



# Lime Down

Solar Park

## Environmental Statement

### Volume 3, Appendix 3-3: Illustrative Drawings (Tracked)

~~September 2025~~

May 2026

Revision 12

Planning Inspectorate Reference: EN010168

Document Reference: APP/6.3

APFP Regulation 5(2)(a)



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## **Appendix 3-3: Illustrative Drawings**

### **1.1 Illustrative Substation Compound Layouts**

#### **132 kV Substation**

132kV MINIMUM ELECTRICAL CLEARANCES	
DESCRIPTION	DISTANCE (m)
PHASE TO PHASE CLEARANCE	1.4
PHASE TO EARTH CLEARANCE	1.1
DESIGN CLEARANCE FOR SAFETY (VERTICAL) D <sub>51</sub>	3.8
DESIGN CLEARANCE FOR SAFETY (HORIZONTAL) D <sub>5H</sub>	2.9
INSULATION HEIGHT (PEDESTRIAN ACCESS)	2.4
SAFETY DISTANCE	1.4
MEWP DESIGN CLEARANCE FOR SAFETY (VERTICAL) D <sub>52</sub>	5.8
MEWP DESIGN CLEARANCE FOR SAFETY (HORIZONTAL) D <sub>5H2</sub>	4.9

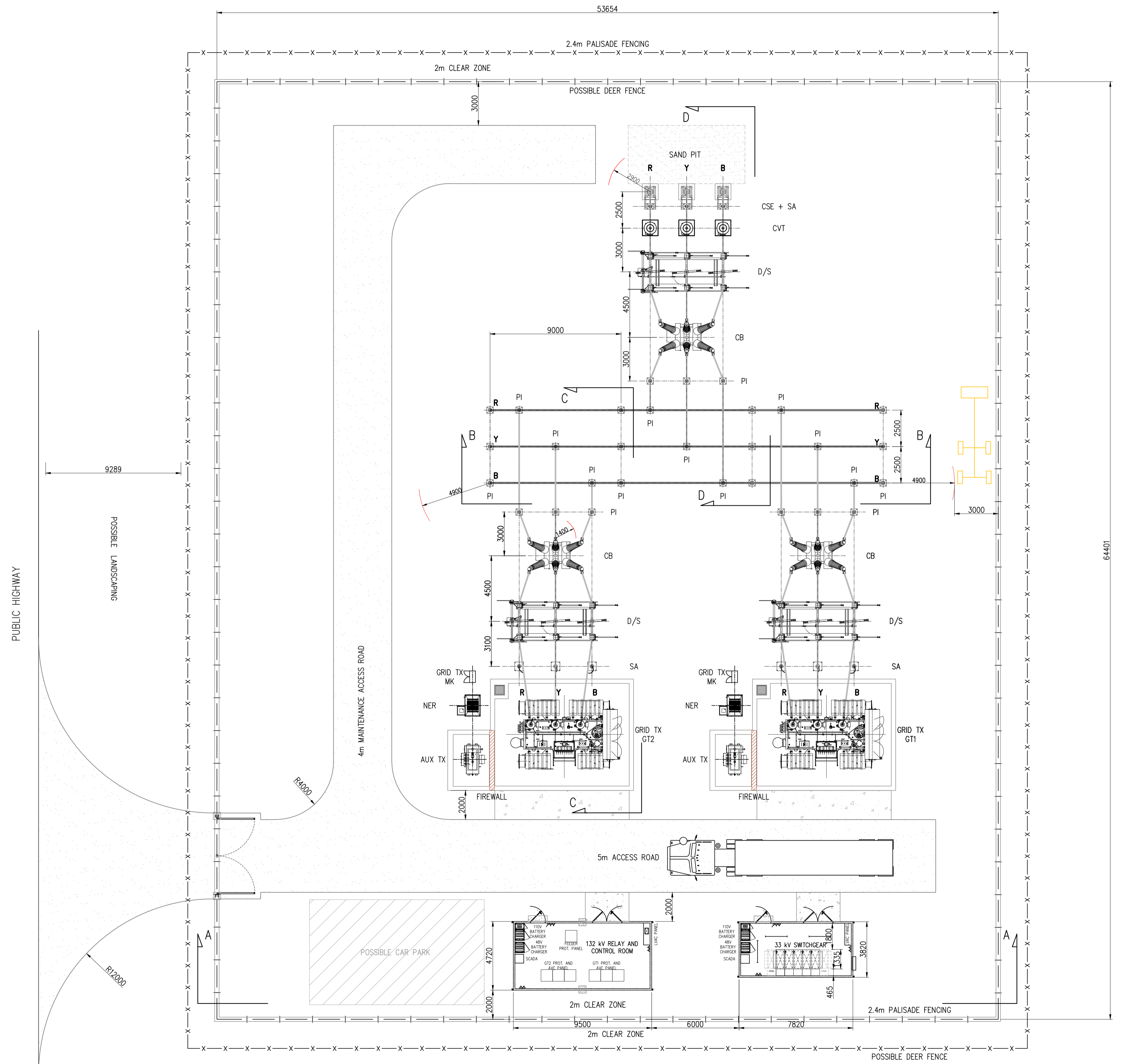
ABBREVIATION:

AUX TX	AUXILIARY TRANSFORMER
CB	CIRCUIT BREAKER
CSE	CABLE SEALING END
CVT	CAPACITIVE VOLTAGE TRANSFORMER
D/S	DISCONNECTOR
MK	MARSHALLING KIOSK
NER	NEUTRAL EARTHING RESISTOR
PI	POST INSULATOR
SA	SURGE ARRESTER
TX	TRANSFORMER

TO BE VIEWED IN CONJUNCTION WITH ELEVATIONS DRAWING OP-PR0918-LAY006.

THE PROPOSED SUBSTATION LAYOUT IS BASED ON ASSUMPTION THAT THERE IS NO SITE RESTRICTIONS.

THE PROPOSED BUSBAR SIZE IS 90mm x 6mm AL CONDUCTOR (2000A RATING). THE BUSBAR SIZED SHALL BE CONFIRMED DURING DETAILED DESIGN.



**PRELIMINARY**  
**NOT FOR SITE USE**

PI	19.05.25	PRELIMINARY	DCP	EC	PD
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REV	DATE	DESCRIPTION	DRN	DES	REV#	APP
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Do not scale from this drawing. All dimensions given in millimeters unless otherwise stated. Copyright owned by 'Omnia Projects'. This drawing may not be used or copied without written consent.

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**Island GREEN POWER** | LIMEDOWN SOLAR FARM LIMITED

LIMEDOWN SOLAR FARM  
132/33kV SUBSTATION COMPOUND  
DUAL TRANSFORMERS

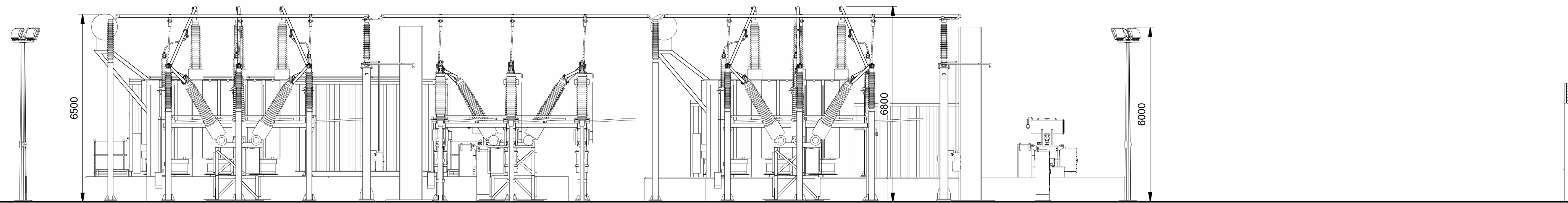
PROJECT NAME	LIMEDOWN SOLAR FARM
CUSTOMER	ISLAND GREEN POWER

CUSTOMER DRAWING NUMBER	****	STATUS	PRELIMINARY
DRAWING NUMBER	PR01212-02-LAY-004	SCALE	1:150
SIZE	A1	REVISION	P1

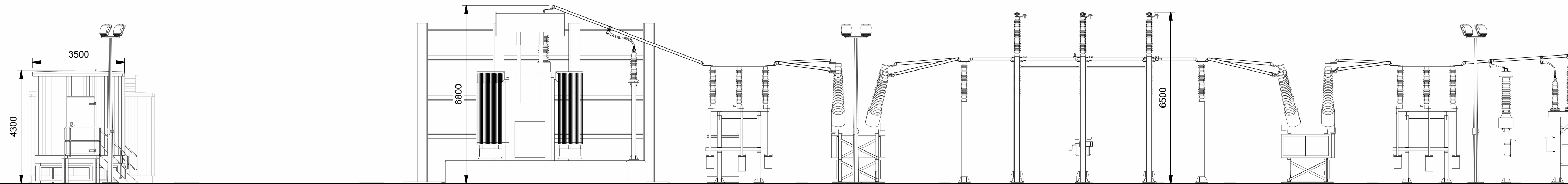
## **1.2 Illustrative Substation Side Elevations**

### **132 kV Substation**

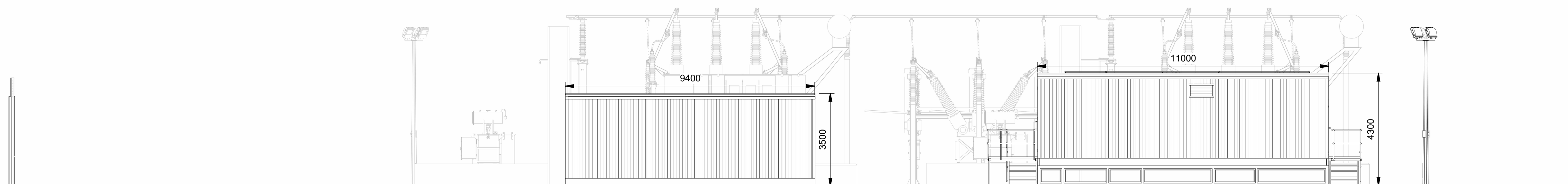
**1 North Elevation - No Fence**  
1 : 100



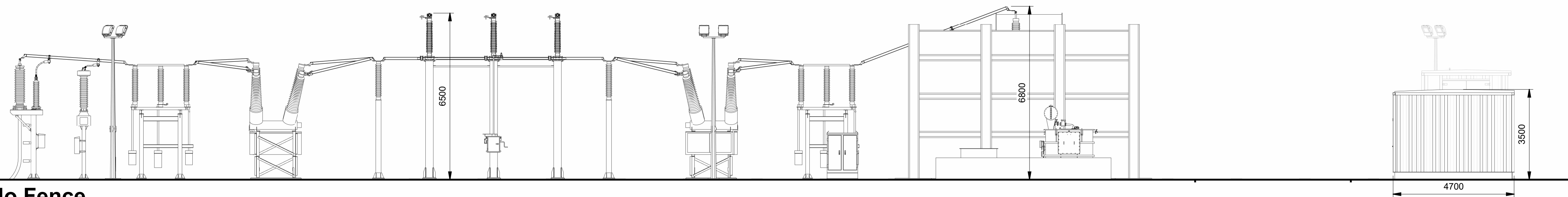
**2 East Elevation - No Fence**  
1 : 100



**3 South Elevation - No Fence**  
1 : 100



**4 West Elevation - No Fence**  
1 : 100



ISSUE	P1		
DRAWN	JB	FIRST ISSUE	
CHECKED	MG		
APPROVED	JA	DATE	01/04/25

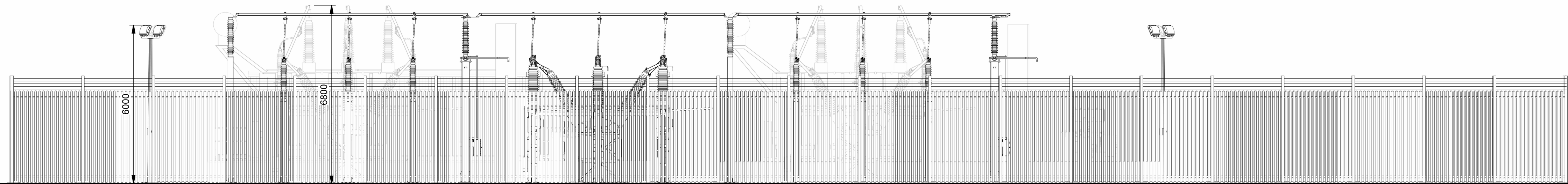


PRELIMINARY

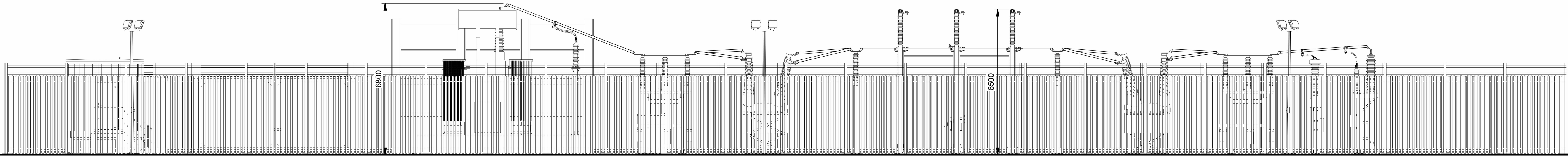
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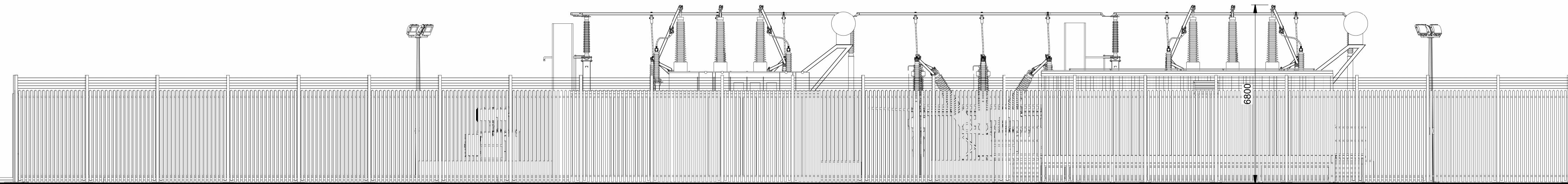
ISLAND GREEN POWER DUAL 132/33kV TRANSFORMER ELEVATIONS		
SITE	LIME DOWN SOLAR PARK	SIZE A1
ORIGINATOR DRAWING NUMBER	PRO1492-LAY-006	CAD
SCALE	1 : 100	
SHEET No.	1	TOTAL No. OF SHEETS 2
ISSUE		P1



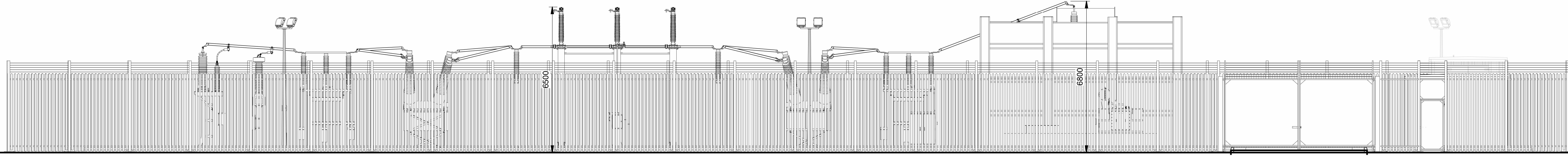
**1 North Elevation**  
1 : 100



**2 East Elevation**  
1 : 100



**3 South Elevation**  
1 : 100



**4 West Elevation**  
1 : 100

ISSUE	P1		
DRAWN	JB	FIRST ISSUE	
CHECKED	MG		
APPROVED	JA	DATE	01/04/25

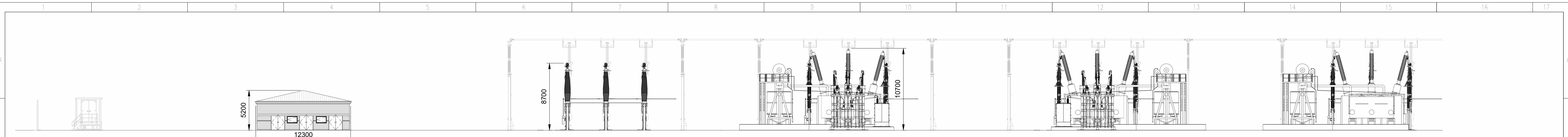


PRELIMINARY

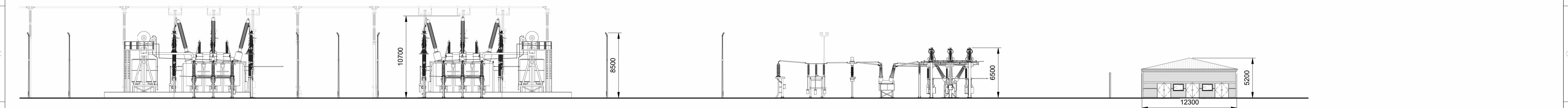
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<b>ISLAND GREEN POWER DUAL 132/33kV TRANSFORMER ELEVATIONS</b>		
SITE	SIZE	
LIME DOWN SOLAR PARK	A1	
ORIGINATOR DRAWING NUMBER	TOTAL No. OF SHEETS	ISSUE
PRO1492-LAY-006	CAD	
SCALE	SHEET No.	TOTAL No. OF SHEETS
1 : 100	2	2
		P1

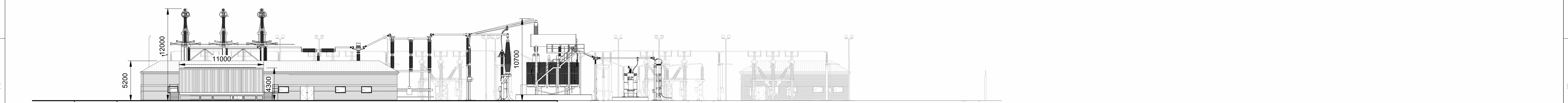
**400 kV Substation**



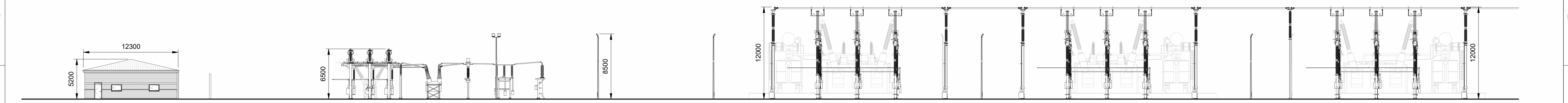
**1a North Elevation - No Fence**  
1 : 250



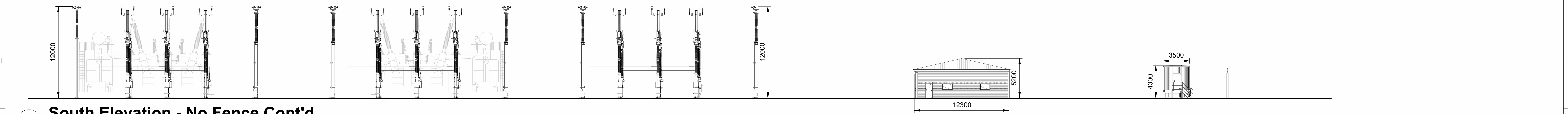
**1b North Elevation - No Fence Cont'd**  
1 : 250



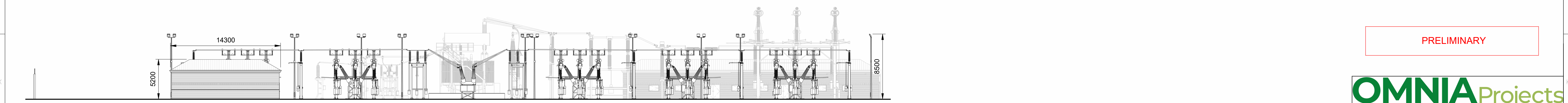
**2 East Elevation - No Fence**  
1 : 250



**3a South Elevation - No Fence**  
1 : 250



**3b South Elevation - No Fence Cont'd**  
1 : 250



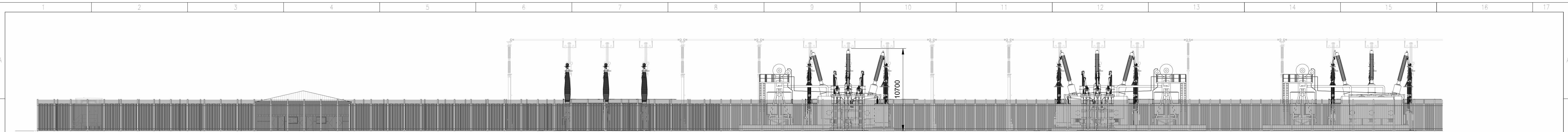
**4 West Elevation - No Fence**  
1 : 250

PRELIMINARY

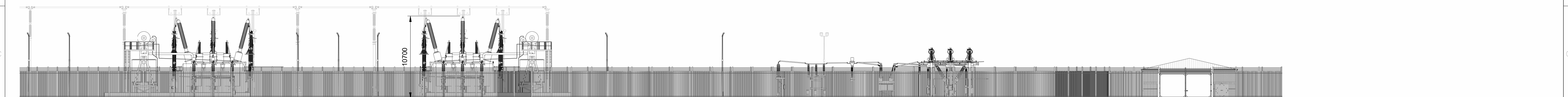
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<b>ISLAND GREEN POWER LIMEDOWN SITE D ELEVATIONS</b>			
SITE LIMEDOWN 400/132/33kV SUBSTATION		SIZE A1	
ORIGINATOR DRAWING NUMBER PRO1212-02-LAY-002		CAD	
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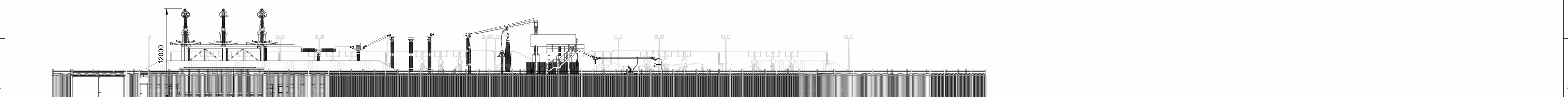
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DRAWN	JB	FIRST ISSUE	
CHECKED	MG		
APPROVED	JA	DATE	09/04/25



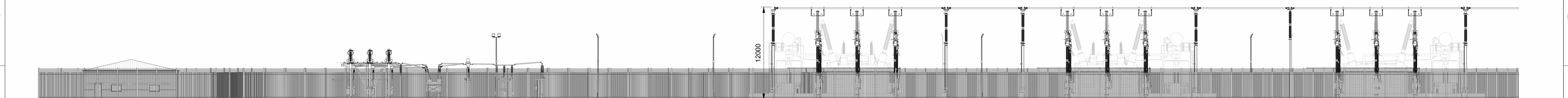
**1a North Elevation**  
1 : 250



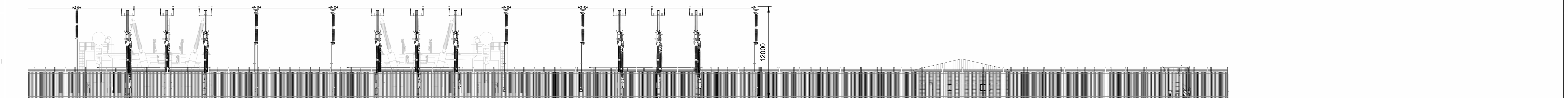
**1b North Elevation - Cont'd**  
1 : 250



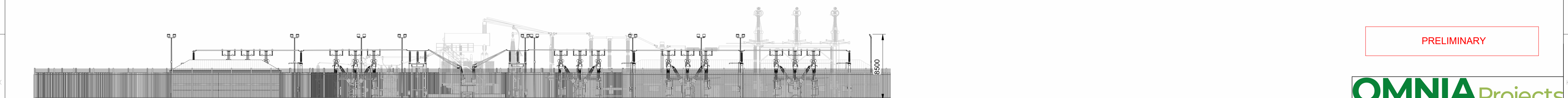
**2 East Elevation**  
1 : 250



**3a South Elevation**  
1 : 250



**3b South Elevation - Cont'd**  
1 : 250



**4 West Elevation**  
1 : 250

ISSUE	P1			
DRAWN	JB	FIRST ISSUE		
CHECKED	MG			
APPROVED	JA	DATE	09/04/25	

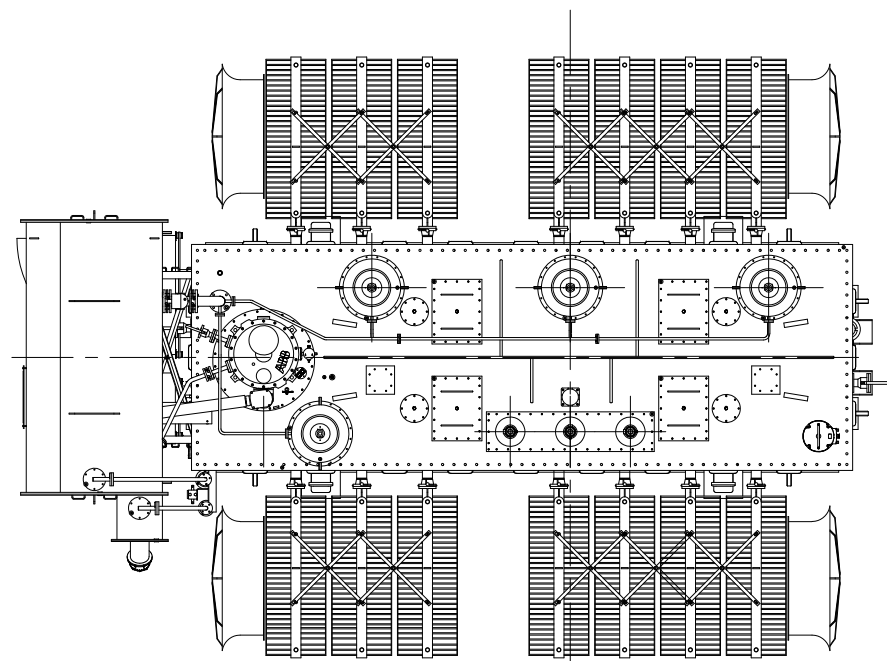
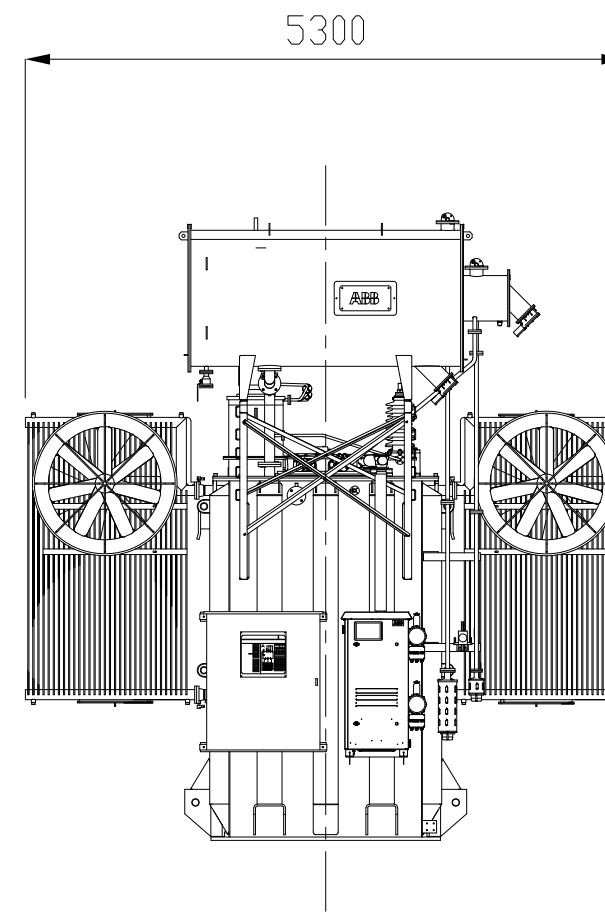
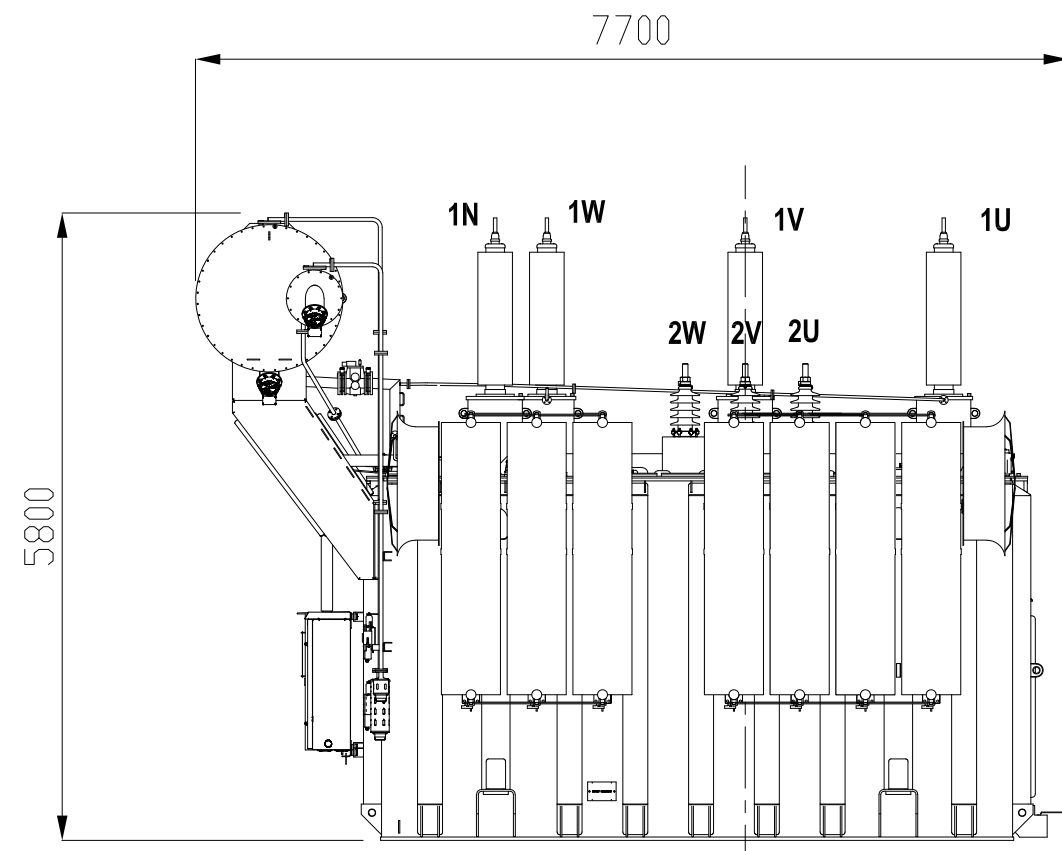
PRELIMINARY

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<b>ISLAND GREEN POWER LIMEDOWN SITE D ELEVATIONS</b>			
<small>SITE</small> LIMEODWN 400/132/33kV SUBSTATION	<small>SIZE</small> A1		
<small>ORIGINATOR DRAWING NUMBER</small> PRO1212-02-LAY-002	<small>CAD</small>		
<small>SCALE</small> 1 : 250	<small>SHEET No.</small> 2		
<small>TOTAL No. OF SHEETS</small> 2	<small>ISSUE</small> P1		


## **1.3 Illustrative Transformer Dimensions**

### **132 kV Transformer**

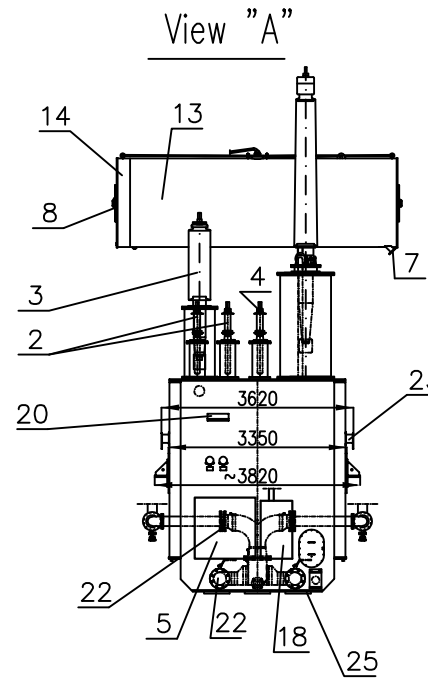
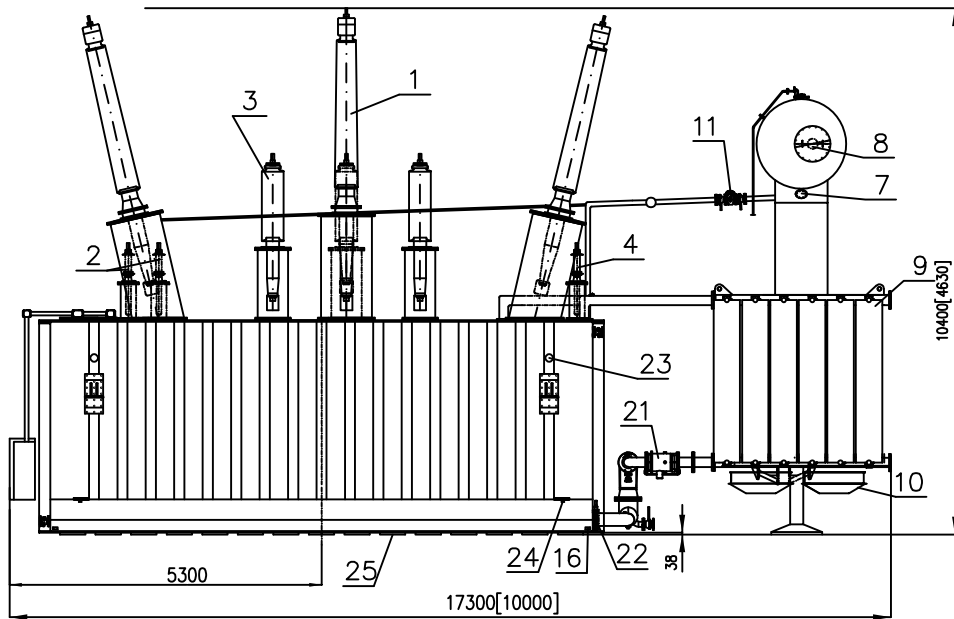


## Preliminary Dimensions

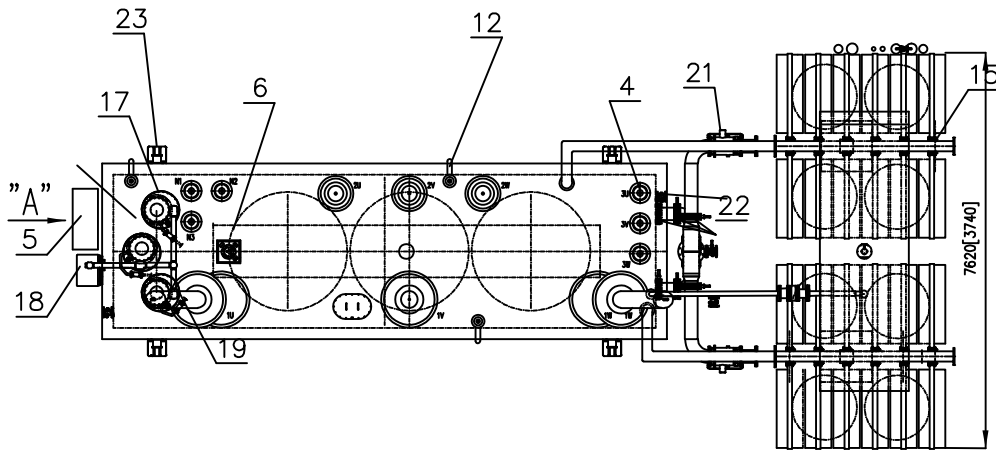
RATED POWER MVA	90/120
RATED VOLTAGE kV	132 ±10x1% / 33
FREQUENCY Hz	50
VECTOR GROUP	YNd11
COOLING CLASS	ONAN/ONAF
UNTANKING MASS Kg	64000
TRANSFORMER TOTAL OIL Kg	22000
TRANSFORMER TOTAL MASS Kg	120000

Prep.	Resp. dept. ENG	Title Preliminary Drawing		Lang. EN	
App.	Takeover dept. ENG				
Rev. 00	Rev. by	Rev. App.	Scale -	Suffix	Cont. 1
			Doc.Numb.		Sheet 1

**400 kV Transformer**



Item	SPECIFICATION
1	HV bushing(3 pcs.)
2	Common neutral bushing(3 pcs.)
3	LV bushing(3 pcs.)
4	TV bushing(3 pcs.)
5	Control cabinet
6	Core and beams ground outlook box
7	Oil level indicator for main conservator
8	Oil level indicator for OLTC conservator
9	Radiator
10	Fan
11	Buchholz relay with sampling device
12	Pressure relief device with directional piping
13	Main Conservator with air bag
14	OLTC Conservator
15	Butterfly valve for radiator
16	Grounding plate for tank
17	OLTC Tap changer(3 pcs.)
18	Motor drive for OLTC tap changer
19	Oil flow operated relay for OLTC protection
20	Impact recorder for transport
21	Oil pump
22	Butterfly valve for cooling system
23	Lifting lugs
24	Jacking pad
25	Antivibration pads



Total mass ~340000kg  
 Transp.mass without oil ~183000kg  
 Untanking part ~121800kg  
 Oil ~105200kg

Transport dimensions [....]

Dimensions and masses are preliminary and may change during the final design. They may not be used for construction purposes.

Preliminary outline drawing				
240MVA 400/132/33 kV , YNaOd , Transformer				
Drq No.	Replaces	Date	ture	
	Replaced by	Designed	Checked	
		Approved		
HITACHI ENERGY				Page
				Pages

## **1.4 Illustrative Drawings of Solar PV Concrete Feet**

- 1.4.1 The second figure illustrates the use of one panel '1P' tracker panels with a height of 3.5m. This configuration has been selected for illustrative purposes because it is compatible with concrete footings. In contrast, two panel '2P' tracker panels —up to 4.5m high—are not compatible with the concrete feet.





**1.5 Single Axis Tracker Mounting Structure Side View**



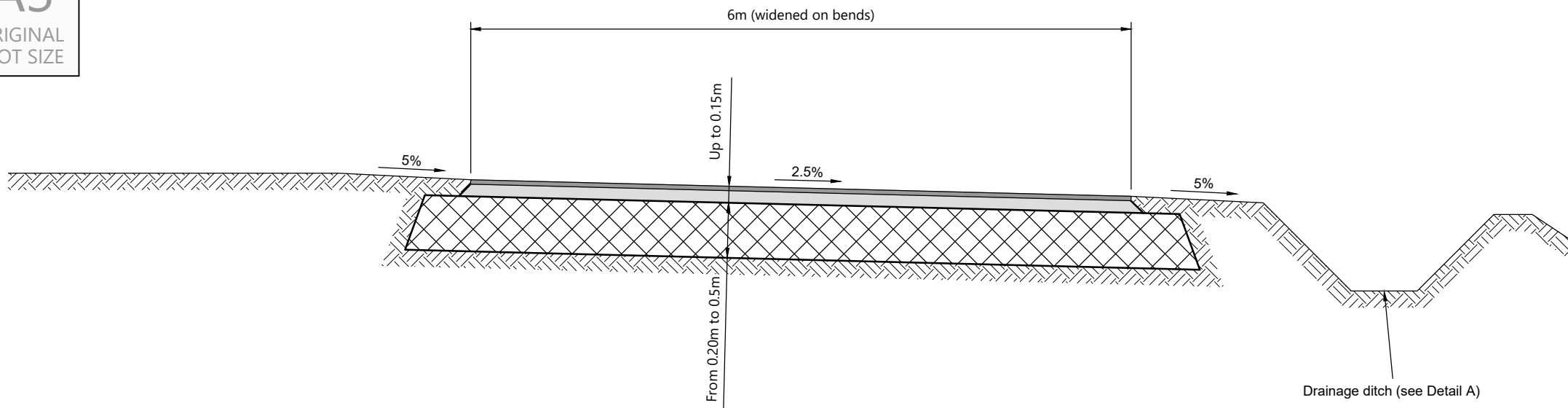
### **1.51.6 Illustrative Access Track to BESS Area**

A3

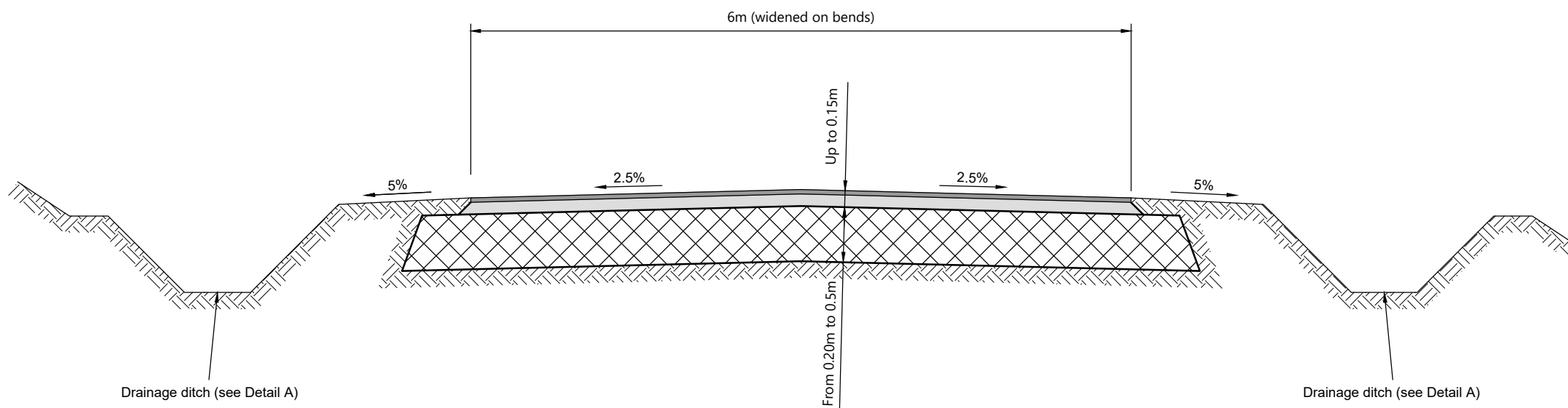
ORIGINAL  
PLOT SIZE

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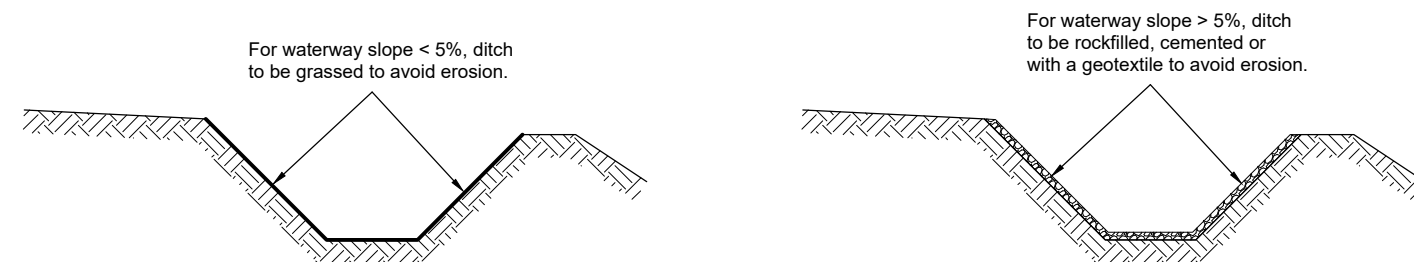
NOTES:



Access Road With Crossfall







Access Road With Camber



Detail 1 - Drainage Ditch Options

**KEY**

-  Blacktop surface course
-  Bituminous material
-  Untreated granular material
-  Natural ground

Rev	Date	Details	Drawn by	Checked by	Approved by

Bristol  
Cambridge  
London  
Welwyn Garden City



Transport Planning Associates

40 Berkeley Square  
Clifton  
Bristol  
BS8 1HP

0117 925 9400  
www.tpa.uk.com

CLIENT:  
**IGP SOLAR 15 LTD**

PROJECT:  
**LIME DOWN SOLAR PARK**

TITLE:  
**AIL Internal Access Road  
Cross-Sections**

STATUS:  
**ILLUSTRATIVE**

SCALE: 1:50	DATE: 10.04.25	DRAWN: PSW	CHECKED: STM	APPROVED: JD
JOB NO: 2306-020		DRAWING NO: PL212		REVISION:

