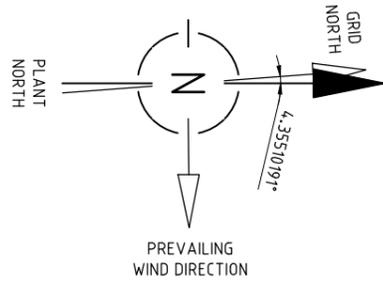
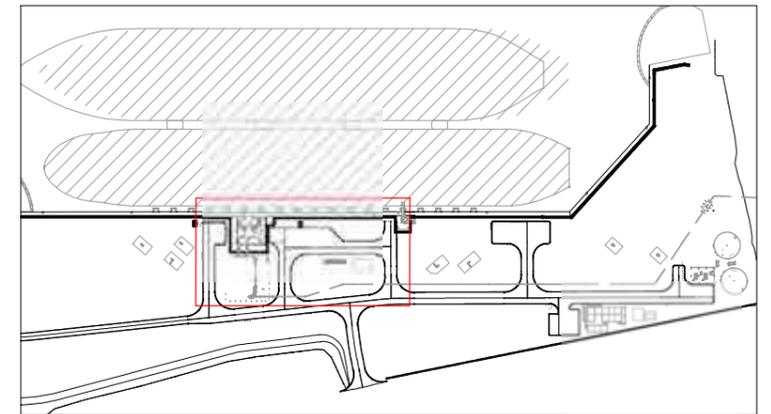


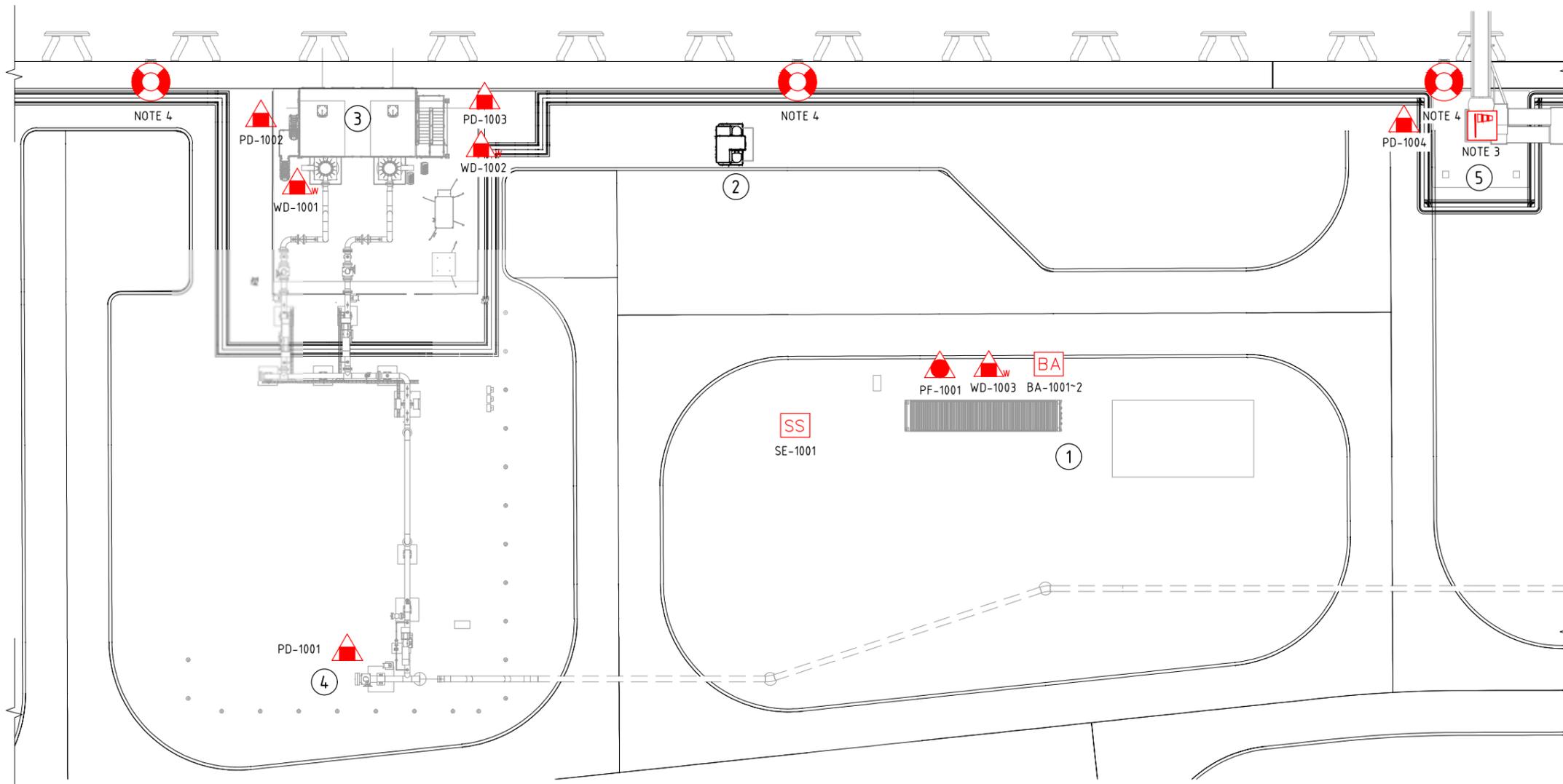
Appendix C. Shore-based (ORF) Fire Detection, Protection and Service Layouts



SYMBOL	QUANTITY	TAG NO	DISCRIPTION
	3	WD-1001-3	50 Kg WHEELED DRY CHEMICAL POWDER EXTINGUISHER
	4	PD-1001-4	9 Kg DRY CHEMICAL POWDER EXTINGUISHER
	1	PF-1001	9 Litre FOAM EXTINGUISHER
	1	SE-1001	SAFETY SHOWER AND EYEWASH
	2	BA-1001-2	BREATHING APPARATUS
	1	-	WINDSOCK
	3	-	LIFEBUOY



KEY PLAN
SCALE 1:2000



PLAN VIEW
SCALE 1:200

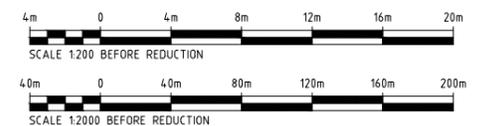
NOTES

- REFER TO THE FIRE WATER EQUIPMENT AND RING MAIN LAYOUT "PKGT-LOG-PMT-SAF-DWG-0001/0002", FOR THE QUANTITY AND LOCATION OF FIRE MONITORS, FIRE HYDRANTS AND HOSE BOXES.
- THE LOCATION OF SAFETY EQUIPMENT ARE SHOWN IN THEIR APPROXIMATE INTENDED LOCATIONS. THE FINAL POSITION IS SUBJECT TO CHANGE DUE TO ONSITE CONDITIONS. MAJOR RELOCATION NEED TO BE CONSULTED WITH THE CLIENT.
- A WINDSOCK SHALL INSTALL ON THE GANGWAY IN SUCH A WAY THAT IT WILL BE VISIBLE FROM THE E&I BUILDING AND FSRU.
- LIFEBUOYS SHALL BE INSTALLED ON EACH SIDE OF THE SHIP (AT THE WHARF AREA).
- REFER TO PKGT GENERAL ARRANGEMENT PLAN PKGT-LOG-ORF-PEQ-DGA-0001 FOR SITE MUSTER POINTS.
- CONTRACTOR TO SUPPLY AND INSTALL SAFETY SIGNS AND LABELS FOR EACH SAFETY AND FIRE FIGHTING EQUIPMENT.
- ALL SAFETY AND FIREFIGHTING EQUIPMENT SHALL BE SUITED FOR SIMPLE AND SAFE USE. THE EQUIPMENT SHALL BE EASILY ACCESSIBLE AND BE LOCATED IN A CLEARLY VISIBLE UNOBSTRUCTED LOCATION.
- E&I VENDOR SHALL SUPPLY AND INSTALL DIRECTION SIGNS INSIDE E&I BUILDING.

LEGEND:

- | | |
|------------------------|---------------------|
| 1 ODORANT AREA | 4 PIG LAUNCHER AREA |
| 2 FIRE MONITOR (SOUTH) | 5 GANGWAY |
| 3 MLA AREA | |

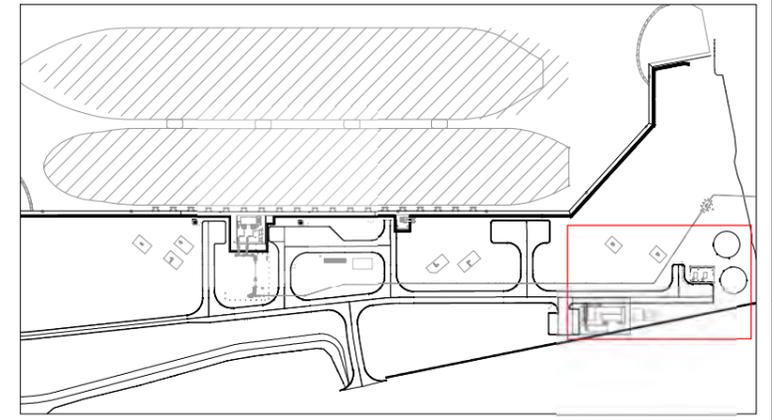
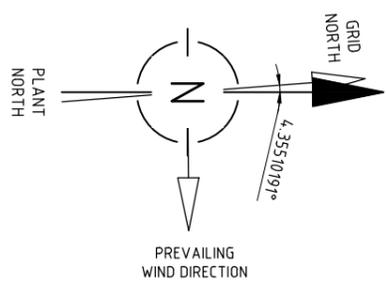
ISSUED FOR USE



DOC No.	DESCRIPTION	REV No	DATE	ISSUED FOR USE	DRN	CHK'D	DSG'D	DS	CHK'D	APP
PKGT-LOG-PMT-SAF-DWG-0002	FIRE WATER EQUIPMENT AND RING MAIN LAYOUT SHT 2 OF 2									
PKGT-LOG-PMT-SAF-DWG-0001	FIRE WATER EQUIPMENT AND RING MAIN LAYOUT SHT 1 OF 2									
PKGT-ADV-PMT-SAF-PHL-0001	FIRE PROTECTION PHILOSOPHY	0	09/09/22	ISSUED FOR USE						

		SCALE:	AS NOTED																
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DRAWN	MJ	09/09/22																	
CHECKED	MZR	09/09/22																	
DESIGNED	MZR/DA	09/09/22																	
DES. CHECK	LA	09/09/22																	
PROJ. MGR	CJS	09/09/22																	
CLIENT	AIE	09/09/22																	

PORT KEMBLA GAS TERMINAL DETAILED DESIGN WHARF TOPSIDE FIRE FIGHTING AND SAFETY EQUIPMENT LAYOUT (SHEET 1 OF 2)	
DRG. No.	Rev
A1 PKGT-LOG-ORF-SAF-LAD-0012	0



KEY PLAN
SCALE 1:2000

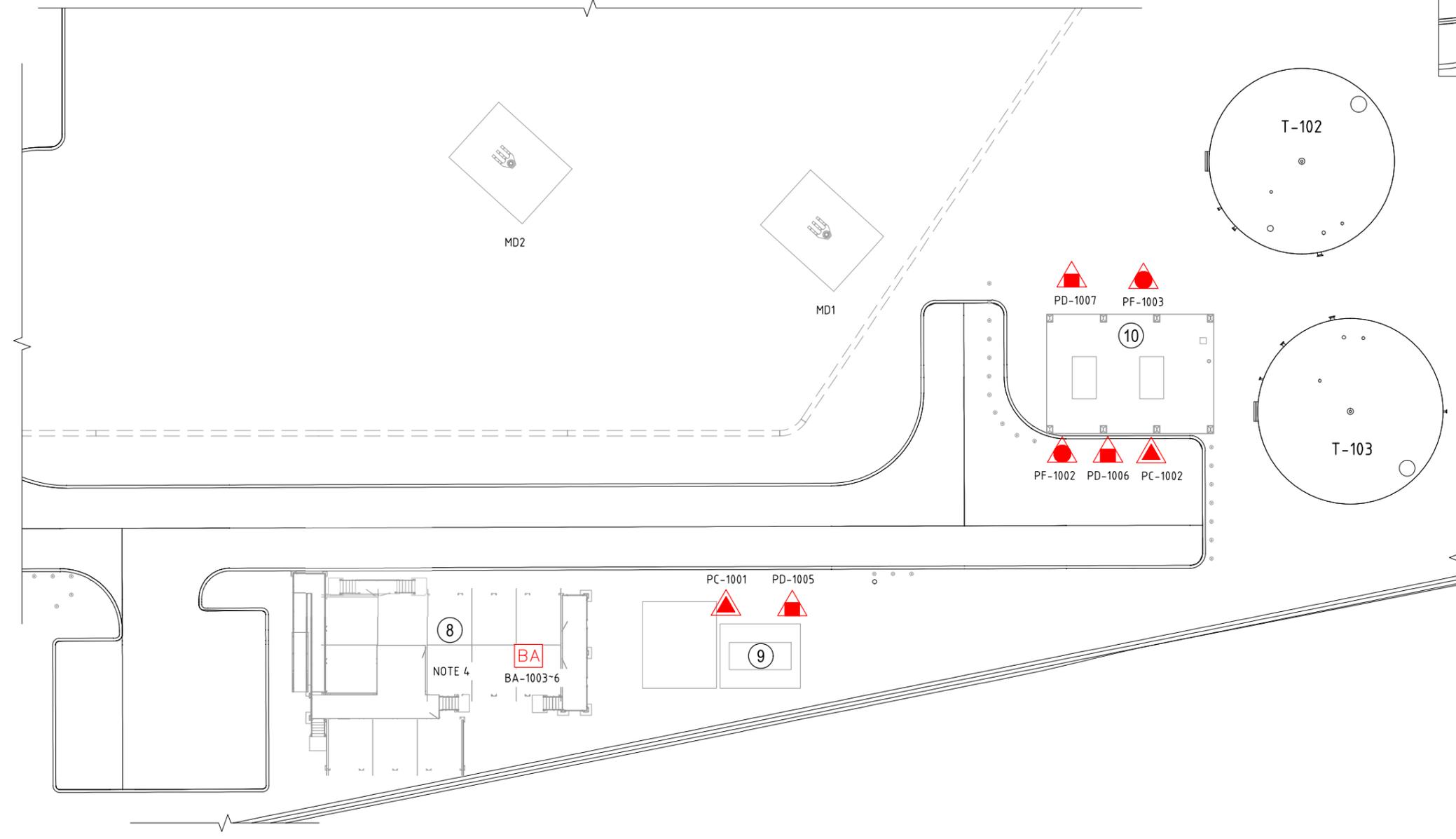
NOTES:

- REFER TO THE FIRE WATER EQUIPMENT AND RING MAIN LAYOUT "PKGT-LOG-PMT-SAF-DWG-0001/0002", FOR THE QUANTITY AND LOCATION OF FIRE MONITORS, FIRE HYDRANTS AND HOSE BOXES.
- THE LOCATION OF SAFETY EQUIPMENT ARE SHOWN IN THEIR APPROXIMATE INTENDED LOCATIONS. THE FINAL POSITION IS SUBJECT TO CHANGE DUE TO ONSITE CONDITIONS. MAJOR RELOCATION NEED TO BE CONSULTED WITH THE CLIENT.
- FIRE EXTINGUISHERS INSTALLED INSIDE THE BUILDINGS / SHELTERS WILL BE MOUNTED ON THE WALL OR COLUMN. THE RECOMMENDED ELEVATION FOR EXTINGUISHER INSTALLATION IS +1200 mm ABOVE FLOOR LEVEL.
- ALL FIREFIGHTING AND SAFETY EQUIPMENT, INCLUDING PORTABLE CO2 AND DRY CHEMICAL POWDER FIRE EXTINGUISHERS, FIRE AND SAFETY SIGNAGE, AND AN AUTOMATIC FIRE SUPPRESSION SYSTEM, EXCEPT THE BREATHING APPARATUS, SHALL BE DESIGNED, SUPPLIED, AND INSTALLED BY BUILDING'S CONTRACTOR. THE CONTRACTOR'S SCOPE OF WORK AND SUPPLY HAVE BEEN IDENTIFIED IN THE E&I BUILDING PACKAGE SPECIFICATION (PKGT-LOG-ORF-CIV-SPC-0024) AND REQUISITION FOR THE E&I BUILDING (PKGT-LOG-ORF-ELE-REQ-0010).
- REFER TO PKGT GENERAL ARRANGEMENT PLAN PKGT-LOG-ORF-PEQ-DGA-0001 FOR SITE MUSTER POINTS.
- CONTRACTOR TO SUPPLY AND INSTALL SAFETY SIGNS AND LABELS FOR EACH SAFETY AND FIRE FIGHTING EQUIPMENT.
- ALL SAFETY AND FIREFIGHTING EQUIPMENT SHALL BE SUITED FOR SIMPLE AND SAFE USE. THE EQUIPMENT SHALL BE EASILY ACCESSIBLE AND BE LOCATED IN A CLEARLY VISIBLE UNOBSTRUCTED LOCATION.
- E&I VENDOR SHALL SUPPLY AND INSTALL DIRECTION SIGNS INSIDE E&I BUILDING.

SYMBOL	QUANTITY	TAG NO	DESCRIPTION
	3	PD-1005-7	9 Kg DRY CHEMICAL POWDER EXTINGUISHER
	2	PF-1002-3	9 Litre FOAM EXTINGUISHER
	4	BA-1003-6	BREATHING APPARATUS
	2	PC-1001-2	5 Kg CO2 EXTINGUISHER

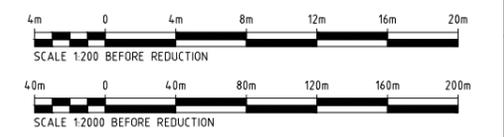
LEGEND:

	E&I BUILDING
	UTILITIES AREA
	FIREWATER PUMP PACKAGE & TANKS



PLAN
SCALE 1:200

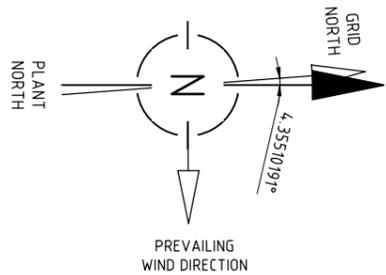
ISSUED FOR USE



DOC No.	DESCRIPTION	REV No.	DATE	ISSUED FOR USE	DRN	CHK'D	DSG'D	DSGCHK	APP
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PKGT-LOG-PMT-SAF-DWG-0001	FIRE WATER EQUIPMENT AND RING MAIN LAYOUT SHT 1 OF 2								
PKGT-ADV-PMT-SAF-PHL-0001	FIRE PROTECTION PHILOSOPHY	0	09/09/22	ISSUED FOR USE					

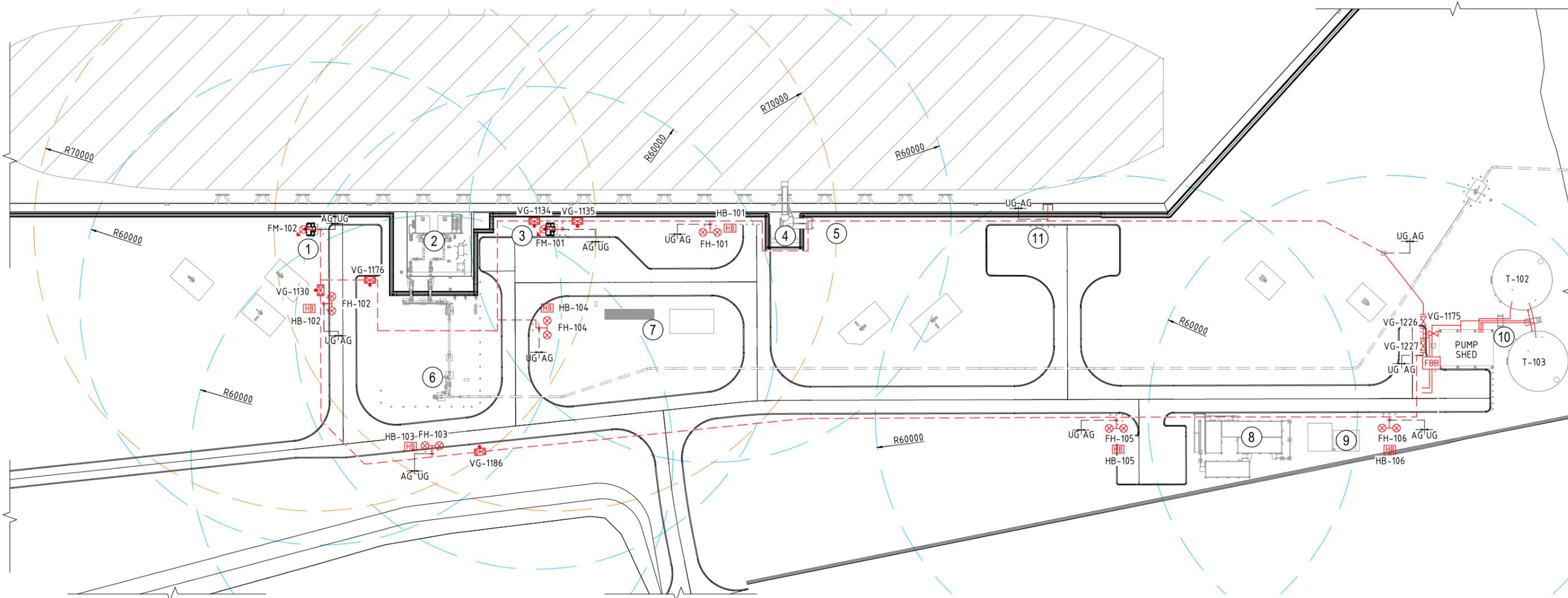
SCALE:	AS NOTED
DRAWN	MJ 09/09/22
CHECKED	MZR 09/09/22
DESIGNED	MZR/DA 09/09/22
DES. CHECK	LA 09/09/22
PROJ. MGR	CJS 09/09/22
CLIENT	AIE 09/09/22

PORT KEMBLA GAS TERMINAL DETAILED DESIGN WHARF TOPSIDE FIRE FIGHTING AND SAFETY EQUIPMENT LAYOUT (SHEET 2 OF 2)	
DRG. No.	Rev
A1	0
PKGT-LOG-ORF-SAF-LAD-0012	



NOTES:

- 60m HYDRANT COVERAGE HAS BEEN APPLIED FOR THE COVERAGE ASSESSMENT ACCORDING TO AS2419.
- 70m FIRE MONITOR COVERAGE HAS BEEN APPLIED FOR THE COVERAGE ASSESSMENT ACCORDING TO FIRE PROTECTION PHILOSOPHY.

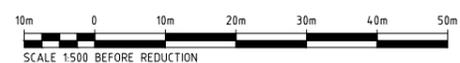


LEGEND	
①	FIRE MONITOR (SOUTH)
②	MLA AREA
③	FIRE MONITOR (NORTH)
④	GANGWAY
⑤	SHIP TO SHORE LINK
⑥	PIG LAUNCHER AREA
⑦	ODORANT AREA
⑧	E&I BUILDING
⑨	UTILITIES AREA
⑩	FIREWATER PUMP PACKAGE & TANKS
⑪	INTERNATIONAL SHIP TO SHORE CONNECTION (FIRE WATER/POTABLE WATER)

	FIRE WATER HYDRANT		HOSE BOX
	FIRE WATER MONITOR		FIRE BRIGADE BOOSTER ASSEMBLY
	UNDERGROUND FW PIPELINE		VALVE
	ABOVEGROUND FW PIPELINE		
	FIRE HYDRANT COVERAGE		
	FIRE MONITOR COVERAGE		

PLAN
SCALE 1:500

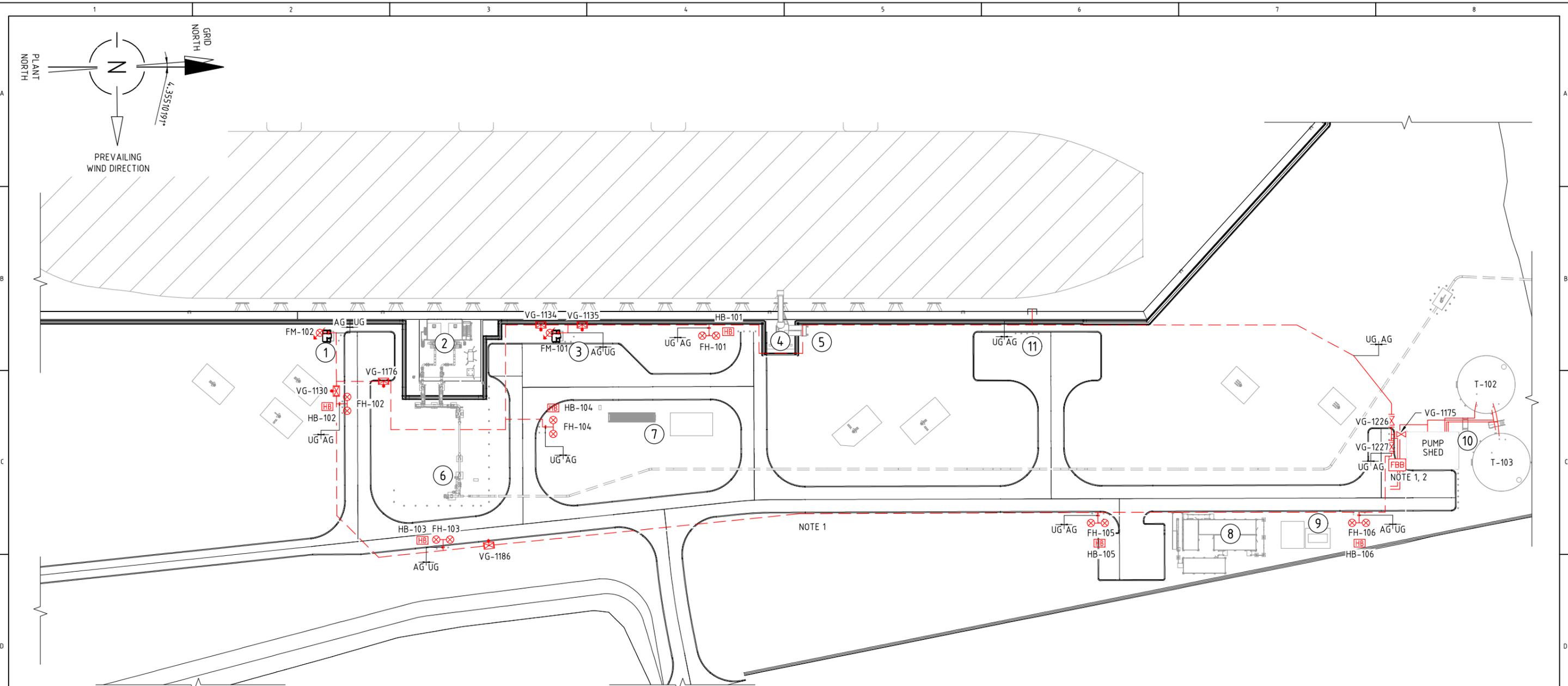
ISSUED FOR USE



DOC No.	DESCRIPTION	REV No.	DATE	ISSUED FOR USE	MJ	PIER	PIER/DA	LA	CJS
0		09/09/22		ISSUED FOR USE					

DESCRIPTION	REVISIONS	DRN	CHK'D	DSG'D	DSGCHK	PM APP
REFERENCE DOCUMENTS						

 AIE Engineering & Construction Property	 LOGICAMMS a verbrec company	SCALE: AS NOTED	PORT KEMBLA GAS TERMINAL DETAILED DESIGN WHARF TOPSIDE FIRE WATER EQUIPMENT AND RING MAIN LAYOUT (SHEET 2 OF 2)
		DRAWN: MJ 09/09/22	
CHECKED: MZR 09/09/22			
DESIGNED: MZR/DA 09/09/22			
DES. CHECK: LA 09/09/22			
PROJ. MGR: CJS 09/09/22			
CLIENT: AIE 09/09/22	DRG. No. A1	PKGT-LOG-PMT-SAF-DWG-0002	Rev 0



PLAN VIEW
SCALE 1:500

LEGEND:

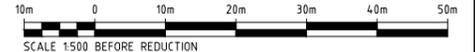
① FIRE MONITOR (SOUTH)	⑦ ODORANT AREA
② MLA AREA	⑧ E&I BUILDING
③ FIRE MONITOR (NORTH)	⑨ UTILITIES AREA
④ GANGWAY	⑩ FIREWATER PUMP PACKAGE & TANKS
⑤ SHIP TO SHORE LINK	⑪ INTERNATIONAL SHIP TO SHORE CONNECTION (FIRE WATER/POTABLE WATER)
⑥ PIG LAUNCHER AREA	

- FIRE WATER HYDRANT
- FIRE WATER MONITOR
- UNDERGROUND FW PIPELINE
- ABOVEGROUND FW PIPELINE
- HOSE BOX
- FIRE BRIGADE BOOSTER ASSEMBLY
- VALVE

NOTES:

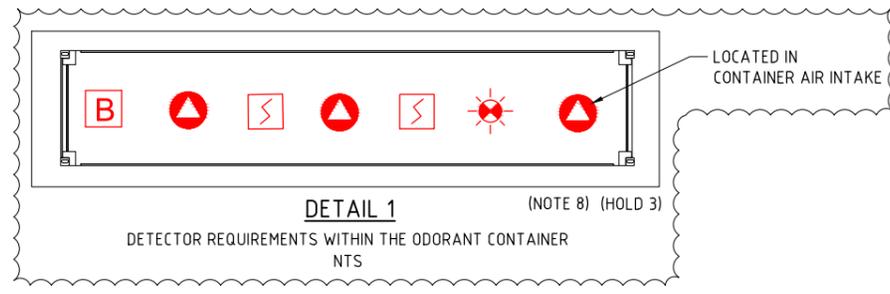
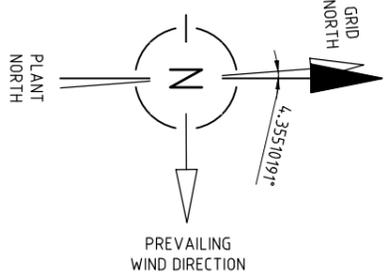
1. THE RING MAIN AND ISOLATION VALVES ARE INDICATIVE ACCORDING TO THE CURRENT 3D MODEL. REFER TO PIPING DRAWINGS FOR DETAILS AND FINAL DESIGN.
2. FIRE BRIGADE BOOSTER ASSEMBLY WILL BE LOCATED NEAR THE ACCESS ROAD WITH BOLLARD PROTECTION.
3. HYDRANTS AND HOSE BOXES ARE SHOWN IN THEIR INTENDED APPROXIMATE LOCATIONS. THE FINAL POSITION IS SUBJECT TO SMALL RELOCATION DUE TO ONSITE CONDITIONS. MAJOR RELOCATION NEED TO BE CONSULTED WITH THE CLIENT.
4. BLOCK PLANS SHALL BE PERMANENTLY AFFIXED WITHIN THE FIRE BRIGADE BOOSTER ASSEMBLY AREA AND PUMP SHED ACCORDING TO AS2419 REQUIREMENTS.
5. THE CONTRACTOR SHALL REVIEW THE PIPING AND CIVIL DRAWINGS AND FIELD VERIFY ALL INFORMATION. IF THERE ARE ANY DISCREPANCIES, THE CONTRACTOR SHALL COORDINATE AND REVIEW THEM WITH THE CLIENT, PRIOR TO PROCEEDING WITH THE WORK.
6. FIRE HYDRANT SERVICE INSTALLATION TO COMPLY WITH AS2941 AND AS2419.
7. CONTRACTOR TO PROVIDE ACCURATE AS-BUILT DRAWING AT COMPLETION OF WORK.
8. REFER TO WHARF TOPSIDE FIREWATER P&IDS, PKGT-LOG-ORF-PRO-PAIA-0009 & 0010, FOR MORE DETAILS.
9. THE CONTRACTOR PROVIDE BOLLARD PROTECTION AS REQUIRED TO ALL HYDRANTS TO ENSURE THEY ARE PROTECTED FROM VEHICULAR TRAFFIC.
10. ALL HYDRANTS AND ISOLATION VALVES SHALL BE IDENTIFIED IN ACCORDANCE WITH AS1345.

ISSUED FOR USE

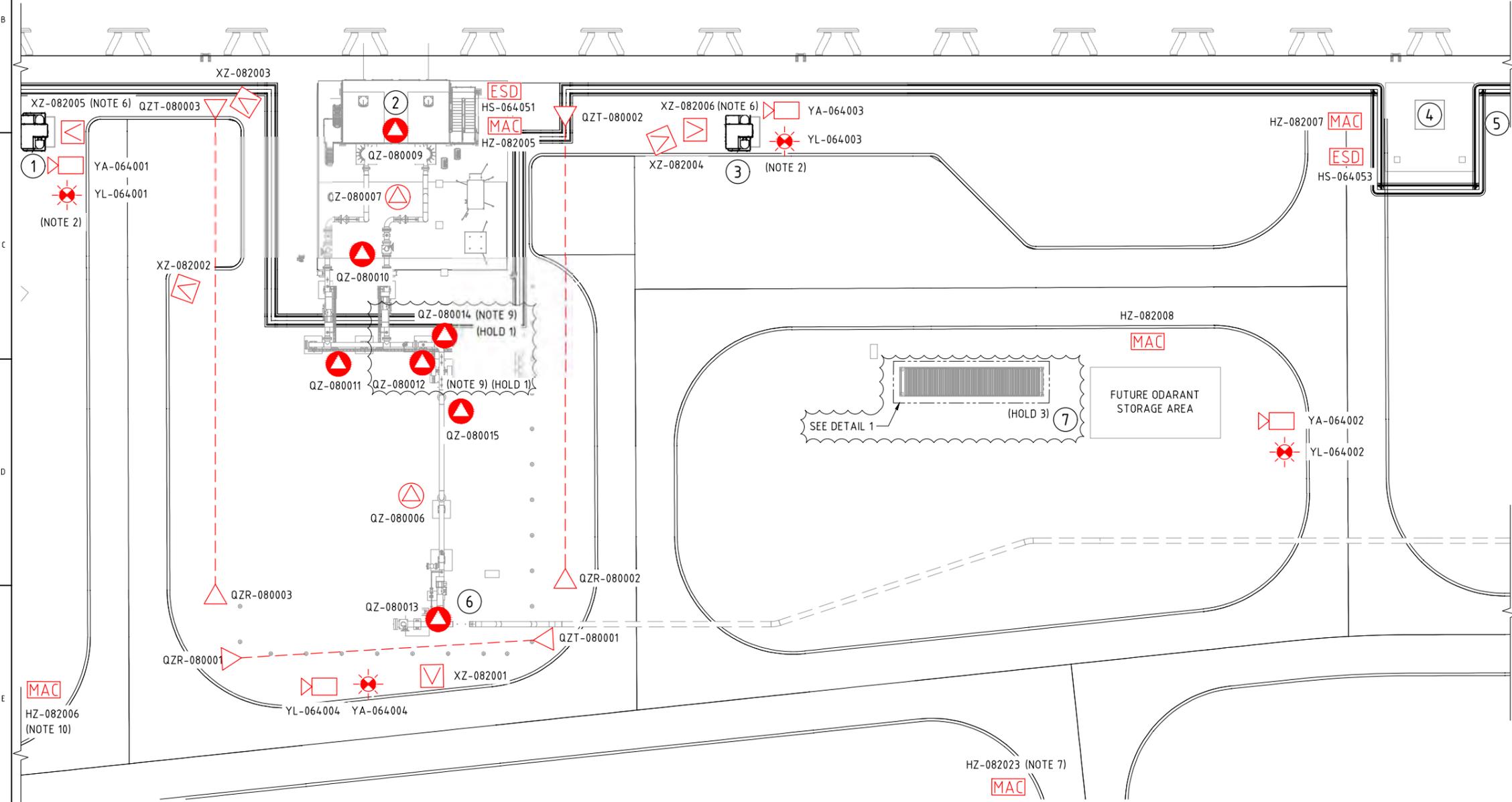
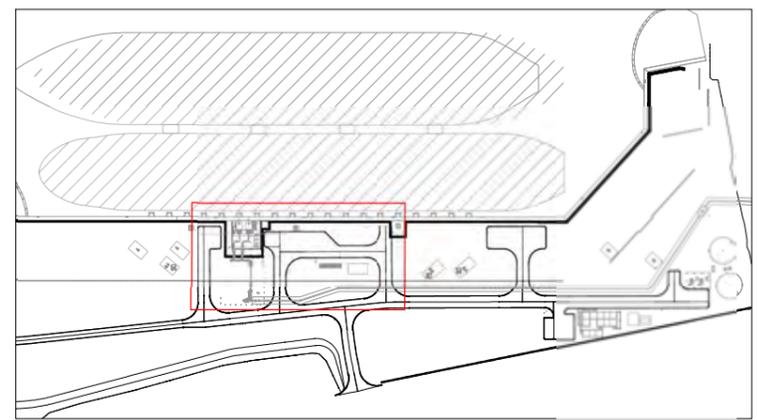


DOC No.	DESCRIPTION	REV No	DATE	ISSUED FOR USE	DRN	CHK'D	DSG'D	DSGCHK/PM APP
0		09/09/22		ISSUED FOR USE	MJ	MYR	MYR/DA	LA CJS
REFERENCE DOCUMENTS		REVISIONS						

 AIE <small>Engineering & Construction Property</small>	 LOGICAMMS <small>a verbrec company</small>	CLIENT:	SCALE: AS NOTED DRAWN: MJ 09/09/22 CHECKED: MZR 09/09/22 DESIGNED: MZR/DA 09/09/22 DES. CHECK: LA 09/09/22 PROJ. MGR: CJS 09/09/22 CLIENT: AIE 09/09/22	PORT KEMBLA GAS TERMINAL DETAILED DESIGN WHARF TOPSIDE FIRE WATER EQUIPMENT AND RING MAIN LAYOUT (SHEET 1 OF 2)
			DRG. No. PKGT-LOG-PMT-SAF-DWG-0001 Rev 0	



SYMBOL	QUANTITY	DESCRIPTION
	6	IR3 FLAME DETECTOR
	7	POINT GAS DETECTOR (IR TYPE)
	2	ACOUSTIC GAS DETECTOR
	2	EMERGENCY PUSH BUTTON
	5	MANUAL ALARM CALL POINT
	3	OPEN PATH GAS DETECTOR
	4	SOUNDER
	4	FLASHING BEACON LIGHT
	1 (HOLD 3)	BOUND LEAK DETECTOR
	2 (HOLD 3)	SMOKE DETECTOR

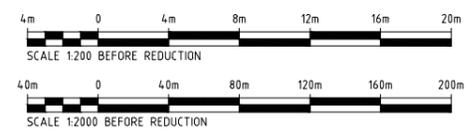


- NOTES:**
- FIRE AND GAS DETECTION LAYOUT HAS BEEN DEVELOPED IN COMPLIANCE WITH "FIRE AND GAS DETECTION PHILOSOPHY (PKG-ADV-PMT-SAF-PHL-0002, REV.1).
 - SOUNDER AND FLASHING BEACON LIGHT WILL BE INSTALLED ON EACH FIRE MONITOR TOWER.
 - F&G DETECTORS ARE SHOWN IN THEIR INTENDED APPROXIMATE LOCATIONS. THE FINAL POSITION IS SUBJECT TO ONSITE CONDITIONS.
 - THE CONTRACTOR SHALL REVIEW THE INSTRUMENT DRAWINGS AND FIELD VERIFY ALL INFORMATION. IF THERE ARE ANY DISCREPANCIES, THE CONTRACTOR SHALL COORDINATE AND REVIEW THEM WITH THE CLIENT, PRIOR TO PROCEEDING WITH THE WORK.
 - CONTRACTOR TO PROVIDE ACCURATE AS-BUILT DRAWING AT COMPLETION OF WORK.
 - FLAME DETECTOR TO BE INSTALLED ON MONITOR TOWER TO DETECT MLA FIRE.
 - TO BE INSTALLED AT PRIMARY PEDESTRIAN EGRESS DOOR.
 - THE FIRE AND GAS DETECTOR REQUIREMENTS WITHIN THE ODORANT CONTAINER ARE TO BE PROVIDED BY OTHERS (HOLD 3).
 - TO BE INSTALLED LOW-LEVEL FOR THE ODORANT INJECTION POINT.
 - TO BE INSTALLED AT SECONDARY PEDESTRIAN EGRESS DOOR.

- HOLDS:**
- TOXIC GAS DETECTOR FOR THE INJECTION POINT IN THE PROCESS AREA TO BE FINALISED AFTER ADVICE FROM ODORANT PACKAGE VENDOR.
 - DETECTOR SCHEDULE.
 - ODORANT CONTAINER DETECTOR REQUIREMENTS TO BE PROVIDED BY AIE/ WORLEY.

LEGEND:

①	FIRE MONITOR (SOUTH)	⑤	SHIP TO SHORE LINK
②	MLA AREA	⑥	PIG LAUNCHER AREA
③	FIRE MONITOR (NORTH)	⑦	ODORANT AREA
④	GANGWAY		



PLAN VIEW
SCALE 1:200

ISSUED FOR USE

REV No	DATE	DESCRIPTION	DRN	CHK'D	DSG'D	DSG'G/CHK'G APP
0	09/09/22	ISSUED FOR USE	MJ	MZR	MZR/DA	LA CJS

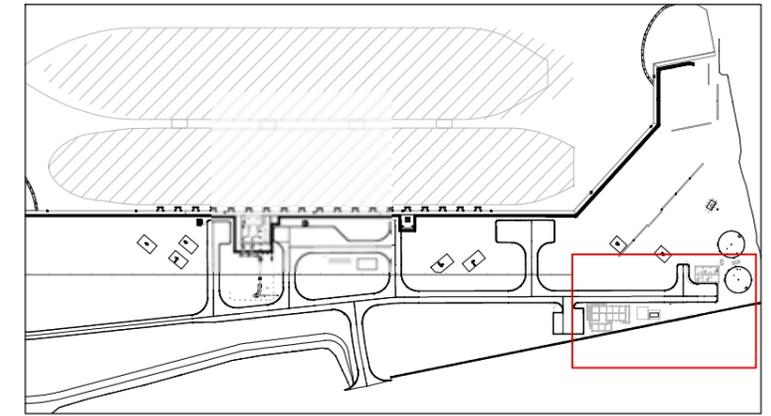
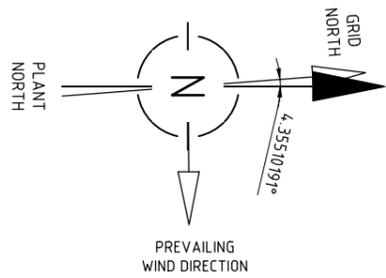
CLIENT:  

SCALE	AS NOTED	
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CHECKED	MZR	09/09/22
DESIGNED	MZR/DA	09/09/22
DES. CHECK	LA	09/09/22
PROJ. MGR	CJS	09/09/22
CLIENT	AIE	09/09/22

DRG No. N/A

PORT KEMBLA GAS TERMINAL DETAILED DESIGN
WHARF TOPSIDE
FIRE AND GAS DETECTION LAYOUT
(SHEET 1 OF 2)

DRG. No. A1 **PKGT-LOG-ORF-SAF-LAD-0001** Rev 0



KEY PLAN:
SCALE 1:2000

NOTES:

1. FIRE AND GAS DETECTION LAYOUT HAS BEEN DEVELOPED IN COMPLIANCE WITH "FIRE AND GAS DETECTION PHILOSOPHY (PKG-ADV-PMT-SAF-PHL-0002, REV.1).
2. A COMPLIANT DRY FIRE PROTECTION SYSTEM SHALL BE DESIGNED, SUPPLIED, INSTALLED AND CERTIFIED BY E&I BUILDING'S CONTRACTOR. IT INCLUDES BUT NOT LIMITED TO FIRE AND GAS DETECTORS, FIRE CONTROL PANELS, MANUAL CALL POINTS, EMERGENCY PUSH BUTTONS, FLASHING BEACON LIGHTS AND SOUNDERS, PLUS INTERCONNECTING WIRING. REFER TO PKG-LOG-ORF-CIV-SPC-0024 AND PKG-LOG-ORF-ELE-REQ-0010 FOR DETAILS OF THE CONTRACTOR'S SCOPE OF WORK.
3. F&G DETECTORS ARE SHOWN IN THEIR INTENDED APPROXIMATE LOCATIONS. THE FINAL POSITION IS SUBJECT TO ONSITE CONDITIONS.
4. THE CONTRACTOR SHALL REVIEW THE INSTRUMENT DRAWINGS AND FIELD VERIFY ALL INFORMATION. IF THERE ARE ANY DISCREPANCIES, THE CONTRACTOR SHALL COORDINATE AND REVIEW THEM WITH THE CLIENT, PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR TO PROVIDE ACCURATE AS-BUILT DRAWING AT COMPLETION OF WORK.

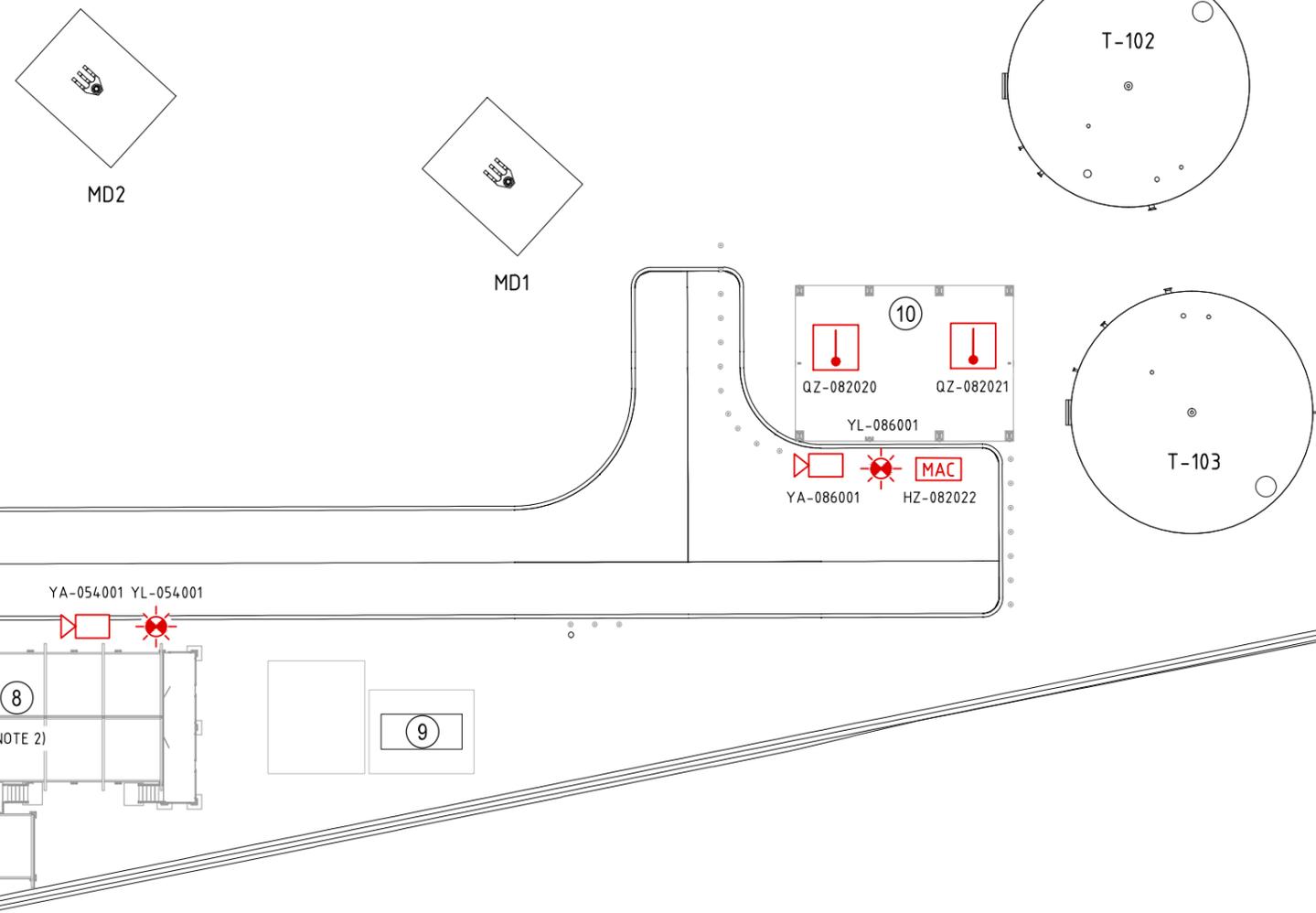
HOLDS:

1. DETECTOR SCHEDULE.

SYMBOL	QUANTITY	DESCRIPTION
	2	EXPOSED HEAT DETECTOR
	1	MANUAL ALARM CALL POINT
	2	SOUNDER
	2	FLASHING BEACON LIGHT

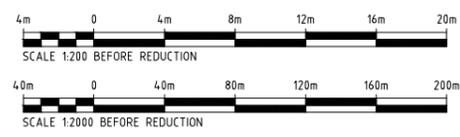
LEGEND

- E&I BUILDING
- UTILITIES AREA
- FIREWATER PUMP PACKAGE & TANKS



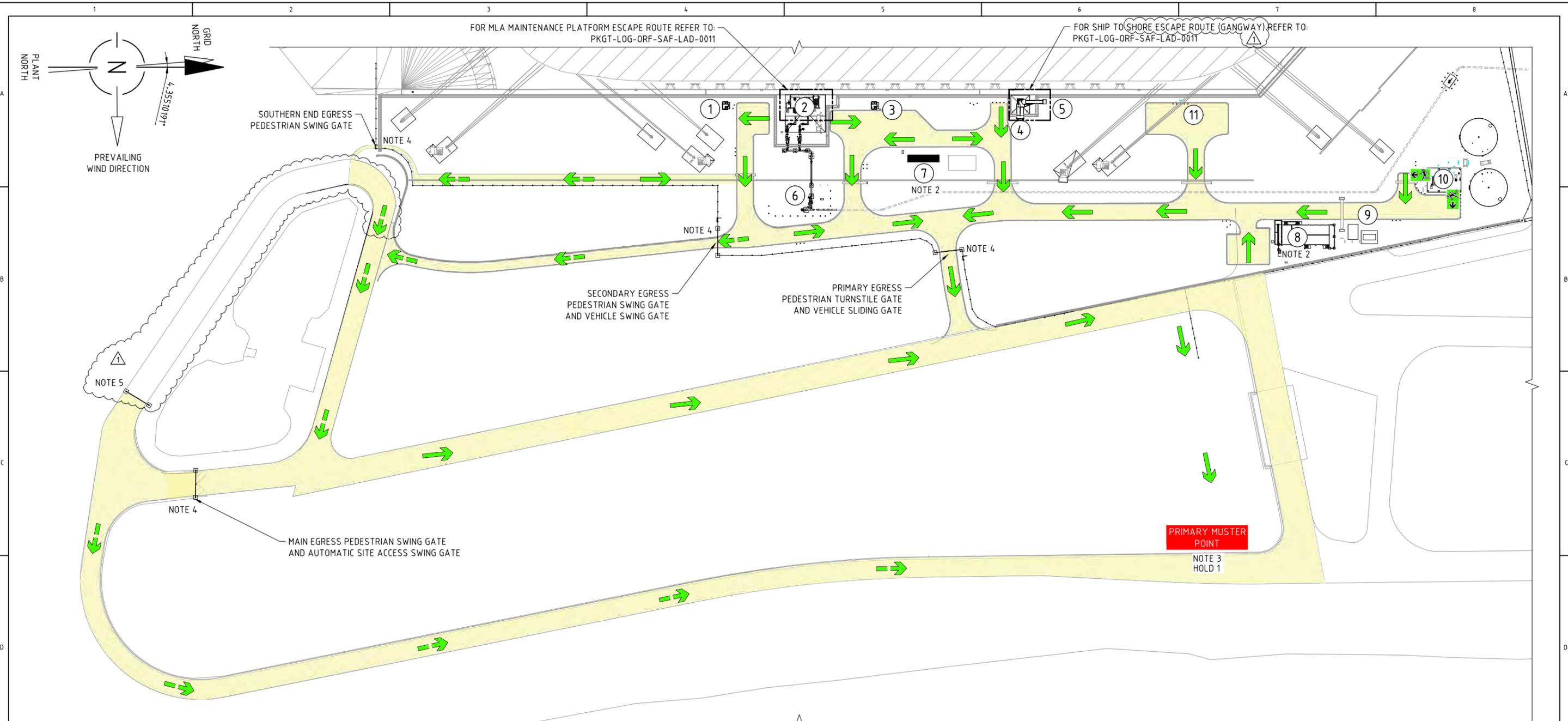
PLAN
SCALE 1:200

ISSUED FOR USE



REV No	DATE	DESCRIPTION	DRN	CHK'D	DSG'D	DSG/CHK/PH APP
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		SCALE:	NOTED:	PORT KEMBLA GAS TERMINAL DETAILED DESIGN WHARF TOPSIDE FIRE AND GAS DETECTION LAYOUT (SHEET 2 OF 2)
		DRAWN: MJ CHECKED: MZR DESIGNED: MZR/DA DES. CHECK: LA PROJ. MGR: CJS CLIENT:	09/09/22 09/09/22 09/09/22 09/09/22 09/09/22	
DRG No. N/A		A1		DRG. No. PKGT-LOG-ORF-SAF-LAD-0002 Rev 0



PLAN VIEW
SCALE 1:500

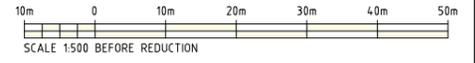
LEGEND:

① FIRE MONITOR (SOUTH)	⑦ ODORANT AREA	PRIMARY DIRECTION OF ESCAPE
② MLA AREA	⑧ E&I BUILDING	SECONDARY DIRECTION OF ESCAPE
③ FIRE MONITOR (NORTH)	⑨ UTILITIES AREA	EXIT SIGNAGE
④ GANGWAY	⑩ FIREWATER PUMP PACKAGE & TANKS	
⑤ SHIP TO SHORE LINK	⑪ INTERNATIONAL SHIP TO SHORE CONNECTION (FIRE WATER/POTABLE WATER)	
⑥ PIG LAUNCHER AREA		

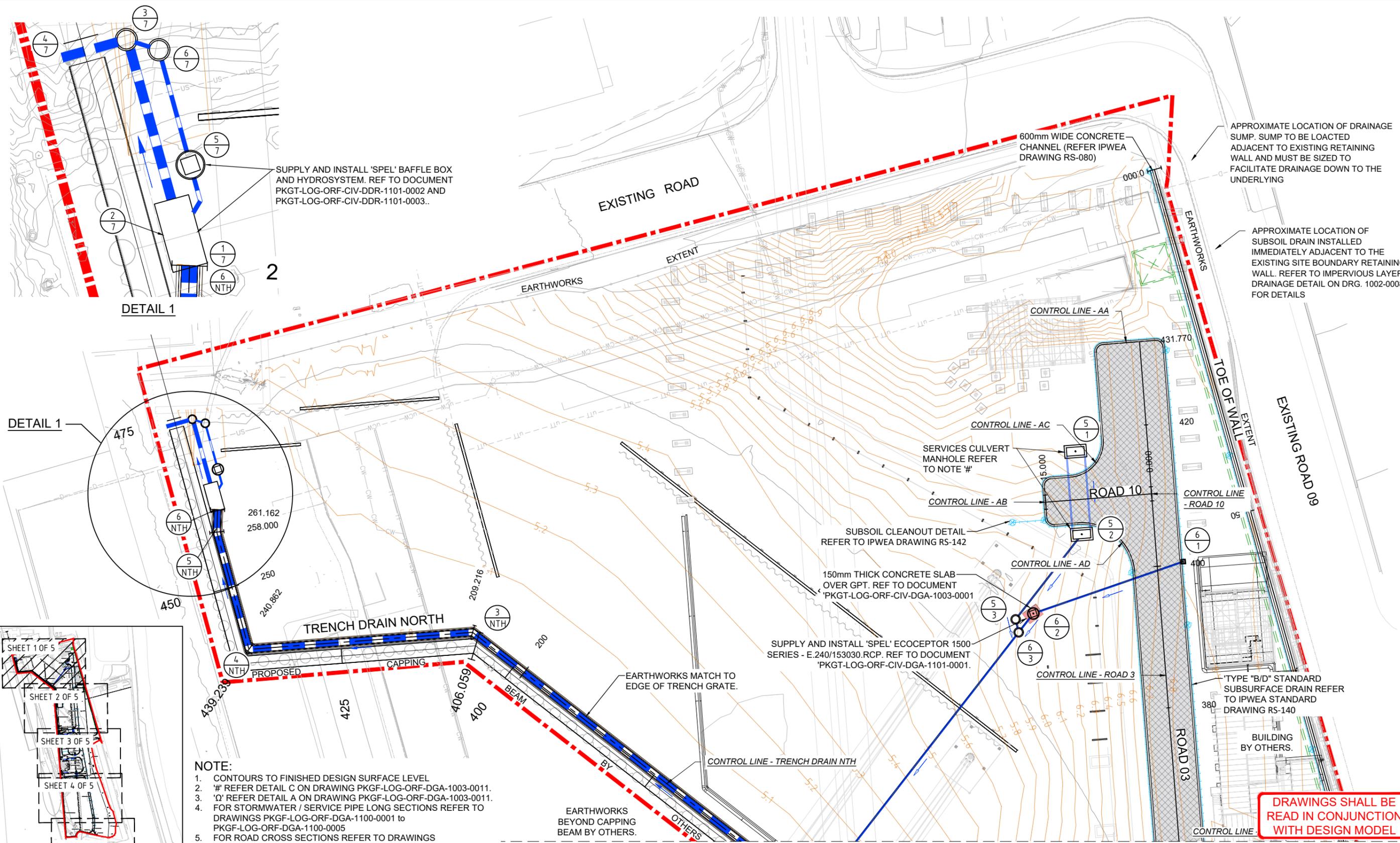
- NOTES:**
- THE EQUIPMENT LOCATION ARE INDICATIVE OF THE FINAL POSITION.
 - REFER TO VENDOR CONTRACTOR DRAWINGS FOR ESCAPE/ACCESS ROUTE AND SAFETY SIGNAGE.
 - ESCAPE ROUTES AND PRIMARY MUSTER POINT SHALL BE PROVIDED WITH EMERGENCY LIGHTING.
 - ALL PEDESTRIAN DOORS SHALL BE UNLOCKED AUTOMATICALLY DURING EMERGENCY AND ESCAPE PERIOD.
 - THIS GATE SHALL BE MANUALLY UNLOCKED IN CASE ANY SITE PERSONNEL IS WORKING AROUND THE SOUTHERN STORMWATER POND LOCATION. PERMANENT SIGNAGE SHALL BE INSTALLED AT A VISIBLE/SUITABLE LOCATIONS MINIMUM AT THE ENTRANCE AND AT THE GATE ON BOTH SIDES.

- HOLDS:**
- THE FINAL LOCATION OF PRIMARY MUSTER POINT. IT IS PRESENTLY SHOWN AT THE END OF THE SITE BOUNDARY WALL. ALTERNATIVE POINT IS LOCATED AT THE CAR PARK AREA NEXT TO THE SEAWALL RD ON THE OPPOSITE SIDE OF PKGT SITE BOUNDARY.

ISSUED FOR USE



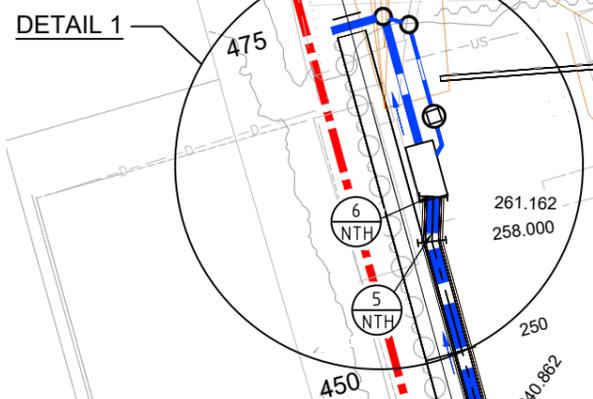
PKGT-WOR-ORF-SAF-RPT-0010 ESCAPE, MUSTER, EVACUATION AND RESCUE ANALYSIS PKGT-LOG-ORF-SAF-LAD-0011 ESCAPE ROUTE AND SAFETY LAYOUT (SHEET 2 OF 2) PKGT-WOR-ORF-SAF-PHL-0001 FIRE PROTECTION PHILOSOPHY PKGT-LOG-ORF-PRO-PAIA-0010 FIREWATER MAIN RING, FIRE MONITORS AND HYDRANTS P&ID PKGT-LOG-ORF-PRO-PAIA-0009 FIREWATER PUMPS AND STORAGE TANKS P&ID PKGT-LOG-ORF-PEQ-MOD-0001 NAVISWORKS - 3D MODEL		1 15.02.23 RE-ISSUED FOR USE 0 06.02.23 ISSUED FOR USE	SAL DA NGL DA CJS MJ MZR/DA NGL DA CJS	DRN CHK'D DSG'D DSGCHK PM APP	CLIENT: 	SCALE: AS NOTED DRAWN MJ 06.02.23 CHECKED MZR 06.02.23 DESIGNED NGL 06.02.23 DES. CHECK DA 06.02.23 PROJ. MGR CJS 06.02.23 CLIENT AIE 06.02.23	PORT KEMBLA GAS TERMINAL DETAILED DESIGN WHARF TOPSIDE ESCAPE ROUTE AND SAFETY LAYOUT (SHEET 1 OF 2)	DRG. No. A1 PKGT-LOG-ORF-SAF-LAD-0010	Rev 1
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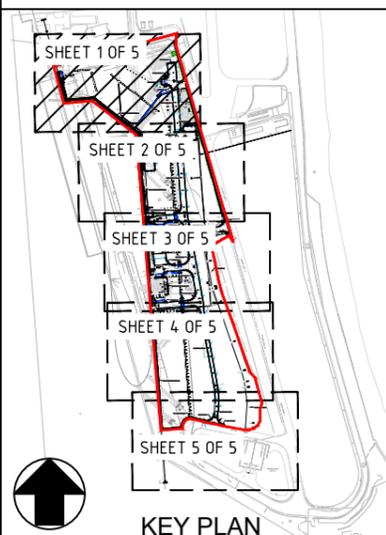
SUPPLY AND INSTALL 'SPEL' BAFFLE BOX AND HYDROSYSTEM. REF TO DOCUMENT PKGT-LOG-ORF-CIV-DDR-1101-0002 AND PKGT-LOG-ORF-CIV-DDR-1101-0003.

APPROXIMATE LOCATION OF DRAINAGE SUMP. SUMP TO BE LOCAED ADJACENT TO EXISTING RETAINING WALL AND MUST BE SIZED TO FACILITATE DRAINAGE DOWN TO THE UNDERLYING

APPROXIMATE LOCATION OF SUBSOIL DRAIN INSTALLED IMMEDIATELY ADJACENT TO THE EXISTING SITE BOUNDARY RETAINING WALL. REFER TO IMPERVIOUS LAYER DRAINAGE DETAIL ON DRG. 1002-0008 FOR DETAILS



- NOTE:**
1. CONTOURS TO FINISHED DESIGN SURFACE LEVEL
 2. '#' REFER DETAIL C ON DRAWING PKGF-LOG-ORF-DGA-1003-0011.
 3. 'Q' REFER DETAIL A ON DRAWING PKGF-LOG-ORF-DGA-1003-0011.
 4. FOR STORMWATER / SERVICE PIPE LONG SECTIONS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1100-0001 to PKGF-LOG-ORF-DGA-1100-0005
 5. FOR ROAD CROSS SECTIONS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1002-0020 to PKGF-LOG-ORF-DGA-1002-0028 FOR CONTROL LINE SETOUT AND DETAILS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1004-0001 to PKGF-LOG-ORF-DGA-1004-0009
 - 6.



DRAWINGS SHALL BE READ IN CONJUNCTION WITH DESIGN MODEL

ISSUED FOR CONSTRUCTION

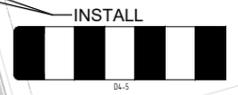
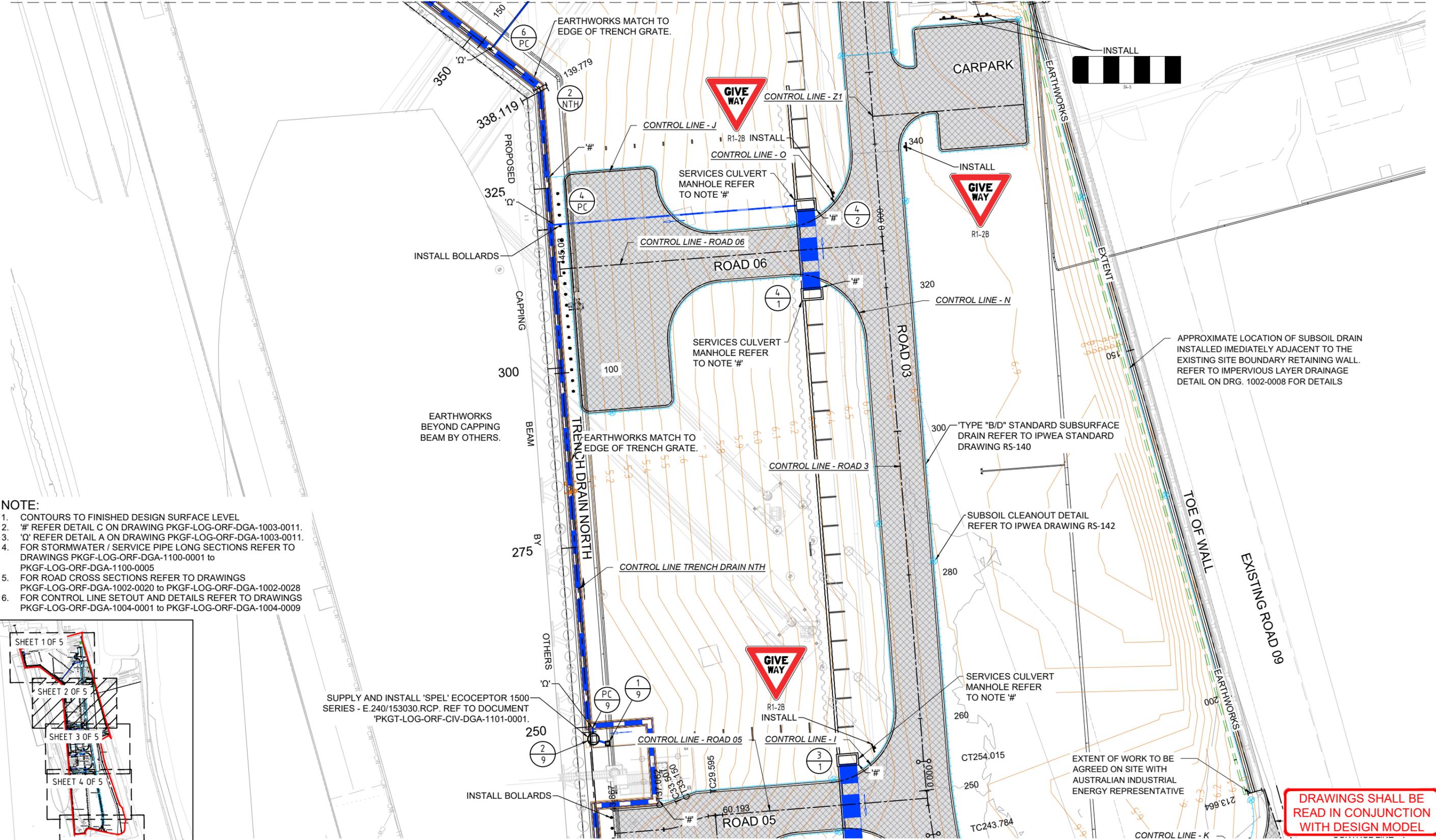
99434 (NPER-3)	P.W. MOODIE	6	REISSUED FOR CONSTRUCTION	RS	PM	MM	PD	19.08.22
		5	REISSUED FOR CONSTRUCTION	MM	PM	MM	RR	27.07.22
		4	ISSUED FOR CONSTRUCTION	SB	PM	MM	PD	08.07.22
		3	ISSUED FOR USE	RS	PM	RS	PD	09.06.22
		2	ISSUED FOR REVIEW	RS	PM	RS	PD	03.06.22
		1	ISSUED FOR CONSTRUCTION	JL	PM	JL	TJ	08.12.21
		0	ISSUED FOR INFORMATION	JL	PM	JL	TJ	09.08.21
CERTIFIER NO.	CERTIFYING ENGINEER NAME	REV	ISSUE DESCRIPTION	DRN	CHK	DES	APR	DATE



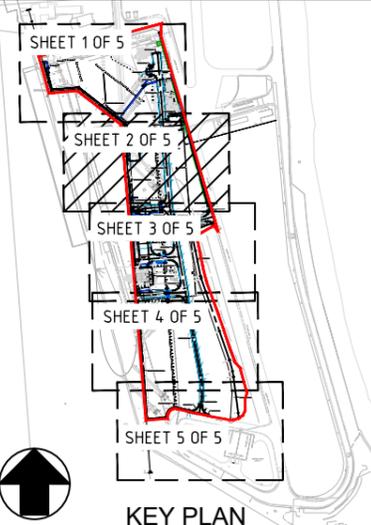
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DRN	SB 01.07.22
CHK	PM 01.07.22
DES	MM 01.07.22
APR	PD 01.07.22

PORT KEMBLA GAS TERMINAL PROJECT - CIVIL WORKS
GENERAL ARRANGEMENT PLAN
ACCESS ROADS, PAVEMENTS, STORMWATER DRAINAGE,
SIGNS AND LINEMARKING - SHEET 1 OF 5

JOINS DRAWING PKGT-LOG-ORF-CIV-DGA-1002-0004



- NOTE:**
1. CONTOURS TO FINISHED DESIGN SURFACE LEVEL
 2. '#' REFER DETAIL C ON DRAWING PKGF-LOG-ORF-DGA-1003-0011.
 3. 'Ω' REFER DETAIL A ON DRAWING PKGF-LOG-ORF-DGA-1003-0011.
 4. FOR STORMWATER / SERVICE PIPE LONG SECTIONS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1100-0001 to PKGF-LOG-ORF-DGA-1100-0005
 5. FOR ROAD CROSS SECTIONS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1002-0020 to PKGF-LOG-ORF-DGA-1002-0028
 6. FOR CONTROL LINE SETOUT AND DETAILS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1004-0001 to PKGF-LOG-ORF-DGA-1004-0009



SUPPLY AND INSTALL 'SPEL' ECOCEPTOR 1500 SERIES - E.240/153030.RCP. REF TO DOCUMENT 'PKGT-LOG-ORF-CIV-DGA-1101-0001.



DRAWINGS SHALL BE READ IN CONJUNCTION WITH DESIGN MODEL

ISSUED FOR CONSTRUCTION

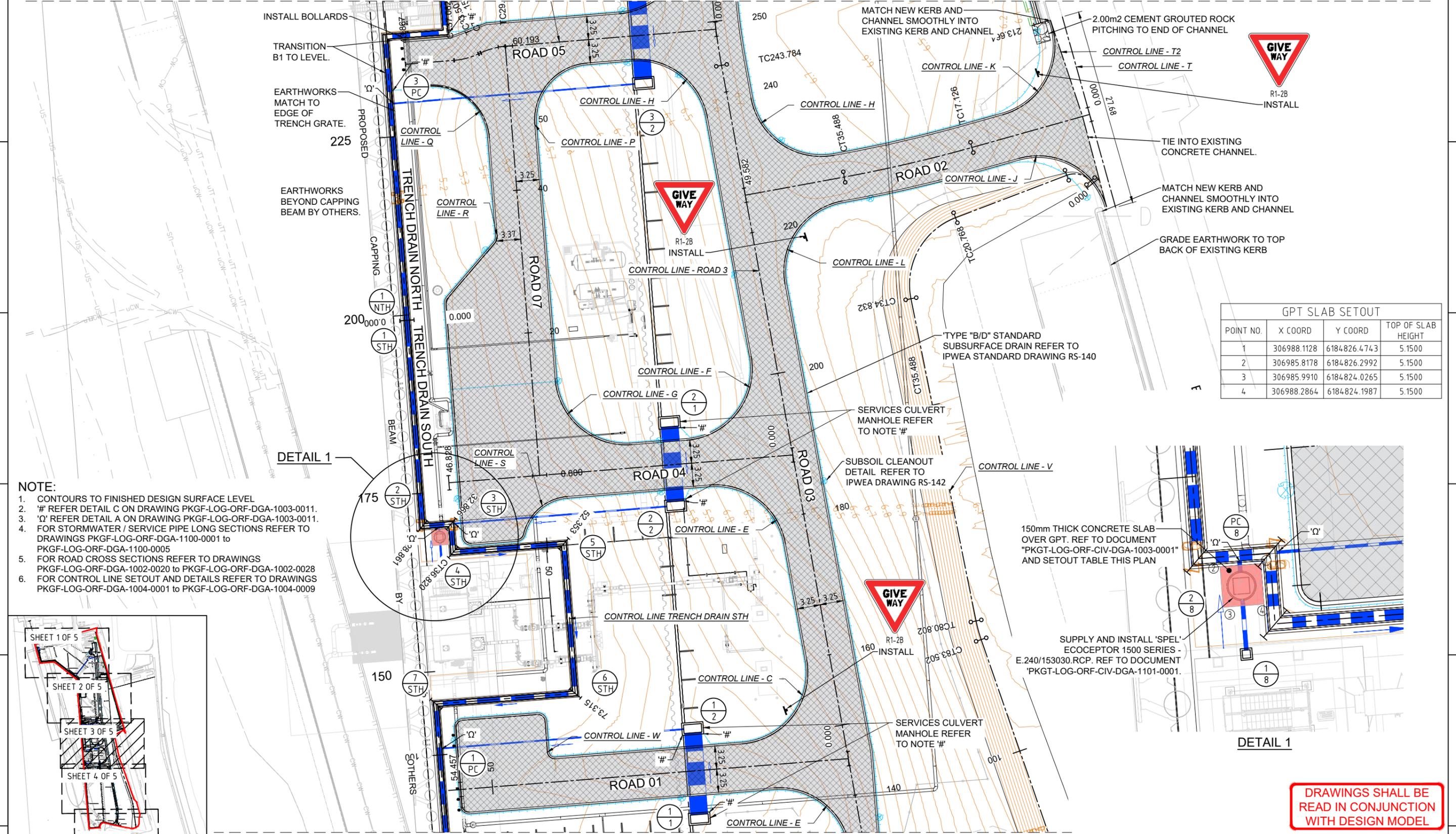
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CERTIFIER NO.	CERTIFYING ENGINEER NAME	5	ISSUED FOR CONSTRUCTION WITH HOLDS	MM	PM	MM	RR	27.07.22
REV	ISSUE DESCRIPTION	4	ISSUED FOR CONSTRUCTION	SB	PM	MM	PD	08.07.22
		3	ISSUED FOR USE	RS	PM	RS	PD	09.06.22
		2	ISSUED FOR REVIEW	RS	PM	RS	PD	03.06.22
		1	ISSUED FOR CONSTRUCTION	JL	PM	JL	TJ	08.12.21
		0	ISSUED FOR INFORMATION	JL	PM	JL	TJ	09.08.21

REV	ISSUE DESCRIPTION	DRN	CHK	DES	APR	DATE
6	REISSUED FOR CONSTRUCTION	RS	PM	MM	PD	19.08.22
5	ISSUED FOR CONSTRUCTION WITH HOLDS	MM	PM	MM	RR	27.07.22
4	ISSUED FOR CONSTRUCTION	SB	PM	MM	PD	08.07.22
3	ISSUED FOR USE	RS	PM	RS	PD	09.06.22
2	ISSUED FOR REVIEW	RS	PM	RS	PD	03.06.22
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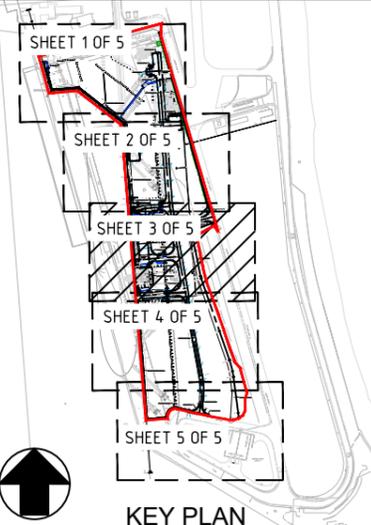
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DRN	SB 01.07.22
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DES	MM 01.07.22
APR	PD 01.07.22

PORT KEMBLA GAS TERMINAL PROJECT - CIVIL WORKS
 GENERAL ARRANGEMENT PLAN
 ACCESS ROADS, PAVEMENTS, STORMWATER DRAINAGE,
 SIGNS AND LINEMARKING - SHEET 2 OF 5



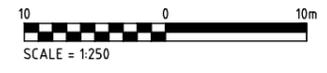
- NOTE:**
1. CONTOURS TO FINISHED DESIGN SURFACE LEVEL
 2. '#' REFER DETAIL C ON DRAWING PKGF-LOG-ORF-DGA-1003-0011.
 3. 'Q' REFER DETAIL A ON DRAWING PKGF-LOG-ORF-DGA-1003-0011.
 4. FOR STORMWATER / SERVICE PIPE LONG SECTIONS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1100-0001 to PKGF-LOG-ORF-DGA-1100-0005
 5. FOR ROAD CROSS SECTIONS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1002-0020 to PKGF-LOG-ORF-DGA-1002-0028
 6. FOR CONTROL LINE SETOUT AND DETAILS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1004-0001 to PKGF-LOG-ORF-DGA-1004-0009

GPT SLAB SETOUT			
POINT NO.	X COORD	Y COORD	TOP OF SLAB HEIGHT
1	306988.1128	6184826.4743	5.1500
2	306985.8178	6184826.2992	5.1500
3	306985.9910	6184824.0265	5.1500
4	306988.2864	6184824.1987	5.1500



DRAWINGS SHALL BE READ IN CONJUNCTION WITH DESIGN MODEL

ISSUED FOR CONSTRUCTION

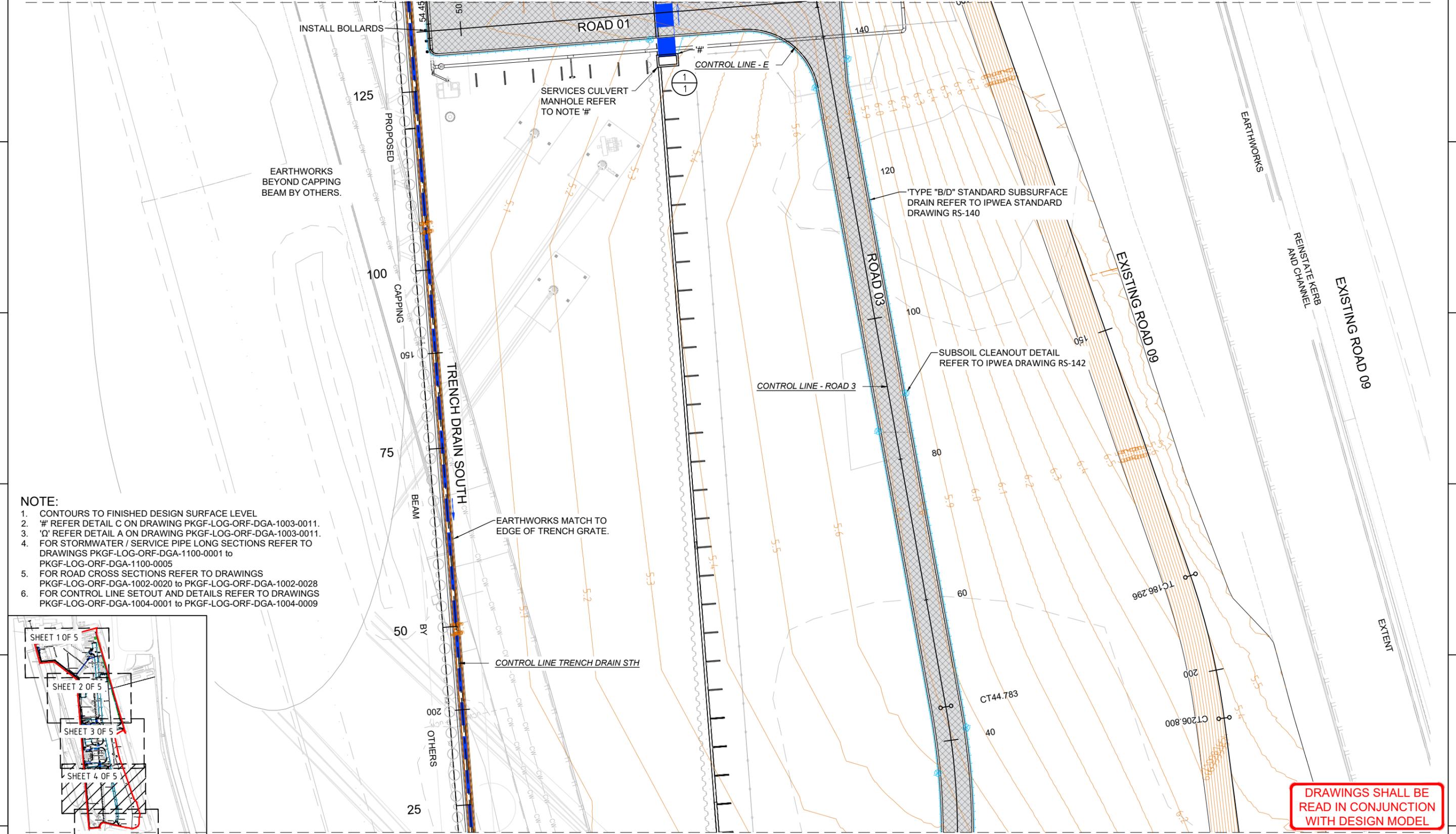


99434 (NPER-3)	P.W. MOODIE	6	REISSUED FOR CONSTRUCTION	RS	PM	MM	PD	19.08.22
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		4	ISSUED FOR CONSTRUCTION	SB	PM	MM	PD	08.07.22
		3	ISSUED FOR USE	RS	PM	RS	PD	09.06.22
		2	ISSUED FOR REVIEW	RS	PM	RS	PD	03.06.22
		1	ISSUED FOR CONSTRUCTION	JL	PM	JL	TJ	08.12.21
		0	ISSUED FOR INFORMATION	JL	PM	JL	TJ	09.08.21
CERTIFIER NO.	CERTIFYING ENGINEER NAME	REV	ISSUE DESCRIPTION	DRN	CHK	DES	APR	DATE

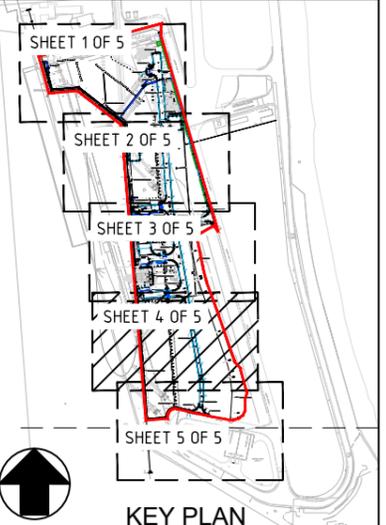


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CHK	PM 01.07.22
DES	MM 01.07.22
APR	PD 01.07.22

PORT KEMBLA GAS TERMINAL PROJECT - CIVIL WORKS
GENERAL ARRANGEMENT PLAN
ACCESS ROADS, PAVEMENTS, STORMWATER DRAINAGE,
SIGNS AND LINEMARKING - SHEET 3 OF 5



- NOTE:**
1. CONTOURS TO FINISHED DESIGN SURFACE LEVEL
 2. '#' REFER DETAIL C ON DRAWING PKGF-LOG-ORF-DGA-1003-0011.
 3. 'Ω' REFER DETAIL A ON DRAWING PKGF-LOG-ORF-DGA-1003-0011.
 4. FOR STORMWATER / SERVICE PIPE LONG SECTIONS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1100-0001 to PKGF-LOG-ORF-DGA-1100-0005
 5. FOR ROAD CROSS SECTIONS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1002-0020 to PKGF-LOG-ORF-DGA-1002-0028
 6. FOR CONTROL LINE SETOUT AND DETAILS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1004-0001 to PKGF-LOG-ORF-DGA-1004-0009



DRAWINGS SHALL BE READ IN CONJUNCTION WITH DESIGN MODEL

ISSUED FOR CONSTRUCTION



REV	ISSUE DESCRIPTION	DRN	CHK	DES	APR	DATE
5	REISSUED FOR CONSTRUCTION	RS	PM	MM	PD	19.08.22
4	ISSUED FOR CONSTRUCTION	SB	PM	MM	PD	08.07.22
3	ISSUED FOR USE WITH HOLDS	SB	PM	MM	PD	09.06.22
2	ISSUED FOR CLIENT REVIEW	SB	PM	MM	PD	03.06.22
1	DESIGN SURFACE UPDATED	RS	PM	TJ		08.12.21
0	ISSUED FOR CONSTRUCTION	JL	PM	JL	TJ	09.08.21

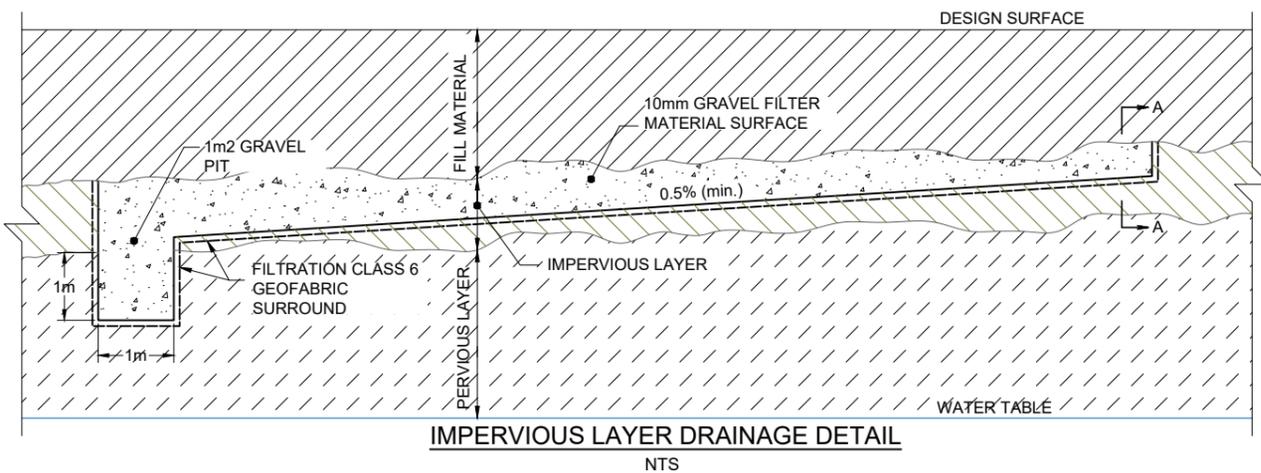
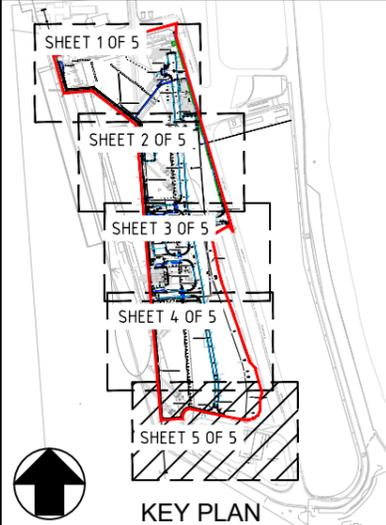
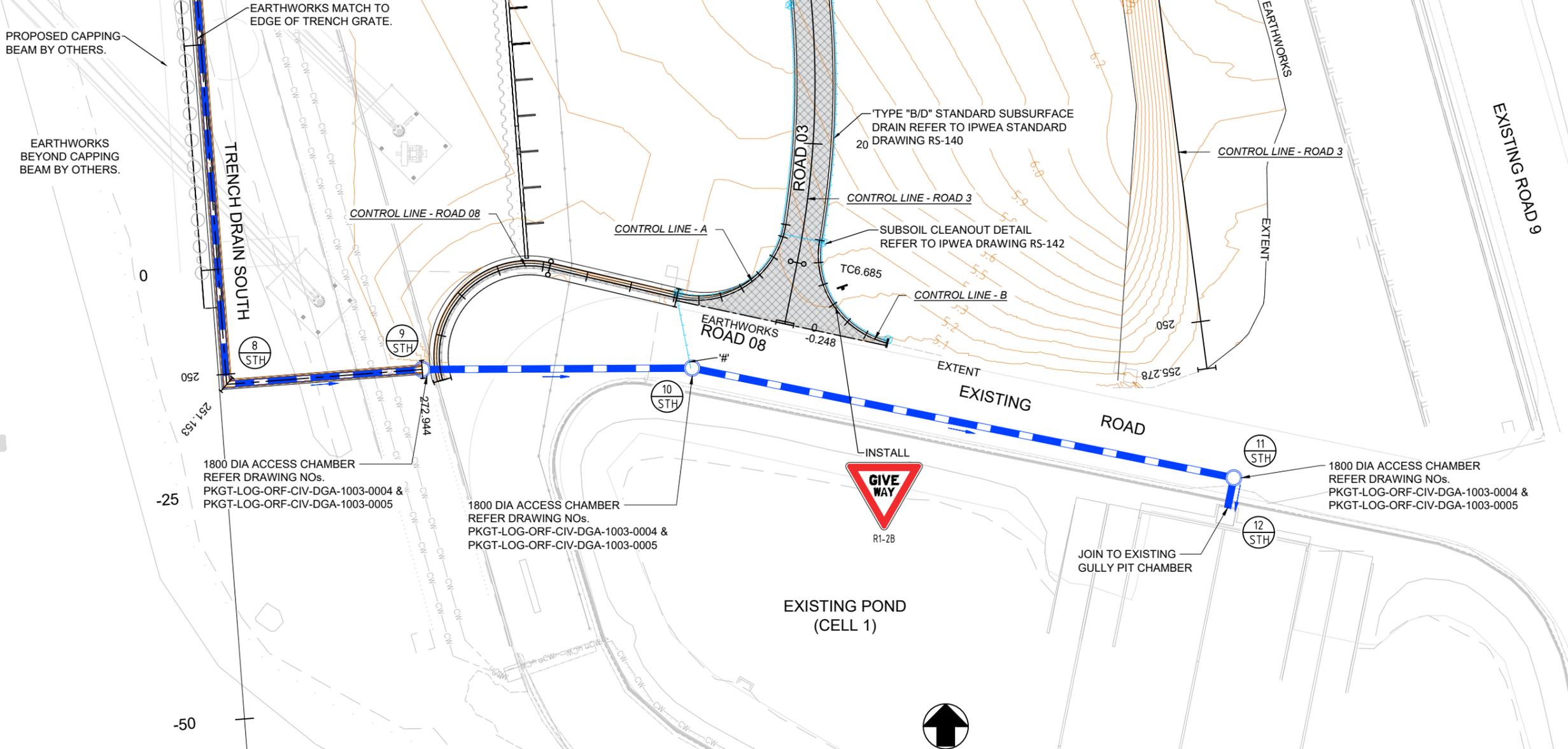


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APR	PD 01.07.22

PORT KEMBLA GAS TERMINAL PROJECT - CIVIL WORKS
 GENERAL ARRANGEMENT PLAN
 ACCESS ROADS, PAVEMENTS, STORMWATER DRAINAGE,
 SIGNS AND LINEMARKING - SHEET 4 OF 5

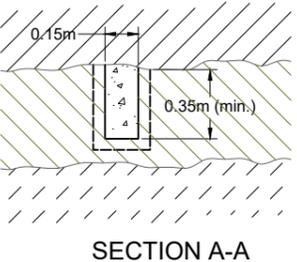
99434 (NPER-3) P.W. MOODIE
 CERTIFIER NO. CERTIFYING ENGINEER NAME

JOINS DRAWING PKGT-LOG-ORF-CIV-DGA-1002-0007

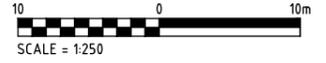


10mm GRAVEL FILTER MATERIAL

A.S. SIEVE SIZE	% BY WT. PASS 'G'
9.50 mm	100
4.75 mm	90 - 100
1.18 mm	45 - 80
300 µm	10 - 30
150 µm	0 - 10
75 µm	0 - 1



- NOTE:**
1. CONTOURS TO FINISHED DESIGN SURFACE LEVEL
 2. '#' REFER DETAIL C ON DRAWING PKGF-LOG-ORF-DGA-1003-0011.
 3. 'Q' REFER DETAIL A ON DRAWING PKGF-LOG-ORF-DGA-1003-0011.
 4. FOR STORMWATER / SERVICE PIPE LONG SECTIONS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1100-0001 to PKGF-LOG-ORF-DGA-1100-0005
 5. FOR ROAD CROSS SECTIONS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1002-0020 to PKGF-LOG-ORF-DGA-1002-0028
 6. FOR CONTROL LINE SETOUT AND DETAILS REFER TO DRAWINGS PKGF-LOG-ORF-DGA-1004-0001 to PKGF-LOG-ORF-DGA-1004-0009



DRAWINGS SHALL BE READ IN CONJUNCTION WITH DESIGN MODEL

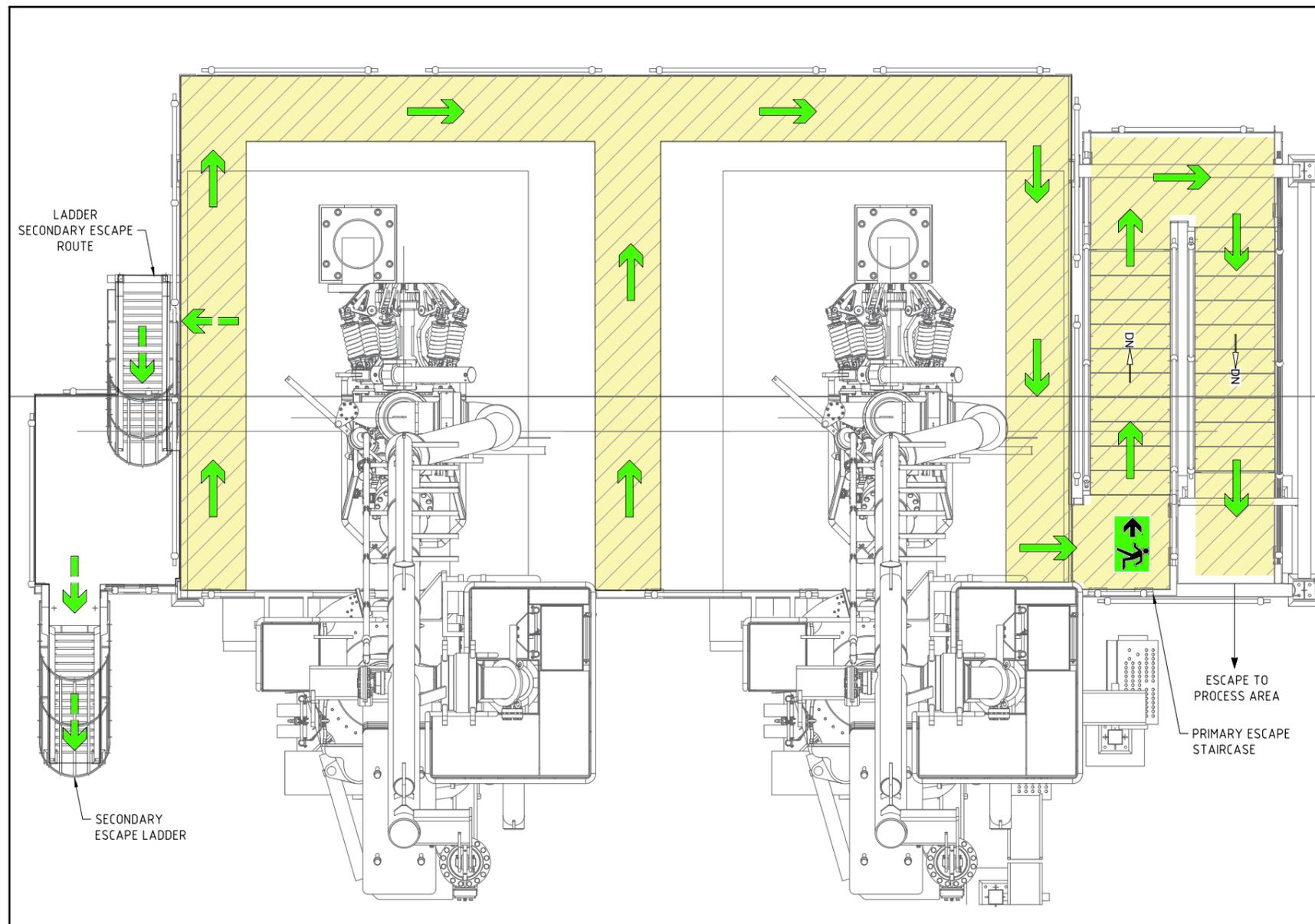
ISSUED FOR CONSTRUCTION

REV	ISSUE DESCRIPTION	DRN	CHK	DES	APR	DATE
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4	ISSUED FOR CONSTRUCTION	SB	PM	MM	PD	08.07.22
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2	ISSUED FOR CLIENT REVIEW	SB	PM	MM	PD	03.06.22
1	DESIGN SURFACE UPDATED	RS	PM	RS	TJ	08.12.21
0	ISSUED FOR CONSTRUCTION	JL	PM	JL	TJ	09.08.21

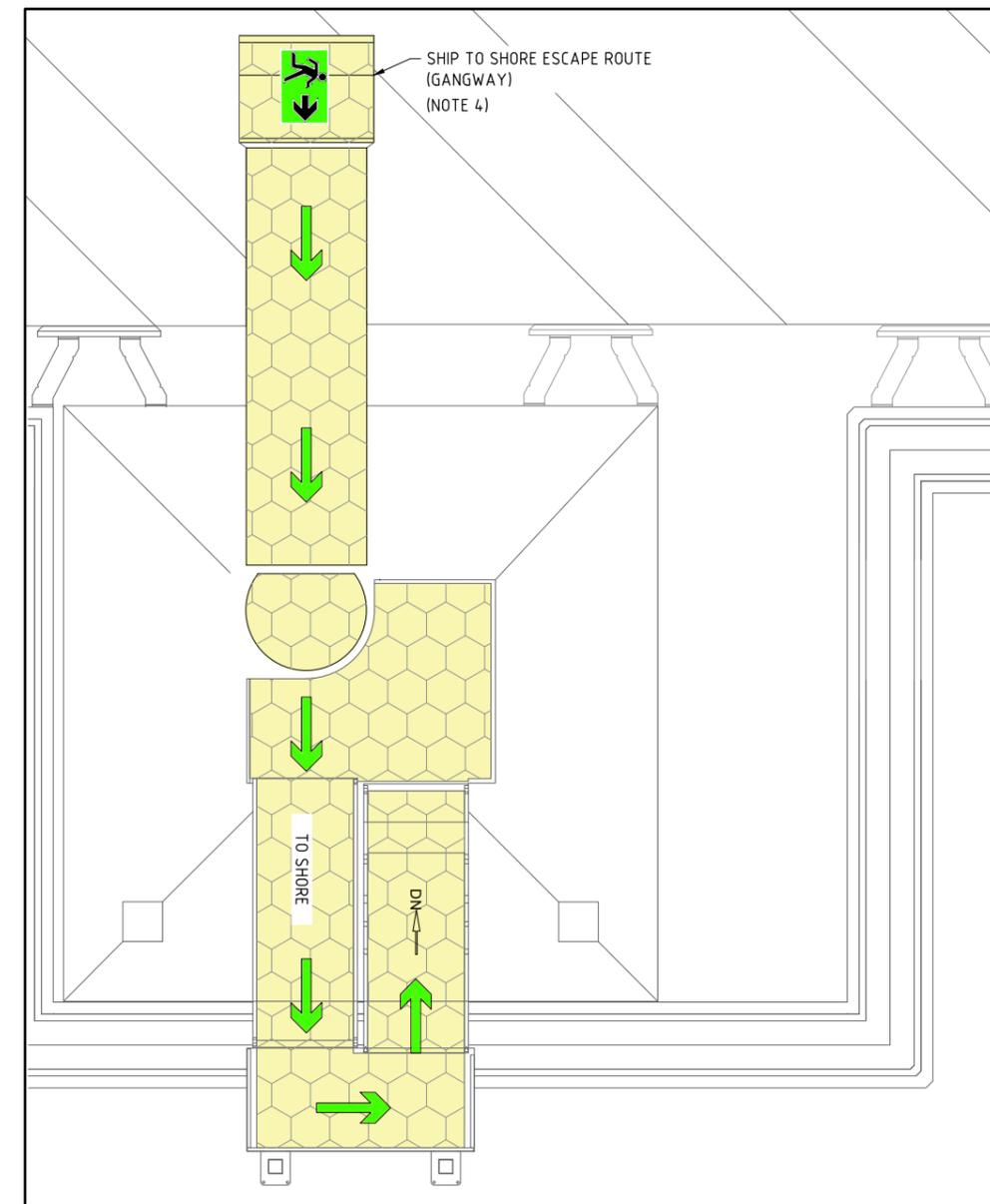


SCALE	1:250 (A1)
DRN	SB 01.07.22
CHK	PM 01.07.22
DES	MM 01.07.22
APR	PD 01.07.22

PORT KEMBLA GAS TERMINAL PROJECT - CIVIL WORKS
GENERAL ARRANGEMENT PLAN
ACCESS ROADS, PAVEMENTS, STORMWATER DRAINAGE,
SIGNS AND LINEMARKING - SHEET 5 OF 5



MLA MAINTENANCE PLATFORM ESCAPE ROUTE
(NOTE 3)



SHIP TO SHORE ESCAPE ROUTE (GANGWAY)
(NOTE 3)

LEGEND:

- PRIMARY DIRECTION OF ESCAPE
- SECONDARY DIRECTION OF ESCAPE
- TYPE A - ESCAPE ROUTE
- TYPE B - ESCAPE ROUTE
- EXIT SIGNAGE

NOTES:

1. THE EQUIPMENT LOCATION ARE INDICATIVE OF THE FINAL POSITION.
2. MINIMUM WIDTH OF TYPE-A ESCAPE ROUTE: 1000mm
MINIMUM WIDTH OF TYPE-B ESCAPE ROUTE: 800mm
MINIMUM HEADROOM CLEARANCE OF TYPE-A ESCAPE ROUTE: 2300mm
MINIMUM HEADROOM CLEARANCE OF TYPE-B ESCAPE ROUTE: 2100mm.
3. ESCAPE ROUTES ON PLATED DECK SHALL BE PROVIDED WITH YELLOW NON-SKID OIL RESISTANT COATING ON DECK GRATING, TWO PARALLEL 100mm WIDE YELLOW LINES SHALL BE PAINTED INDICATING THE WIDTH OF ESCAPE ROUTE.
4. THE EXIT SIGN SHALL BE VISIBLE FROM FSRU DECK.
5. ESCAPE ROUTES SHALL BE PROVIDED WITH EMERGENCY LIGHTING.

HOLDS:

1. THE WIDTH AND HEAD ROOM CLEARANCE FOR TYPE-A ESCAPE ROUTE.

ISSUED FOR USE

PKGT-WOR-ORF-SAF-RPT-0010	ESCAPE, MUSTER, EVACUATION AND RESCUE ANALYSIS									
PKGT-LOG-ORF-SAF-LAD-0011	ESCAPE ROUTE AND SAFETY LAYOUT (SHEET 2 OF 2)									
PKGT-WOR-ORF-SAF-PHL-0001	FIRE PROTECTION PHILOSOPHY									
PKGT-LOG-ORF-PRO-PAIA-0010	FIREWATER MAIN RING, FIRE MONITORS AND HYDRANTS P&ID									
PKGT-LOG-ORF-PRO-PAIA-0009	FIREWATER PUMPS AND STORAGE TANKS P&ID									
PKGT-LOG-ORF-PEQ-MOD-0001	NAVISWORKS - 3D MODEL									
0	06.02.23	ISSUED FOR USE								
DOC No.	DESCRIPTION	REV No	DATE	DESCRIPTION	DRN	CHK'D	DSG'D	DSGCHK	PM	APP
	REFERENCE DOCUMENTS			REVISIONS						

CLIENT:

THIS DRAWING AND DESIGN CONTAINS PROPRIETARY INFORMATION. IT SHALL NOT BE USED OR REPRODUCED OR ANY OF ITS CONTENTS DISCLOSED IN WHOLE OR PART WITHOUT PRIOR WRITTEN CONSENT OF LOGICAMMS LTD.

DRG No. N/A

SCALE:	NTS	
DRAWN	MJ	06.02.23
CHECKED	MZR	06.02.23
DESIGNED	NGL	06.02.23
DES. CHECK	DA	06.02.23
PROJ. MGR	CJS	06.02.23
CLIENT	AIE	06.02.23

PORT KEMBLA GAS TERMINAL DETAILED DESIGN
WHARF TOPSIDE
ESCAPE ROUTE AND SAFETY LAYOUT
(SHEET 2 OF 2)

DRG. No. A1
PKGT-LOG-ORF-SAF-LAD-0011

Rev 0