



**ONE TRANSFORMER SUBSTATION
SIZE 7400 x 5000 - INTERNAL DIMENSIONS**

LEGEND

- RAISED FLOOR LINE
- RAISED FLOOR AREA
- 2X36W T8 FLUORESCENT LUMINAIRES WITH RUGGED ELECTRONIC BALLAST OR LED LIGHT SOLUTION WITH EQUIVALENT PERFORMANCE

NOTES TO BUILDER/CONTRACTOR

1. THE FOLLOWING EQUIPMENT IS TO BE SUPPLIED AND INSTALLED BY THE BUILDER/CONTRACTOR :
 1 OFF COMPACT CONSUMER SWITCHBOARD, SIMILAR TO CLIPSAL TYPE 4C6FD COMPLETE WITH 1 X 10A, 1 X 20A WITH RCD AND 4 X 1A MCCB.
 3 OFF 2X36W T8 FLUORESCENT LUMINAIRE WITH RUGGED ELECTRONIC BALLAST OR LED LIGHT SOLUTION WITH EQUIVALENT PERFORMANCE 2 OFF 2-WAY FULL PLATE LIGHT SWITCHES, 1 OFF 10A DOUBLE GENERAL PURPOSE OUTLET (GPO). ASSOCIATED PVC CONDUIT, FITTINGS AND CABLE FOR LIGHT AND POWER CIRCUITS AS REQUIRED.
 2. THE CONTRACTOR SHALL WIRE THE LIGHTS AND GPO COMMENCING FROM THE SWITCHBOARD IN ACCORDANCE WITH THE REQUIRMENTS OF AS 3000 SAA WIRING RULES. PWC STAFF WILL WIRE THE SUPPLY TO THE SWITCHBOARD, INCLUDING INSTALLATION OF THE MAIN EARTH.
 3. ALL ELECTRICAL EQUIPMENT MENTIONED ABOVE SHALL BE INSTALLED IN THE APPROXIMATE POSITION SHOWN, WHICH ARE DRAWN TO SCALE.
- MOUNTING HEIGHTS FOR THE EQUIPMENT SHALL BE :
- SWITCHES - 1500 FROM THE SUBSTATION FLOOR
 - GPO - 500mm FROM THE SUBSTATION FLOOR, DIRECTLY UNDER SWITCHBOARD OR IN CLOSE PROXIMITY.
 - SWITCHBOARD - 1800mm FROM SUBSTATION FLOOR
 - LIGHTS - ON SUBSTATION CEILING, IF CEILING HEIGHT IS GREATER THAN 3000mm, LIGHTS TO BE CHAIN SUSPENDED AT APPROX. 3000mm ABOVE SUBSTATION FLOOR.
4. ALL WIRING TO BE IN PVC CONDUIT , CONDUITS MAY BE EITHER SURFACE RUN OR CAST IN WALLS OR CEILINGS.
 5. NO FIRE DETECTORS ARE REQUIRED IN THE SUBSTATION. IN BUILDINGS HAVING FIRE DETECTOR SYSTEMS, THE SUBSTATION IS NOT TO BE INCLUDED IN THE PROTECTED AREA.
 6. LIGHT SWITCH IS TO INCORPORATE ELECTROMECHANICAL TIMER TO PROVIDE 3 X 8Hr ON PERIODS AFTER INTIAL SWITCH ON AND OFF. SIMILAR TO CLIPSAL TYPE TC15/15/24. LOCATE TIMER NEAR PERSONNEL ENTRANCE AS PART OF LIGHT SWITCH.

NOTES TO POWER WATER STAFF

1. PWC STAFF TO PROVIDE POWER TO THE LIGHT AND POWER SWITCHBOARD. INSTALL A 63A HRC FUSE, (TO BE USED AS A FAULT CURRENT LIMITER FOR THE MCCB'S IN THE SWITCHBOARD) AS CLOSE TO THE LINE SIDE CONNECTIONS OF TRANSFORMER CIRCUIT BREAKER AS PRACTICAL. NOTE A MINIMUM 16sq.mm DOUBLE INSULATED CABLE SHALL BE WIRED FROM THE LINE SIDE OF THE TRANSFORMER CIRCUIT BREAKER TO THE 63A FUSE, THE LENGTH OF THE CABLE BEING NO GREATER THAN 500mm IN LENGTH. THIS SAME CABLE SHALL BE USED FROM THE 63A FUSE TO THE SWITCHBOARD. IF NECESSARY, INSTALL THE CABLE IN PVC CONDUIT FOR MECHANICAL PROTECTION. THE MAIN NEUTRAL TO BE SIZED TO THE ACTIVE CONDUCTOR AND THE MAIN EARTH 6sq.mm.
2. AT EACH ENTRANCE TO THE SUBSTATION, THE FOLLOWING SAFETY SIGN SHALL BE INSTALLED, ON THE OUTSIDE FACE OF THE DOOR. "DANGER HIGH VOLTAGE AUTHORISED PERSONS ONLY". THE NOTICES SHALL CONSIST OF BOLD LETTERS NOT LESS THAN 40mm HIGH.
3. THE FOLLOWING SIGNS SHALL BE INSTALLED ON THE INSIDE FACE OF EACH PERSONNEL DOOR: "EXIT" AND "CAUTION - OUTWARD OPENING DOOR OPEN WITH CARE."
4. AFTER INSTALLATION OF THE HV SWITCHGEAR, THE REMAINING OPEN SECTIONS OF THE HV PIT TO BE COVERED BY A PWC APPROVED PIT COVERING. (REFER DWG S02-02-07-01)
5. PWC STAFF TO INSTALL ONE HIGH PERFORMANCE DRY CHEMICAL FIRE EXTINGUISHER (eg 6A 80B (E)) IN EACH SUBSTATION, ADJACENT TO ONE OF THE PERSONNEL DOORS.
6. THE EXTINGUISHERS SHOULD BE INSTALLED SUCH THAT EGRESS BY STAFF IN AN EMERGENCY WILL NOT BE IMPEDED. HOWEVER, FOR OPTION 2 SUBSTATIONS, THE EXTINGUISHER MUST NOT BE INSTALLED IN THE ENTRANCE CHAMBER.

PLAN VIEW
SCALE 1:50

REFER NOTE 4
POWER WATER STAFF

NO	DESCRIPTION	DRN	DATE	CKD	APPD
5	AMEND ROOM & LIGHT FIXTURE DIMENSIONS & ADD LED LIGHT FIXTURE SOLUTION. AMENDED POWERWATER STAFF NOTE 4 & BULIDER/CONTRACTOR NOTE 2.	C.C.	JAN'22	B.V.	B.C.
4	UPDATE LIGHTING AND HV PIT COVER REQUIREMENTS	H.E.	SEP'20	H.E.	B.V.
3	TITLEBLOCK & DRAWING NUMBER FORMATTED	K.T.	FEB'19	C.C.	C.C.
2	NOTE 1 CHANGED	A.S.	JUN'08	R.C.	C.C.
1	NOTE 163A CHANGED TO 60A NOTE 5 CHANGED NOTE 6 WORD EGRESS CHANGED TO "EXIT"	K.I.	MAR'05	R.C.	C.C.
AMENDMENTS					



DES I.PURVES		POWER STANDARD DRAWING		
DRN	GR./A.D.	ONE TRANSFORMER INDOOR SUBSTATION		
CKD	S.LEACH	SURFACE CHAMBER - OPTION 1		
APPD	F.ROBSON	MISCELLANEOUS DETAILS		
SCALE	150			
ISSUED	MARCH '98	A3	DRAWING NUMBER	S02-02-07-50
ALL DIM.	IN mm			
DRAFTING STANDARD TO A.S.1100		CAD PRODUCT - DO NOT AMEND MANUALLY		AMDT