


- NOTE 1: THIS DRAWING IS PRODUCED FOR INFORMATION PURPOSES ONLY. ALL DIMENSIONS, REFERENCES (E.G. LIGHTNING MAST LOCATIONS ETC.) GIVEN ARE INDICATIVE AND SHOULD NOT BE USED AS PART OF A DETAILED DESIGN.
- NOTE 2: THIS IS A CONCEPTUAL DESIGN. DETAILED DESIGN IS REQUIRED PENDING CONFIRMATION OF SPECIFIC EQUIPMENT SUPPLIER AND SITE DETAILS.
- NOTE 3: BUILDING HAS BEEN SPECIFICALLY DESIGNED TO ACCOMMODATE 4 NO. TRANSFORMER BAYS (CABLE CONNECTION) AND 4 NO. FEEDER BAYS (CABLE CONNECTION).
- NOTE 4: SWITCHGEAR SHOWN ON THIS DRAWING IS INDICATIVE ONLY.
- NOTE 5: REQUIREMENT FOR GIS OVERPRESSURE VENTS TO BE CONFIRMED BY GIS SUPPLIER.
- NOTE 6: WHERE THERE IS MORE THAN ONE MINIMUM DISTANCE STATED FOR A SPECIFIC AREA THE LARGEST MINIMUM DISTANCE SHOULD BE ADHERED TO.
- NOTE 7: ALL OPES IN GIS ROOM FOR LV AND HV CABLES TO BE FIRE SEALED.
- NOTE 8: THE MAXIMUM LENGTH OF A CABLE THAT CAN BE PUSHED INTO THE CABLE ROOM IS 100m ROUTE LENGTH.
- NOTE 9 (AS ILLUSTRATED ON DRAWING): MINIMUM CLEAR AREA ON BOTH SIDES OF THE GIS FOR THE HV TEST EQUIPMENT IS 3000mm.
- NOTE 10 (AS ILLUSTRATED ON DRAWING): MINIMUM CLEAR DISTANCE BETWEEN 220V BATTERY STANDS AND WALLS IS 800mm.
- NOTE 11 (AS ILLUSTRATED ON DRAWING): SCREENED VENTS (1-HIGH LEVEL AND 2-LOW LEVEL) ARE TO BE INSTALLED IN THE BATTERY ROOM AS PER IEC 62485-2 ON ADJACENT EXTERNAL WALL.
- NOTE 12 (AS ILLUSTRATED ON DRAWING): FIRE AND INTRUDER ALARM PANELS TO BE LOCATED IN THE VICINITY OF THE MAIN ENTRANCE.
- NOTE 13 (AS ILLUSTRATED ON DRAWING): EQUIPMENT ACCESS DOOR TO BE SIZED SUCH THAT A STANDARD ESB TRUCK CAN BE REVERSED IN THE HOIST AREA (MIN 4000mm WIDTH).
- NOTE 14 (AS ILLUSTRATED ON DRAWING): THERE ARE TO BE NO OBSTRUCTIONS LOCATED 2m DIRECTLY IN FRONT OF THE CABLE DUCTS AND 300mm TO THE SIDE OF THE CABLE DUCT WHERE THE DUCT ENTERS THE CABLE ROOM.
- NOTE 15: ADEQUATE AREA TO BE PROVIDED IN THE VICINITY OF THE GIS BUILDING TO ALLOW SPACE FOR SETTING UP THE EQUIPMENT NEEDED FOR CABLE PULLING OPERATIONS. THIS AREA IS APPROX. 12m X 12m FOR EACH CABLE CIRCUIT, CABLE DESIGNER TO ADVISE.
- NOTE 16: AN OPENING MUST BE PROVIDED FOR EACH CIRCUIT TO ALLOW FOR SUITABLE CABLE PULLING DUCTS.
- NOTE 17 (AS ILLUSTRATED ON DRAWING): CABLE SUPPORT STEELWORK TO BE PROVIDED BY THE CONTRACTOR. WALL TO BE CAPABLE OF SUPPORTING HV CABLES, RING CT'S ETC.
- NOTE 18 (AS ILLUSTRATED ON DRAWING): ADDITIONAL EXIT DOOR IN BATTERY ROOM. REQUIREMENT TBC IN LINE WITH FIRE REGULATIONS.
- NOTE 19 (AS ILLUSTRATED ON DRAWING): RELAY ROOM MUST BE SIZED APPROPRIATELY TO ALLOW FOR ULTIMATE DEVELOPMENT OF STATION.
- NOTE 20 (AS ILLUSTRATED ON DRAWING): SPACE SHOULD BE PROVIDED FOR FUTURE TELECOMS AND PROTECTION PANELS.
- NOTE 21: INDICATIVE CABLE ACCESS SHOWN.
- NOTE 22: A TELECOMS EARTH BAR SHALL BE INSTALLED IN CLOSE PROXIMITY TO THE DCC RTU.
- NOTE 23: ONLY SINGLE ROW 24V & 48V BATTERY STANDS MAY BE LOCATED AGAINST A WALL.
- NOTE 24: NO ELECTRICAL EQUIPMENT (INCL. BATTERIES) SHALL BE INSTALLED DIRECTLY IN FRONT OF VENTS.
- NOTE 25 (AS ILLUSTRATED ON DRAWING): AN OPENING SHALL BE PROVIDED UNDER THE STAIRS FOR CABLE PULLING.
- NOTE 26: SUITABLE ANCHOR POINTS SHALL BE INSTALLED FOR CABLE PULLING AS REQUIRED.
- NOTE 27: FIRE AND ATEX ZONES NOT SHOWN. THIS SHOULD BE CONSIDERED DURING DETAILED CUSTOMER DESIGN.
- NOTE 28: MINIMUM DIMENSIONS. ADDITIONAL SPACE FOR MAINTENANCE AND OPERATIONS MAY BE REQUIRED BASED ON ESB & OIR REQUIREMENTS.
- NOTE 29: ADDITIONAL WIDTH REQUIRED IF GROUND MOUNTED LCC'S ARE INSTALLED.
- NOTE 30: HOIST OPE TO BE SIZED APPROPRIATELY TO FACILITATE LIFTING OF SWITCHGEAR ASSEMBLIES.
- NOTE 31: BUILDING DESIGN TO BE OPTIMISED WHEN SWITCHGEAR TYPE IS KNOWN.

LIST OF CABINETS											
CABINET DESIGNATION	DESCRIPTION	DIMENSIONS	CABINET DESIGNATION	DESCRIPTION	DIMENSIONS	CABINET DESIGNATION	DESCRIPTION	DIMENSIONS	CABINET DESIGNATION	DESCRIPTION	DIMENSIONS
B1-1	220V DC BATTERY 1, STAND 1	3150x550	D01	220V BATTERY No.2: CHARGER 1 & BATTERY SUPERVISION	600x400	M21	RUSBAR PROTECTION	1200x400	M41	OPALUX 1	800x400
B1-2	220V DC BATTERY 1, STAND 2	3150x550	D02	220V BATTERY No.2: CHARGER 2 & BATTERY SUPERVISION	600x400	M22	REMOTE INTERROGATION/DISTURBANCE RECORDER	600x400	M42	OPALUX 2	800x400
B2-1	220V DC BATTERY 2, STAND 1	3150x550	D03	24/48V BATTERY: CHARGER CHANGEOVER SWITCH & FUSE BOX	600x300	M23	H10 COUPLER PROTECTION	600x400	M43	QDF	800x400
B2-2	220V DC BATTERY 2, STAND 2	3150x550	D01	24/48V BATTERY: CHARGER 1 & BATTERY SUPERVISION	600x400	M24	H9 COUPLER PROTECTION	600x400	M44	IP SERVICES	800x400
B3	24V DC STATION BATTERY	1260x320	D02	24/48V BATTERY: CHARGER 2 & BATTERY SUPERVISION	600x400	M25	H8 BAY PROTECTION	1200x400	M45	MAIN DISTRIBUTION FRAME	800x400
B7	48V DC TELECOMS BATTERY	3450x860	D70	48V TELECOMS CONNECTION/FUSE BOX	600x400	M26	H7 BAY PROTECTION	1200x400	M46	NCC RTU (INCL. GPS CLOCK)	800x400
D1	220V DC DISTRIBUTION BOARD 1	2400x400	D71	48V SMPs (TELECOMS)	600x400	M27	H6 BAY PROTECTION	1200x400	M47	TELEMETERING	800x400
D2	220V DC DISTRIBUTION BOARD 2	2400x400	D72	TELECOMS ISOLATION SWITCH	100x100	M28	H5 BAY PROTECTION	1200x400	M48	EIRGRID ENERGY METERING	800x400
D3	24/48V DC DISTRIBUTION BOARD	1600x400	M1	MIMIC	4800x600	M29	H4 BAY PROTECTION	1200x400	M61	DCC RTU	600x400
D4	AC DISTRIBUTION BOARD	3200x400	M2	SYNCHRONISING PANEL	1200x600	M30	H3 BAY PROTECTION	1200x400	M62	ETIE	600x400
D7	48V (TELECOMS) DISTRIBUTION	600x400	M3	EVENT RECORDER/AAP	600x400	M31	H2 BAY PROTECTION	1200x400	M63	INTRUDER ALARM PANEL	
D10	220V BATTERY No.1 CHARGER CHANGEOVER SWITCH & FUSE BOX	600x300	M4	BACKUP AAP	600x400	M32	H5 BAY PROTECTION	1200x400	M64	FIRE ALARM PANEL	
D11	220V BATTERY No.1: CHARGER 1 & BATTERY SUPERVISION	600x400	M5	BATTERY SUPERVISION	600x400	M33	H0B SECTIONALISER PROTECTION	600x400	M65	TELEPHONE POINTS (2No.)	
D12	220V BATTERY No.1: CHARGER 2 & BATTERY SUPERVISION	600x400	M6	SIGNAL INTERPOSING	4800x600	M34	H0A SECTIONALISER PROTECTION	600x400			
D20	220V BATTERY No.2 CHARGER CHANGEOVER SWITCH & FUSE BOX	600x300	M7	CUSTOMER INTERFACE	2400x400						

01	BUILDING REDRAWN TO SUIT SF6 FREE SWITCHGEAR	CHC / Mott MacDonald	ESB DD / EirGrid E&AM	NC	10/04/2025
00	FIRST ISSUE	CHC	NK	CF	26/09/2019
REV	DESC	DRAWN	CHKD	APPD	DATE



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**PROJECT**  
**GENERIC DESIGN STANDARD**  
**110kV GIS STATION**  
  
**110kV SF6 FREE GIS BUILDING**  
**8 BAY STATION**  
**BUILDING LAYOUT**

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No of Sheets  
**1**

SIZE  
**A1**

SCALE  
**N/A**

DRAWING NUMBER  
**XDN-LAY-ELV-STND-H-012**

SHEET  
**001**

REV  
**01**