

NOTES

- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS AND SPECIALISTS DRAWINGS & SPECIFICATIONS.
- ANY DISCREPANCIES BETWEEN THIS DRAWING AND ANY OTHER TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
- ALL WORKS TO COMPLY WITH THE MOST CURRENT BRITISH STANDARDS.
- ALL DIMENSIONS IN MILLIMETERS UNLESS STATED OTHERWISE. NO DIMENSIONS ARE TO BE SCALED OFF THE DRAWING. USE FIGURED DIMENSIONS ONLY.
- ALL DIMENSIONS TO BE ±3mm UNLESS SPECIFIED OTHERWISE.

LEGEND

	NEW SSSEN EQUIPMENT
	NEW FOUNDATIONS / NEW TRENCH
	CUSTOMER OWNED EQUIPMENT
	EQUIPMENT TO BE SUPPLIED BY OVERHEAD LINE CONTRACTOR
	EARTH SWITCH MANUAL MECH BOX
	EARTH SWITCH MOTORISED MECH BOX
	DISCONNECTOR MOTORISED MECH BOX
	CABLE DRAW PIT
	LIGHTING COLUMN - 3M MID HINGED
	MARSHALLING KIOSK
	CIRCUIT BREAKER MECH BOX
	FEEDER PILLAR
	CVT / IVT FUSELINK BOX POSITION
	UPVC MULTICOPE CABLE DUCTS
	Ø150 UNLESS OTHERWISE NOTED
	DIRECTION OF LOWERING OF LIGHTING COLUMN FOR MAINTENANCE

ASSOCIATED DRAWINGS

J00625-L-002 - ELECTRICAL LAYOUT - ELEVATIONS 'A'-A' & 'B'-B'

J00625-L-003 - ELECTRICAL LAYOUT - ELEVATIONS 'C'-C' & 'D'-D'

J00625-L-004 - BUSBARS AND CONNECTORS LAYOUT ELEVATION 'A'-A'

J00625-L-005 - BUSBARS AND CONNECTORS LAYOUT ELEVATION 'B'-B'

J00625-L-006 - BUSBARS AND CONNECTORS LAYOUT ELEVATION 'C'-C'

J00625-L-007 - BUSBARS AND CONNECTORS LAYOUT ELEVATION 'D'-D'

J00625-L-008 - BUSBAR AND CONNECTOR PACK

J00625-L-009 - EARTHING LAYOUT

J00625-L-010 - ABOVE GROUND EARTHING PACK

J00625-C-001 - CIVIL GA

J00625-L-017 - MEWP ACCESS LAYOUT

J00625-L-018 - OUTDOOR LIGHTING LAYOUT

REV	DATE	DRWN	CHKD	APPD	BY	BY	DESCRIPTION
F	19.03.20	GY	JW	JB			DNO PMT ADDED
E	03.03.20	GY	JW	JB			SECTION E-E ARROWS ADDED
D	20.02.20	GY	JW	JB			SITE BOUNDARY REBAR TO ELIMINATE CLASH WITH NORTHERN BOUNDARY HEDGE CIVILS UPDATED.
C	31.01.20	GY	JW	JB			DOORS ADDED TO CUSTOMER SWITCHROOM BUILDING ADDITIONAL LINES ADDED TO FENCELINE IN NW CORNER OF DEVELOPMENT
B	24.01.20	GY	JW	JB			REVISED MK WAS 1 OFF. CB WAS BY SIEMENS NOW GE. BUSHING NWS ADDED. LIGHTING UPDATED.
A	23.11.19	GY	JW	JB			ORIGINAL ISSUE

FOR APPROVAL

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CLIENT

PROJECT

WOODINGTON SOLAR FARM

TITLE

132KV SUBSTATION
OVERALL ELECTRICAL SITE LAYOUT

SCALE @ A1	SCALE @ A1	SHEET No	1	OF	1
DATE	23.11.19	DATE	23.11.19	REVISION	1
DRAWING NUMBER	J00625-L-001				
REV	BY	DATE	DESCRIPTION		

CLEARANCES FOR BUSBARS AND CONNECTIONS SP-PS-399 SUBSTATION DESIGN SPECIFICATION

1	VOLTAGE BETWEEN PHASES	132kV
2	RATED VOLTAGE OF PLANT	145kV
3	IMPULSE VOLTAGE WITHSTAND (KV PEAK) PHASE - EARTH	650kV
4	RATED CONTINUOUS CURRENT	2000A
5	RATED SHORT TIME CURRENT (KA 3 PH) / DURATION	40KA / 3secs
6	RATED SHORT TIME CURRENT DC TIME CONSTANT	45ms
7	MINIMUM CLEARANCE BETWEEN LIVE METAL AND EARTH	1200mm
8	MINIMUM CLEARANCE BETWEEN LIVE METAL OF DIFFERENT PHASES	1400mm
9	MINIMUM TOTAL AIR GAP BETWEEN TERMINALS OF THE SAME POLE OR ISOLATORS	1400mm
10	GAP BETWEEN LIVE AND EARTHED ARCING HORNS OR RINGS	600mm
11	SAFETY DISTANCE (SEE SAFETY RULES)	1400mm
12	MINIMUM SAFETY CLEARANCE BETWEEN LIVE METAL AND POSITIONS TO WHICH ACCESS IS PERMISSIBLE WITH OTHER EQUIPMENT ALIVE	3500mm
13	MINIMUM CLEARANCE BETWEEN ANY SUBSTATION EQUIPMENT AND THE SUBSTATION FENCE	2000mm
14	MINIMUM INSULATION HEIGHT (PEDESTRIAN ACCESS)	2400mm

132 and 33kV PRIMARY PLANT

LEGEND	EQUIPMENT	SUPPLIER	DRAWING No.	STATUS
CVT	CAPACITOR VOLTAGE TRANSFORMER	ABB	1HSE220072-277	TYPICAL
SA	SURGE ARRESTER	ABB	1HSA137-0448	TYPICAL
DISC / 2 ESWs	DISCONNECTOR / 2 EARTH SWITCHES	GE	DIN - 46847	TYPICAL
PI	POST INSULATOR	ALLIED INSULATORS	5828 O M	TYPICAL
CB A110	CIRCUIT BREAKER	GE	M277567020	TYPICAL
CB A120	CIRCUIT BREAKER	GE	M277567020	TYPICAL
IVT	INDUCTIVE VOLTAGE TRANSFORMER	PFIFNER	84-484.99	TYPICAL
TX	132KV / 33KV TRANSFORMER	SIEMENS	D25 55 552	TYPICAL
NER	NEUTRAL EARTHING RESISTOR	CRESSALL	155893	TYPICAL
ATX	AUXILIARY TRANSFORMER	WILSON	TBA	TBA

OUTSTANDING ISSUES - TO BE ADDRESSED / CONFIRMED

REF	EQUIPMENT	REMARKS
PRIMARY	ALL EQUIPMENT SHOWN TYPICAL CONTRACT SPECIFIC DRAWINGS TO BE SUPPLIED.	
MARSHALLING KIOSK	FINAL POSITION OF 2 No. MK'S TO BE CONFIRMED.	
CUSTOMER COMPOUND DISC + 2 ESWs	NOMENCLATURE TO BE CONFIRMED.	

