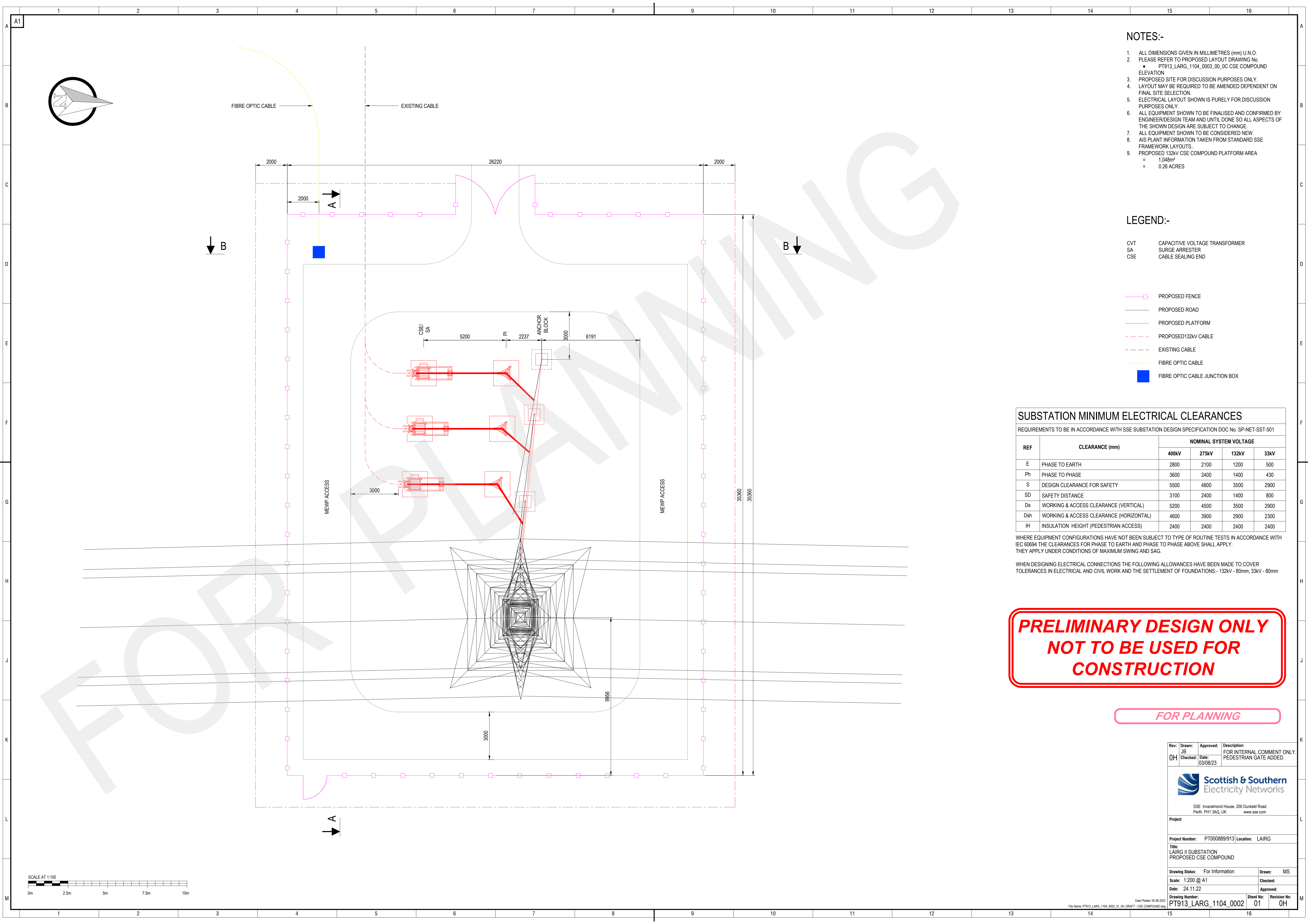


# **Scottish and Southern Electricity Networks Transmission**

## **Lairg II Wind Farm Connection**

### **Appendix 2.1 – Cable Sealing End Compound Drawings**





- NOTES:-
- ALL DIMENSIONS GIVEN IN MILLIMETRES (mm) U.N.O.
  - PLEASE REFER TO PROPOSED LAYOUT DRAWING No.
    - PT913\_LARG\_1104\_0003\_00\_0C CSE COMPOUND ELEVATION
  - PROPOSED SITE FOR DISCUSSION PURPOSES ONLY.
  - LAYOUT MAY BE REQUIRED TO BE AMENDED DEPENDENT ON FINAL SITE SELECTION.
  - ELECTRICAL LAYOUT SHOWN IS PURELY FOR DISCUSSION PURPOSES ONLY.
  - ALL EQUIPMENT SHOWN TO BE FINALISED AND CONFIRMED BY ENGINEER/DESIGN TEAM AND UNTIL DONE SO ALL ASPECTS OF THE SHOWN DESIGN ARE SUBJECT TO CHANGE.
  - ALL EQUIPMENT SHOWN TO BE CONSIDERED NEW.
  - AIS PLANT INFORMATION TAKEN FROM STANDARD SSE FRAMEWORK LAYOUTS.
  - PROPOSED 132kV CSE COMPOUND PLATFORM AREA
    - = 1,048m<sup>2</sup>
    - = 0.26 ACRES

- LEGEND:-
- CVT CAPACITIVE VOLTAGE TRANSFORMER  
SA SURGE ARRESTER  
CSE CABLE SEALING END
- PROPOSED FENCE  
PROPOSED ROAD  
PROPOSED PLATFORM  
PROPOSED 132kV CABLE  
EXISTING CABLE  
FIBRE OPTIC CABLE  
FIBRE OPTIC CABLE JUNCTION BOX

SUBSTATION MINIMUM ELECTRICAL CLEARANCES					
REQUIREMENTS TO BE IN ACCORDANCE WITH SSE SUBSTATION DESIGN SPECIFICATION DOC No. SP-NET-SST-501					
REF	CLEARANCE (mm)	NOMINAL SYSTEM VOLTAGE			
		400kV	275kV	132kV	33kV
E	PHASE TO EARTH	2800	2100	1200	500
Ph	PHASE TO PHASE	3600	2400	1400	430
S	DESIGN CLEARANCE FOR SAFETY	5500	4800	3500	2900
SD	SAFETY DISTANCE	3100	2400	1400	800
Ds	WORKING & ACCESS CLEARANCE (VERTICAL)	5200	4500	3500	2900
Dsh	WORKING & ACCESS CLEARANCE (HORIZONTAL)	4600	3900	2900	2300
IH	INSULATION HEIGHT (PEDESTRIAN ACCESS)	2400	2400	2400	2400

WHERE EQUIPMENT CONFIGURATIONS HAVE NOT BEEN SUBJECT TO TYPE OF ROUTINE TESTS IN ACCORDANCE WITH IEC 60694 THE CLEARANCES FOR PHASE TO EARTH AND PHASE TO PHASE ABOVE SHALL APPLY. THEY APPLY UNDER CONDITIONS OF MAXIMUM SWING AND SAG.

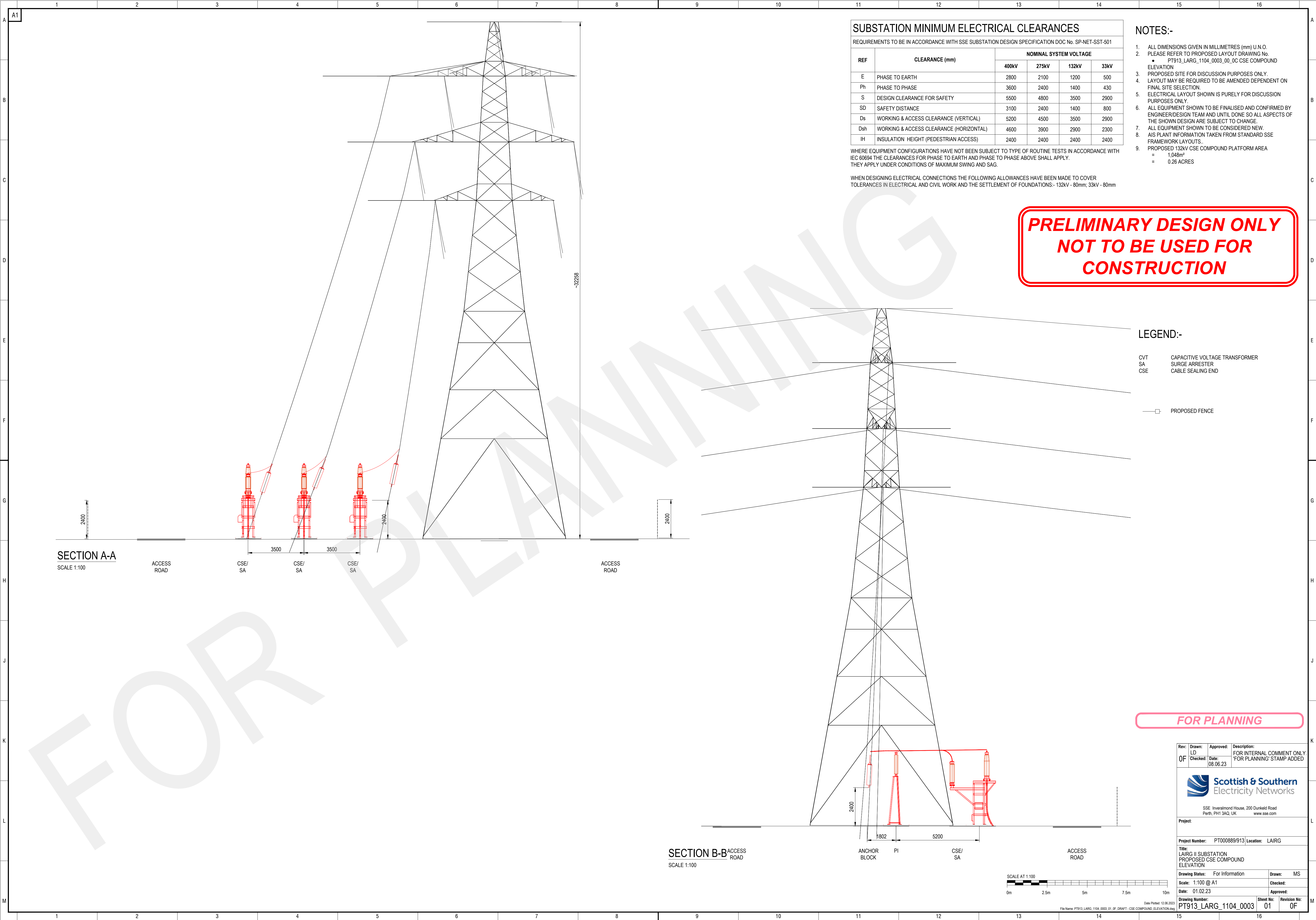
WHEN DESIGNING ELECTRICAL CONNECTIONS THE FOLLOWING ALLOWANCES HAVE BEEN MADE TO COVER TOLERANCES IN ELECTRICAL AND CIVIL WORK AND THE SETTLEMENT OF FOUNDATIONS:- 132kV - 80mm; 33kV - 80mm

PRELIMINARY DESIGN ONLY  
NOT TO BE USED FOR  
CONSTRUCTION

FOR PLANNING

Rev: 0H	Drawn: JB	Checked: 03/08/23	Approved: 03/08/23	Description: FOR INTERNAL COMMENT ONLY. PEDESTRIAN GATE ADDED.
SSE Inverlorn Road, 200 Dunkeld Road Perth, PH1 3AQ, UK www.sse.com				
Project:				
Project Number: PT000889/913 Location: LAIRG				
Title: LAIRG II SUBSTATION PROPOSED CSE COMPOUND				
Drawing Status: For Information		Drawn: MS		
Scale: 1:200 @ A1		Checked:		
Date: 24.11.22		Approved:		
Drawing Number: PT913_LARG_1104_0002		Sheet No: 01		Revision No: 0H

Date Plotted: 04.08.2023  
File Name: PT913\_LARG\_1104\_0002\_01\_0H.DRAWT - CSE COMPOUND.dwg



### SUBSTATION MINIMUM ELECTRICAL CLEARANCES

REQUIREMENTS TO BE IN ACCORDANCE WITH SSE SUBSTATION DESIGN SPECIFICATION DOC No. SP-NET-SST-501

REF	CLEARANCE (mm)	NOMINAL SYSTEM VOLTAGE			
		400kV	275kV	132kV	33kV
E	PHASE TO EARTH	2800	2100	1200	500
Ph	PHASE TO PHASE	3600	2400	1400	430
S	DESIGN CLEARANCE FOR SAFETY	5500	4800	3500	2900
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Ds	WORKING & ACCESS CLEARANCE (VERTICAL)	5200	4500	3500	2900
Dsh	WORKING & ACCESS CLEARANCE (HORIZONTAL)	4600	3900	2900	2300
IH	INSULATION HEIGHT (PEDESTRIAN ACCESS)	2400	2400	2400	2400

WHERE EQUIPMENT CONFIGURATIONS HAVE NOT BEEN SUBJECT TO TYPE OF ROUTINE TESTS IN ACCORDANCE WITH IEC 60894 THE CLEARANCES FOR PHASE TO EARTH AND PHASE TO PHASE ABOVE SHALL APPLY. THEY APPLY UNDER CONDITIONS OF MAXIMUM SWING AND SAG.

WHEN DESIGNING ELECTRICAL CONNECTIONS THE FOLLOWING ALLOWANCES HAVE BEEN MADE TO COVER TOLERANCES IN ELECTRICAL AND CIVIL WORK AND THE SETTLEMENT OF FOUNDATIONS:- 132kV - 80mm; 33kV - 80mm

### NOTES:-

- ALL DIMENSIONS GIVEN IN MILLIMETRES (mm) U.N.O.
- PLEASE REFER TO PROPOSED LAYOUT DRAWING No. PT913\_LARG\_1104\_0003\_00\_0C CSE COMPOUND ELEVATION
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= 1,048m<sup>2</sup>  
= 0.26 ACRES

**PRELIMINARY DESIGN ONLY  
NOT TO BE USED FOR  
CONSTRUCTION**

### LEGEND:-

CVT      CAPACITIVE VOLTAGE TRANSFORMER  
SA      SURGE ARRESTER  
CSE      CABLE SEALING END

—□—      PROPOSED FENCE

**FOR PLANNING**

Rev: LD	Drawn: 0F	Approved: 0F	Description: FOR INTERNAL COMMENT ONLY. 'FOR PLANNING' STAMP ADDED
Checked: 0F	Date: 08.06.23		
SSE Inverlornock House, 200 Dunkeld Road Perth, PH1 3AQ, UK      www.sse.com			
Project:			
Project Number: PT000889/913		Location: LAIRG	
Title: LAIRG II SUBSTATION PROPOSED CSE COMPOUND ELEVATION			
Drawing Status: For Information		Drawn: MS	
Scale: 1:100 @ A1		Checked:	
Date: 01.02.23		Approved:	
Drawing Number: PT913_LARG_1104_0003		Sheet No: 01	Revision No: 0F