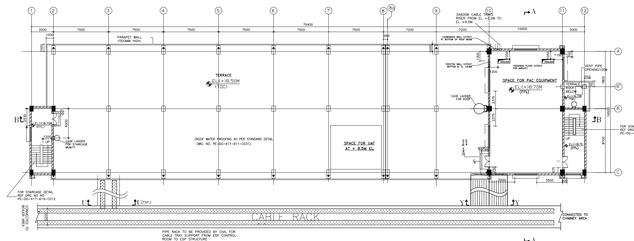
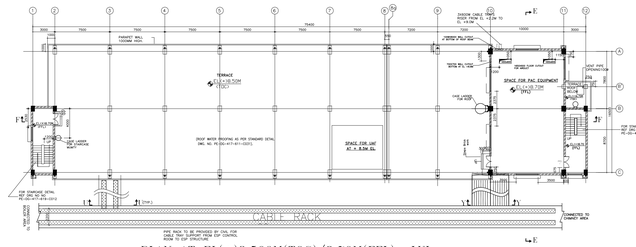
FIRST ANGLE PROJECTION
ALL DIMENSIONS ARE IN MM
DRAWING No. PE-DG-417-100-E008
CUSTOMER'S DRAWING NO.
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NORTH



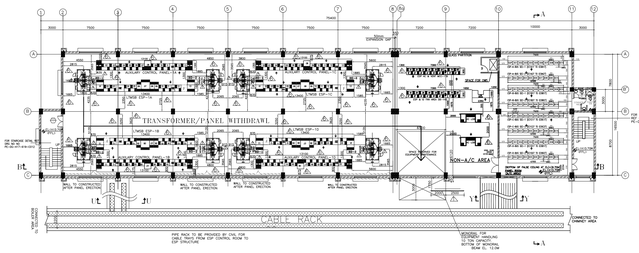
PLAN AT EL(+)8.500M(TOC)/8.70M(FFL) LVL

UNIT #1



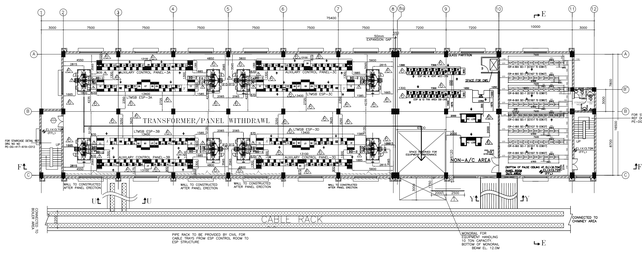
PLAN AT EL(+)8.500M(TOC)/8.70M(FFL) LVL

UNIT #3



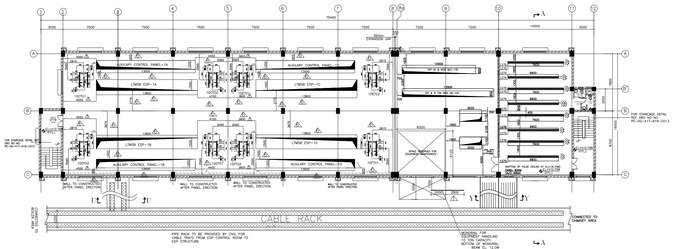
PLAN AT EL.(+)3.70M (FFL).

UNIT #1



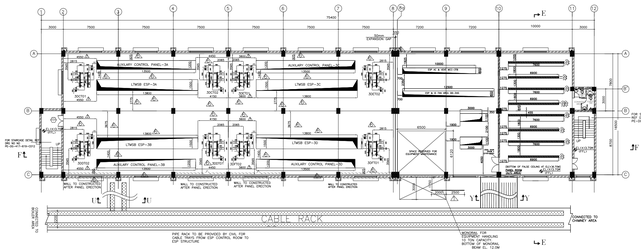
PLAN AT EL.(+)3.70M (FFL).

UNIT #3



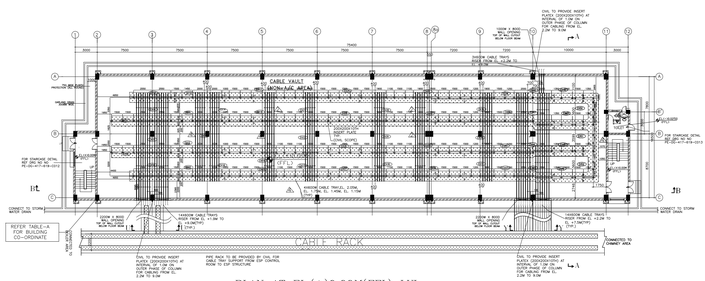
PLAN AT EL.(+)3.70M (FFL).

UNIT #1



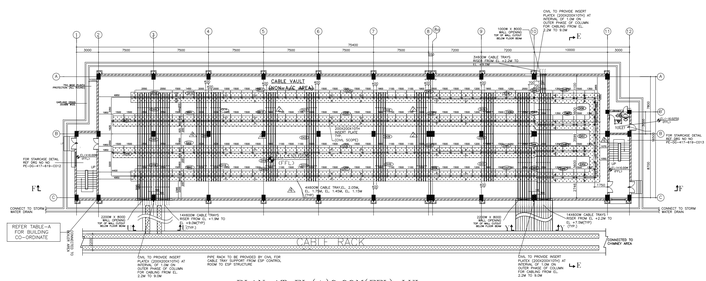
PLAN AT EL.(+)3.70M (FFL).

UNIT #3



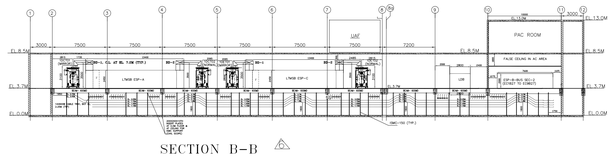
PLAN AT EL.(±)0.00M(FFL) LVL

UNIT #1



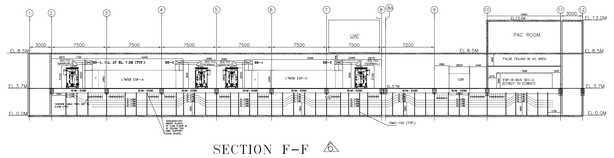
PLAN AT EL.(±)0.00M(FFL) LVL

UNIT #3



SECTION B-B

UNIT #1



SECTION F-F

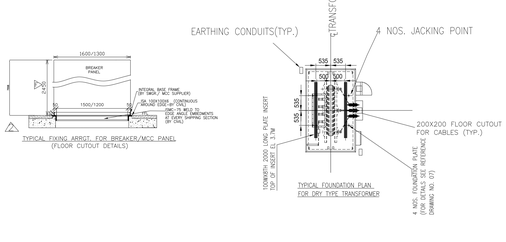
UNIT #3

BOQ OF EQUIPMENT PER UNIT(TABLE-B)

S.NO.	EQUIPMENT DESCRIPTION	UNIT	QUANTITY
01	MCC	NOS	10
02	LDB	NOS	3
03	WDB	NOS	0
04	2500KVA DTT TRANSFORMERS	NOS	8

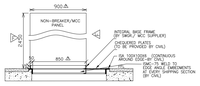
TABLE-A (CO-ORDINATE)

S.NO	Nos.	COORDINATE		GRID
01	ESP CONTROL BLDG-UNIT#1	W 133.783	S 129.500	C2
02	ESP CONTROL BLDG-UNIT#2	E 150.283	S 129.500	C2
03	ESP CONTROL BLDG-UNIT#3	E 299.213	S 129.500	C2
04	ESP CONTROL BLDG-UNIT#4	E 581.282	S 129.500	C2
05	ESP CONTROL BLDG-UNIT#5	E 726.283	S 129.500	C2

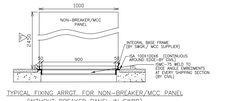


TYPICAL FOUNDATION PLAN FOR DRY TYPE TRANSFORMER

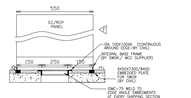
TYPICAL FIXING ARRGT. FOR BREAKER/MCC PANEL (FLOOR CUTOUT DETAILS)



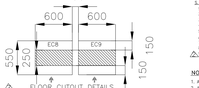
TYPICAL FIXING ARRGT. FOR NON-BREAKER/MCC PANEL (FLOOR CUTOUT DETAILS)



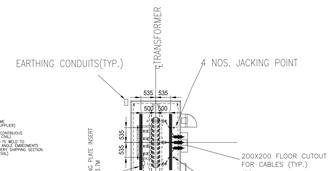
TYPICAL FIXING ARRGT. FOR NON-BREAKER/MCC PANEL (WITHOUT BREAKER PANEL IN SWBD) (FLOOR CUTOUT DETAILS)



TYPICAL FIXING ARRGT. FOR EC/RCP PANEL (FLOOR CUTOUT DETAILS)



FLOOR CUTOUT DETAILS FOR EC PANEL



BILL OF QUANTITY

S.NO.	MATERIAL DESCRIPTION	UNIT	QUANTITY
01	CABLE TRAY 450MM WIDE (LADDER TYPE)	METRES	1200
02	CABLE TRAY 600MM WIDE (PERFORATED TYPE)	METRES	3850
03	CABLE TRAY 450MM WIDE (LADDER TYPE)	METRES	2850
04	CABLE TRAY 150MM WIDE (LADDER TYPE)	METRES	2850
05	EMC-150	METRES	5000
06	GA 50x50x6MM	METRES	7000
07	GA 65x65x6MM	METRES	200
08	90° VERTICAL INSIDE BEND 450M (FOR TYPE)	NOS	25
09	90° VERTICAL INSIDE BEND 450M (LADDER TYPE)	NOS	100

LEGEND

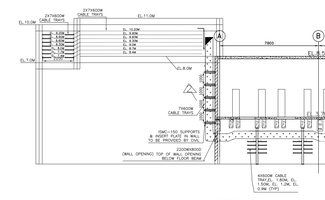
- OPERATING FRONT OF THE PANEL
- SINGLE LEAF FIRE PROOF DOOR
- DOUBLE LEAF FIRE PROOF DOOR
- BRICK WALL
- PANEL CUTOUT
- WALL CUTOUT
- CABLE TRAY SECTION NUMBER FOR UNIT#1 ---> (1)
- FOR UNIT#3 ---> (3)
- FOR UNIT#2 ---> (2)
- FOR UNIT#4 ---> (4)
- FOR UNIT#5 ---> (5)

REFERENCE DRAWINGS :

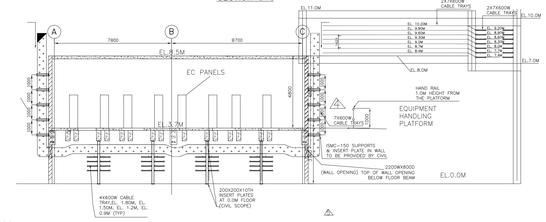
S. NO.	TITLE	DRAWING NO.	SOURCE AGENCY
1.	PLOT PLAN	PE-DG-417-100-A001	PDA/ BPJ
2.	SINGLE LINE, SINGLE LINE SHOWIN	PE-DG-417-501-E001	PDA/ ELECT
3.	CABLE ERECTION PHILOSOPHY	PE-DG-417-507-E004	PDA/ ELECT
4.	TYPICAL DETAILS OF CABLE TRAYS AND ACCESSORIES	PE-DG-417-507-E005	PDA/ ELECT
5.	INSTALLATION DETAILS OF CABLE TRAY SUPPORT SYSTEM	PE-DG-417-507-E006	PDA/ ELECT
6.	ARCHITECTURAL PLAN AT EL(+)8.50M (TOC) EL(+)3.70M (FFL)	PE-DG-417-819-E005	PDA/ ELECT
7.	GA OF TRANSFORMER FOR DETAILED LAYOUT OF TRANSFORMER EQUIPMENT AND CABLING	2-051-114-S002	BHEL/ RANIPET
8.	RECOMMENDED ESP CONTROL ROOM LAYOUT	34730052508	BHEL/ JHANSI

NOTES :

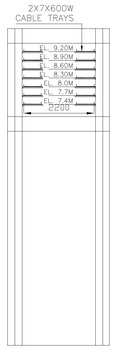
1. ALL DIMENSIONS ARE IN MM'S AND LEVELS ARE IN METRES.
2. ALL ELEVATIONS ARE REFERRED TO THE FINISHED GROUND FLOOR LEVEL OF POWER HOUSE BUILDING AS EL 0.00 M WHICH CORRESPONDS TO RL 81.50 M ABOVE MEAN SEA LEVEL.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ELECTRICAL EQUIPMENT AND CABLING LAYOUT ONLY. LAYOUT SHOWN IN THIS DRAWING IS SUCH AS NOT TO BE USED FOR CIVIL INTERFACE PURPOSE. FOR EXACT LAYOUT OF TRACK SYSTEM, REQUIRED DEVIATIONS, SHALL BE FIXED.
4. ALL AREAS SHOWN IN THIS DRAWING ARE NON A/C UNLESS STATED OTHERWISE.
5. BOTTOMMOST ONE TRAY OF ALL HORIZONTAL RUNS SHALL BE PERFORATED TYPE. INTRUMENTATION CABLES SHALL RUN ON PERFORATED CABLE TRAYS. CONTROL CABLES SHALL RUN ON LADDER TYPE CABLE TRAYS.
6. ALL PANELS SHALL BE SUITABLE FOR BOTTOM ENTRY OF POWER AND C&I CABLES.
7. LT PANEL LDBs , BUSDUCT DIMENSIONS & CUTOUT DETAILS SHOWN ARE TENTATIVE & SHALL BE UPDATED AS PER FINAL GA/GA OF EQUIPMENT MANUFACTURER.
8. TRANSFORMER GA & TRANSFORMER DIMENSIONS SHOWN ARE TENTATIVE & SHALL BE UPDATED AS PER FINAL GA/ GA OF TRANSFORMER.
9. ALL CABLE OPENINGS IN WALLS /FLOORS SHALL BE SEALED WITH CABLE FIRE SEALING SYSTEM MATERIAL AFTER COMPLETION OF CABLE LAYING.
10. THE CABLE TRAY NUMBERING SHALL BE PROVIDED AT EVERY 30 METER AND AT EACH END OF CABLE TRAY & BRANCH CONNECTION FLOOR/WALL OPENING. CABLE TRAYS SHALL BE IDENTIFIED IN A DISTINCT, PERMANENT MANNER WITH IDENTIFICATION NUMBERS (STENCILLED WITH RED/ WHITE PAINT) AT REASONABLE INTERVALS, PRIOR TO THE INSTALLATION OF ANY CABLES.
11. THE CABLE TRAY NUMBERING SHOWN IN DRAWING IS TENTATIVE. IT SHALL BE UPDATED AS PER SITE INTERFACE.



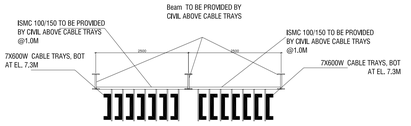
SECTION C-C
SECTION G-G
SECTION J-J



SECTION A-A
SECTION E-E



SECTION U-U



SECTION Y-Y

REV.	DATE	ALTD	CHD	APPD
R07	24.04.2020	MRS	NNJ	PD
1.	DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS DATED 13.04.2020			
2.	REVISION MARKED AS (7)			
R06	19.03.2020	MRS	NNJ	PD
1.	DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS DATED 08.01.2020			
2.	REVISION MARKED AS (6)			
R05	21.12.19	AVI	NNJ/PD	DR
	DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS DATED 18.12.19			
R04	10.09.19	AVI	NNJ/PD	DR
	DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS DATED 14.08.19			
R03	01.07.19	AVI	NNJ/PD	DR
	DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS DATED 14.06.19			
R02	23.03.18	AVI	NNJ/PD	DR
	DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS DATED 20.02.18			
R01	22.09.18	AVI	NNJ/PD	DR
	DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS DATED 28.07.18			

CUSTOMER: TELANGANA STATE POWER GENERATION CORPORATION LTD
TELANGANA STATE, INDIA
5X800 MW YADADRI TPS #UNIT 1,2,3,4,5

TATA CONSULTING ENGINEERS LIMITED
BANGALORE INDIA

JOB NO. 417
STATUS CONTRACT
DISTRIBUTION

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

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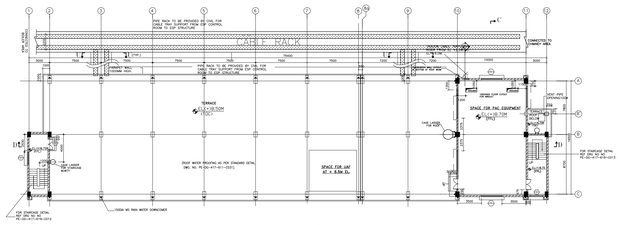
DEPT		NAME	SIGN	DATE
CDR	DRN	AVI	--SD--	06.07.18
E	DESN	AVI/AVI	--SD--	06.07.18
	CHD	NNJ	--SD--	06.07.18
	APPD	PD	--SD--	06.07.18

TITLE ELECTRICAL EQUIPMENT & CABLING LAYOUT IN ESP CONTROL ROOM BUILDING UNIT 1,2,3,4 & 5

DEPT. SCALE
SIGN
DRAWING NO. PE-DG-417-100-E008
SHEET 1 OF 2 REV. 07
SIZE-A0

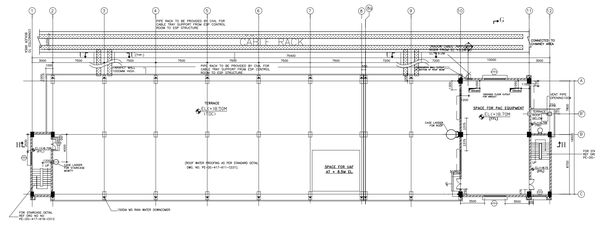
COMPUTER FILE NAME:

NORTH



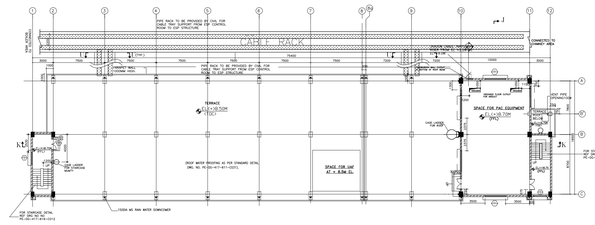
PLAN AT EL(+)8.500M(TOC)/8.70M(FFL) LVL

UNIT #2



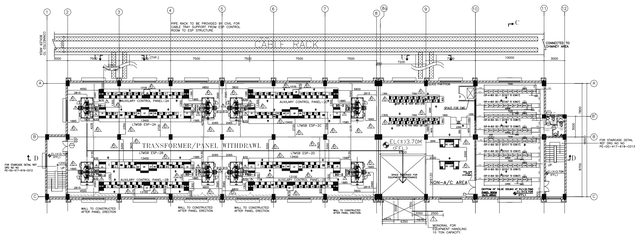
PLAN AT EL(+)8.500M(TOC)/8.70M(FFL) LVL

UNIT #4



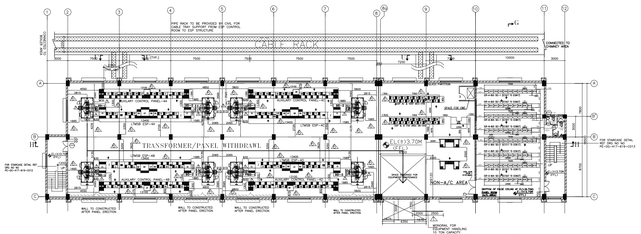
PLAN AT EL(+)8.500M(TOC)/8.70M(FFL) LVL

UNIT #5



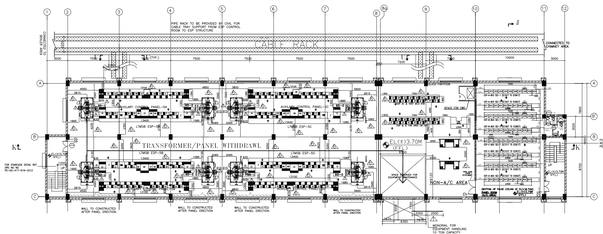
PLAN AT EL.(+)3.70M (FFL).

UNIT #2



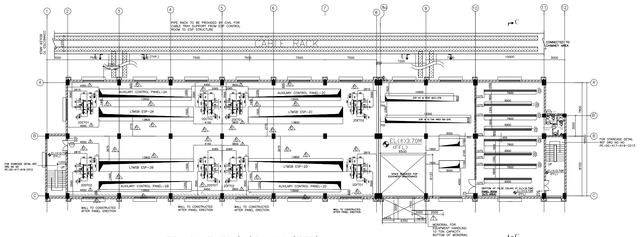
PLAN AT EL.(+)3.70M (FFL).

UNIT #4



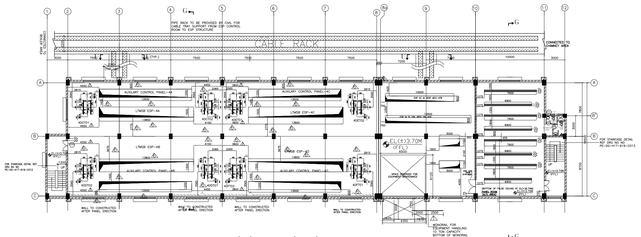
PLAN AT EL.(+)3.70M (FFL).

UNIT #5



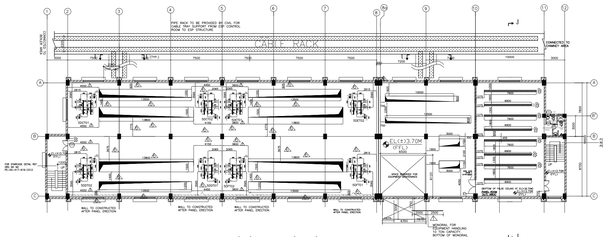
PLAN AT EL.(+)3.70M (FFL).

UNIT #2



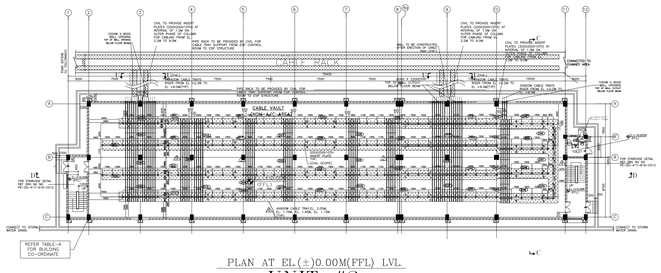
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UNIT #4



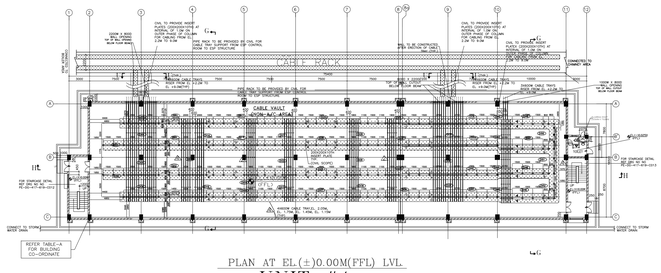
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UNIT #5



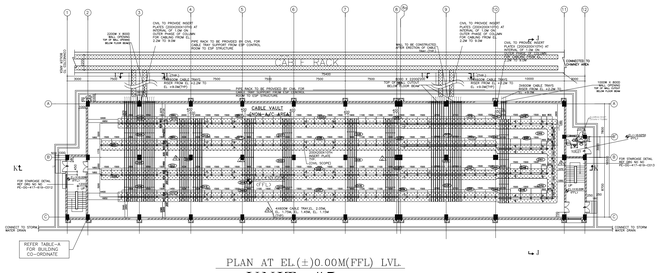
PLAN AT EL.(±)0.00M(FFL) LVL.

UNIT #2



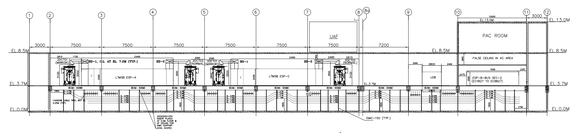
PLAN AT EL.(±)0.00M(FFL) LVL.

UNIT #4



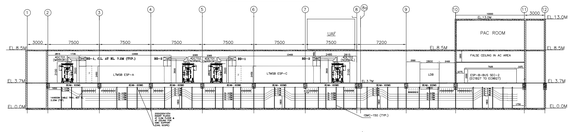
PLAN AT EL.(±)0.00M(FFL) LVL.

UNIT #5



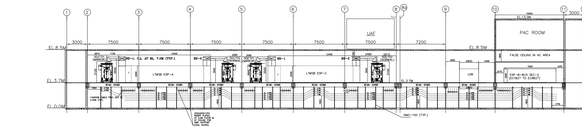
SECTION D-D

UNIT #2



SECTION H-H

UNIT #4



SECTION K-K

UNIT #5

TRANSFOMERS BUSDUCT DETAILS

S.NO.	BUS DUCT VARIANT	SWITCHGEAR	TRANSFORMERS				
			UNIT#1	UNIT#2	UNIT#3	UNIT#4	UNIT#5
01	BD-1	LTMSB-1A, 2A, 3A, 4A, 5A	1DCT01 (MIRROR)	2DCT01 (MIRROR)	3DCT01 (MIRROR)	4DCT01 (MIRROR)	5DCT01 (MIRROR)
		LTMSB-1B, 2B, 3B, 4B, 5B	1DDT02 (NORMAL)	2DDT02 (NORMAL)	3DDT02 (NORMAL)	4DDT02 (NORMAL)	5DDT02 (NORMAL)
		LTMSB-1C, 2C, 3C, 4C, 5C	1DET01 (MIRROR)	2DET01 (MIRROR)	3DET01 (MIRROR)	4DET01 (MIRROR)	5DET01 (MIRROR)
		LTMSB-1D, 2D, 3D, 4D, 5D	1DFT02 (NORMAL)	2DFT02 (NORMAL)	3DFT02 (NORMAL)	4DFT02 (NORMAL)	5DFT02 (NORMAL)
02	BD-2	LTMSB-1A, 2A, 3A, 4A, 5A	1DCT02 (NORMAL)	2DCT02 (NORMAL)	3DCT02 (NORMAL)	4DCT02 (NORMAL)	5DCT02 (NORMAL)
		LTMSB-1B, 2B, 3B, 4B, 5B	1DDT01 (MIRROR)	2DDT01 (MIRROR)	3DDT01 (MIRROR)	4DDT01 (MIRROR)	5DDT01 (MIRROR)
		LTMSB-1C, 2C, 3C, 4C, 5C	1DET02 (NORMAL)	2DET02 (NORMAL)	3DET02 (NORMAL)	4DET02 (NORMAL)	5DET02 (NORMAL)
		LTMSB-1D, 2D, 3D, 4D, 5D	1DFT01 (MIRROR)	2DFT01 (MIRROR)	3DFT01 (MIRROR)	4DFT01 (MIRROR)	5DFT01 (MIRROR)

REV.	DATE	ALTD	CHD	APPD
R07	24.04.2020	MRS	NNJ	PD
1. DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS DATED 13.04.2020				
2. REVISION MARKED AS 1				

REV.	DATE	ALTD	CHD	APPD
R06	19.03.20	MRS	NNJ	PD
1. DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS DATED 08.01.2020				
2. REVISION MARKED AS 6				

REV.	DATE	ALTD	CHD	APPD
R05	21.12.19	AVI	NNJ/PD	DR
DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS DATED 14.08.19				

REV.	DATE	ALTD	CHD	APPD
R04	10.09.19	AVI	NNJ/PD	DR
DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS DATED 14.08.19				

REV.	DATE	ALTD	CHD	APPD
R03	01.07.19	AVI	NNJ/PD	DR
DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS DATED 14.06.19				

REV.	DATE	ALTD	CHD	APPD
R02	23.03.18	AVI	NNJ/PD	DR
DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS DATED 20.03.18				

REV.	DATE	ALTD	CHD	APPD
R01	22.09.18	AVI	NNJ/PD	DR
DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS DATED 28.07.18				

CUSTOMER: TELANGANA STATE POWER GENERATION CORPORATION LTD
TELANGANA STATE, INDIA
5X800 MW YADADRI TPS #UNIT 1,2,3,4,5

TATA CONSULTING ENGINEERS LIMITED
BANGALORE INDIA

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

JOB NO. 417
STATUS CONTRACT
DISTRIBUTION

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DEPT	NAME	SIGN	DATE
CODE			
DRN	AM	--SD--	06.07.18
DES.N	AV/AM	--SD--	06.07.18
CHD	NNJ	--SD--	06.07.18
APPD	PD	--SD--	06.07.18

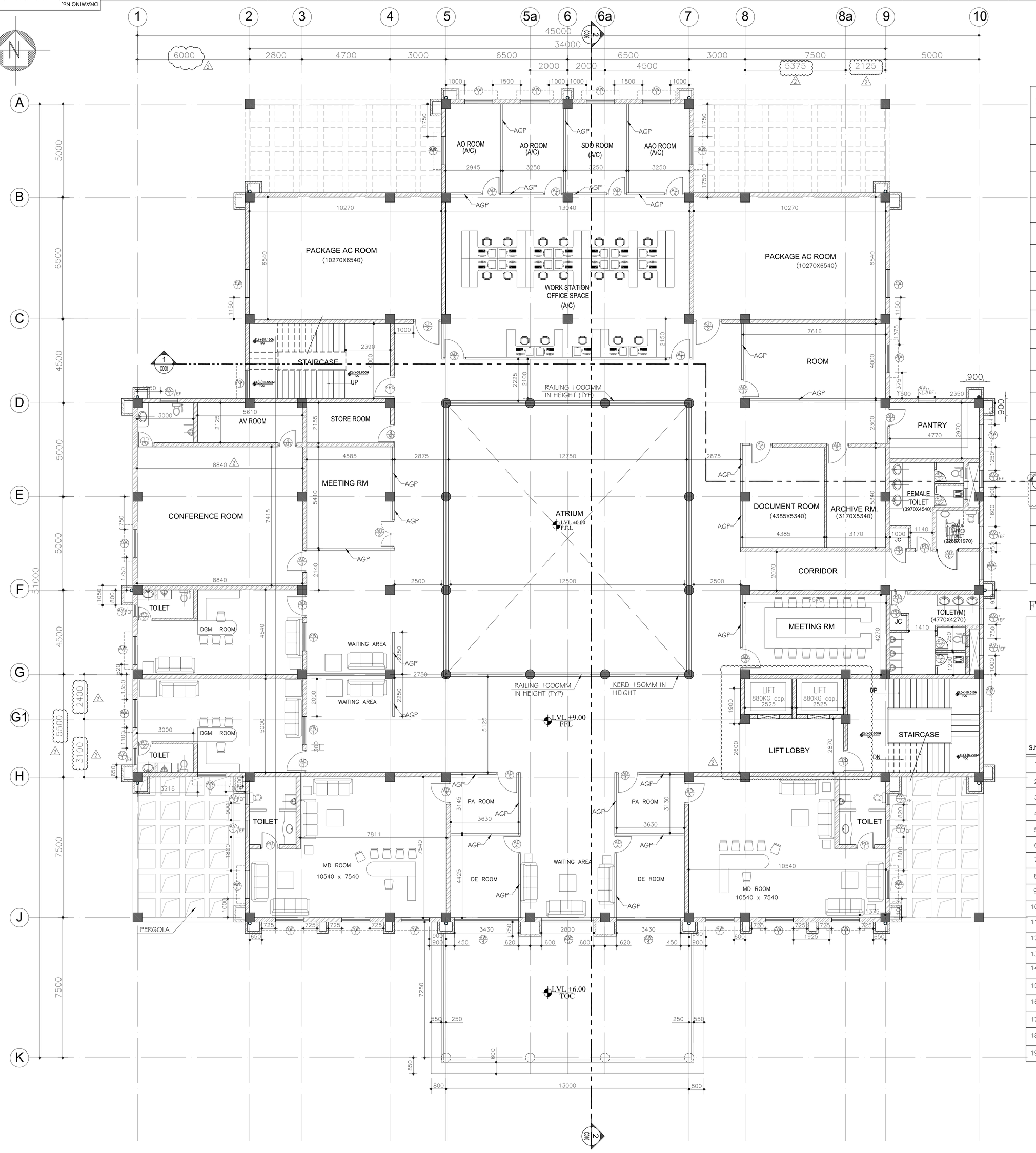
TITLE ELECTRICAL EQUIPMENT & CABLING LAYOUT IN ESP CONTROL ROOM BUILDING UNIT 1,2,3,4 & 5

DEPT. SCALE
SIGN
DRAWING NO. PE-DG-417-100-E008
SHEET 2 OF 2 REV. 07

SIZE-A0

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COMPUTER FILE NAME:



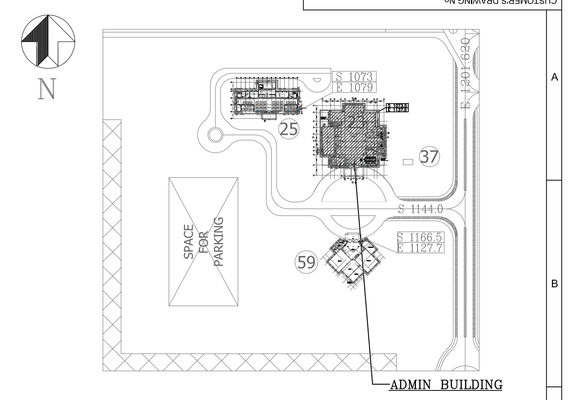
SECOND FLOOR PLAN AT EL(+)8.650M (F.F.L)

SCHEDULE OF DOOR / WINDOW OPENINGS- (±)0.00M LVL

SYMBOL	Nos.	SILL LVL AT EL+....	MASONRY OPENING WIDTH	MASONRY OPENING HEIGHT	REMARKS
SD1	–	(+)8.650	2000	2500	PRESSED STEEL DOOR FRAME WITH DOUBLE PLATE FLUSH SHUTTERS –DOUBLE SHUTTER (MCC ROOM)
SD2	2	(+)8.650	1500	2500	PRESSED STEEL DOOR FRAME WITH DOUBLE PLATE FLUSH SHUTTERS –SINGLE SHUTTER (PACKAGE AC ROOM)
SD3	–	(+)8.650	1200	2500	STEEL FRAME WITH STEEL DOOR SHUTTER WITH –SINGLE SHUTTER (LIFT MACHINE ROOM & MUMTY)
FPD1	2	(+)8.650	1200	2500	FIRE PROOF DOOR – SINGLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK, TOUGHENED GLASS
AD1	–	(+)8.650	1800	2700	ALUMINUM FRAMED WITH GLAZED DOOR –DOUBLE SHUTTER (SWING TYPE)
AD2	1	(+)8.650	1500	2500	ALUMINUM FRAMED WITH FLUSH DOOR– DOUBLE SHUTTER
AD3	13	(+)8.650	1200	2500	ALUMINUM FRAMED WITH FLUSH DOOR– SINGLE SHUTTER
AD4	9	(+)8.650	1000	2500	ALUMINUM FRAMED WITH FLUSH DOOR– SINGLE SHUTTER
AD5	1	(+)8.650	1200	2500	ALUMINUM FRAMED WITH FLUSH DOOR– SINGLE SHUTTER (HANDICAPPED TOILET)
PD1	3	(+)8.650	900	2500	PRESSED STEEL DOOR FRAME WITH PRE-LAMINATED PARTICLE BOARD– SINGLE SHUTTER(PHY.HANDICAP.TOILET) OPEN OUTSIDE
PD2	6	(+)8.650	750	2100	PRESSED STEEL DOOR FRAME WITH SOLID CORE FLUSH DOOR SHUTTER– SINGLE SHUTTER (FOR TOILET DOOR)
PD3	2	(+)8.650	600	2100	PRESSED STEEL DOOR FRAME WITH SOLID CORE FLUSH DOOR SHUTTER– SINGLE SHUTTER (JC)
AW1	22	(+)9.650	1500	1500	ALUMINIUM GLAZED OPENABLE WINDOW
AW2	1	(+)9.650	1200	1500	ALUMINIUM GLAZED OPENABLE WINDOW
AW3	AS/ELE	(+)9.650	1500	1500	ALUMINIUM GLAZED OPENABLE WINDOW
AW4	2	(+)9.650	3430	1500	ALUMINIUM GLAZED OPENABLE & FIXED WINDOW
AW5	1	(+)9.650	2800	1500	ALUMINIUM GLAZED OPENABLE & FIXED WINDOW
AV1	4	(+)9.650	1500	1500	ALUMINIUM FIXED GLAZED WINDOW WITH WIRED GLASS 6MM THICK
AV2	11	(+)10.450	900	600	ALUMINIUM VENTILATOR TOP HUNG WITH 4MM THK FROSTED GLASS
AV3	6	(+)10.450	600	600	ALUMINIUM VENTILATOR TOP HUNG WITH 4MM THK FROSTED GLASS
EF	17	(+)11.250℄	ø330		EXHAUST FAN OPENING

FINISHING SCHEDULE

S.NO.	AREA	FLOORING: NON SKID VITRIFIED TILES 10mm THICK (600mmX600mm SIZE)	FLOORING: MARBLE FLOORING	FLOORING: 5Ø THK, CC FLOORING WITH HARDNER	FLOORING: 10mm THK, ANTI SKID VITRIFIED TILES (400mmX400mm SIZE)	DADO / SKIRTING: 5 mm THICK GLAZED CERAMIC TILES (**)	DADO / SKIRTING: NON SKID VITRIFIED TILES	DADO / SKIRTING: CEMENT CONCRETE SKIRTING	DADO / SKIRTING: MARBLE	DADO / SKIRTING: POLISHED GRANITE DADO UPTO 2.6M	INTERNAL WALLS: ACRYLIC DISTEMPER	INTERNAL WALLS: SYNTHETIC ENAMEL PAINT (*)	INTERNAL WALLS: ACRYLIC EMULSION PAINT WITH WHITE CEMENT PUTTY	CEILING: ACRYLIC DISTEMPER	CEILING: ALUMINIUM PANELLED, ACOUSTIC FALSE CEILING	CEILING: GYPSUM BOARD FALSE CEILING	CEILING: CALCIUM SILICATE BOARD FALSE CEILING
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	LIFT LOBBY		✓						✓	✓			✓		✓		
2	WAITING AREA		✓						✓				✓		✓		
3	ROOM		✓						✓				✓		✓		
4	CONFERENCE		✓						✓				✓		✓		
5	AV ROOM	✓					✓						✓			✓	
6	OFFICE SPACE	✓					✓						✓			✓	
7	ARCHIVE ROOM	✓					✓						✓			✓	
8	DOCUMENT ROOM	✓					✓				✓						✓
9	CORRIDOR		✓						✓				✓		✓		
10	TOILET				✓	✓							✓				✓
11	PANTRY				✓	✓							✓				✓
12	PACKAGE AC ROOM			✓				✓			✓			✓			
13	MD ROOM	✓										✓	✓			✓	
14	PA, DE ROOM	✓										✓	✓			✓	
15	RECORD ROOM			✓				✓			✓						✓
16	STAIRS		✓						✓		✓			✓			
17	STORE			✓				✓			✓						✓
18	DGM ROOM	✓					✓						✓			✓	
19	MEETING ROOM	✓					✓						✓			✓	



KEY PLAN

NOTES:–

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS ARE REFERRED TO THE FINISHED GROUND FLOOR LEVEL OF POWER HOUSE BUILDING AS EL.(±)0.00M WHICH CORRESPONDS TO RL(+)81.50M ABOVE MEAN SEA LEVEL.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH CONTRACT TERMS AND CONDITIONS, SPECIFICATION AND SCHEDULE OF ITEMS.
4. ALL BRICK WORK SHALL BE OF 230 THICK AND 115MM THICK and U.N.O.
5. ALUMINIUM GRILL SHALL BE PROVIDED ON ALL GROUND FLOOR WINDOWS AS PER SPECIFICATION.
6. ADMIN BUILDING FGL IS 79.25, ROAD LEVEL IS 79.5M AND FINISHED FLOOR LEVEL OF CANTEEN BUILDING IS 80.1M.
7. CONSTRUCTION OF ADMIN BUILDING IS UNDER CUSTOMER SCOPE.

REFERENCE DRAWINGS:–

1. PE-DG-417-100-M001 –PLOT PLAN

ARCHITECTURAL DRAWING NO:–

1. PE-DG-417-641-C001 –ADMIN BLDG ARCH PLAN AT EL 0.00
2. PE-DG-417-641-C002 –ADMIN BLDG ARCH PLAN AT EL 4.50
3. PE-DG-417-641-C003 –ADMIN BLDG ARCH PLAN AT EL 9.00
4. PE-DG-417-641-C004 –ADMIN BLDG ROOF PLAN AT EL 13.50

LEGENDS :–

CONCRETE HATCH — EL(+)X.XXX – LEVEL TAG
–BRICK WALL — – TILE DROP
℄ – CENTER LINE — TOC – TOP OF CONCRETE
EF – EXHAUST FAN — TOCP – TOP OF CHEQUERED PLATE
EL – ELEVATION — TOP – TOP OF PARAPET
FFL – FINISHED FLOOR LEVEL — UNO – UNLESS NOTED OTHERWISE
TYP – TYPICAL

EXTERIOR WALL– 20MM THICK MINIMUM SAND FACED PLASTER IN TWO LAYERS WITH 1:4 CEMENT SAND MORTAR OF 12MM THICK FIRST LAYER AND 1:3 CEMENT SAND MORTAR WITH 8MM SECOND LAYER.

INTERIOR WALL– 12 MM THICK WITH 1:4 CEMENT–SAND MORTAR.

CEILING– 6 MM THICK WITH 1:3 CEMENT–SAND MORTAR SHALL BE PROVIDED TO ALL EXPOSED CEILINGS. WHERE EVER SMOOTH/EVEN SURFACE IS AVAILABLE CEILING PLASTER SHOULD BE AVOIDED AND 3MM PUNNING SHALL BE PROVIDED

AREA:
SECOND FLOOR =1615 SQM

BHEL–PROJECT ENGINEERING MANAGEMENT(CIVIL)
THIS DRAWING MARKED (✓) IS RELEASED FOR
☑ COMMENTS/APPROVAL
☐ PLANNING/INFORMATION
☐ CONSTRUCTION
STAMP ALL PREVIOUS REVISION AS SUPERSEDED
ISSUED BY
NAME: SACHIN JAIN
SIGNATURE:
DATE: 25.10.2019

CUSTOMER: TELANGANA STATE POWER GENERATION CORPORATION LTD. HYDERABAD
CONSULTANT: TATA CONSULTING ENGINEERS LIMITED BANGALORE INDIA
PROJECT: 5X800MW YADADRI THERMAL POWER STATION UNIT # 1 TO 5
BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT NOIDA

JOB NO. 417
STATUS CONTRACT
DISTRIBUTION
PRINT SCALE IN %ITNE 0 10 20 30 40 50

REV.	DATE	ALTD	CHD	APPD
2	25/10/19	JASBEER	AR/SJ	SBP

DRAWING REVISED AS PER CUSTOMER COMMENT VIDE LETTER NO. CE/TPC/SE–3/EME–11/ YPS/F/ELEVATIONS /D.NO.38/19, 01–24.05.2019

REV.	DATE	ALTD	CHD	APPD
1	31.01.19	JASBEER	AR/SJ	SBP

DRAWING REVISED AS PER COMMENTS RECEIVED FROM TCE ON DATE 15.11.2018 VIDE LATTER NO. 11005A–CV–VDT–083

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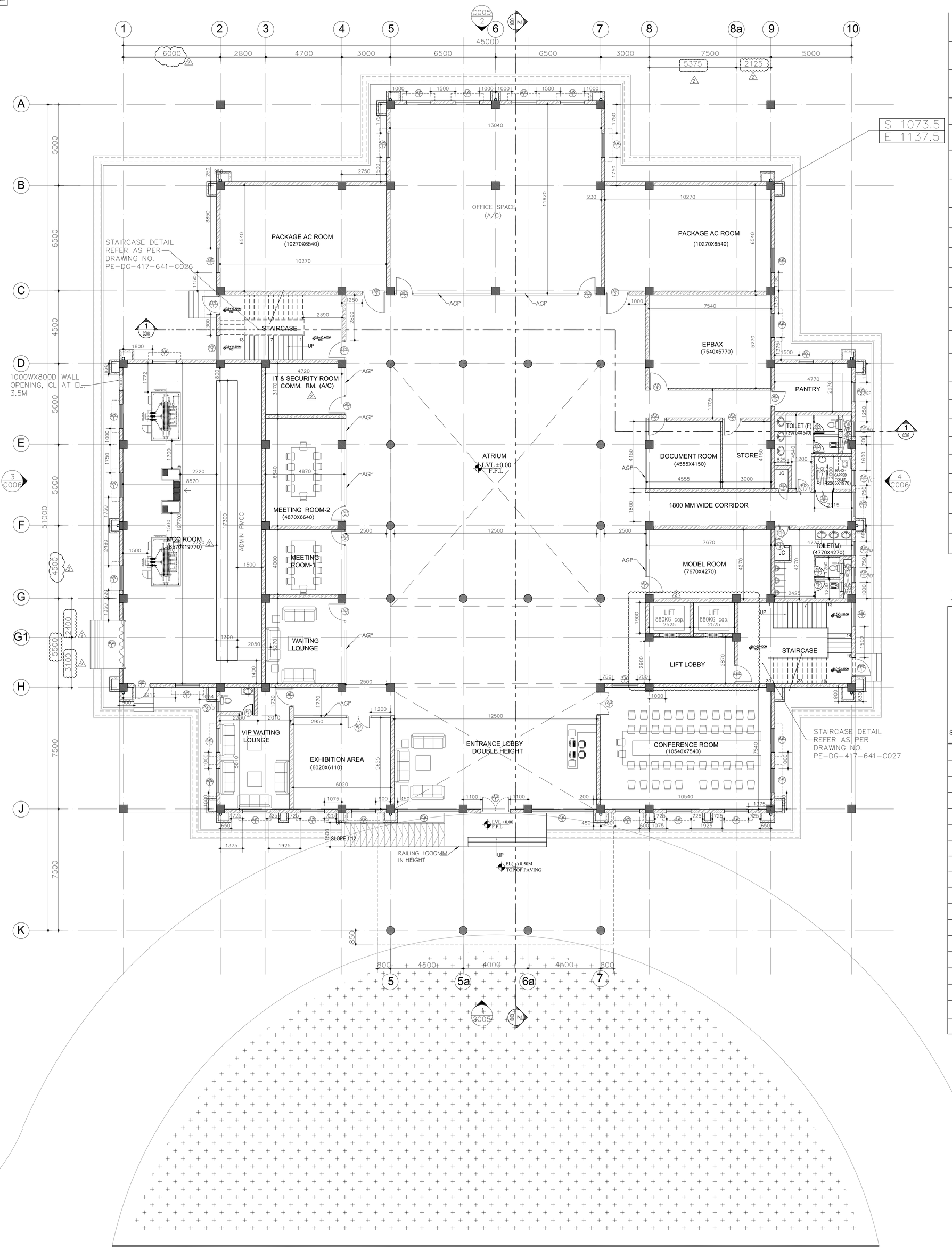
DEPT CODE		NAME	SIGN	DATE
C	DRN	OM	<sd>	15.09.18
	DESN	AR	<sd>	15.09.18
	CHD	AR/SJ	<sd>	15.09.18
	APPD	S.B.P.	<sd>	15.09.18

TITLE: ADMIN BUILDING
ARCHITECTURAL PLAN AT (+)9.00M(FFL)

DEPT. | SCALE | SIGN
DRAWING NO. PE–DG–417–641–C003
SHEET 1 OF 1 | REV. 2

COMPUTER FILE NAME:

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GROUND FLOOR PLAN AT EL(−)0.350M (F.F.L)

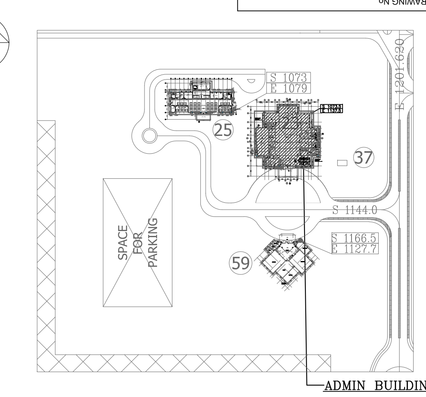
SCHEDULE OF DOOR / WINDOW OPENINGS- (±)0.00M LVL

SYMBOL	Nos.	SILL LVL AT EL+...,	MASONRY OPENING WIDTH	MASONRY OPENING HEIGHT	REMARKS
RSD	1	(−)0.350	3000	3500	STEEL ROLLING SHUTTER (MCC ROOM)
SD1	1	(−)0.350	1000	2500	PRESSED STEEL DOOR FRAME WITH DOUBLE PLATE FLUSH SHUTTERS −SINGLE SHUTTER (MCC ROOM)
SD2	2	(−)0.350	1500	2500	PRESSED STEEL DOOR FRAME WITH DOUBLE PLATE FLUSH SHUTTERS −SINGLE SHUTTER (PACKAGE AC ROOM)
SD3	−	(−)0.350	1200	2500	STEEL FRAME WITH STEEL DOOR SHUTTER WITH −SINGLE SHUTTER (LIFT MACHINE ROOM & MUMTY)
AD1	1	(−)0.350	1800	2700	ALUMINUM FRAMED WITH GLAZED DOOR −DOUBLE SHUTTER (SWING TYPE)
AD2	2	(−)0.350	1500	2500	ALUMINUM FRAMED WITH FLUSH DOOR− DOUBLE SHUTTER
AD3	9	(−)0.350	1200	2500	ALUMINUM FRAMED WITH FLUSH DOOR− SINGLE SHUTTER
AD4	2	(−)0.350	1000	2500	ALUMINUM FRAMED WITH FLUSH DOOR− SINGLE SHUTTER
AD5	2	(−)0.350	1200	2500	ALUMINUM FRAMED WITH FLUSH DOOR− SINGLE SHUTTER (HANDICAPPED TOILET)
FPD1	4	(−)0.350	1200	2500	FIRE PROOF DOOR − SINGLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK. TOUGHENED GLASS
PD1	2	(−)0.350	900	2500	PRESSED STEEL DOOR FRAME WITH PRE−LAMINATED PARTICLE BOARD− SINGLE SHUTTER(PHY.HANDICAP.TOILET)
PD2	5	(−)0.350	750	2100	PRESSED STEEL DOOR FRAME WITH SOLID CORE FLUSH DOOR SHUTTER− SINGLE SHUTTER (FOR TOILET DOOR)
PD3	2	(−)0.350	600	2100	PRESSED STEEL DOOR FRAME WITH SOLID CORE FLUSH DOOR SHUTTER− SINGLE SHUTTER (JC)
AW1	23	(+)0.650	1500	1500	ALUMINIUM GLAZED OPENABLE WINDOW
AW2	1	(+)0.650	1200	1500	ALUMINIUM GLAZED OPENABLE WINDOW
AW3	AS/ELE	(+)0.650	1500	1500	ALUMINIUM GLAZED OPENABLE WINDOW
AW4	3	(+)0.650	1500	1500	ALUMINIUM FIXED GLAZED WINDOW WITH WIRED GLASS 6MM THICK
AW5	2	(+)0.650	3800	2000	ALUMINIUM FIXED GLAZED WINDOW WITH WIRED GLASS 6MM THICK
AV1	4	(+)1.450	900	600	ALUMINIUM VENTILATOR TOP HUNG WITH 4MM THK FROSTED GLASS
AV2	5	(+)1.450	600	600	ALUMINIUM VENTILATOR TOP HUNG WITH 4MM THK FROSTED GLASS
EF	9	(+)2.250	ø330		EXHAUST FAN OPENING

NOTE:− * GROUND FLOOR WINDOWS SHALL BE PROVIDED WITH M.S.GRILL.

FINISHING SCHEDULE

S.NO.	AREA	FLOORING: NON SKID VITRIFIED TILES 10mm THICK (600mmX600mm SIZE)	FLOORING: MARBLE FLOORING	FLOORING: 50 THK. CC FLOORING WITH HARDNER	FLOORING: 10mm THK. ANTI SKID VITRIFIED TILES (400mmX400mm SIZE)	DADO / SKIRTING: 5 mm THICK GLAZED CERAMIC TILES (**)	DADO / SKIRTING: NON SKID VITRIFIED TILES	DADO / SKIRTING: CEMENT CONCRETE SKIRTING	DADO / SKIRTING: MARBLE	DADO / SKIRTING: POLISHED GRANITE DADO UPTO 2.6M	INTERNAL WALLS: ACRYLIC DISTEMPER	INTERNAL WALLS: SYNTHETIC ENAMEL PAINT (*)	INTERNAL WALLS: ACRYLIC EMULSION PAINT WITH WHITE CEMENT PUTTY	CEILING: ACRYLIC DISTEMPER	CEILING: ALUMINIUM PANELLED ACOUSTIC FALSE CEILING	CEILING: GYPSUM BOARD FALSE CEILING	CEILING: CALCIUM SILICATE BOARD FALSE CEILING
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	LIFT LOBBY		✓						✓	✓			✓		✓		
2	RECEPTION LOUNGE		✓						✓				✓		✓		
3	VIP LOUNGE		✓						✓				✓		✓		
4	MODEL ROOM		✓						✓				✓		✓		
5	CONFERENCE		✓						✓				✓		✓		
6	SECURITY ROOM	✓					✓						✓			✓	
7	OFFICE SPACE	✓					✓						✓			✓	
8	EPBAX ROOM	✓					✓						✓			✓	
9	DOCUMENT ROOM	✓					✓				✓						✓
10	CORRIDOR		✓						✓				✓		✓		
11	TOILET				✓	✓							✓				✓
12	PANTRY				✓	✓							✓				✓
13	PACKAGE AC ROOM			✓				✓			✓			✓			
14	MCC ROOM			✓				✓			✓			✓			
15	STAIRS		✓						✓		✓			✓			
16	STORE			✓				✓			✓						✓
17	EXHIBITION AREA	✓					✓						✓			✓	
18	MEETING ROOM	✓					✓						✓			✓	



KEY PLAN

NOTES:−

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS ARE REFERRED TO THE FINISHED GROUND FLOOR LEVEL OF POWER HOUSE BUILDING AS EL.(±)0.00M WHICH CORRESPONDS TO RL(+)81.50M ABOVE MEAN SEA LEVEL.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH CONTRACT TERMS AND CONDITIONS, SPECIFICATION AND SCHEDULE OF ITEMS.
4. ALL BRICK WORK SHALL BE OF 230 THICK AND 115MM THICK and U.N.O.
5. ALUMINIUM GRILL SHALL BE PROVIDED ON ALL GROUND FLOOR WINDOWS AS PER SPECIFICATION.
6. ADMIN BUILDING FGL IS 79.25, ROAD LEVEL IS 79.5M AND FINISHED FLOOR LEVEL OF CANTEEN BUILDING IS 80.1M.
7. CONSTRUCTION OF ADMIN BUILDING IS UNDER CUSTOMER SCOPE.

REFERENCE DRAWINGS:−

1. PE−DG−417−100−M001 −PLOT PLAN

ARCHITECTURAL DRAWING NO:−

1. PE−DG−417−641−C001 −ADMIN BLDG ARCH PLAN AT EL 0.00
2. PE−DG−417−641−C002 −ADMIN BLDG ARCH PLAN AT EL 4.50
3. PE−DG−417−641−C003 −ADMIN BLDG ARCH PLAN AT EL 9.00
4. PE−DG−417−641−C004 −ADMIN BLDG ROOF PLAN AT EL 13.50

STRUCTURAL DRAWING NO:−

PE−DG−417−641−C015 − ADMIN BLDG−LAYOUT & RC DETAILS OF COLUMNS
PE−DG−417−641−C016 − ADMIN BLDG−LAYOUT & RC DETAILS OF COLUMNS
PE−DG−417−641−C017 − ADMIN BLDG −LAYOUT & RC DETAILS OF PLINTH BEAM
PE−DG−417−641−C019 TO C024 − G.A & R.C. DETAILS OF FLOOR BEAMS & SLABS
PE−DG−417−641−C025 − ADMIN BLDG −G.A & R.C. DETAILS OF LIFT PIT & MACHINE ROOM
PE−DG−417−641−C026 − ADMIN BLDG −G.A & R.C. DETAILS OF STAIRCASE ROW C−D
PE−DG−417−641−C027 − ADMIN BLDG −G.A & R.C. DETAILS OF STAIRCASE ROW G−H
PE−DG−417−641−C028 − ADMIN BLDG −G.A & R.C. DETAILS OF FLOOR & MISC. EQUIPMENT FOUNDATION AT EL(−)0.35M

LEGENDS :−

CONCRETE HATCH
−BRICK WALL
℄ − CENTER LINE
EF − EXHAUST FAN
EL − ELEVATION
FFL − FINISHED FLOOR LEVEL
TYP − TYPICAL
EL(+)X.XXX − LEVEL TAG
TILE DROP
TOC − TOP OF CONCRETE
TOCP − TOP OF CHEQUERED PLATE
TOP − TOP OF PARAPET
UNO − UNLESS NOTED OTHERWISE

EXTERIOR WALL− 20MM THICK MINIMUM SAND FACED PLASTER IN TWO LAYERS WITH 1:4 CEMENT SAND MORTAR OF 12MM THICK FIRST LAYER AND 1:3 CEMENT SAND MORTAR WITH 8MM SECOND LAYER.

INTERIOR WALL− 12 MM THICK WITH 1:4 CEMENT−SAND MORTAR.

CEILING− 6 MM THICK WITH 1:3 CEMENT−SAND MORTAR SHALL BE PROVIDED TO ALL EXPOSED CEILINGS. WHERE EVER SMOOTH/EVEN SURFACE IS AVAILABLE CEILING PLASTER SHOULD BE AVOIDED AND 3MM PUNNING SHALL BE PROVIDED

AREA:	
GROUND FLOOR	=1615 SQM
PORCH	=118 SQM
ATTRIUM	=188 SQM

BHEL−PROJECT ENGINEERING MANAGEMENT(CIVIL)
THIS DRAWING MARKED(✓) IS RELEASED FOR
☑ COMMENTS/APPROVAL
☐ PLANNING/INFORMATION
☐ CONSTRUCTION
STAMP ALL PREVIOUS REVISION AS SUPERSEDED

ISSUED BY	
NAME	SACHIN JAIN
SIGNATURE	
DATE	25.10.2019

CUSTOMER: TELANGANA STATE POWER GENERATION CORPORATION LTD. HYDERABAD
CONSULTANT: TATA CONSULTING ENGINEERS LIMITED BANGALORE INDIA
PROJECT: 5X800MW YADADRI THERMAL POWER STATION UNIT # 1 TO 5

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

JOB NO. 417
STATUS CONTRACT
DISTRIBUTION
PRINT SCALE 'A' WITH

REV.	DATE	ALTD	CHD	APPD
1	25/10/19	JASBEER	AR/SJ	SBP

DRAWING REVISED AS PER CUSTOMER COMMENT VIDE LETTER NO. CE/TPC/SE−3/EME−11/ YYPS/F.ELEVATORS /D.NO.38/19, DT−24.05.2019

REV.	DATE	ALTD	CHD	APPD
2	31.01.19	JASBEER	AR/SJ	SBP

DRAWING REVISED AS PER COMMENTS RECEIVED FROM TCE ON DATE 15.11.2018 VIDE LATTER NO. 11005A−CV−VDT−083

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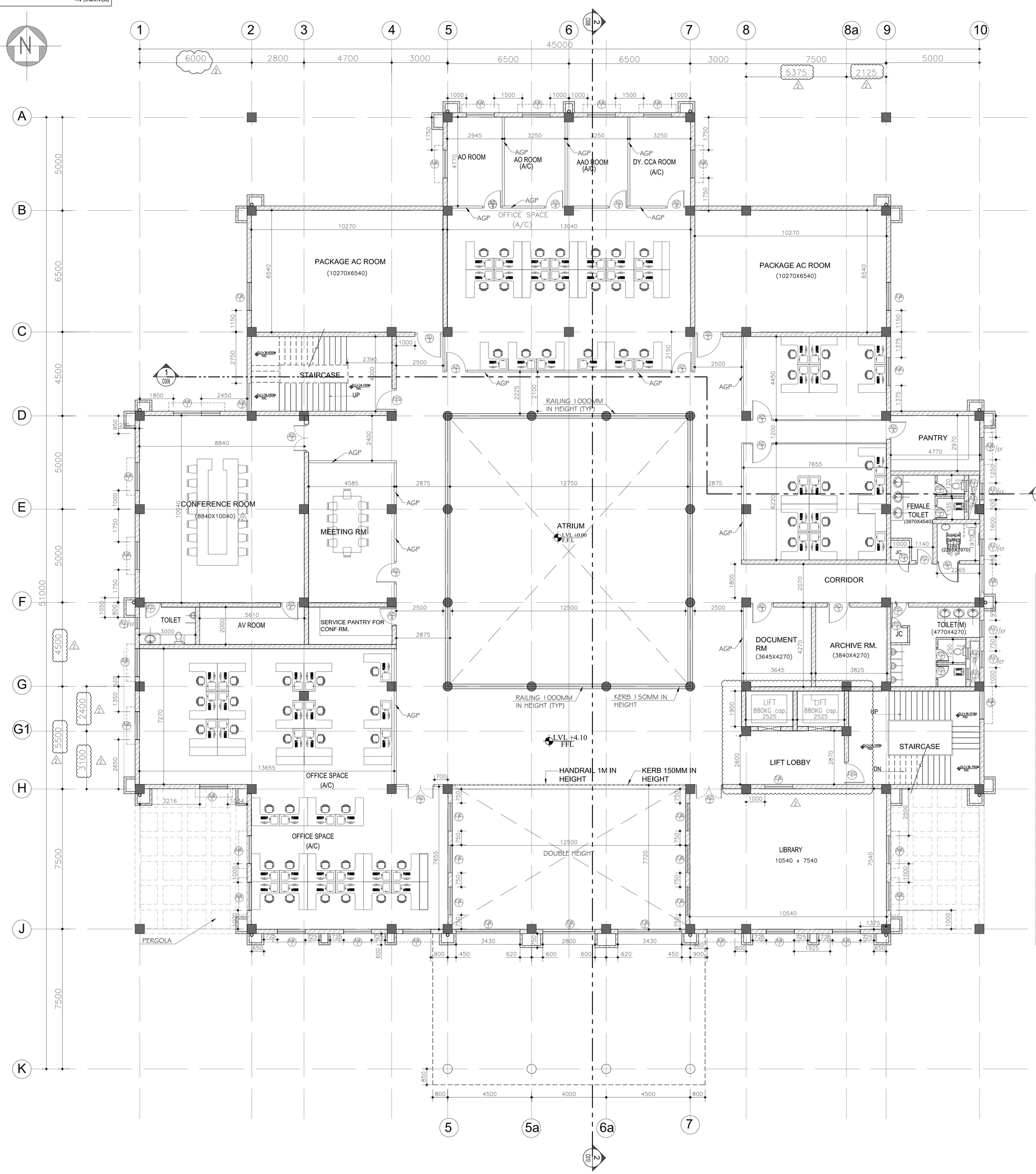
DEPT CODE		NAME	SIGN	DATE
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	DESN	AR	-sd-	15.09.18
	CHD	AR/SJ	-sd-	15.09.18
	APPD	S.B.P	-sd-	15.09.18

TITLE: ADMIN BUILDING
ARCHITECTURAL PLAN AT (±)0.0M(FFL)

DEPT. SCALE
SIGN
DRAWING NO. PE−DG−417−641−C001
SHEET 1 OF 1 REV. 2

COMPUTER FILE NAME:

DRAWING No. PE-DG-417-641-C002
FIRST ANGLE PROJECTION
ALL DIMENSIONS ARE IN MM
CUSTOMER'S DRAWING No.
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FIRST FLOOR PLAN AT EL(+)4.150M (F.F.L)

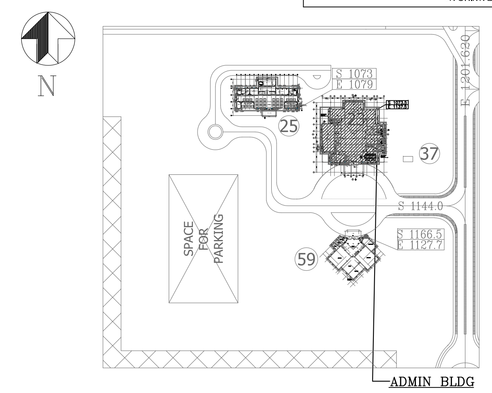
SCHEDULE OF DOOR / WINDOW OPENINGS- (±)0.00M LVL

SYMBOL	Nos.	SILL LVL AT EL+....	MASONRY OPENING WIDTH	MASONRY OPENING HEIGHT	REMARKS
SD1	–	(+)4.150	2000	2500	PRESSED STEEL DOOR FRAME WITH DOUBLE PLATE FLUSH SHUTTERS –DOUBLE SHUTTER (MCC ROOM)
SD2	2	(+)4.150	1500	2500	PRESSED STEEL DOOR FRAME WITH DOUBLE PLATE FLUSH SHUTTERS –SINGLE SHUTTER (PACKAGE AC ROOM)
SD3	–	(+)4.150	1200	2500	STEEL FRAME WITH STEEL DOOR SHUTTER WITH –SINGLE SHUTTER (LIFT MACHINE ROOM & MUMTY)
FD1	2	(+)4.150	1200	2500	FIRE PROOF DOOR – SINGLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK. TOUGHENED GLASS
AD1	–	(+)4.150	1800	2700	ALUMINUM FRAMED WITH GLAZED DOOR –DOUBLE SHUTTER (SWING TYPE)
AD2	3	(+)4.150	1500	2500	ALUMINUM FRAMED WITH FLUSH DOOR– DOUBLE SHUTTER
AD3	7	(+)4.150	1200	2500	ALUMINUM FRAMED WITH FLUSH DOOR– SINGLE SHUTTER
AD4	7	(+)4.150	1000	2500	ALUMINUM FRAMED WITH FLUSH DOOR– SINGLE SHUTTER
AD5	1	(+)4.150	1200	2500	ALUMINUM FRAMED WITH FLUSH DOOR– SINGLE SHUTTER (HANDICAPPED TOILET)
FD1	3	(+)4.150	900	2500	PRESSED STEEL DOOR FRAME WITH PRE–LAMINATED PARTICLE BOARD– SINGLE SHUTTER(PHY.HANDICAP.TOILET) OPEN OUTSIDE
SD2	4	(+)4.150	750	2100	PRESSED STEEL DOOR FRAME WITH SOLID CORE FLUSH DOOR SHUTTER– SINGLE SHUTTER (FOR TOILET DOOR)
SD1	2	(+)4.150	600	2100	PRESSED STEEL DOOR FRAME WITH SOLID CORE FLUSH DOOR SHUTTER– SINGLE SHUTTER (JC)
AW1	24	(+)5.150	1500	1500	ALUMINIUM GLAZED OPENABLE WINDOW
AW2	1	(+)5.150	1200	1500	ALUMINIUM GLAZED OPENABLE WINDOW
AW3	AS/ELE	–	1500	1500	ALUMINIUM GLAZED OPENABLE WINDOW
FW1	11	(+)5.150	1500	1500	ALUMINIUM FIXED GLAZED WINDOW WITH WIRED GLASS 6MM THICK
FW2	2	(+)6.650	3430	1500	ALUMINIUM FIXED GLAZED WINDOW WITH WIRED GLASS 6MM THICK
FW4	1	(+)6.650	2800	1500	ALUMINIUM FIXED GLAZED WINDOW WITH WIRED GLASS 6MM THICK
AV1	5	(+)5.950	900	600	ALUMINIUM VENTILATOR TOP HUNG WITH 4MM THK FROSTED GLASS
AV2	4	(+)5.950	600	600	ALUMINIUM VENTILATOR TOP HUNG WITH 4MM THK FROSTED GLASS
EF	9	(+)6.750℄	ø330		EXHAUST FAN OPENING

NOTE:– * GROUND FLOOR WINDOWS SHALL BE PROVIDED WITH M.S.GRILL.

FINISHING SCHEDULE

S.NO.	AREA	FLOORING: NON SKID VITRIFIED TILES 10mm THICK (600mmX600mm SIZE)	FLOORING: MARBLE FLOORING	FLOORING: 50 THK. CC FLOORING WITH HARDNER	FLOORING: 10mm THK. ANTI SKID VITRIFIED TILES (400mmX400mm SIZE)	DADO / SKIRTING: 5 mm THICK GLAZED CERAMIC TILES (**)	DADO / SKIRTING: NON SKID VITRIFIED TILES	DADO / SKIRTING: CEMENT CONCRETE SKIRTING	DADO / SKIRTING: MARBLE	DADO / SKIRTING: POLISHED GRANITE DADO UPTO 2.4M	INTERNAL WALLS: ACRYLIC DISTEMPER	INTERNAL WALLS: SYNTHETIC ENAMEL PAINT (*)	INTERNAL WALLS: ACRYLIC EMULSION PAINT WITH WHITE CEMENT PUTTY	CEILING: ACRYLIC DISTEMPER	CEILING: ALUMINIUM PANELLED ACOUSTIC FALSE CEILING	CEILING: GYPSUM BOARD FALSE CEILING	CEILING: CALCIUM SILICATE BOARD FALSE CEILING
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	LIFT LOBBY		✓						✓	✓			✓		✓		
2	ARCHIVE ROOM		✓						✓				✓		✓		
3	CONFERENCE		✓						✓				✓		✓		
4	SECURITY ROOM	✓					✓						✓			✓	
5	OFFICE SPACE	✓					✓						✓			✓	
6	EPBAX ROOM	✓					✓						✓			✓	
7	DOCUMENT ROOM	✓					✓				✓						✓
8	CORRIDOR		✓						✓				✓		✓		
9	TOILET				✓	✓							✓				✓
10	PANTRY				✓	✓							✓				✓
11	PACKAGE AC ROOM			✓				✓			✓			✓			
12	LIBRARY	✓										✓	✓			✓	
13	STAIRS		✓						✓		✓			✓			
14	AV ROOM	✓					✓						✓			✓	
15	MEETING ROOM	✓					✓						✓			✓	



KEY PLAN

NOTES:–

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS ARE REFERRED TO THE FINISHED GROUND FLOOR LEVEL OF POWER HOUSE BUILDING AS EL.(±)0.00M WHICH CORRESPONDS TO RL(+)81.50M ABOVE MEAN SEA LEVEL.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH CONTRACT TERMS AND CONDITIONS, SPECIFICATION AND SCHEDULE OF ITEMS.
4. ALL BRICK WORK SHALL BE OF 230 THICK AND 115MM THICK and U.N.O.
5. ALUMINIUM GRILL SHALL BE PROVIDED ON ALL GROUND FLOOR WINDOWS AS PER SPECIFICATION.
6. ADMIN BUILDING FGL IS 79.25, ROAD LEVEL IS 79.5M AND FINISHED FLOOR LEVEL OF CANTEEN BUILDING IS 80.1M.
7. CONSTRUCTION OF ADMIN BUILDING IS UNDER CUSTOMER SCOPE.

REFERENCE DRAWINGS:–

1. PE–DG–417–100–M001 –PLOT PLAN

ARCHITECTURAL DRAWING NO:–

1. PE–DG–417–641–C001 –ADMIN BLDG ARCH PLAN AT EL 0.00
2. PE–DG–417–641–C002 –ADMIN BLDG ARCH PLAN AT EL 4.50
3. PE–DG–417–641–C003 –ADMIN BLDG ARCH PLAN AT EL 9.00
4. PE–DG–417–641–C004 –ADMIN BLDG ROOF PLAN AT EL 13.50

LEGENDS :–

CONCRETE HATCH
–BRICK WALL
℄ – CENTER LINE
EF – EXHAUST FAN
EL – ELEVATION
FFL – FINISHED FLOOR LEVEL
TYP – TYPICAL
EL(+)X.XXX – LEVEL TAG
– TILE DROP
TOC – TOP OF CONCRETE
TOCP – TOP OF CHEQUERED PLATE
TOP – TOP OF PARAPET
UNO – UNLESS NOTED OTHERWISE

EXTERIOR WALL– 20MM THICK MINIMUM SAND FACED PLASTER IN TWO LAYERS WITH 1:4 CEMENT SAND MORTAR OF 12MM THICK FIRST LAYER AND 1:3 CEMENT SAND MORTAR WITH 8MM SECOND LAYER.

INTERIOR WALL– 12 MM THICK WITH 1:4 CEMENT–SAND MORTAR.

CEILING– 6 MM THICK WITH 1:3 CEMENT–SAND MORTAR SHALL BE PROVIDED TO ALL EXPOSED CEILINGS. WHERE EVER SMOOTH/EVEN SURFACE IS AVAILABLE CEILING PLASTER SHOULD BE AVOIDED AND 3MM PUNNING SHALL BE PROVIDED

AREA:
FIRST FLOOR = 1615 SQM

BHEL–PROJECT ENGINEERING MANAGEMENT(CIVIL)
THIS DRAWING MARKED(✓) IS RELEASED FOR
☑ COMMENTS/APPROVAL
☐ PLANNING/INFORMATION
☐ CONSTRUCTION
STAMP ALL PREVIOUS REVISION AS SUPERSEDED

ISSUED BY	
NAME	SACHIN JAIN
SIGNATURE	
DATE	25.10.2019

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	DESN	AR	<sd>	15.09.18
	CHD	AR/SJ	<sd>	15.09.18
	APPD	S.B.P	<sd>	15.09.18

TITLE: ADMIN BUILDING
ARCHITECTURAL PLAN AT (+)4.50M(FFL)

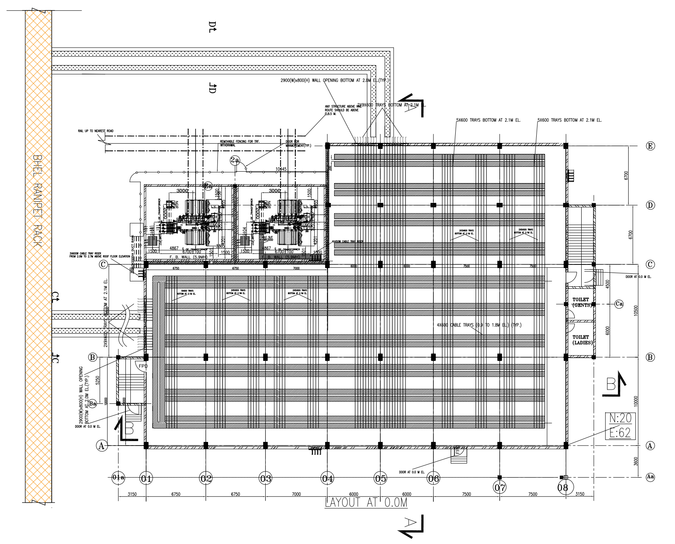
DEPT. | SCALE | SIGN | DRAWING NO. PE–DG–417–641–C002 | SHEET 1 OF 1 | REV. 2

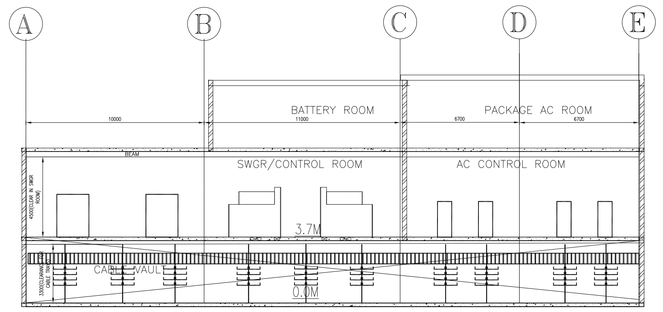
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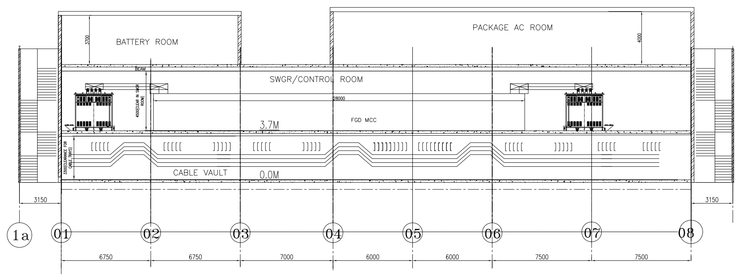
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NORTH



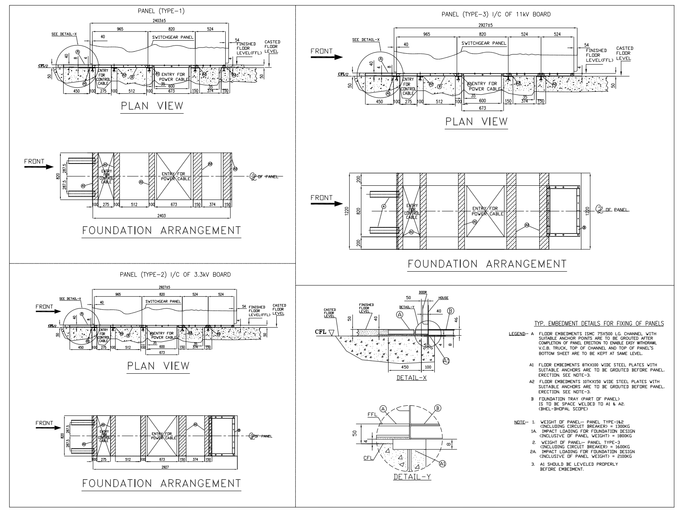


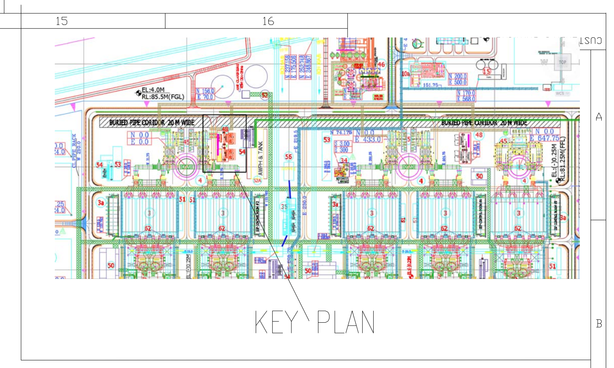
SECTION–AA



SECTION–BB

DETAILS OF PANEL FIXING & CABLE CUTOUT FOR 11kV & 3.3kV SWGR





LEGEND

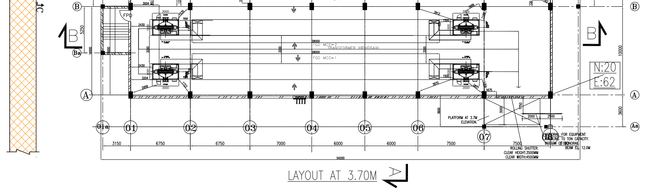
- OPERATING FRONT OF THE PANEL
- SINGLE LEAF FIRE PROOF DOOR
- BRICK WALL
- PANEL CUTOUT
- WALL CUTOUT
- FB WALL
- HORIZONTAL CABLE TRAY
- VERTICAL TRAYS
- BUND WALL
- EQUPT. HANDLING PATH

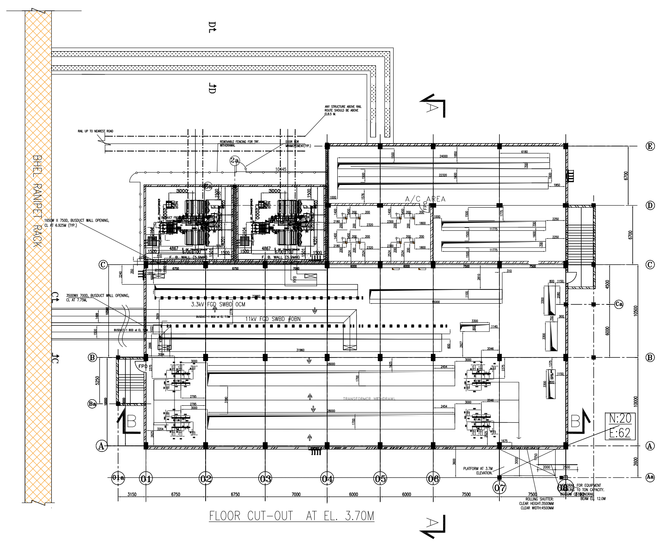
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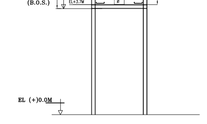
1. ALL DIMENSIONS ARE IN MM AND ELEVATION ARE IN METRES.
2. ALL ELEVATIONS ARE REFERRED TO THE FINISHED GROUND FLOOR LEVEL OF POWER HOUSE BUILDING AS EL. 0.00 M
3. THIS DRAWING IS TO BE REFERRED FOR DETAILS OF ELECTRICAL EQUIPMENT AND CABLING LAYOUT ONLY. LAYOUT SHOWN FOR FACILITIES SUCH AS AC & VENTILATION SYSTEM IS INDICATIVE & FOR INTERFACE PURPOSE. FOR EXACT LAYOUT OF OTHER SYSTEMS, RELEVANT DISCIPLINE DRAWINGS SHALL BE REFERRED.
4. ALL AREAS SHOWN IN THIS DRAWING ARE NON A/C UNLESS STATED OTHERWISE.
5. BOTTOM MOST ONE TRAY OF ALL HORIZONTAL RUNS SHALL BE PERFORATED TYPE. INTRUMENTATION CABLES SHALL RUN ON PERFORATED CABLE TRAYS. CONTROL CABLES SHALL RUN ON LADDER TYPE CABLE TRAYS.
6. ALL PANELS SHALL BE SUITABLE FOR BOTTOM ENTRY OF POWER AND C&I CABLES.
7. LT & HT PANELs, LDBs , BUSDUCT DIMENSIONS & CUTOUT DETAILS & OTHER EQUIPMENT DIMENSION SHOWN ARE TENTATIVE & SHALL BE UPDATED AS PER FINAL OGAs OF EQUIPMENT MANUFACTURER.
8. TRANSFORMER OGA & TRANSFORMER DIMENSIONS SHOWN ARE TENTATIVE & SHALL BE UPDATED AS PER FINAL OGA OF TRANSFORMER.
9. ALL CABLE OPENINGS IN WALLS FLOORS SHALL BE SEALED WITH CABLE FIRE SEALING SYSTEM MATERIAL AFTER COMPLETION OF CABLE LAYING.
10. THE CABLE TRAY NUMBERING SHALL BE PROVIDED AT EVERY 30 METER AND AT EACH END OF CABLE TRAY & BRANCH CONNECTION FLOOR/WALL OPENING. CABLE TRAYS SHALL BE IDENTIFIED IN A DISTINCT, PERMANENT MANNER WITH IDENTIFICATION NUMBERS (STENCILLED WITH RED/ WHITE PAINT) AT REASONABLE INTERVALS, PRIOR TO THE INSTALLATION OF ANY CABLES.
11. FIRE BARRIER WALLS WILL BE 350 MM THICK BRICKWORK OR 200 MM THICK CONCRETE, AS PER CIVIL DESIGN AND WILL PROJECT MINIMUM 600 MM BEYOND THE OIL CONTAINING PART OF THE TRANSFORMER.
12. APPROX. QUANTITY OF OIL AND WEIGHT OF EACH TRANSFORMER IS AS UNDER:
    TOTAL QUANTITY OF OIL FOR FGD AUX TRANSFORMER– XXXXX LTR.
    TOTAL WEIGHT OF FGD AUX TRANSFORMER – XXXXX Kg.
13. FOLLOWING CIVIL DETAILS SHALL BE DECIDED SEPARATELY BY CIVIL.
    a) SOAK PIT INVERT LEVEL OF TRANSFORMERS, FOUNDATIONS FOR TRANSFORMERS/ RAIL TRACKS/ RADIATORS/COOLERS AS PER TRANSFORMER FOUNDATION PLANS AND OTHER PIPE SUPPORT ARRANGEMENT. INVERT LEVEL OF SOAK PIT SHALL BE FIXED IN LINE WITH TRANSFORMER OIL QUANTITY AND QUANTITY OF WATER SPRAY (TO BE INDICATED SEPARATELY BY FIRE FIGHTING SYSTEM ENGINEER).
    b) DRAINAGE SYSTEM FROM SOAK PITS OF INDIVIDUAL TRANSFORMERS TO COMMON OIL COLLECTION PIT (INCLUDING EXACT LOCATION AND DIMENSIONS OF THE PIT). ROOF SHALL BE PROVIDED FOR THE BURNT-OIL PIT, ACCESS MANHOLES, ACCESS LADDER INTO THE PIT & PROVISION FOR SUMP PUMPS SHALL BE SUITABLY ENSURED FOR THE PITS.
    c) FENCING DETAILS.
    d) CABLE PITS/ CABLE PULL PITS/ CABLE TRENCHES.
14. CABLE TRAYS WILL BE ADJUSTED SUITABLY AT SITE AT THE POINTS WHERE THEY ENCOUNTER HORIZONTAL FLOOR BRACINGS IN THE CROSS BAY GALLERY AND CABLES SHALL BE PASSED THROUGH OVER THE BRACINGS. ALTERNATIVELY, TRAYS SHALL CLEAR HORIZONTAL BRACINGS.
15. CABLE DUCT BANK SHALL BE LAID ATLEAST 200MM (CLEAR) BELOW GROUND LEVEL.
16. CABLES TO RESPECTIVE TRANSFORMER CABLE BOX/ MARSHALLING BOX WITHIN THE TRANSFORMER SOAK PIT SHALL BE LAID IN CABLE TRAYS TO BE ROUTED LOCALLY AT SITE TO SUIT LAYOUT IN SO/ 100/ 150 MM WIDE CABLE TRAYS FIXED TO THE INNER FACE OF SOAK PIT WALL.
17. THE TOP & BOTTOM ELEVATION OF CABLE TRENCHES/ DUCT BANKS/ CABLE SLITS ETC. INDICATED IN DWG. ARE TENTATIVE ONLY. THE SAME SHALL BE FIXED BY CIVIL (PEM) BASED ON THE REQUIREMENT OF OTHER UTILITIES RUNNING ACROSS THESE, LIKE GROUND DRAINAGE OIL DRAIN PIPES, FIRE HYDRANT TRENCHES, ICWER TANKS, ROAD ETC.
18. ACID PROOF FLOORING SHALL BE PROVIDED IN BATTERY ROOM.
19. WALLS OF BATTERY ROOM UPTO DOOR LEVEL HEIGHT SHALL BE PROVIDED WITH TILES & ABOVE THIS WALL SHALL BE PAINTED WITH ACID PROOF PAINT.
20. ALL PANELS ARE MADE SUITABLE FOR BOTTOM ENTRY OF POWER AND CONTROL CABLES.
21. ALL CABLE SHAFTS SHALL BE COVERED WITH BRICK WORK AFTER COMPLETION OF CABLE LAYING.
22. OPEN PORTION OF CABLE TRENCHES BEHIND/SIDE OF SWGR PANEL SHALL BE COVERED BY CHEQUERED PLATE (BY PEM-CIVIL)
23. SPBD LAYOUT SHOWN IN THIS DRAWING IS FOR THE PURPOSE OF ESTABLISHING THE GENERAL ROUTING AND LAYOUT. FOR DETAILED LAYOUT & DETAILS OF CUTOUTS IN CLADDING/ WALL FOR BUSDUCT ENTRY, FOUNDATION SUPPORTS ETC., MANUFACTURER'S DRAWINGS SHALL BE APPLICABLE.
24. FOR NEUTRAL GROUNDING RESISTOR ONLY SPACE PROVISION IS INDICATED PRESENTLY. FINAL DETAILS OF FOUNDATION/ SUPPORT ARRANGEMENT SHALL BE AS PER APPROVED OGA.
25. CABLE DUCT BANKS MAY BE ADJUSTED TO SUIT BUSDUCT SUPPORT LOCATIONS FOR CLEARING ALL FOUNDATION CIVIL WORKS.
26. PLEASE USE CTRL+5 COMBINATION OF KEYS TO VIEW THE DRAWING CONTENT CLEARLY IN PDF FORMAT.
27. THE NO. OF TRANSFORMERS, PANELS & FDR ARE SHOWN IN LINE WITH BHEL RANPET INPUT.

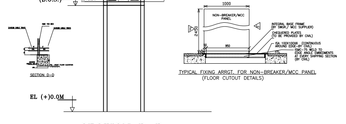
REFERENCE DRAWINGS :

S. NO	TITLE	DRAWING NO.	SOURCE AGENCY
1.	PLOT PLAN	PE-DG-417-100-M001	PEM/ MPL
2.	ELECTRICAL SINGLE LINE DIAGRAM	PE-DG-417-565-E001	PEM/ ELECT
3.	CABLE ERECTION PHILOSOPHY	PE-DC-417-507-E004	PEM/ ELECT
4.	TYPICAL DETAILS OF CABLE TRAYS AND ACCESSORIES	PE-DG-417-507-E005	PEM/ ELECT
5.	INSTALLATION DETAILS OF CABLE TRAYS SUPPORT SYSTEM	PE-DG-417-507-E006	PEM/ ELECT
6.	ARCHITECTURAL PLAN AT EL(+)3.00M (FFL) EL(+)3.70M (FFL)	PE-DG-417-XXX-XXXX	PEM/ ELECT
7.	FGD CONTROL BUILDING ARCHITECTURAL ROOF PLAN AT ROOF FLOOR (TOC)	PE-DG-417-XXX-XXXX	PEM/ ELECT
8.	RECOMMENDED ESP CONTROL ROOM LAYOUT	2×TM-000-00308	BHEL/ RANIPET
9.	OGA OF TRANSFORMER	34730052508	BHEL/ JHANSI

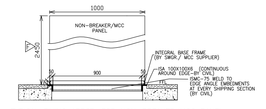


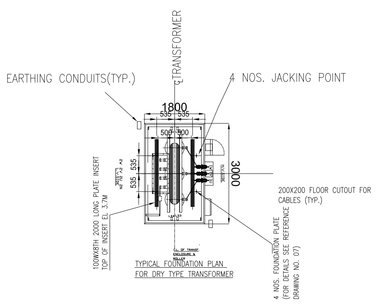


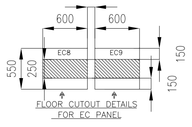












CUSTOMER:	TELANGANA STATE POWER GENERATION CORPORATION LTD TELANGANA STATE, INDIA 5X800 MW YADADRI TPS #UNIT 1,2,3,4,5
TATA	TATA CONSULTING ENGINEERS LIMITED BANGALORE INDIA
BHEL Maharatna Company	BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT NOIDA

JOB NO. 417
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REV.	DATE	ALTD	CHD	APPD
AV.	17/04/2020	AV.	NNJ	PD

DRAWING HAS BEEN REVISED.

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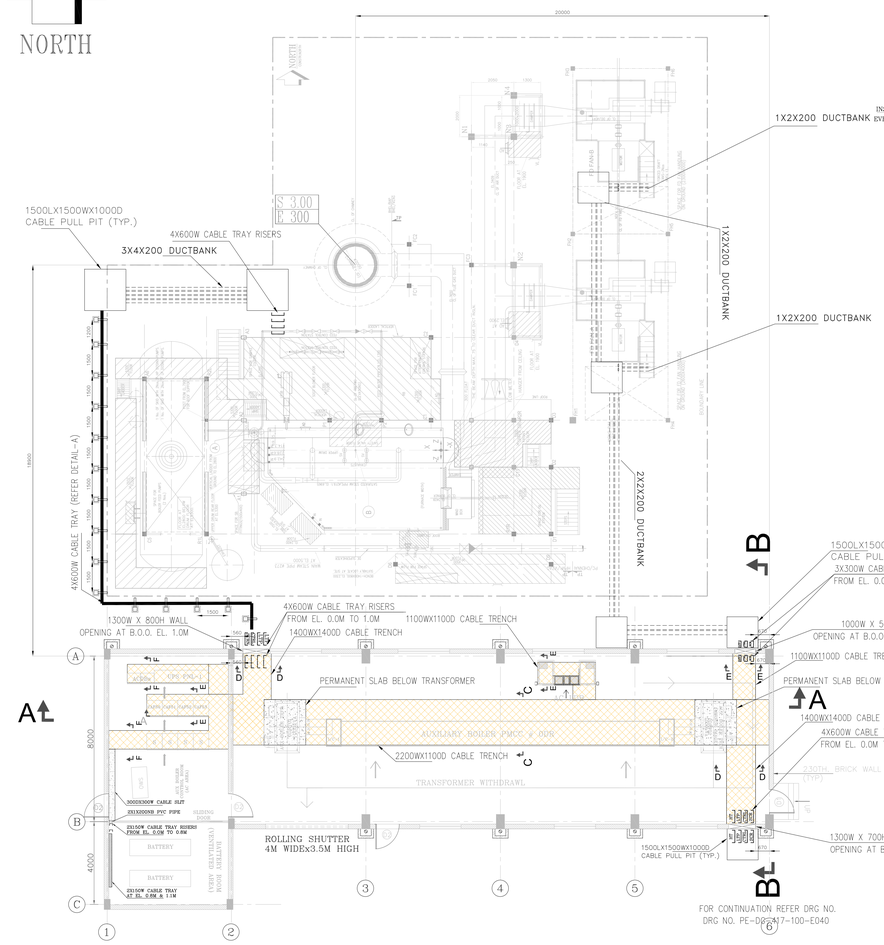
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	DES	AV/AK		27.11.19
	CHD	NNJ		27.11.19
	APPD	PD		27.11.19

TITLE ELECTRICAL EQUIPMENT & CABLING LAYOUT OF FGD CONTROL ROOM (STAGE 1)

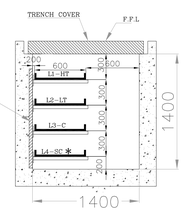
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SIGN SHEET OF REV. 01
SIZE-A0

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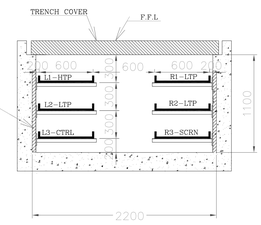
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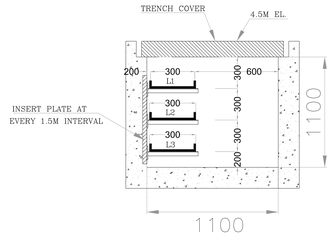
CABLE TRAY LAYOUT IN AUXILIARY BOILER AREA R2



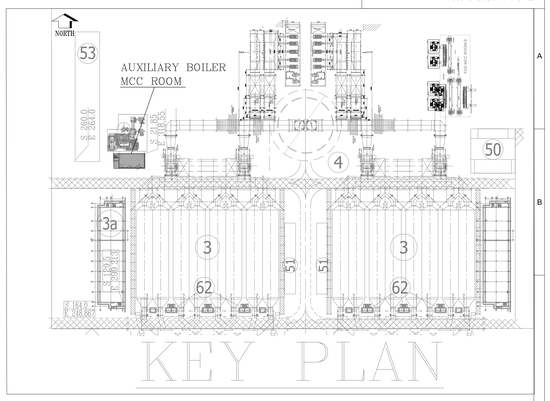
CABLE TRENCH SECTION D–D SCALE: NTS R1

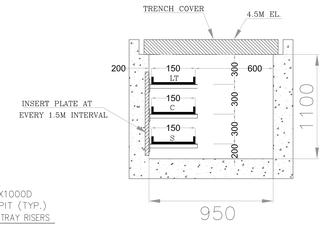


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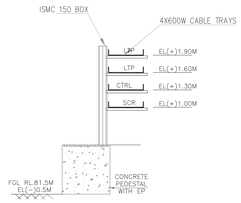


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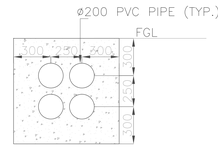




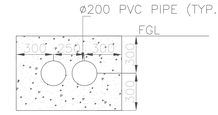
CABLE TRENCH SECTION F–F SCALE: NTS R2



DETAIL– A



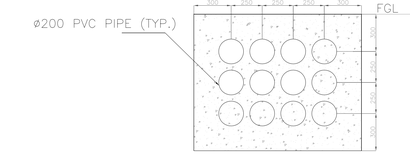
2X2X200DIA DUCT BANK



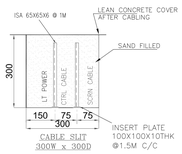
1X2X200DIA DUCT BANK

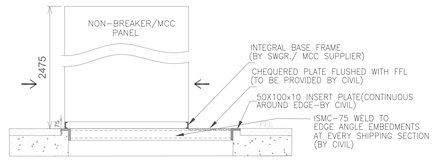
LEGENDS

- BRICK WALL
- CABLE TRAY RISER
- WALL OPENING
- * PERFORATED TYPE CABLE TRAY
- HORIZONTAL CABLE TRAY



4X3X200DIA DUCT BANK



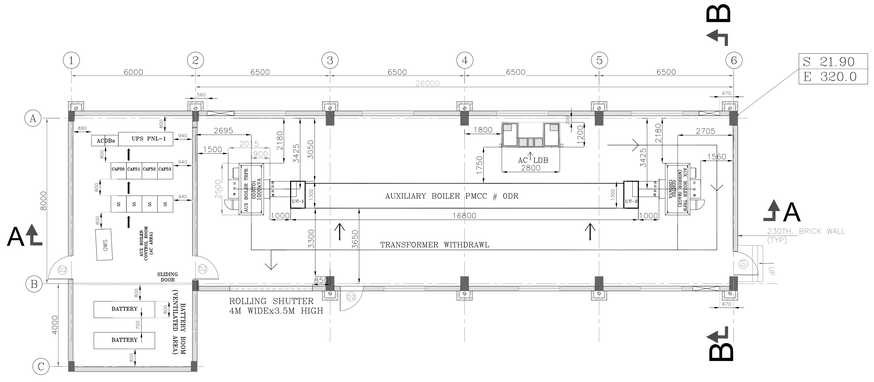


TYPICAL FIXING ARRGT. FOR NON–BREAKER/MCC PANEL ABOVE TRENCH R1

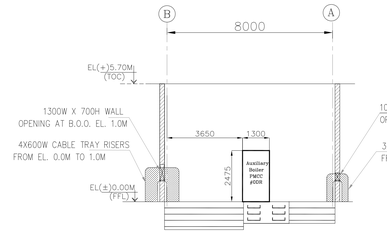
REF. DRGS.

	DRG NO	SOURCE
1. PLOT PLAN	PE–DG–417–100–M001	PEM/MPL
2. AUX BOILER– GA DRAWING	0–00–022–U4030	BHEL/TRICHY
3. CABLE ERECTION PHILOSOPHY	PE–DG–417–507–E004	PEM/ELECT
4. TYPICAL DETAILS OF CABLE TRAYS & ACCESSORIES	PE–DG–417–507–E005	PEM/ELECT
5. TYPICAL CABLE TRAY SUPPORTING ARRANGEMENT	PE–DG–417–507–E006	PEM/ELECT
6. AUX. BOILER– ARCHITECTURAL, EL. & SECTIONS	PE–DG–417–621–C002	PEM/CIVIL

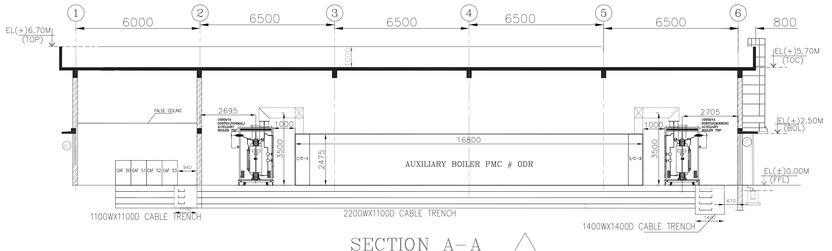
R1



AUXILIARY BOILER MCC ROOM & CONTROL ROOM LAYOUT R2



SECTION –BB R1



SECTION A–A R1

NOTES

1. ALL DIMENSIONS ARE IN MM. AND ELEVATIONS IN METRES.
2. ALL ELEVATIONS ARE TO THE FINISHED GROUND FLOOR LEVEL OF POWER HOUSE BUILDING AS EL. + 0.00M WHICH CORRESPONDS TO RL. 81.5M ABOVE MAIN SEA LEVEL.
3. STANDARD CABLE TRAYS AND ACCESSORIES SHALL BE USED.
4. CABLE ROUTING SECTION DETAILS SHALL BE ADDED IN SUBSEQUENT REVISION WHILE CABLE ROUTING.
5. THIS DRAWING SHALL BE REFERRED ONLY FOR CABLING LAYOUT. FOR ALL OTHER MECHANICAL/ CIVIL DETAILS APPLICABLE DRAWINGS SHALL BE REFERRED.
6. ALL CABLE OPENINGS IN WALLS FLOORS SHALL BE SEALED WITH CABLE FIRE SEALING SYSTEM MATERIAL AFTER COMPLETION OF CABLE LAYING.
7. CABLE TRAYS & SUPPORTS INSTALLATION SHALL BE DONE AS PER REFERENCE DRG. SL. NO. 3, 4 & 5.
8. TOPMOST/ OUTERMOST ONE TRAY OF ALL RUNS SHALL BE PERFORATED TYPE.
9. DIMENSIONS INDICATED FOR EQUIPMENTS ARE PROVISIONAL. FINAL DIMENSION/ FOUNDATION DETAILS SHALL BE FURNISHED ON RECEIPT OF ACTUAL OGA'S DRAWINGS OF SWITCHGEAR & TRANSFORMERS.
10. CABLE TRAYS SUPPORT MEMBERS SHALL NOT HAVE ANY SHARP EDGES TO AVOID CABLE DAMAGE.

R2

REV.	DATE	ALTD	CHD	APPD
02	23.07.20	MRS	NNJ	PD
01	DRAWING REVISED AS PER CUSTOMER COMMENTS DTD. 06.07.20			
02	REVISION IS MARKED AS 2			

REV.	DATE	ALTD	CHD	APPD
01	02.06.20	MRS	NNJ	PD
01	DRAWING REVISED AS PER CUSTOMER COMMENTS DTD. 27.04.20			
02	REVISION IS MARKED AS 1			

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

CUSTOMER: TELANGANA STATE POWER GENERATION CORPORATION LTD
TELANGANA, INDIA
5 x 800 MW YADADRI TPS, NALGONDA

CONSULTANT: TATA CONSULTING ENGINEERS LIMITED
BANGALORE

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

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DEPT CODE		NAME	SIGN	DATE
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	DESN	MRS	-sd-	11.10.19
	CHD	NNJ	-sd-	11.10.19
	APPD	PD	-sd-	11.10.19

TITLE: ELECTRICAL EQUIPMENT & CABLE TRAY LAYOUT IN AUXILIARY BOILER AREA

DEPT. | SCALE | SIGN

DRAWING NO. PE-DG-417-100-E026

SHEET 01 OF 01 | REV. 02

SIZE: A0

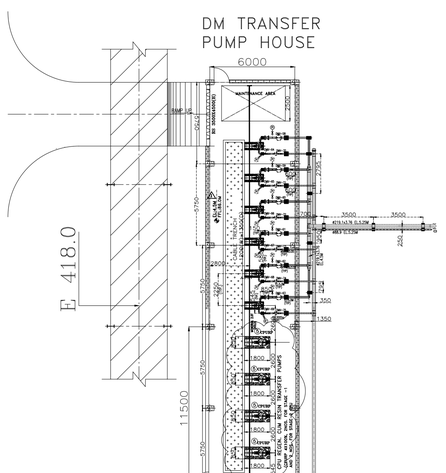
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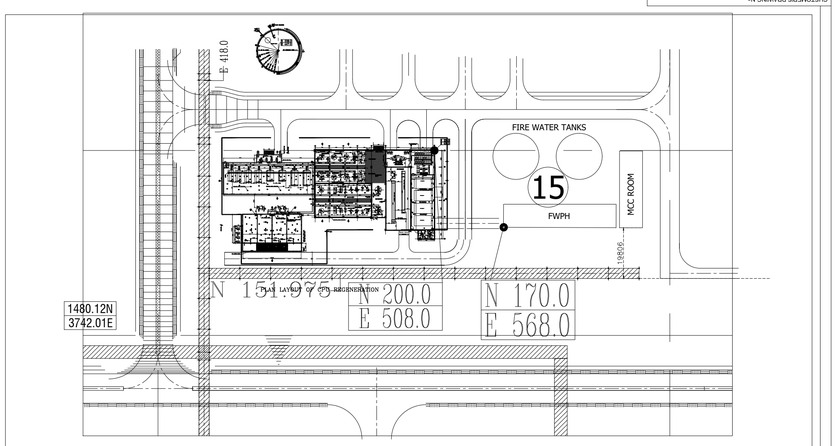
PRODUCED BY AN AUTODESK STUDENT VERSION
FIRST ANGLE PROJECTION
ALL DIMENSIONS ARE IN MM
DRAWING No.
CUSTOMER'S DRAWING No.
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EQUIPMENT LIST :-

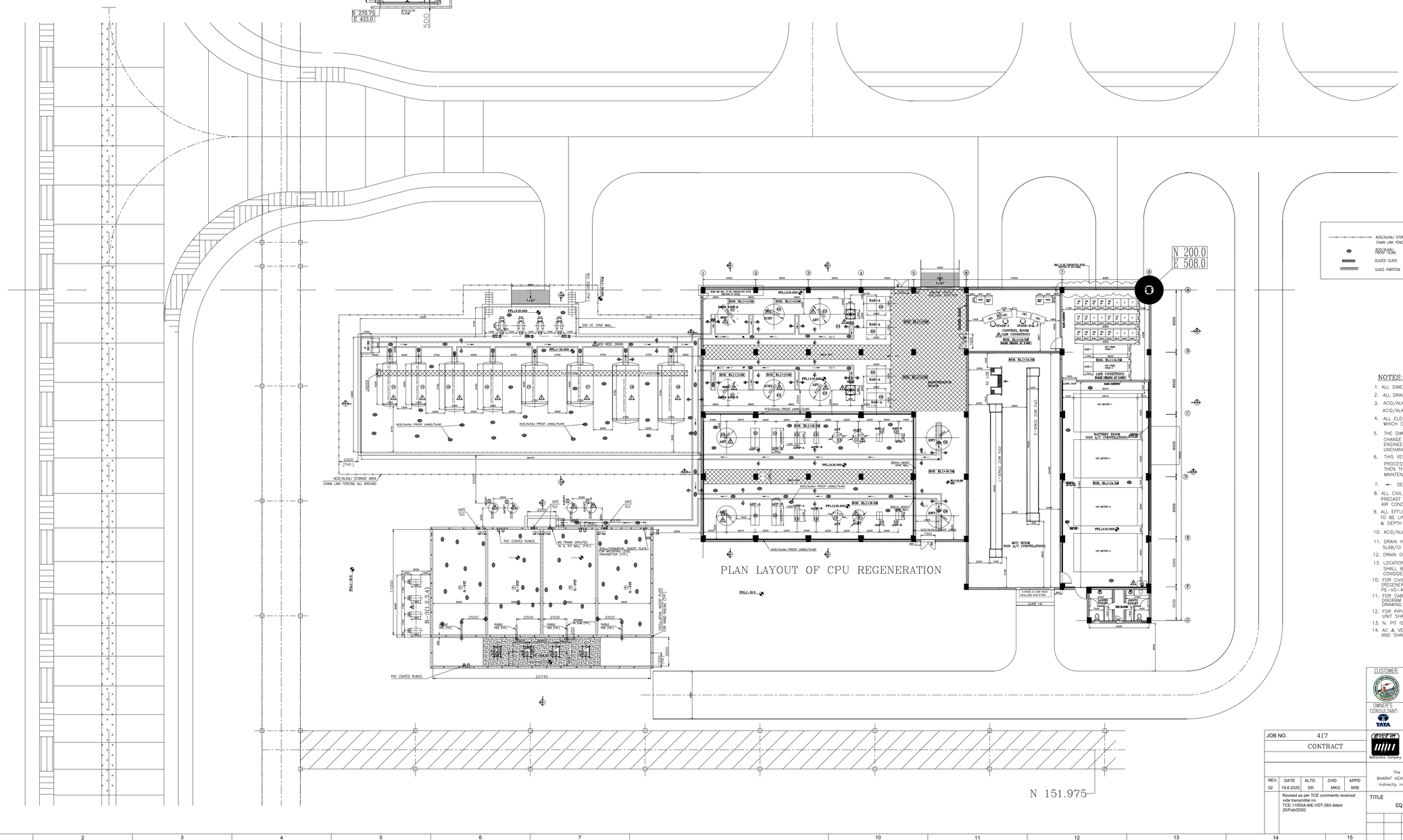
CPU REGENERATION BUILDING

S.No.	EQUIPMENT	APPROX. SIZE OF EQUIPMENT	QTY	
01	MIXED RESIN STORAGE VESSEL	APPROX. 2200mmDia x 5000mmHOS	2 Nos.	⚠
02	SEPERATION/CATION REGENERATION VESSEL	APPROX. 2150mmDia x 4800mmHOS	2 Nos.	⚠
03	ANION REGENERATION VESSEL	APPROX. 2200mmDia x 4600mmHOS	2 Nos.	⚠
04	RESIN MAKEUP HOPPER	APPROX. 900mm x 900mm x 900mm(H)	2 Nos.	⚠
05	CPU REGENERATION CUM RESIN TRANSFER PUMPS (LOCATED IN LAYOUT OF DM TANK & P/H)	APPROX.1800mm(L)x850mm(W)	4 Nos.	
06	REGENERATION AIR BLOWERS	APPROX.2000mm(L)x1500mm(W)	4 Nos.	
07	NEUTRALIZATION PIT	APPROX. 11M(L) x 5.5M(W) x 3.6M(H) (1 COMP.)	4 Nos.	
08	HOT WATER TANK	APPROX. 2600mmDia x 2900mmHOS	2 Nos.	
09	ACID MEASURING TANK FOR CATION	APPROX. 2050mmDia x 1800mmHOS	2 Nos.	⚠
10	ACID DOSING PUMPS	APPROX.2000mm(L)x900mm(W)	4 Nos.	
11	ALKALI MEASURING TANK FOR ANION	APPROX. 1250mmDia x 1200mmHOS	2 Nos.	⚠
12	ALKALI DOSING PUMPS	APPROX.800mm(L)x600mm(W)	4 Nos.	
13	ACTIVATED CARBON FILTER	APPROX.1100mmDia x 2200mmHOS	2 Nos.	
14	ALKALI TRANSFER CUM RECIR. PUMPS	APPROX.1200mm(L)x525mm(W)	4 Nos.	
15	BULK ACID STORAGE TANK FOR STAGE-1 REGENERATION SYSTEM	APPROX.1500mmDia x 4250mm(L)	2 Nos.	⚠
16	BULK ACID STORAGE TANK FOR STAGE-2 REGENERATION SYSTEM	APPROX.2000mmDia x 4750mm(L)	2 Nos.	⚠
17	BULK ALKALI STORAGE TANK FOR STAGE-1 REGENERATION SYSTEM	APPROX.2750mmDia x 4000mm(L)	2 Nos.	⚠
18	BULK ALKALI STORAGE TANK FOR STAGE-2 OF REGENERATION SYSTEM	APPROX.2750mmDia x 5750mm(L)	2 Nos.	⚠
19	ACID UNLOADING / TRANSFER PUMPS	APPROX.685mm(L)x220mm(W)	4 Nos.	
20	ALKALI UNLOADING / TRANSFER PUMPS	APPROX.685mm(L)x220mm(W)	4 Nos.	
21	N. PIT EFFLUENT TRANSFER PUMPS (VERTICAL)	----------	4 Nos.	
22	ACID MEASURING TANK FOR N.PIT	APPROX. 1000mmDia x 1000mmHOS	2 Nos.	
23	ALKALI MEASURING TANK FOR N.PIT	APPROX. 1000mmDia x 1000mmHOS	2 Nos.	
24	AIR BLOWER FOR N. PIT		4 Nos.	⚠





KEY PLAN



PLAN LAYOUT OF CPU REGENERATION

LEGEND:-

RMH	RESIN MAKEUP HOPPER
ARV	ANION REGENERATION VESSEL
SCRV	SEPARATION/ CATION / ANION REGENERATION VESSEL
MRSV	MIXED RESIN STORAGE VESSEL
RAB	REGENERATION AIR BLOWERS
HWT	HOT WATER TANK
ALMT	ALKALI MEASURING TANK
ALDP	ALKALI DOSING PUMPS
AMT	ACID MEASURING TANKS
ADP	ACID DOSING PUMPS
N-PIT	NEUTRALIZATION PIT
CPURP	CPU REGENERATION CUM RESIN TRANSFER PUMPS
EL	ELEVATION
BOB	BOTTOM OF BEAM
SLG	SLUICE GATE
MCC	MOTOR CONTROL CENTER
FGL	FINISHED GROUND LEVEL
FFL	FINISHED FLOOR LEVEL
TOC	TOP OF CONCRETE
D1	SINGLE DOOR
D2	DOUBLE DOOR
IL	INVERT LEVEL
ALTRP	ALKALI TRANSFER CUM RECIRCULATION PUMP
ACF	ACTIVATED CARBON FILTER
AMTNPT	ACID MEASURING TANK FOR N.PIT
ALMTNPT	ALKALI MEASURING TANK FOR N.PIT
BAST	BULK ACID STORAGE TANK
BCST	BULK ALKALI STORAGE TANK
AUP	ACID UNLOADING PUMP
ALUP	ALKALI UNLOADING PUMP
NETP	NEUTRALISED EFFLUENT TRANSFER PUMP

ACID/ALKALI STORAGE AREA CHAIN LINK FENCING ALL AROUND
ACID/ALKALI PROOF TILING
GLAZED GLASS
GLASS PARTITION

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETER AND ELEVATIONS IN METRES.
2. ALL DRAIN CHANNELS WILL BE PROVIDED WITH ACID/ALKALI RESISTANT TILING.
3. ACID/ALKALI DYKE AREA FLOOR & WALLS TO BE PROVIDED WITH ACID/ALKALI RESISTANT TILING.
4. ALL ELEVATIONS ARE MARKED W.R.T. EL(+/-) 0.00 (FINISH FLOOR LEVEL) WHICH CORRESPONDS TO RL(+)86.0M.
5. THE DIMENSIONS SHOWN HERE ARE INDICATIVE AND MAY UNDER GO MINOR CHANGE BASED ON THE SUPPLIER SPECIFIC REQUIREMENT DURING DETAIL ENGINEERING. HOWEVER OVERALL BUILDING DIMENSIONS WILL REMAIN UNCHANGED.
6. THIS VESSEL IS APPLICABLE ONLY BASED ON SUPPLIER REGENERATION PROCESS RECOMMENDATION. IN CASE THE VESSEL IS NOT APPLICABLE THEN THE SPACE WILL REMAIN VACANT AND CAN BE UTILIZED FOR MAINTENANCE PURPOSE.
7. → DENOTES DIRECTION OF SLOPE.
8. ALL CIVIL WORKS INCLUDING ACID/ALAKLI PROOF LINING/TILING/PVC LINING, PRECAST SLAB, RUNGS, HAND RAILING TO NEUTRALIZATION PIT, AIR CONDITIONING/VENTILATION SYSTEM IS IN M/s BHEL SCOPE.
9. ALL EFFLUENT DRAINS AND INCLUDING DRAINS LEADING TO NEU. PIT ARE TO BE LINED WITH ACID AND ALAKLI PROOF LINING AND DRAIN WIDTHS & DEPTH SHOWN ARE FINISHED DIMENSION AFTER LINING.
10. ACID/ALKALI PROOF LINING SHOWN THUS ⊗ & ----------
11. DRAIN INSIDE THE BUILDING SHALL BE COVERED BY PRECAST SLAB/GI GRATING.
12. DRAIN OUTSIDE THE BUILDING SHALL BE COVERED BY PRECAST SLAB.
13. LOCATION OF ALL SKID BASED EQUIPMENT SHOWN ARE INDICATIVE AND SHALL BE SUITABLY ADJUSTED TO MEET THE SKID/PIPING REQUIREMENTS CONSIDERING SOME MINOR VARIATIONS.
10. FOR CIVIL ASSIGNMENT DRAWING OF CONDENSATE POLISHING UNIT (REGENERATION AREA) SHALL BE PROVIDED IN M/s BHEL DRAWING NO.: PE-V0-417-155-A030.
11. FOR CABLE TRAY/TRENCH & CONDUIT ROUTING AND EARTHING LAYOUT DIAGRAM FOR CPU (REGENERATION AREA) SHALL BE PROVIDED IN M/s BHEL DRAWING NO.: PE-V0-417-155-A044
12. FOR PIPING LAYOUT (REGENERATION AREA) FOR CONDENSATE POLISHING UNIT SHALL BE PROVIDED IN M/s BHEL DRAWING NO.: PE-V0-410-155-A034.
13. N. PIT IS PROVIDED WITH NECESSARY AIR GRID ARRANGEMENT.
14. AC & VENTILATION DETAILS SHALL BE FURNISH IN ARCHITECTURAL DRG. BY CIVIL AND SHALL BE FINALISED DURING DETAIL ENGINEERING BY M/s BHEL AS THE SAME IN BHEL SCOPE.

CUSTOMER: TELANGANA STATE POWER GENERATION CORPORATION LTD
TELANGANA, INDIA
5 x 800 MW YADADRI TPS, NALGONDA

OWNER'S CONSULTANT: TATA CONSULTING ENGINEERS LIMITED,BANGALORE

JOB NO. 417
CONTRACT

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

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REV.	DATE	ALTD	CHD	APPD
02	19.6.2020	DK	MKG	SKB

Revised as per TCE comments received vide transmittal no TCE.11005A-ME-VDT-383 dated 20Feb12020.

DEPT CODE		NAME	SIGN	DATE
M	DRN	DK		19-01-2019
	DESN	MKG		19-01-2019
	CHD	JPSB		19-01-2019
	APPD	SKB		19-01-2019

TITLE
EQUIPMENT LAYOUT OF CONDENSATE POLISHING UNIT (REGENERATION AREA)

DEPT. | SCALE | SIGN

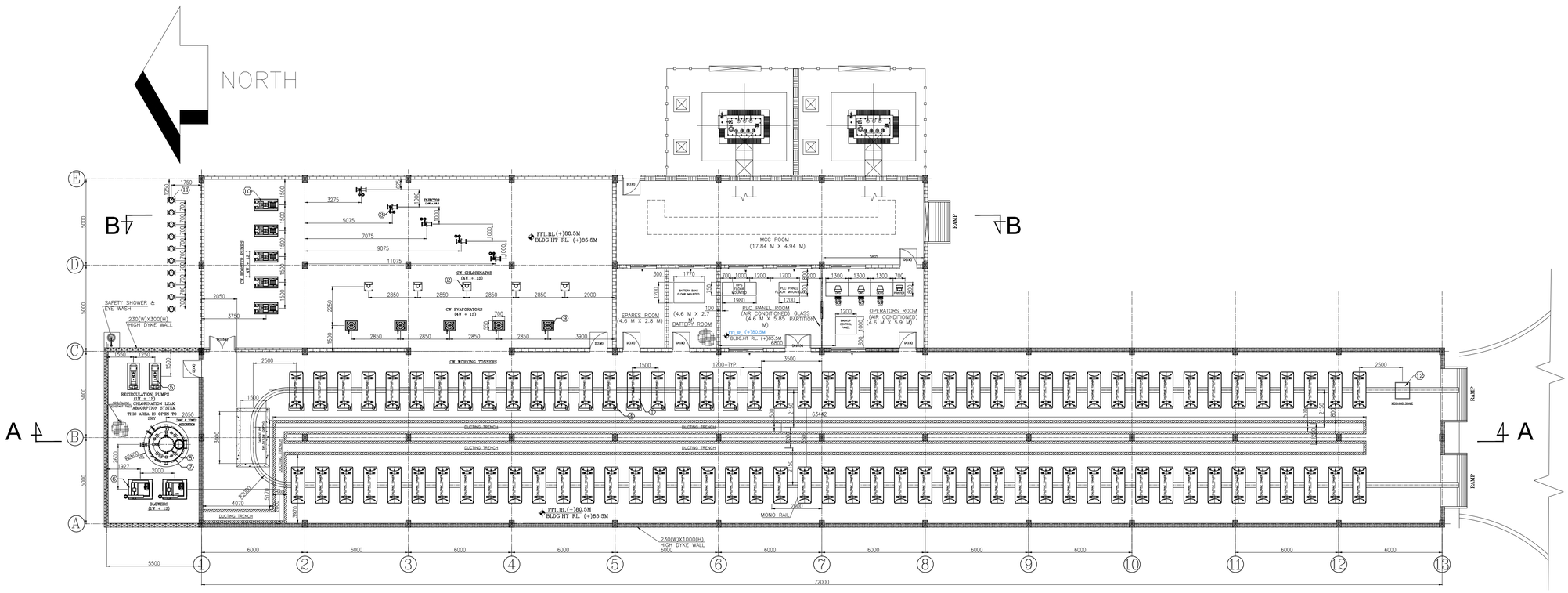
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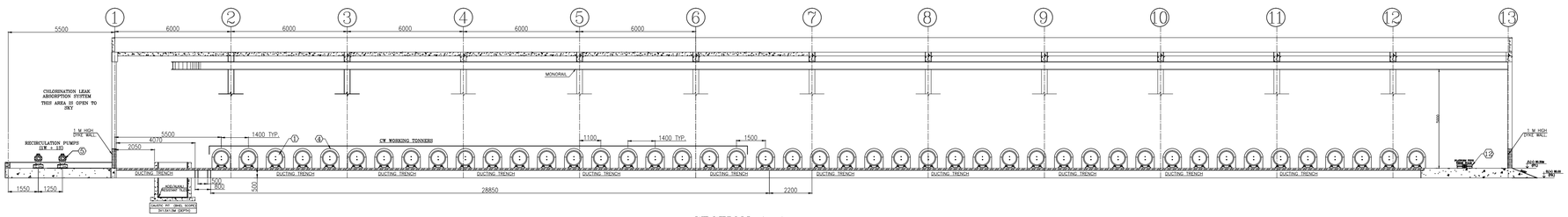
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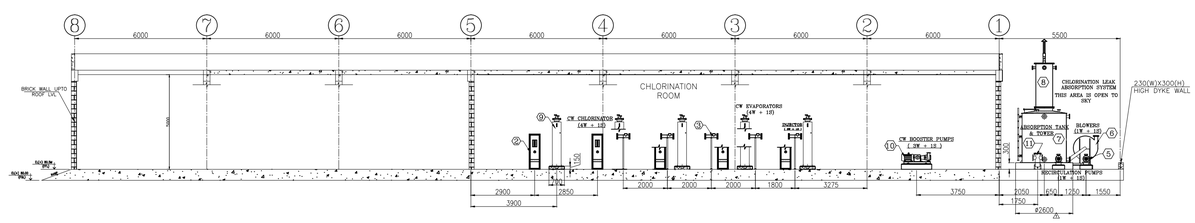
ALL DIMENSIONS ARE IN MILLIMETRES



CHLORINATION PLAN



SECTION A-A



SECTION B-B

PRELIMINARY DRAWING FOR REFERENCE ONLY

REV	DATE	ALTERED:
ZONE		CHECKED:

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PRO:ECT	YADADRI THERMAL POWER STATION (5X800 MW)	
OWNER	TELENGANA STATE POWER GENERATION CORPORATION LIMITED	
OWNER'S CONSULTANT	TATA CONSULTING ENGINEERS LIMITED BANGALORE	
EPC CONTRACTOR	BHARAT HEAVY ELECTRICALS LIMITED, NEW DELHI UNIT : BOILER AUXILARIES PLANT : RANIPET PAC : AGE : CW CHLORINATION PLANT STAGE □□	

TITLE: EQUIPMENT LAYOUT FOR CW CHLORINATION (UNIT 1,2)

	NAME	SIGN.	DATE
DRAWN	BB SAHU	Sd/-	□□/□□/□□□□
CHEC:ED	G RAJENDRAN	Sd/-	□□/□□/□□□□
APPROVED	M RAMAKRISHNA	Sd/-	□□/□□/□□□□

ALL DIMENSIONS ARE IN MILLIMETRES

PRO:ECTION

SCALE: N.T.S

BHEL DRAWING NO.: 1-WT-040-01086

REV: 00