

WESTERN HIGHWAY

NHILL TRAILER EXCHANGE

EXISTING SUBSTATION

- NOTES: (UNLESS OTHERWISE SPECIFIED)
1. BUFFER, FIRE BREAK, EQUIPMENT EXCLUSION ZONES & ACCESS ROADS REQUIRED INSIDE ALL FENCES,
 2. BUFFER ZONE - GRASSED AREA
 3. ACCESS ROAD TO BE OF COMPACTED RUBBLE AT GROUND LEVEL
 4. FIRE BREAK - WEED FREE
 5. EQUIPMENT EXCLUSION ZONE IS AN ADDITIONAL 10 M CLEARANCE FROM FIRE BREAK

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ADVERTISED PLAN

DETAIL 1
REFER 3718-321-0002

VIEW A
REFER 3718-321-0002

FIRE WATER TANKS

SCREENING TREES TO BE PLANTED FOR ENTIRE LENGTH OF BUFFER ZONE ALONG EASTERN FENCE

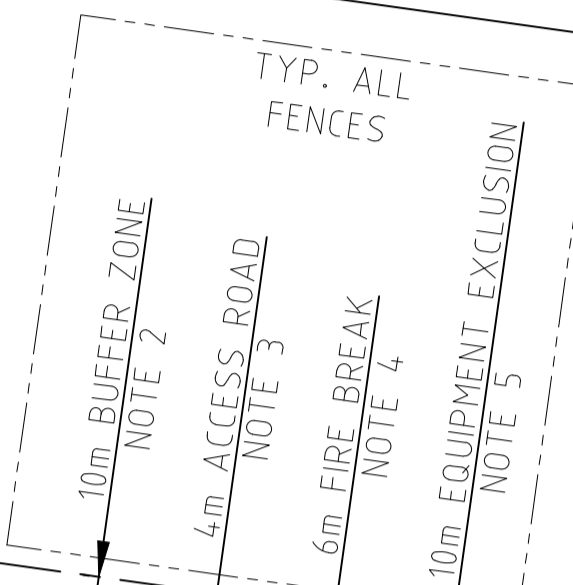
DETAIL 2
REFER 3718-321-0004

ERVINS ROAD

13 GROUPS OF 20 PANELS EACH (1000VDC)

13 GROUPS OF 27 PANELS EACH (1500V DC)

EXISTING CHAIN MESH SECURITY FENCE 2.1M HIGH



13 ROWS EQUISPACED AT 7.17M

12 ROWS EQUISPACED AT 7.17M

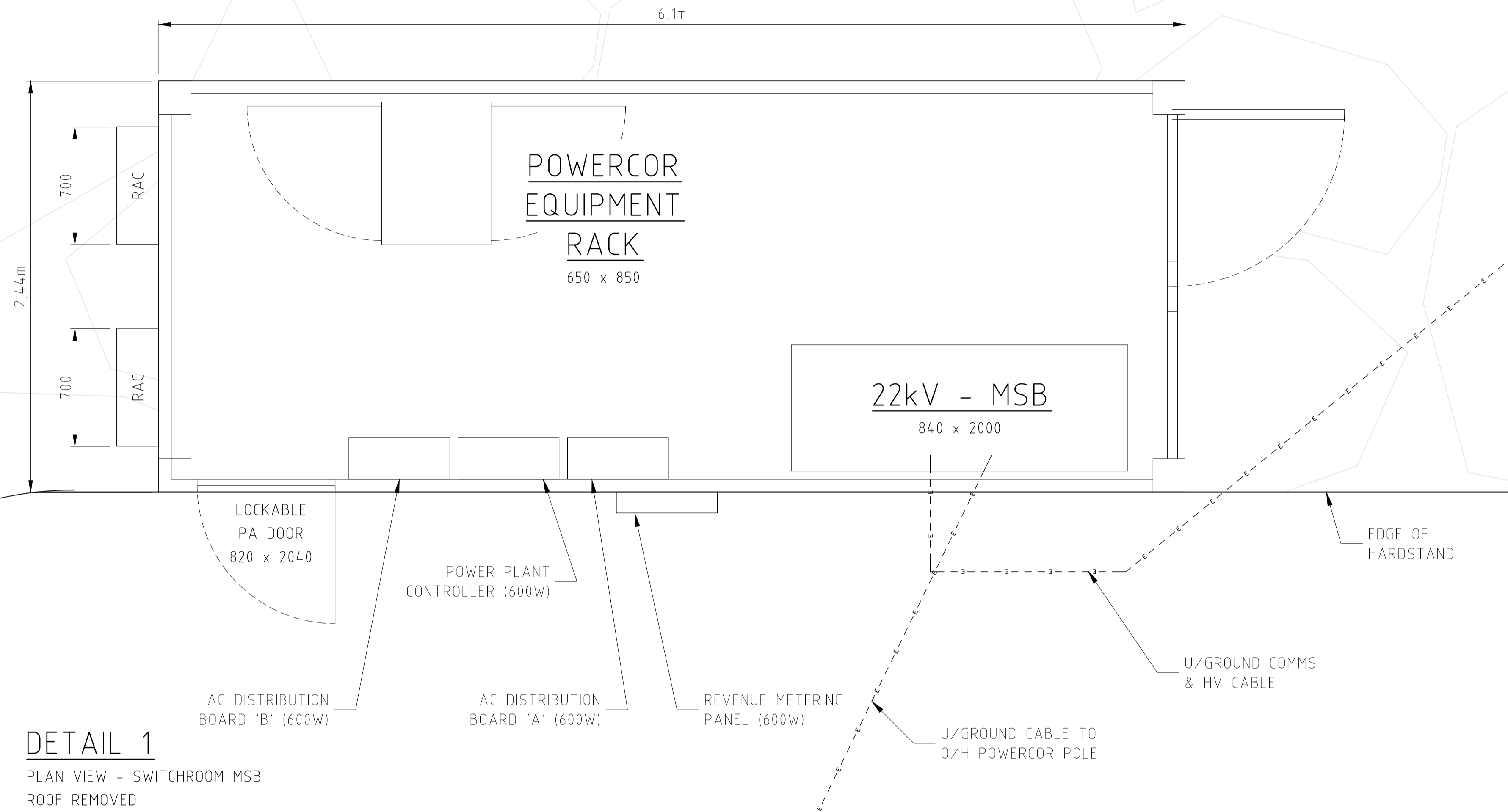


- UNLESS NOTED OTHERWISE
- EXISTING FARM FENCE
 - NEW 2.4M HIGH CHAIN MESH SECURITY FENCE
 - - - - EXISTING CHAIN MESH FENCE

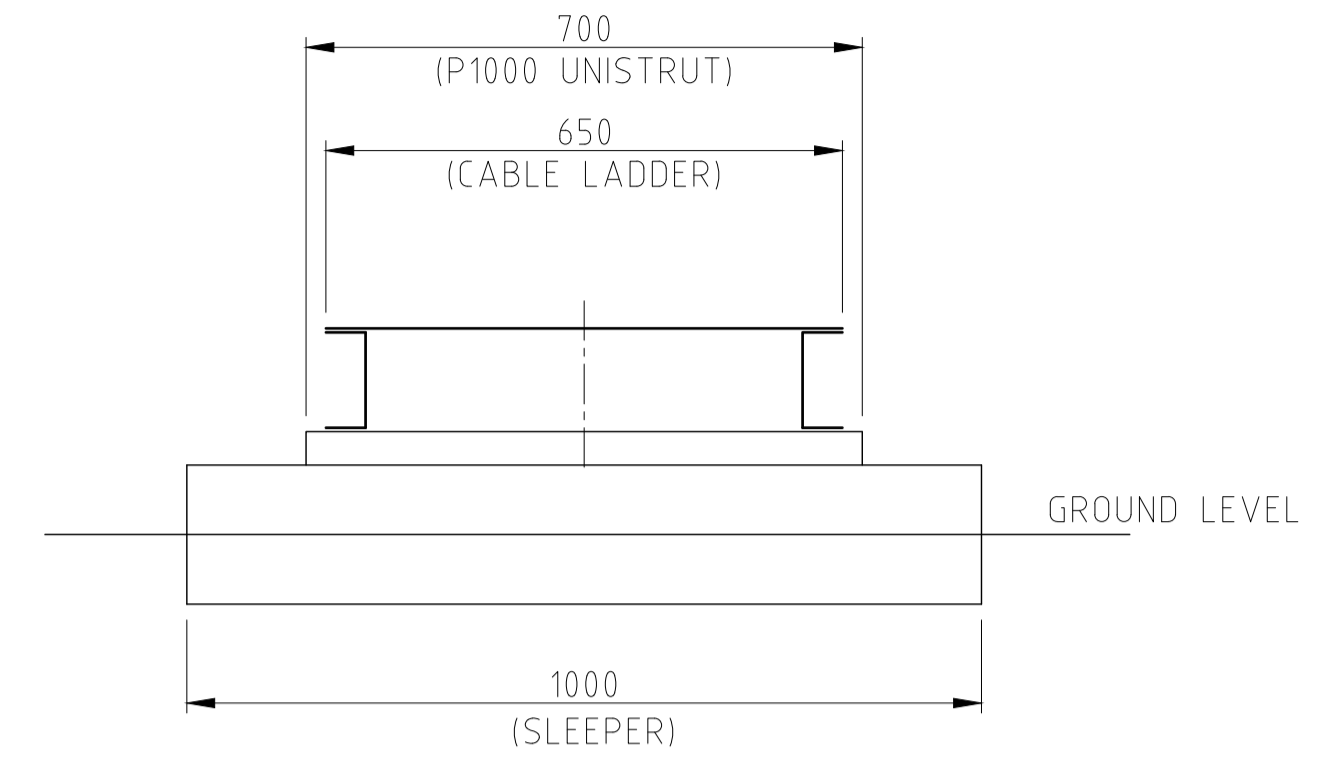
PLAN VIEW - SOLAR ARRAYS

SCALE: 1:2000

<p>THIS DRAWING REMAINS THE PROPERTY OF RJE GLOBAL</p> <p>IT IS SUBJECT TO RETURN UPON DEMAND AND MAY NOT BE PASSED ON TO ANY THIRD PARTY, OR USED DIRECTLY OR INDIRECTLY FOR ANY OTHER PURPOSE THAN THE MANUFACTURE OR CONSTRUCTION OF EQUIPMENT, OR IN THE DESIGN AND INSTALLATION OF PLANT TO THE ORDER OF RJE GLOBAL</p>	<p>DRG NUMBER</p> <p>DRAWING TITLE</p> <p>REFERENCE DRAWINGS</p>	<p>REV</p> <p>DATE</p> <p>DESCRIPTION</p> <p>REVISIONS AND APPROVALS</p>	<p>DRN</p> <p>CHK'D</p> <p>C.E.</p> <p>CLIENT</p> <p>APPROVALS</p>	<p>SCALE INDICATED</p> <p>DRAWN KSM 12.12.2018</p> <p>CHECKED SB 12.12.2018</p> <p>DESIGNED KSM 12.12.2018</p> <p>RJE C.E. KSM 12.12.2018</p> <p>CLIENT C.E.</p> <p>CLIENT P.E.</p> <p>CLIENT M.E.</p>	<p>PRELIMINARY</p> <p>RJE Smarter Engineering</p> <p>115 MORPHETT ROAD MORPHETTVILLE, SA, 5043 TEL +61 8 8300 9500 FAX +61 8 8300 9501 EMAIL rje@rjenet.au</p>	<p>VIBE ENERGY</p> <p>NHILL RENEWABLE ENERGY FACILITY</p> <p>22 kV POWER STATION</p> <p>GENERAL EQUIPMENT LAYOUT - SHEET 1 OF 5</p>	<p>PROJECT No. 3718</p> <p>DRAWING No. 3718-321-0001</p>	<p>SIZE A1</p> <p>REV. D</p>
	<p>ACAD FILE 3718-321-0001 Rev D.dwg</p>	<p>3718</p>	<p>3718-321-0001</p>	<p>D</p>				



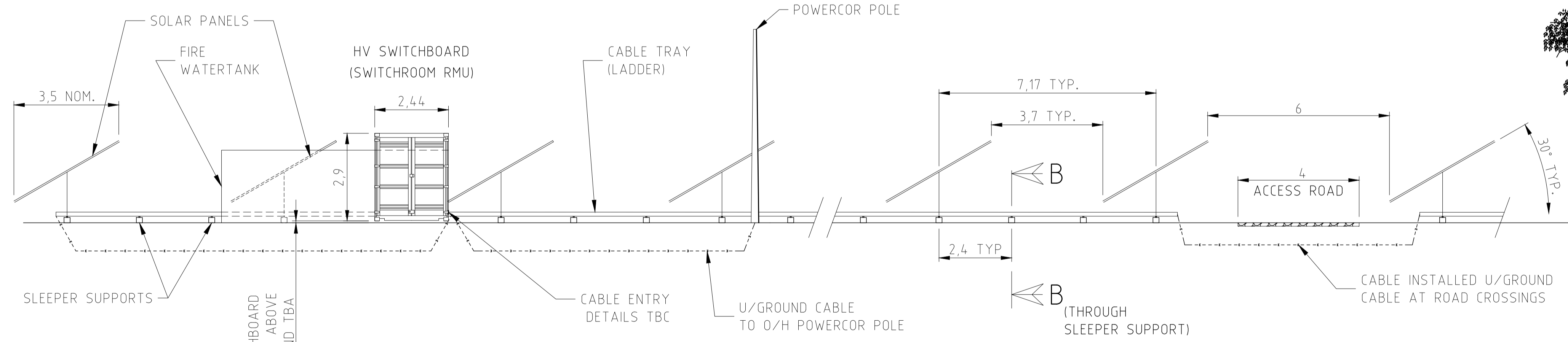
DETAIL 1
 PLAN VIEW - SWITCHROOM MSB
 ROOF REMOVED
 SCALE: 1:40



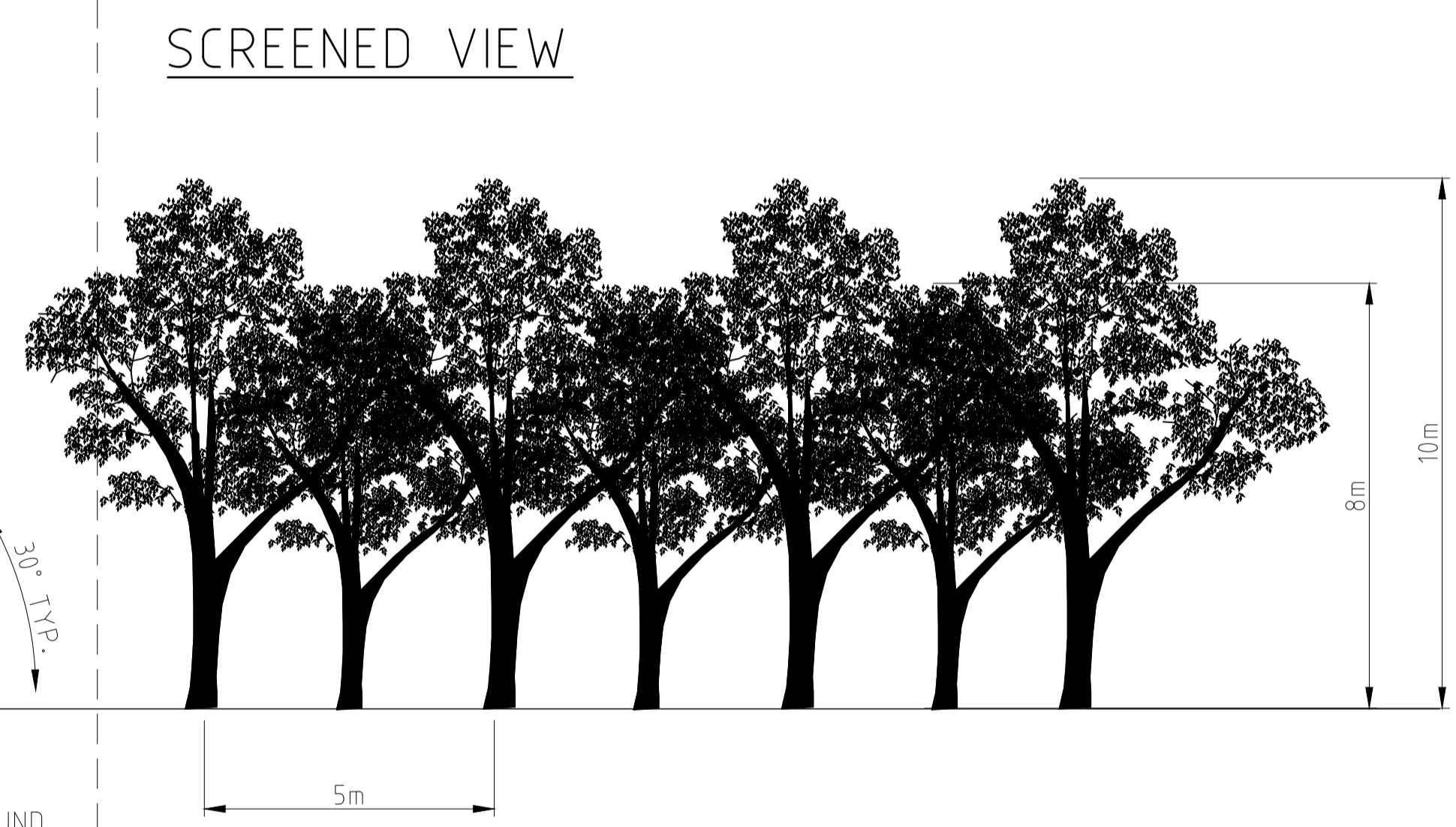
SECTION B-B
 SLEEPER SUPPORT CROSS SECTION
 SCALE: 1:20

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ADVERTISED PLAN

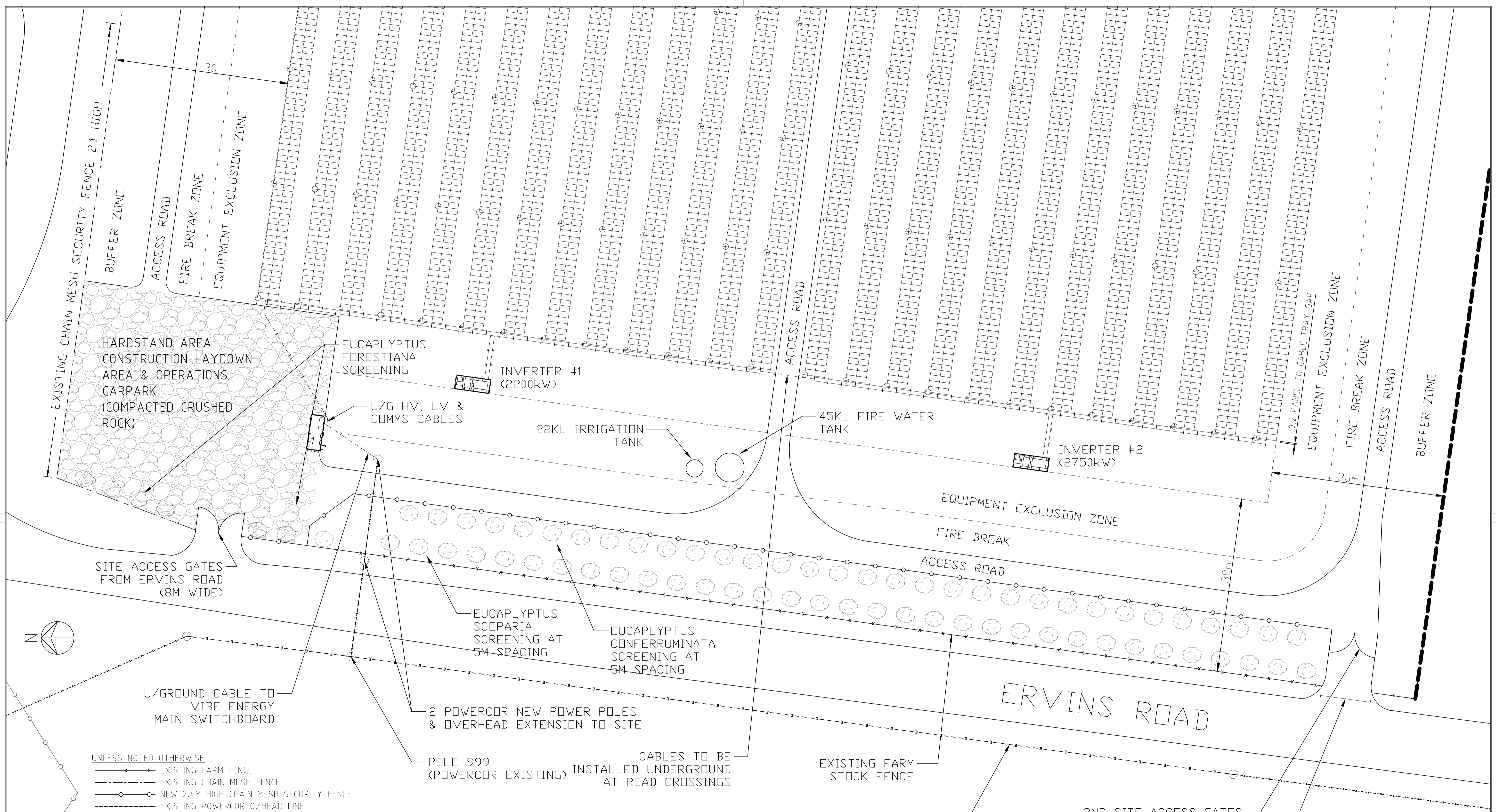


VIEW A
 END ELEVATION - SWITCHBOARD (SWITCHROOM RMU) & SOLAR ARRAYS
 SCALE: 1:400



- NOTES:**
- 1/ NO PROVISION HAS BEEN MADE ON THIS DRAWING FOR PLATFORMS, RAMPS, STAIRS, RAINHOODS, FIRE, CABLE ENTRY, OR INTERNAL OR EXTERNAL LIGHTING
 - 2/ SWITCHROOM ELECTRICAL INSTALLATION TO COMPLY WITH AS/NZS3000 & AS/NZS2067

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		DRG NUMBER	DRAWING TITLE	REV	DATE	DESCRIPTION	DRN	CHK'D	C.E.	CLIENT	APPROVED	DATE	SCALE INDICATED				
												DRAWN KSM 12.12.2018 CHECKED SB 12.12.2018 DESIGNED KSM 12.12.2018 RJE C.E. KSM 12.12.2018 CLIENT C.E. CLIENT P.E. CLIENT M.E.					



- UNLESS NOTED OTHERWISE
- * — EXISTING FARM FENCE
 - — — EXISTING CHAIN MESH FENCE
 - ○ — NEW 2.4M HIGH CHAIN MESH SECURITY FENCE
 - — — EXISTING POWERCOR O/HEAD LINE
 - * — NEW POWERCOR O/HEAD LINE

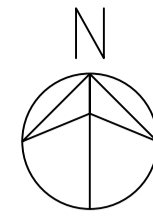
NOTES
 1. FOR FURTHER ZONE & OTHER DETAILS, REFER 3718-321-0001

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ADVERTISED PLAN

DETAIL 2
 ENLARGED VIEW
 ERVINS ROAD BOUNDARY
 FROM 3718-321-0001

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ADVERTISED PLAN

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DETAIL 1
REFER 3718-321-0002

VIEW A
REFER 3718-321-0002

FIRE WATER TANKS

SCREENING TREES TO BE PLANTED FOR ENTIRE LENGTH OF BUFFER ZONE ALONG EASTERN FENCE

DETAIL 2
REFER 3718-321-0004

EXISTING BOUNDARY OF LOT 1

ERVINS ROAD

UNLESS NOTED OTHERWISE

- — — — — EXISTING FARM FENCE
- ○ — ○ — NEW 2.4M HIGH CHAIN MESH SECURITY FENCE
- — — — — EXISTING CHAIN MESH FENCE
- — — — — EXISTING BOUNDARY OF LOT 1 P5630537Q
- — — — — PROPOSED BOUNDARY OF NEW LOT 1

PLAN VIEW - SOLAR ARRAYS

SCALE: 1:2000

PLAN OF PROPOSED SUBDIVISION SHOWING EXISTING FEATURES

PROPOSED NEW BOUNDARY
REFER H013819

EXISTING CHAIN MESH SECURITY FENCE 2.1M HIGH

TYP. ALL FENCES

10m BUFFER ZONE
NOTE 2

4m ACCESS ROAD
NOTE 3

6m FIRE BREAK
NOTE 4

10m EQUIPMENT EXCLUSION
NOTE 5

TREE

13 ROWS EQUISPACED AT 7.17M

12 ROWS EQUISPACED AT 7.17M

13 GROUPS OF 27 PANELS EACH (1500V DC)

13 GROUPS OF 20 PANELS EACH (1000VDC)

SCALE INDICATED

DRAWN	KSM	12.12.2018
CHECKED	SB	12.12.2018
DESIGNED	KSM	12.12.2018
RJE C.E.	KSM	12.12.2018
CLIENT C.E.		
CLIENT P.E.		
CLIENT M.E.		
APPROVED	DATE	

PRELIMINARY



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VIBE ENERGY

NHILL RENEWABLE ENERGY FACILITY
22 kV POWER STATION
GENERAL EQUIPMENT & BOUNDARIES
LAYOUT - SHEET 5 OF 5

PROJECT No.
3718

DRAWING No.

3718-321-0005

SIZE
A1

REV.
A

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DRG NUMBER	DRAWING TITLE	REV	DATE	DESCRIPTION	MCP	DRN	CHK'D	RAJ	C.E.	CLIENT
	REFERENCE DRAWINGS	A	01.10.19	ADDED NEW AND EXISTING BOUNDARIES						
REVISIONS AND APPROVALS										

APPROVALS	DATE

ACAD FILE 3718-321-0005 Rev A.dwg

REVISIONS				
REV.	DESCRIPTION	COMPILED BY	APPROVED	DATE
A	ORIGINAL ISSUE	S.T.	G.A.C.	22.01.18
D	128-7534-01x1, 500-7313-01x4 ADDED, 591-7203-02 QTY 2 WAS QTY 1	S.T.	G.A.C.	20.02.18



TO AS 60076
WTC SERIAL NUMBER

Rating	kVA	Amps HV	Amps LV
@50°C	2500	43.7	2406
@25°C	2750	48.1	2646

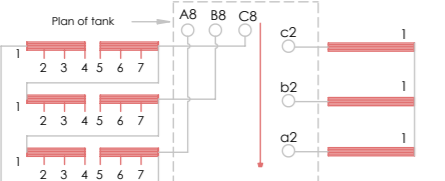
Phase	Hz	Temp. Rise Oil/Wdg	°C
3	50	50/55	50/55

Volts	Hz	Total Mass	kg
HV 33000	50	8500	8500
LV 600	50	3757	3757

Insulation Level	Pressure min/max (kPa Absolute)	Year of Manufacture
LI170AC70/AC10	50/130	

Cooling Type	Impedance	%
ONAN		
INSUL. LIQUID OIL		

Plan of tank



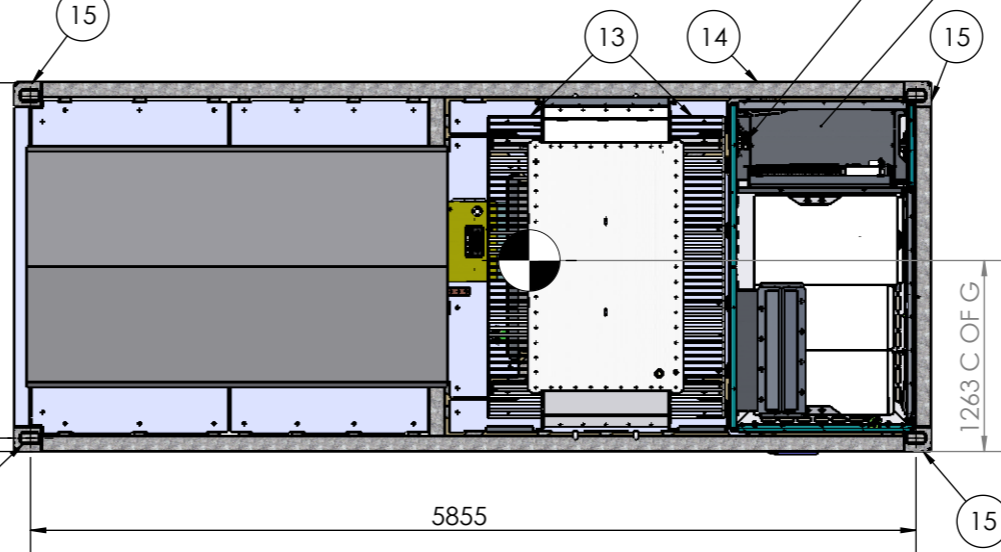
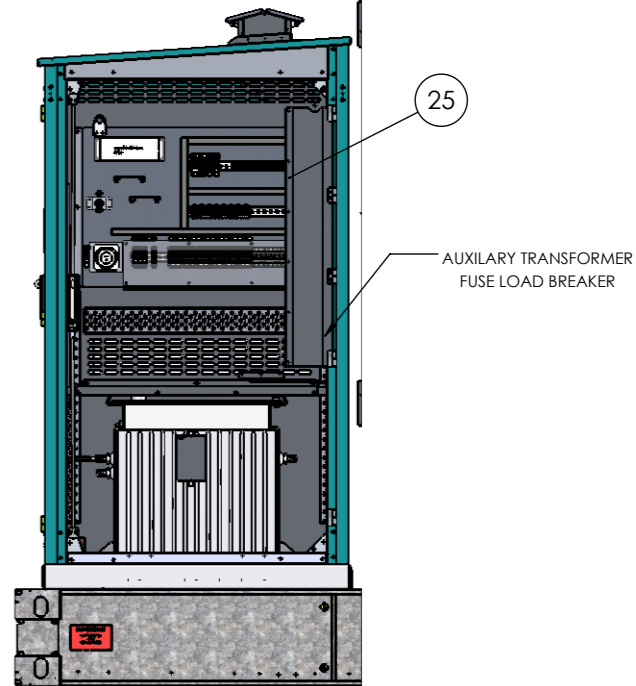
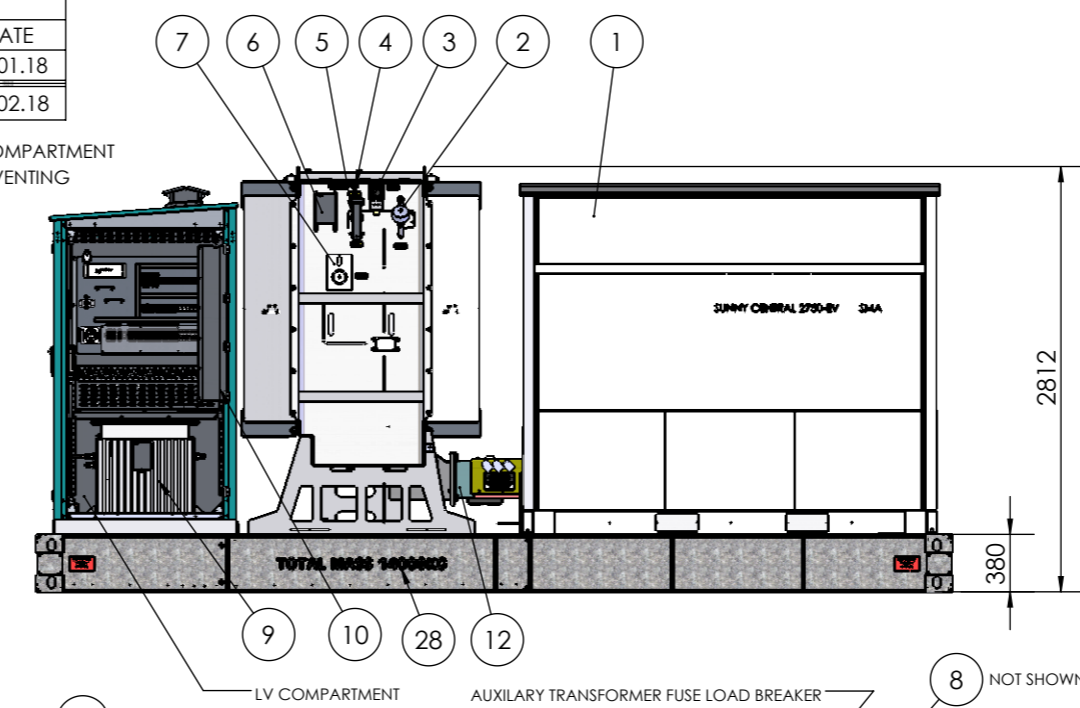
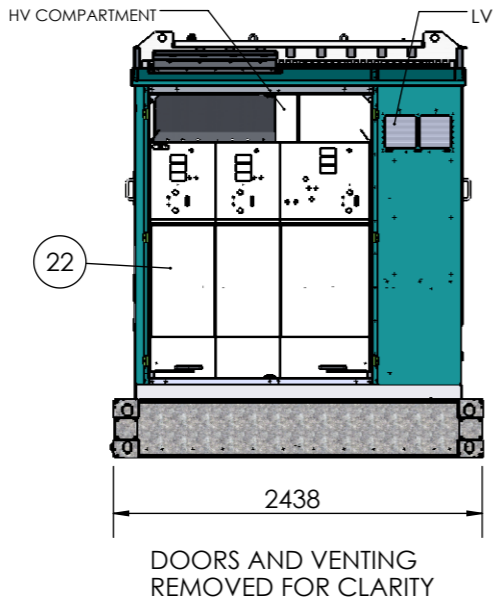
ACROSS	HV	POS	%	CONN	LV	ACROSS
A8 B8 C8	34650	1	105.0	5-4		a2 b2 c2
A8	33825	2	102.5	4-6		a2
C A	33000	3	100.0	6-3	600	b2
C B B8	32175	4	97.5	3-7		c2
	31350	5	95.0	7-2		

This is a Sealed Transformer

WARNING:

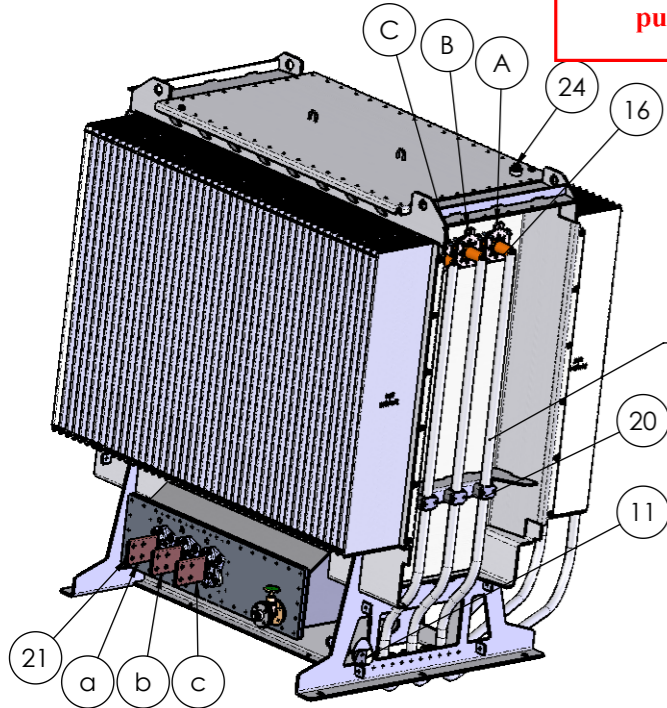
- Off circuit tap selector, de-energise before changing taps.
- Sealed Transformer, breaking filler seal will void warranty.
- Transformer is completely full of oil - no gas space

721-A508-01

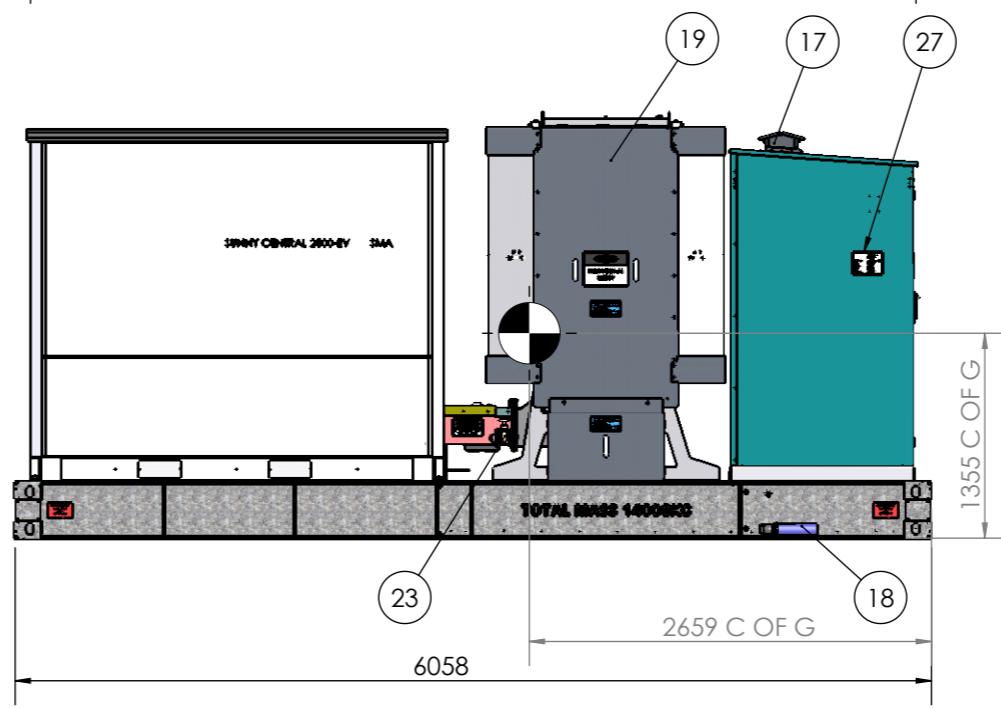


- DESCRIPTION LIST:
- INVERTER 2750-EV SMA
 - OIL TEMPERATURE INDICATOR WITH CONTACTS
 - MAGNETIC OIL LEVEL INDICATOR WITH CONTACTS
 - OIL LEVEL GAUGE
 - OFFCIRCUIT TAP SELECTOR (5 position +5 to -5% @ 2.5%)
 - RATING & DIAGRAM PLATE (MAIN TRANSFORMER)
 - PRESSURE RELIEF DEVICE WITH CONTACTS
 - POWER PLANT CONTROLLER (IF REQUIRED)
 - (MOUNTED ON LV CUBICLE DOOR TOUCH PANEL IS VISIBLE ONLY WHEN THE DOOR IS OPEN)
 - AUXILIARY TRANSFORMER 30 KVA 600/415V
 - FUSE LOAD BREAKER
 - S/S EARTH LUG WITH 2 HOLES Ø 14mm (EARTH LUG QTY 2 OFF) DIAGONAL CORNERS OF TANK
 - INTERFACE BETWEEN TRANSFORMER LV AND THE INVERTER C/W REMOVABLE TOP COVER
 - COOLING FINS
 - STEEL PLINTH (HOT DIP GALVANIZED)
 - ASSEMBLY LIFTING POINT
 - Bushing 36KV 630 AMP BOLTED TYPE, 170KV BIL
 - RMU CHIMNEY TO VENT GASSES UPWARDS
 - PETRO PLUG (TO BE SHIPPED SEPARATLY AND FITTED ON SIGHT)
 - HV PROTECTION COVER
 - HV CABLE CLAMPS
 - 3150AMP LV BUSHING
 - HV SWITCH RMU SIEMENS 8DJH36-VENTING REAR UPWARDS
 - DRAIN VALVE 25NB C/W 25NB FLANGED PLUG
 - FILLER PLUG 25NB
 - LV BOARD includes
- EMC Filter: EPCOS B84144A0036R000 (4-LINE FILTER 36A)
 - Main Breaker (3P-63A) MCB
 - Power Outlet with RCD (1P-10A)
 - RCD for lighting connection (1P-10A)
 - Station Protection (1P-10A)
 - Power Plant Controller (1P-16A)
 - Spare (1P-10A)
 - 6x Tracker MCB's (3P-16A)
 - Met Station (1P-10A)
 - Terminals for the following accessories:
 - Oil Temperature Indicator (including RJ45 Harting connector to facilitate connection to inverter)
 - Magnetic Oil Gauge
 - Pressure Relief Device

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ADVERTISED PLAN



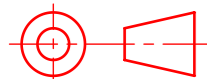
- SINGLE LINE DIAGRAM 165-A508-01 SIZE A3 LAMINATED, LOCATED IN DOCUMENT HOLDER INSIDE MV DOOR (NOT SHOWN)
 - PV SKID NAME PLATE (FITTED TO BOTH SIDES OF CUBICLE)
 - TOTAL MASS STENCIL 14000KG (BOTH SIDES)
- NB. Fuse load breaker: EATON VLC22-3P (FUSE DISCONNECTOR 3P 690V 100A) is located beneath the LV board in the same compartment.

FOR WIRING DETAILS REF DRAWING 165-A508-01

PAGES 5 TO 10 FOR WTC ONLY

FINISH (TRANSFORMERS AND KIOSK)
N42 STORM GREY

SHEET SIZE A3



THIRD ANGLE PROJ.

All Welds to conform to AS 1554 sections 1 to 6, Cat.GP & 2B, unless specified otherwise.

Min Weld Size	Thickness of thinnest part	Min. weld size
≤ 6mm	≤ 6mm	Thinnest mat. thickness 6 mm
> 6mm to 8 mm	> 6mm	Thinnest mat. less 2 mm
> 10 mm	> 10 mm	Butt weld DDT to be "Incomplete penetration butt weld"

TOLERANCE UNLESS OTHERWISE STATED

LINEAR	ANGULAR
1 ±1 (0-2000)	1 ±1°
1 ±3 (>2000)	1.0 ±1°
1.0 ±0.5	1.00 ±0.05°
1.00 ±0.05	



WILSON TRANSFORMER CO. PTY. LTD.
ACN 004 216 979

DESCRIPTION

SKID MOUNT 2.75 MVA SMA 0.6/33 kV

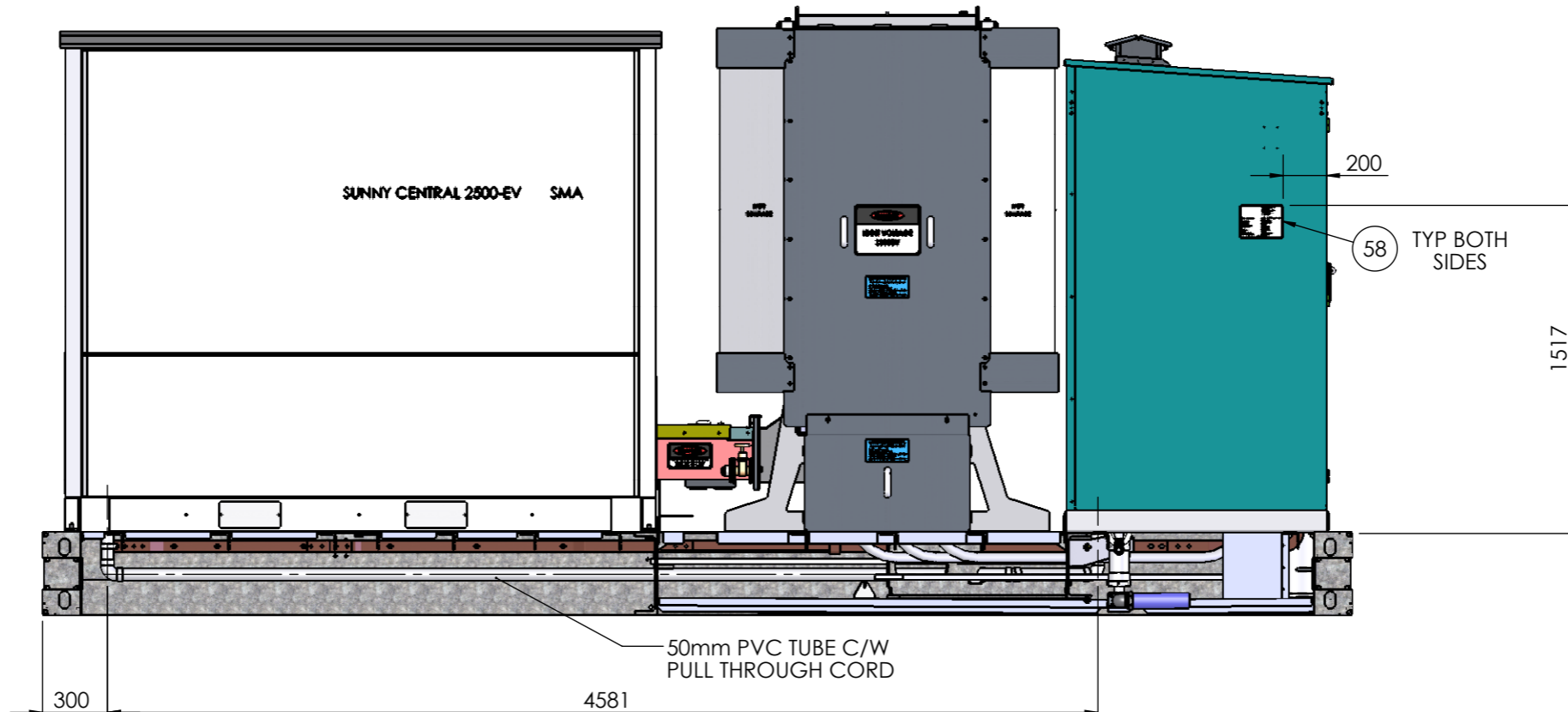
SCALE 1:50 PAGE 1 OF 10 FILE NO. 881-A508-11

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED

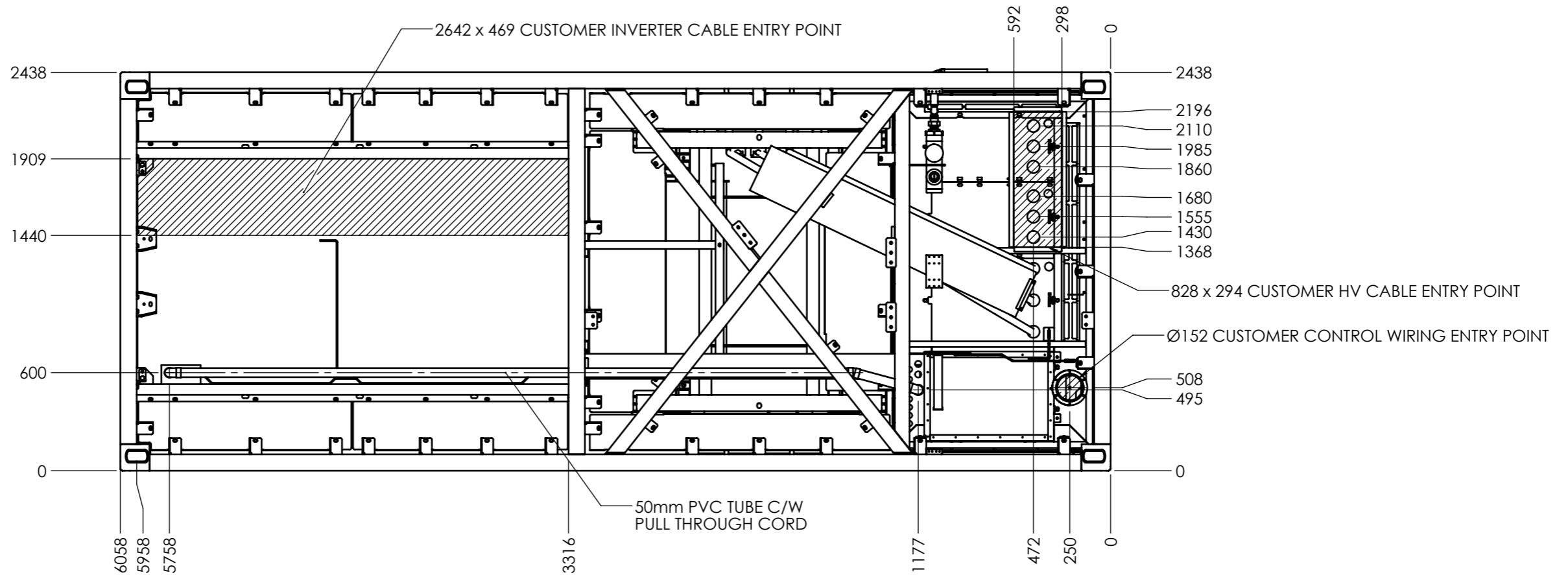
REV **D**

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ADVERTISED PLAN



SIDE VIEW WITH SIDE BEAMS REMOVED FOR CLARITY



CUSTOMER CABLE ENTRY POINTS VIEWED FROM BOTTOM BUNDLING PANELS REMOVED FOR CLARITY

SHEET SIZE A3

THIRD ANGLE PROJ.

All Welds to conform to AS 1554 sections 1 to 6, Cat.GP & 2B, unless specified otherwise.

Min Weld Size	Thickness of thinnest part	Min. weld size
≤ 6mm	≤ 6mm	Thinnest mat. thickness
> 6mm to 8 mm	> 6mm	6 mm
> 10 mm	> 10 mm	Thinnest mat. less 2 mm

Butt weld DDT to be "Incomplete penetration butt weld"

TOLERANCE UNLESS OTHERWISE STATED

LINEAR	ANGULAR
1 ±1 (0-2000)	1 ±1°
1 ±3 (>2000)	1.0 ±1°
1.0 ±0.5	1.00 ±0.05°
1.00 ±0.05	

WILSON TRANSFORMER CO. PTY. LTD.
ACN 004 216 979

DESCRIPTION: **SKID MOUNT 2.75 MVA SMA 0.6/33 kV**

SCALE 1:30 | PAGE 2 OF 10 | FILE NO. **881-A508-11**

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED

FINISH:

REV **D**