	DESCRIPTION
X2	17/5/2023	ALIGNMENT UPDATED FOR ISSUE FOR RFP
X3	27/7/2024	UPDATES FOR REFERENCE DESIGN
X4	16/8/2024	ISSUE

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REFERENCE DESIGN
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ELECTRONIC DOCUMENT CONTROL - UNCONTROLLED IF PRINTED

REFERENCES

REF ID	DESCRIPTION
TARDEV-HYD-AGA-XX-DR-C-0001	TARRALEAH REDEVELOPMENT PROJECT WIDE SCHEMATIC
TARDEV-HYD-SUR-XX-DR-C-0001	TARRALEAH REDEVELOPMENT POWER SCHEME REFERENCE POINTS

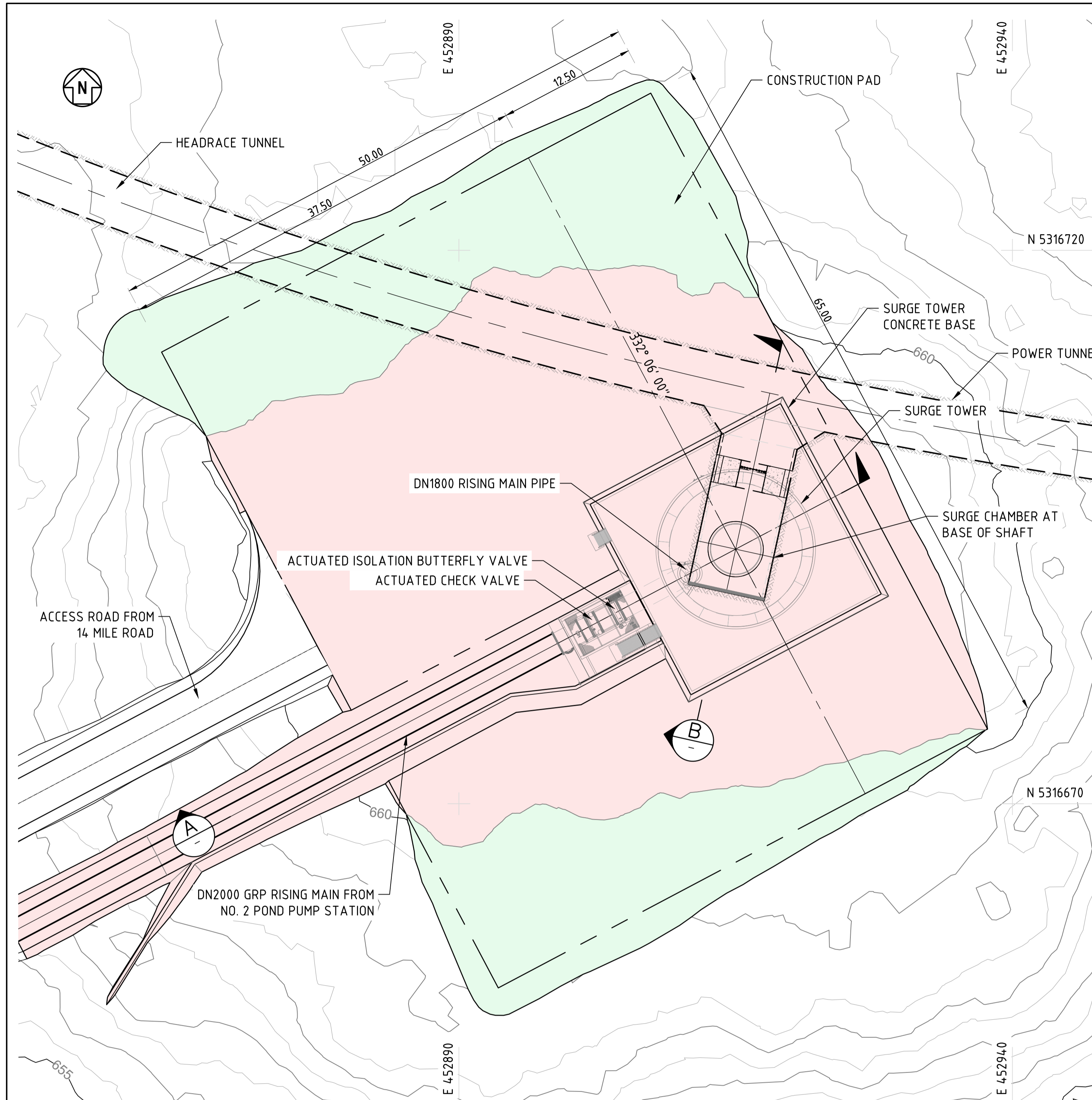
APPROVALS

ROLE	NAME
DRAWN	PO/SB
CHECKED	RJJ/JC
DESIGNED	RJ
CHECKED	RVDK
APPROVED	ES/GB
DATE	-
HT AGREED	-
HT ACCEPTED	-

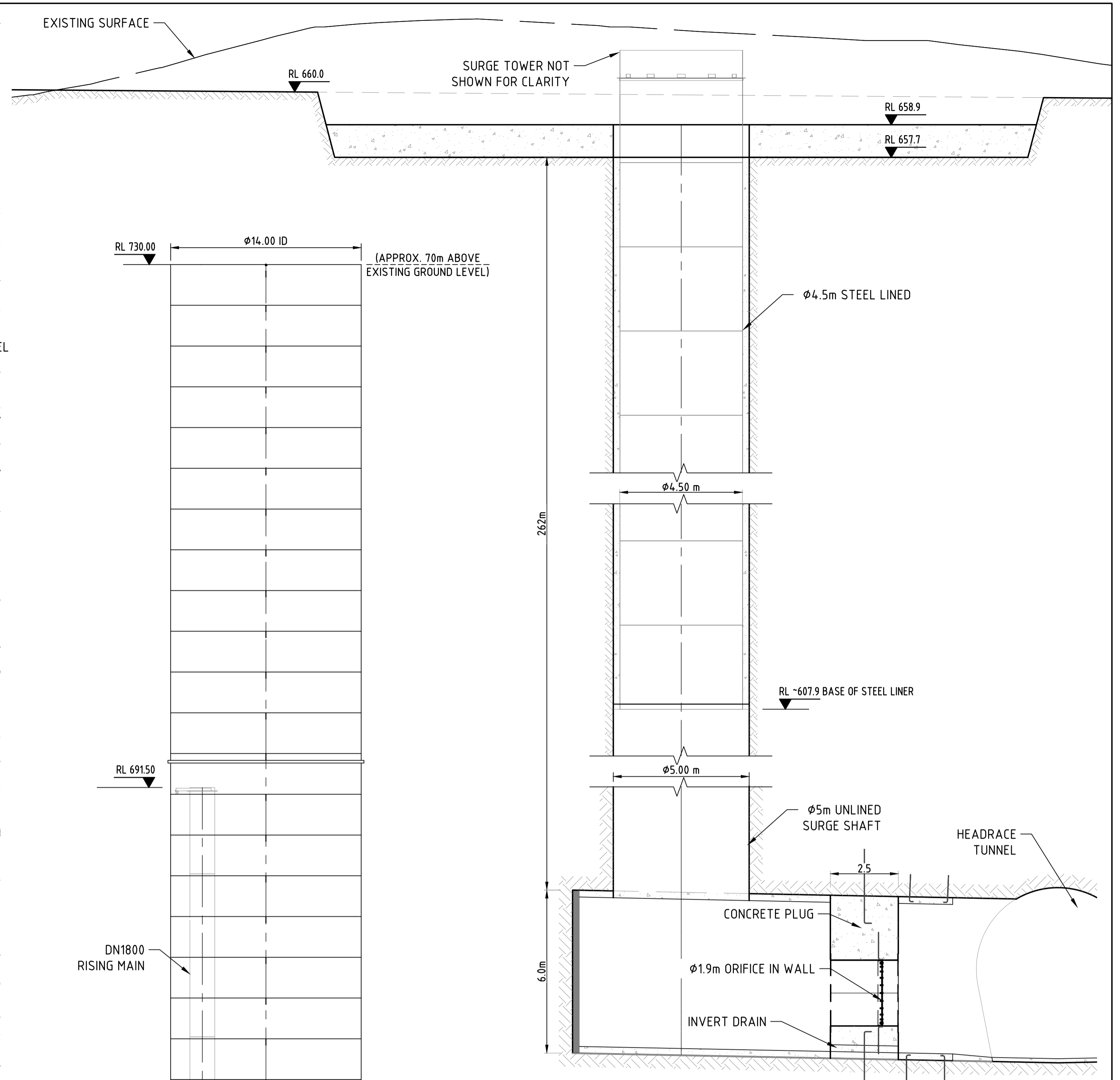


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CLIENT	HYDRO TASMANIA	SCALE	1:5000
TITLE	TARRALEAH REDEVELOPMENT GENERAL ARRANGEMENT POWER TUNNEL PLAN AND LONGITUDINAL SECTION	SCALE	1:100
DRAWING	TARDEV-HYD-AGA-XX-DR-C-0009	REV	X4
SIZE	A1		



PLAN - SURGE TOWER
SCALE 1:250



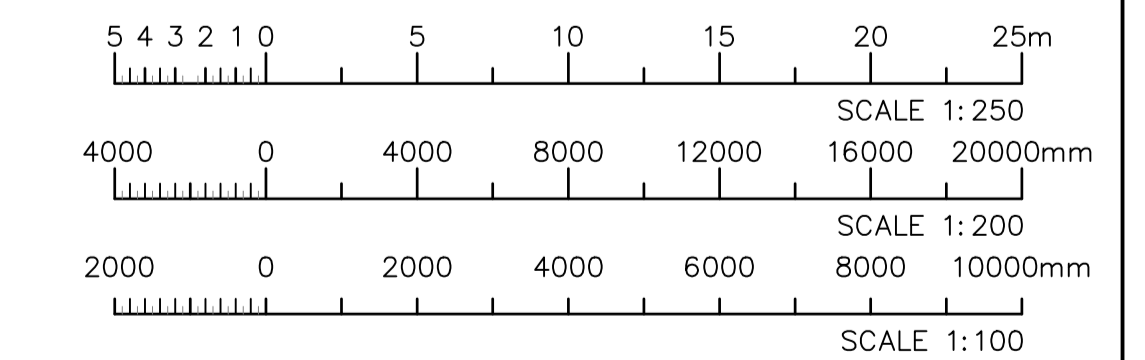
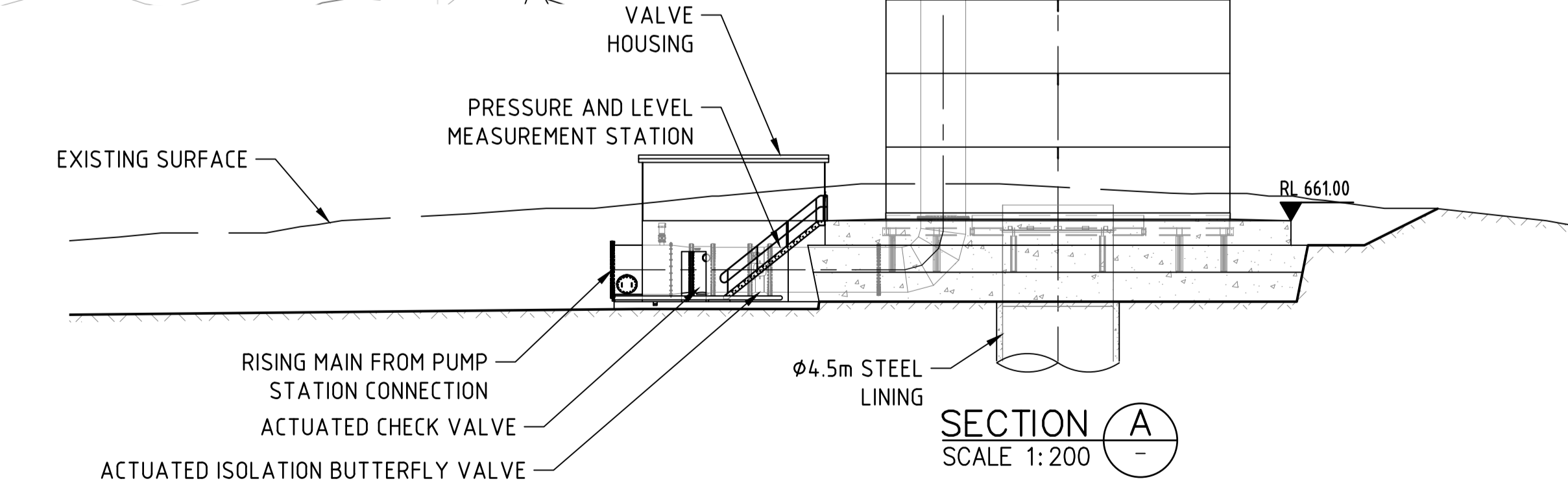
SECTION (A)
SCALE 1:200

SECTION (B)
SCALE 1:100

LEGEND

- CUT
- FILL

- NOTE:**
1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
 2. ELEVATIONS ARE IN m AHD 1983.
 3. HORIZONTAL DATUM: GDA2020 (MGA2020 ZONE 55)
 4. SURGE TOWER TO BE PAINTED GREY WITH A LIGHT REFLECTANCE VALUE < 40% IN ACCORDANCE WITH HYDRO TASMANIA COATING SYSTEMS, AS2700 N43 PIPELINE GREY OR APPROVED EQUIVALENT.



REV	DATE	BY	CHKD	HT	DESCRIPTION
X1	17/12/2023				ALIGNMENT UPDATED FOR ISSUE FOR RFP
X2	17/12/2023				ALIGNMENT UPDATED FOR ISSUE FOR RFP
X3	22/12/2024				UPDATES FOR REFERENCE DESIGN
X4	16/07/2024				ENVELOPE HEIGHT ADDED. NOTES UPDATED
X5	01/02/2025				

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REV	DATE	BY	CHKD	HT	DESCRIPTION
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-	-	-	-	-	TARDEV-HYD-AGA-XX-DR-C-0007 GENERAL ARRANGEMENT HEADRACE TUNNEL
-	-	-	-	-	TARDEV-HYD-AGA-XX-DR-C-0011 GENERAL ARRANGEMENT NO2 POND PUMP STATION

REV	DATE	BY	CHKD	HT	DESCRIPTION
-	-	-	-	-	DRAWN
-	-	-	-	-	RO/SB
-	-	-	-	-	CHECKED
-	-	-	-	-	RJ/JC
-	-	-	-	-	DESIGNED
-	-	-	-	-	RJ
-	-	-	-	-	CHECKED
-	-	-	-	-	RVDK
-	-	-	-	-	APPROVED
-	-	-	-	-	ES/GB
-	-	-	-	-	DATE
-	-	-	-	-	HT AGREED
-	-	-	-	-	HT ACCEPTED

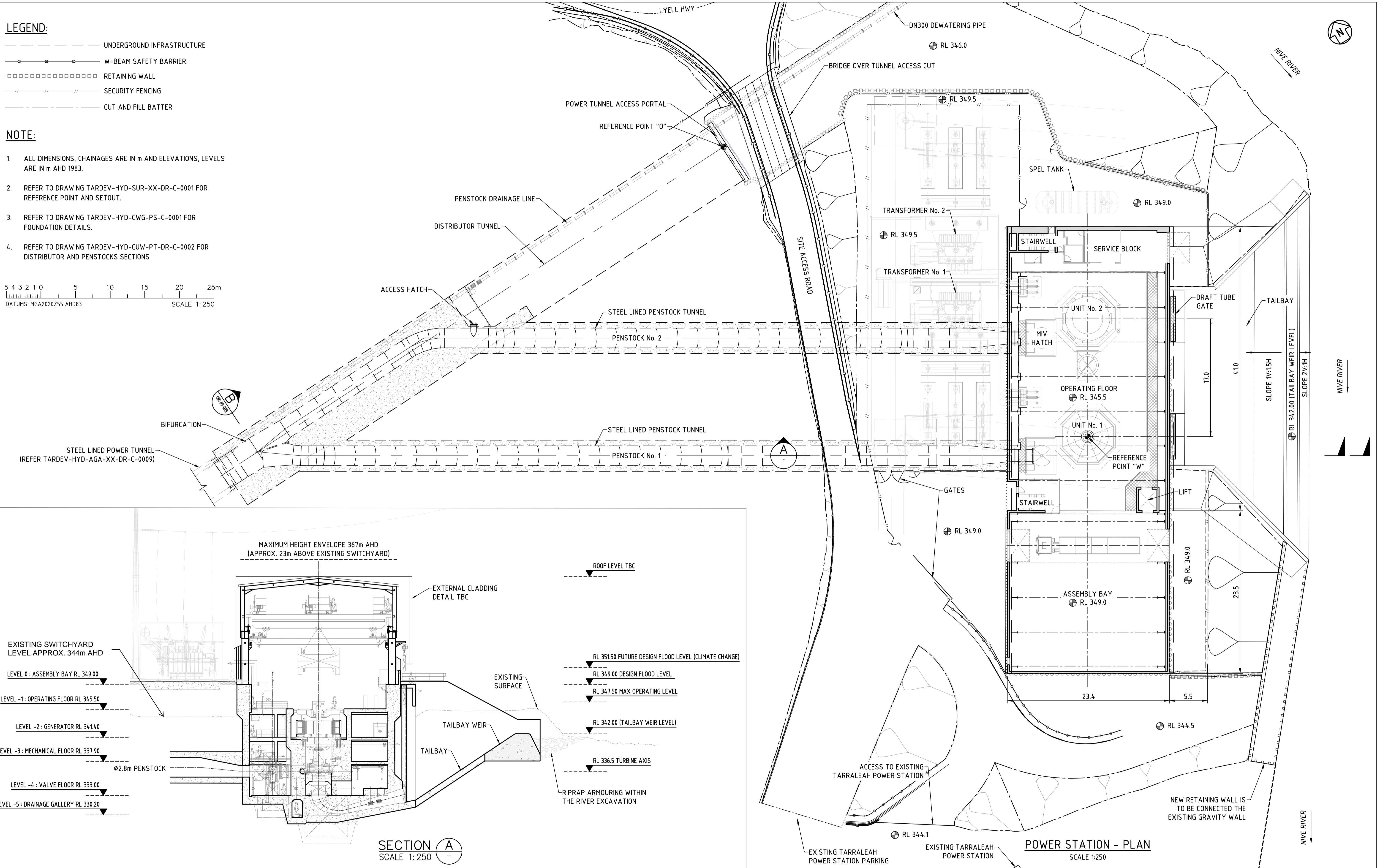
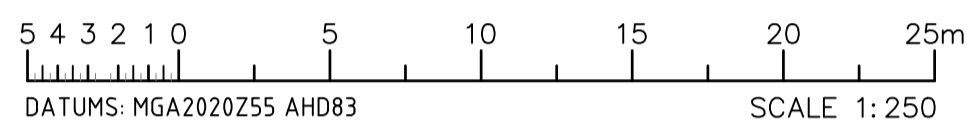
CLIENT	HYDRO TASMANIA	SCALE	AS SHOWN
TITLE	TARRALEAH REDEVELOPMENT GENERAL ARRANGEMENT SURGE TOWER PLAN AND ELEVATION	REV	X5
DRAWING	TARDEV-HYD-AGA-XX-DR-C-0013	SIZE	A1

LEGEND:

- UNDERGROUND INFRASTRUCTURE
- W-BEAM SAFETY BARRIER
- RETAINING WALL
- SECURITY FENCING
- CUT AND FILL BATTER

NOTE:

1. ALL DIMENSIONS, CHAINAGES ARE IN m AND ELEVATIONS, LEVELS ARE IN m AHD 1983.
2. REFER TO DRAWING TARDEV-HYD-SUR-XX-DR-C-0001 FOR REFERENCE POINT AND SETOUT.
3. REFER TO DRAWING TARDEV-HYD-CWG-PS-C-0001 FOR FOUNDATION DETAILS.
4. REFER TO DRAWING TARDEV-HYD-CUW-PT-DR-C-0002 FOR DISTRIBUTOR AND PENSTOCKS SECTIONS



REV	NO	DATE	DESCRIPTION
X1	HT	17/02/2026	ALTERATIONS HEADRAKE AND POWER TUNNEL NORTHERN ALIGNMENT AND POWER STATION SWITCHYARD SITE ADOPTED
X2	HT	17/02/2026	ALIGNMENT UPDATED FOR ISSUE FOR RFP
X3	HT	22/02/2026	UPDATES FOR REFERENCE DESIGN ISSUE
X4	HT	16/02/2026	SWITCHYARD UPDATED FOR LIAPPOOTAH CONNECTION, BUILDING ENVELOPE HEIGHTS & CLADDING ADDED.
X5	PD	17/02/2026	

REV	NO	DATE	DESCRIPTION
X1	HT	17/02/2026	ALTERATIONS HEADRAKE AND POWER TUNNEL NORTHERN ALIGNMENT AND POWER STATION SWITCHYARD SITE ADOPTED
X2	HT	17/02/2026	ALIGNMENT UPDATED FOR ISSUE FOR RFP
X3	HT	22/02/2026	UPDATES FOR REFERENCE DESIGN ISSUE
X4	HT	16/02/2026	SWITCHYARD UPDATED FOR LIAPPOOTAH CONNECTION, BUILDING ENVELOPE HEIGHTS & CLADDING ADDED.
X5	PD	17/02/2026	

SECTION A
SCALE 1:250

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ELECTRONIC DOCUMENT CONTROL - UNCONTROLLED IF PRINTED

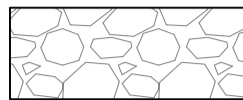
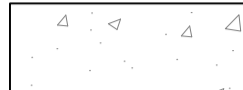
REV	NO	DATE	DESCRIPTION
TARDEV-HYD-AGA-XX-DR-C-0001	GENERAL ARRANGEMENT PROJECT WIDE SCHEMATIC	DRAWN	DS/PO
TARDEV-HYD-SUR-XX-DR-C-0001	TARRALEAH REDEVELOPMENT POWER SCHEME REFERENCE POINTS	CHECKED	JC/MH
TARDEV-HYD-CWG-PS-DR-C-0001	SITE SECTIONS AND DETAILS 1	DESIGNED	JC/MH
TARDEV-CST-CAR-PS-DR-A-0001	TARRALEAH POWER STATION HYDRO PARK - SITE PLAN	CHECKED	RVDK/ES
TARDEV-EDF-AGA-PS-DR-Z-0001	TARRALEAH B POWERSTATION PLAN VIEW AA LEVEL 0 ASSEMBLY BAY FLR	APPROVED	GB
		DATE	
		HT AGREED	ES 17/02/2026
		HT ACCEPTED	ES 17/02/2026

Hydro Tasmania

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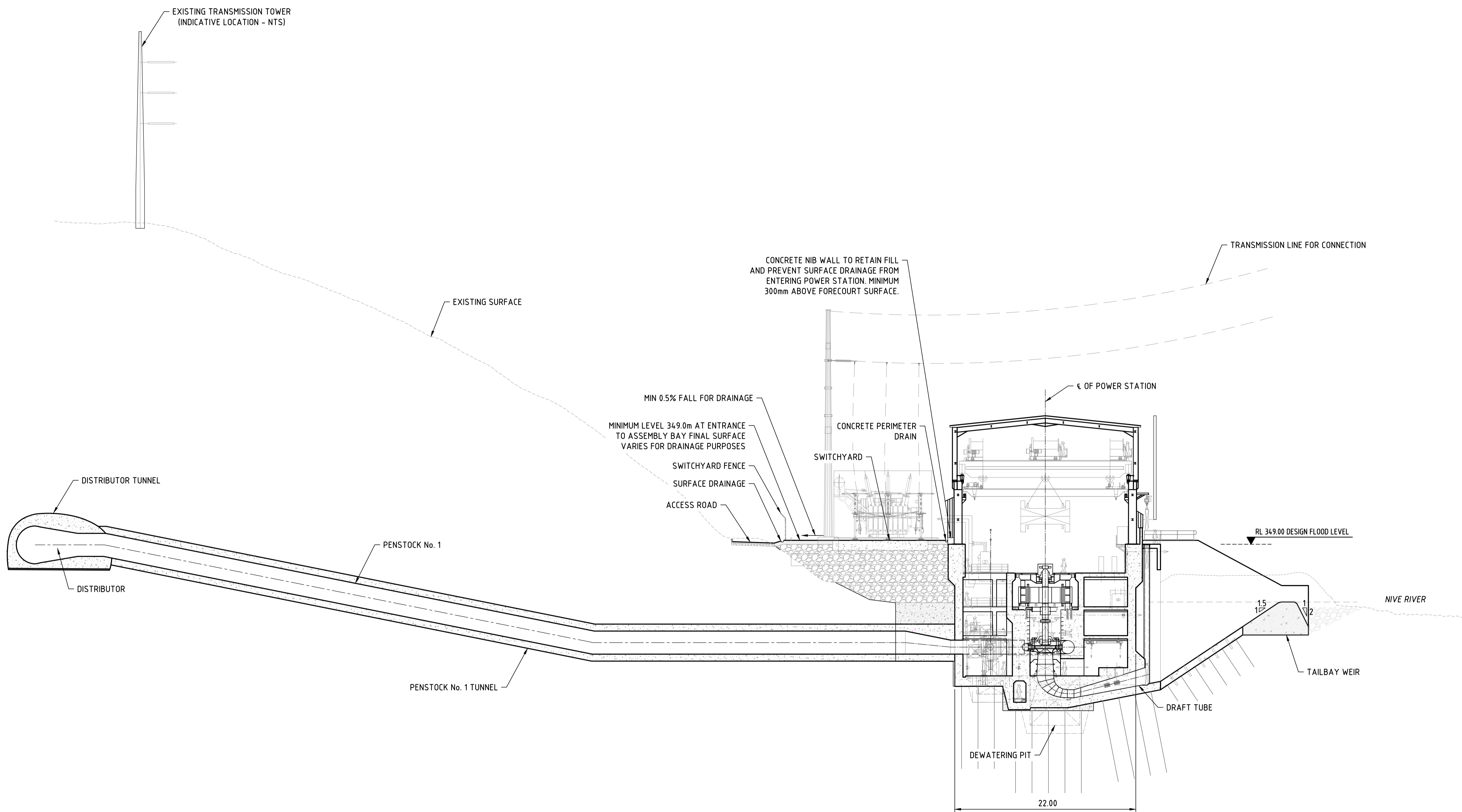
CLIENT	HYDRO TASMANIA	SCALE	1:250
TITLE	TARRALEAH REDEVELOPMENT GENERAL ARRANGEMENT POWER STATION PLAN AND SECTION	REV	X5
DRAWING	TARDEV-HYD-AGA-XX-DR-C-0010	SIZE	A1

LEGEND

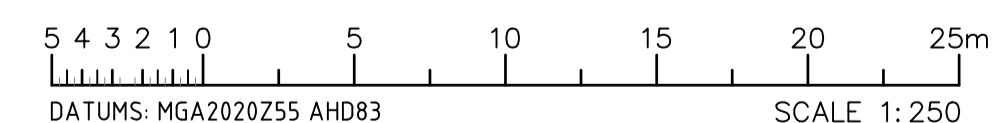
-  FREE DRAINING COMPACTED ROCKFILL
-  CONCRETE

NOTES:

1. ALL DIMENSIONS, CHAINAGES ARE IN m AND ELEVATIONS, LEVELS ARE IN m AHD 1983.



SECTION **B**
SCALE 1:250



ALTERATIONS

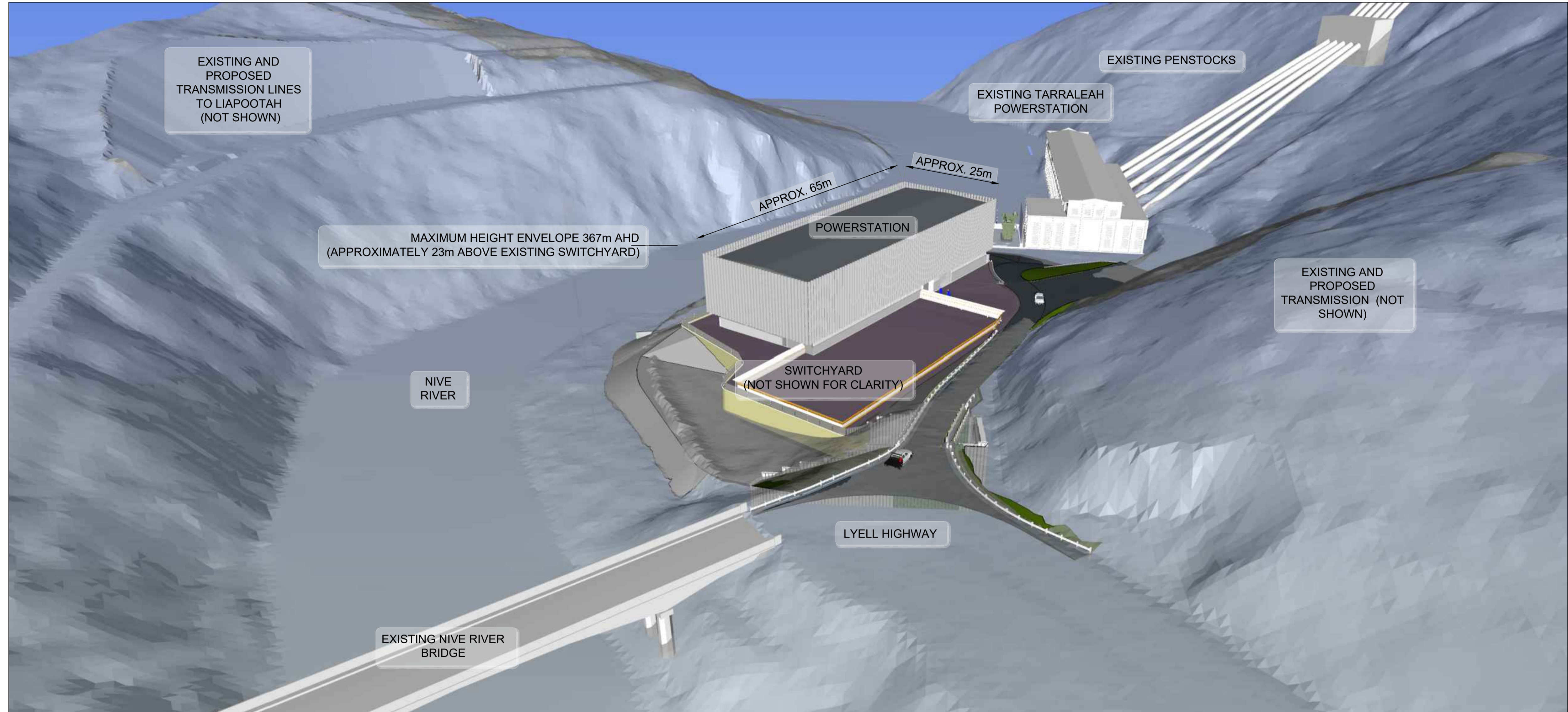
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TARDEV-HYD-CWG-PS-DR-C-0001	SITE SECTIONS AND DETAILS 1	DESIGNED	JC/MH
TARDEV-HYD-CWG-PS-DR-C-0002	SITE SECTIONS AND DETAILS 2	CHECKED	ES/DG
TARDEV-HYD-CWG-PS-DR-C-0003	SWITCHYARD PLAN	CHECKED	ES
DATE		26/09/2025	
HT AGREED		ES	
HT ACCEPTED		ES	



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CLIENT	HYDRO TASMANIA	SCALE	1:250
TITLE	TARRALEAH REDEVELOPMENT GENERAL ARRANGEMENT POWER STATION SECTION	REV	
DRAWING	TARDEV-HYD-AGA-XX-DR-C-0014	SIZE	A1



NORTHEAST OVERVIEW
NTS

NOTES:

1. REPRESENTATIVE RENDER OF REFERENCE DESIGN, ALL LEVELS AND DETAILS ARE INDICATIVE ONLY.
2. DESIGN MODEL DOES NOT INCLUDE ALL SURFACES, EXISTING INFRASTRUCTURE AND DESIGN ELEMENTS.
3. ALL DETAILS SUBJECT TO FINAL DESIGN IN ACCORDANCE WITH HYDRO TASMANIA'S REQUIREMENTS, WHICH INCLUDE ARCHITECTURAL PRINCIPLES FOR THE FACADE WHICH IS TO SCREEN THE PRIMARY STRUCTURE AND ALL ROOF DRAINAGE.
4. BUILDING ENVELOPE SUBJECT TO FINAL DESIGN INCLUDING EQUIPMENT SIZE AND HANDLING REQUIREMENTS

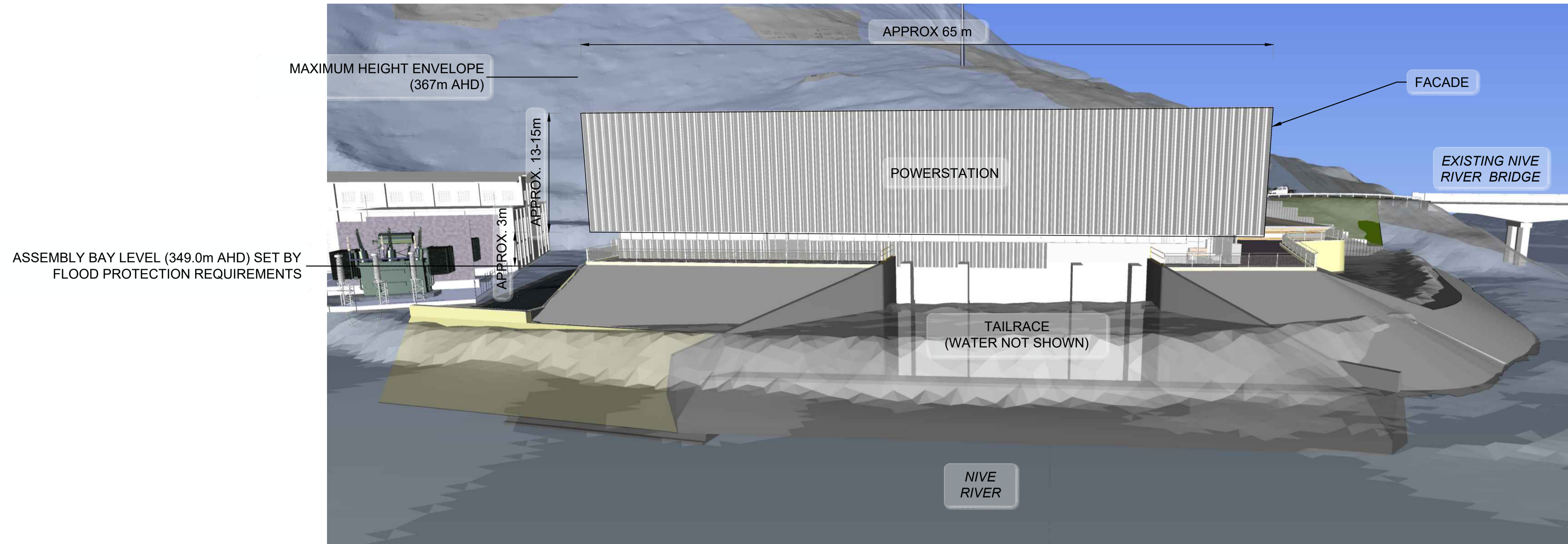
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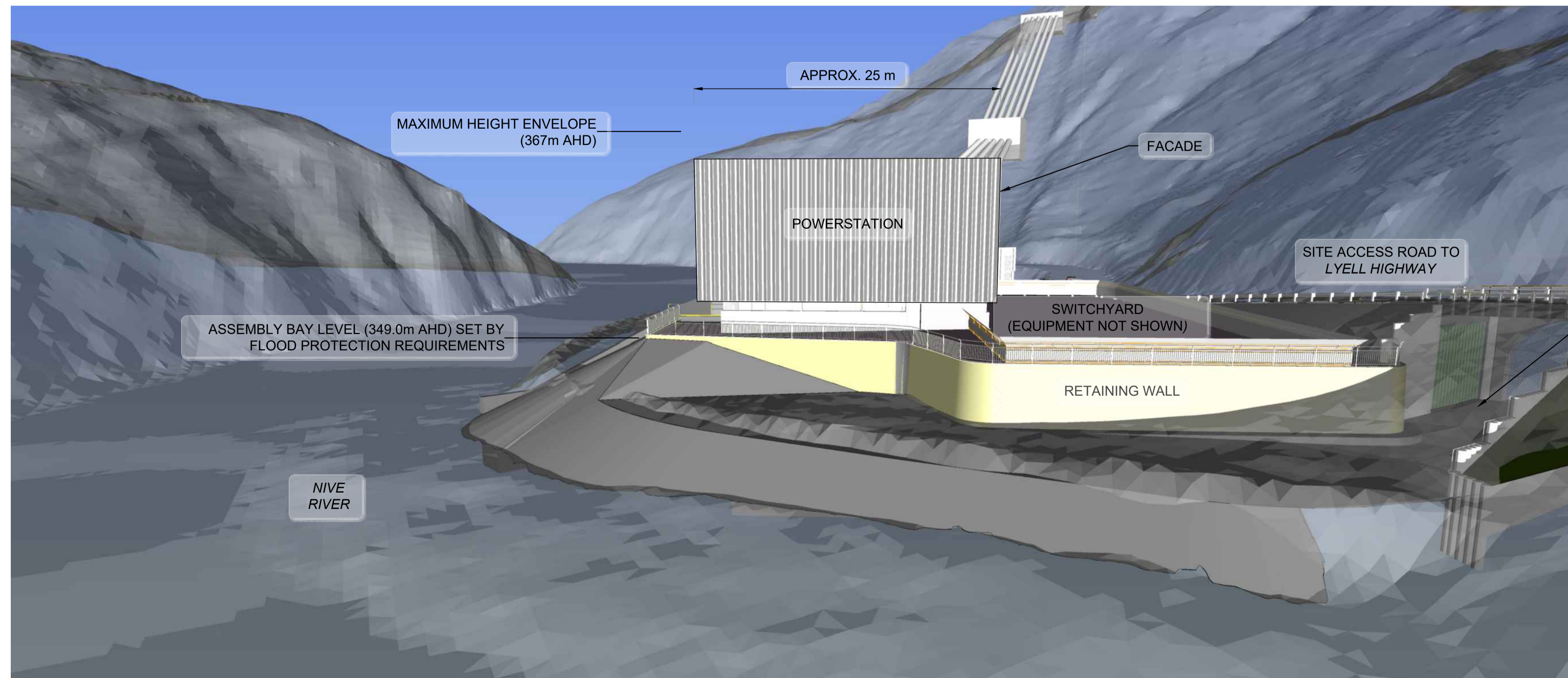
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		DESIGNED	-
		CHECKED	-
		APPROVED	ES
		DATE	27/02/2026
		HT AGREED	ES
REPRD FROM	TARDEV-HYD-AGA-XX-M3-C-0001	REV	HT ACCEPTED ES

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CLIENT	HYDRO TASMANIA	SCALE	
TITLE	TARRALEAH REDEVELOPMENT POWER STATION SITE NORTHEAST OVERVIEW		
DRAWING	TARDEV-HYD-CAR-PS-DR-C-0001	REV	X1
		SIZE	A1



EASTERN ELEVATION
NTS



NORTHERN ELEVATION
NTS

NOTES:

1. REPRESENTATIVE RENDER OF REFERENCE DFESIGN, ALL LEVELS AND DETAILS ARE INDICATIVE ONLY.
2. DESIGN MODEL DOES NOT INCLUDE ALL SURFACES, EXISTING INFRASTRUCTURE AND DESIGN ELEMENTS.
3. ALL DETAILS SUBJECT TO FINAL DESIGN IN ACCORDANCE WITH HYDRO TASMANIA'S REQUIREMENTS, WHICH INCLUDE ARCHITECTURAL PRINCIPLES FOR THE FACADE WHICH IS TO SCREEN THE PRIMARY STRUCTURE AND ALL ROOF DRAINAGE.
4. BUILDING ENVELOPE SUBJECT TO FINAL DESIGN INCLUDING EQUIPMENT SIZE AND HANDLING REQUIREMENTS

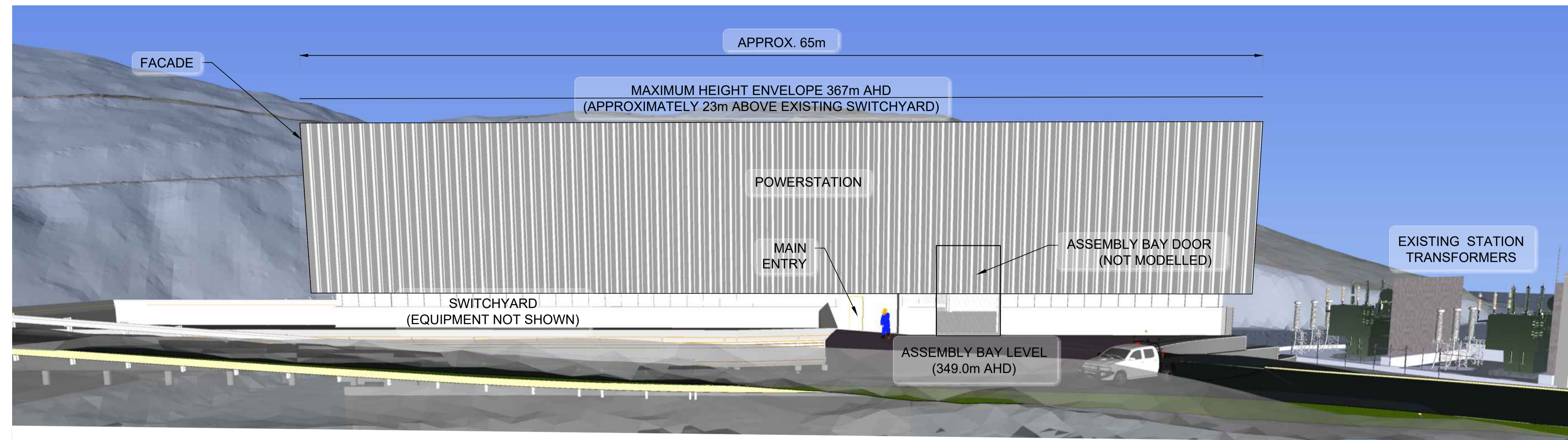
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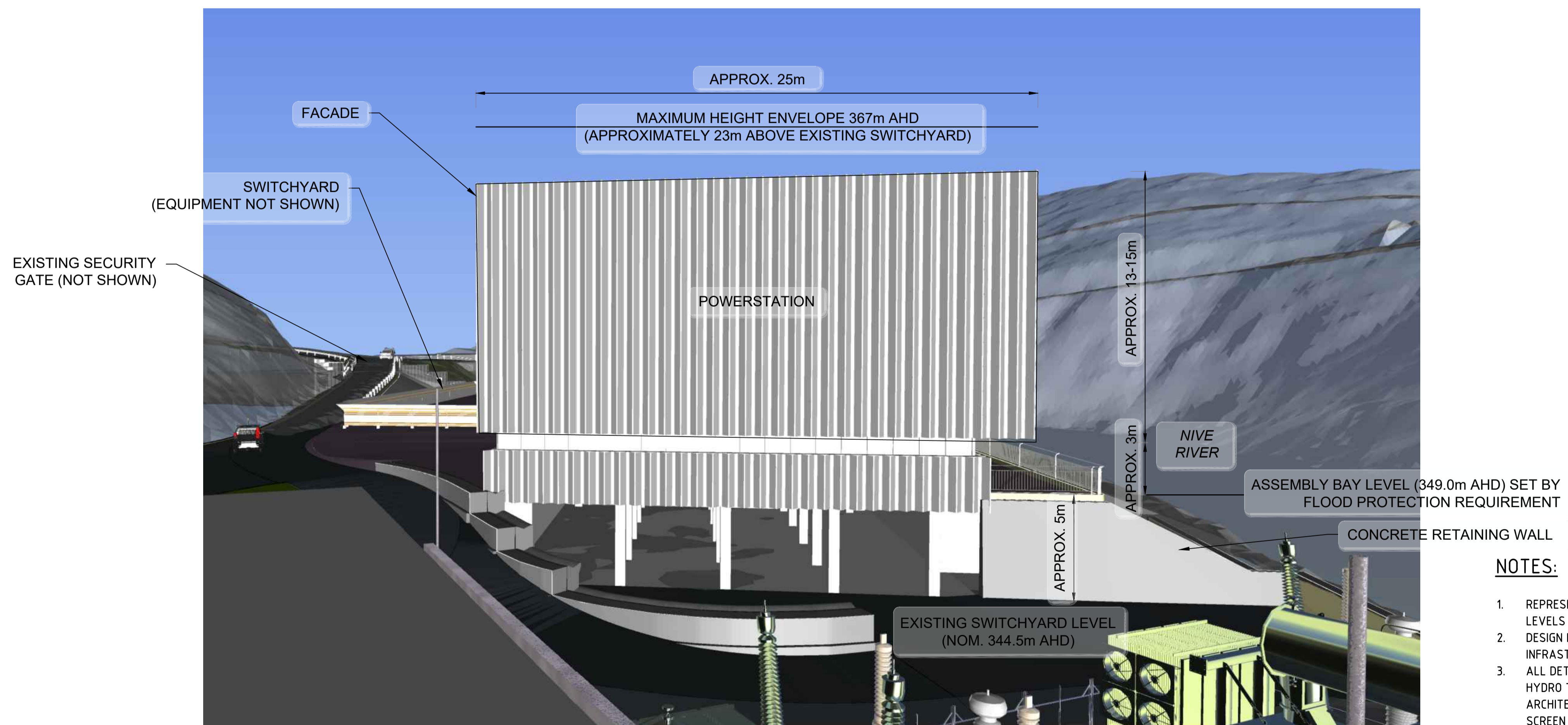
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		DESIGNED	-
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		APPROVED	ES
		DATE	27/02/2026
		HT AGREED	ES
REP'D FROM	TARDEV-HYD-AGA-XX-M3-C-0001	REV	HT ACCEPTED

-	CLIENT	HYDRO TASMANIA	SCALE
-	TITLE	TARRALEAH REDEVELOPMENT POWER STATION SITE NORTHERN & EASTERN ELEVATIONS	
-	DRAWING	TARDEV-HYD-CAR-PS-DR-C-0002	REV X1 SIZE A1

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WESTERN ELEVATION
NTS



SOUTHERN ELEVATION
NTS

NOTES:

1. REPRESENTATIVE RENDER OF REFERENCE DFESIGN, ALL LEVELS AND DETAILS ARE INDICATIVE ONLY.
2. DESIGN MODEL DOES NOT INCLUDE ALL SURFACES, EXISTING INFRASTRUCTURE AND DESIGN ELEMENTS.
3. ALL DETAILS SUBJECT TO FINAL DESIGN IN ACCORDANCE WITH HYDRO TASMANIA'S REQUIREMENTS, WHICH INCLUDE ARCHITECTURAL PRINCIPLES FOR THE FACADE WHICH IS TO SCREEN THE PRIMARY STRUCTURE AND ALL ROOF DRAINAGE.
4. BUILDING ENVELOPE SUBJECT TO FINAL DESIGN INCLUDING EQUIPMENT SIZE AND HANDLING REQUIREMENTS

ALTERATIONS

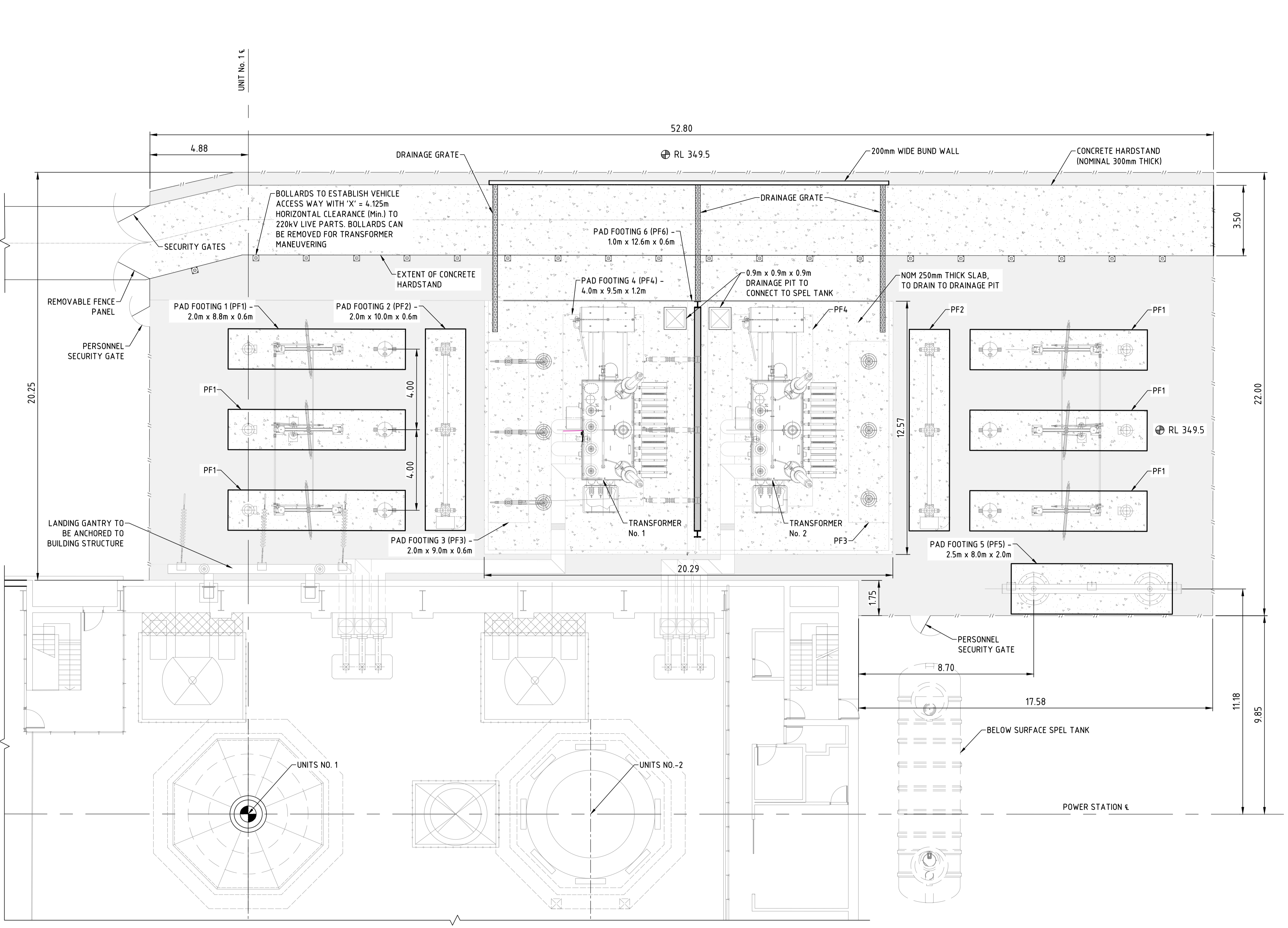
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		DESIGNED	-
		CHECKED	-
		APPROVED	ES
		DATE	27/02/2026
		HT AGREED	ES
REP'D FROM	TARDEV-HYD-AGA-XX-M3-C-0001	REV	HT ACCEPTED ES



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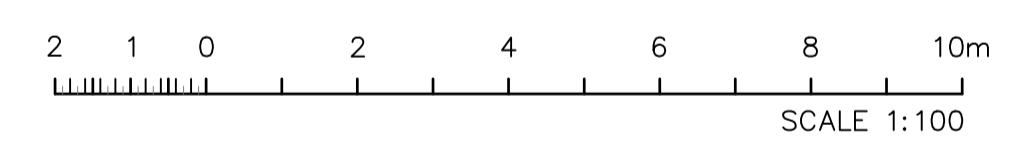
CLIENT		HYDRO TASMANIA	SCALE
TITLE		TARRALEAH REDEVELOPMENT POWER STATION SITE WESTERN & SOUTHERN ELEVATIONS	
DRAWING	TARDEV-HYD-CAR-PS-DR-C-0003	REV	SIZE
		X1	A1



PLAN - SWITCHYARD
SCALE 1:100

LEGEND:

- SECURITY FENCING
- COMPACTED HARDSTAND MATERIAL WITH ASPHALT SPRAY SEAL SURFACE SUITABLE FOR CRANE ACCESS FOR MAINTENANCE.



NOTE:

1. ALL DIMENSIONS, CHAINAGES ARE IN m AND ELEVATIONS, LEVELS ARE IN m AHD 1983.
2. UNDERGROUND OIL SEPARATORS BENEATH THE TRANSFORMERS WHICH CONNECT TO THE SPEL TANK, NOT SHOWN IN THIS DRAWING.
3. REFER TO DRAWING TARDEV-HYD-SUR-XX-DR-C-001 FOR REFERENCE POINT AND SETOUT.
4. FOOTING AND CONCRETE SLAB DIMENSIONS AND THICKNESSES ARE NOMINAL ONLY.

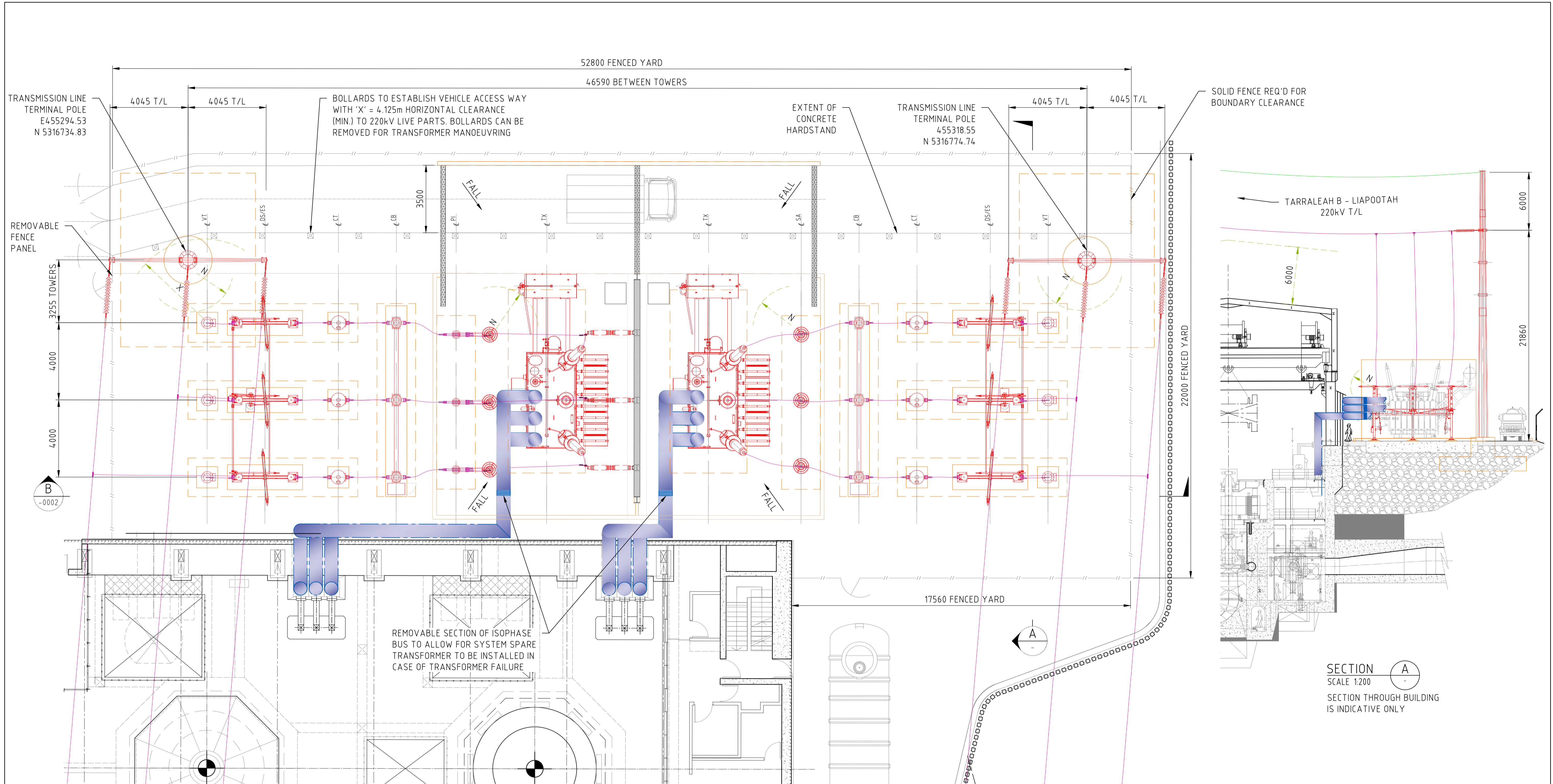
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 ELECTRONIC DOCUMENT CONTROL - UNCONTROLLED IF PRINTED

REFERENCES		DRAWN	PO
TARDEV-HYD-AGA-XX-DR-C-0010	GENERAL ARRANGEMENT POWER STATION	CHECKED	MH
TARDEV-HYD-CWG-PS-DR-C-0001	SITE SECTIONS AND DETAILS 1	DESIGNED	DD/GS
TARDEV-HYD-CWG-PS-DR-C-0002	SITE SECTIONS AND DETAILS 2	CHECKED	JC
TARDEV-HYD-CWG-PS-DR-C-0004	SITE CIVIL WORKS	APPROVED	ES/GB
TARDEV-ENT-EP5-SY-DR-E-0001	GENERAL ARRANGEMENT SWITCHYARD	DATE	-
		HT AGREED	-
		HT ACCEPTED	-

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CLIENT	HYDRO TASMANIA	SCALE	1:100
TITLE	TARRALEAH REDEVELOPMENT POWER STATION SITE SWITCHYARD CIVIL WORKS	REV	
DRAWING	TARDEV-HYD-CWG-PS-DR-C-0003	SIZE	A1



TARRALEAH B - LIAPOOTAH
220kV T/L No.1

PLAN VIEW 1
SCALE 1:100

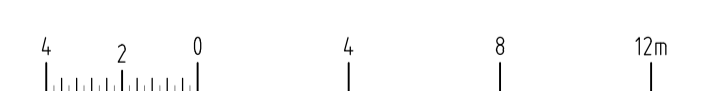
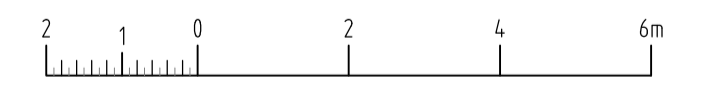
TARRALEAH B - LIAPOOTAH
220kV T/L No.2

ELECTRICAL CLEARANCES

- N = 2225mm (NON FLASHOVER)
- G = 2440mm (GROUND CLEARANCE)
- P = 2415mm (PHASE TO PHASE)
- X = 4125mm (HORIZONTAL CLEARANCE)
- S = 4665mm (SECTION CLEARANCE)

LEGEND

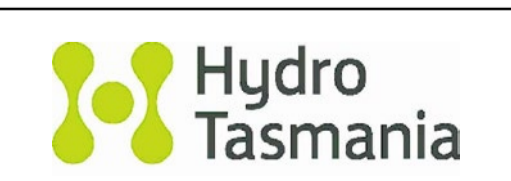
- NEW EQUIPMENT
- NEW FOUNDATIONS - ABOVE GROUND
- NEW FOUNDATION - BELOW GROUND
- ISOPHASE BUS
- ELECTRICAL CLEARANCES
- CONDUCTOR
- OPTICAL GROUND WIRE



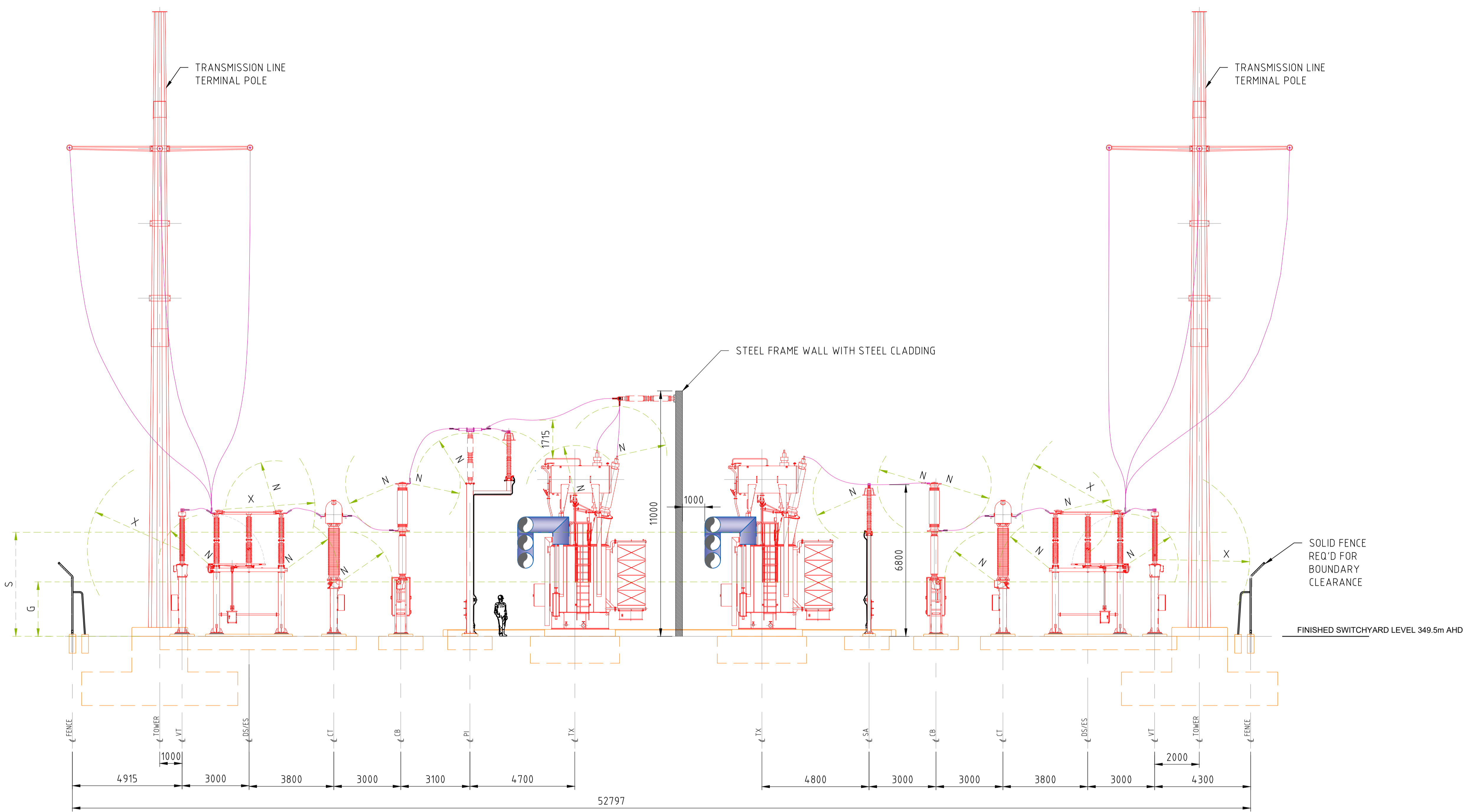
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**NOT FOR CONSTRUCTION
REFERENCE DESIGN**
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ELECTRONIC DOCUMENT CONTROL - UNCONTROLLED IF PRINTED

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		CHECKED	GT
		DESIGNED	GT
		CHECKED	DdG
		APPROVED	D.deGROOT
		DATE	07/05/2025
		HT AGREED	-
REPRO FROM		REV	HT ACCEPTED



CLIENT	HYDRO TASMANIA	SCALE	AS SHOWN
TITLE	TARRALEAH B 220kV SWITCHYARD GENERAL ARRANGEMENT AND SECTION A LIAPOOTAH CONNECTION	REV	
DRAWING	TARDEV-ENT-EPS-SY-DR-E-0002	SIZE	A1



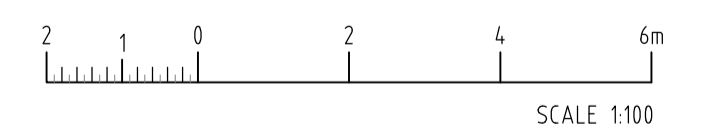
SECTION B
SCALE 1:100

LEGEND

- NEW EQUIPMENT
- NEW FOUNDATIONS - ABOVE GROUND
- - - NEW FOUNDATIONS - BELOW GROUND
- ISOPHASE BUS
- - - ELECTRICAL CLEARANCES
- CONDUCTOR
- OPTICAL GROUND WIRE

ELECTRICAL CLEARANCES

- N = 2225mm (NON FLASHOVER)
- G = 2440mm (GROUND CLEARANCE)
- P = 2415mm (PHASE TO PHASE)
- X = 4125mm (HORIZONTAL CLEARANCE)
- S = 4665mm (SECTION CLEARANCE)



ALTERATIONS

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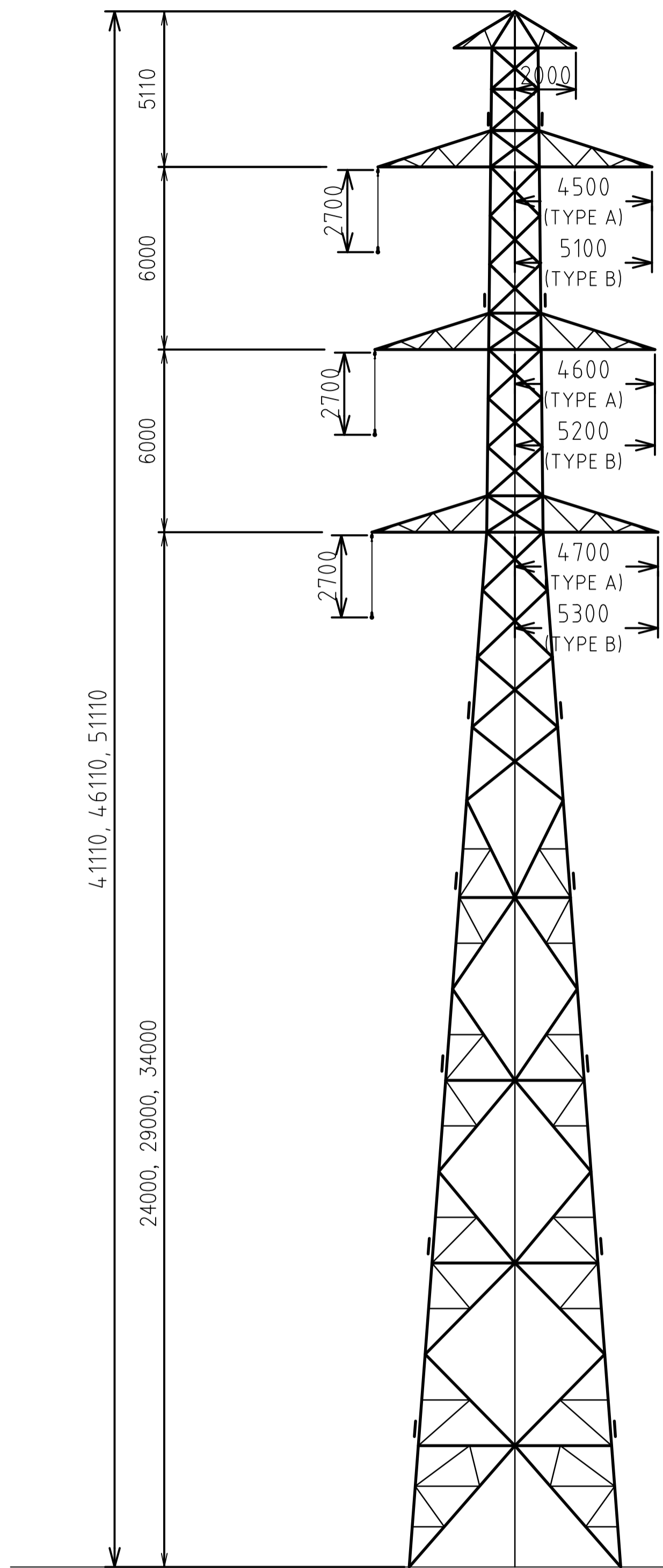
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		HT ACCEPTED	-



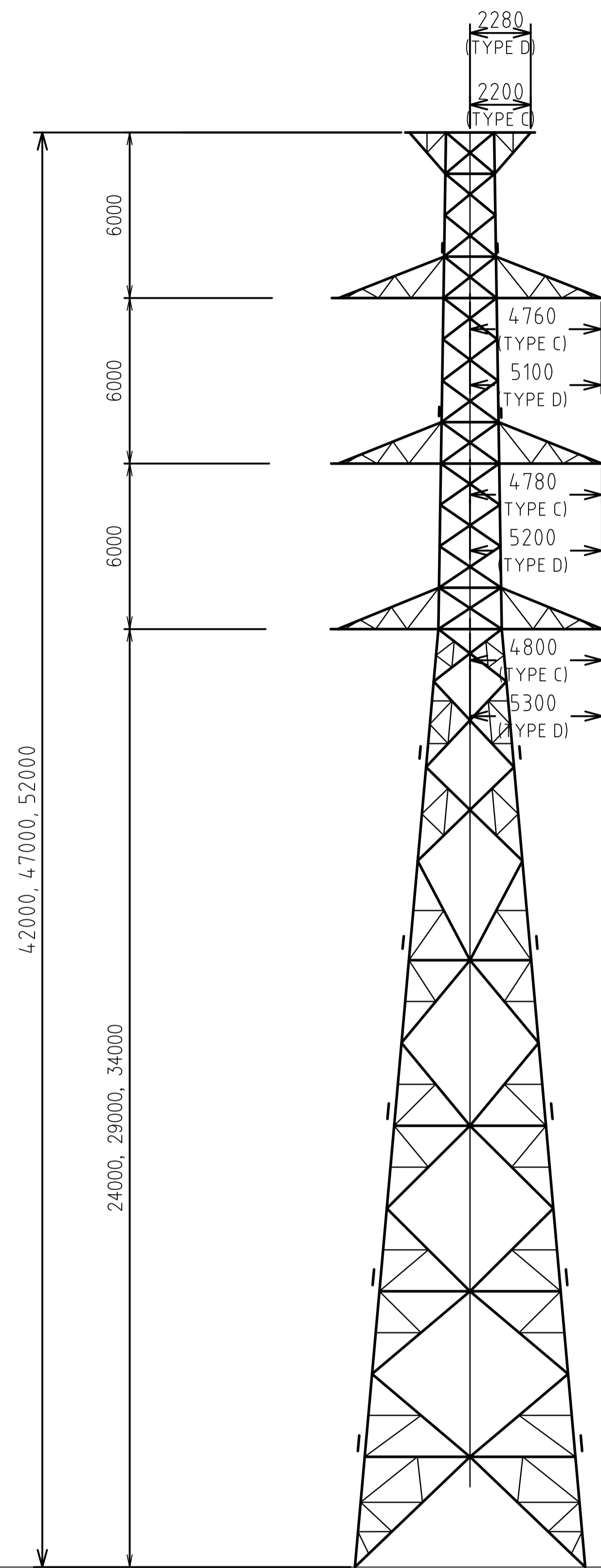
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CLIENT	HYDRO TASMANIA	SCALE	1:100
TITLE	TARRALEAH B 220kV SWITCHYARD SECTION B LIAPOOTAH CONNECTION	REV	
DRAWING	TARDEV-ENT-EPS-SY-DR-E-0003	SIZE	A1

A B C D E



TYPE-A & B
(SUSPENSION TOWER)
MAX HEIGHT = 51.1m



TYPE-C & D
(STRAIN TOWER)
MAX HEIGHT = 52m

ALTERATIONS

FOR INFORMATION ONLY

REFERENCES

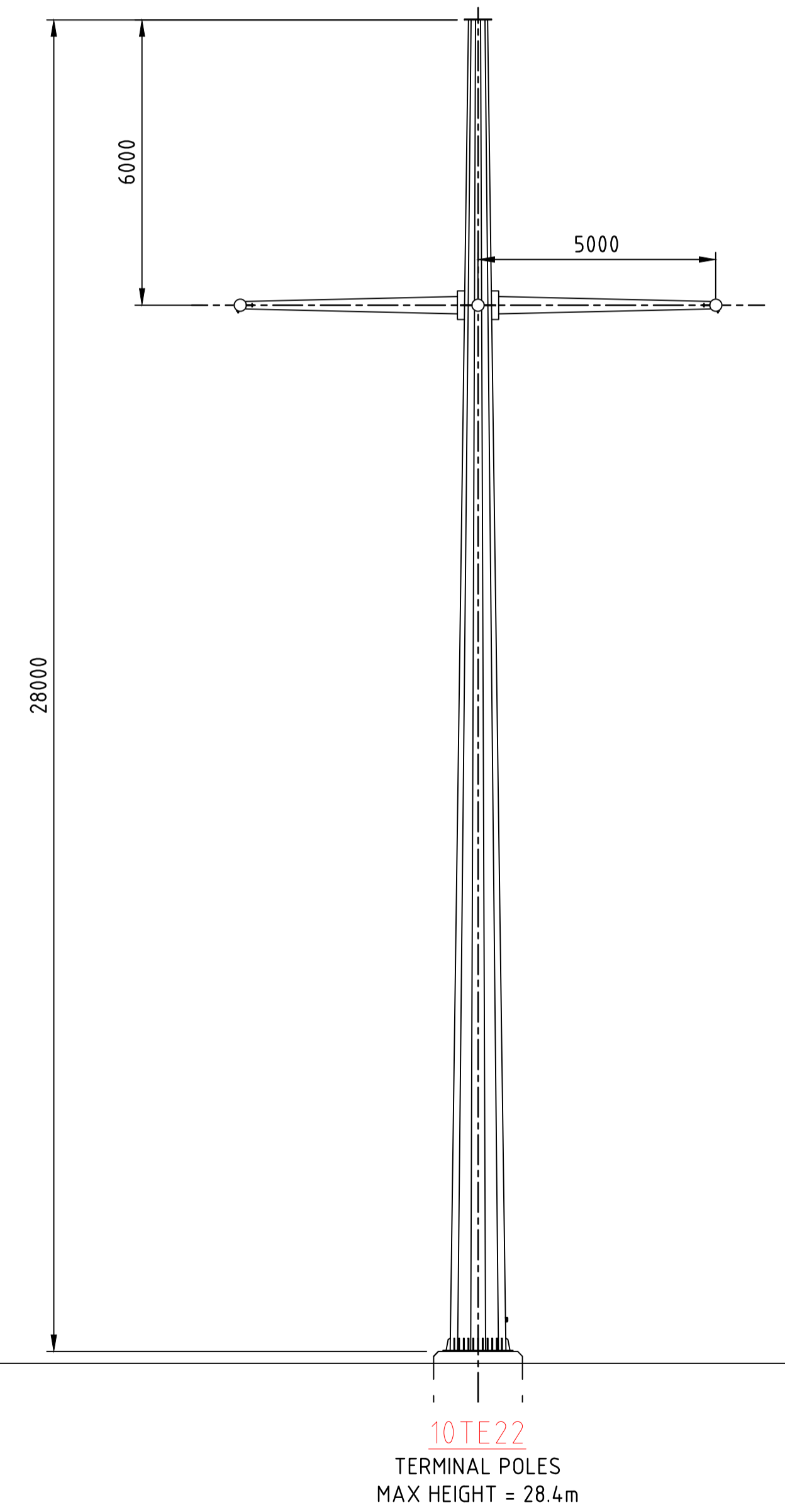
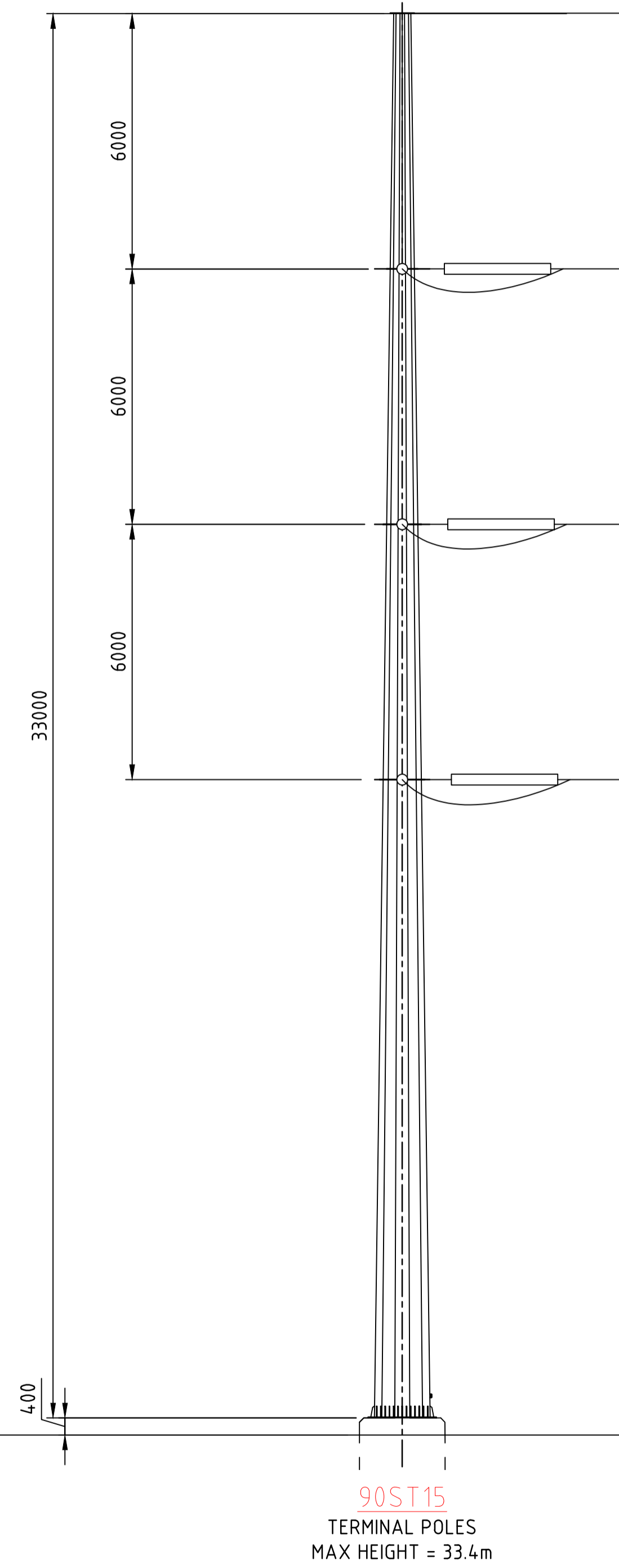
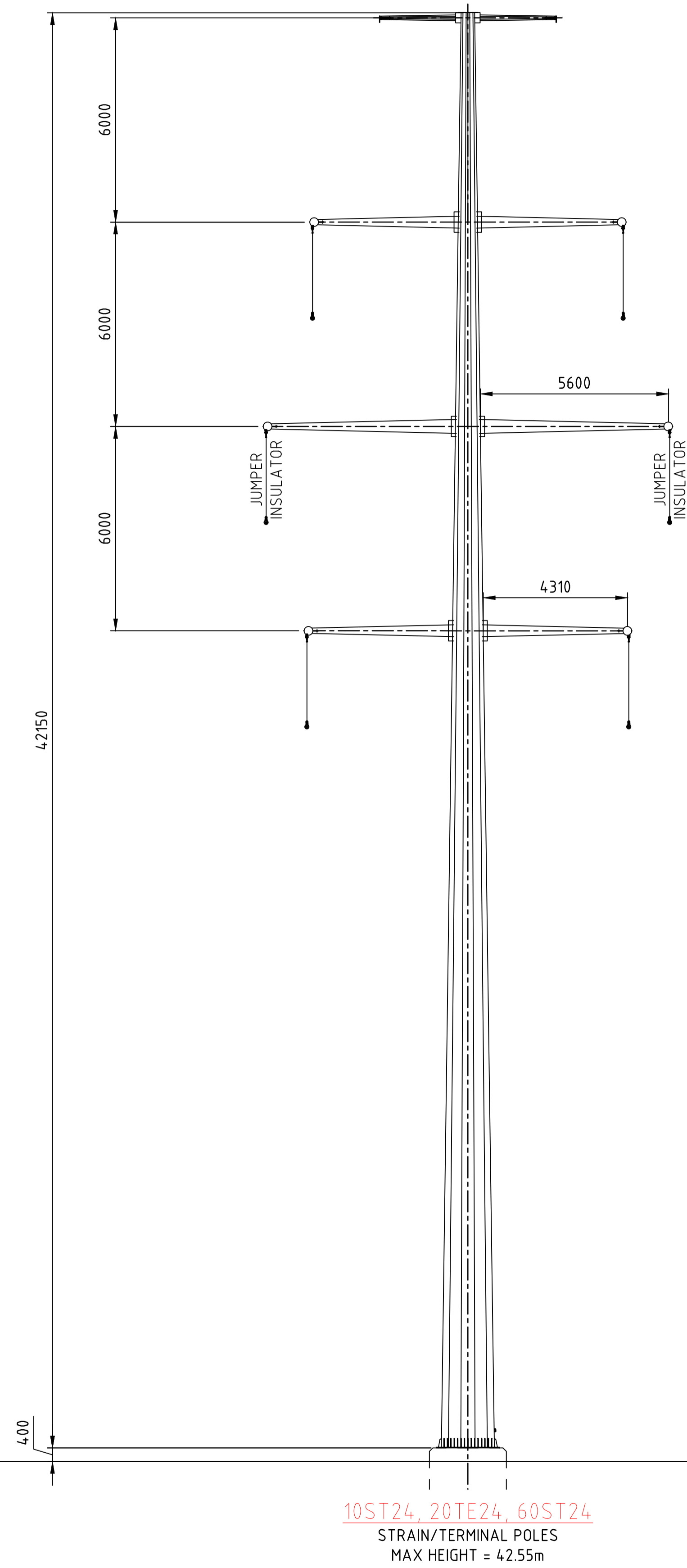
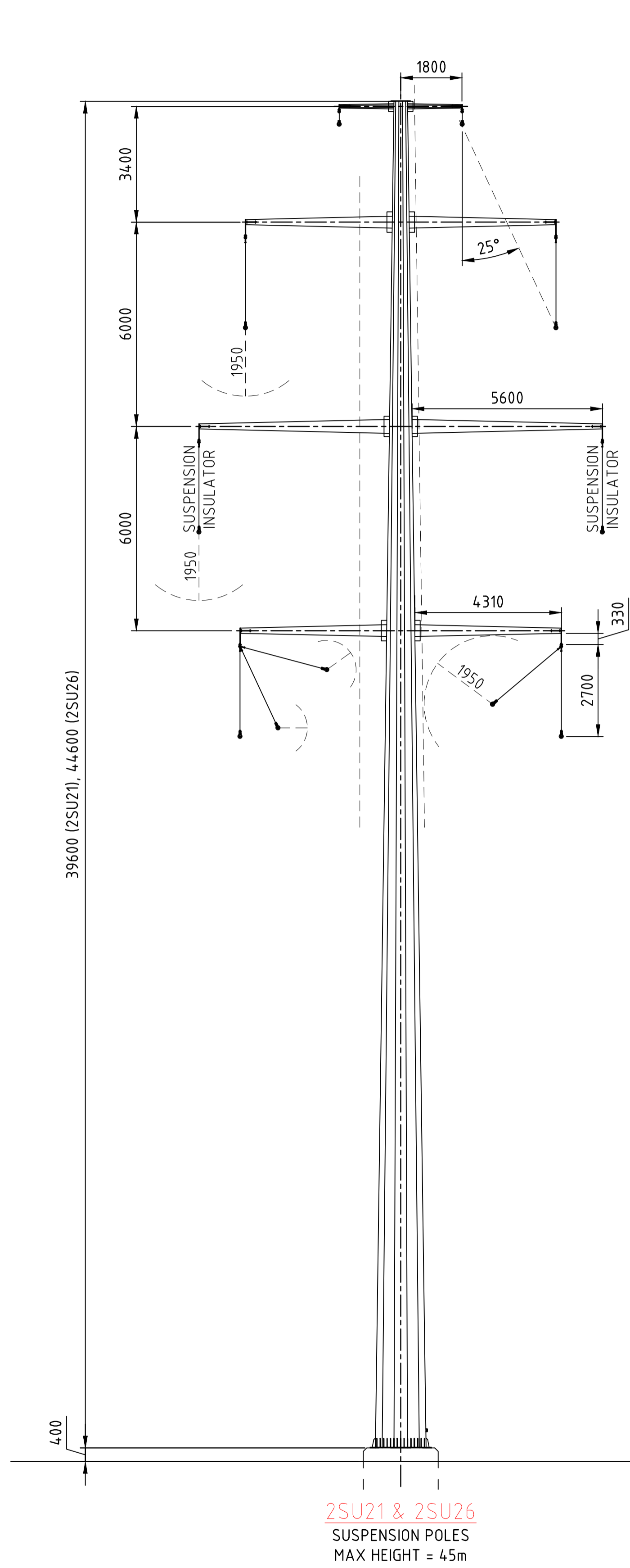
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CHECKED	
APPROVED	
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CLIENT APP'D	
DATE	



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CLIENT:	ENGAGEMENT No:	SCALE:
TITILE:	TARRALEAH REDEVELOPMENT	NTS
TRANSMISSION LINE CONCEPT		
TYPICAL TRANSMISSION LINE STRUCTURES		
NORTHERN ROUTE		
DRG No:	TARDEV-ENT-TBG-TL01-ST-D14-0000	SHT:
		PH

A B C D E F



ALTERATIONS

FOR INFORMATION ONLY

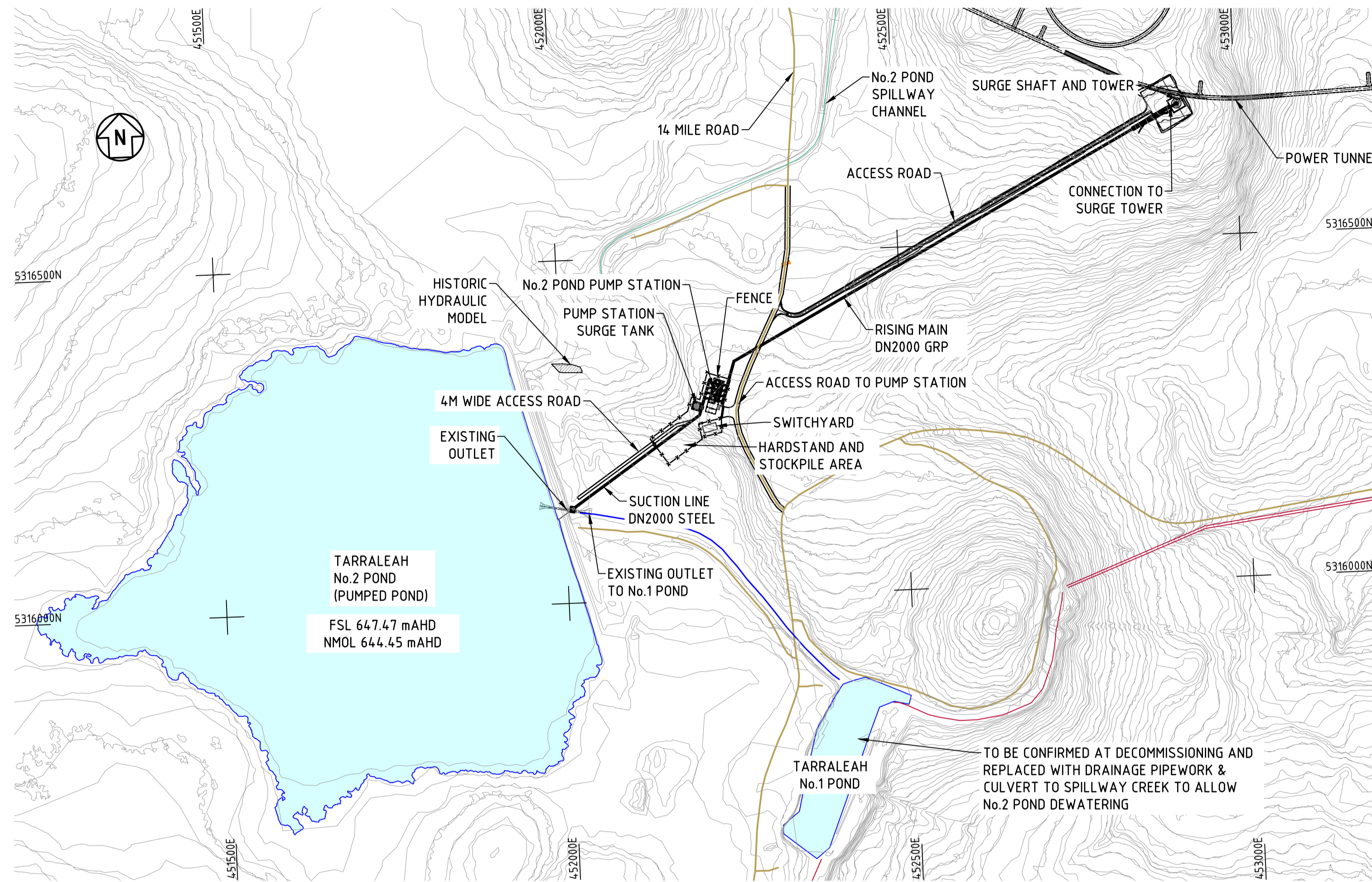
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DATE	

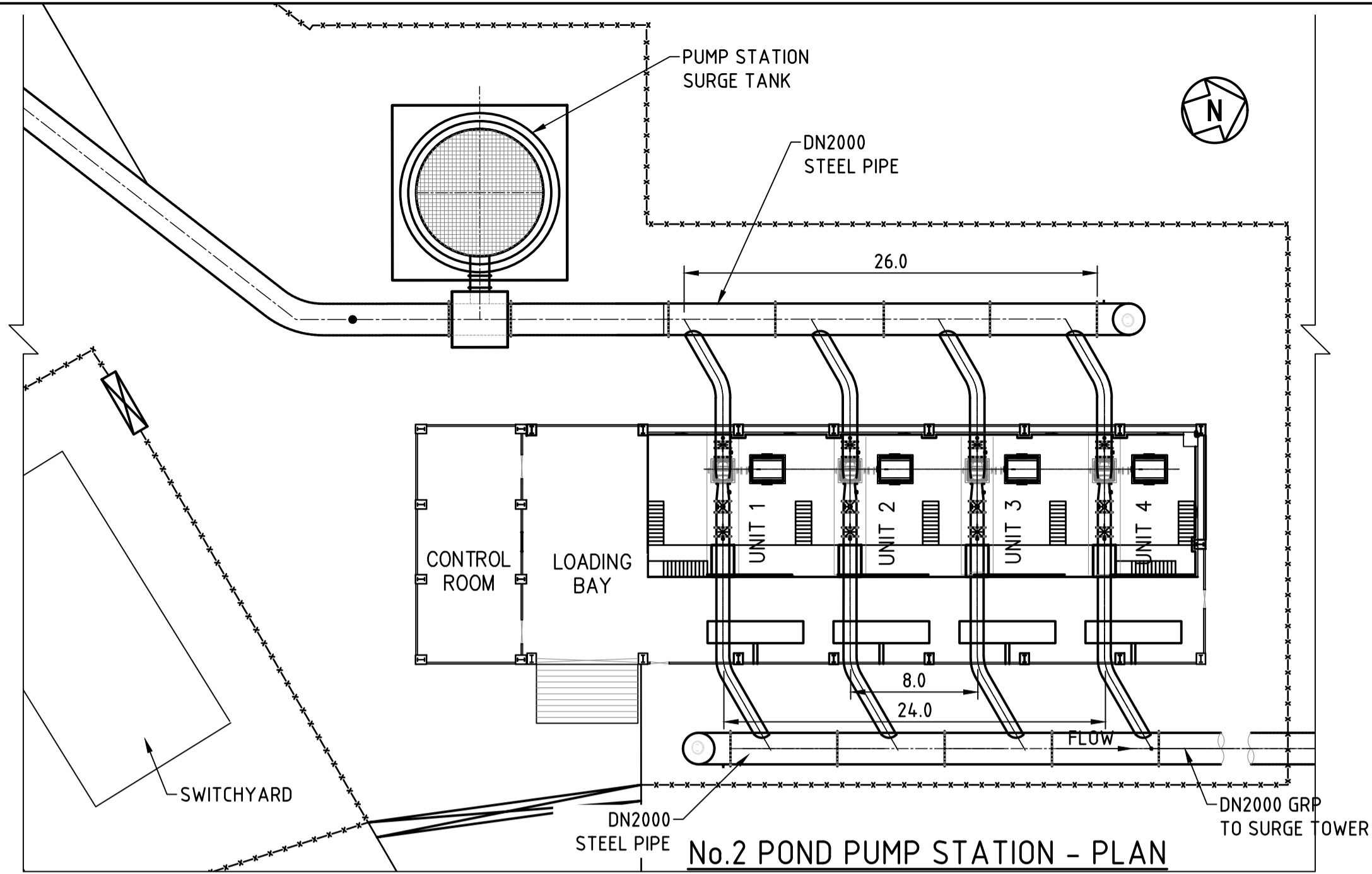
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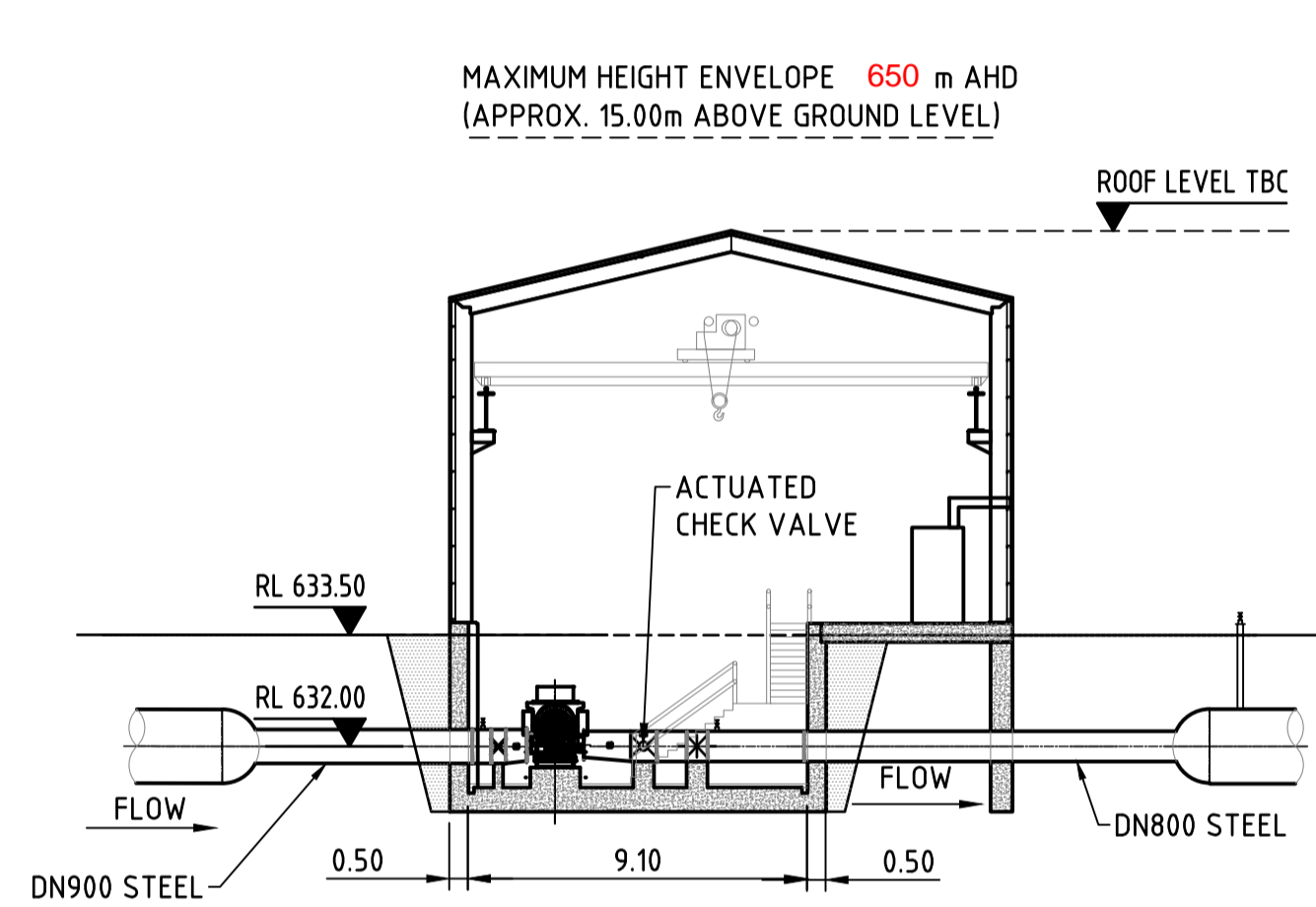
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TRANSMISSION LINE CONCEPT		
TYPICAL TRANSMISSION LINE STRUCTURES		
SOUTHERN ROUTE		
ORG No:	TARDEV-ENT-TBG-TL01-ST-D14-0001	SHT:
		REV:
		PH



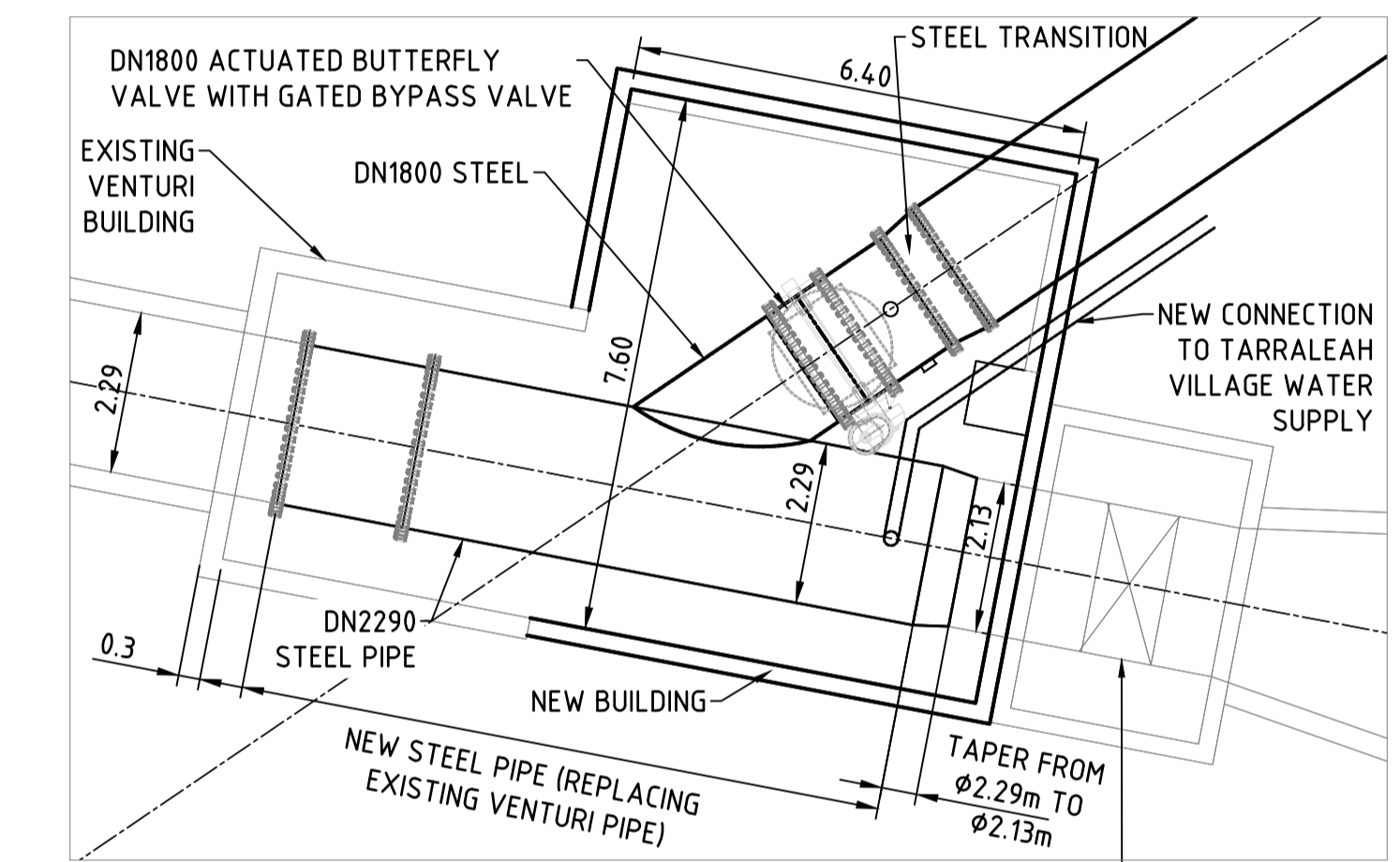
No.2 POND PUMP STATION - LOCATION PLAN
SCALE 1:5000



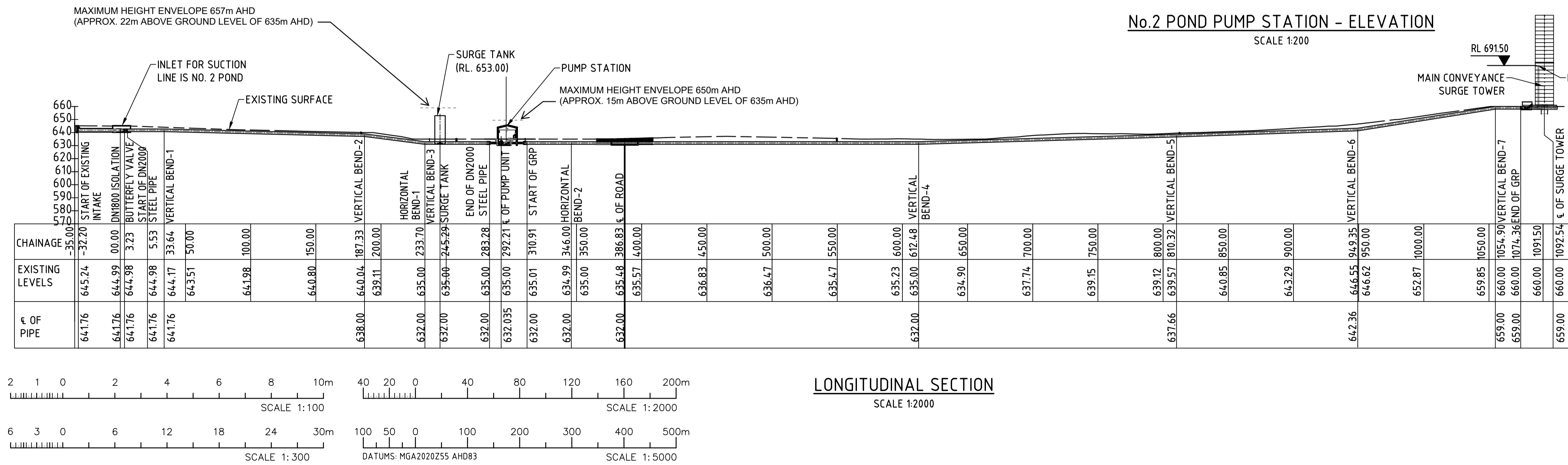
No.2 POND PUMP STATION - PLAN
SCALE 1:300



No.2 POND PUMP STATION - ELEVATION
SCALE 1:200



CONNECTION DETAIL AT NO.2 POND
SCALE 1:100



LONGITUDINAL SECTION
SCALE 1:2000

LEGEND:

- X-X-X- FENCED
- E(TEL)- TRANSMISSION LINES
- REDUNDANT INFRASTRUCTURE
- MAINTAIN EXISTING INFRASTRUCTURE
- RIVERS
- ROADS

NOTES:

1. ALL DIMENSIONS AND CHAINAGES ARE IN M AND ELEVATIONS, LEVELS, FULL SUPPLY LEVEL (FSL).
2. PUMPS ARE TO BE LOCATED IN A PIT BELOW NATURAL GROUND SURFACE.

ALTERATIONS

REV	DATE	DESCRIPTION
X1	17/12/2023	ALIGNMENT UPDATED FOR ISSUE FOR RFP
X2	17/12/2023	HEADRAKE AND POWER TUNNEL NORTHERN ALIGNMENT AND POWER STATION SWITCHYARD SITE ADOPTED
X3	22/02/2024	UPDATES FOR REFERENCE DESIGN
X4	16/07/2024	ISSUE
X5	10/02/2025	ENVELOPE HEIGHTS ADDED
ES		
PD		
ES		

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REFERENCE DESIGN
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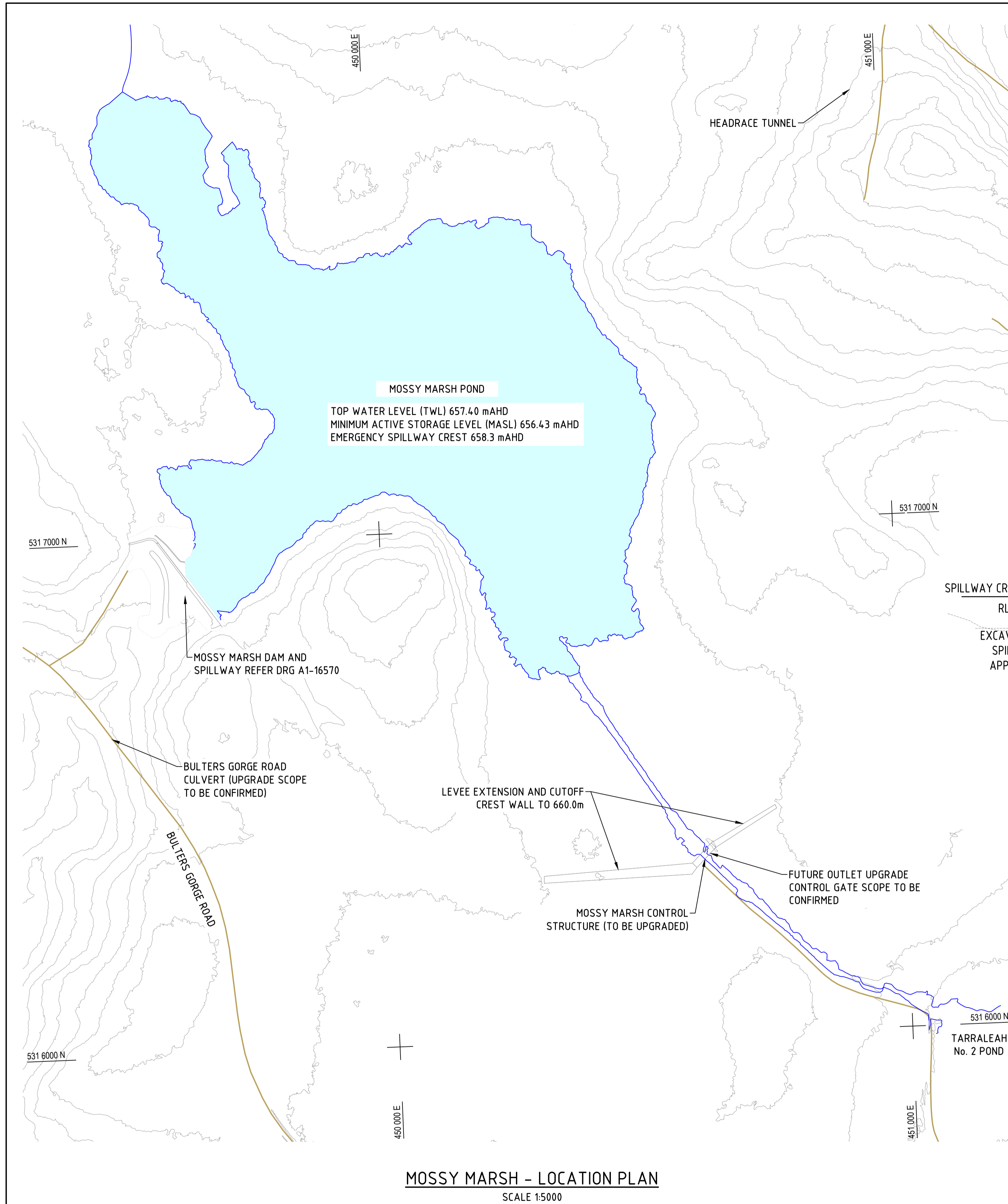
REFERENCES

REF ID	DESCRIPTION	STATUS	DATE
TARDEV-HYD-AGA-XX-DR-C-001	TARRALEAH REDEVELOPMENT PROJECT WIDE SCHEMATIC ARRANGEMENT TYPICAL SECTIONS OF MAJOR STRUCTURES SHEET 7 OF 7	CHECKED	30-05-2024
A1625	TARRALEAH POWER DEVELOPMENT NO.2 CANAL GENERAL ARRANGEMENT PLAN, PROFILE AND SECTIONS SHEETS 1 OF 2	DESIGNED	
A8075	TARRALEAH POWER DEVELOPMENT PUMPED POND OUTLET WORKS GENERAL LAYOUT	CHECKED	
		APPROVED	
		HT AGREED	
		HT ACCEPTED	

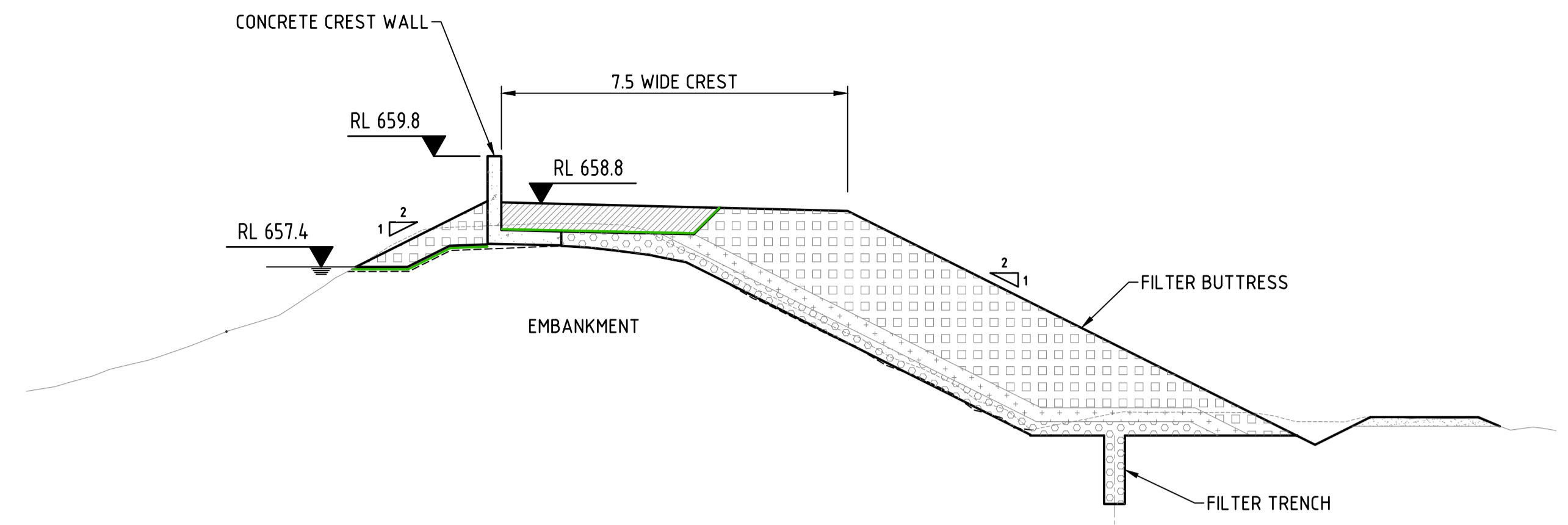
Hydro Tasmania

REV	DATE	DESCRIPTION
PK		
MW		
RAP		
PK		

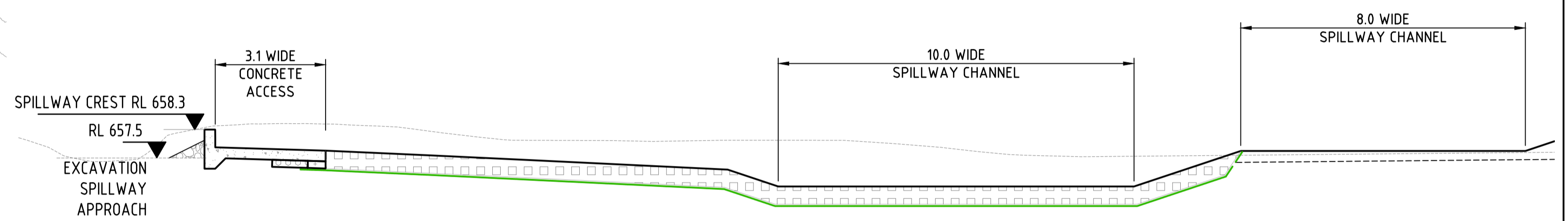
CLIENT	HYDRO TASMANIA
TITLE	TARRALEAH REDEVELOPMENT NO. 2 PUMP STATION GENERAL ARRANGEMENT PLAN AND ELEVATION
DRAWING	TARDEV-HYD-AGA-XX-DR-C-0011
SCALE	AS SHOWN
REV	X5
SIZE	A1



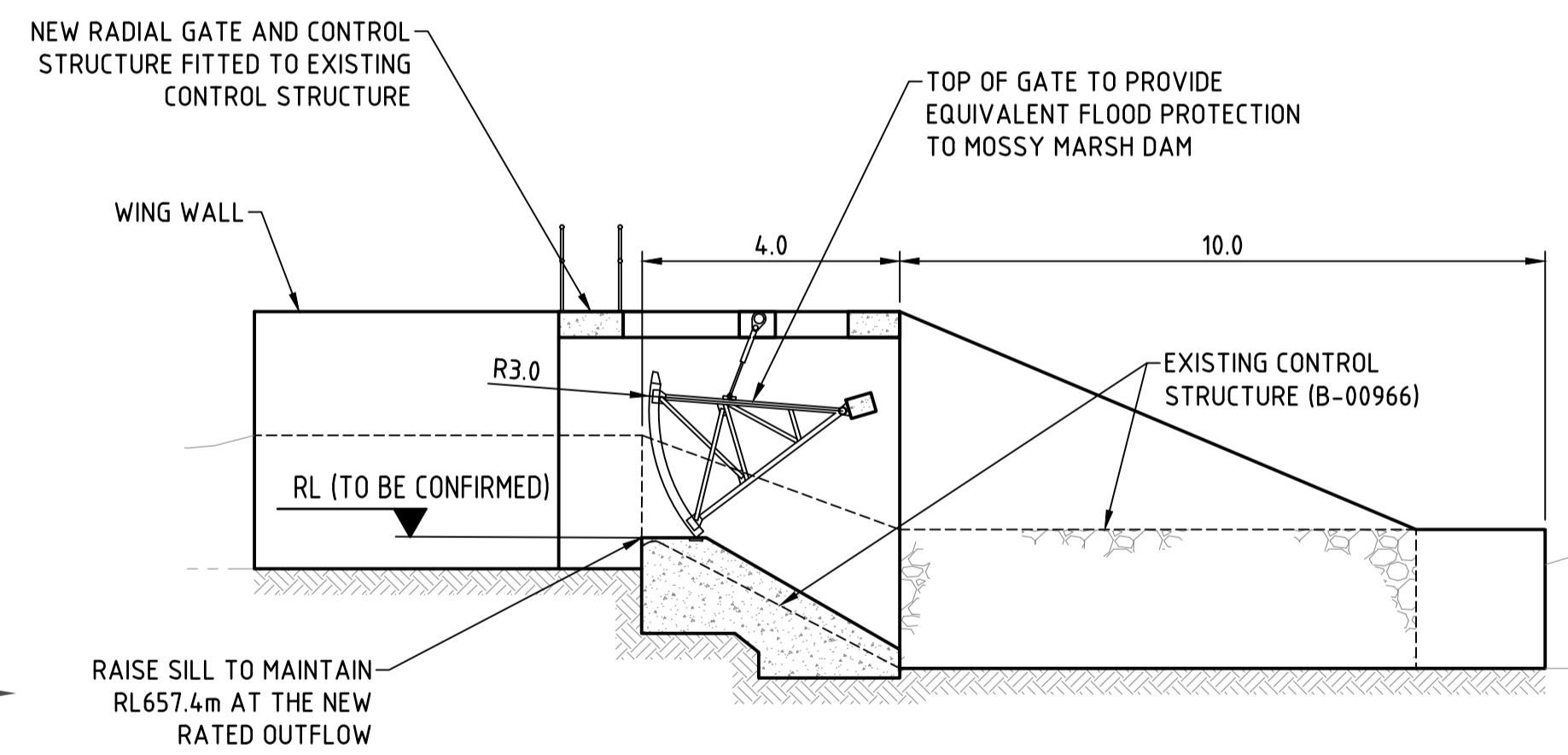
MOSSY MARSH - LOCATION PLAN
SCALE 1:5000



MOSSY MARSH DAM TYPICAL SECTION - UPGRADE COMPLETE
SCALE 1:100



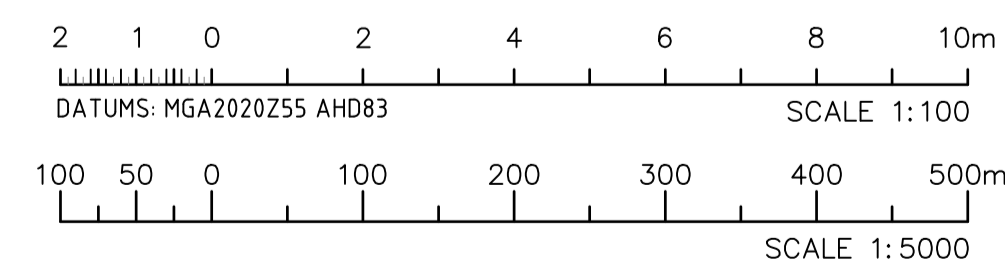
MOSSY MARSH SPILLWAY TYPICAL SECTION - UPGRADE COMPLETE
SCALE 1:100



**MOSSY MARSH CONTROL STRUCTURE UPGRADE
(TO BE CONSTRUCTED BY HYDRO TASMANIA)**
SCALE 1:100

LEGENDS:

- (ETL) TRANSMISSION LINES
- REDUNDANT INFRASTRUCTURE
- MAINTAIN EXISTING INFRASTRUCTURE
- RIVERS
- ROADS
- - - GEO FABRIC
- ROAD BASE
- CONCRETE
- ZONE 2A FILTER
- ZONE 2B FILTER
- RIP RAP
- ZONE 3 ROCK FILL



NOTE:

1. ALL DIMENSIONS, CHAINAGES ARE IN m AND ELEVATIONS, LEVELS, FULL SUPPLY LEVEL (FSL), DESIGN FLOOD LEVEL (DFL), NORMAL MINIMUM OPERATING LEVEL (NMOL) ARE IN m AHD 1983.
2. ALL WORKS TO BE DELIVERED BY HYDRO TASMANIA AND NOT PART OF EPC CONTRACT SCOPE

NO.	DATE	DESCRIPTION
X1	17/12/2023	HEADRAKE AND POWER TUNNEL NORTHERN ALIGNMENT AND POWER STATION SWITCHYARD SITE ADOPTED
X2	17/12/2023	ALIGNMENT UPDATED FOR ISSUE FOR RFP
X3	22/02/2024	UPDATES FOR REFERENCE DESIGN
X4	16/07/2024	UPDATES FOR REFERENCE DESIGN

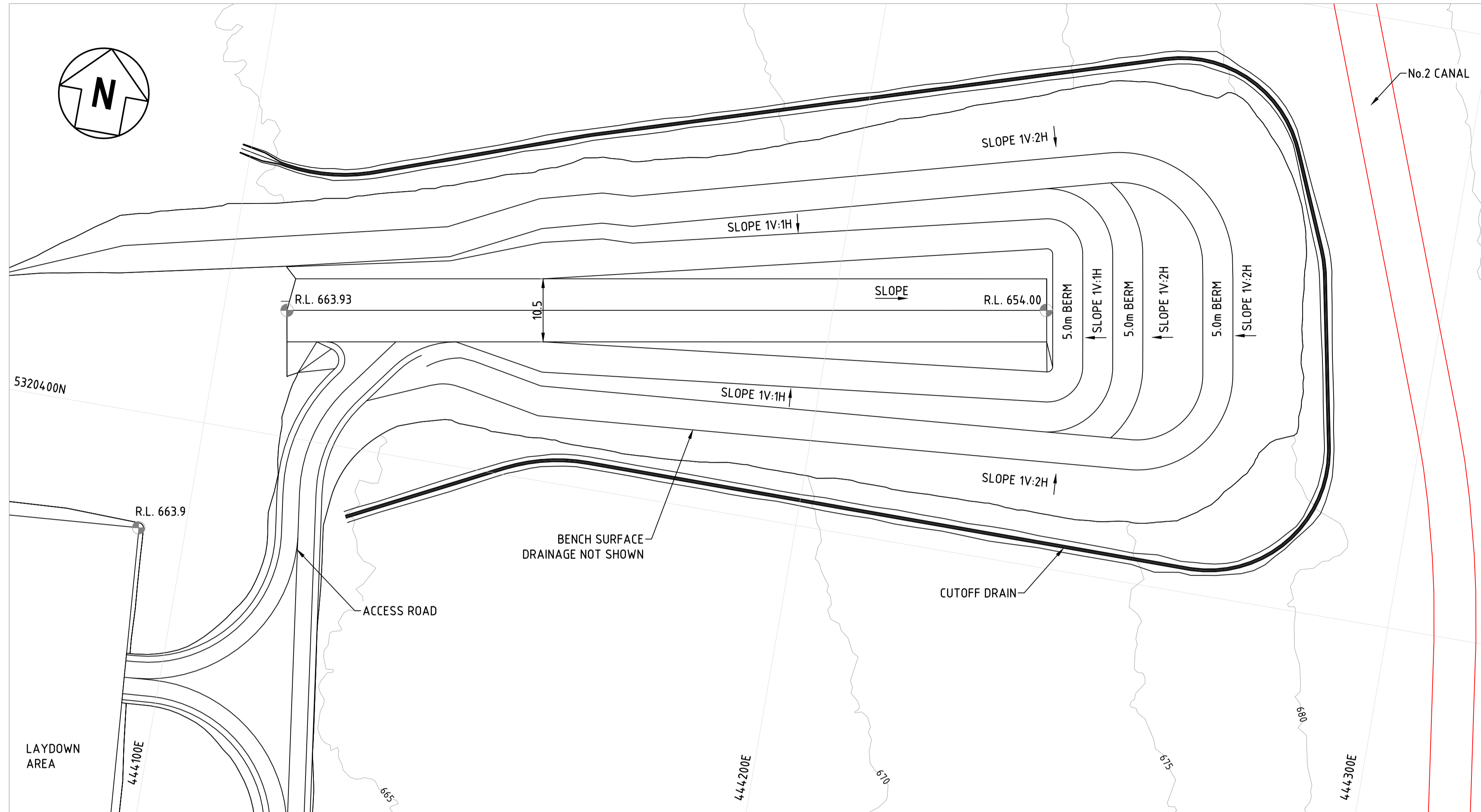
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ELECTRONIC DOCUMENT CONTROL - UNCONTROLLED IF PRINTED

NO.	DATE	DESCRIPTION
A1678		TARRALEAH NO. 2 CANAL, MOSSY MARSH TO PUMPED POND CANAL CONTROL AT CH 1900
A1625		TARRALEAH POWER DEVELOPMENT NO. 2 CANAL GENERAL ARRANGEMENT PLAN, PROFILE & SECTIONS SHEETS 1 OF 2
		TARRALEAH POWER DEVELOPMENT NO. 2 CANAL GENERAL ARRANGEMENT TYPICAL SECTIONS OF MAJOR STRUCTURES SHEETS 2 OF 2

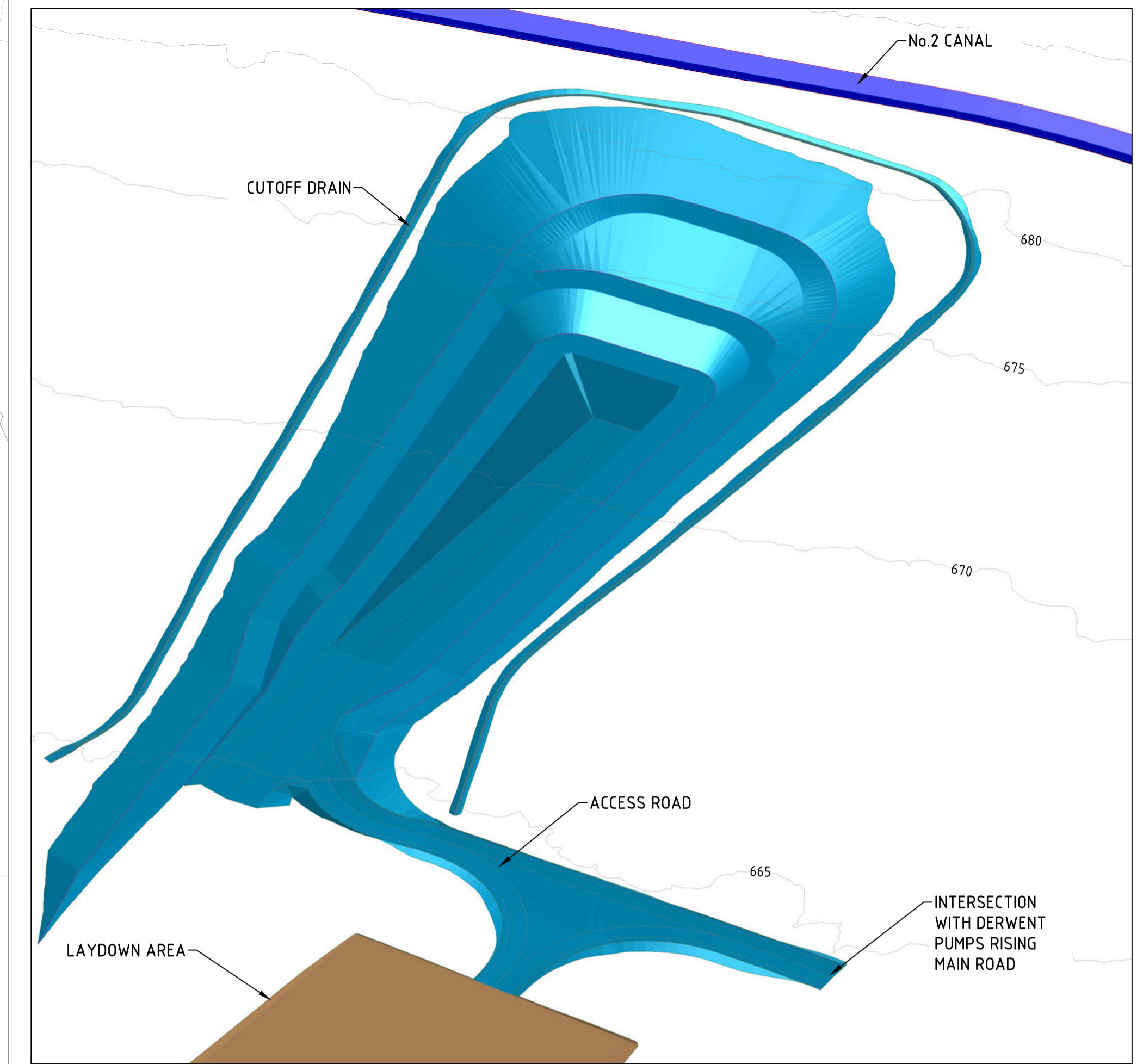
Hydro Tasmania

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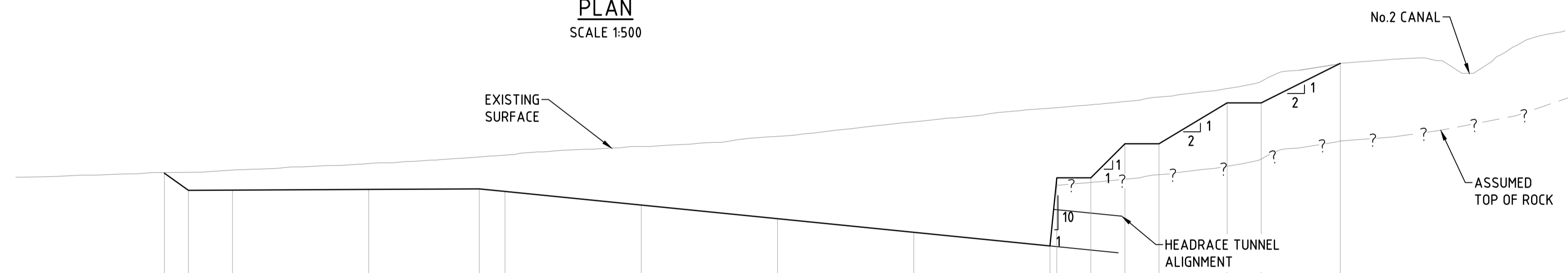
CLIENT	HYDRO TASMANIA
TITLE	TARRALEAH REDEVELOPMENT GENERAL ARRANGEMENT MOSSY MARSH UPGRADES PLAN AND SECTION
DRAWING	TARDEV-HYD-AGA-XX-DR-C-0012
REV	X4
SIZE	A1



PLAN
SCALE 1:500



ISOMETRIC VIEW
NTS

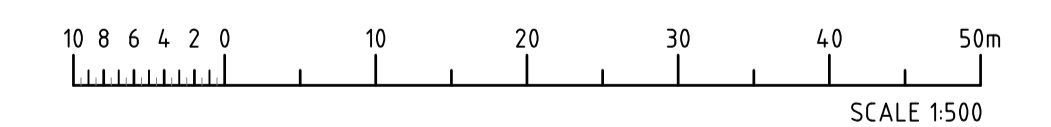


DATUM RL 640.0

CUT -	FILL +	DESIGN SURFACE LEVEL	EXISTING SURFACE LEVEL	CHAINAGE
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	-2.64	662.16	664.80	-126.47
	-2.95	662.20	665.14	-120.00
	-3.81	662.29	666.10	-100.00
	-4.69	662.38	667.06	-83.77
	-5.33	662.00	667.33	-80.00
	-8.60	660.00	668.60	-60.00
	-12.08	658.00	670.08	-4.00
	-16.21	656.00	672.21	-20.00
	-20.21	654.00	674.21	0.00
	-10.29	664.00	674.29	1.00
	-10.72	664.00	674.72	6.00
	-6.20	669.00	675.20	11.00
	-6.86	669.00	675.86	16.00
	-2.11	675.00	677.11	26.00
	-3.15	675.00	678.15	31.00
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LONGITUDINAL SECTION
SCALE 1:500

NOTE:
1. ALL DIMENSION AND ELEVATIONS ARE IN m.



ALTERATIONS

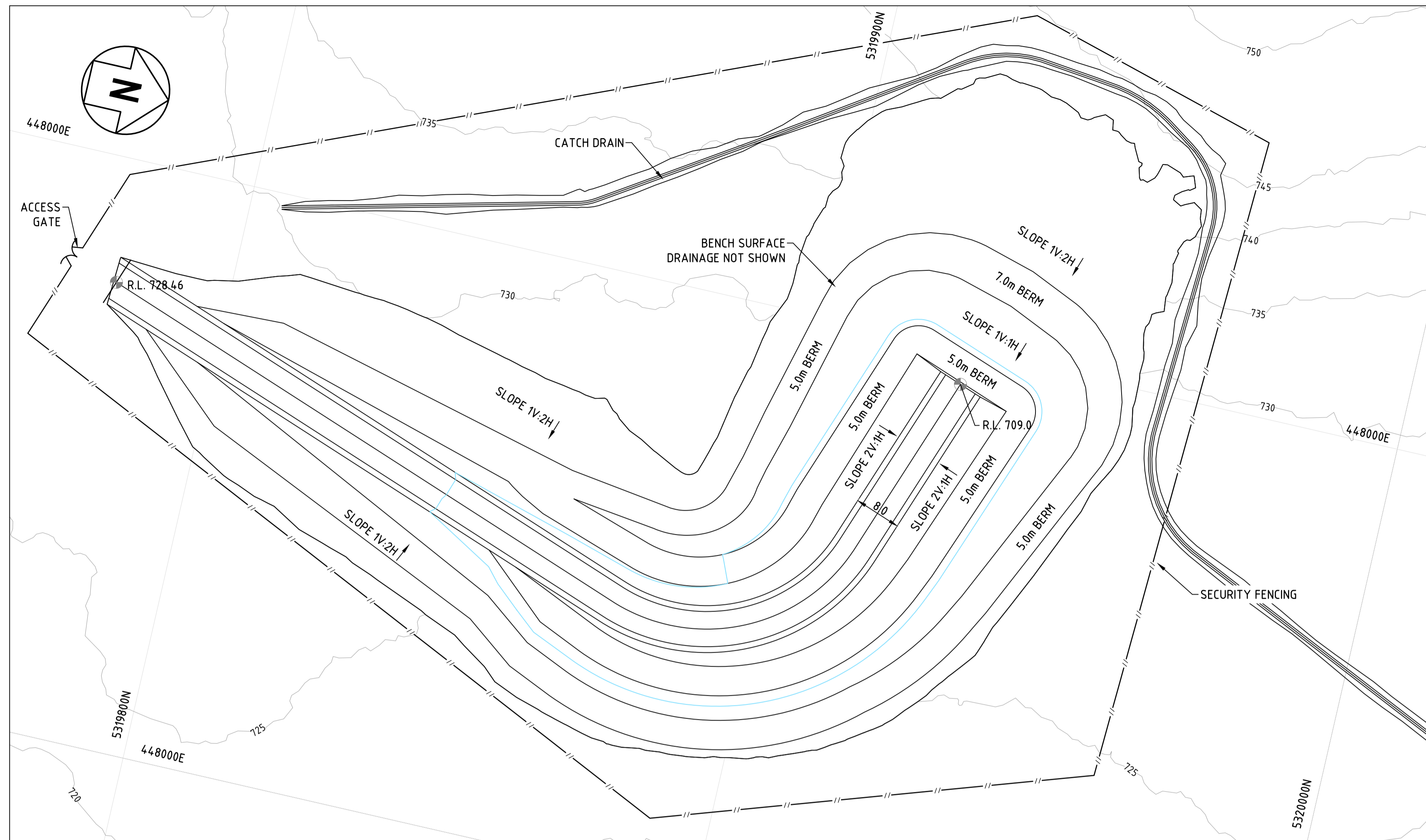
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TARDEV-HYD-CGS-HT-DR-C-0001	TUNNEL PORTAL GROUND SUPPORT DETAILS	CHECKED	RJ
TARDEV-HYD-CGS-HT-DR-C-0002	ROCK BOLT TYPICAL DETAILS	DESIGNED	LC/JL
TARDEV-HYD-CGS-HT-DR-C-0003	FACE SUPPORT SUBSURFACE DRAINAGE	CHECKED	RJ/JT
APPROVED			-
DATE			-
HT AGREED			-
HT ACCEPTED			-

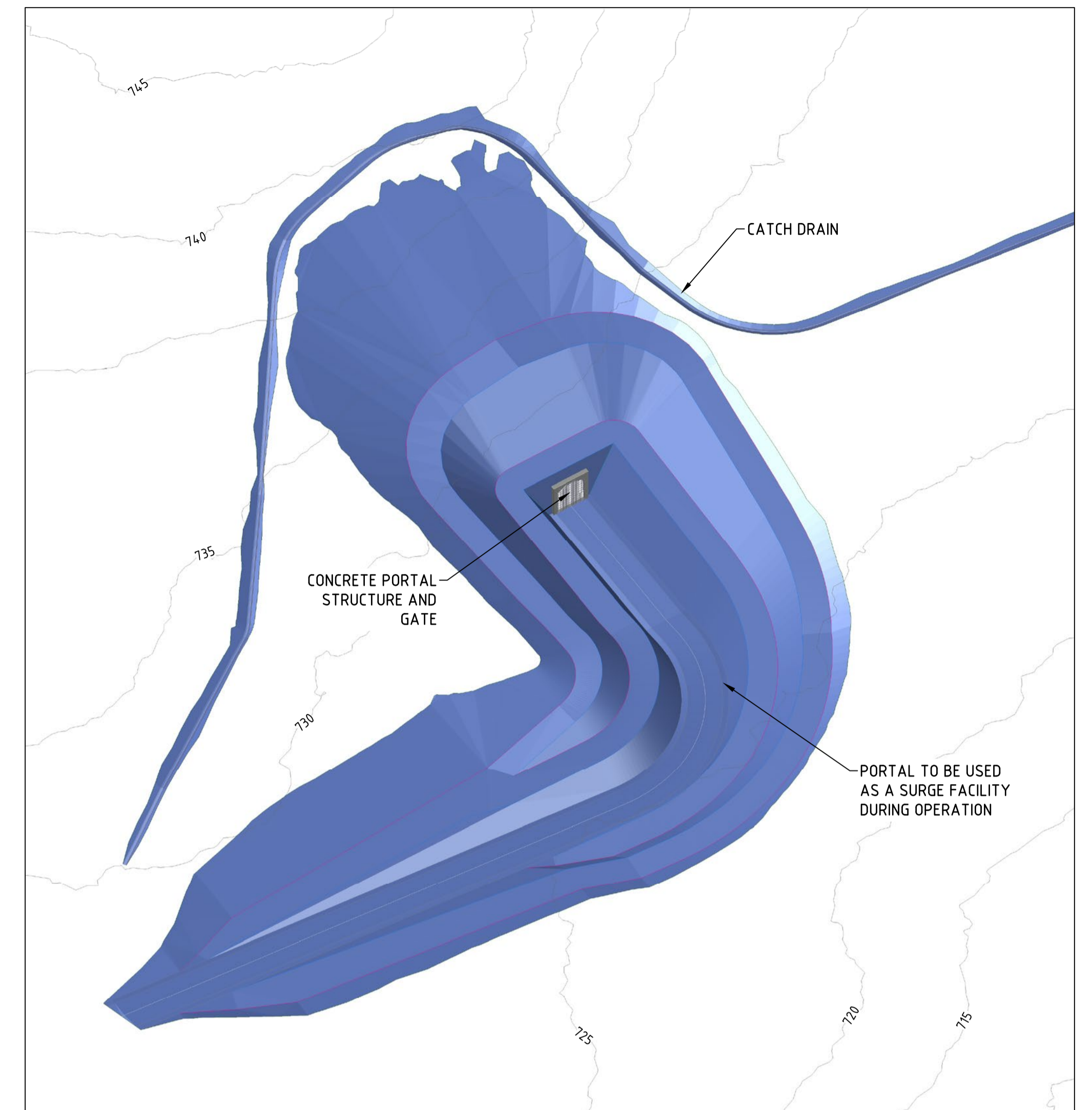


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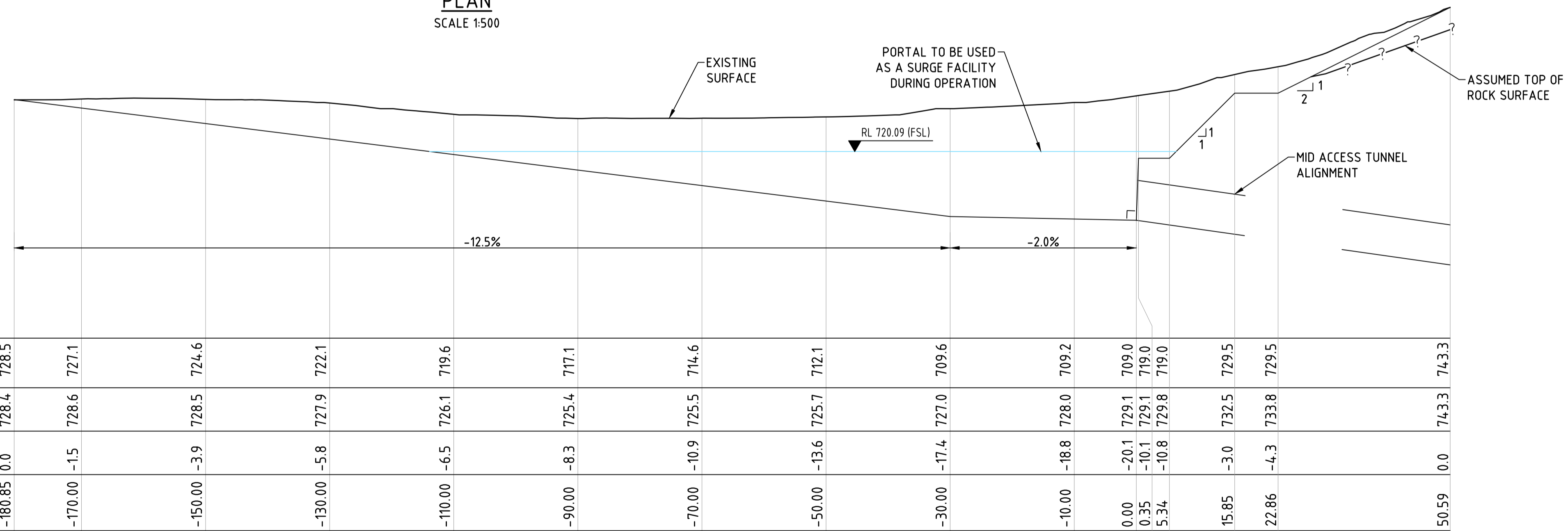
CLIENT	HYDRO TASMANIA	SCALE	1:500
TITLE	TARRALEAH REDEVELOPMENT UNDERGROUND WORKS WESTERN HEADRACE TUNNEL PORTAL EXCAVATION		
DRAWING	TARDEV-HYD-CEX-HT-DR-C-0001	REV	SIZE A1



PLAN
SCALE 1:500

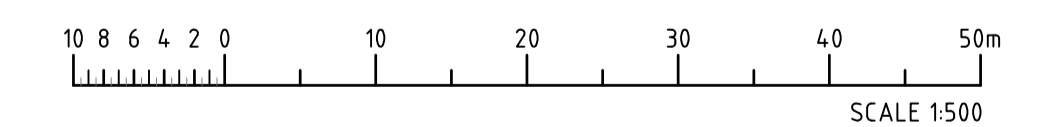


ISOMETRIC VIEW
NTS



LONGITUDINAL SECTION
SCALE 1:500

NOTE:
1. ALL DIMENSION AND ELEVATIONS ARE IN m.



ALTERATIONS

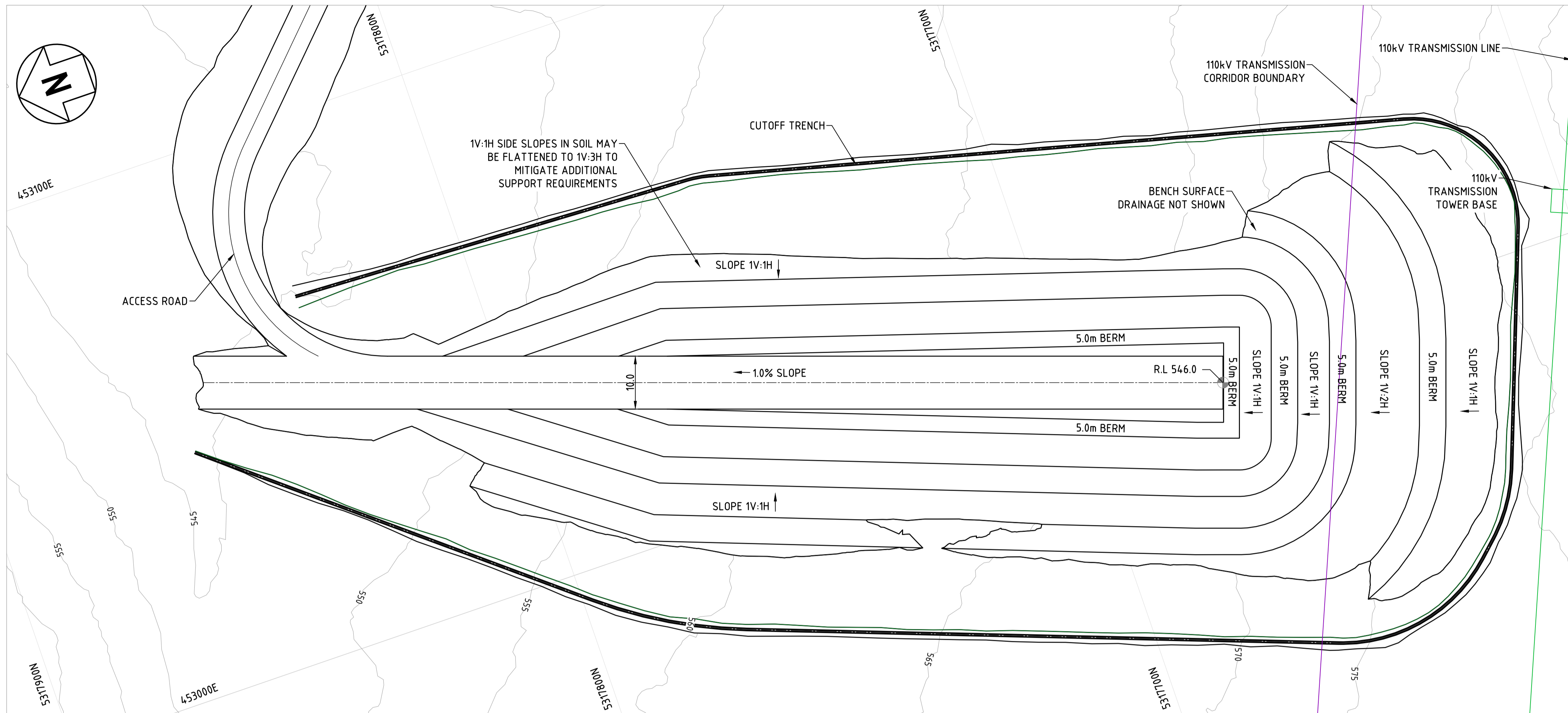
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REFERENCES		DRAWN	LC
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TARDEV-HYD-CGS-HT-DR-C-0002	ROCK BOLT TYPICAL DETAILS	DESIGNED	LC/JL
TARDEV-HYD-CGS-HT-DR-C-0003	FACE SUPPORT SUBSURFACE DRAINAGE	CHECKED	RJJ/JT
APPROVED	-	-	-
DATE	-	-	-
HT AGREED	-	-	-
REPRD FROM	-	REV	HT ACCEPTED

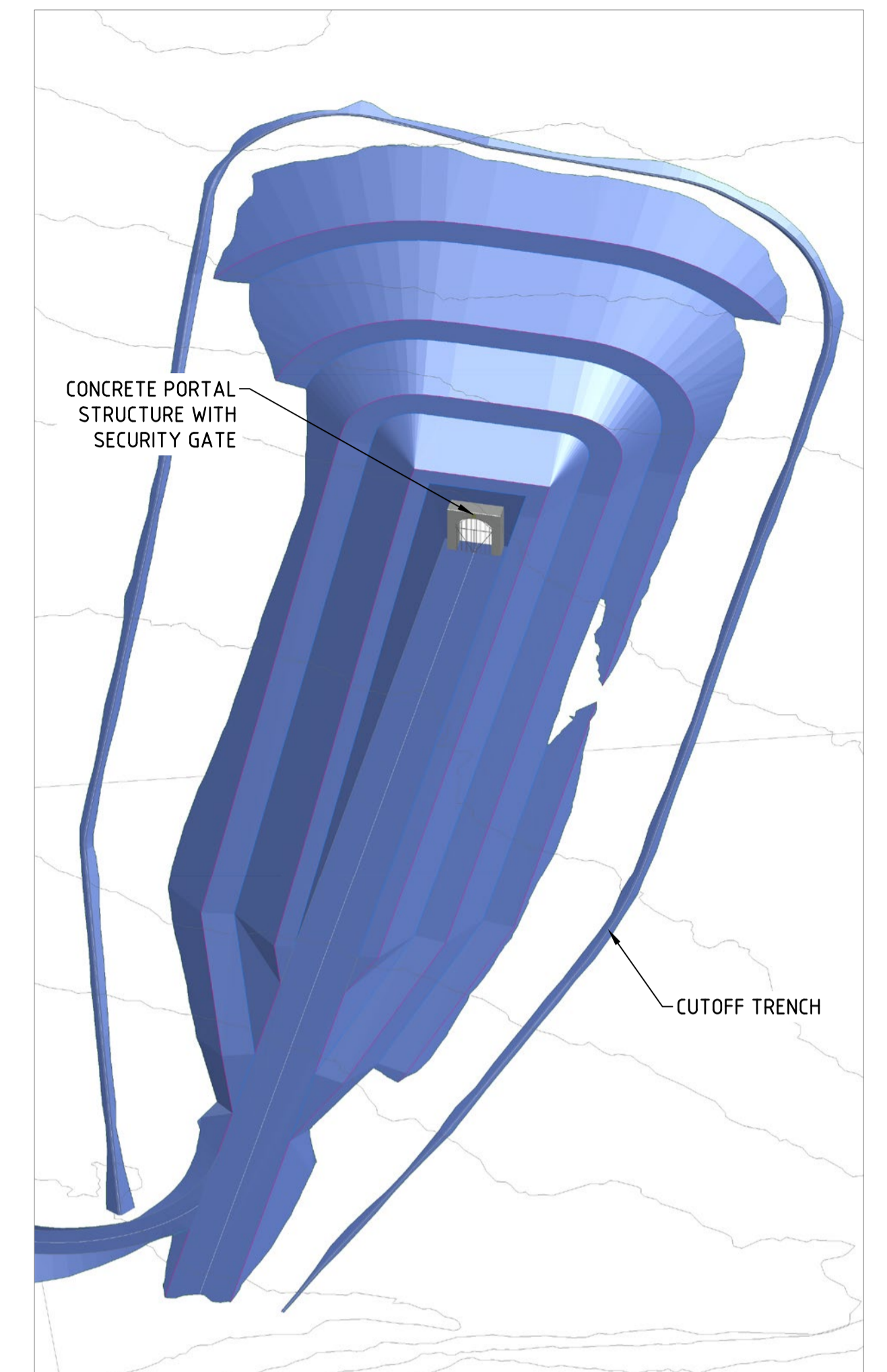


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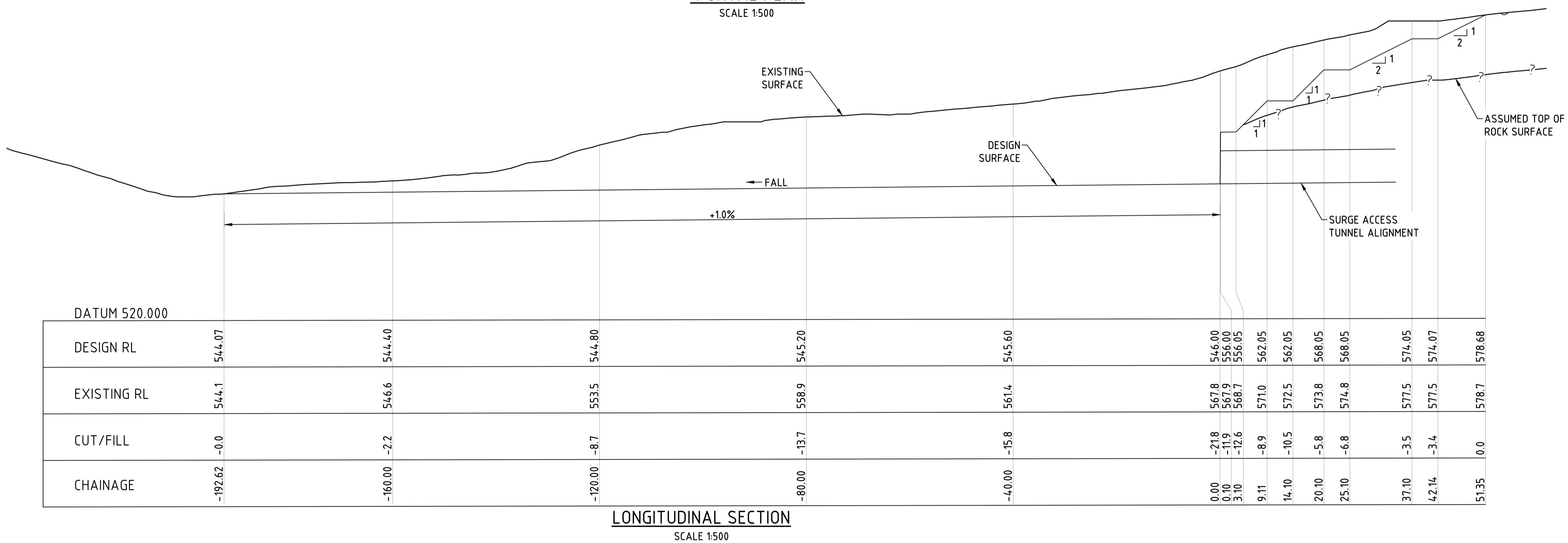
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TITLE	TARRALEAH REDEVELOPMENT UNDERGROUND WORKS MID ACCESS TUNNEL PORTAL EXCAVATION	REV	-
DRAWING	TARDEV-HYD-CEX-HT-DR-C-0002	SIZE	A1



PORTAL PLAN
SCALE 1:500

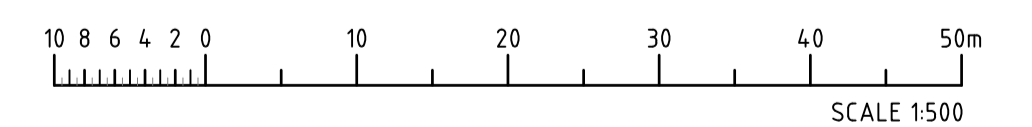


PORTAL ISOMETRIC VIEW
NTS



LONGITUDINAL SECTION
SCALE 1:500

NOTE:
1. ALL DIMENSION AND ELEVATIONS ARE IN m.



ALTERATIONS

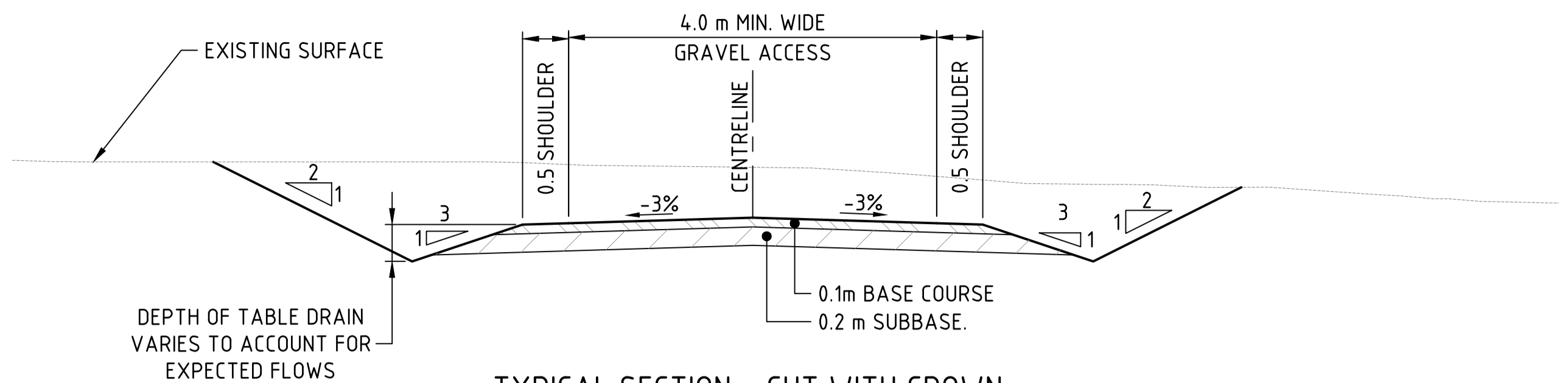
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ELECTRONIC DOCUMENT CONTROL - UNCONTROLLED IF PRINTED

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TARDEV-HYD-CGS-HT-DR-C-0002	ROCK BOLT TYPICAL DETAILS	DESIGNED	LC/JL
TARDEV-HYD-CGS-HT-DR-C-0003	FACE SUPPORT SUBSURFACE DRAINAGE	CHECKED	RJ/JT
REPRD FROM		APPROVED	-
		DATE	-
		HT AGREED	-
		HT ACCEPTED	-

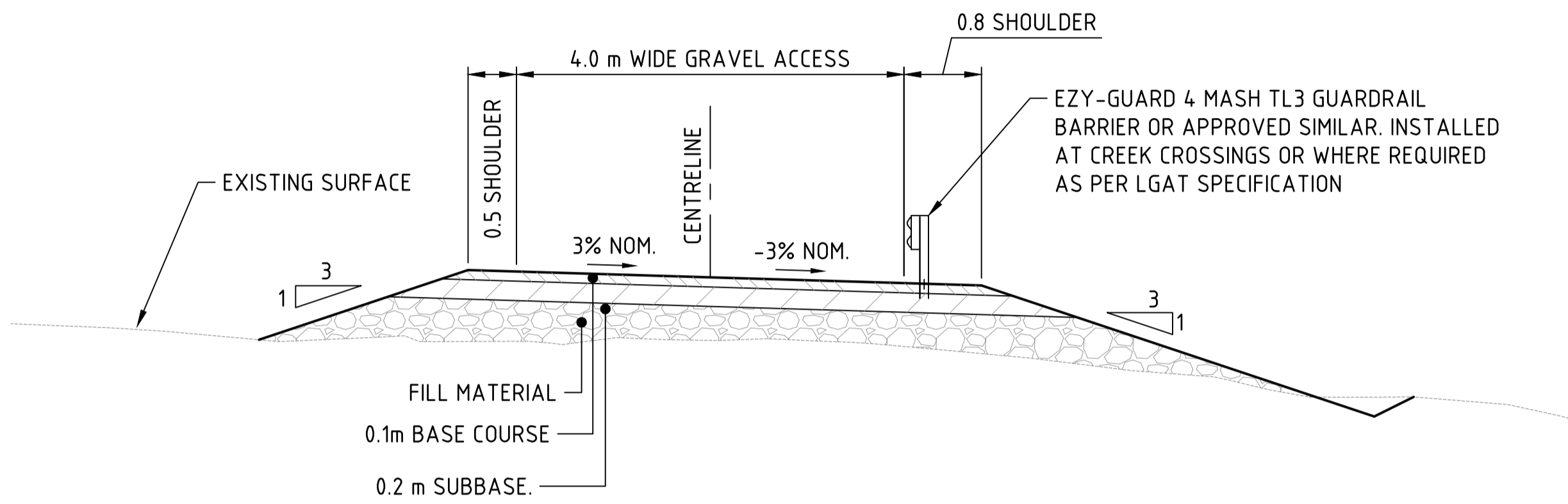


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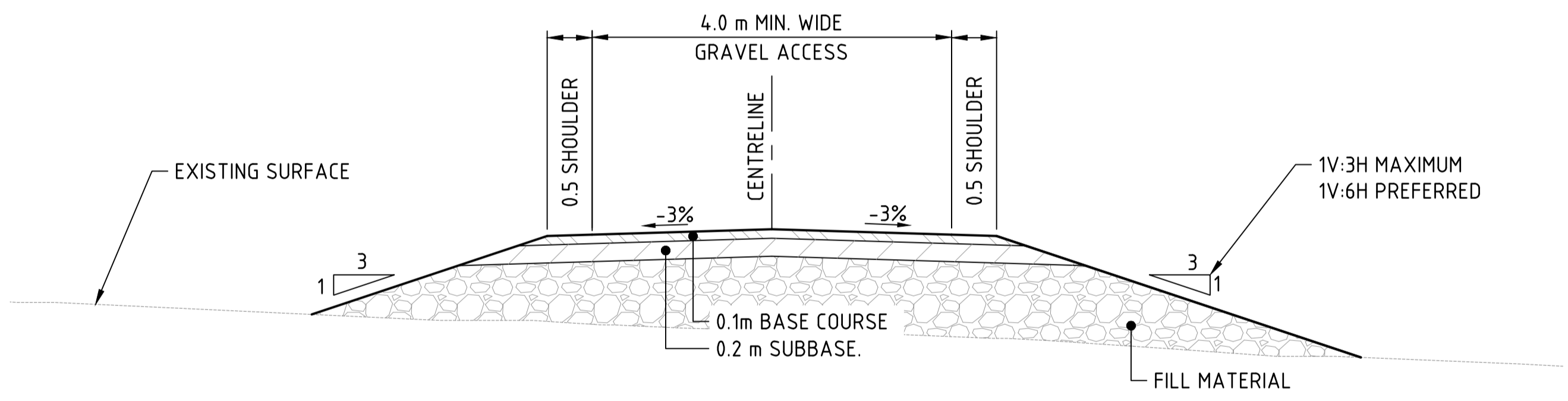
CLIENT	HYDRO TASMANIA	SCALE	1:500
TITLE	TARRALEAH REDEVELOPMENT HEADRACE TUNNEL SURGE ACCESS TUNNEL PORTAL EXCAVATION	REV	
DRAWING	TARDEV-HYD-CEX-HT-DR-C-0003	SIZE	A1



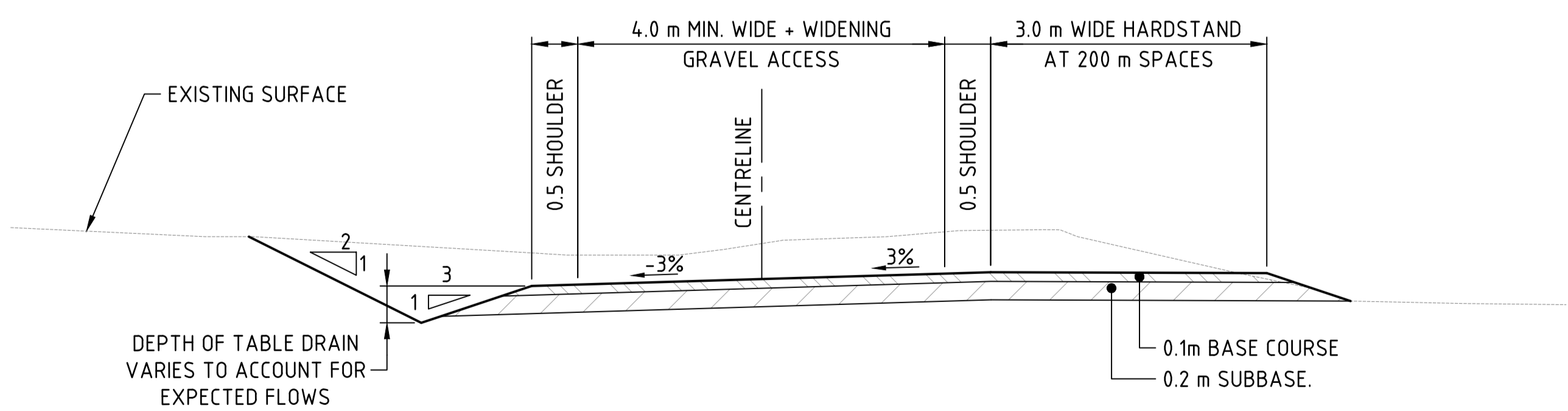
TYPICAL SECTION - CUT WITH CROWN
SCALE 1:50



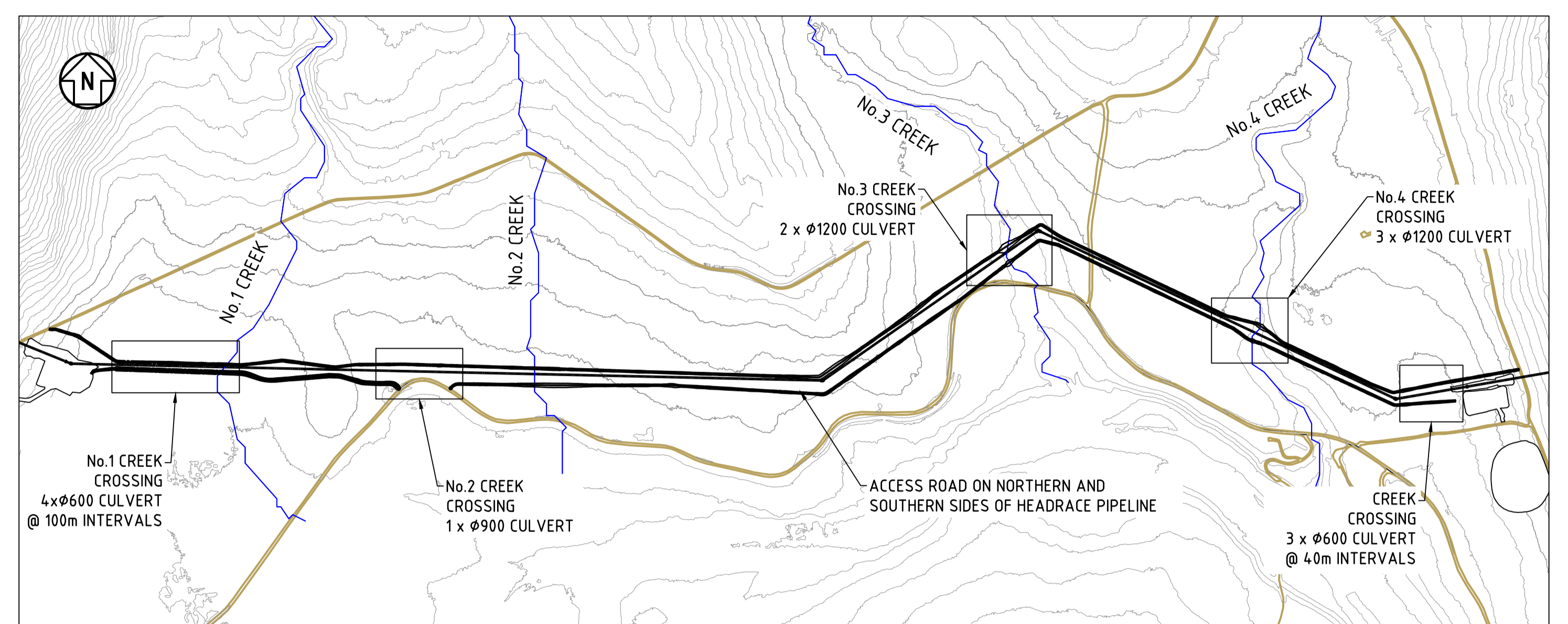
TYPICAL SECTION - SINGLE CROSSFALL
SCALE 1:50



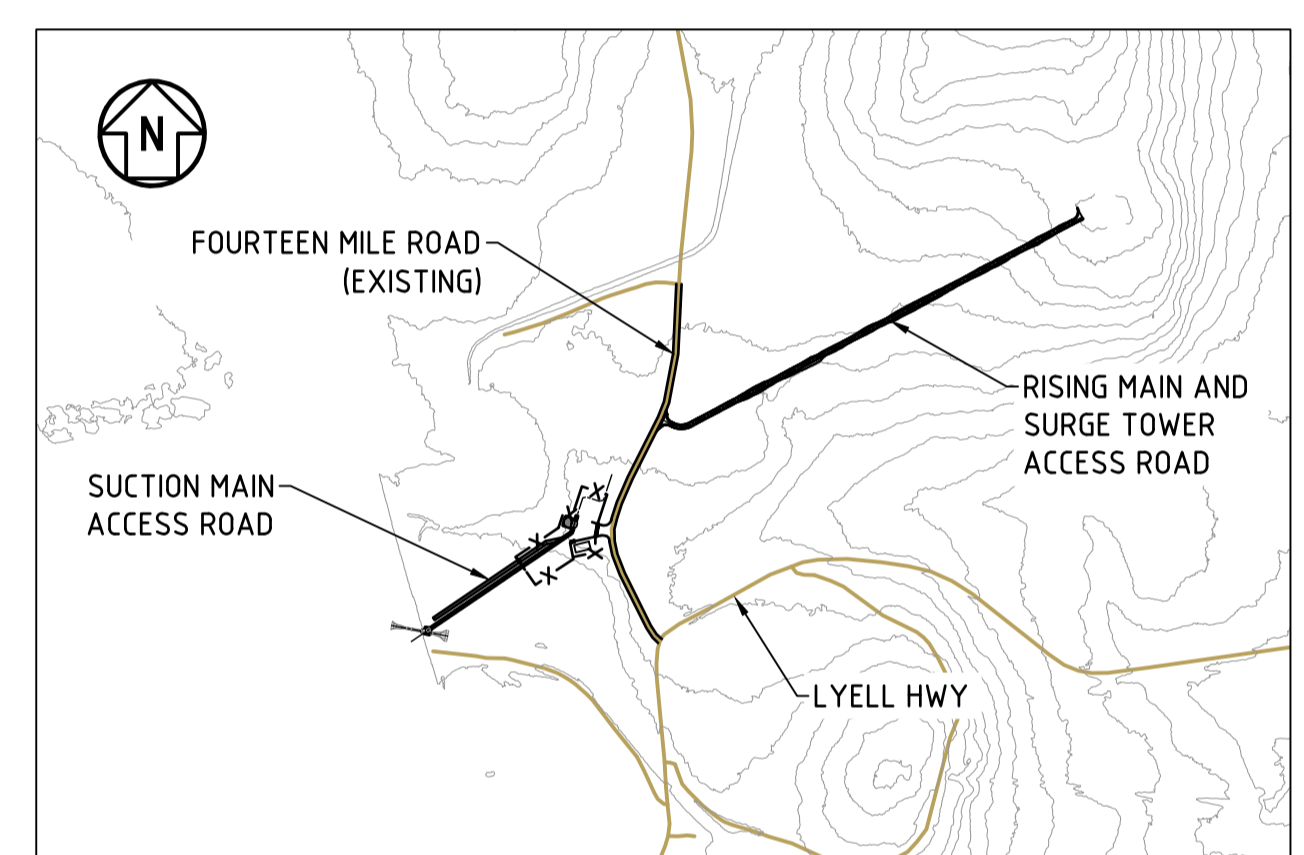
TYPICAL SECTION - FILL
SCALE 1:50



TYPICAL SECTION - WIDENED HARDSTAND AREA
SCALE 1:50



HEADRACE PIPELINE INTERNAL ACCESS ROAD CREEK CROSSINGS
SCALE 1:10,000

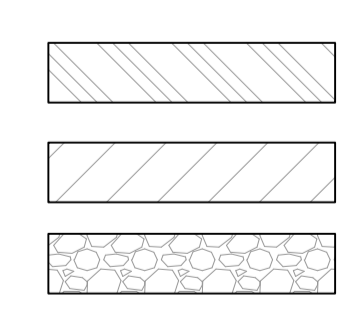


PUMP STATION AND SURGE TOWER INTERNAL ACCESS ROADS
SCALE 1:10,000

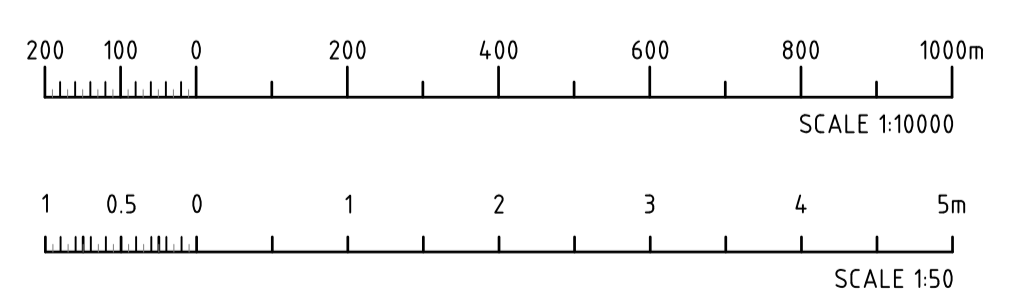
NOTE:

- INTERNAL ACCESS ROADS TO BE IN ACCORDANCE WITH LGAT STANDARD DRAWING TSD-R01-V3 ROAD CLASS CODE US1.
- PAVEMENT SUBBASE TO BE IN ACCORDANCE WITH LGAT STANDARD SPECIFICATIONS.
- PAVEMENT BASE COURSE TO BE IN ACCORDANCE WITH DEPARTMENT OF STATE GROWTH SPECIFICATION 'R40 PAVEMENT BASE AND SUBBASE - ROADWORK SPECIFICATIONS SECTION R40.A.5 - UNSEALED ROAD AND UNSEALED SHOULDERS WEARING SURFACE.'
- PAVEMENT SUBGRADE TO BE MINIMUM CBR 4% IN ACCORDANCE WITH LGAT STANDARD SPECIFICATIONS.
- INTERSECTIONS TO BE BUILT IN ACCORDANCE WITH LGAT TSD-R05-V3 TRUCK ACCESS TO RURAL PROPERTIES. SUITABLE TO ACCOMMODATE A 25.0 m B-DOUBLE TRUCK.
- ROADSIDE TABLE DRAINS, CUT OFF DRAINS, CULVERTS AND HEADWALLS TO BE INSTALLED TO SUIT TOPOGRAPHY AND IN ACCORDANCE WITH LGAT STANDARD SPECIFICATIONS. RECOMMENDED CULVERT REQUIREMENTS AT CREEK CROSSINGS ARE PROVIDED IN HEADRACE PIPELINE INTERNAL ACCESS ROAD CREEK CROSSINGS PLAN ABOVE.
- ENTRY POINTS FROM PUBLIC ROAD TO INTERNAL ACCESS ROAD WILL BE CONTROLLED BY HYDRO TASMANIA STANDARD VEHICLE GATES WITH A MINIMUM WIDTH OF 3.6 m, HIGH VIS ROAD BARRIER COVERING FULL EASEMENT WIDTH WITH POST THAT IS RESISTANT TO VANDALISM. VEHICLE GATES SHALL BE SET BACK FROM THE EDGE OF PUBLIC ROAD THE MAXIMUM VEHICLE LENGTH PLUS 1 METRE (25.0 + 1.0). REFER DRAWINGS O-61963-001 AND 002 FOR VEHICLE GATE ARRANGEMENTS.

LEGEND:



BASE COURSE
SUB-BASE
FILL MATERIAL



ALTERATIONS

**NOT FOR CONSTRUCTION
REFERENCE DESIGN**
PRINT DATE: 4/07/2024 4:42:34 PM
ELECTRONIC DOCUMENT CONTROL - UNCONTROLLED IF PRINTED

REFERENCES		DRAWN	LC
		CHECKED	RJ
		DESIGNED	LC
		CHECKED	RJ
		APPROVED	-
		DATE	-
		HT AGREED	-
PREP'D FROM	-	REV	HT ACCEPTED -

Hydro Tasmania

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CLIENT	HYDRO TASMANIA	SCALE	1:50
TITLE	TARRALEAH REDEVELOPMENT SCHEME WIDE INTERNAL ACCESS ROAD AND DRAINAGE TYPICAL DETAILS		
DRAWING	TARDEV-HYD-CRD-XX-DR-C-0001	REV	X1
SIZE	A1		

HYDRO TASMANIA STANDARD DRAWINGS FENCING

TABLE OF CONTENTS		
DRAWING	REVISION	DESCRIPTION
A1-16659-001	X1	COVER SHEET AND DRAWING LIST
A1-16659-002	X1	FENCE NOTES
A1-16659-003	X1	CHAIN MESH FENCE - TYPE 1
A1-16659-004	X1	CHAIN MESH FENCE - TYPE 1
A1-16659-005	X1	CHAIN MESH FENCE - TYPE 2
A1-16659-006	X1	CHAIN MESH FENCE - TYPE 2
A1-16659-007	X1	CHAIN MESH FENCE - TYPE 2
A1-16659-008	X1	CHAIN MESH FENCE - TYPE 3
A1-16659-009	X1	CHAIN MESH FENCE - TYPE 3
A1-16659-010	X1	CHAIN MESH FENCE - TYPE 3
A1-16659-011	X1	INSULATED FENCE - TYPE 4
A1-16659-012	X1	INSULATED FENCE - TYPE 4
A1-16659-013	X1	INSULATED FENCE - TYPE 4
A1-16659-014	X1	INSULATED FENCE - TYPE 4

ALTERATIONS

REFERENCES

A1-16659-001 TO 014 STANDARD FENCE DRAWINGS

DRAWN	EM
CHECKED	LF
DESIGNED	LF
CHECKED	MB
APPROVED	MB
DATE	16/8/22
CLIENT ACCEPTED	XX
DATE	XX



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CLIENT		SCALE	AS SHOWN
TITLE	STANDARD FENCE DRAWING COVER SHEET		
DRAWING	A1-16659	SHT	001
	REV	X1	SIZE
			A1

GENERAL

- G1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION, STRUCTURAL, CIVIL AND RELEVANT ENGINEERING SERVICES, DOCUMENTS AND WITH OTHER SUCH WRITTEN INSTRUCTIONS AS MAY BE ISSUED.
- G2. ALL DIMENSIONS SHOWN SHALL BE VERIFIED ON SITE. ENGINEERS DRAWINGS MUST NOT BE SCALED.
- G3. DURING CONSTRUCTION THE RESPONSIBLE CONTRACTOR SHALL MAINTAIN THE STRUCTURE IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.
- G4. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE SPECIFICATION.
- G5. UNLESS OTHERWISE NOTED ALL DIMENSIONAL UNITS ARE MILLIMETRES EXCEPT REDUCED LEVELS AND DISTANCE (CHAINAGES) WHICH ARE METRES.
- G6. ALL CO-ORDINATES ARE IN METRES UNO.
- G7. UNO DENOTES: UNLESS OTHERWISE NOTED.
- G8. ALL DIMENSIONS WHICH TIE INTO OR OTHERWISE RELATE TO EXISTING STRUCTURES SHALL BE VERIFIED ON SITE PRIOR TO THE START OF CONSTRUCTION BY THE CONTRACTOR.
- G9. ANY DISCREPANCIES WITHIN PROJECT DOCUMENTATION SHALL BE REFERRED TO THE SUPERINTENDENT FOR RESOLUTION.

SITE SAFETY

- SS1. ALL WORK SITES CAN BE POTENTIALLY HAZARDOUS TO PEOPLE, PROPERTY AND EQUIPMENT. ALL PEOPLE WHO ARE AUTHORIZED TO BE ON A WORK SITE MUST CAREFULLY CONSIDER, DOCUMENT AND ADOPT SUITABLE SAFE WORK PROCEDURES FOR ALL REQUIRED ACTIVITIES.
- SS2. CURRENT LEGISLATION CURRENT LEGISLATION REQUIRES THAT ALL PERSONS ARE TO CONSIDER THEIR ACTIONS OR INACTION ON THE HEALTH AND SAFETY OF OTHERS AND THEMSELVES
- SS3. THE CONTRACTOR SHALL ABIDE WITH AND IS BOUND BY THE CURRENT SAFE WORK AUSTRALIA ACT, REGULATIONS AND CODES OF PRACTICE ISSUED BY STATE GOVERNMENTS AND/OR THEIR AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION, DOCUMENTATION AND MAINTENANCE OF WORK SAFETY PROCEDURES AND OTHER RELEVANT DOCUMENTATION. THE CONTRACTOR SHALL ENSURE THAT ALL SUB-CONTRACTORS AND OTHER AUTHORIZED PEOPLE COMPLY WITH THE ABOVE.
- SS4. THE CONTRACTOR SHALL BE ALERT AND PROACTIVE TO IDENTIFY HAZARDS AND MANAGE THE ASSOCIATED RISKS TO ELIMINATE THEM TO AN AGREED RISK LEVEL.
- SS5. THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER IF THERE IS ANY PERCEIVED RISK RELATED TO THE DESIGN OR CONSTRUCTION OF THE DESIGN. THE CONTRACTOR SHALL ENGAGE SUITABLY QUALIFIED ENGINEERS TO CERTIFY ALL TEMPORARY STRUCTURAL WORKS.
- SS6. THE CONTRACTOR SHALL ENGAGE WITH THE SUB-CONTRACTOR AND OTHER AUTHORIZED PEOPLE WHO USE THE SITE TO IDENTIFY THEIR RISKY WORK PROCEDURES AND OTHER ACTIVITIES.
- SS7. SUB-CONTRACTORS AND OTHER AUTHORIZED PEOPLE SHALL PROVIDE DOCUMENTATION ABOUT THEIR RISK ASSESSMENTS AND RISK MINIMIZATION.
- SS8. PUBLIC SAFETY:
A LIVE SITE THAT HAS WORK UNDERWAY OR IS UNATTENDED HAS A STRONG ATTRACTION TO THE PUBLIC IN GENERAL. THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO PREVENT UNAUTHORIZED PEOPLE ENTERING THE SITE. EXCAVATIONS, STRUCTURES AND ACCESS EQUIPMENT SHALL BE LEFT IN A SECURE MANNER AS IS REASONABLY PRACTICABLE TO PREVENT ANY UNAUTHORIZED PEOPLE ENTERING, CLIMBING OR FALLING. THE SITE SHALL HAVE CLEAR WARNING SIGNS IN APPROPRIATE LOCATIONS EG - 'DANGER KEEP OUT' AND BE SECURELY BARRICADED AND WHEN UNATTENDED LEFT IN A LOCKED CONDITION AS IS REASONABLY PRACTICABLE.
- SS9. SPECIFIC ATTENTION SHALL BE PAID TO HIGH RISK ACTIVITIES INCLUDING BUT NOT LIMITED TO:
SITE ESTABLISHMENT
DEMOLITION, RECYCLING AND REMOVAL
TEMPORARY WORKS
EXCAVATION AND TRENCHING - UNSTABLE GROUND
WELDING - EYE PROTECTION
CONSTRUCTION PROCESSES
TRIPS AND FALLS (GENERAL)
UNSTABLE TEMPORARY FOOTINGS
WORKING AT HEIGHT
WORKING AROUND WATER
- SS10. SAFE WORK PRACTICES (SWP):
ALL WORKERS UNDERTAKING WORK ON WORK SITE CONTROLLED BY HYDRO TASMANIA MUST ADHERE TO THESE SAFE WORK PRACTICES WHICH PROVIDE:
A) REASONABLE HEALTH, SAFETY AND ENVIRONMENT (HSE) INSTRUCTION TO WORKERS ON HYDRO TASMANIA'S HSE REQUIREMENTS
B) THE MINIMUM HSE REQUIREMENTS FOR WORKERS TO ENSURE THE HEALTH, SAFETY AND WELLBEING OF ALL PERSONNEL SO FAR AS IS REASONABLY PRACTICABLE AND TO ELIMINATE OR MINIMISE ENVIRONMENTAL HARM
C) KEY INFORMATION AND REFERENCES TO HYDRO TASMANIA'S BROADER HSE MANAGEMENT SYSTEM AND ASSOCIATED STANDARDS AND PROCEDURES.

MATERIALS

WIRE FENCE MATERIAL

- CHAINWIRE MESH, BARBED WIRE, SINGLE STRANDED FENCING WIRE AND TIE WIRE SHALL COMPLY, IN ALL RESPECTS, WITH AS2423
- WHERE THE CHAINWIRE MESH IS COMPOSED OF GALVANIZED WIRE, ALL OF THE OTHER WIRES USED IN THE FENCE SHALL BE OF THE SAME COATING DESIGNATION, THAT IS, IF THE MESH IS W10Z, THEN ALL GALVANIZED WIRES SHALL BE W10Z

STEEL TUBES

- MEDIUM QUALITY PIPE FOR POSTS, STAYS, RAILS AND BRACING RAIL SHALL COMPLY WITH AS/NZS17250.1 APPENDIX B
- THE GALVANIZED (ZINC) COATING ON THE STEEL TUBES SHALL COMPLY WITH AS/NZS 4792 WITH A COATING CLASS OF HDG300 OR EQUIVALENT SERVICE LIFE

FITTINGS/BASEPLATES

- ALL CLAMPS, PIPE FITTINGS, HINGES, FASTENERS, CATCHES AND BASEPLATES AND ANY OTHER PARTS SHALL BE MANUFACTURED FROM PLAIN CARBON STEEL, SUITABLE FOR HOT-DIP GALVANISING COMPLYING WITH AS/NZS4680

CONCRETE POST FOOTINGS

- CONCRETE FOR POST FOOTINGS SHALL BE AT LEAST 20MPa IN COMPRESSIVE STRENGTH, REFER GS-AM-105 FOR SUPPLY OF MATERIALS & THE CONSTRUCTION OF MINOR CONCRETE STRUCTURES.

COMPONENTS

GATE POSTS

- GATE POSTS SHALL BE MEDIUM QUALITY COMPLYING WITH AS/NZS17250.1 APPENDIX B

FENCE POSTS

- FENCE POSTS SHALL BE MEDIUM QUALITY COMPLYING WITH AS/NZS17250.1 APPENDIX B
- POST SHALL BE CONTINUOUS WITH NO SLICING ALLOWED. THE TOPS OF THE POSTS SHALL BE PROVIDED WITH TIGHTLY FITTING GALVANIZED CAPS
- POST EXTENSIONS FOR THE ATTACHMENT OF BARBED WIRE SHALL BE PROVIDED WITH HOLES NOT GREATER THAN 6mm DIAMETER OR, OPTIONALLY SHALL BE INDENTED NOMINALLY 2mm DEEP AT 150mm CENTRES ABOVE THE TOP OF THE SELVEDGE OF THE CHAINWIRE MESH FOR THE ATTACHMENT OF THE BARBED WIRE.

CHAINWIRE MESH

- CHAINWIRE MESH (CWM) TO BE MANUFACTURED WITH A NOMINAL 50mm PITCH MESH WITH A WIRE DIAMETER OF 3.15mm
- THE VARIOUS FENCE TYPES SHALL HAVE THE FOLLOWING SELVEDGE'S:
TYPE 1 - KNUCKLED-KNUCKLED
TYPE 2 - KNUCKLED-BARBED
TYPE 3 - KNUCKLED-BARBED

- THE CHAINWIRE MESH WILL HAVE A GALVANIZED COATING WITH A DESIGNATION OF W10Z AND IDENTIFYING CODE HG

BARBED WIRE

- BARBED WIRE SHALL BE MANUFACTURED TO AS2423

BRACING CABLE

- EACH BRACING CABLE SHALL BE OF THE SAME COATING QUALITY AS SELECTED FOR THE CHAINWIRE MESH AND COMPRISE OF TWO STRANDS OF 3.15mm CORE WIRE TWISTED TOGETHER OR TENSIONED IN CONJUNCTION WITH A GALVANIZED 12mm TURNBUCKLE.

SUPPORT CABLES

- EACH SUPPORT CABLE SHALL BE OF THE SAME COATING QUALITY AS SELECTED FOR THE MAIN CHAINWIRE MESH AND COMPRISE OF TWIN-TWISTED CABLE WIRE (TWIN-TWISTED 3.15mm DIAMETER WIRES) BOTH WIRES TWISTED TOGETHER BETWEEN POSTS.

LACING WIRE

- LACING WIRE SHALL BE 2.0mm DIAMETER WIRE AND SHALL BE THE SAME COATING QUALITY AS SELECTED FOR THE CHAINWIRE MESH

TIE WIRE AND CLIPS

- THE WIRE FOR POSTS SHALL BE THE SAME COATING QUALITY AS SELECTED FOR CHAINWIRE MESH AND COMPRISE SINGLE STRAND 2.0mm DIAMETER CORE WIRE.
- TIE WIRE TO SECURE CHAINWIRE MESH TO CABLES SHALL SINGLE STRAND 1.57mm DIAMETER CORE WIRE OR ALTERNATIVELY 2.0mm DIAMETER CORE WIRE NETTING CLIPS OF THE SAME QUALITY COATING AS THE CHAINWIRE MESH.

GATES

- GATES SHALL BE FABRICATED IN ACCORDANCE WITH THE DRAWINGS AND THE FOLLOWING REQUIREMENTS:
- ALL JOINTS SHALL BE FULLY WELDED JOINTS (STAGGERED WELDING NOT PERMITTED). FILLET WELD SHALL BE NOT LESS THAN 6mm, EXPOSED SURFACE WIDTH SHALL BE CLEANED BY CHIPPING AND WIRE BRUSHING
- THE GATES SHALL BE HOT DIP GALVANIZED TO THE SAME COATING QUALITY AS THE CHAIN WIRE MESH
- THE HEIGHT OF THE GATE SHALL MATCH THE HEIGHT OF THE FENCE (SUBJECT TO ALLOWANCE FOR SUFFICIENT MINIMUM GROUND CLEARANCE)
- THE GATES SHALL BE COVERED WITH CHAINWIRE MESH TO MATCH THE FENCE. THE COVERING SHALL BE DRAWN TAUT AND LACED WITH 2mm LACING WIRE TO THE OUTER FRAME AND TIED TO EACH INTERNAL MEMBER.
- WHEN REQUIRED, BARBED WIRE SHALL BE STRAINED TAUT AND TIED TO THE GATE EXTENSIONS TO MATCH THE LINES OF THE BARBED WIRE ON THE FENCE.

HINGES

- WHERE CLIP-TYPE HINGES ARE USED, A COLLAR SHALL BE WELDED TO THE GATE FRAME TO PROVIDE A BEARING SURFACE FOR EITHER THE TOP OR BOTTOM HINGE.

INSTALLATION

LINE AND LEVEL

- ALL POSTS SHALL BE VERTICAL. HORIZONTAL DISPLACEMENT SHALL NOT BE GREATER THAN THE HEIGHT IF THE POST DIVIDED BY 240. THE TOP OF THE FENCE SHALL BONE EVENLY AND FOLLOW APPROXIMATELY THE PROFILE OF THE GROUND OR LEVELS PREVIOUSLY INDICATED BY THE PURCHASER. UNLESS OTHERWISE AGREED, THE INSTALLATION OF THE FENCE SHALL NOT INCLUDE CUTTING OR FILLING OF THE GROUND TO VARY THE LEVELS.

SPACING OF POSTS

- POSTS SHALL BE SPACED AT 3000mm MAXIMUM CENTRES. STRAINER ASSEMBLIES SHALL BE INSTALLED AT ANY SIGNIFICANT CHANGE IN DIRECTION AND AT INTERVALS OF NOT GREATER THAN 45m ON FENCES WITH LENGTHS 90m OR GREATER.

FOOTINGS

- CONCRETE FOOTINGS SHALL NOT BE LESS THAN THE MINIMUM SIZES SPECIFIED IN THE DRAWINGS.
- THE CONSTITUENTS FOR FOOTINGS SHALL BE THOROUGHLY MIXED AND THE CONCRETE PLACED IN THE POSITION AND THOROUGHLY COMPACTED AS SOON AS POSSIBLE AFTER MIXING, REFER GS-AM-105.
- AFTER INSTALLATION OF POSTS OR STAYS, THE COMPLEX EXCAVATION SHALL BE FILLED WITH CONCRETE, AND WELL COMPACTED AS FILLING PROCEEDS (ALLOWING MINIMUM 24HR FOR CURING PERIOD).

ATTACHMENT OF PIPE RAILS

- ALL RAILS SHALL BE SECURELY CONNECTED TO POSTS WITH GALVANIZED BOLTED SPLIT CLAMP-ON TYPE FITTINGS, IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS

ATTACHMENT OF SUPPORT CABLES

- THE TWO COMPONENT WIRES OF EACH SUPPORT CABLE SHALL BE TWISTED TOGETHER AT INTERVALS BETWEEN POSTS TO FORM A TIGHT SPIRAL PITCH AND SO PROVIDE 1.0 TO 1.2KN TENSION ON THE CABLES TO SUPPORT THE CHAINWIRE MESH. THE TENSIONING OF THE SUPPORT CABLES SHALL NOT BE COMMENCED UNTIL THE CONCRETE FOOTINGS HAVE CURED.

CHAINWIRE MESH

- UNLESS OTHERWISE SPECIFIED, CHAINWIRE MESH SHALL BE PLACED ON THE OUTSIDE OF POSTS AND STRAINED TAUT BETWEEN 1.0 TO 1.2KN AND SECURED TO EACH SUPPORT RAIN, CABLE AND ALL POSTS WITH TIE WIRES, EXCEPT AT THE END POSTS AND GATE POSTS.
- AT THE END POSTS AND GATE POSTS THE CHAINWIRE MESH SHALL BE FULLY LACED TO END POSTS, INTERNAL CORNER POSTS AND GATE POSTS. THE SPACE BETWEEN THE BOTTOM SELVEDGE OF THE CHAINWIRE MESH AND THE GROUND SHALL BE SUFFICIENTLY SMALL TO CLEAR THE SURFACE AND MAINTAIN SECURITY.
- THE CHAINWIRE MESH SHALL BE FULLY LACED THROUGH EACH DIAMOND WITH 2.0mm WIRE, TO EACH RAIL AND THE SELVEDGE EDGE.

THE WIRE AND CLIPS

- INTERMEDIATE POSTS SHALL HAVE A MINIMUM OF 2 TIES PER POST TO SECURE CHAINWIRE MESH TO POSTS, WITH EACH TIE LOCATED CENTRALLY BETWEEN RAILS AND CABLES. EACH TIE WIRE SHALL BE TWISTED TWICE AND THE ENDS NEATLY CUT OFF AND BENT OVER TO AVOID INJURY.
- TIE WIRE TO CABLE WIRE SHALL BE 1.57mm WIRE TWISTED TWICE AND NEATLY CUT OFF AND SECURED AT 480mm MAX SPACING (EACH SIXTH DIAMOND ON CHAINWIRE MESH).
- NETTING CLIPS TO CABLE WIRE SHALL BE 2.0mm WIRE, SIZED CORRECTLY FOR THE APPLICATION AND FIRMLY CLAMPED TOGETHER AND FULLY CLOSED AND OVERLAPPED WITH SUITABLE PLIERS, SECURED AT 320mm MAX. SPACING (EACH FOURTH DIAMOND ON THE CHAINWIRE MESH).

BARBED WIRE

- BARBED WIRE, WHERE REQUIRED, SHALL BE STRAINED TAUT BETWEEN 1.0 TO 1.2KN BETWEEN POSTS AND SECURED WITH TIE WIRES TO POST INDENTATIONS, AND PRE-SET AT 150mm EQUAL SPACING ABOVE CHAINWIRE MESH.

BOLTS

- ALL THREADED BOLTS USED FOR ATTACHMENT OF FITTINGS ON FENCES AND GATES SHALL BE SIZED CORRECTLY FOR CLAMP-ON FITTINGS AND SECURELY TIGHTENED WITH NUTS FITTED INSIDE THE FENCE.

GATES - HINGED

- GATES, WHERE FITTED, SHALL OPERATE FREELY AND KEEPERS SHALL BE SET FIRMLY INTO EITHER CONCRETE PAVEMENT OR CONCRETE FOOTINGS OF NOT LESS THAN 150mm DIAMETER AND NOT LESS THAN 350mm DEEP. THE CLEARANCE UNDER THE GATES, WHEN IN CLOSED POSITION, SHALL BE SUFFICIENTLY SMALL TO CLEAR THE SURFACE AND MAINTAIN SECURITY.

EARTHING

- WHERE REQUIRED FENCES SHALL BE EARTHED IN ACCORDANCE WITH THE FOLLOWING STANDARD DRAWINGS:
A1-15518-001 (STANDARD EARTHING TYPICAL EARTH GRID CONNECTIONS)
A1-15518-002 (STANDARD EARTHING TYPICAL FENCE CONNECTIONS)

REPAIR

- FOR OBJECTS GALVANIZED AFTER FABRICATION, THE SUM TOTAL OF THE DAMAGED OR UNCOATED AREAS SHALL NOT EXCEED 0.5% OF THE TOAL SURFACE AREA OR 250cm², WHICHEVER IS THE LESSER, AND NO INDIVIDUAL DAMAGED OR UNCOATED AREA SHALL EXCEED 40cm².

REPAIR REQUIREMENTS


- SURFACES THAT REMAIN UNCOATED DURING THE GALVANIZING PROCESS AS OUTLINED ABOVE & REQUIRE REPAIR, SHALL BE REPAIRED BY THE APPLICATION OF ONE OF THE FOLLOWING COATINGS:
(1) ORGANIC ZINC RICH EPOXY PAINT COMPLYING WITH AS/NZS3750.9. THIS IS TO BE APPLIED TO THE REPAIR AREAS IN TWO COATS. EACH COAT SHALL HAVE A MINIMUM DRY FILM THICKNESS OF 50µm
(2) INORGANIC ZINC SILICATE PAINT COMPLYING TO AS/NZS3750.15. THIS SHALL HAVE A MINIMUM DRY FILM THICKNESS OF 100µm.
(3) ZINC METAL SPRAY TO ISO2063 OR AS/NZS2312
(4) ZINC ALLOY SOLDER STICK
- ALL OF THE ABOVE TREATMENTS SHALL BE APPLIED AS PER MANUFACTURERS REQUIREMENTS AND SHALL INCLUDE NECESSARY PRE-TREATMENT TO ENSURE GOOD ADHESION TO THE SUBSTRATE. THE COATING THICKNESS ON THE RENOVATED AREAS SHALL BE A MINIMUM OF 30µm MORE THAN THE LOCAL COATING THICKNESS. THE SELECTED COATING ON THE RENOVATED AREA SHALL BE CAPABLE OF GIVING SACRIFICIAL PROTECTION TO THE STEEL TO WHICH IT IS APPLIED.

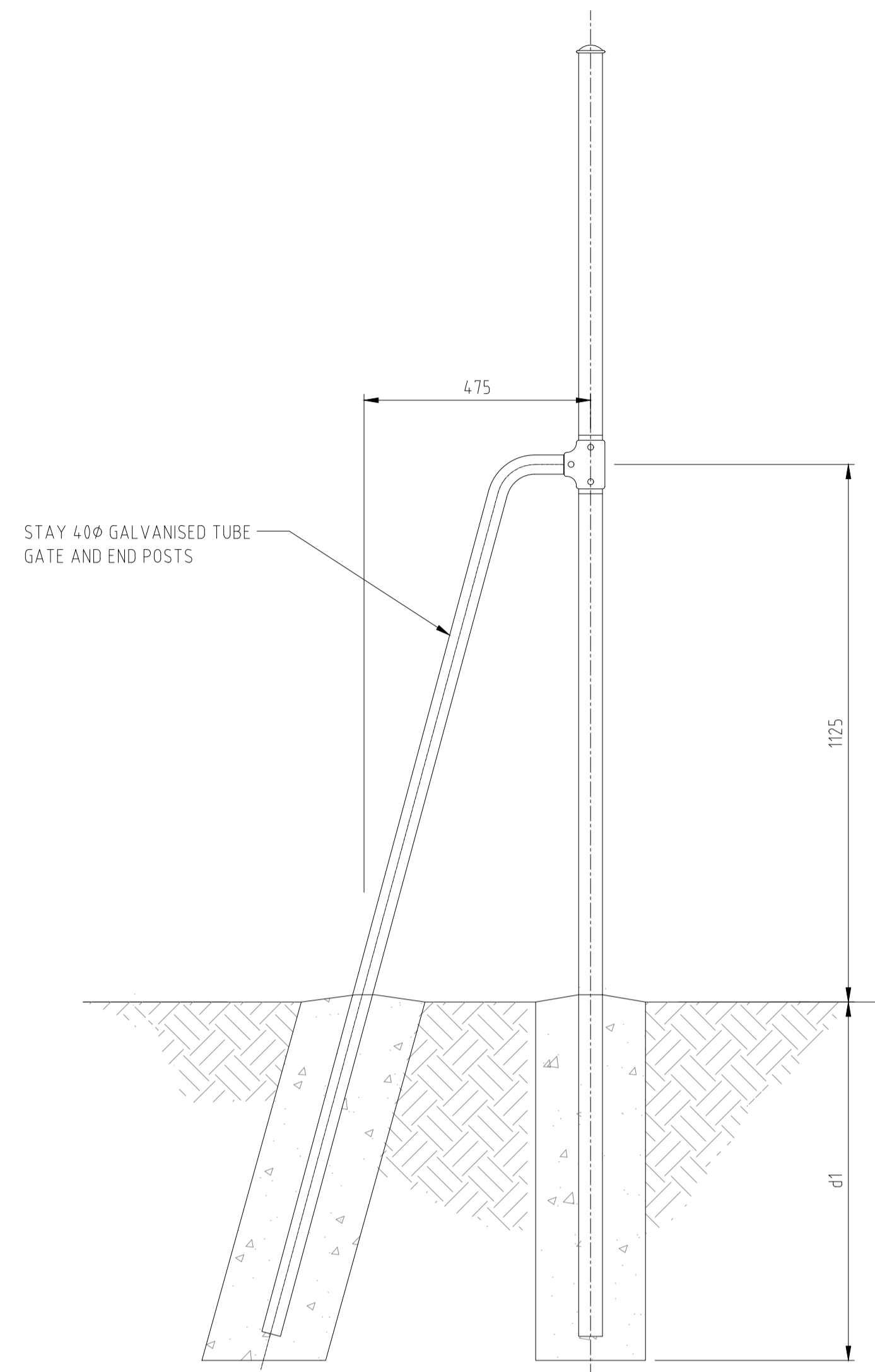
REPAIR AFTER SITE HANDLING AND INSTALLATION

THE SAME PROCEDURE AND QUALITY OF REPAIR PRODUCTS SHALL APPLY AS FOR GALVANIZING PROCESS WORKS. GIVEN THE LESS SPECIFIC FACILITIES AVAILABLE ON SITE, PARTICULAR CARE IS REQUIRED WITH SURFACE PREPARATION AND ENSURING THE MOST SUITABLE METHOD NEEDED WITH THE MINIMUM 100µm DRY FILM THICKNESS DESCRIBED.

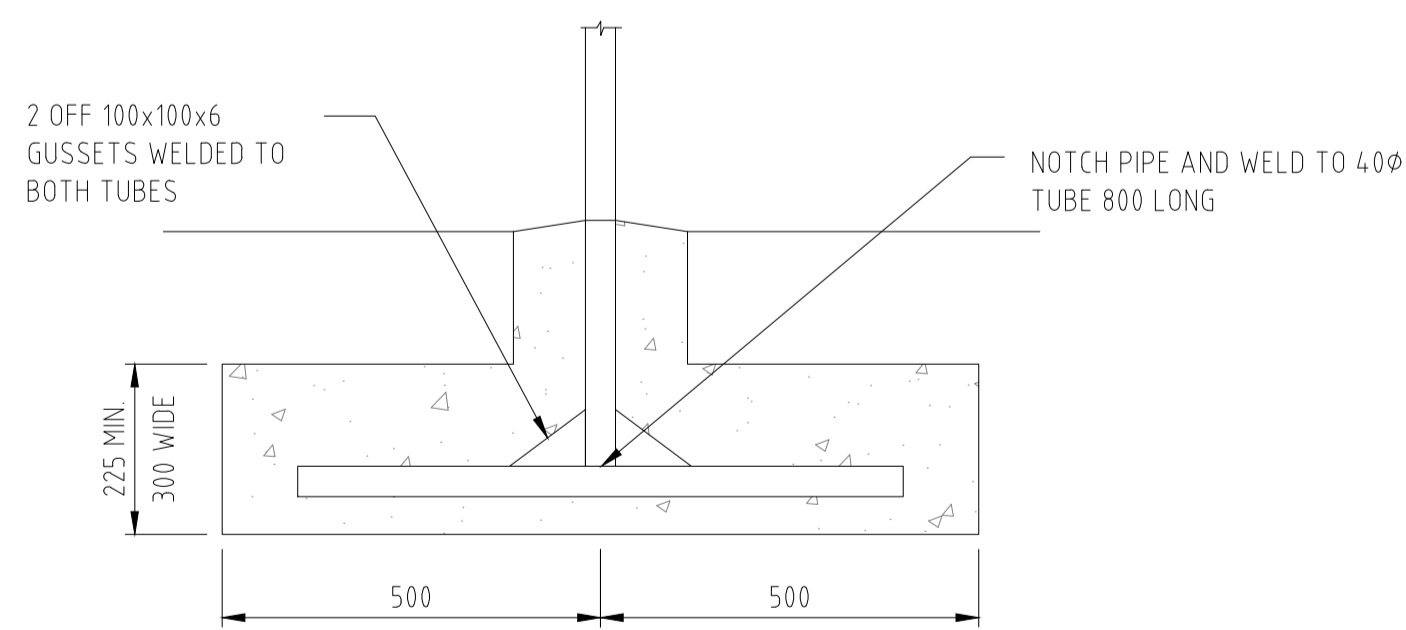
SITE REPAIR

- GALVANIZING RECTIFICATION DESCRIBED (IN REPAIR REQUIREMENTS) AS PART OF A PLANT PROCESS, SHALL ALSO APPLY TO SITE WORK FOR THE REPAIR OF DAMAGE FROM STEEL HANDLING IMPACT, ERECTION DAMAGE OR SITE WELDING.

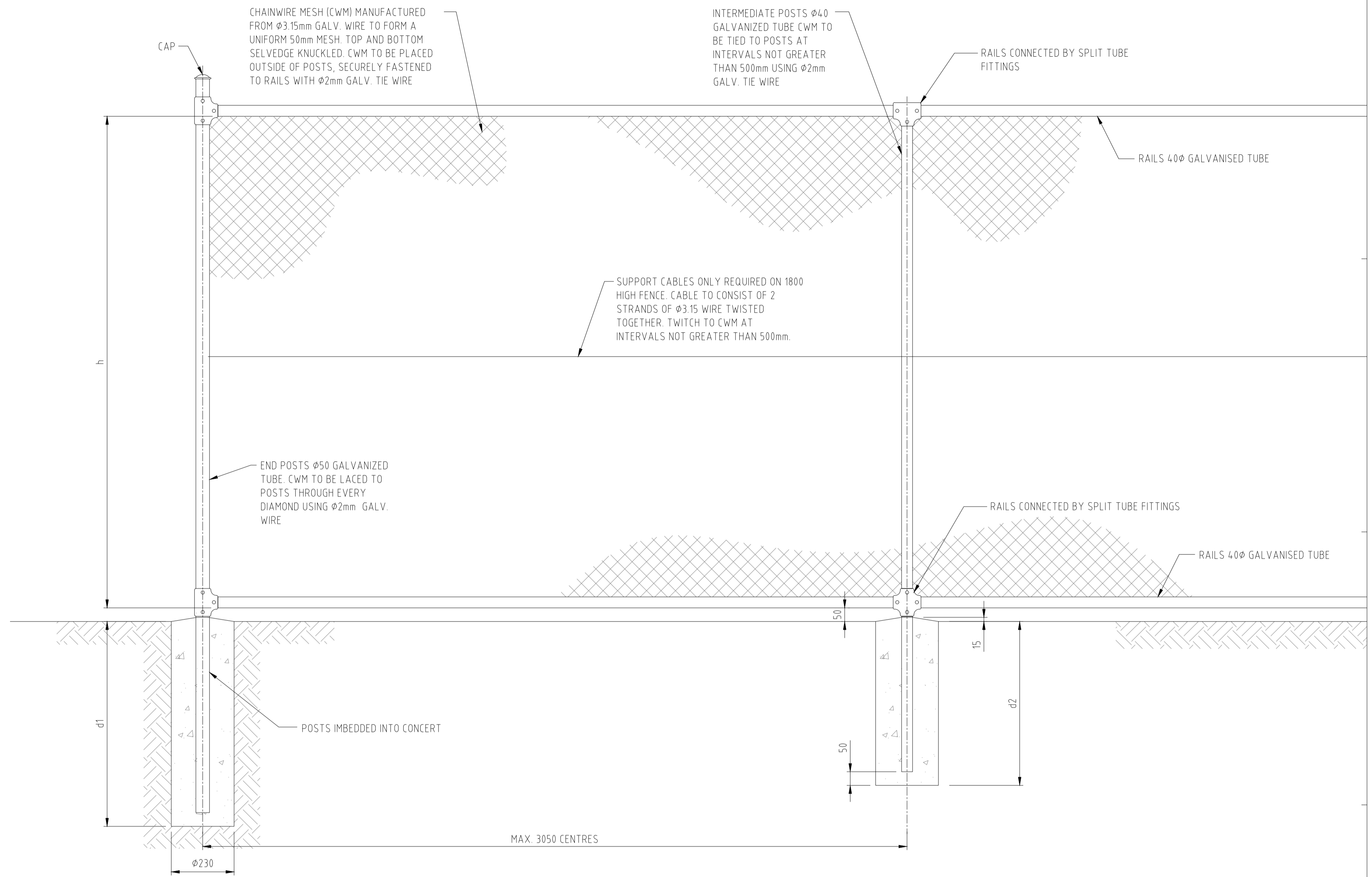
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AL TERATIONS	REFERENCES		DRAWN	EM	 <p>© COPYRIGHT HYDRO ELECTRIC CORPORATION 2022 NO PART OF THIS DRAWING MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM IN ANY FORM, OR TRANSMITTED BY ANY MEANS WITHOUT THE PRIOR PERMISSION OF THE HEC</p>		CLIENT		TITLE		SCALE		DRAWING		SHT		REV		SIZE	
	A1-16659-001 TO 014 STANDARD FENCE DRAWINGS		CHECKED	LF			STANDARD FENCE DRAWING													
			DESIGNED	LF																
			CHECKED	MB																
			APPROVED	MB																
			DATE	8/8/22																
		CLIENT ACCEPTED	XX																	
		REV	DATE	XX																



STAY DETAILS
(1800 FENCE ONLY)
SCALE 1:10



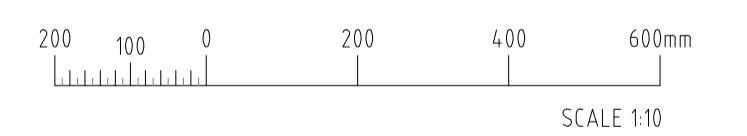
ALTERNATIVE FOOTING DETAIL
(WHEN ROCK IS NEAR SURFACE)
SCALE 1:10



GENERAL ARRANGEMENT
SCALE 1:10

FENCE HEIGHT & FOOTING DEPTH DETAILS

HEIGHT - h	900	1200	1800
DEPTH - d1	600	600	750
DEPTH - d2	450	450	600



ALTERATIONS

REFERENCES

A1-16659-001 TO 014 STANDARD FENCE DRAWINGS

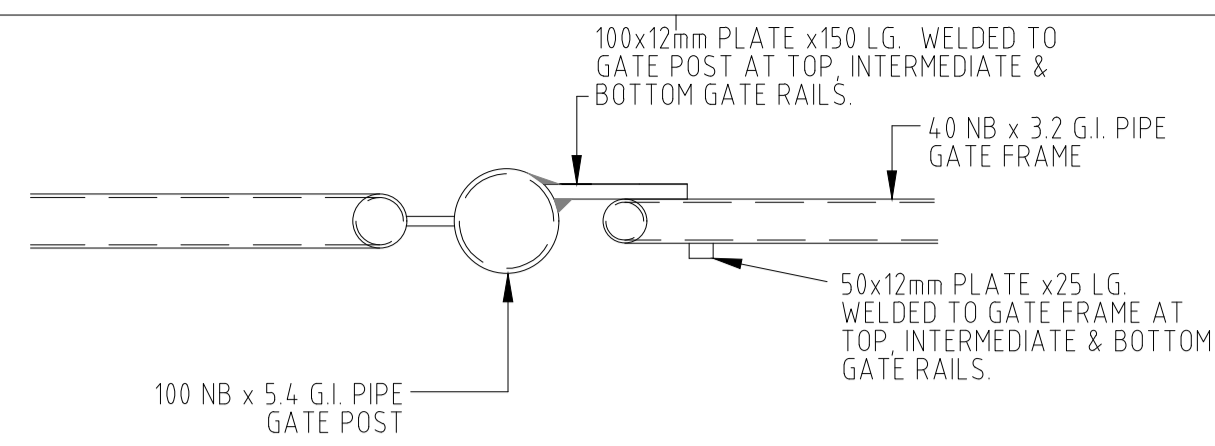
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APPROVED	MB
DATE	16/8/22
CLIENT ACCEPTED	XX
DATE	XX



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CLIENT

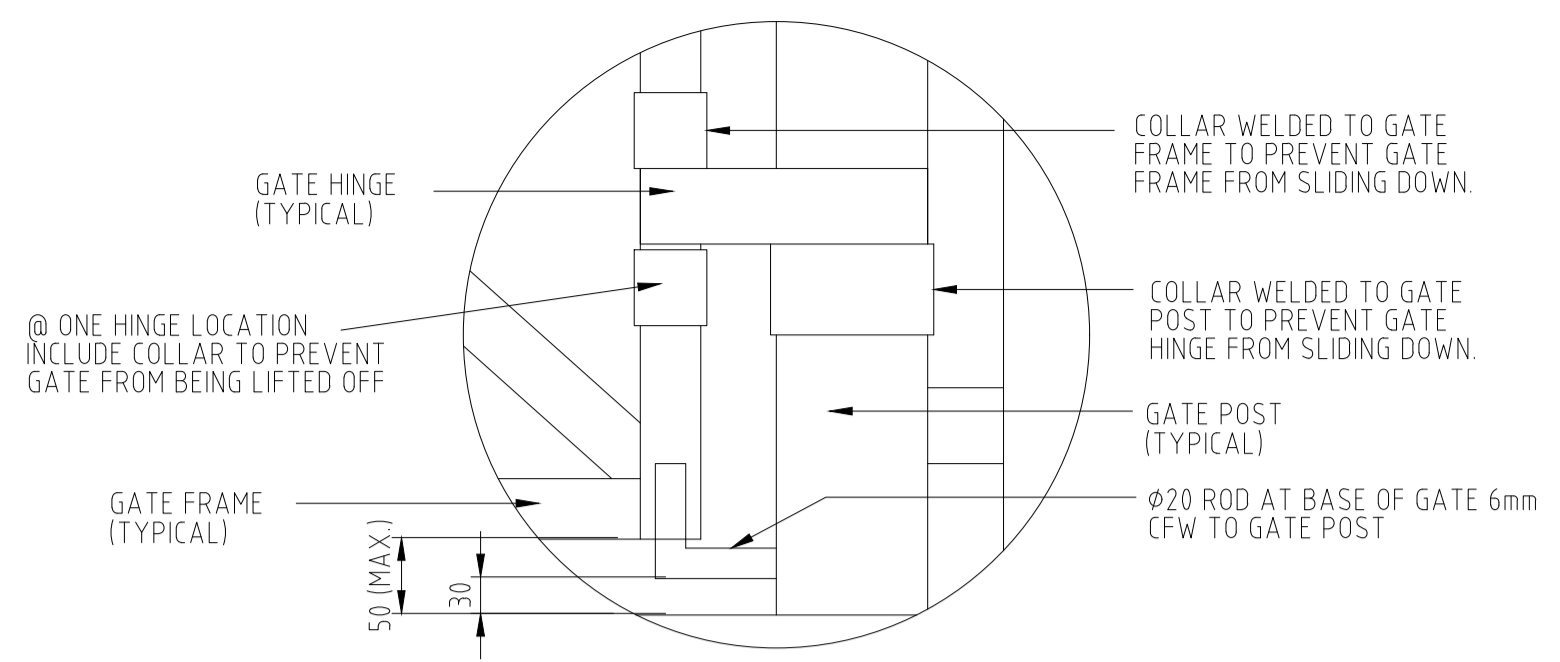
TITLE	STANDARD FENCE DRAWING CHAIN MESH FENCE - TYPE 1 DETAILS SHEET 1 OF 2			SCALE AS SHOWN
DRAWING	A1-16659	SHT	003	REV X1
				SIZE A1



TYPICAL GATE STOP DETAIL

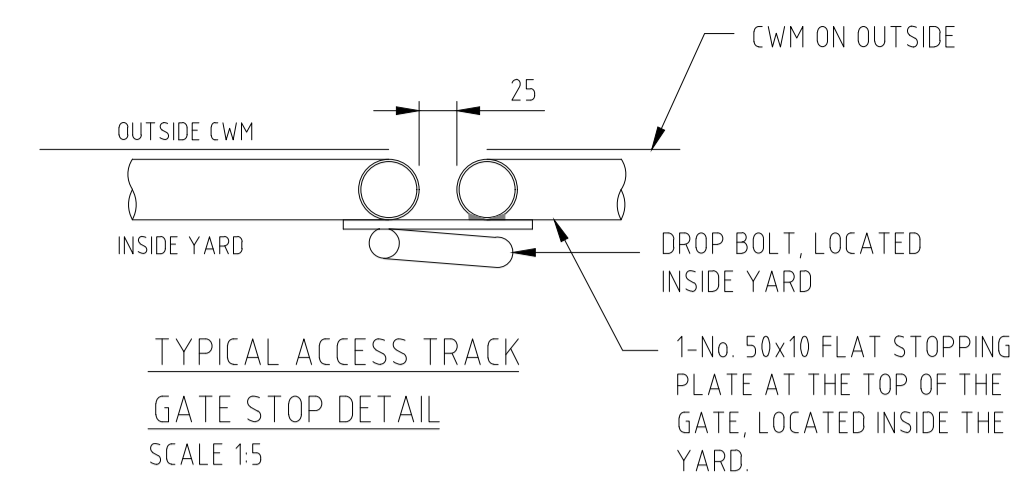
SCALE 1:10

- NOTES:
- TWO WELDED PLATES TO TOUCH WHEN GATES ARE IN A CLOSED POSITION. PLATES MUST BE INSTALLED AFTER GATES ARE HUNG IN FINAL POSITION.
 - PLATES INSTALLED ON ALL HORIZONTAL GATE FRAME MEMBERS. TYPICALLY 3 PER GATE LEAF.



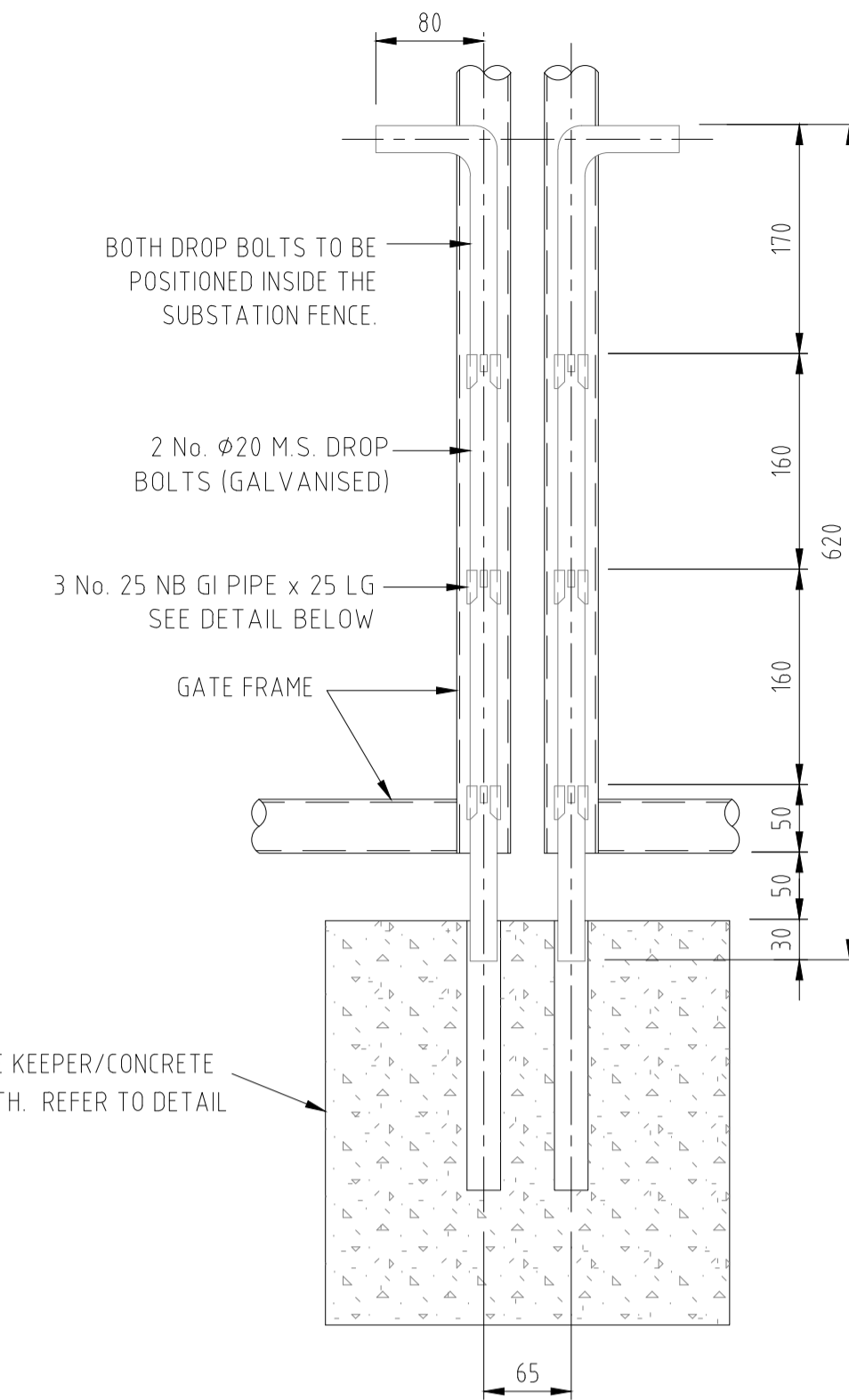
TYPICAL GATE HINGE DETAIL

N.T.S.



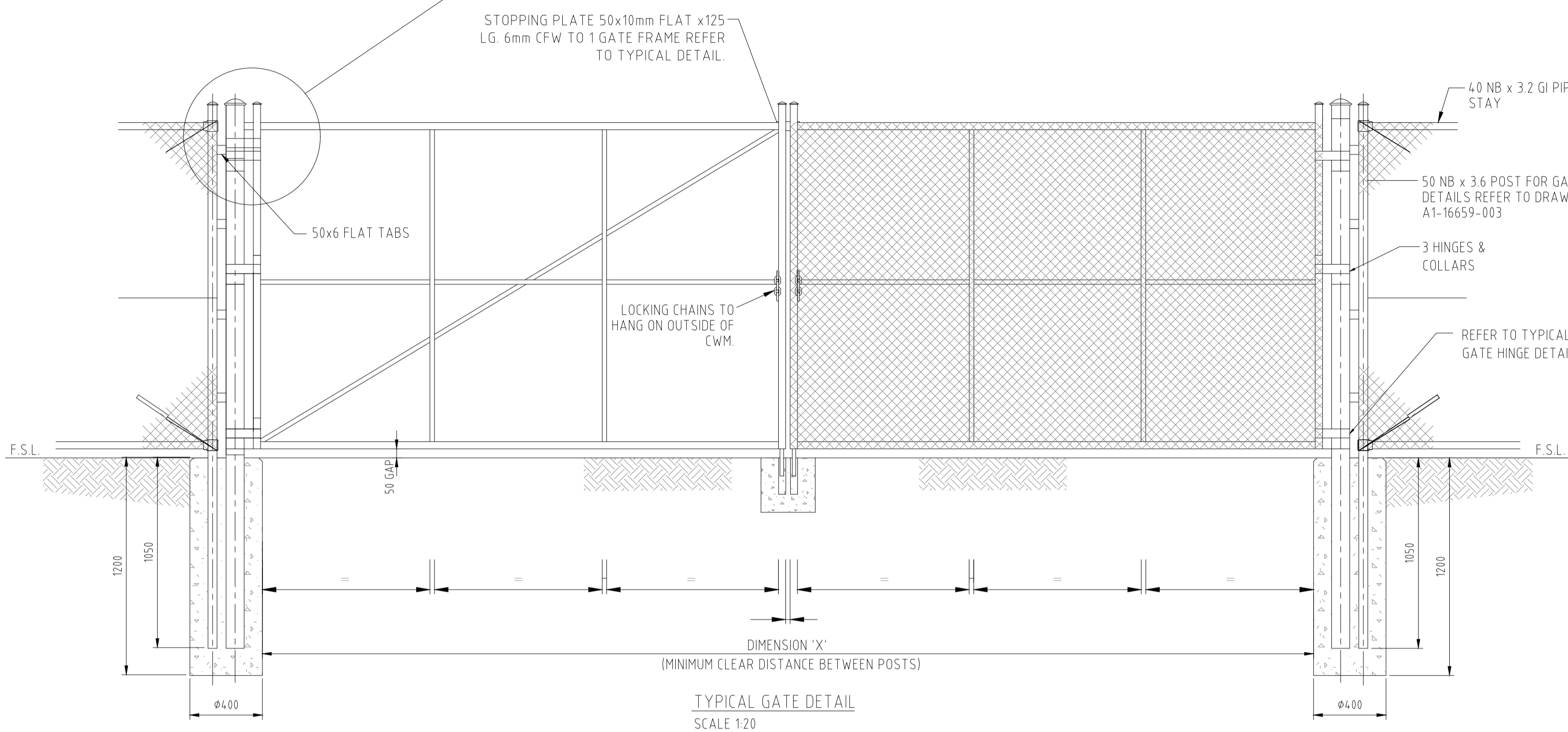
TYPICAL ACCESS TRACK GATE STOP DETAIL

SCALE 1:5



TYPICAL DROP BOLT DETAIL

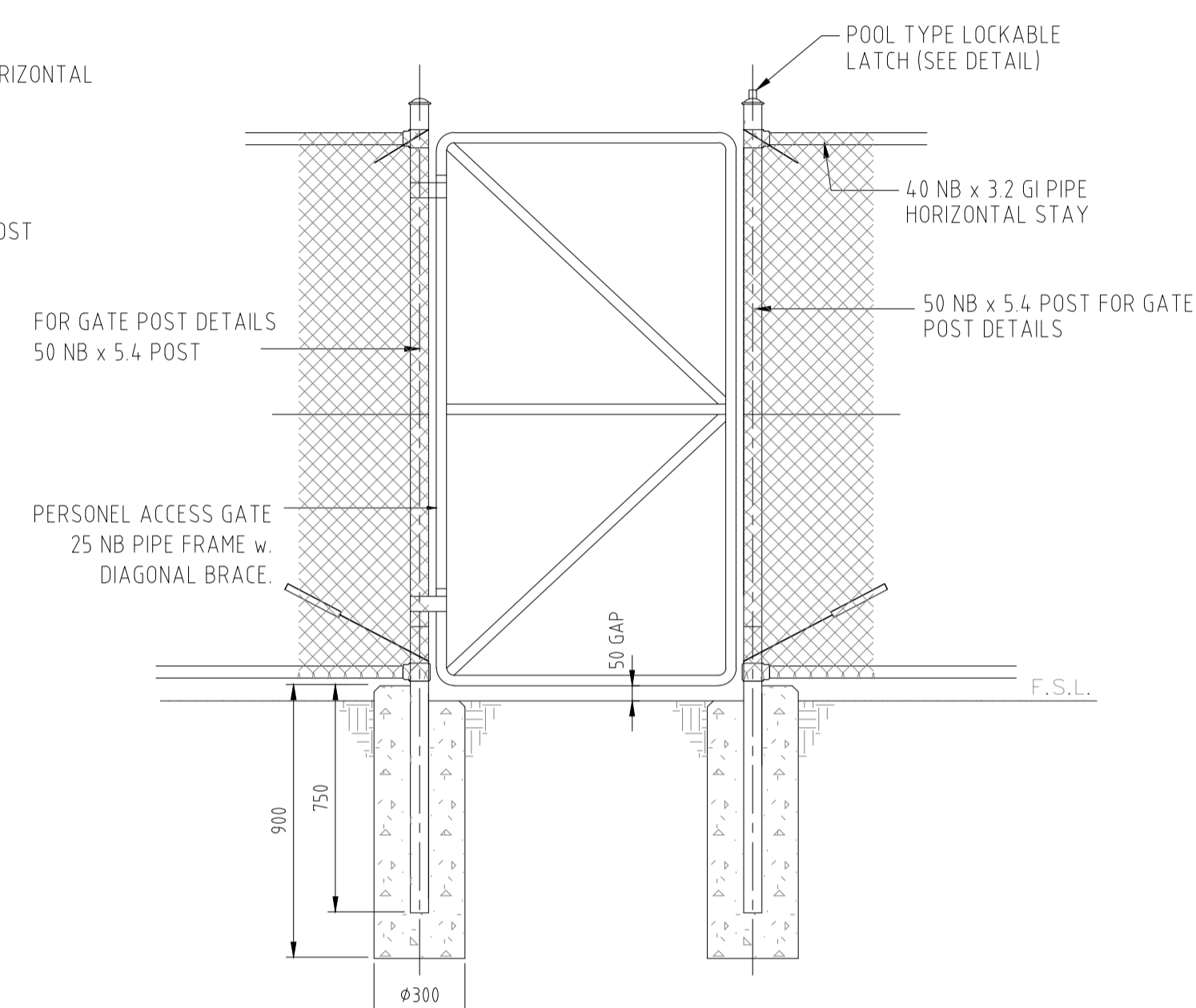
SCALE 1:5



TYPICAL GATE DETAIL

SCALE 1:20

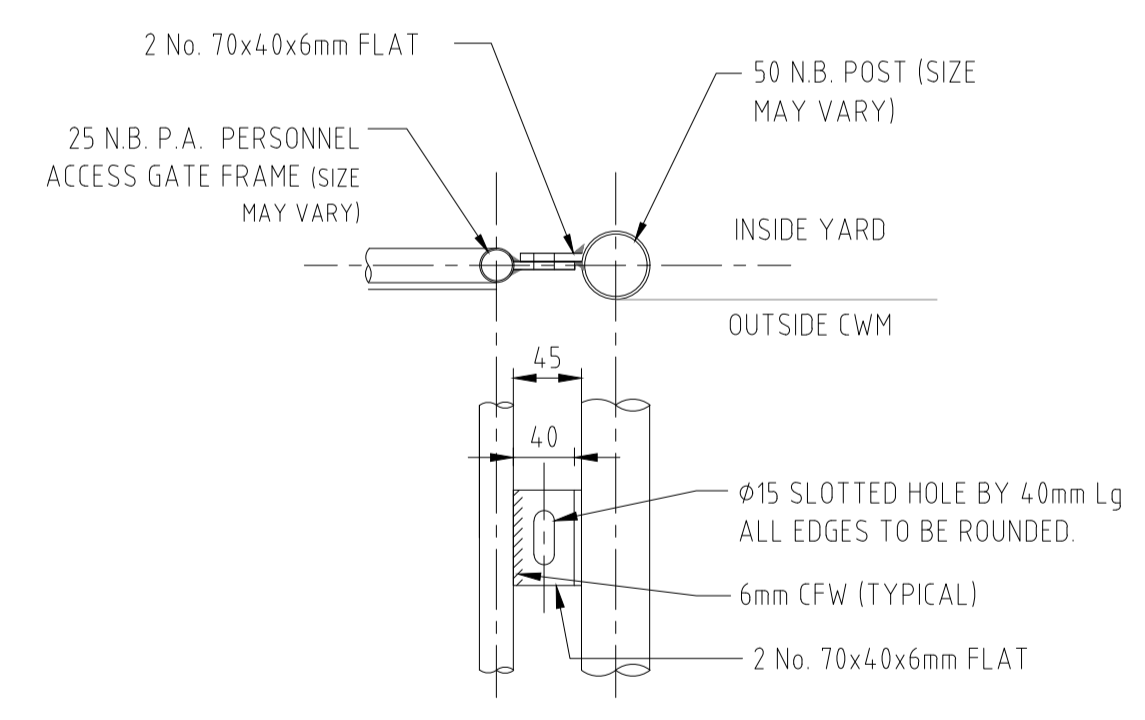
NOTE: ALL MAIN ACCESS GATES TO OPEN OUT OF YARD U.N.O.



TYPICAL 1000 CLEAR PERSONEL ACCESS GATE

SCALE 1:20

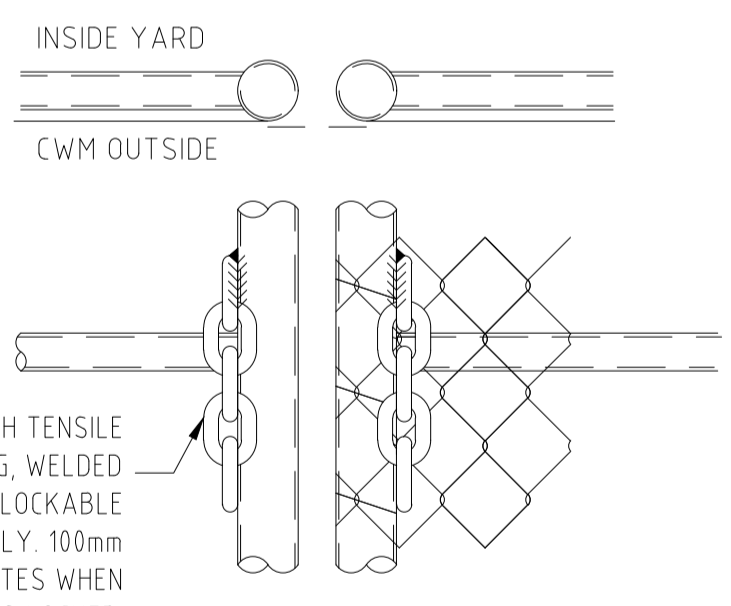
(VIEWED FROM OUTSIDE OF FENCE)



TYPICAL P.A. GATE LOCK DETAIL

SCALE 1:5

NOTE: ALL PA GATES TO OPEN OUT OF YARD U.N.O.

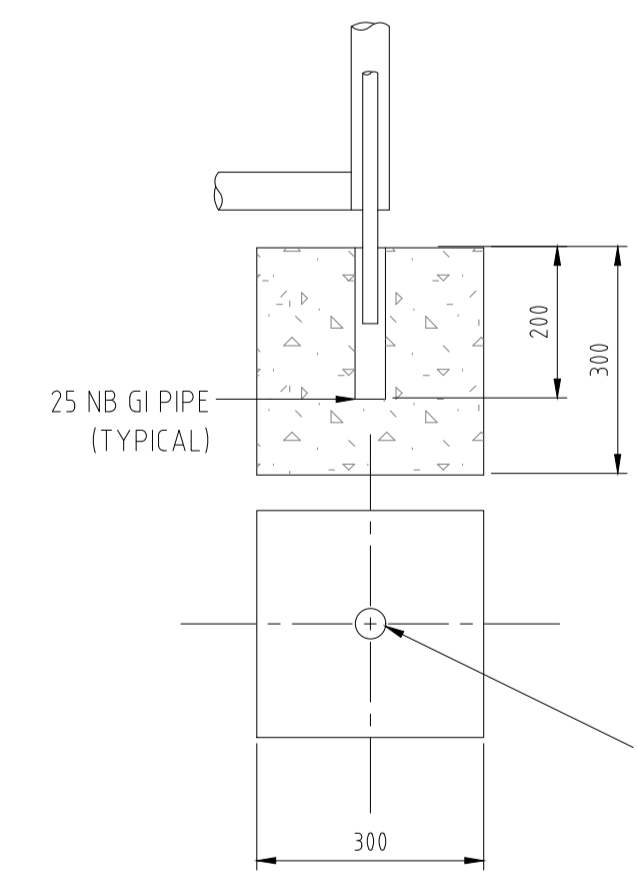


MAIN ACCESS GATES LOCKING CHAINS

SCALE 1:5



POOL TYPE LATCH (PULL TOP WITH KEY OPENING) (AS SHOWN OR APPROVED EQUIVALENT)

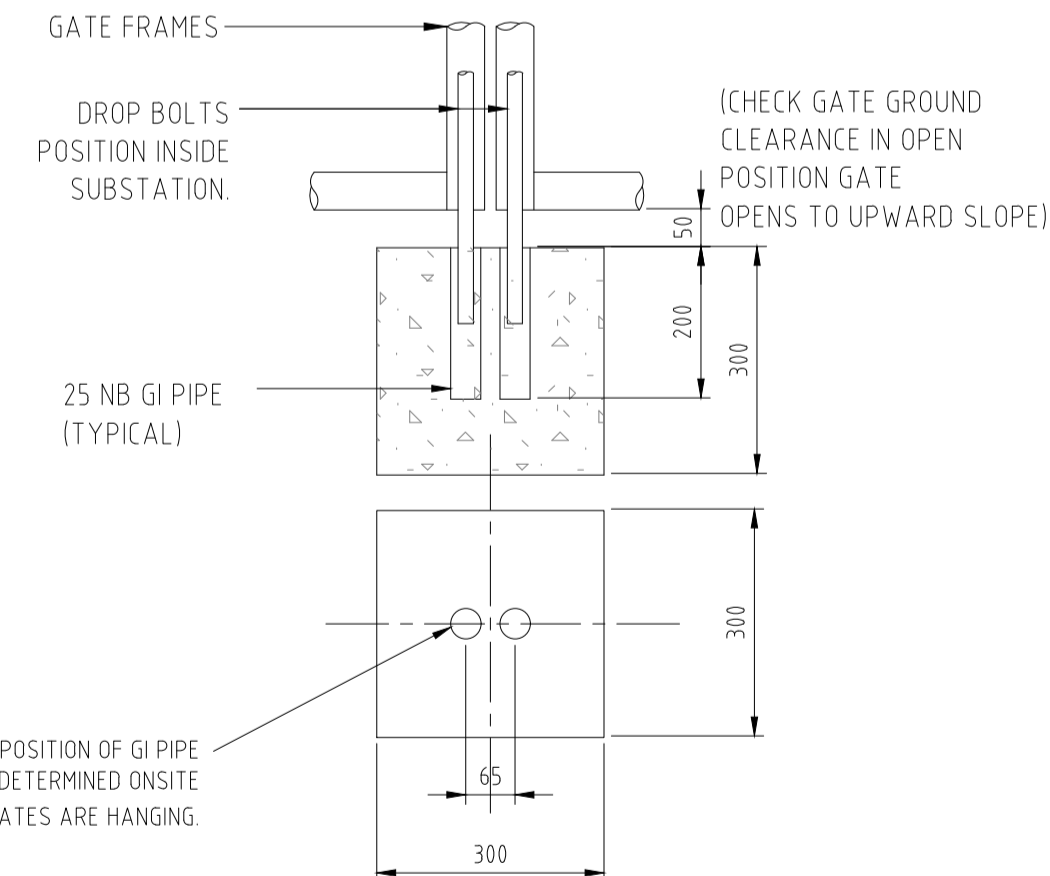


TYPICAL DOUBLE GATE STOP DETAIL

OPEN POSITION

1 No. PER GATE LEAF

SCALE 1:10

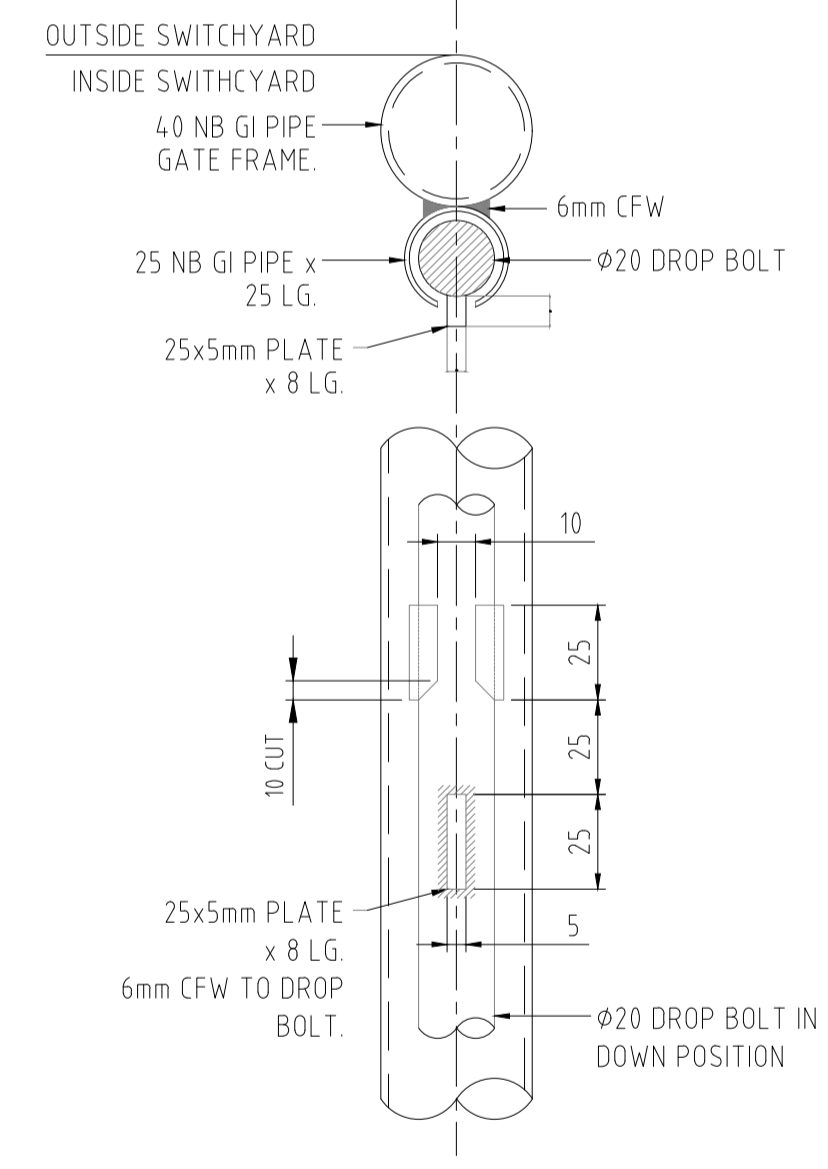


TYPICAL DOUBLE GATE STOP DETAIL

CLOSED POSITION

1 No. PER GATE

SCALE 1:10



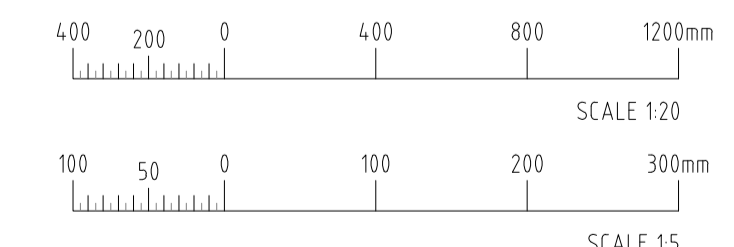
TYPICAL DROP BOLT SLEEVE DETAIL

SCALE 1:2

DIMENSION 'X'	TYPE OF POST (GI PIPE)	OUTER FRAME (GI PIPE)	INNER FRAME-V* STAYS (GI PIPE)		INNER FRAME-H** STAYS (GI PIPE)		INNER FRAME-BRACING (GI PIPE)	
			No.	No.	No.	No.	No.	No.
UP TO 3000	50 NB x 4.5	32 NB x 3.2	25 NB x 3.2	1	25 NB x 3.2	1	25 NB x 3.2	0
3000 TO 4900	80 NB x 4.8	32 NB x 3.2	25 NB x 3.2	1	25 NB x 3.2	1	25 NB x 3.2	1
4900 TO 6700	100 NB x 5.4	40 NB x 3.2	32 NB x 3.2	2	32 NB x 3.2	1	32 NB x 3.2	1
6700 TO 7500	150 NB x 5.4	40 NB x 3.2	32 NB x 3.2	2	32 NB x 3.2	1	32 NB x 3.2	1

V* = VERTICAL

H** = HORIZONTAL

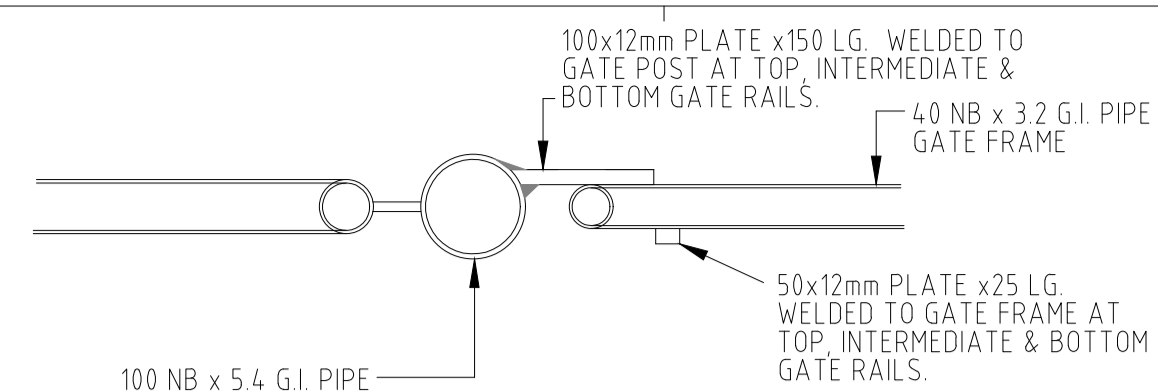


ALTERATIONS

REFERENCES		DRAWN	
A1-16659-001 TO 014	STANDARD FENCE DRAWINGS	EM	
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		MB	
		16/8/22	
		XX	
		XX	

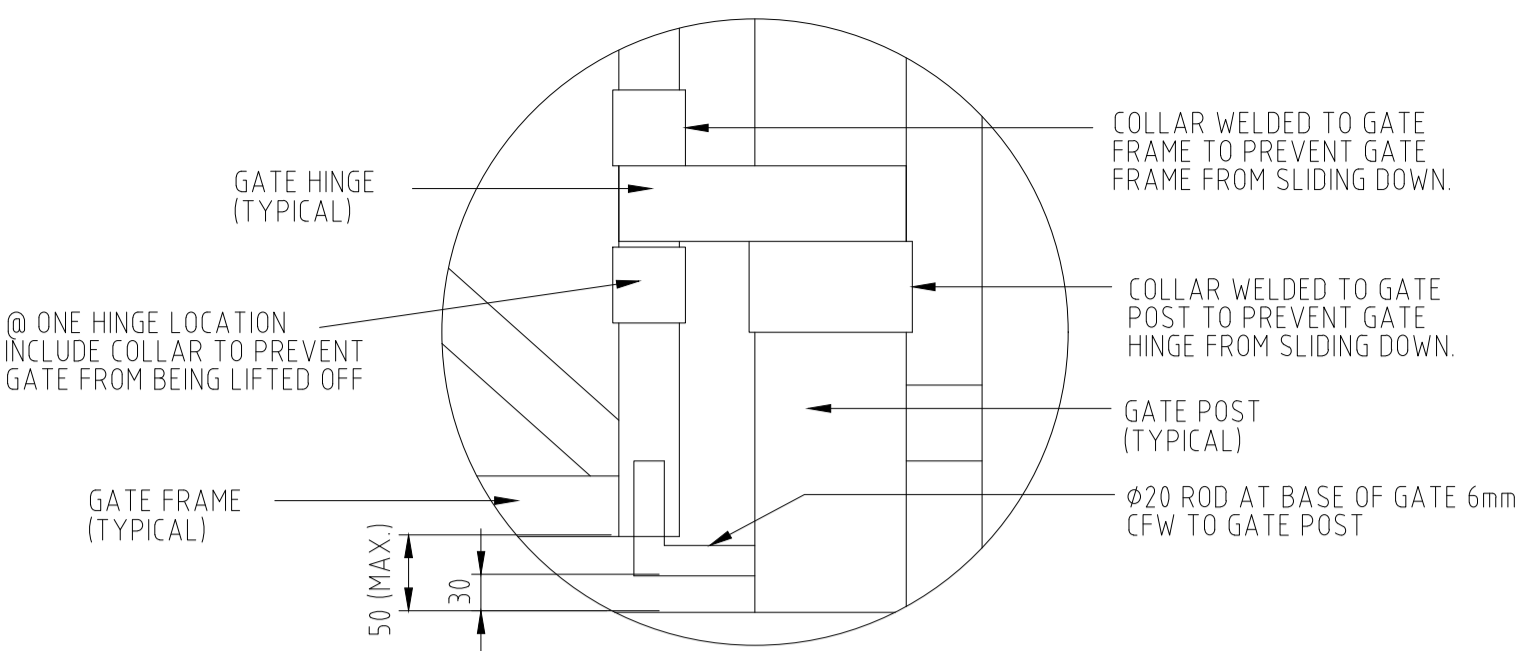
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CLIENT		SCALE	
STANDARD FENCE DRAWING CHAIN MESH FENCE - TYPE 1 DETAILS SHEET 2 OF 2		AS SHOWN	
A1-16659	004	X1	A1

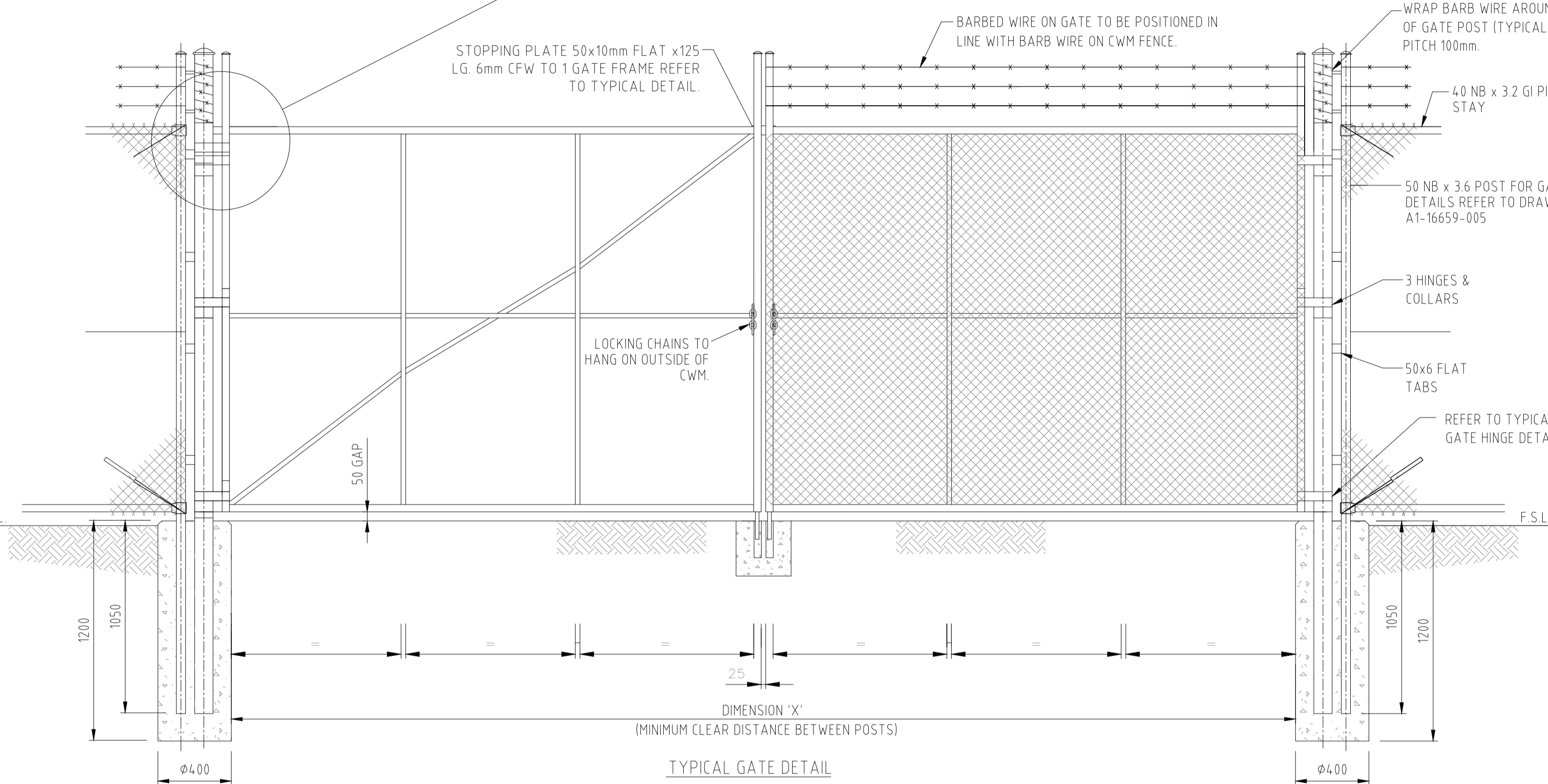


TYPICAL GATE STOP DETAIL
SCALE 1:10

- NOTES:
1. TWO WELDED PLATES TO TOUCH WHEN GATES ARE IN A CLOSED POSITION. PLATES MUST BE INSTALLED AFTER GATES ARE HUNG IN FINAL POSITION. PLATES INSTALLED ON ALL HORIZONTAL GATE FRAME MEMBERS. TYPICALLY 3 PER GATE LEAF.

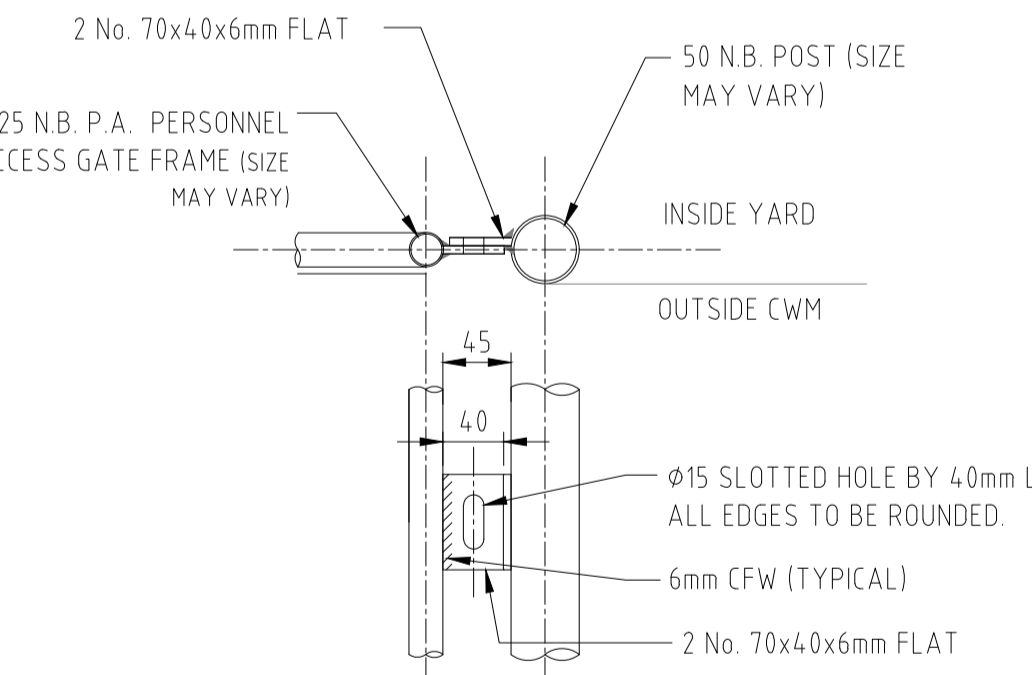


TYPICAL GATE HINGE DETAIL N.T.S.



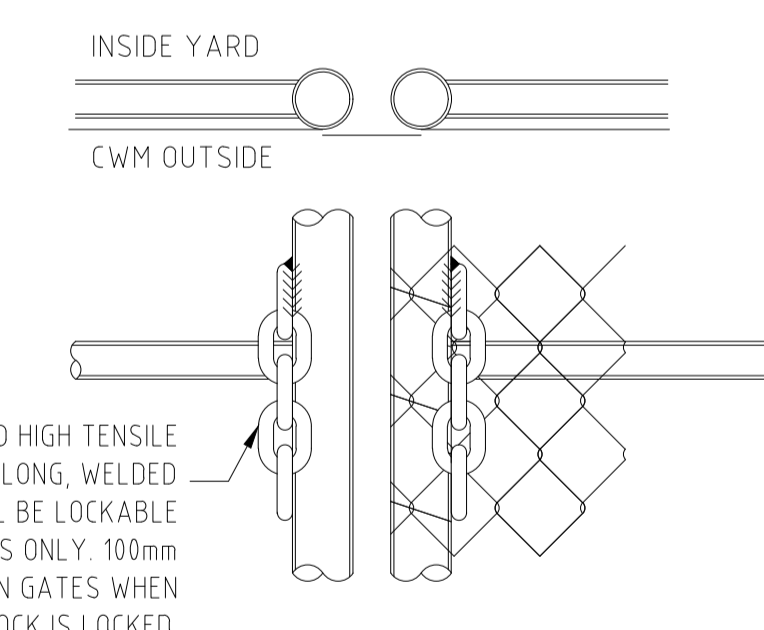
TYPICAL GATE DETAIL
SCALE 1:20

NOTE: ALL MAIN ACCESS GATES TO OPEN OUT OF YARD U.N.O.



TYPICAL P.A. GATE LOCK DETAIL
SCALE 1:5

NOTE: ALL PA GATES TO OPEN OUT OF YARD U.N.O.

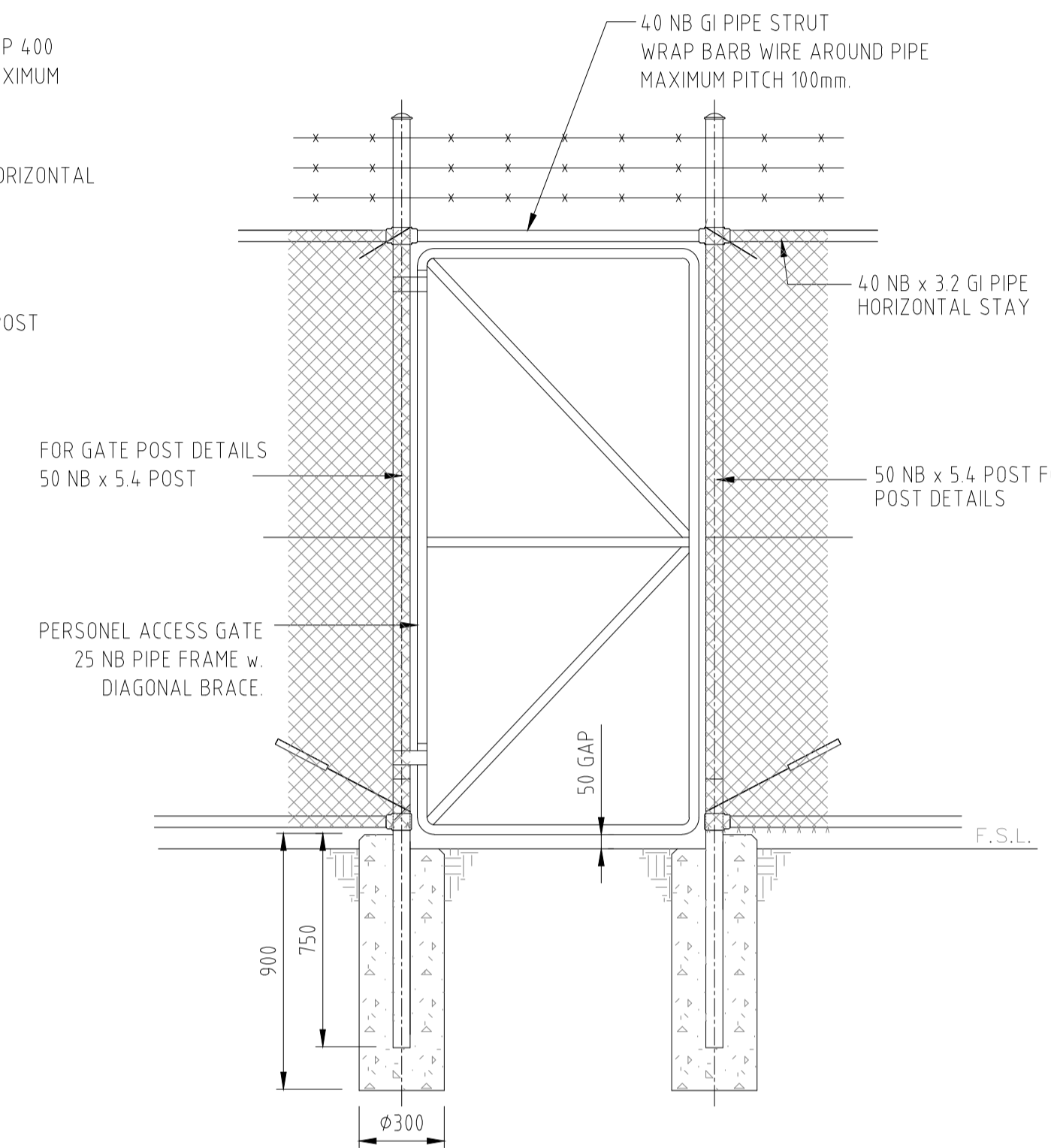


MAIN ACCESS GATES LOCKING CHAINS
SCALE 1:5

TABLE 2 - GATE DETAILS

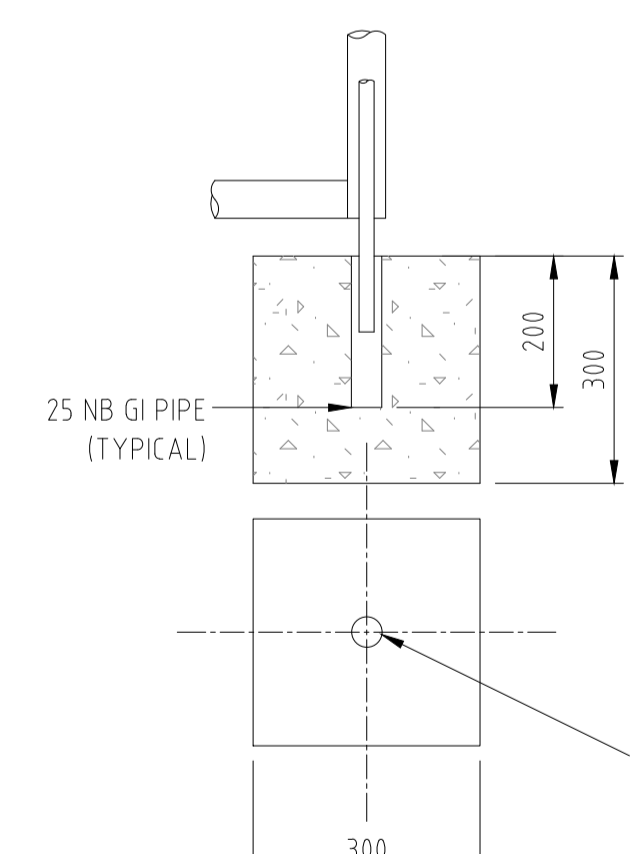
DIMENSION 'X'	TYPE OF POST (G.I. PIPE)	OUTER FRAME (G.I. PIPE)	INNER FRAME-Vx STAYS		INNER FRAME-Hxx STAYS		INNER FRAME-BRACING	
			(G.I. PIPE)	No.	(G.I. PIPE)	No.	(G.I. PIPE)	No.
UP TO 3000	50 NB x 4.5	32 NB x 3.2	25 NB x 3.2	1	25 NB x 3.2	1	25 NB x 3.2	0
3000 TO 4900	80 NB x 4.8	32 NB x 3.2	25 NB x 3.2	1	25 NB x 3.2	1	25 NB x 3.2	1
4900 TO 6700	100 NB x 5.4	40 NB x 3.2	32 NB x 3.2	2	32 NB x 3.2	1	32 NB x 3.2	1
6700 TO 7500	150 NB x 5.4	40 NB x 3.2	32 NB x 3.2	2	32 NB x 3.2	1	32 NB x 3.2	1

Vx = VERTICAL Hxx = HORIZONTAL

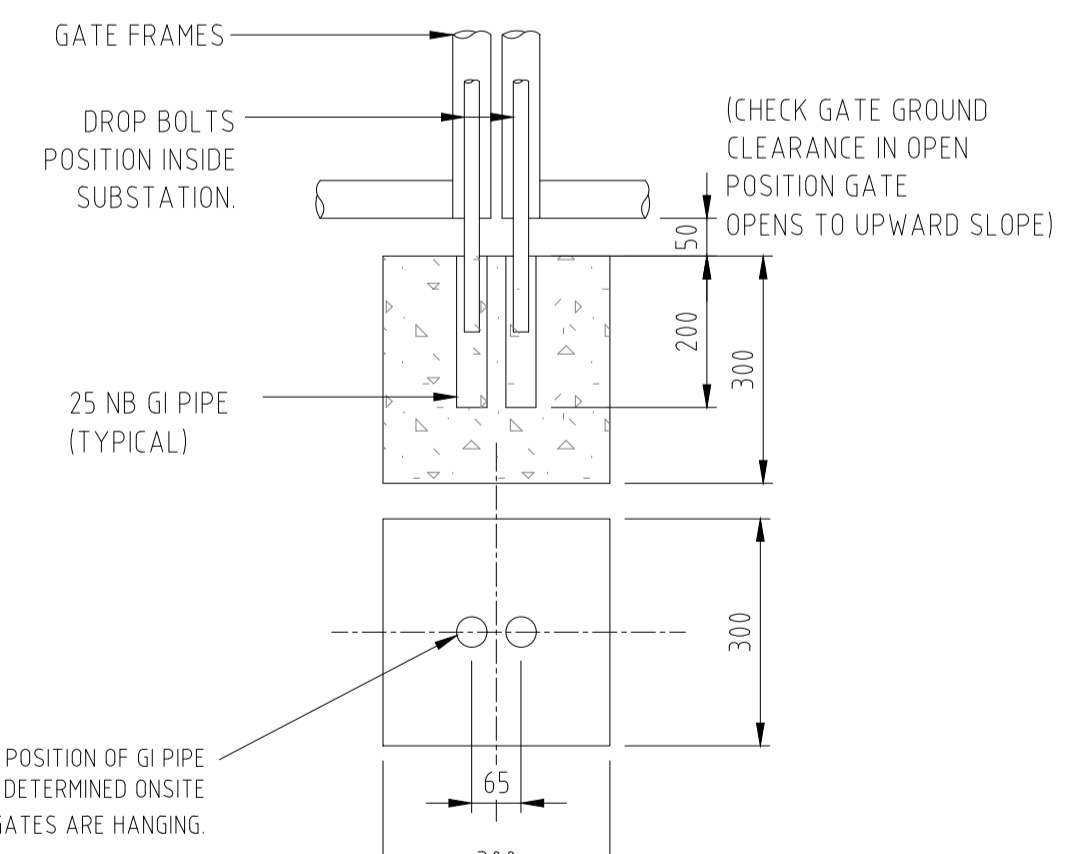


TYPICAL 1000 CLEAR PERSONEL ACCESS GATE
SCALE 1:20

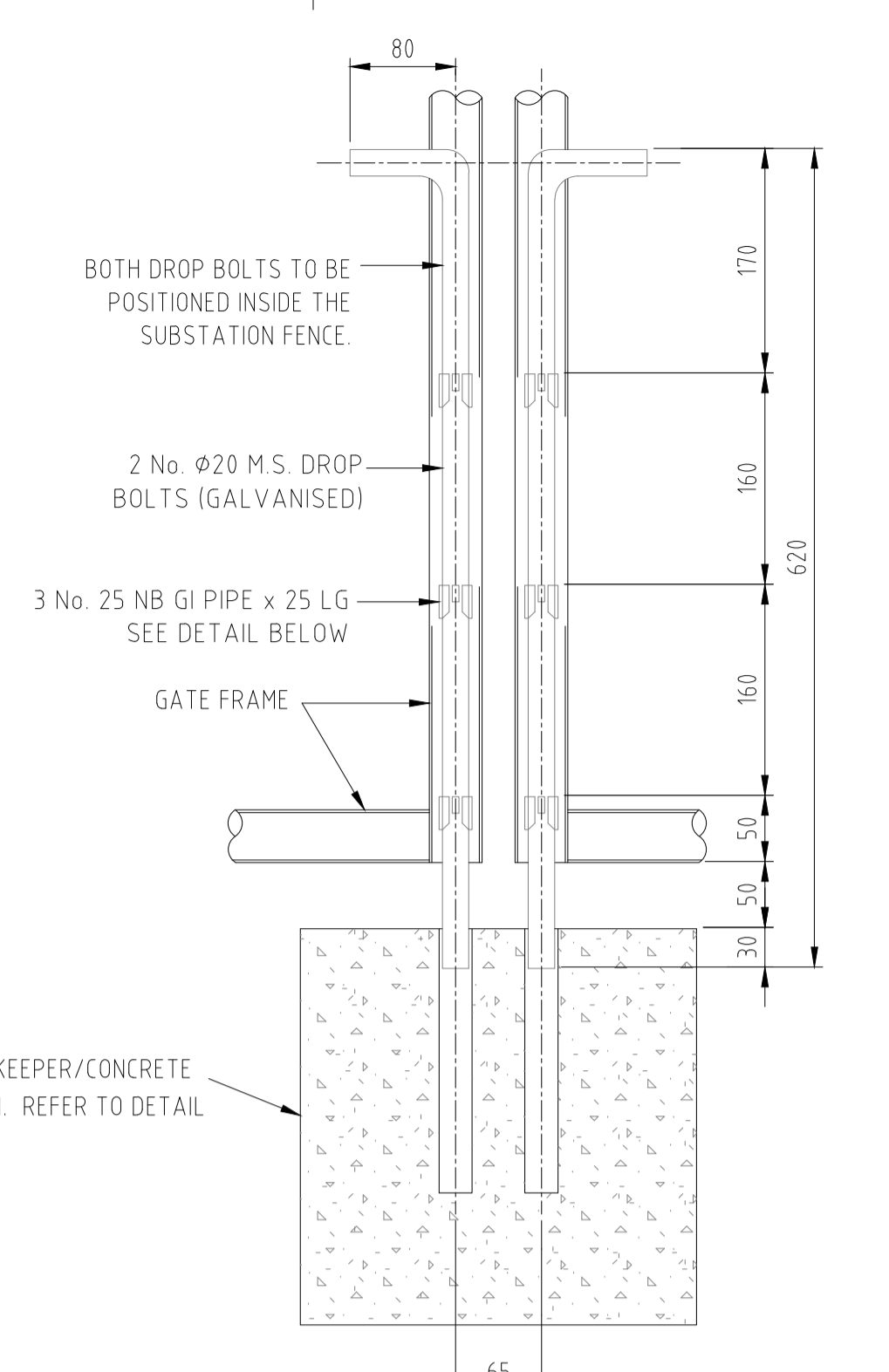
VIEWED FROM OUTSIDE SWITCHYARD



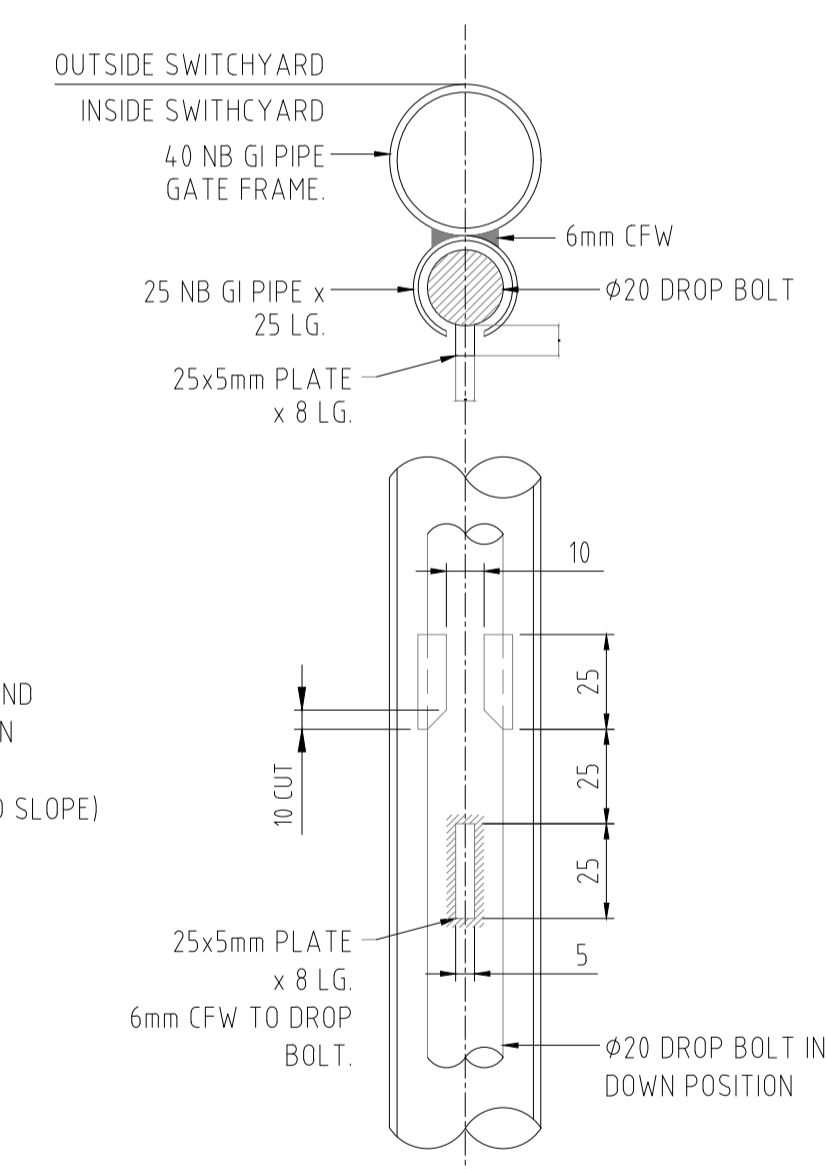
TYPICAL DOUBLE GATE STOP DETAIL
OPEN POSITION
1 No. PER GATE LEAF
SCALE 1:10



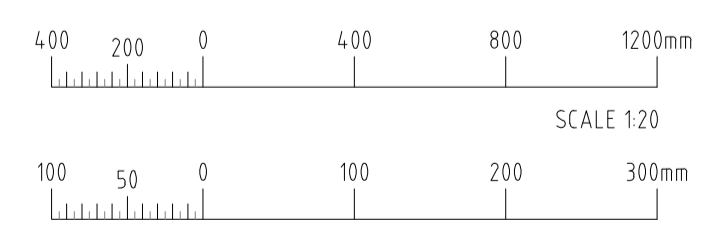
TYPICAL DOUBLE GATE STOP DETAIL
CLOSED POSITION
1 No. PER GATE.
SCALE 1:10



TYPICAL DROP BOLT DETAIL
SCALE 1:5



TYPICAL DROP BOLT SLEEVE DETAIL
SCALE 1:2



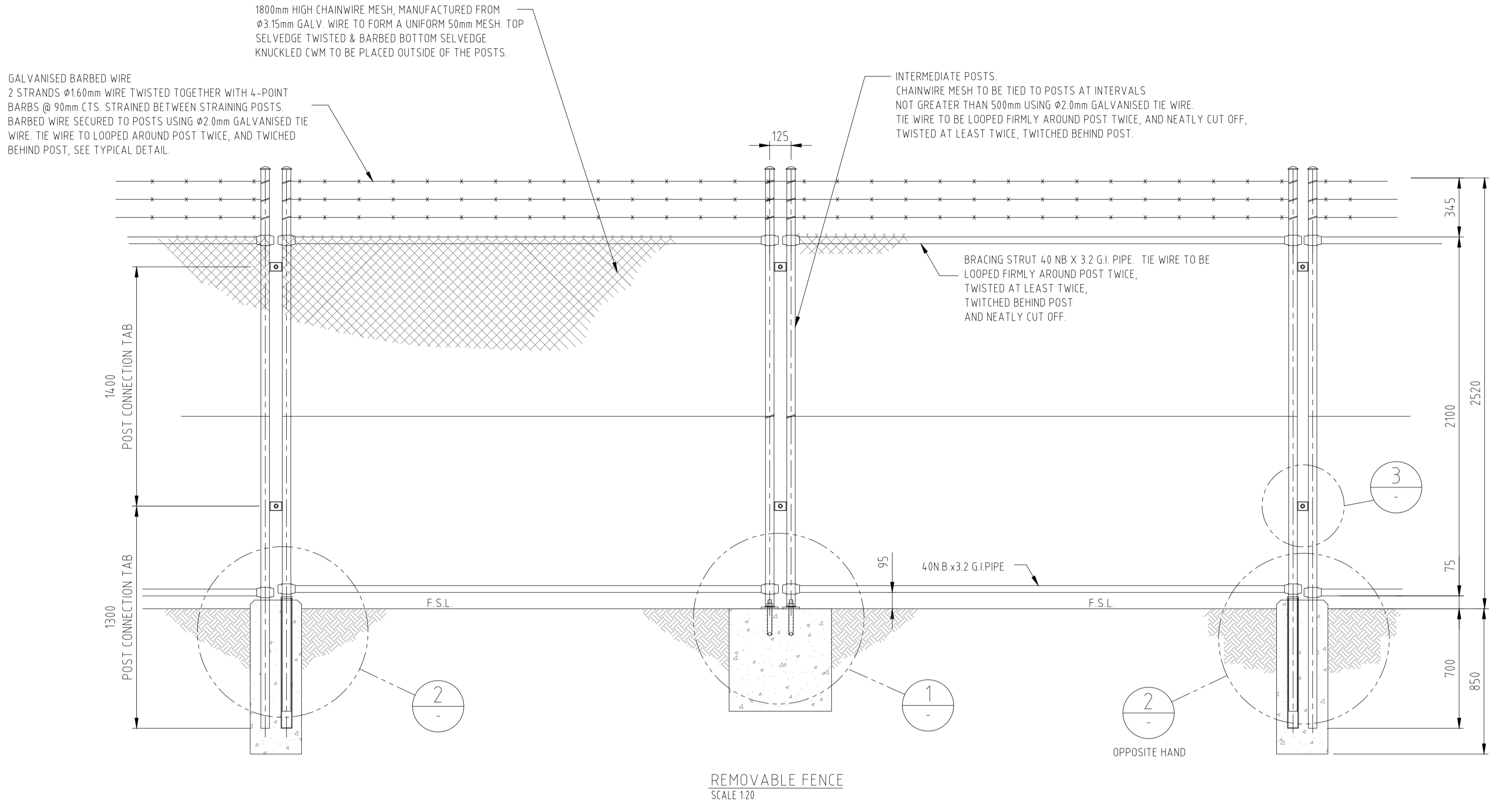
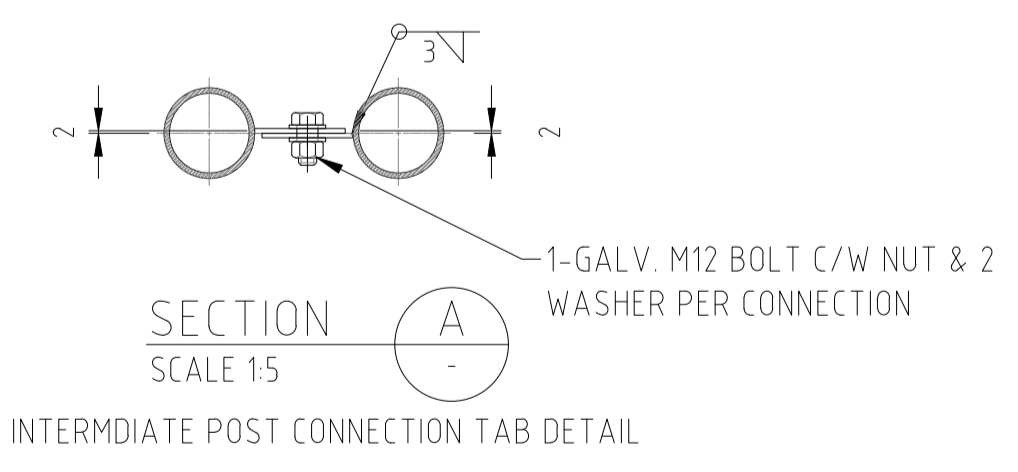
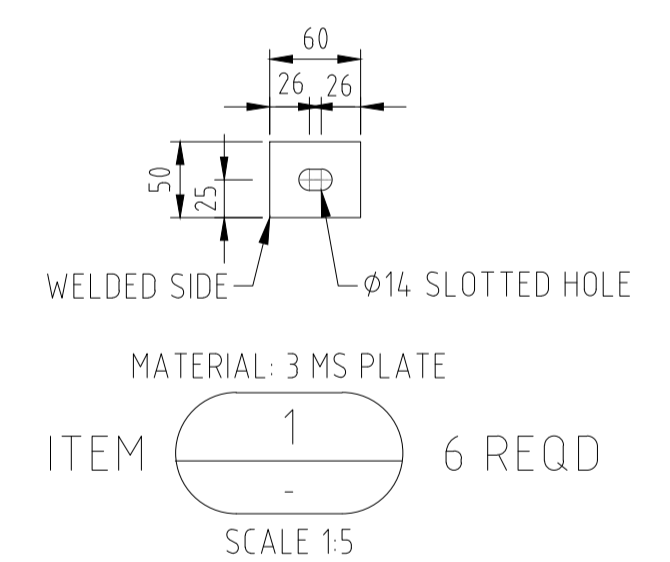
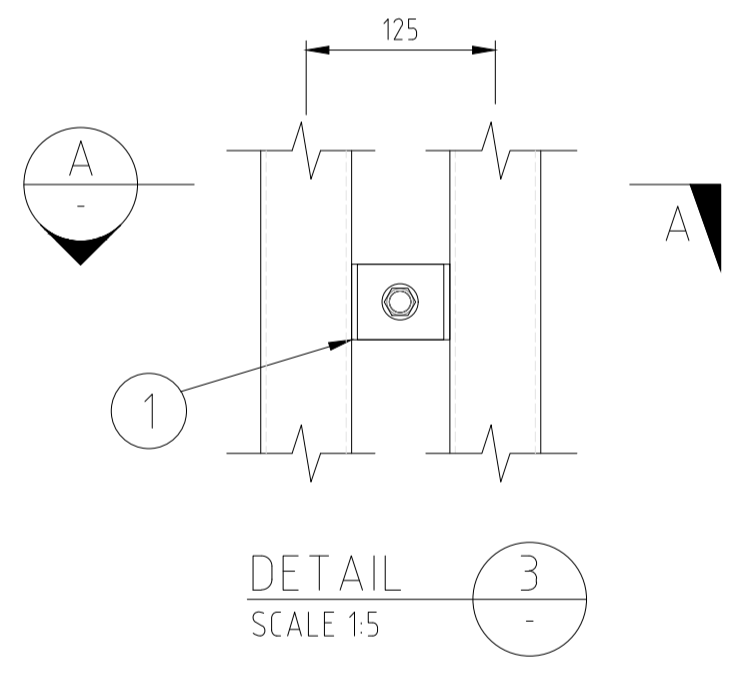
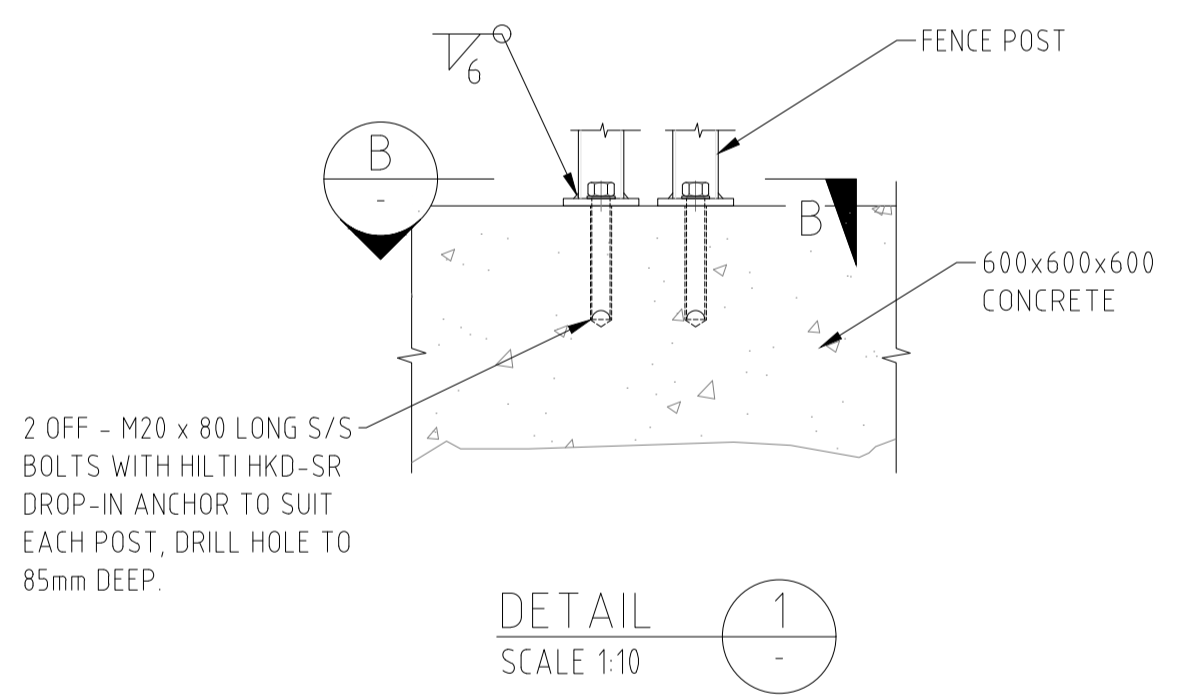
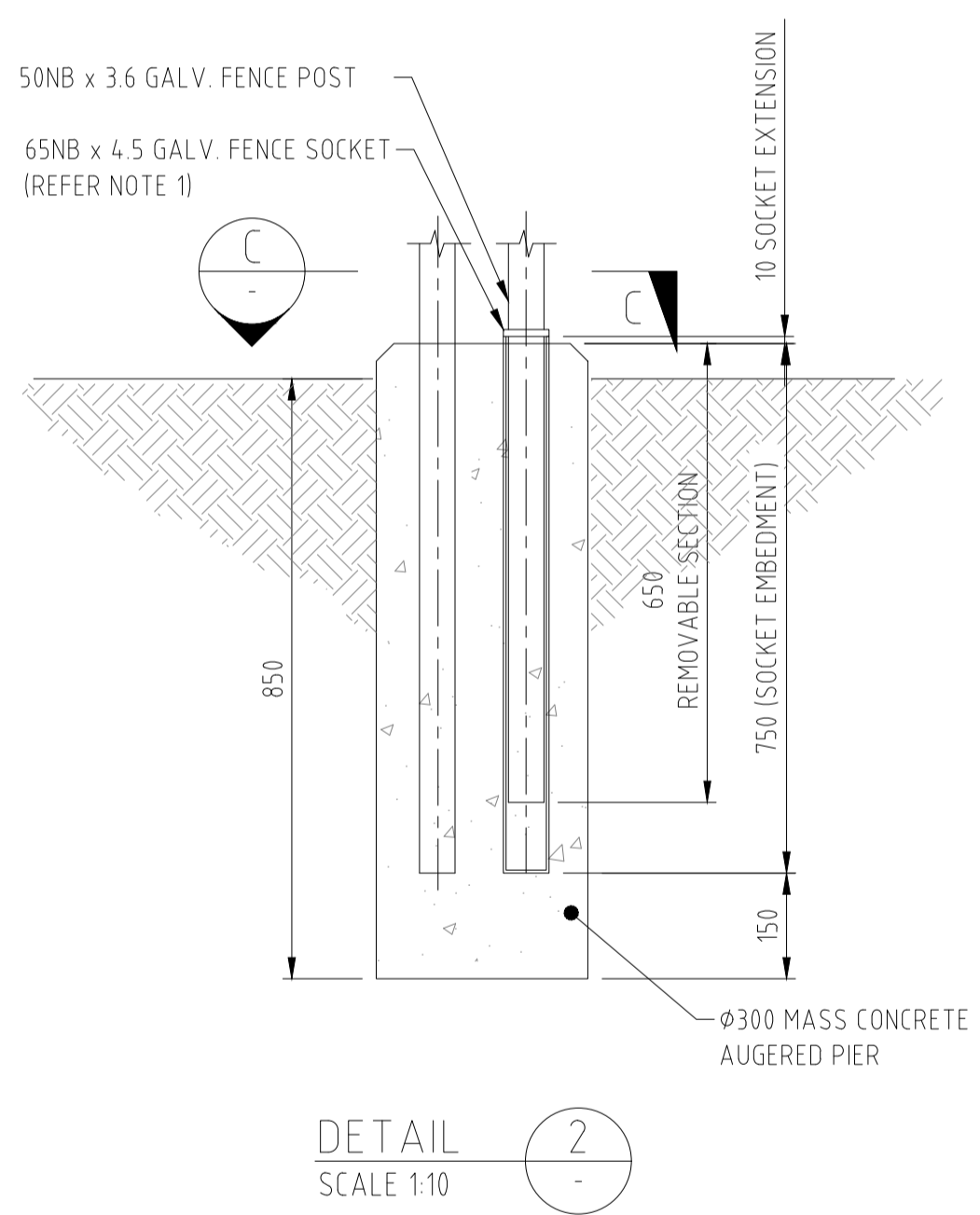
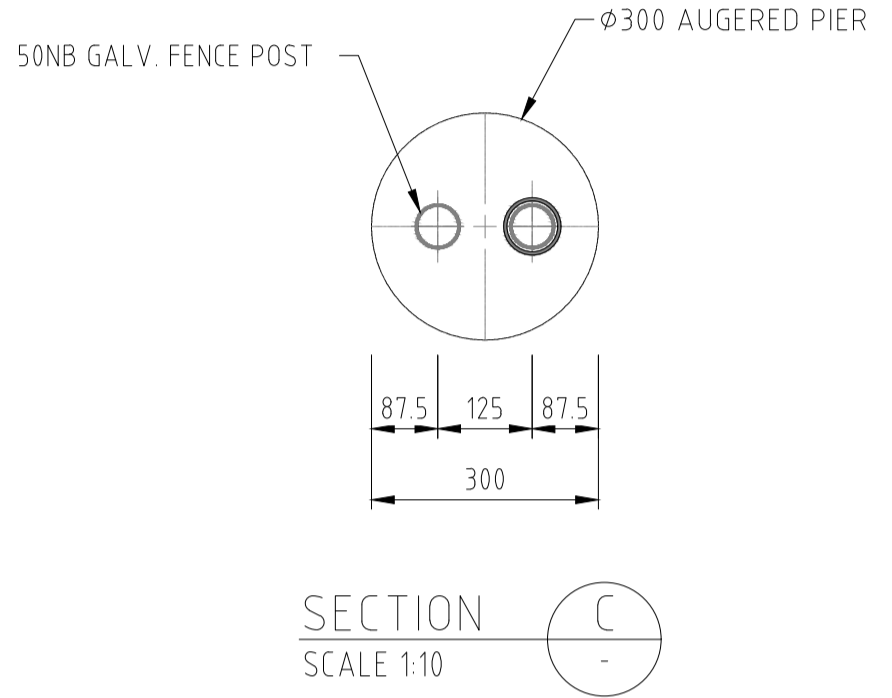
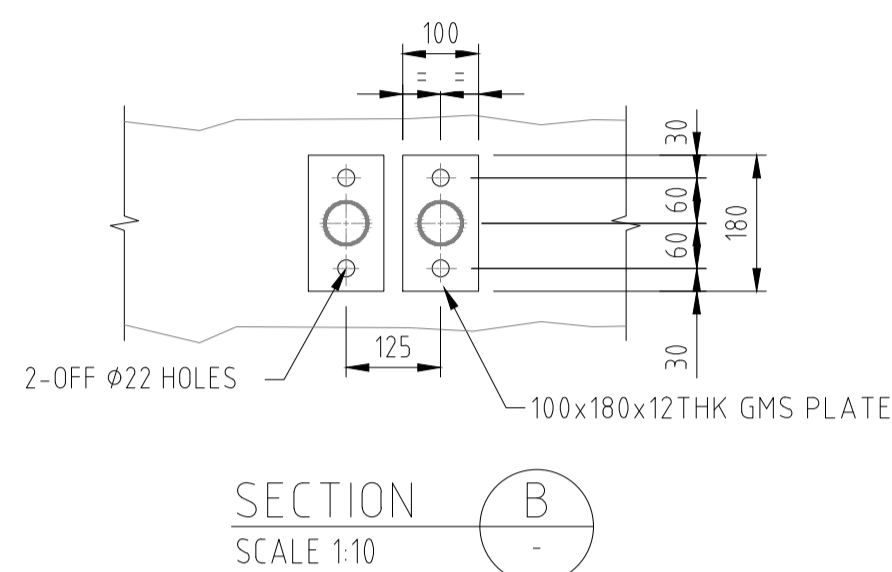
ALTERATIONS

REFERENCES		DRAWN	EM
A1-16659-001 TO 014	STANDARD FENCE DRAWINGS	CHECKED	LF
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		CHECKED	MB
		APPROVED	MB
		DATE	16/8/22
		CLIENT ACCEPTED	XX
		DATE	XX

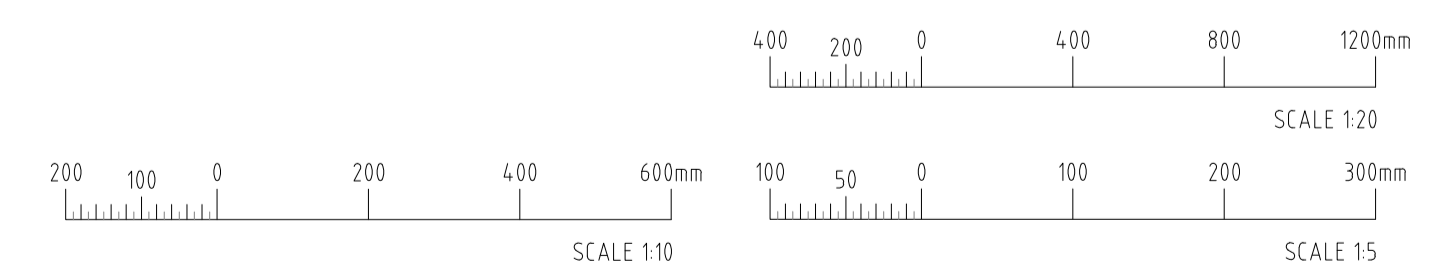
Hydro Tasmania

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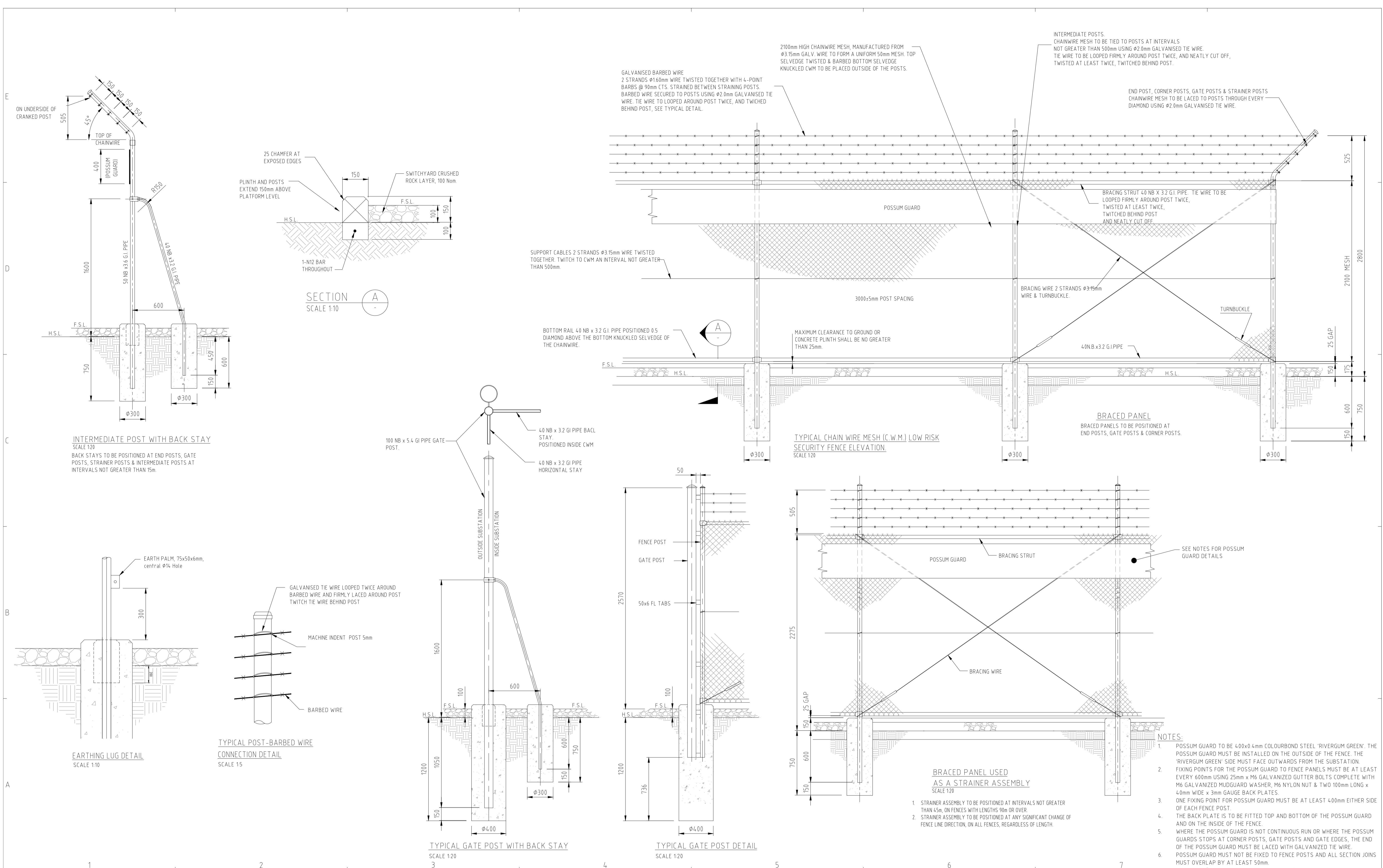
CLIENT	TITLE	SCALE
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DRAWING	A1-16659	SHT 006
REV	X1	SIZE A1



- NOTES:
- WELD 65NB x 10 HIGH GALV. TUBE, 660mm FROM BOTTOM OF 50NB REMOVABLE POSTS WITH 6mm CFW TO SET POST HEIGHT.



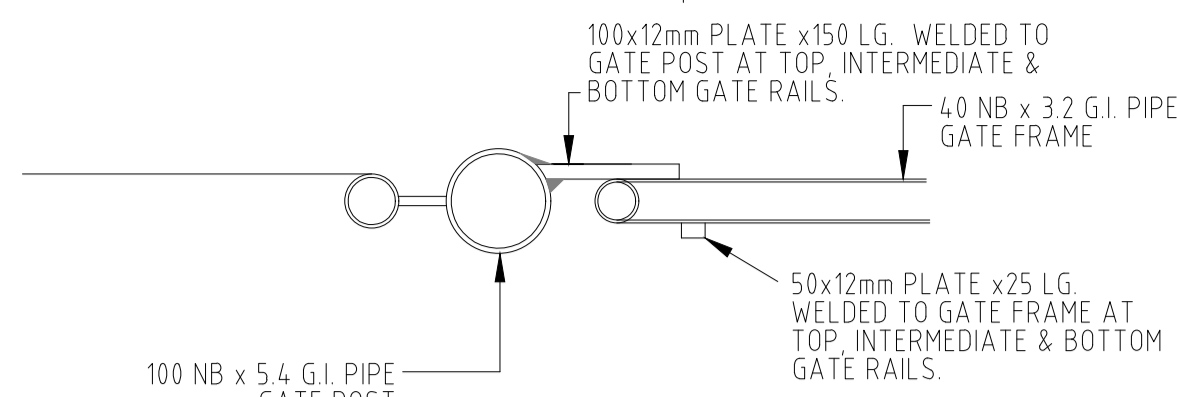
ALTERATIONS	1	2	3	4	5	6	7	8
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AL T E R A T I O N S	REFERENCES	DRAWN	EM	CLIENT	TITLE	SCALE
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		APPROVED	MB			
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		DATE	XX			
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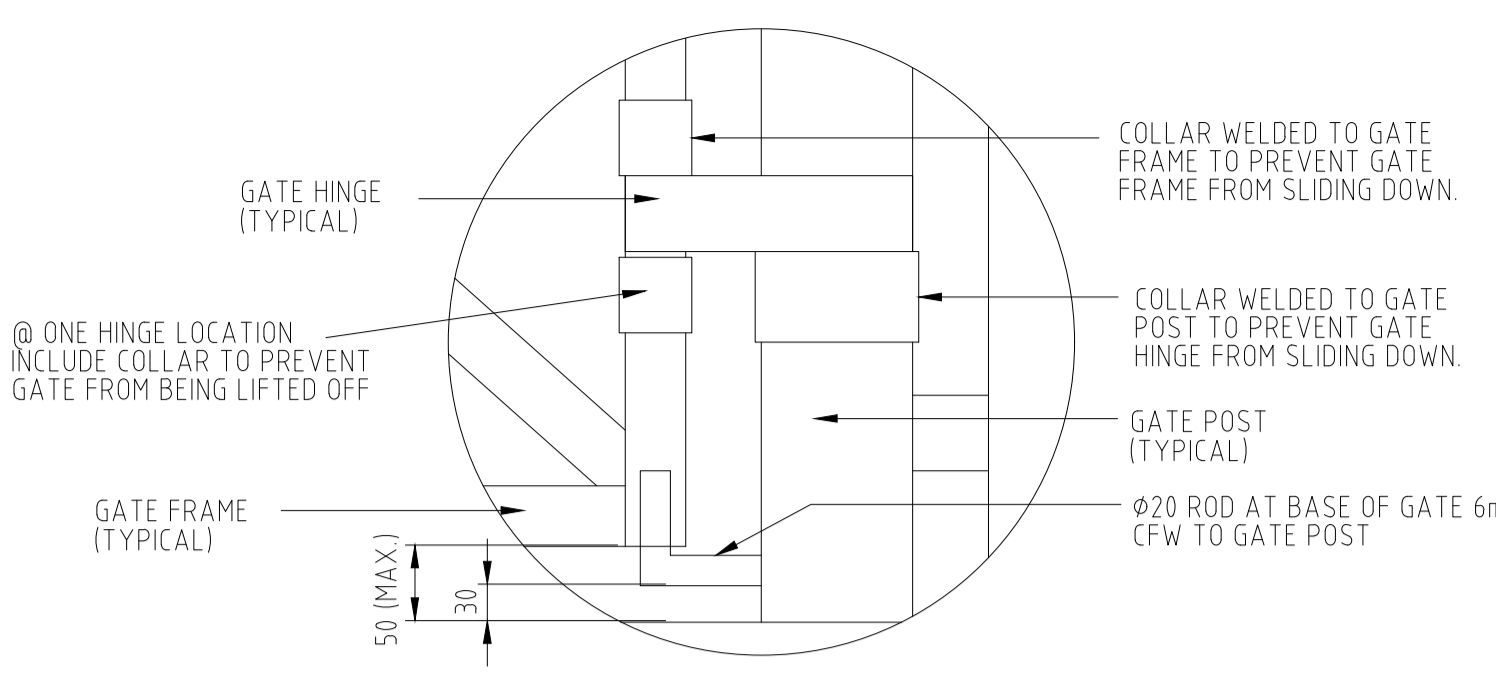


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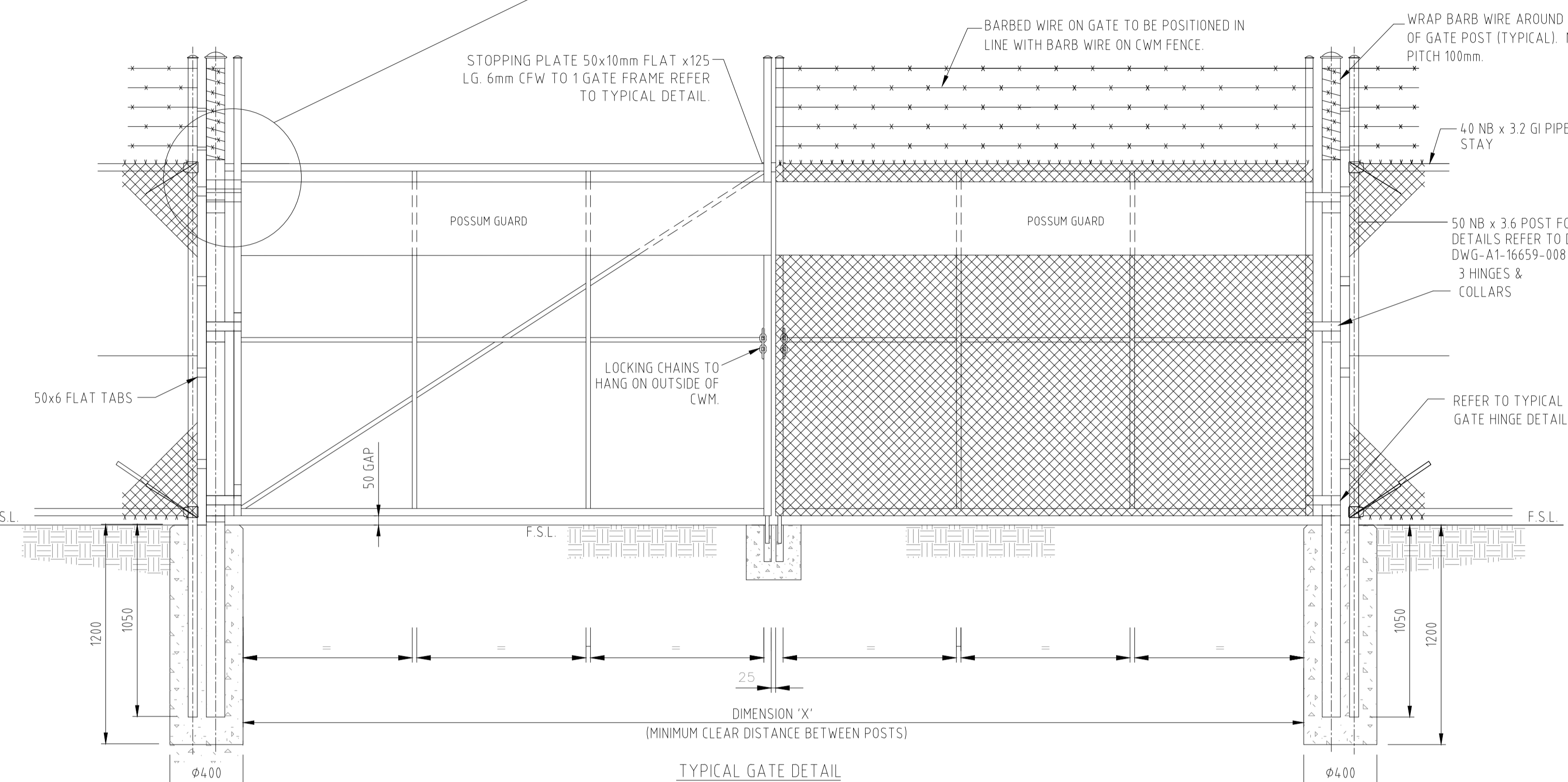


TYPICAL GATE STOP DETAIL
SCALE 1:10

- NOTES:
- TWO WELDED PLATES TO TOUCH WHEN GATES ARE IN A CLOSED POSITION. PLATES MUST BE INSTALLED AFTER GATES ARE HUNG IN FINAL POSITION.
 - PLATES INSTALLED ON ALL HORIZONTAL GATE FRAME MEMBERS. TYPICALLY 3 PER GATE LEAF.

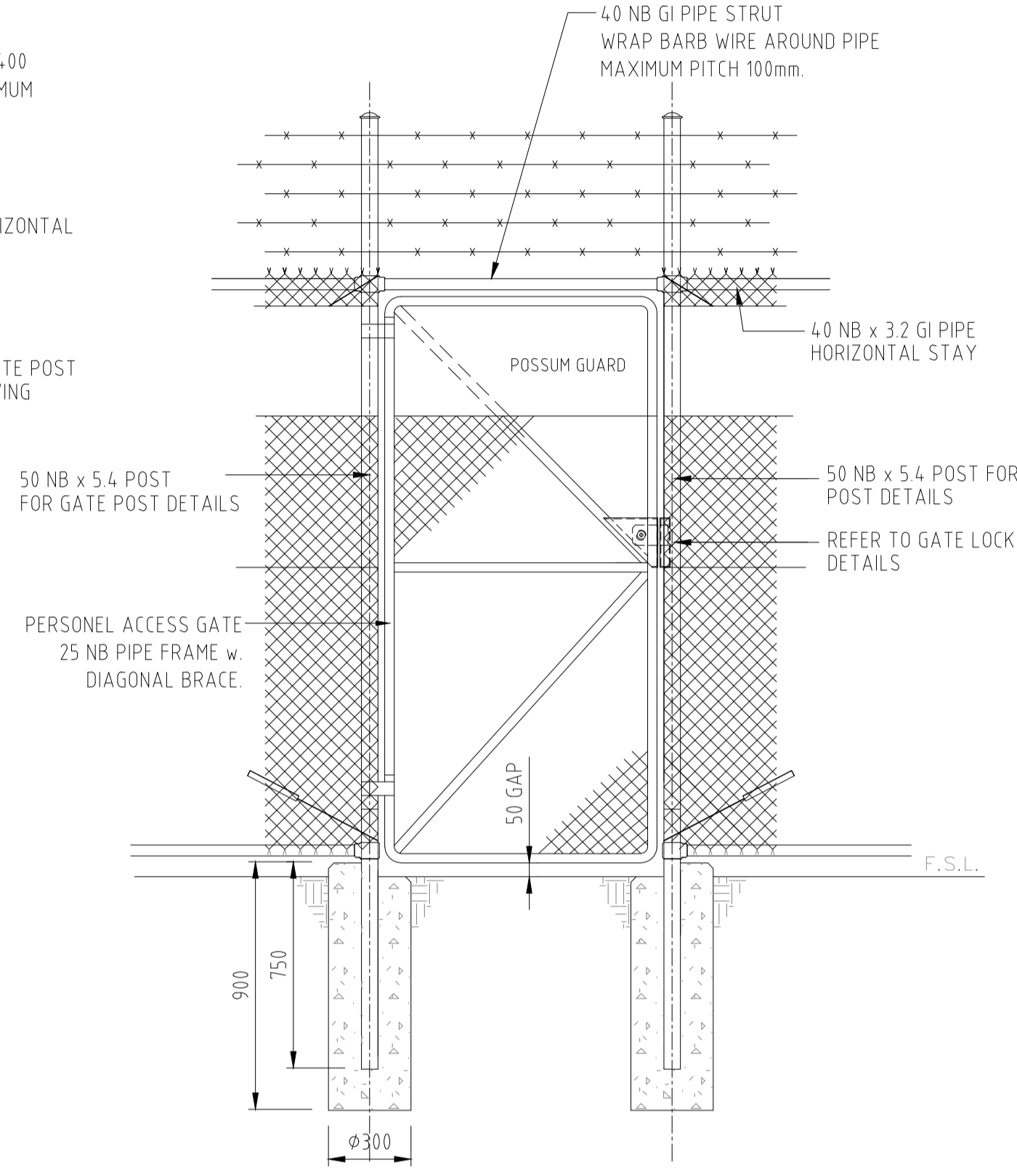


TYPICAL GATE HINGE DETAIL N.T.S.



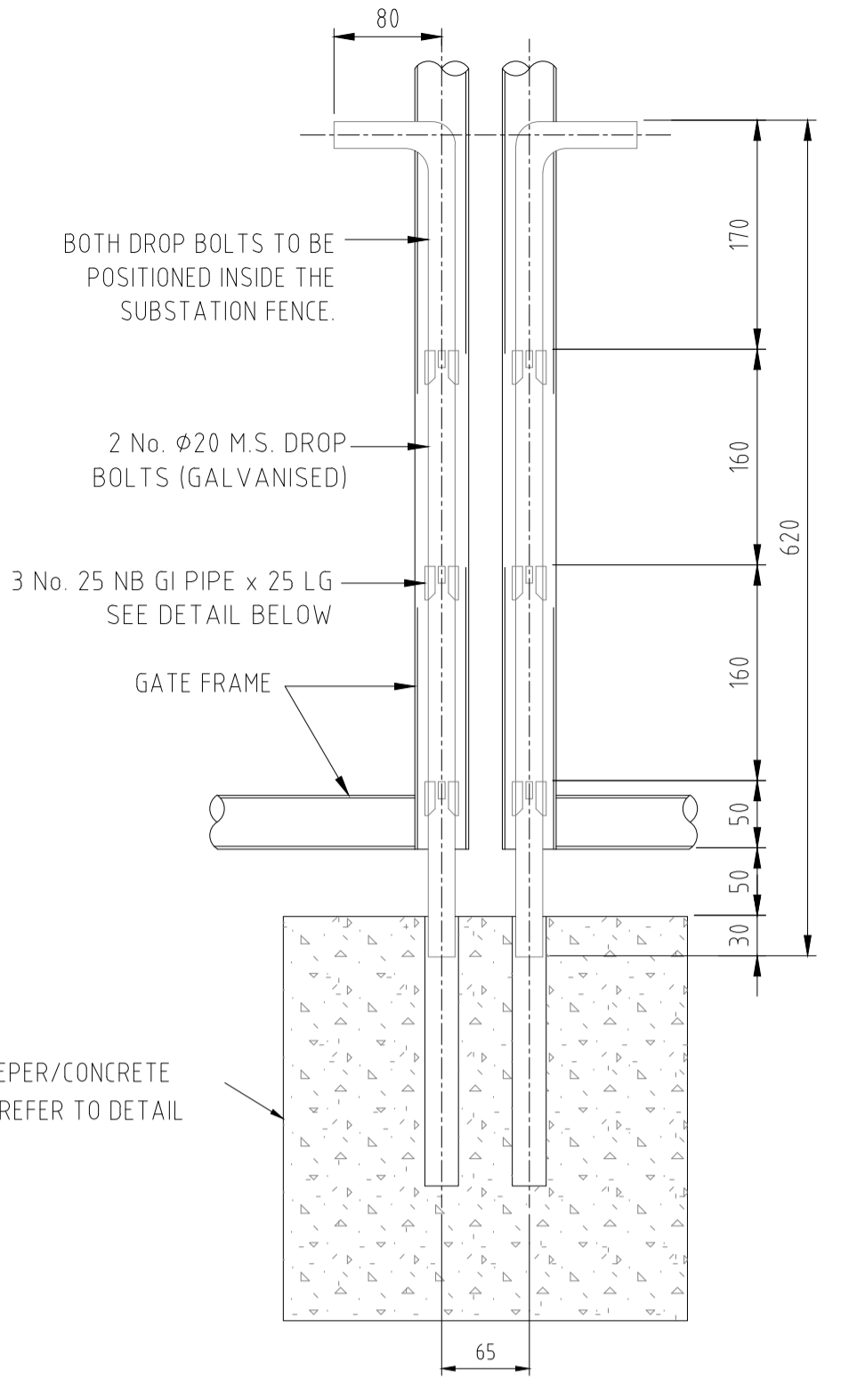
TYPICAL GATE DETAIL
SCALE 1:20

NOTE: ALL MAIN ACCESS GATES TO OPEN OUT OF YARD U.N.O.

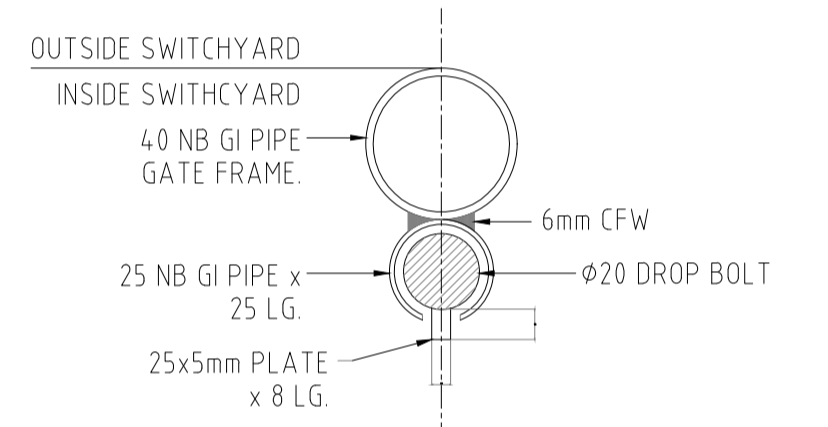


TYPICAL 1000 CLEAR PERSONEL ACCESS GATE
SCALE 1:20

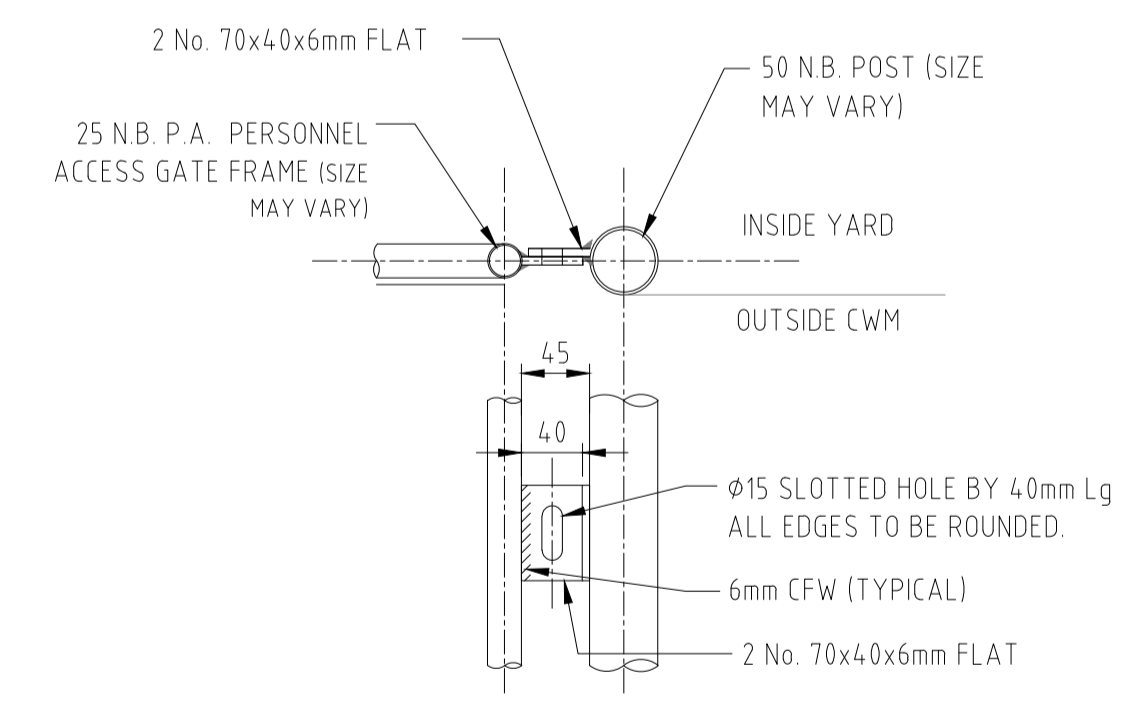
VIEWS FROM OUTSIDE SWITCHYARD



TYPICAL DROP BOLT DETAIL
SCALE 1:5

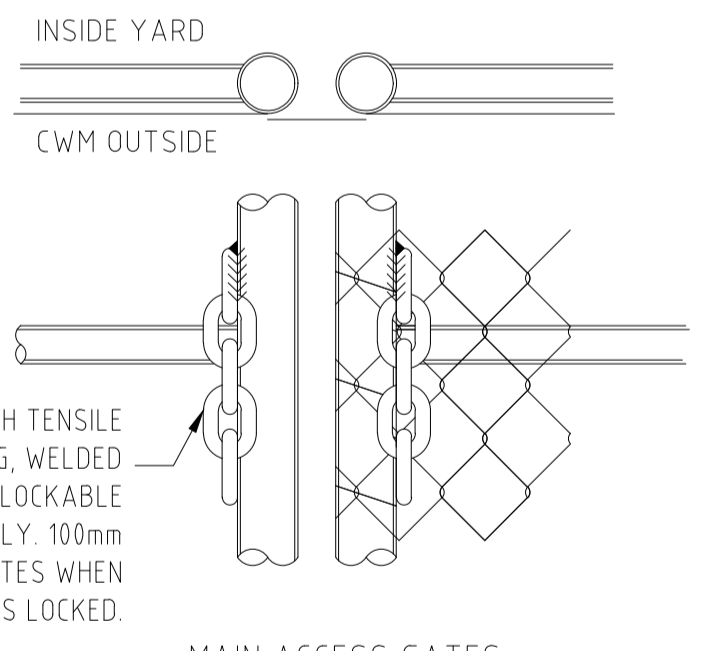


TYPICAL DROP BOLT SLEEVE DETAIL
SCALE 1:2

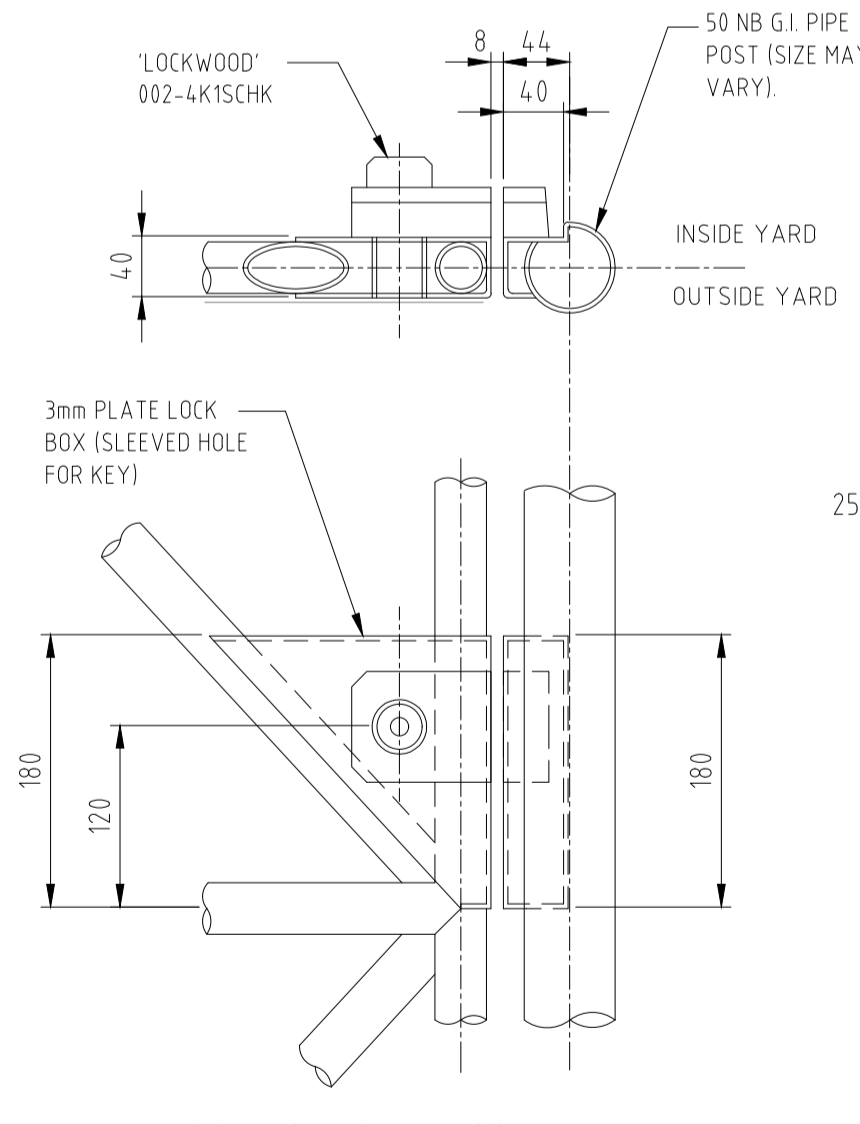


TYPICAL P.A. GATE LOCK DETAIL
SCALE 1:5

NOTE: ALL PA GATES TO OPEN OUT OF YARD U.N.O.

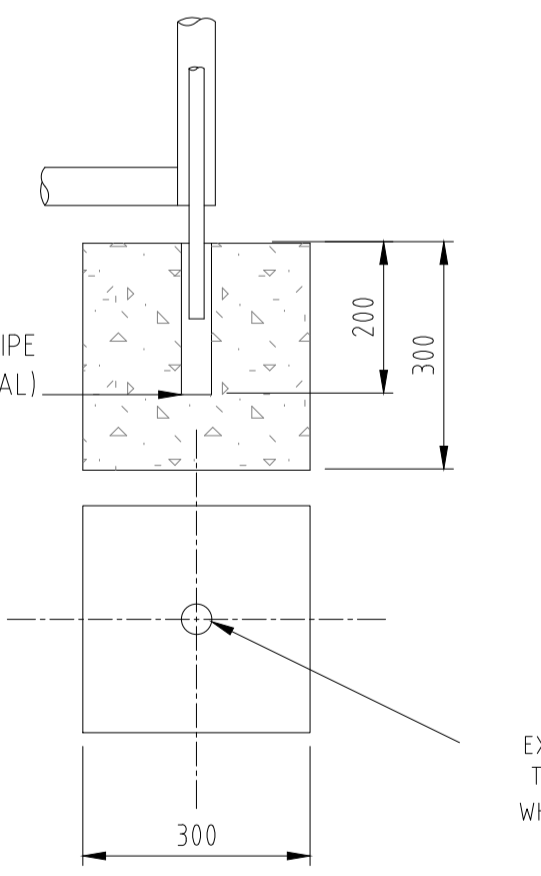


MAIN ACCESS GATES
LOCKING CHAINS
SCALE 1:5

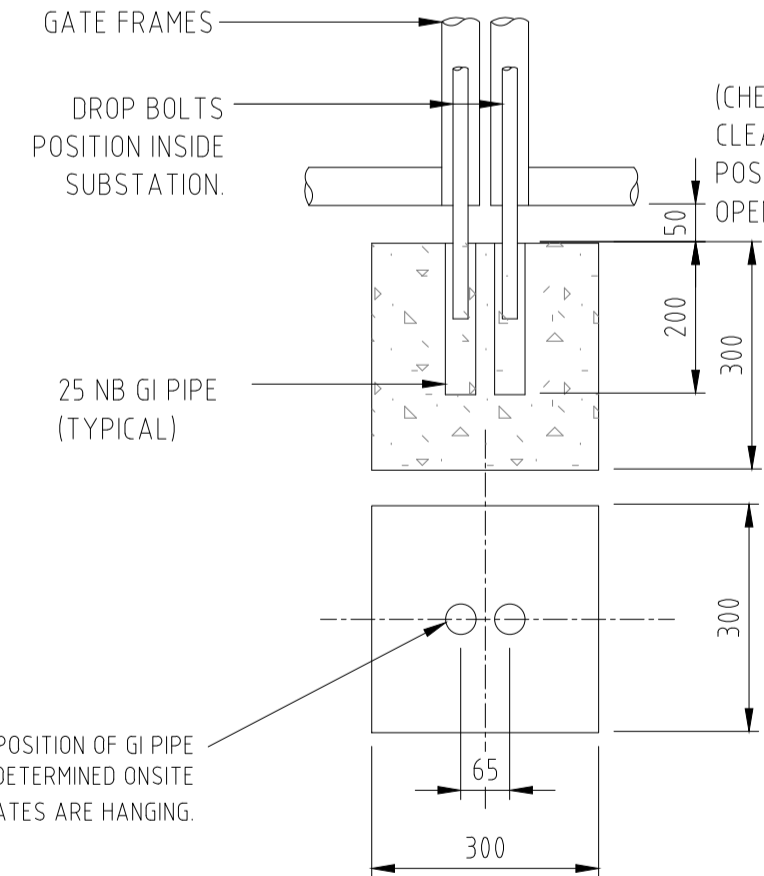


TYPICAL P.A. GATE LOCK DETAIL
SCALE 1:5

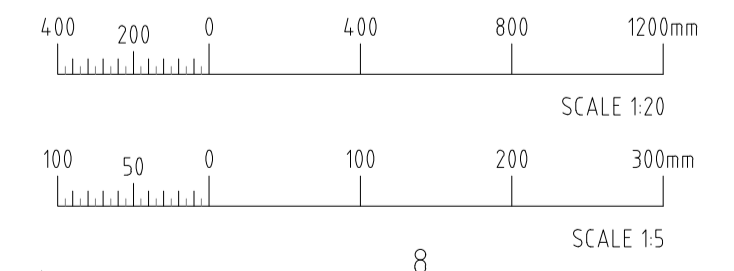
NOTE: ALL P.A. GATES TO OPEN INTO YARD U.N.O. LOCK KEY ACCESS FROM OUTSIDE. LOCK READILY OPENED & EXIT FROM IN YARD



TYPICAL DOUBLE GATE STOP DETAIL
OPEN POSITION
1 No. PER GATE LEAF
SCALE 1:10



TYPICAL DOUBLE GATE STOP DETAIL
CLOSED POSITION
1 No. PER GATE.
SCALE 1:10



DIMENSION 'X'	TYPE OF POST (GI PIPE)	OUTER FRAME (GI PIPE)	INNER FRAME-Vx STAYS		INNER FRAME-Hxx STAYS		INNER FRAME-BRACING (GI PIPE)	
			(GI PIPE)	No.	(GI PIPE)	No.	(GI PIPE)	No.
UP TO 3000	50 NB x 4.5	32 NB x 3.2	25 NB x 3.2	1	25 NB x 3.2	1	25 NB x 3.2	0
3000 TO 4900	80 NB x 4.8	32 NB x 3.2	25 NB x 3.2	1	25 NB x 3.2	1	25 NB x 3.2	1
4900 TO 6700	100 NB x 5.4	40 NB x 3.2	32 NB x 3.2	2	32 NB x 3.2	1	32 NB x 3.2	1
6700 TO 7500	150 NB x 5.4	40 NB x 3.2	32 NB x 3.2	2	32 NB x 3.2	1	32 NB x 3.2	1
						1		1

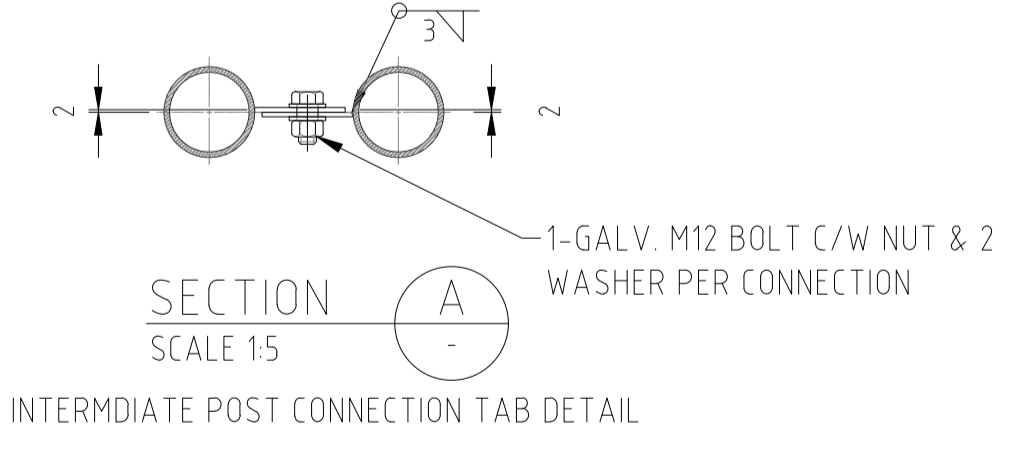
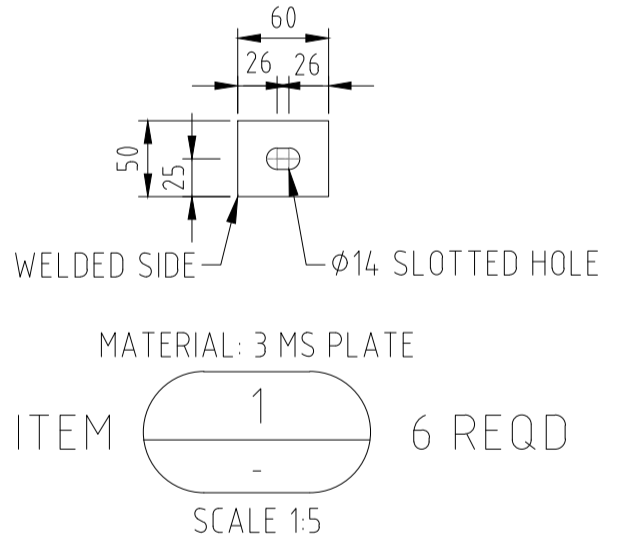
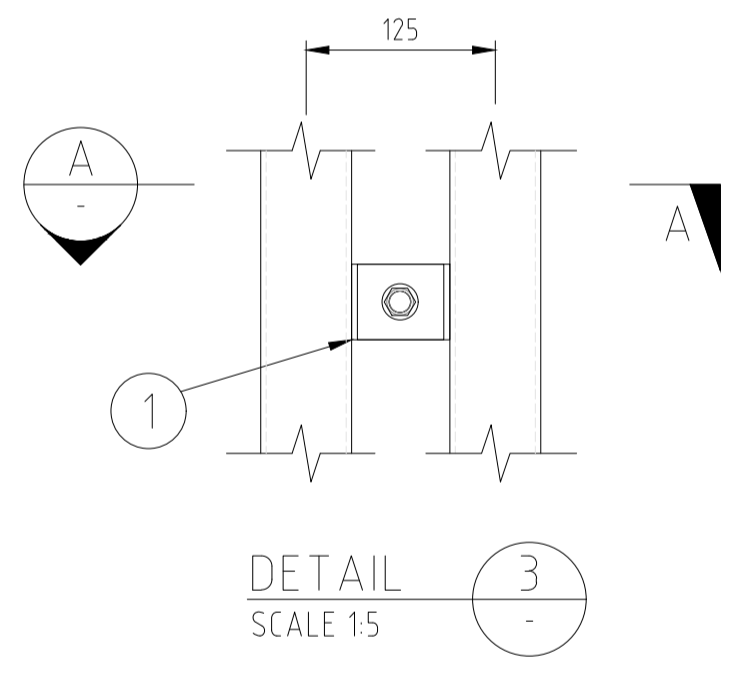
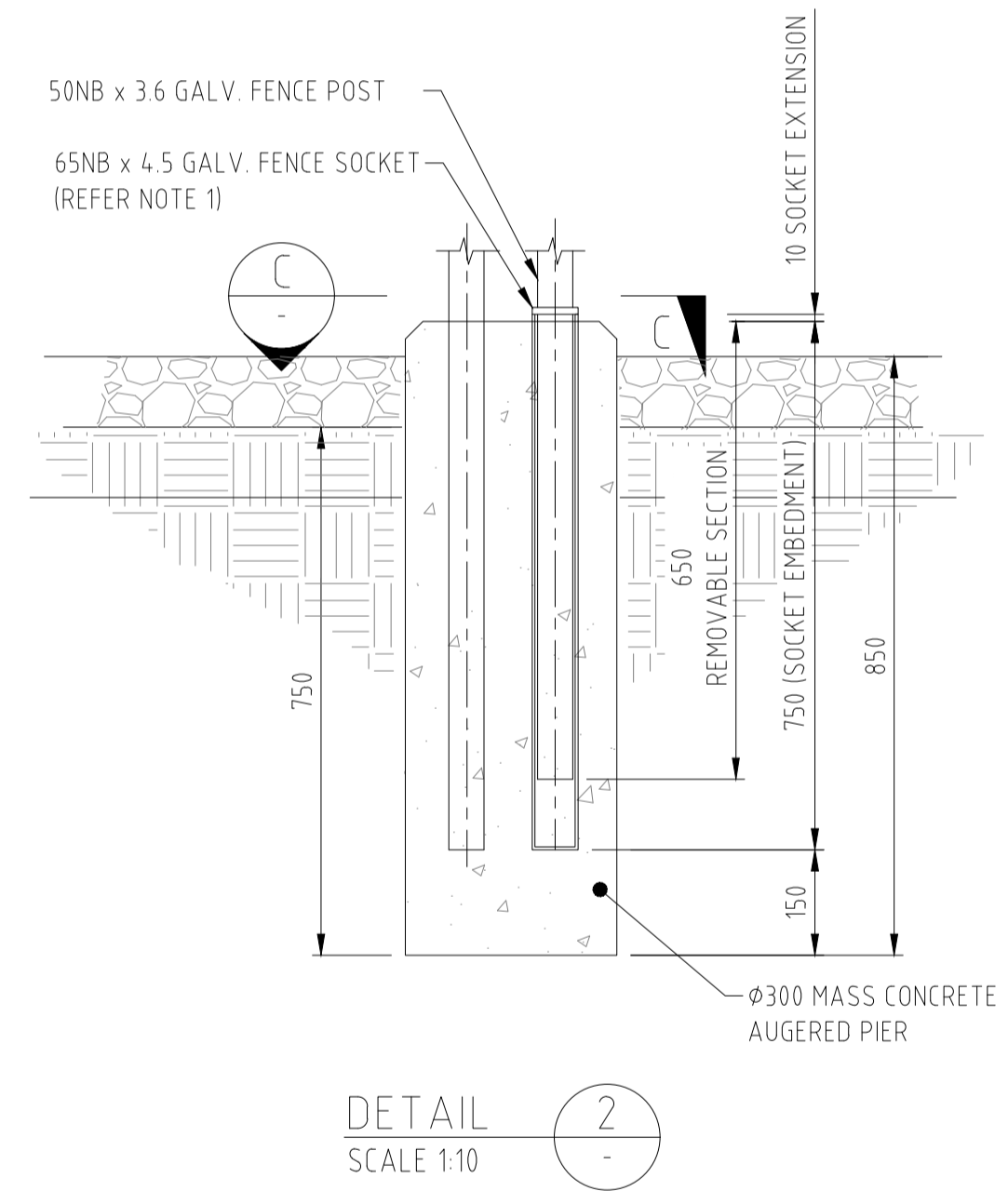
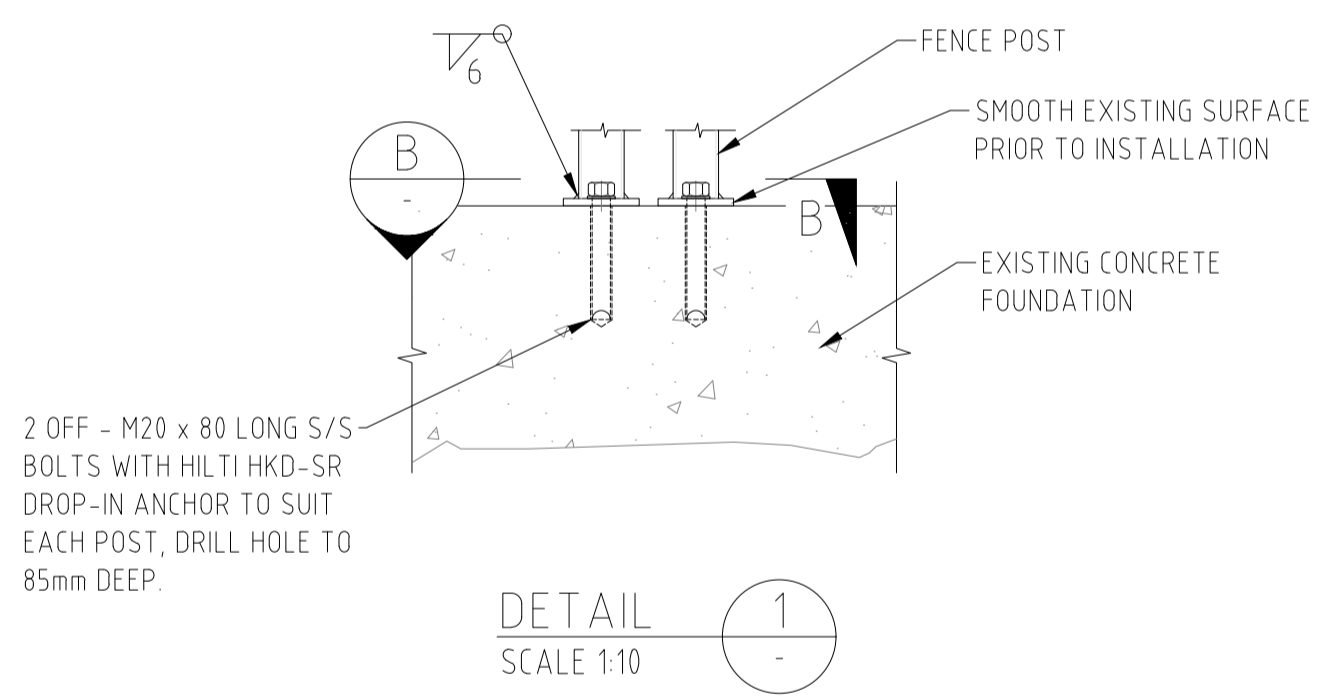
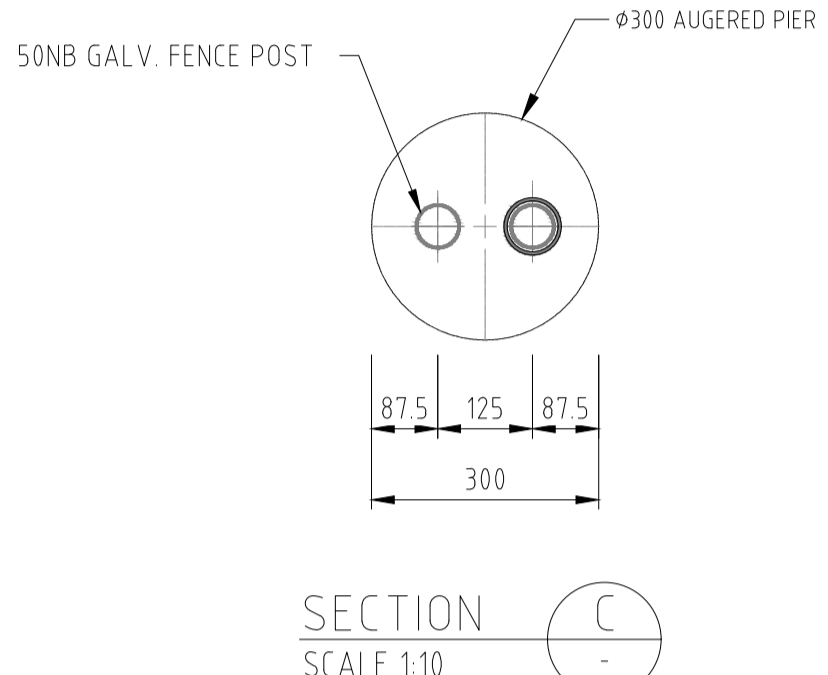
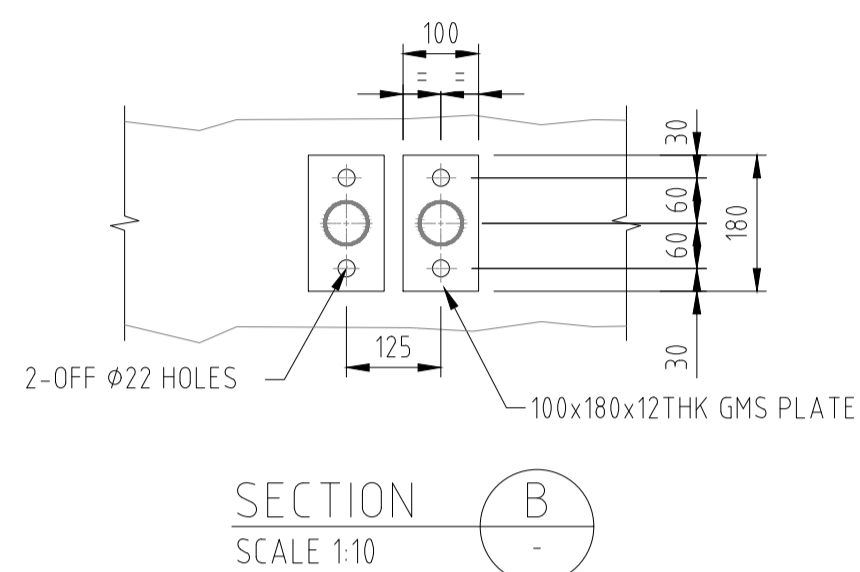
Vx = VERTICAL Hxx = HORIZONTAL

ALTERATIONS

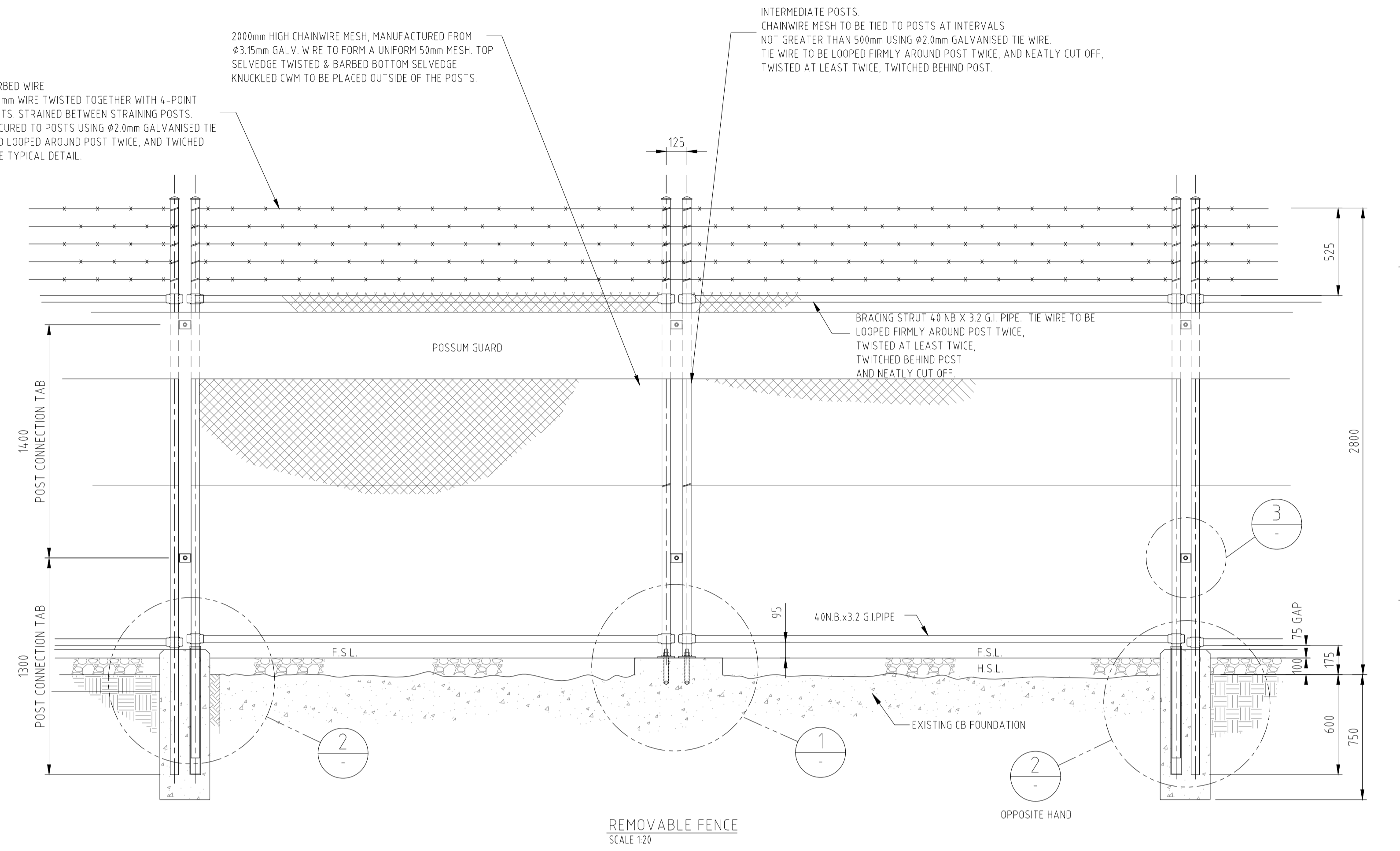
REFERENCES		DRAWN	
A1-16659-001 TO 014	STANDARD FENCE DRAWINGS	EM	EM
		LF	LF
		MB	MB
		MB	MB
		XX	XX
		XX	XX

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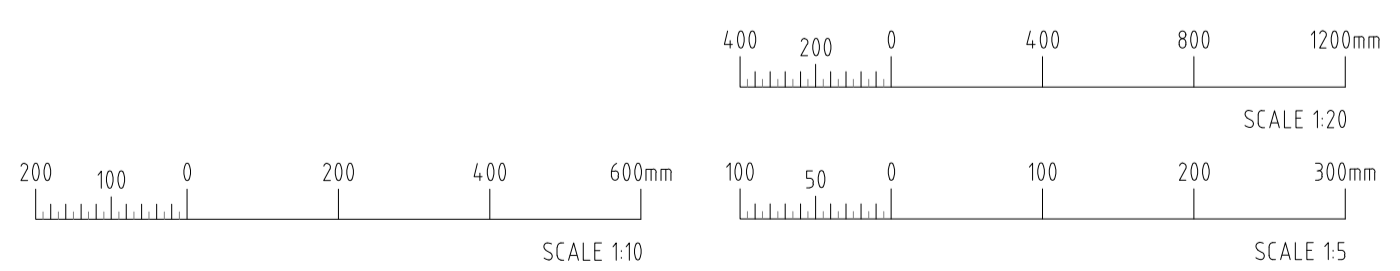
CLIENT		TITLE		SCALE
STANDARD FENCE DRAWING		CHAIN MESH FENCE - TYPE 3		AS SHOWN
DETAILS		SHEET 2 OF 3		
DRAWING	A1-16659	SHT	009	REV
				X1
				A1



GALVANISED BARBED WIRE
2 STRANDS $\phi 1.60$ mm WIRE TWISTED TOGETHER WITH 4-POINT BARBS @ 90mm CTS. STRAINED BETWEEN STRAINING POSTS. BARBED WIRE SECURED TO POSTS USING $\phi 2.0$ mm GALVANISED TIE WIRE. THE WIRE TO LOOPED AROUND POST TWICE, AND TWICED BEHIND POST, SEE TYPICAL DETAIL.

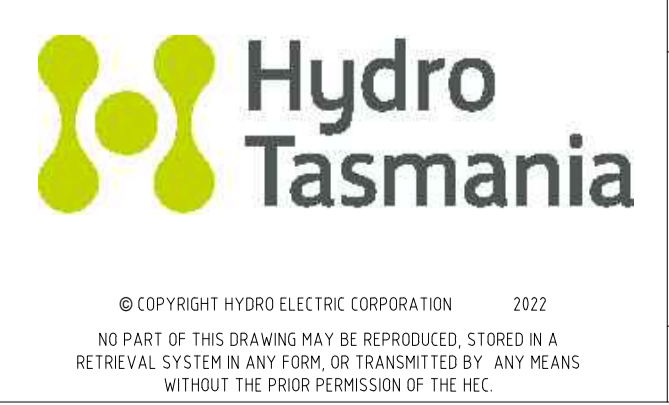


- NOTES:
- WELD 65NB x 10 HIGH GALV. TUBE, 660mm FROM BOTTOM OF 50NB REMOVABLE POSTS WITH 6mm CFW TO SET POST HEIGHT.

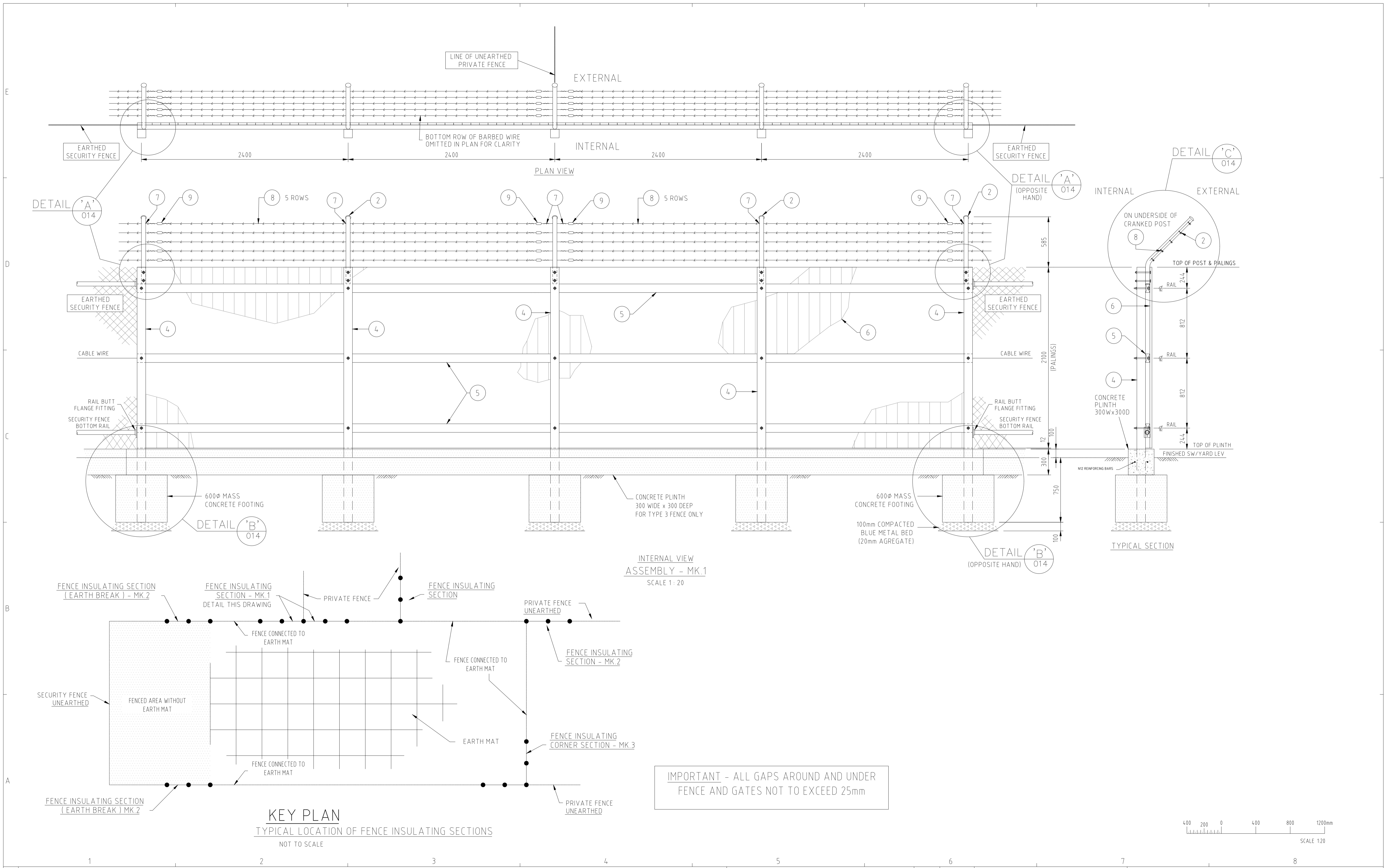


ALTERATIONS

REFERENCES		DRAWN	EM
A1-16659-001 TO 014	STANDARD FENCE DRAWINGS	CHECKED	LF
		DESIGNED	LF
		CHECKED	MB
		APPROVED	MB
		DATE	16/8/22
		CLIENT ACCEPTED	XX
REV'D FROM	REV	DATE	XX



CLIENT	TITLE	SCALE
	STANDARD FENCE DRAWING CHAIN MESH FENCE - TYPE 3 DETAILS SHEET 3 OF 3	SCALE AS SHOWN
DRAWING	A1-16659	SHT 010
REV	X1	SIZE A1



ALTERATIONS

REFERENCES		DRAWN	EM
A1-16659-001 TO 014 STANDARD FENCE DRAWINGS		CHECKED	LF
		DESIGNED	LF
		CHECKED	MB
		APPROVED	MB
		DATE	16/8/22
		CLIENT ACCEPTED	XX
		DATE	XX

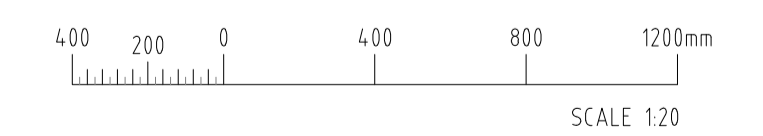
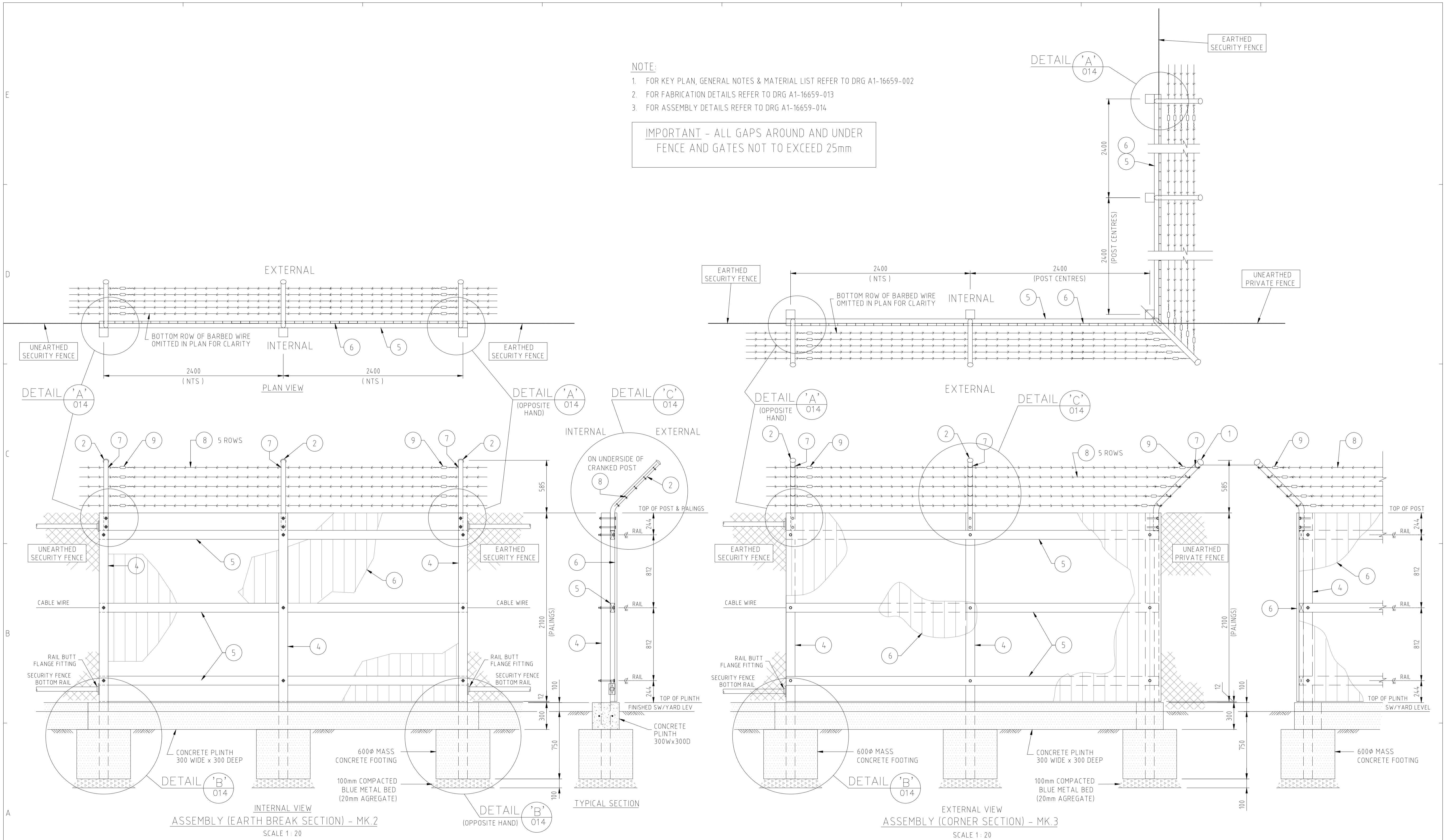
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CLIENT	STANDARD FENCE DRAWING INSULATED FENCE PLAN AND SECTIONS DETAILS - SHEET 1 OF 4			SCALE AS SHOWN
TITLE	A1-16659	SHT.	011	REV X1
DRAWING		DATE		SIZE A1

NOTE:

1. FOR KEY PLAN, GENERAL NOTES & MATERIAL LIST REFER TO DRG A1-16659-002
2. FOR FABRICATION DETAILS REFER TO DRG A1-16659-013
3. FOR ASSEMBLY DETAILS REFER TO DRG A1-16659-014

IMPORTANT - ALL GAPS AROUND AND UNDER FENCE AND GATES NOT TO EXCEED 25mm



ALTERATIONS

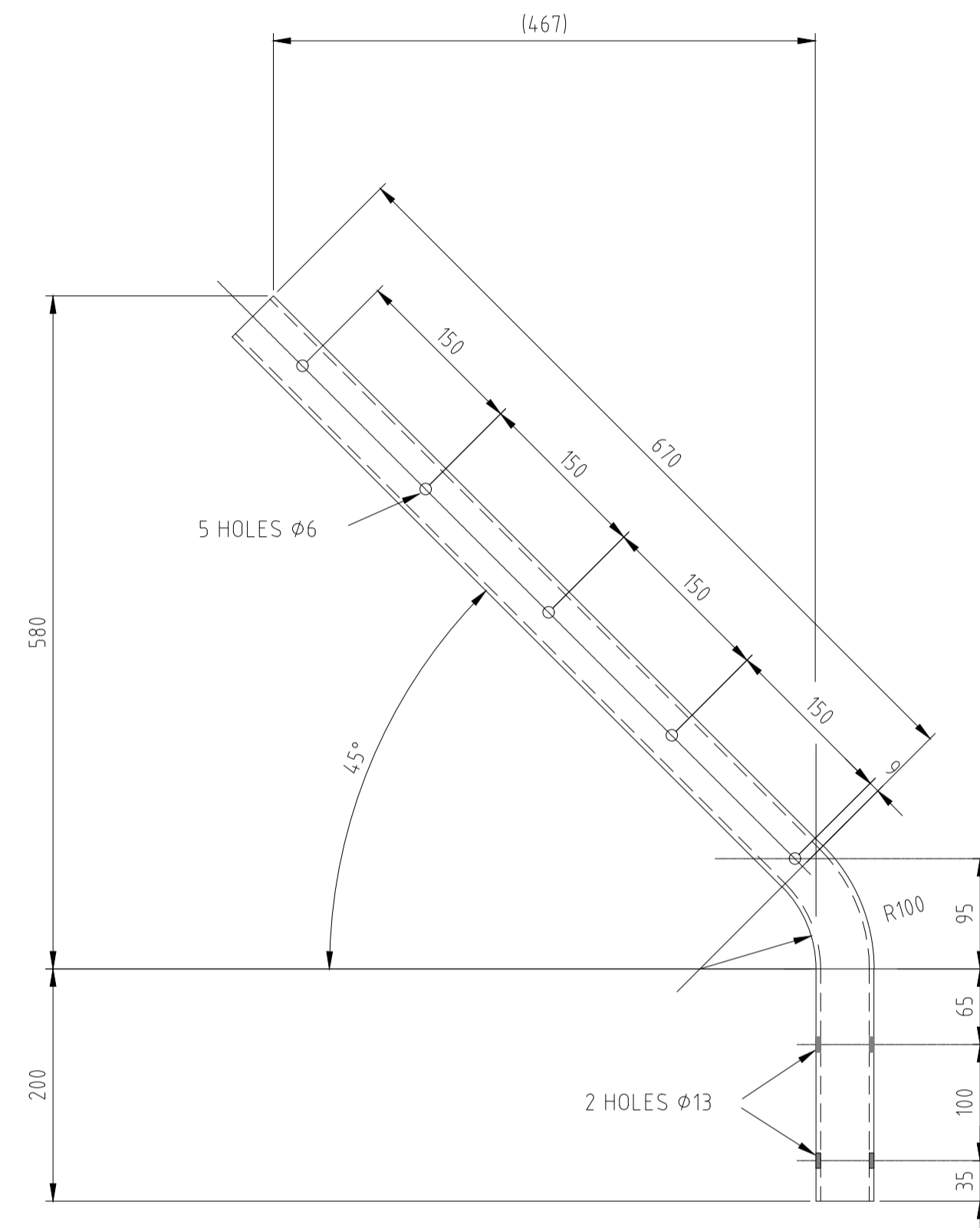
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		DESIGNED	LF
		CHECKED	MB
		APPROVED	MB
		DATE	16/8/22
REPRD FROM	REV	CLIENT ACCEPTED	XX
		DATE	XX

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CLIENT	STANDARD FENCE DRAWING			SCALE	AS SHOWN
TITLE	INSULATED FENCE				
	PLAN AND SECTIONS				
	DETAILS - SHEET 2 OF 4				
DRAWING	A1-16659	SHT	012	REV	X1
				SIZE	A1

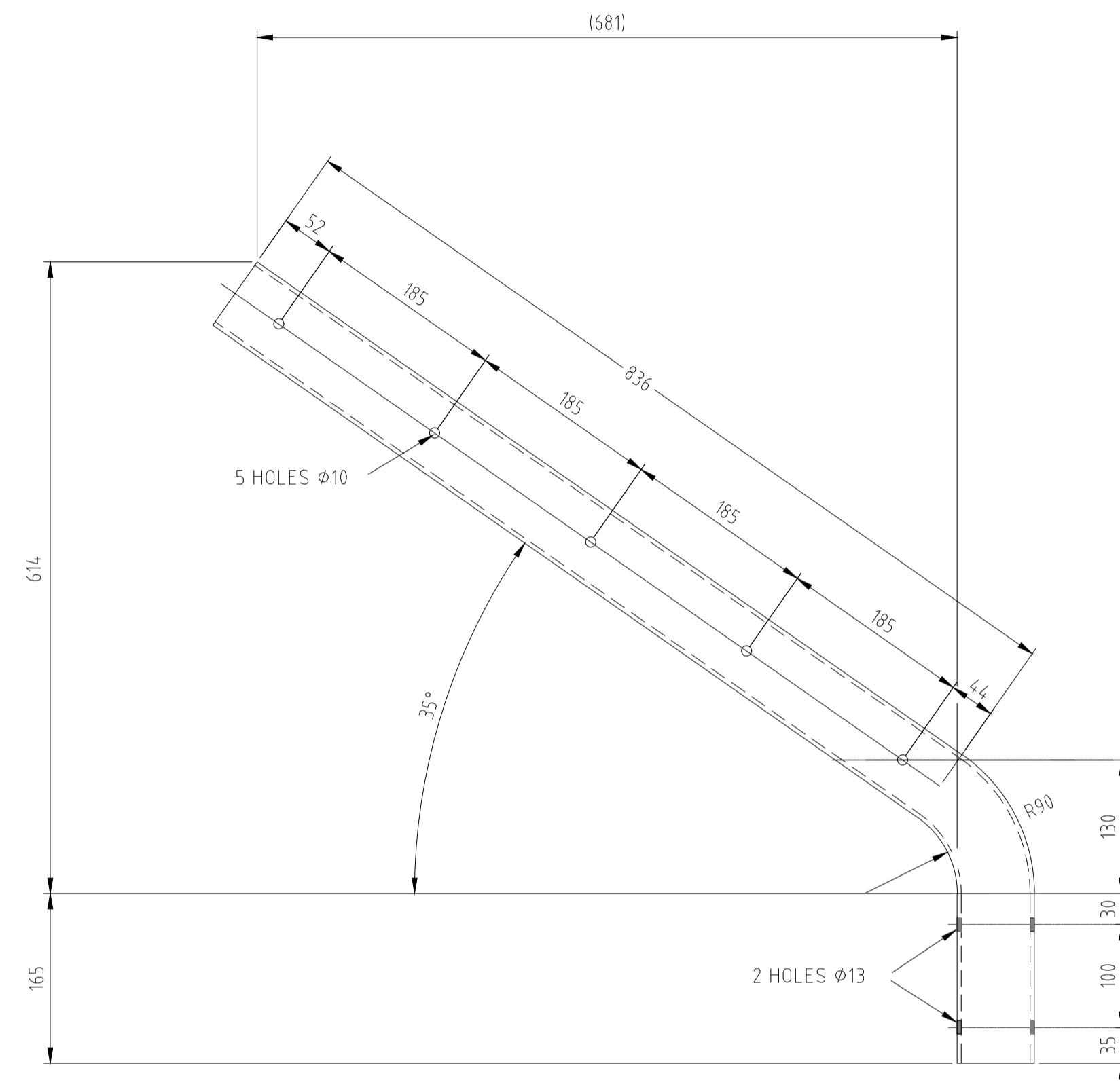
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS U.N.O.
2. FINISH: HOT DIP GALVANISED TO AS 4791-1999 & AS 4792-1999.
ALL FABRICATED ITEMS HOT DIP GALVANISED TO AS/NZS 4680-1999.
3. ALL POSTS TO BE FITTED WITH GALVANIZED CAPS.



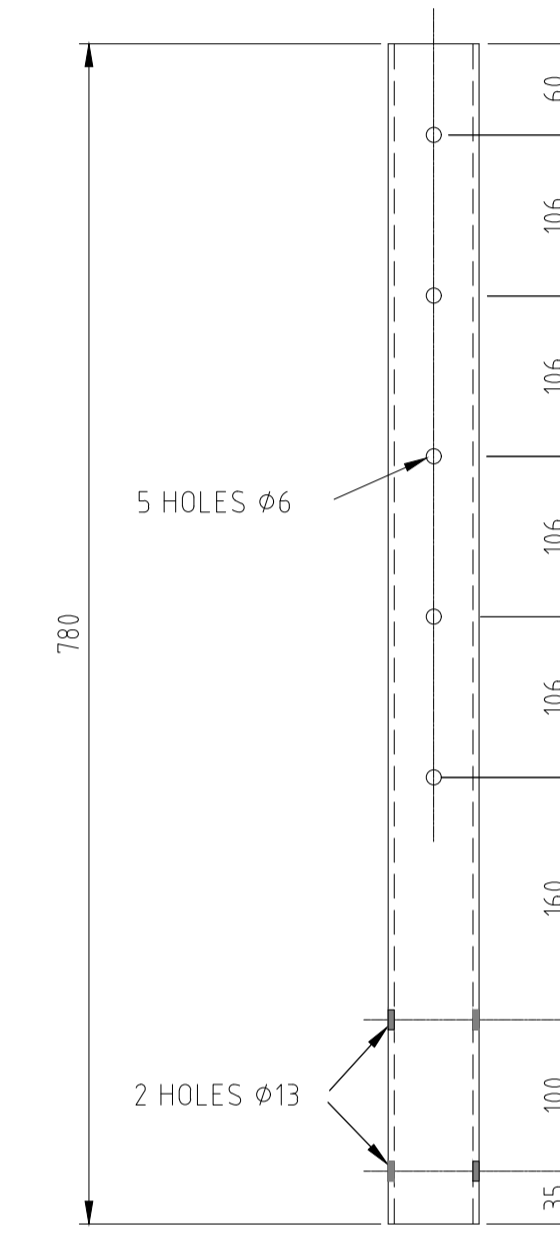
INSULATED FENCE - CRANKED POST SECTION
PART 2

MATERIAL: 40NB MEDIUM DUTY TUBE
FINISH: HOT DIP GALVANISED
MARK: INT POST
SCALE 1 : 5



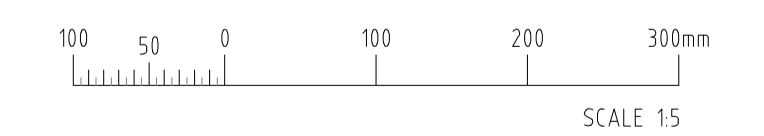
INSULATED FENCE - CORNER CRANKED POST
PART 1

MATERIAL: 65NB MEDIUM DUTY TUBE
FINISH: HOT DIP GALVANISED
MARK: CNR POST
SCALE 1 : 5



EARTH BREAK FENCE
STRAIGHT POST SECTION

MATERIAL: 50NB MEDIUM DUTY TUBE
FINISH: HOT DIP GALVANISED
MARK: INT POST
SCALE 1 : 5



ALTERATIONS

REFERENCES

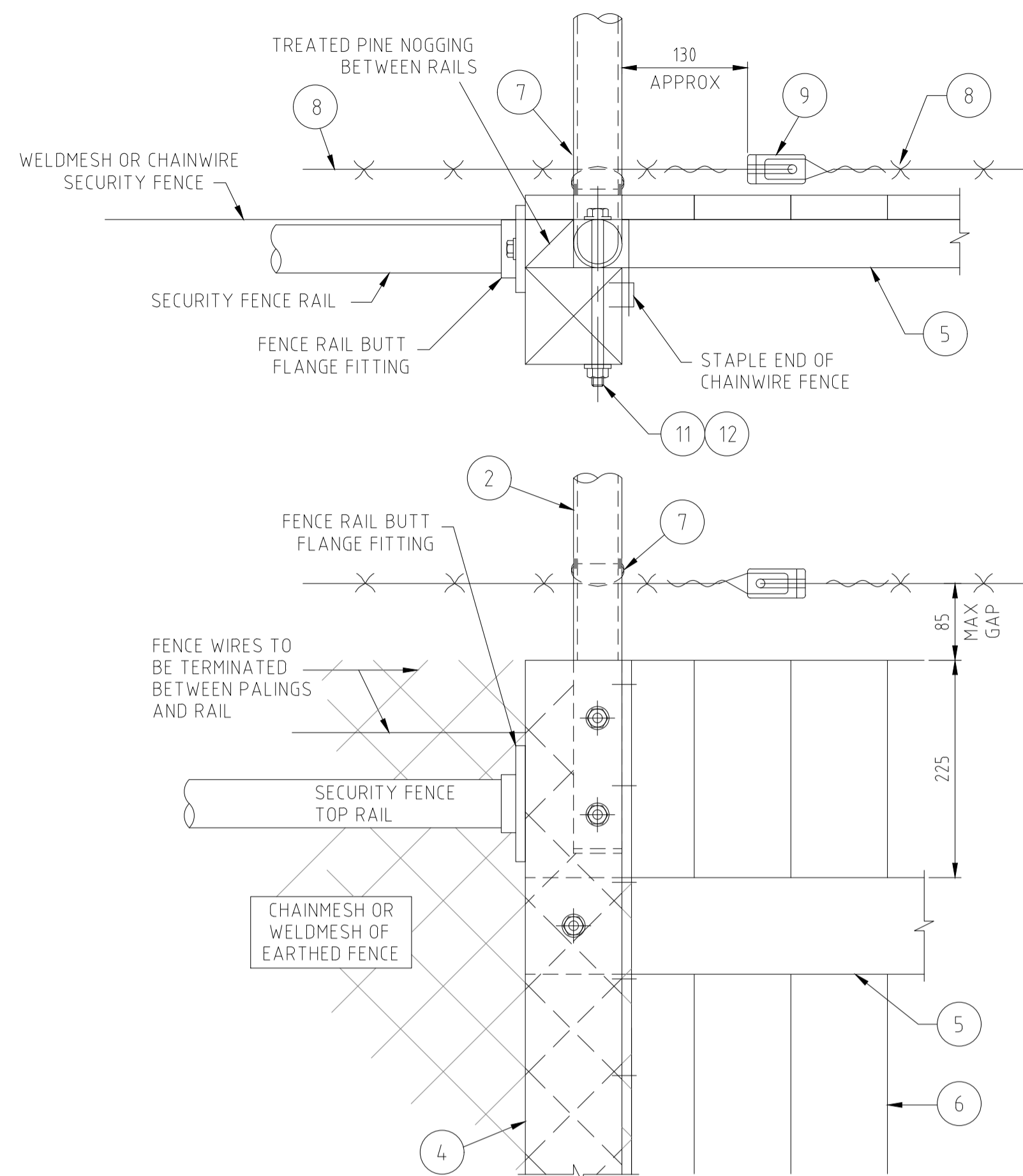
A1-16659-001 TO 014 STANDARD FENCE DRAWINGS

<u>DRAWN</u>	EM
<u>CHECKED</u>	LF
<u>DESIGNED</u>	LF
<u>CHECKED</u>	MB
<u>APPROVED</u>	MB
<u>DATE</u>	16/8/22
<u>CLIENT ACCEPTED</u>	XX
<u>DATE</u>	XX

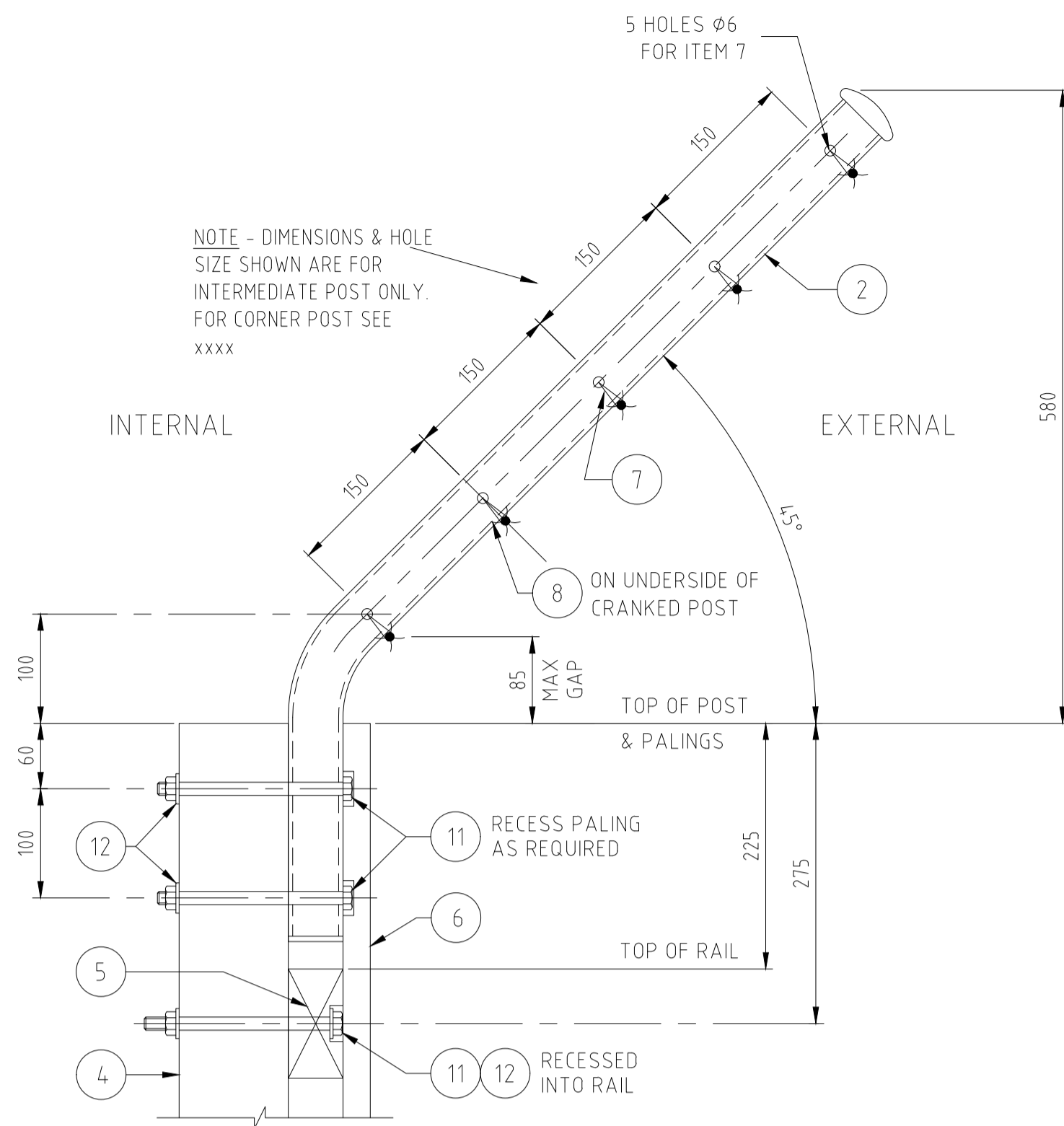


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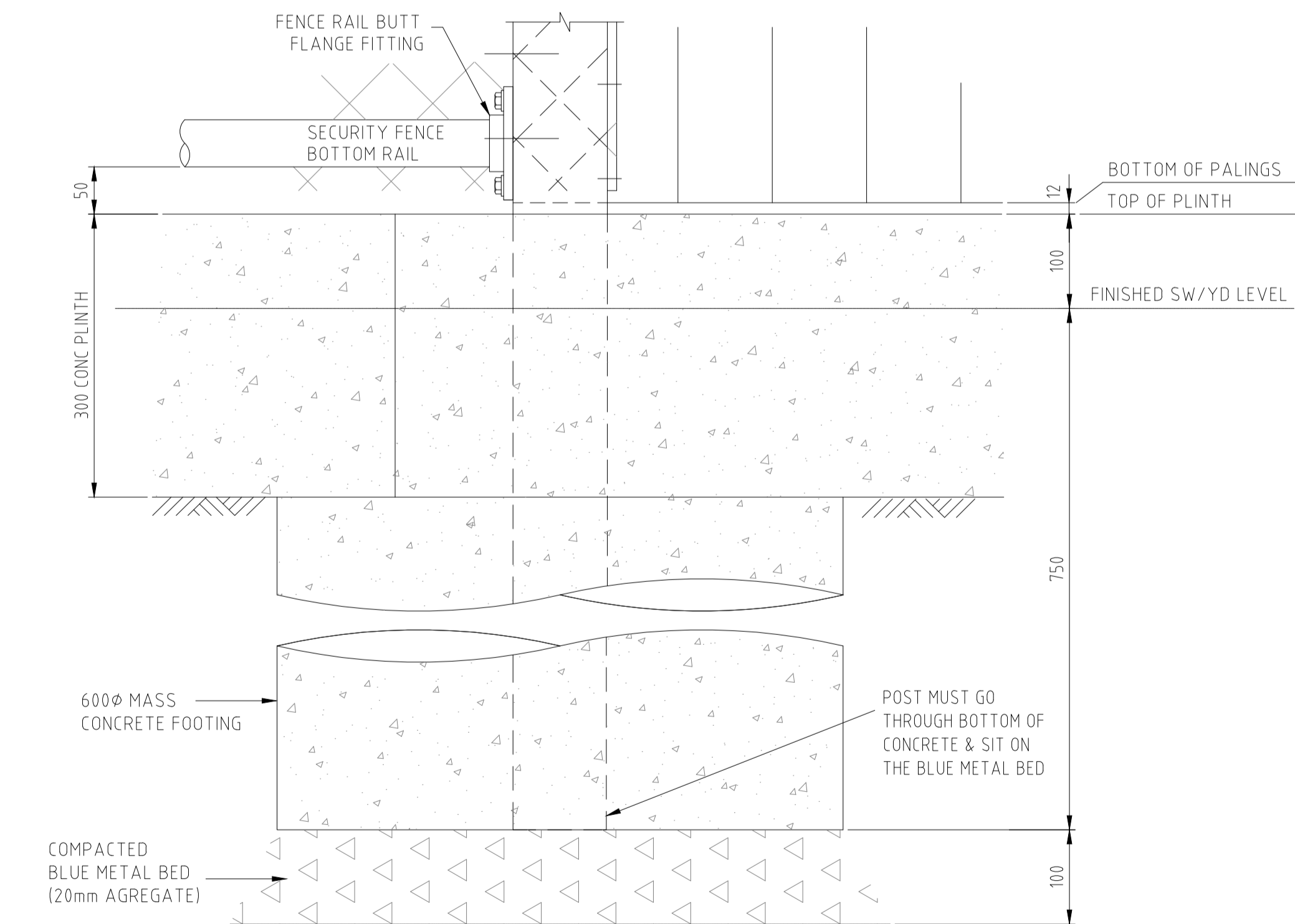
<u>CLIENT</u>	STANDARD FENCE DRAWING INSULATED FENCE FABRICATION DETAILS - SHEET 3 OF 4			<u>SCALE</u> AS SHOWN
<u>DRAWING</u>	A1-16659	<u>SHT</u>	013	<u>REV</u> X1
				<u>SIZE</u> A1



DETAIL A
SCALE 1:5
011/012

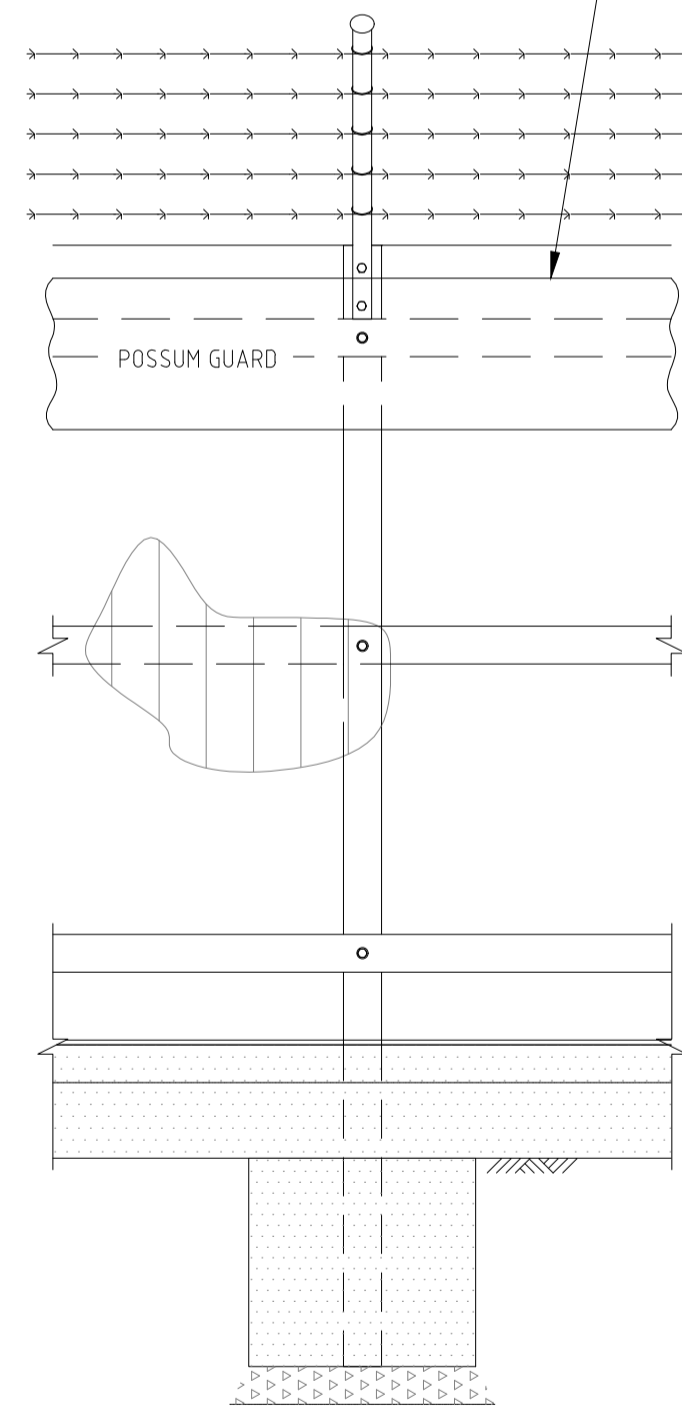


DETAIL C - TYPICAL CRANKED POST CONNECTION
SCALE 1:5
011/012



DETAIL B - TYPICAL FOOTING
SCALE 1:5
011/012

POSSUM GUARD TO BE POLYCARBONATE SHEETING 400mm HIGH WITH A GAUGE OF 3.5mm. POSSUM GUARD TO BE FIXED TO PALINGS USING FLAT HEAD NON-CORROSIVE SCREWS AT MAXIMUM SPACING OF 600mm.



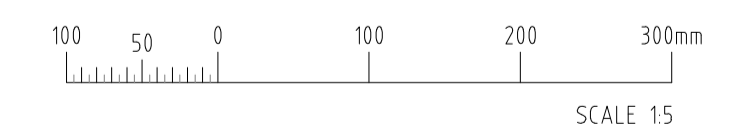
EXTERNAL VIEW
POSSUM GUARD DETAIL

NOTES:

- WHERE RAIL LENGTH EXCEEDS 4.8m, PROVIDE HALF JOINT TO RAILS.
- LENGTH OF PANEL(S) MUST ENSURE A MINIMUM DISTANCE OF 4.8m BETWEEN END OF EXTERNAL FENCE AND EARTH MAT.
- A POSSUM GUARD SHALL BE INSTALLED ON OUTSIDE OF THE FENCE. REFER TO STANDARD FOR DETAILS AND FIXING.
- ALL POST CRANKED SECTIONS TO BE FITTED WITH GALVANIZED CAPS.

IMPORTANT - ALL GAPS AROUND AND UNDER FENCE AND GATES NOT TO EXCEED 25mm

PART	MATERIAL	DESCRIPTION	REMARKS
12	GMS	WASHER, LARGE FLAT M12	-
11	GMS	BOLT, M12 x 170 Long	-
10	-	-	-
9	PORCELAIN	INSULATOR, GUY	GALLAGHER G675
8	GALV HTS	WIRE, BARBED 2xØ1.6	-
7	GMS	LACING & TIE WIRE, Ø2	-
6	TREATED PINE	PALING, 25mm	-
5	TREATED PINE	RAIL, 100x50	-
4	TREATED PINE	POST, SQUARE, 100mm	-
3	-	-	-
2	GMS	CRANKED POST TOP, Intermediate, 40NB MED Duty Tube	SEE DETAIL 'C'
1	GMS	CRANKED POST TOP, Corner, 65NB MED Duty Tube	-



ALTERATIONS

REV	DATE	DESCRIPTION	BY	CHKD

Hydro Tasmania

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CLIENT	TITLE	SCALE	
	STANDARD FENCE DRAWING INSULATED FENCE ASSEMBLY DETAILS - SHEET 4 OF 4	AS SHOWN	
DRAWING	SHT	REV	SIZE
A1-16659	014	X1	A1