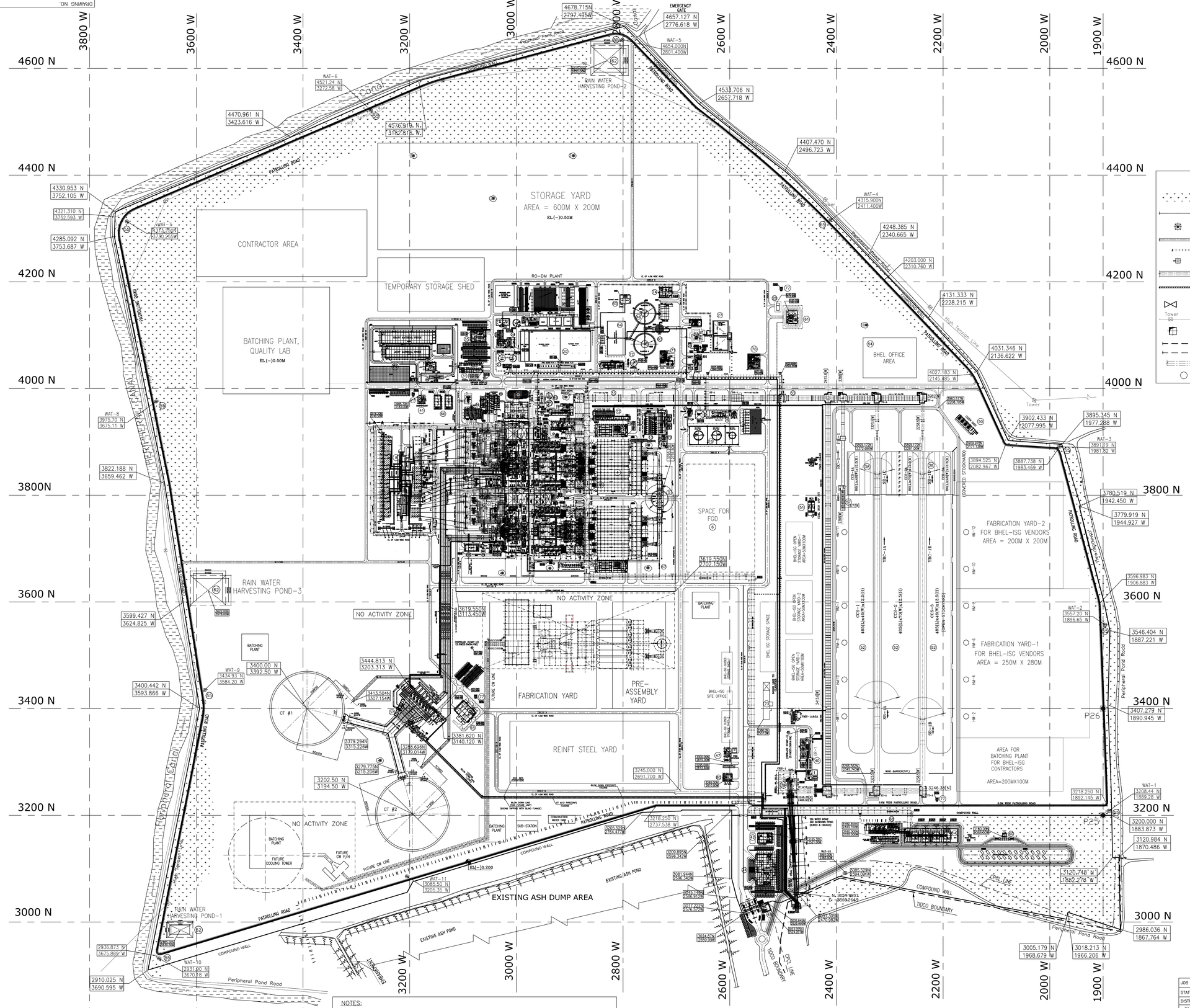
DRAWING NO. PE-DG-412-100-M001




NORTH

NNW N NNE NE NW WNW ENE W E WSW ESE SSW SSE SW SE S

## LEGEND:

- GREEN BELT
- COMPOUND WALL
- HIGH MAST LIGHT FDN.
- PLANT ROADS
- PIPE RACK
- WATCH TOWERS
- COAL CONVEYOR
- INTERNAL COMPOUND WALL
- GATES
- HIGH TENSION LINE
- SEWAGE COLLECTION PIT
- TIDCO BOUNDARY
- CPCL LINE
- CUSTOMER SCOPE ROAD
- HIGH MAST (CHP AREA)

| IDENTIFICATION NUMBER | DESCRIPTION |
|---|---|
| 1 | TG BUILDING |
| 2 | SWITCH GEAR ROOM, CONTROL ROOM, AC PLANT ROOM |
| 3 | STEAM GENERATOR |
| 4 | ESP |
| 5 | CHIMNEY |
| 6 | SPACE FOR FGD PLANT |
| 7 | TRANSFORMER YARD |
| 8 | 400KV GIS SWITCHYARD |
| 9a | DG SET |
| 9b | COMPRESSOR HOUSE |
| 10 | VACUUM PUMP HOUSE (UNIT-1) & COMPRESSOR HOUSE |
| 11 | BOTTOM ASH SLURRY PUMP HOUSE |
| 12 | ASH WATER PUMP HOUSE |
| 13 | BUFFER HOPPER TOWER |
| 14 | FLY ASH SILOS |
| 15 | HFO/LDO UNLOADING AREA |
| 16 | HFO/LDO STORAGE TANK DYKE AREA |
| 17 | HFO/LDO FORWARDING PUMP HOUSE |
| 18 | ELECTRO CHLORINATION BUILDING |
| 19 | SEA WATER INTAKE PUMP HOUSE (OUTSIDE PLANT BOUNDARY) |
| 20 | FILTERED WATER AND FIRE WATER STORAGE TANK AND PUMP HOUSE |
| 21 | MILL REJECT SILO |
| 22 | RO-DM CUM DESALINATION PLANT(150MX80M) |
| 23 | DM STORAGE TANKS & PUMP HOUSE |
| 24 | STORAGE YARD (WITH COMPOUND WALL, COVERED STORES & OFFICE) |
| 25 | EFFLUENT TREATMENT PLANT (ETP) |
| 26 | CENTRAL MONITORING BASIN |
| 27 | GUARD POND |
| 28 | GAS CYLINDER SHED |
| 29 | CPU REGENERATION BUILDING |
| 30 | NEUTRALISING PIT |
| 31 | WORKSHOP |
| 32 | SWITCH YARD CONTROL ROOM |
| 33 | CONVEYOR |
| 34 | ADMINISTRATION BUILDING |
| 35 | CANTEEN |
| 36 | NATURAL DRAFT COOLING TOWER (NDCT) |
| 37 | COOLING WATER PUMP HOUSE |
| 38 | STACKER CUM RECLAIMER |
| 39 | CRUSHER HOUSE |
| 40 | CHP CONTROL ROOM (MERGE WITH ER-1) |
| 41 | DISPENSARY AND FIRST AID CENTER |
| 42 | ADDITIONAL CANTEEN |
| 43 | SERVICE BUILDING |
| 44 | DELETED |
| 45 | ESP CONTROL ROOMS |
| 46 | CONDENSATE STORAGE TANK |
| 47 | FIRE STATION |
| 48 | ROAD WEIGH BRIDGE BUILDING |
| 49 | MAIN GATE & TIME OFFICE CUM SECURITY COMPLEX |
| 50 | DOZER SHED & REPAIR SHOP |
| 51 | COAL PILE RUN OFF PIT |
| 52 | COAL STOCK PILE |
| 53 | AIR WASHER ROOM |
| 54 | BHEL SITE OFFICE |
| 55 | WATCH TOWERS |
| 56 | FIRE WATER BOOSTER PUMP HOUSE |
| 57 | EMERGENCY RECLAIM HOPPER |
| 58 | DELETED |
| 59 | DELETED |
| 60 | WEIGH BRIDGE BUILDING ASH SILO AREA |
| 61 | $H_2$ PLANT |
| 62 | RAIN WATER HARVESTING POND |
| 63 | CLARIFIER |
| 64 | CLARIFIED WATER STORAGE TANK(62.5MX33.0M) |
| 65 | SLUDGE SUMP |
| 66 | FIELD MAINTENANCE BUILDINGS(3 NOs.) |
| 67 | VACUUM PUMP HOUSE (UNIT-2) |
| 68 | FLY ASH SLURRY PUMP HOUSE CUM SILO UTILITY BUILDING |
| 69 | DELETED |
| 70 | SEWAGE TREATMENT PLANT (STP) |
| 71 | AUX. BOILER |
| 72 | SERVICE WATER OVERHEAD TANK |
| 73 | CUSTOMER'S SITE OFFICE |
| 74 | CHEMICAL LAB(30MX20M) |
| 75 | MRS CONTROL ROOM |
| 76 | FOAM PUMP HOUSE |
| 77 | AIR AMBIENT QUALITY MONITORING SYSTEM (AAQMS),5MX4M |
| 78 | AHP HT & LT SWITCH GEAR MCC ROOM |
| 79 | TRANSFORMER YARD MAINTENANCE BUILDING |
| 80 | QA & QC LABORATORY BUILDING |

NOTES:

1. PLANT FINISHED GRADED LEVEL (FGL) SHALL BE RL (+)9.50M. POWER HOUSE (TG BUILDING) FINISHED GROUND FLOOR LEVEL IS EL(+)0.00M, WHICH CORR. TO RL(+)10.0M. BOILER PAVED LEVEL IS EL(-)0.20M & TRANSFORMER YARD PAVED LEVEL IS EL(-)0.10M.
2. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METER UNLESS OTHERWISE STATED.
3. THE FACILITIES/ BUILDINGS SHOWN IN THE TABLE ABOVE ARE TENTATIVE & SHALL BE PROVIDED AS PER CONTRACT. DIMENSIONS AND LOCATION SHOWN ARE ALSO TENTATIVE & SHALL BE FINALIZED DURING DETAILED ENGINEERING.
4. CO-ORDINATES GIVEN IN THE PLOT PLAN ARE WITH RESPECT TO PILLAR No. 25 AND PILLAR No. 26. CO-ORDINATES OF P-25 (PLANT CO-ORDINATE W:1900.000M., N:3200.107M.) AND P-26 (PLANT CO-ORDINATE W:1900.000M., N:3400.000M.) ARE MARKED IN THE PLOT PLAN DRAWING.

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| 07 | 21.02.2023 | GKM | SK | BKA |

DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS.
REF:Lr.No.SE/E/TPP/TE-7/WAEE-1/W/F.EsSEZ/JSTPP/XL dt/2022 dt. 13/17.07.2022.
PARKING AREA UPDATED.
ROAD GOING TO WEIGH BRIDGE/SILO AREA MODIFIED AS PER ISG DRAWING NO. IS-CON-1-688-101-102.
SECTION OF ROAD PARALLEL TO TIDCO BOUNDARY IN SOUTHERN SIDE DELETED.
DRAWING GENERALLY UPDATED.

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| 06 | 12.04.2022 | GKM | SK | BKA |

DRAWING REVISED BASED ON CUSTOMER COMMENTS DATED 04.04.2018.
REF. Lr.No.SE/E/TPP/TE-7/WAEE-1/W/ F.EsSEZ /STPP/0.145/2019 dt. 21.09.2019.
LOCATION OF WEIGH BRIDGE NEAR SILO AREA UPDATED.
RAIN WATER HARVESTING POND UPDATED.
PATROLLING ROAD UPDATED.
DRAWING GENERALLY UPDATED.

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| 05 | 01.07.2019 | GKM | SK | SPV |

ISG FACILITIES UPDATED.
EAST SIDE BOUNDARY GATE SHOWN FOR ISG SILO UTILITY BLDG./FA SLURRY P/H & ISG WEIGH BRIDGE.
ROAD B/W ROUNDABOUT AND EAST SIDE GATE SHOWN UNDER CUSTOMER SCOPE AS PER DISCUSSION WITH TANGEDCO.
DRAWING GENERALLY UPDATED.

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| 04 | 18.08.2018 | GKM | SK | JJ |

DRAWING REVISED BASED ON CUSTOMER COMMENTS DATED 04.04.2018.
REF: Lr.No.:SE/E/TPP/TE-7/M/AEE-1/W/ F.EsSEZSTPP/0.457/18 dt.04.04.2018.
SWITCH YARD LAYOUT UPDATED.
TRANSFORMER YARD LAYOUT UPDATED.
MAIN GATE & TIME OFFICE CUM SECURITY COMPLEX UPDATED.
DRAWING GENERALLY UPDATED.

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| 03 | 04.10.2017 | GKM | SK | JJ |

DRAWING REVISED BASED ON CUSTOMER COMMENTS DATED 04.05.2017.
REF: Lr.No.:SE/E/TPP/TE-7/M/AEE-1/W/ F.EsSEZ STPP/0.180/2017.
CHP, AHP & FUEL OIL AREA UPDATED.
DRAWING GENERALLY UPDATED.

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| 02 | 07.03.17 | GKM/SD | SK | JJ |

DRAWING GENERALLY REVISED BASED ON CUSTOMER'S COMMENTS RECEIVED VIA MAIL 22.02.2017.
BOILER KEY PLAN UPDATED.
ASH HANDLING FACILITIES UPDATED.
SWITCH YARD UPDATED.

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| 01 | 20.02.15 | SD | SK | JJ |

DRAWING GENERALLY REVISED BASED ON CUSTOMER'S COMMENTS.

| | |
|---|---|
| JOB NO. | 412 |
| STATUS | CONTRACT |
| DISTRIBUTION | |
| TO | |
| No. OF | |

| PROJECT | 2x660MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI |
|---|---|
| OWNER | TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED |
| OWNER'S CONSULTANT:- | DESEIN PRIVATE LIMITED DESEIN HOUSE, NEW DELHI |
| EPC CONTRACTOR:- | BHARAT HEAVY ELECTRICALS LTD. |

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

| DEPT CODE | | NAME | SIGN | DATE |
|---|---|---|---|---|
| M | DRN | SD | sd/– | 29.10.2014 |
| | DES | SD | sd/– | 29.10.2014 |
| | CHD | SK | sd/– | 29.10.2014 |
| | APPD | JJ | sd/– | 29.10.2014 |

TITLE: PLOT PLAN

DEPT. | SCALE: 1:2500 | DRAWING NO. PE-DG-412-100-M001
SIGN
DATE | SHEET 1 OF 1 | REV. 07

FORMAT SIZE A0

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ELECTRONIC FILE NAME:412_100_M001_R05.DWG

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DRAWING NO. PE-DG-412-611-C013

FIRST ANGLE PROJECTION — ALL DIMENSIONS ARE IN MM

FOR BC BAY SLAB DETAIL REFER DRG. PE-DG-412-611-D019

UNLOADING BAY

OPENING FOR MDBFP

OIL CANAL

OIL CANAL

SERVICE BUILDING INTERCONNECTING PLATFORM AT EL(+)17.000M (FOR DETAIL REF. 600-C0033)

ALL CLADDING POST SHALL BE WELDED BEFORE CASTING SLAB (TYP)

CAGE LADDER TO CRANE BRICK WALL

CAGE LADDER TO CRANE BRICK WALL

220 ø OPENING FOR R.W. DOWN TAKE PIPE (200 ø G.PIPE) (TYP. U.N.O.)

EDGE PROTECTION ANGLE (ANG.-65)

IP-201 ON FACE (2X3+8 NOS)

IP-201 ON FACE (2X5+10 NOS)

IP-201 ON FACE (2X4+8 NOS)

IP-201 ON FACE (2X6+8 NOS)

IP-201 ON FACE (2X4+18 NOS)

IP-201 ON FACE (2X10+20 NOS)

S2 (TYP. U.N.O.)

S2 (TYP. U.N.O.)

ALL CLADDING POST SHALL BE WELDED BEFORE CASTING SLAB (TYP)

ALL CLADDING POST SHALL BE WELDED BEFORE CASTING SLAB (TYP)

## PLAN AT EL(+)16.950 (TOC)
FINISHED FLOOR LEVEL AT EL(+)17.000M

## KEY PLAN

NORTH

## SECTION 1–1
TYPICAL FLOOR INSERT FOR CHEQUERED PLATE SUPPORT

## SECTION 2–2

## VIEW A–A

## SECTION 3–3

## DET. C

## SECTION 4–4

## SECTION 5–5

## SECTION 6–6

## SECTION 7–7
(TYPICAL GRATING SUPPORTING DETAILS UNO.)

## PLAN AT EL(+)16.950 (TOC)
FINISHED FLOOR LEVEL AT EL(+)17.000M

## SECTION 8–8

## DETAIL–B

## SECTION 9–9
(FOR FIXING DETAILS OF HANDRAIL REF. STANDARD DRG.)

## SECTION 10–10
(TYP. DETAIL OF BEAM EMBEDMENT IN RC SLAB)

## SECTION 11–11

## SECTION 12–12

## SECTION 13–13
(TYP. DETAIL OF EDGE PROTECTION AROUND OPENING)

## SECTION 14–14
(BETN. A–B BAY)

## TYP. DETAIL OF SLAB REINFT.
(SCALE 1:25)

NOTE– TOP BAR MKD.– a OF PANEL MKD. S2 SHALL BE TAKEN 0.33 L IN PANEL MKD. S1
TOP BAR MKD.– a OF PANEL MKD. S3 SHALL BE TAKEN 0.33 L IN PANEL MKD. S1 S2

## TABLE–A (SLAB REINFORCEMENT SCHEDULE)

| SL.NO | PANEL MKD. | SPANING DIRECTION OF PANEL MKD. | BAR MKD.–a | BAR MKD.–b | REMARKS |
|---|---|---|---|---|---|
| 1 | S1 | A → B | 08 Y 200 | 08 Y 200 | NOT USED |
| 2 | S2 | A → B | 10 Y 200 | 08 Y 200 | |
| 3 | S3 | A → B | 12 Y 200 | 08 Y 200 | |
| 4 | S4 | A → B | 12 Y 125 | 08 Y 200 | NOT USED |
| 5 | S5 | A → B | 16 Y 125 | 08 Y 200 | |

## LEGEND

| | | | |
|---|---|---|---|
| FFL | FINISHED FLOOR LEVEL | UNO | UNLESS NOTED OTHERWISE |
| (R) | REMOVABLE BEAM | TOS | TOP OF STEEL |
| | 40 THK REMOVABLE GRATING | OP. | OPENING |
| | GRATED FLOOR | TOG | TOP OF GRATING |
| | | TOCP | TOP OF CHQD PLATE |
| C | CENTRE LINE | | REMOVABLE CHEQUERED PLATE |
| LG. | LONG | | CHEQUERED PLT. FLOORING |
| | | B/F | BOTH FACE |
| | | BOT. | BOTTOM |

## NOTES:–
1. ALL DIMENSIONS ARE IN MILLIMETERS AND ELEVATIONS ARE IN METERS.
2. ALL ELEVATIONS ARE REFERRED TO THE FINISHED GROUND FLOOR LEVEL OF POWER HOUSE BUILDING AS EL. 0.00 M WHICH CORRESPONDS TO RL. 10.00 M. ABOVE MEAN SEA LEVEL.
3. FOR OTHER GENERAL NOTES & STD. DET. REF. DRG. NO PE–DG–412–600–C001
4. ALL STRUCTURAL CONCRETE SHALL BE DESIGN MIX CONC. OF GRADE M–30 UNLESS OTHERWISE NOTED.
5. ALL REINFORCEMENTS SHALL BE FUSION BONDED EPOXY COATED TMT BARS OF MINIMUM GRADE Fe500 CONFORMING TO IS:1786
6. CEMENT SHALL BE OPC WITH C3A CONTENT FROM 5% TO 8%.
7. DEVELOPMENT LENGTH/LAP LENGTH SHALL BE 50 TIMES DIA OF BAR LAPS SHALL BE STAGGERED AS FAR AS POSSIBLE

## REFRENCE DRAWINGS:–
1. PE–DG–412–612–C001–POWER HOUSE BUILDING–STRUCTURAL FRAMING ALONG A ROW
2. PE–DG–412–612–C002–POWER HOUSE BUILDING–STRUCTURAL FRAMING ALONG B ROW
3. PE–DG–412–612–C003–POWER HOUSE BUILDING–STRUCTURAL FRAMING ALONG C ROW
4. PE–DG–412–612–C025–POWER HOUSE BUILDING–(AB–BAY–TG) FRAMING PLAN AT EL(+)17.00M FFL
5. PE–DG–412–612–C031–POWER HOUSE BUILDING–(BC–BAY–TG) FRAMING PLAN AT EL(+)17.00M FFL
6. PE–DG–412–612–C032–POWER HOUSE BUILDING–(BC–BAY–CR) FRAMING PLAN AT EL(+)17.00M FFL
7. PE–DG–412–611–C019–POWER HOUSE BUILDING–(BC–BAY–TG) FRAMING PLAN AT EL(+)17.00M FFL
8. PE–DG–412–611–C043–POWER HOUSE BUILDING–(AB–BAY–TG) ARCHITECTURAL PLAN AT EL(+)17.00M FFL
9. PE–DG–412–611–C044–POWER HOUSE BUILDING–(AB–BAY–CR) ARCHITECTURAL PLAN AT EL(+)17.00M FFL
10. PE–DG–412–100–M005–POWER HOUSE BUILDING–T.G EQUIPMENT LAYOUT PLAN AT EL(+)17.000M

| | |
|---|---|
| TOTAL CONCRETE = | 1000 CUM (APPROX.) |
| TOTAL REINFT. = | 80 MT (APPROX.) |

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 | S.MISHRA |
| SIGNATURE | |
| DATE | 14 SEPTEMBER 2018 |

JOB NO. 412
STATUS CONTRACT
DISTRIBUTION
TO
No. OF

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| | | | | |

| | |
|---|---|
| PROJECT | 2x660MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI |
| OWNER | TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED |
| OWNER'S CONSULTANT:- | DESEIN PRIVATE LIMITED DESEIN HOUSE, NEW DELHI |
| EPC CONTRACTOR:- | BHARAT HEAVY ELECTRICALS LTD |

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

| DEPT CODE | NAME | SIGN | DATE |
|---|---|---|---|
| DRN | AKY | | 10.09.18 |
| DESN | AK | | 10.09.18 |
| CHD | S. MISHRA | | 10.09.18 |
| APPD | A.NARAYAN | | 10.09.18 |

C

TITLE
POWER HOUSE BUILDING.
GA & RC DETAILS OF FLOOR AT EL (+)17.000M FFL (AB BAY–GRID 1 TO 23)

| DEPT. | SCALE: | DRAWING NO. |
|---|---|---|
| SIGN | | PE–DG–412–611–C013 |
| DATE | | SHEET 1 OF 1 REV. 0 |

FORMAT SIZE A0

ELECTRONIC FILE NAME:

DRAWING NO.
PE-DG-412-611-C032

FIRST ANGLE PROJECTION

ALL DIMENSIONS ARE IN MM

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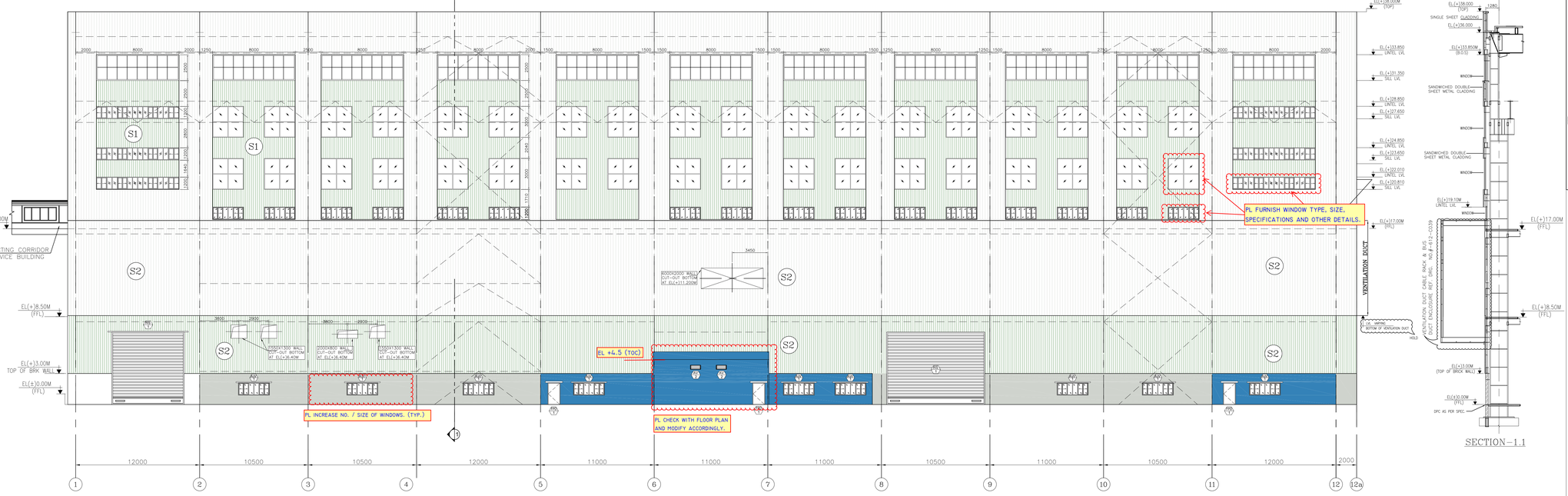
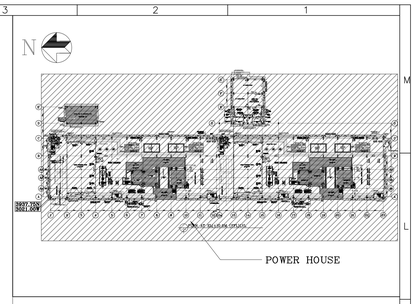
ELECTRONIC FILE NAME:




A-ROW ELEVATION




SECTION-1.1




NOTES:-

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS STATED OTHERWISE.
2. ALL ELEVATIONS ARE REFERRED TO POWER HOUSE FINISHED GROUND FLOOR ELEVATION ± 0.00M WHICH CORRESPONDS TO RL(+) 10.00M
3. FOR TG COLs & FLOOR FRAMING REFER CIVIL DRGs SEPARATELY.
4. UNLESS NOTED OTHERWISE WINDOW / DOOR/ ROLLING SHUTTER LOCATION SHALL BE AT CENTER BETWEEN GRIDS.
5. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH CONTRACT TERMS AND CONDITIONS, SPECIFICATION AND SCHEDULE OF ITEMS.

REFERENCE DRGS.:-

1. PE-DG-412-100-M001 - PLOT PLAN
2. PE-DG-412-100-M003 - T.G. EQUIPMENT LAYOUT PLAN AT EL. 0.0M
3. PE-DG-412-100-M004 - T.G. EQUIPMENT LAYOUT PLAN AT EL. 8.50M
4. PE-DG-412-100-M005 - T.G. EQUIPMENT LAYOUT PLAN AT EL. 17.0M
5. PE-DG-412-100-M006 - T.G. EQUIPMENT LAYOUT PLAN AT EL. 24.0M/ 25.5M
6. PE-DG-412-100-M007 - CROSS SECTION OF MAIN PLANT

ARCHITECTURAL STANDARD DRAWINGS.:-

1. PE-DG-412-611-C031 - PH BUILDING-GEN. NOTES & STD. DETAILS FOR ARCH. WORKS

ARCHITECTURAL DRAWINGS:-

1. PE-DG-412-611-C035 & C036 - PH BUILDING - FLOOR PLAN AT EL(±)0.00M
2. PE-DG-412-611-C039 - PH BUILDING - FLOOR PLAN AT EL(+)3.50M
3. PE-DG-412-611-C040 & C041 - PH BUILDING - FLOOR PLAN AT EL(+)8.50M
4. PE-DG-412-611-C042 - PH BUILDING - FLOOR PLAN AT EL(+)12.00M
5. PE-DG-412-611-C043 & C044 - PH BUILDING - FLOOR PLAN AT EL(+)17.00M
6. PE-DG-412-611-C052 & C053- PH BUILDING - FLOOR PLAN AT EL(+)24.00M
7. PE-DG-412-611-C054 - PH BUILDING - FLOOR PLAN AT EL(+)27.50M
8. PE-DG-412-611-C055 - PH BUILDING - FLOOR PLAN AT EL(+)32.50M
9. PE-DG-412-611-C056 - PH BUILDING - ROOF PLAN
10. PE-DG-412-611-C032 - PH BUILDING - ARCHITECTURAL FRONT ELEVATION
11. PE-DG-412-611-C033 - PH BUILDING - ARCHITECTURAL REAR ELEVATION
12. PE-DG-412-611-C034 - PH BUILDING - ARCHITECTURAL ELEVATION ALONG GABLE END

STRUCTURAL DRAWINGS:-

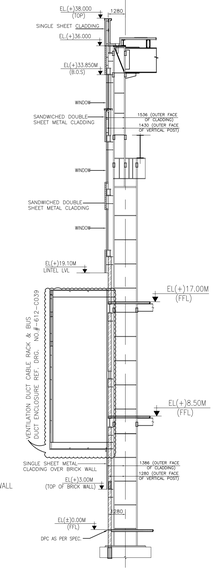
1. PE-DG-412-612-C001 - PH BUILDING STRUCTURAL FRAMING ALONG AXIS-A
2. PE-DG-412-612-C002 - PH BUILDING STRUCTURAL FRAMING ALONG AXIS-B
3. PE-DG-412-612-C003 - PH BUILDING STRUCTURAL FRAMING ALONG AXIS-C
4. PE-DG-412-612-C004 - PH BUILDING STRUCTURAL FRAMING ALONG AXIS -D, E & F
5. PE-DG-412-612-C016 - PH BUILDING DETAILS OF STAIRCASE (A-B) SC-01 & SC-02

LEGENDS:-

- 345 THK FIRE BRICK WALL
- CONCRETE HATCH
- BRICK WALL
- OPENING
- GRATING FLOOR
- CHEQUERED PLATE FLOOR
- REMOVABLE GRATING FLOOR
- REMOVABLE CHEQUERED PLATE FLOOR
- EL(+)X.XXX - LEVEL TAG
- RS - ROLLING SHUTTER
- HAND RAILING
- BOP - BOTTOM OF OPENING
- ℄ - CENTER LINE
- EF - EXHAUST FAN
- EL - ELEVATION
- FFL - FINISHED FLOOR LEVEL
- TOC - TOP OF CONCRETE
- TOCP - TOP OF CHEQUERED PLATE
- TOP - TOP OF PARAPET
- TOG - TOP OF GRATING
- TYP - TYPICAL
- UNO - UNLESS NOTED OTHERWISE

ALL ELECTRICAL AND VENTILATION CUTOUT & OPENING DETAILS SHALL BE REFERRED FROM RESPECTIVE DRAWINGS BEFORE EXECUTION

A-ROW ELEVATION




SECTION-2.2

1. AS PER CLAUSE NO. 6.12.00, AREA OF WINDOWS SHALL BE 15% OF FLOOR AREA, BHEL TO EXPLORE THE POSSIBILITY OF REQUIRED AREA BETWEEN 8.5 M TO 17.0 M LEVEL.
2. PL MARK DOOR / WINDOW TYPE IN ALL ELEVATIONS.
3. PL SUBMIT PERSPECTIVE VIEWS OF THE BUILDING AS PER CLAUSE NO. 4.0 (10) AND 18.02.iv OF TECH SPEC WITH TWO DIFFERENT SCHEMES.
4. PL. INCLUDE ALL THE OPENINGS FOR PIPE, DUCT, CABLES ETC AS PER MECHANICAL / ELECTRICAL DRAWINGS AND FURNISH THERE REFERENCE DRAWING NUMBERS.
5. COLOR SCHEME PROVIDED SHALL BE REVIEWED / APPROVED BY TANGEDCO
6. REFER COMMENTS MARK ON FLOOR PLANS.

2 A-ROW ELEVATION

LEGEND

| SURFACE | DISTANCE FROM GRID 'A' OUTER FACE OF CLADDING |
|---|---|
| S1 | 1536 MM |
| S2 | 1386 MM |

LEGEND (CONTD.)

| S.NO | LEGEND | DESCRIPTION |
|---|---|---|
| 1. | | TO BE MATCHED WITH RAL 9018 GREY (PLASTERED SURFACE) |
| 2. | | TO BE MATCHED WITH RAL 5012 SKY BLUE (PLASTERED SURFACE) |
| 3. | | RAL 9018 GREY (METAL CLADDING) |
| 4. | | RAL 6017 GREEN (METAL CLADDING) |
| 5. | MO | MECHNICAL PIPE OPENING |
| 6. | EO | ELECTRICAL'S OPENING |

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| | | | | |

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| 01 | 21.05.18 | AKY | A RAWAL | AN |

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| ISSUED BY | |
|---|---|
| NAME | SOMNATH MISHRA |
| SIGNATURE | -sd- |
| DATE | 21 MAY 2018 |

| | |
|---|---|
| PROJECT | 2x660MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI |
| OWNER | TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED |
| OWNER'S CONSULTANT:- | DESEIN PRIVATE LIMITED DESEIN HOUSE, NEW DELHI |
| EPC CONTRACTOR:- | BHARAT HEAVY ELECTRICALS LTD |

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

| DEPT CODE | | NAME | SIGN | DATE |
|---|---|---|---|---|
| C | DRN | OM | -sd- | 10.07.17 |
| | DESN | A RAWAL | -sd- | 10.07.17 |
| | CHD | S. MISHRA | -sd- | 10.07.17 |
| | APPD | A.NARAYAN | -sd- | 10.07.17 |

TITLE
POWER HOUSE BUILDING
ARCHITECTURAL FRONT ELEVATION

| DEPT. | SCALE: 1:100 | DRAWING NO. |
|---|---|---|
| SIGN | | PE-DG-412-611-C032 |
| DATE | | SHEET 1 OF 1 REV. 1 |

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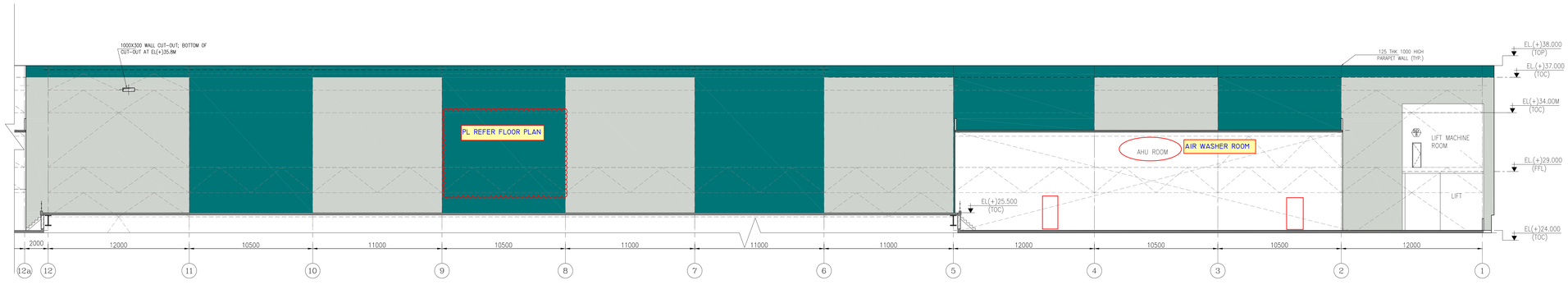
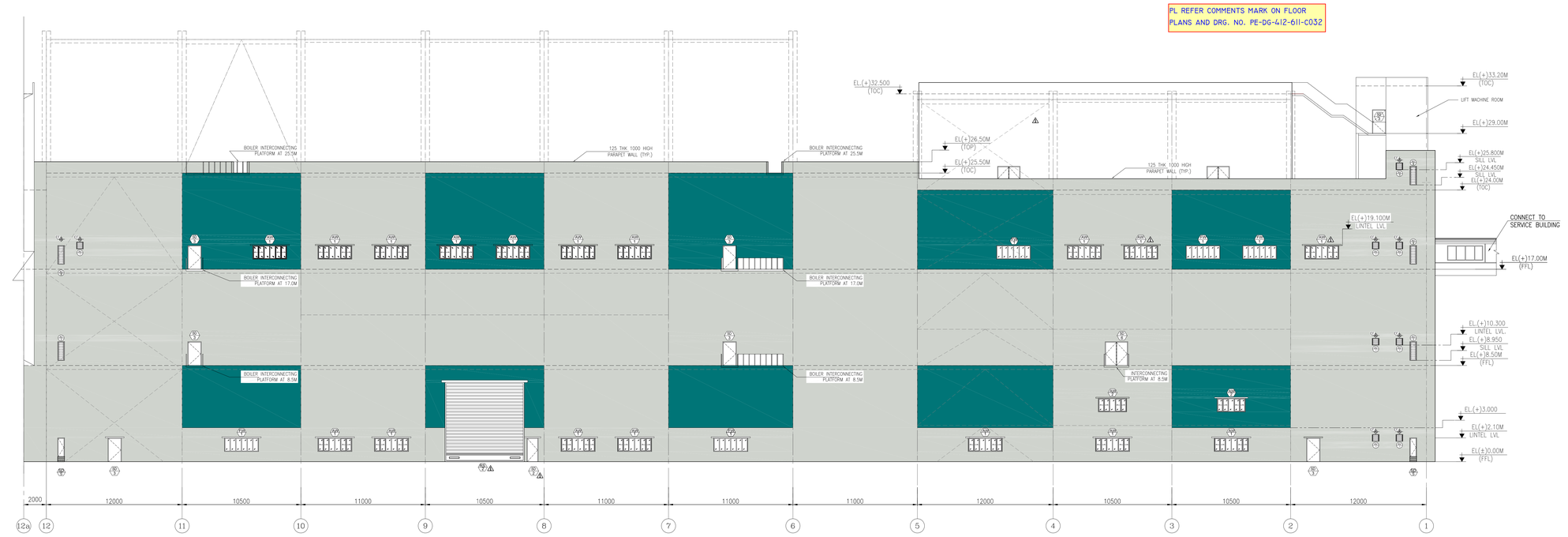
DRAWING NO. PE-DG-412-611-C033

FIRST ANGLE PROJECTION | ALL DIMENSIONS ARE IN MM

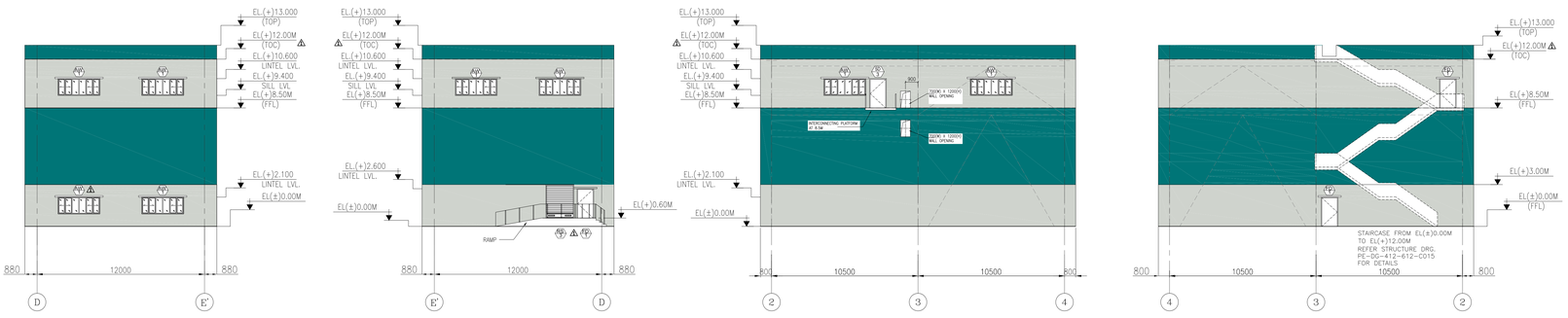



5 B-ROW ELEVATION (UNIT#1)

PL REFER COMMENTS MARK ON FLOOR PLANS AND DRG. NO. PE-DG-412-611-C032




1 C-ROW ELEVATION (UNIT#1)

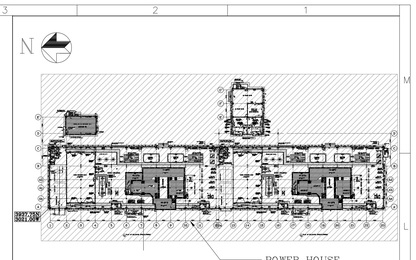



3 ALONGSIDE GRID-4-ROW ELEVATION (SCALE 1:100)

2 ALONGSIDE GRID-2 ROW ELEVATION (SCALE 1:100)

D-ROW ELEVATION

E'-ROW ELEVATION




KEY PLAN

# KEY PLAN

NOTES:-

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS STATED OTHERWISE.
2. ALL ELEVATIONS ARE REFERRED TO POWER HOUSE FINISHED GROUND FLOOR ELEVATION ± 0.00M WHICH CORRESPONDS TO RL(+) 10.00M
3. FOR TG COLs & FLOOR FRAMING REFER CIVIL DRGs SEPARATELY.
4. UNLESS NOTED OTHERWISE WINDOW / DOOR/ ROLLING SHUTTER LOCATION SHALL BE AT CENTER BETWEEN GRIDS.
5. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH CONTRACT TERMS AND CONDITIONS, SPECIFICATION AND SCHEDULE OF ITEMS.

REFERENCE DRGS.:-

1. PE-DG-412-100-M001 - PLOT PLAN
2. PE-DG-412-100-M003-R4 - T.G. EQUIPMENT LAYOUT PLAN AT EL. 0.0M
3. PE-DG-412-100-M004-R3 - T.G. EQUIPMENT LAYOUT PLAN AT EL. 8.50M
4. PE-DG-412-100-M005-R3 - T.G. EQUIPMENT LAYOUT PLAN AT EL. 17.0M
5. PE-DG-412-100-M006-R3 - T.G. EQUIPMENT LAYOUT PLAN AT EL. 24.0M/ 25.5M
6. PE-DG-412-100-M007-R2 - CROSS SECTION OF MAIN PLANT

ARCHITECTURAL STANDARD DRAWINGS.:-

1. PE-DG-412-611-C031 - PH BUILDING-GEN. NOTES & STD. DETAILS FOR ARCH. WORKS

ARCHITECTURAL DRAWINGS:-

1. PE-DG-412-611-C035 & C036-R1 - PH BUILDING - FLOOR PLAN AT EL(±)0.00M
2. PE-DG-412-611-C039-R1 - PH BUILDING - FLOOR PLAN AT EL(+)3.50M
3. PE-DG-412-611-C040 & C041-R1 - PH BUILDING - FLOOR PLAN AT EL(+)8.50M
4. PE-DG-412-611-C042-R1 - PH BUILDING - FLOOR PLAN AT EL(+)12.00M
5. PE-DG-412-611-C043 & C044-R1 - PH BUILDING - FLOOR PLAN AT EL(+)17.00M
6. PE-DG-412-611-C052 & C053-R1- PH BUILDING - FLOOR PLAN AT EL(+)24.00M
7. PE-DG-412-611-C054-R1 - PH BUILDING - FLOOR PLAN AT EL(+)27.50M
8. PE-DG-412-611-C055-R1 - PH BUILDING - FLOOR PLAN AT EL(+)32.50M
9. PE-DG-412-611-C056-R1 - PH BUILDING - ROOF PLAN
10. PE-DG-412-611-C032-R1 - PH BUILDING - ARCHITECTURAL FRONT ELEVATION
11. PE-DG-412-611-C033-R1-Sheet2of2- PH BUILDING - ARCHITECTURAL REAR ELEVATION
12. PE-DG-412-611-C034-R1 - PH BUILDING - ARCH. ELEVATION ALONG GABLE END

STRUCTURAL DRAWINGS:-

1. PE-DG-412-612-C001-R4 - PH BUILDING STRUCTURAL FRAMING ALONG AXIS-A
2. PE-DG-412-612-C002-R4 - PH BUILDING STRUCTURAL FRAMING ALONG AXIS-B
3. PE-DG-412-612-C003-R3 - PH BUILDING STRUCTURAL FRAMING ALONG AXIS-C
4. PE-DG-412-612-C004-R2 - PH BUILDING STRUCTURAL FRAMING ALONG AXIS -D, E & F

LEGENDS.:-

- 345 THK FIRE BRICK WALL
- CONCRETE HATCH
- -BRICK WALL
- OPENING
- GRATING FLOOR
- CHEQUERED PLATE FLOOR
- REMOVABLE GRATING FLOOR
- REMOVABLE CHEQUERED PLATE FLOOR
- EL(+)X.XXX - LEVEL TAG
- ROLLING SHUTTER
- HAND RAILING

BOP - BOTTOM OF OPENING
℄ - CENTER LINE
EF - EXHAUST FAN
EL - ELEVATION
FFL - FINISHED FLOOR LEVEL
TOC - TOP OF CONCRETE
TOCP - TOP OF CHEQUERED PLATE
TOP - TOP OF PARAPET
TOG - TOP OF GRATING
TYP - TYPICAL
UNO - UNLESS NOTED OTHERWISE

LEGEND

| S.NO | LEGEND | DESCRIPTION |
|---|---|---|
| 1. | TOP | TOP OF PARAPET |
| 2. | TOC | TOP OF CONCRETE |
| 3. | TYP | TYPICAL |
| 4. | THK | THICK |
| 5. | FFL | FINISH FLOOR LEVEL |
| 6. | LVL | LEVEL |
| 7. | EL | ELEVATION |
| 8. | RS | ROLLING SHUTTER |
| 9. | | TO BE MATCHED WITH RAL 9018 GREY (PLASTERED SURFACE) |
| 10. | | TO BE MATCHED WITH RAL 5021 WATER BLUE (PLASTERED SURFACE) |
| 11. | EO | ELECTRICAL'S OPENINGS |

* NOTE:- FOR WALL CUT OUT, FLOOR CUTOUT REFER RESPECTIVE STRUCTURAL & ELECTRICAL, VENTILATION DRAWING

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ISSUED BY
NAME: SOMNATH MISHRA
SIGNATURE: -sd-
DATE: 15.06.18

| | |
|---|---|
| PROJECT | 2x660MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI |
| OWNER | TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED |
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| EPC CONTRACTOR:- | BHARAT HEAVY ELECTRICALS LTD |

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| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| 01 | 15.06.18 | OM | A RAWAL | AN |

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BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

| DEPT CODE | | NAME | SIGN | DATE |
|---|---|---|---|---|
| C | DRN | OM | -sd- | 10.07.17 |
| | DESN | A RAWAL | -sd- | 10.07.17 |
| | CHD | S. MISHRA | -sd- | 10.07.17 |
| | APPD | A.NARAYAN | -sd- | 10.07.17 |

TITLE
POWER HOUSE BUILDING
ARCHITECTURAL REAR ELEVATION (UNIT-1)

DEPT.
SCALE:
SIGN
DATE
DRAWING NO. PE-DG-412-611-C033
SHEET 1 OF 2 REV. 1

FORMAT SIZE A0

ELECTRONIC FILE NAME

DRAWING NO. PE-DG-412-611-C033

FIRST ANGLE PROJECTION

ALL DIMENSIONS ARE IN MM

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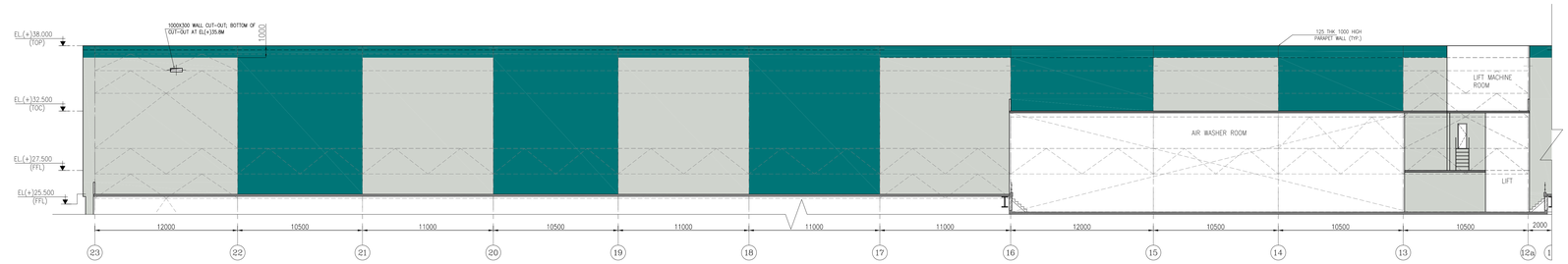
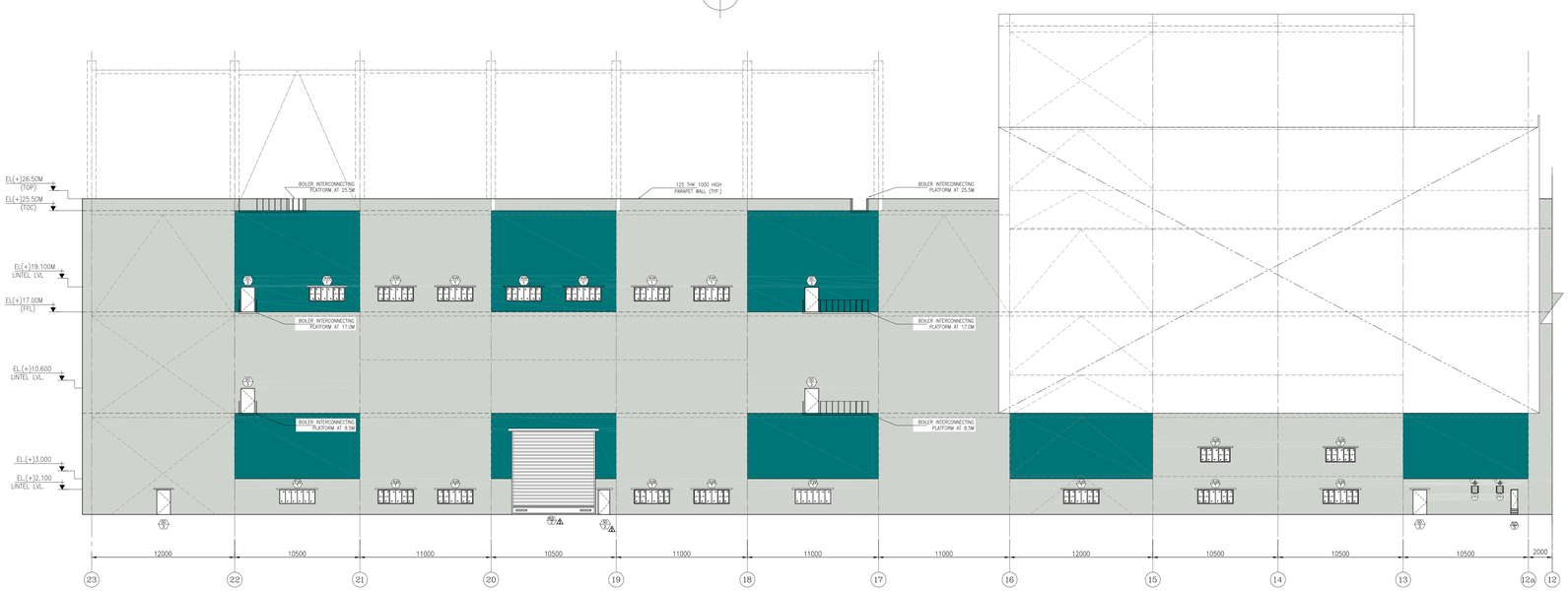
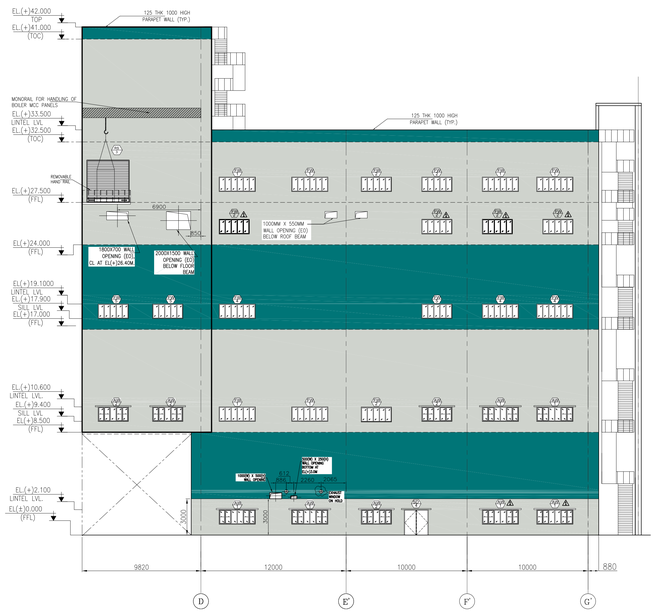



5 B-ROW ELEVATION (UNIT#2)

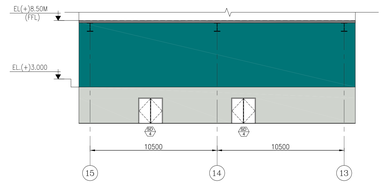



1 C-ROW ELEVATION (UNIT#2)

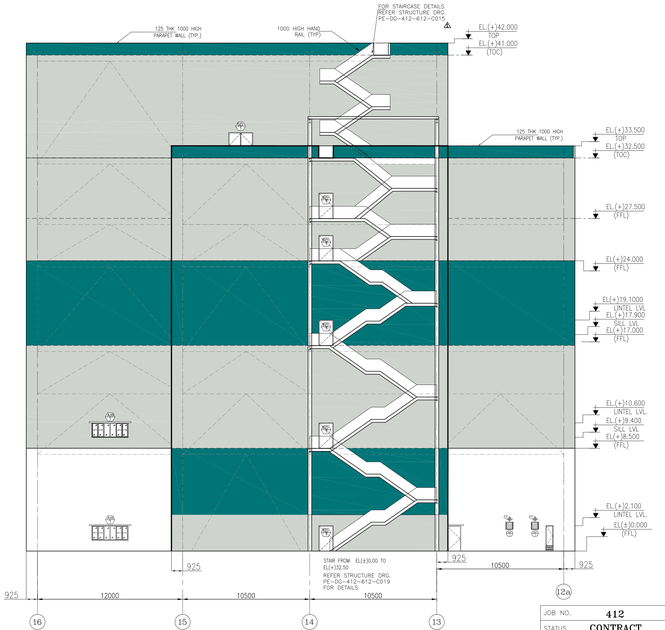
2 ELEVATION ALONG GRID-13



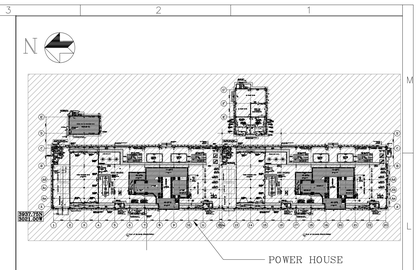

3 ELEVATION ALONG GRID-15




5 D-ROW ELEVATION




4 G' & D-ROW ELEVATION




KEY PLAN

# KEY PLAN

LEGEND

| S.NO | LEGEND | DESCRIPTION |
|---|---|---|
| 1. | TOP | TOP OF PARAPET |
| 2. | TOC | TOP OF CONCRETE |
| 3. | TYP | TYPICAL |
| 4. | THK | THICK |
| 5. | FFL | FINISH FLOOR LEVEL |
| 6. | LVL | LEVEL |
| 7. | EL | ELEVATION |
| 8. | RS | ROLLING SHUTTER |
| 9. | | TO BE MATCHED WITH RAL 9018 GREY (PLASTERED SURFACE) |
| 10. | | TO BE MATCHED WITH RAL 5021 WATER BLUE (PLASTERED SURFACE) |
| 11. | EO | ELECTRICAL'S OPENINGS |

NOTES:-

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS STATED OTHERWISE.
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5. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH CONTRACT TERMS AND CONDITIONS, SPECIFICATION AND SCHEDULE OF ITEMS.

REFERENCE DRGS.:-

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2. PE-DG-412-100-M003 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 0.0M
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4. PE-DG-412-100-M005 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 17.0M
5. PE-DG-412-100-M006 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 24.0M/ 25.5M
6. PE-DG-412-100-M007 – CROSS SECTION OF MAIN PLANT

ARCHITECTURAL STANDARD DRAWINGS.:-

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ARCHITECTURAL DRAWINGS:-

1. PE-DG-412-611-C035 & C036 – PH BUILDING – FLOOR PLAN AT EL(+)0.00M
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5. PE-DG-412-611-C043 & C044 – PH BUILDING – FLOOR PLAN AT EL(+)17.00M
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8. PE-DG-412-611-C055 – PH BUILDING – FLOOR PLAN AT EL(+)32.50M
9. PE-DG-412-611-C056 – PH BUILDING – ROOF PLAN
10. PE-DG-412-611-C032 – PH BUILDING – ARCHITECTURAL FRONT ELEVATION
11. PE-DG-412-611-C033 – PH BUILDING – ARCHITECTURAL REAR ELEVATION
12. PE-DG-412-611-C034 – PH BUILDING – ARCHITECTURAL ELEVATION ALONG GABLE END

STRUCTURAL DRAWINGS:-

1. PE-DG-412-612-C001 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS-A
2. PE-DG-412-612-C002 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS-B
3. PE-DG-412-612-C003 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS-C
4. PE-DG-412-612-C004 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS -D, E & F
5. PE-DG-412-612-C016 – PH BUILDING DETAILS OF STAIRCASE (A-B) SC-01 & SC-02

LEGENDS.:-

- 345 THK FIRE BRICK WALL
- CONCRETE HATCH
- BRICK WALL
- OPENING
- GRATING FLOOR
- CHEQUERED PLATE FLOOR
- REMOVABLE GRATING FLOOR
- REMOVABLE CHEQUERED PLATE FLOOR
- EL(+)X.XXX – LEVEL TAG
- ROLLING SHUTTER
- HAND RAILING
- BOP – BOTTOM OF OPENING
- ℄ – CENTER LINE
- EF – EXHAUST FAN
- EL – ELEVATION
- FFL – FINISHED FLOOR LEVEL
- TOC – TOP OF CONCRETE
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- TOP – TOP OF PARAPET
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* NOTE:- FOR WALL CUT OUT, FLOOR CUTOUT REFER RESPECTIVE STRUCTURAL & ELECTRICAL, VENTILATION DRAWING

BHEL-PROJECT ENGINEERING MANAGEMENT(CIVIL)
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NAME: SOMNATH MISHRA
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| PROJECT | 2x660MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI | |
| TANGEDCO | OWNER | TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED |
| DESEIN | OWNER'S CONSULTANT:- | DESEIN PRIVATE LIMITED DESEIN HOUSE, NEW DELHI |
| BHEL | EPC CONTRACTOR:- | BHARAT HEAVY ELECTRICALS LTD |

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BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

| DEPT | NAME | SIGN. | DATE |
|---|---|---|---|
| CODE | | | |
| DRN | DM | -sd- | 10.07.17 |
| DESN | A RAWAL | -sd- | 10.07.17 |
| CHD | S. MISHRA | -sd- | 10.07.17 |
| APPD | A.NARAYAN | -sd- | 10.07.17 |

TITLE
POWER HOUSE BUILDING
ARCHITECTURAL REAR ELEVATION (UNIT-2)

DEPT. SCALE:
SIGN
DATE

DRAWING NO.
PE-DG-412-611-C033
SHEET 2 OF 2 REV. 0

FORMAT SIZE A0

ELECTRONIC FILE NAME

DRAWING NO. PE-DG-412-611-C034

FIRST ANGLE PROJECTION

ALL DIMENSIONS ARE IN MM

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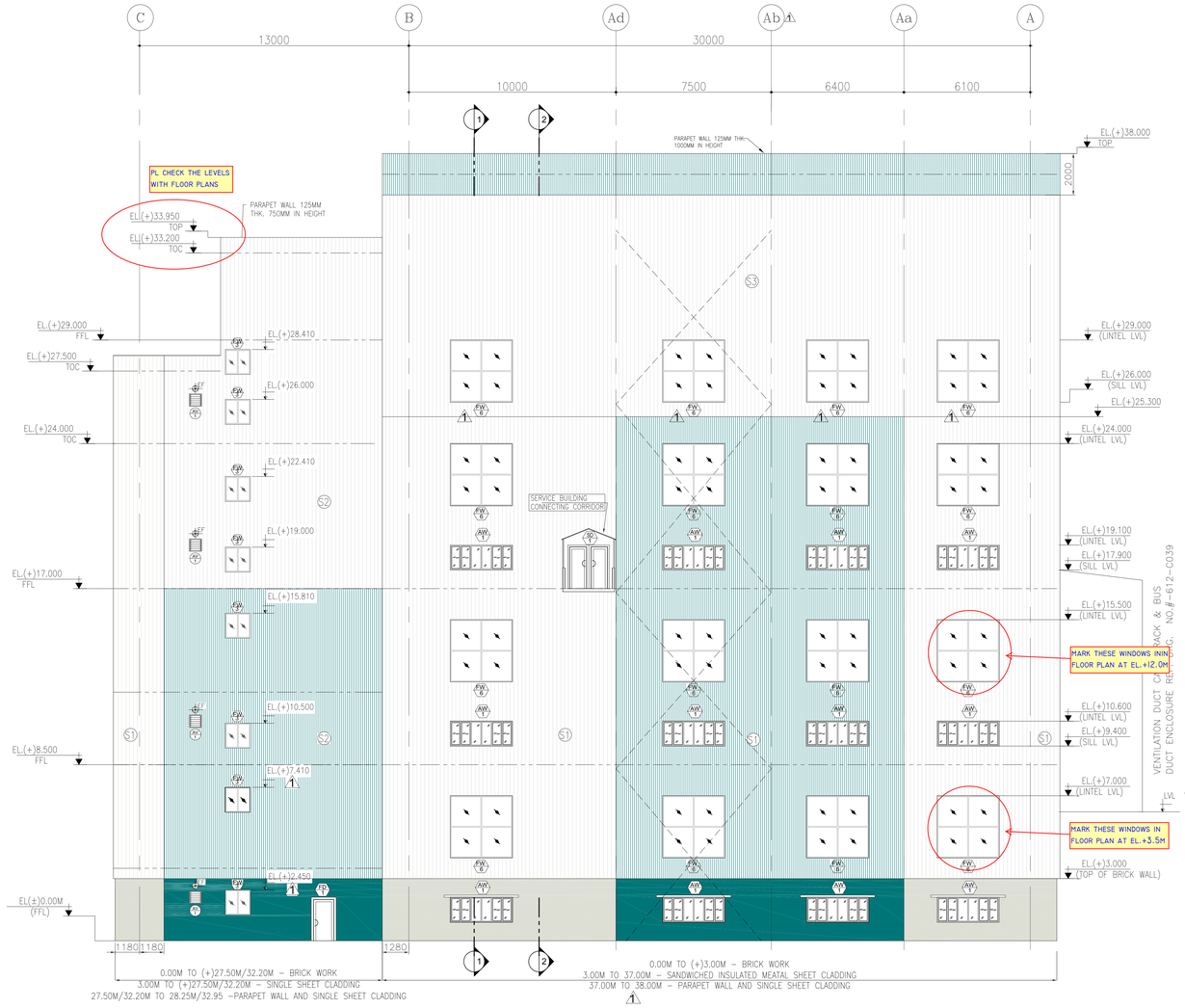
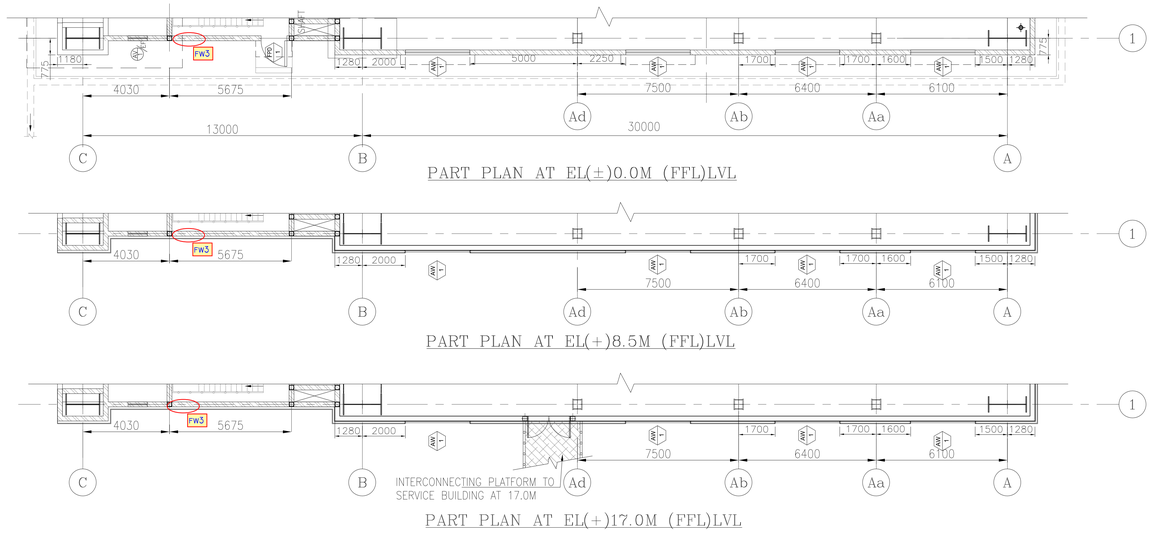
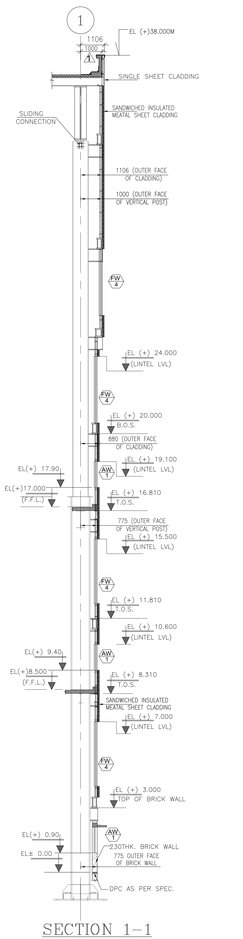
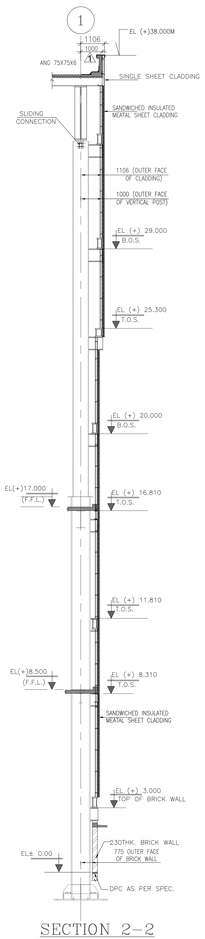



## 1 ELEVATION ALONG GRID–1




## SECTION 1–1




## SECTION 2–2

| SCHEDULE OF WINDOW OPENINGS (UNIT–1) | | | | | |
|---|---|---|---|---|---|
| SYMBOL | NOS. | SILL LEVEL AT EL ... | MASONRY OPENING WIDTH | MASONRY OPENING HEIGHT | DESCRIPTION |
| FW 4 | 4 | (+)4.000 | 3000 | 3000 | ANODISED ALUMINUM FRAMED FIXED GLAZED WINDOW WITH 6MM THK. WIRED GLASS |
| | 4 | (+)12.500 | | | |
| | 4 | (+)21.000 | | | |
| | 4 | (+)26.000 | | | |
| FW 1 | 8 | AS/ELE. | 1200 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLAZED WINDOW WITH 6MM THK. WIRED GLASS |

NOTE: SCHEDULE OF WINDOWS OPENINGS THAT ARE NOT VISIBLE IN PLANS ARE COVERED UNDER ELEVATION DWG. AND SHOWN IN ABOVE TABLE, FOR OTHER WINDOW AND DOOR OPENINGS RESPECTIVE FLOOR PLAN DRAWINGS SHALL BE REFERRED. 1

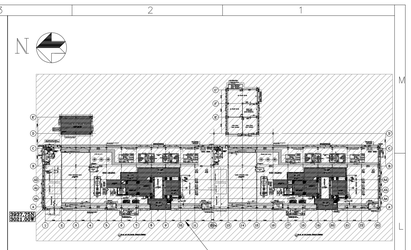
LEGEND

| SURFACE | OUTER FACE OF WALL & CLADDING FROM GRID–1 |
|---|---|
| S1 | 925 MM |
| S2 | 265 MM |
| S3 | 1106 MM |

PL REFER THE COMMENTS MARK ON DRAWING 412-611-C032.

LEGEND 1

| S.NO | LEGEND | DESCRIPTION |
|---|---|---|
| 1 | | TO BE MATCHED WITH RAL 9018 GREY (PLASTERED SURFACE) |
| 2 | | TO BE MATCHED WITH RAL 5021 WATER BLUE (PLASTERED SURFACE) |
| 3 | | RAL 9018 GREY (METAL CLADDING) |
| 4 | | RAL 5021 WATER BLUE (METAL CLADDING) |




## KEY PLAN

NOTES:–

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS STATED OTHERWISE.
2. ALL ELEVATIONS ARE REFERRED TO POWER HOUSE FINISHED GROUND FLOOR ELEVATION ± 0.00M WHICH CORRESPONDS TO RL(+) 10.00M
3. FOR TG COLs & FLOOR FRAMING REFER CIVIL DRGs SEPARATELY.
4. UNLESS NOTED OTHERWISE WINDOW / DOOR/ ROLLING SHUTTER LOCATION SHALL BE AT CENTER BETWEEN GRIDS.
5. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH CONTRACT TERMS AND CONDITIONS, SPECIFICATION AND SCHEDULE OF ITEMS.

REFERENCE DRGS.:–

1. PE–DG–412–100–M001 – PLOT PLAN
2. PE–DG–412–100–M003–R4 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 0.0M
3. PE–DG–412–100–M004–R3 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 8.50M
4. PE–DG–412–100–M005–R3 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 17.0M
5. PE–DG–412–100–M006–R3 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 24.0M/ 25.5M
6. PE–DG–412–100–M007–R2 – CROSS SECTION OF MAIN PLANT

ARCHITECTURAL STANDARD DRAWINGS.:–

1. PE–DG–412–611–C031 – PH BUILDING–GEN. NOTES & STD. DETAILS FOR ARCH. WORKS

ARCHITECTURAL DRAWINGS:–

1. PE–DG–412–611–C035 & C036–R1 – PH BUILDING – FLOOR PLAN AT EL(±)0.00M
2. PE–DG–412–611–C039–R1 – PH BUILDING – FLOOR PLAN AT EL(+)3.50M
3. PE–DG–412–611–C040 & C041–R1 – PH BUILDING – FLOOR PLAN AT EL(+)8.50M
4. PE–DG–412–611–C042–R1 – PH BUILDING – FLOOR PLAN AT EL(+)12.00M
5. PE–DG–412–611–C043 & C044–R1 – PH BUILDING – FLOOR PLAN AT EL(+)17.00M
6. PE–DG–412–611–C052 & C053–R1– PH BUILDING – FLOOR PLAN AT EL(+)24.00M
7. PE–DG–412–611–C054–R1 – PH BUILDING – FLOOR PLAN AT EL(+)27.50M
8. PE–DG–412–611–C055–R1 – PH BUILDING – FLOOR PLAN AT EL(+)32.50M
9. PE–DG–412–611–C056–R1 – PH BUILDING – ROOF PLAN
10. PE–DG–412–611–C032–R1 – PH BUILDING – ARCHITECTURAL FRONT ELEVATION
11. PE–DG–412–611–C033–R1 – PH BUILDING – ARCHITECTURAL REAR ELEVATION
12. PE–DG–412–611–C034–R1–Sheet2of2– PH BUILDING – ARCH. ELEVATION ALONG GABLE END

STRUCTURAL DRAWINGS:–

1. PE–DG–412–612–C001–R4 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS–A
2. PE–DG–412–612–C002–R4 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS–B
3. PE–DG–412–612–C003–R3 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS–C
4. PE–DG–412–612–C004–R2 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS –D, E & F
5. PE–DG–412–612–C014–R0 – CLADDING FRAMING ALONG GABLE END

LEGENDS:–

- 345 THK FIRE BRICK WALL
- CONCRETE HATCH
- BRICK WALL
- OPENING
- GRATING FLOOR
- CHEQUERED PLATE FLOOR
- REMOVABLE GRATING FLOOR
- REMOVABLE CHEQUERED PLATE FLOOR
- EL(+)X.XXX – LEVEL TAG
- ROLLING SHUTTER
- HAND RAILING

BOP – BOTTOM OF OPENING
℄ – CENTER LINE
EF – EXHAUST FAN
EL – ELEVATION
FFL – FINISHED FLOOR LEVEL
TOC – TOP OF CONCRETE
TOCP – TOP OF CHEQUERED PLATE
TOP – TOP OF PARAPET
TOG – TOP OF GRATING
TYP – TYPICAL
UNO – UNLESS NOTED OTHERWISE

* NOTE:– FOR WALL CUT OUT, FLOOR CUTOUT REFER RESPECTIVE STRUCTURAL & ELECTRICAL, VENTILATION DRAWING

| 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 | SOMNATH MISHRA |
| SIGNATURE | –sd– |
| DATE | 05.07.18 |

| | | |
|---|---|---|
| PROJECT | 2x660MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI | |
| | OWNER | TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED |
| DESEIN | OWNER'S CONSULTANT:- | DESEIN PRIVATE LIMITED DESEIN HOUSE, NEW DELHI |
| BHEL | EPC CONTRACTOR:- | BHARAT HEAVY ELECTRICALS LTD |

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| | | | | |

JOB NO. 412
STATUS CONTRACT
DISTRIBUTION
TO

| No. OF | REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|---|
| | 01 | 05.07.18 | OM | A RAWAL/OM | AN |

REVISED AS PER COMMENTS RECEIVED VIDE LETTER REF Lr.No. SE/CTP/EE/AE/Ennore SEZTPP /F. PHB (D-I/401)/17, dt. 13.12.17) & MKD. AS 1

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

| DEPT CODE | | NAME | SIGN | DATE |
|---|---|---|---|---|
| C | DRN | OM | –sd– | 10.07.17 |
| | DESN | A RAWAL | –sd– | 10.07.17 |
| | CHD | S. MISHRA | –sd– | 10.07.17 |
| | APPD | A.NARAYAN | –sd– | 10.07.17 |

TITLE
POWER HOUSE BUILDING
ARCHITECTURAL ELEVATION ALONG GRID–1

| DEPT. | SCALE: | DRAWING NO. |
|---|---|---|
| SIGN | | PE–DG–412–611–C034 |
| DATE | | SHEET 1 OF 2 REV. 1 |

FORMAT SIZE A0

ELECTRONIC FILE NAME:

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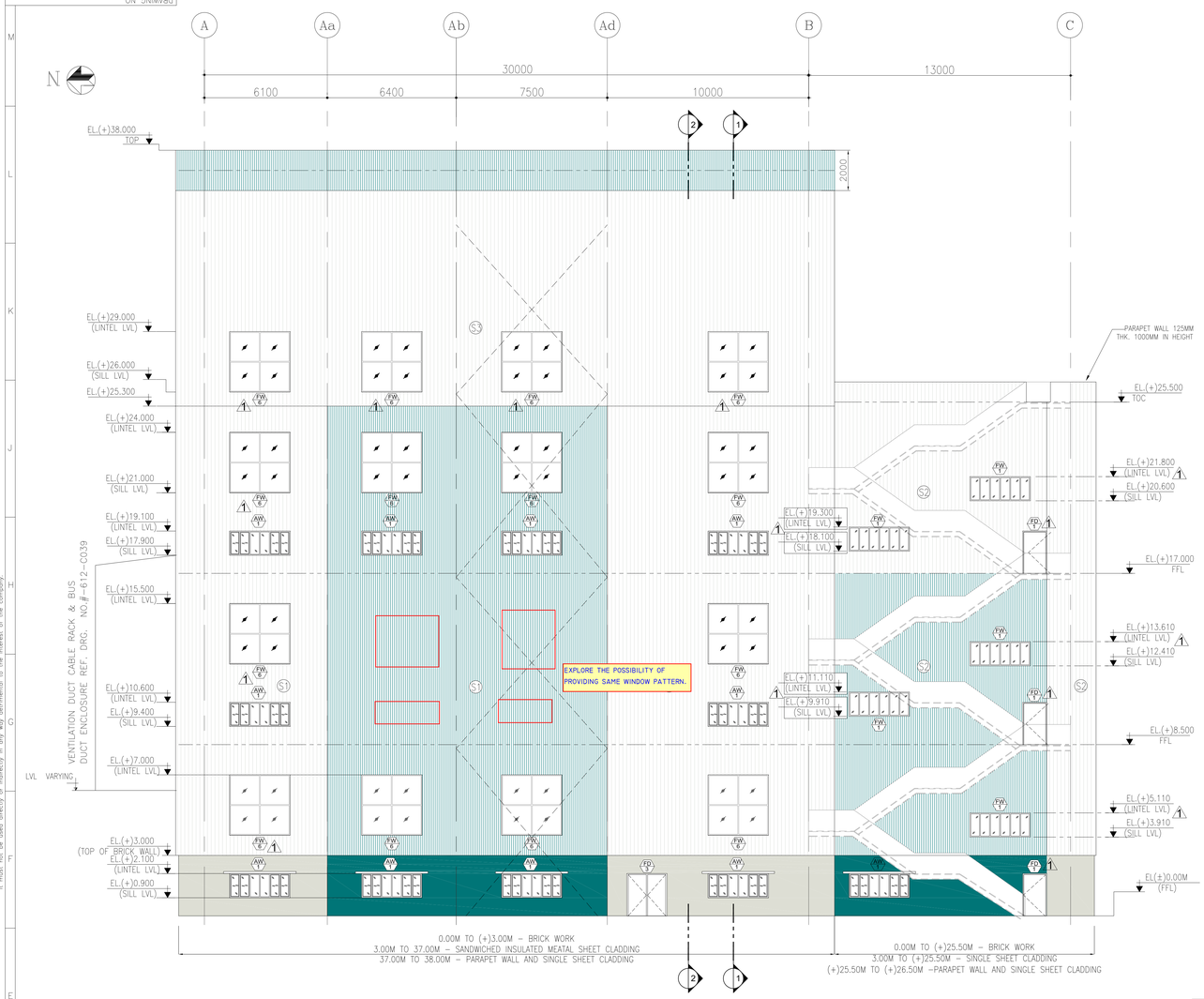
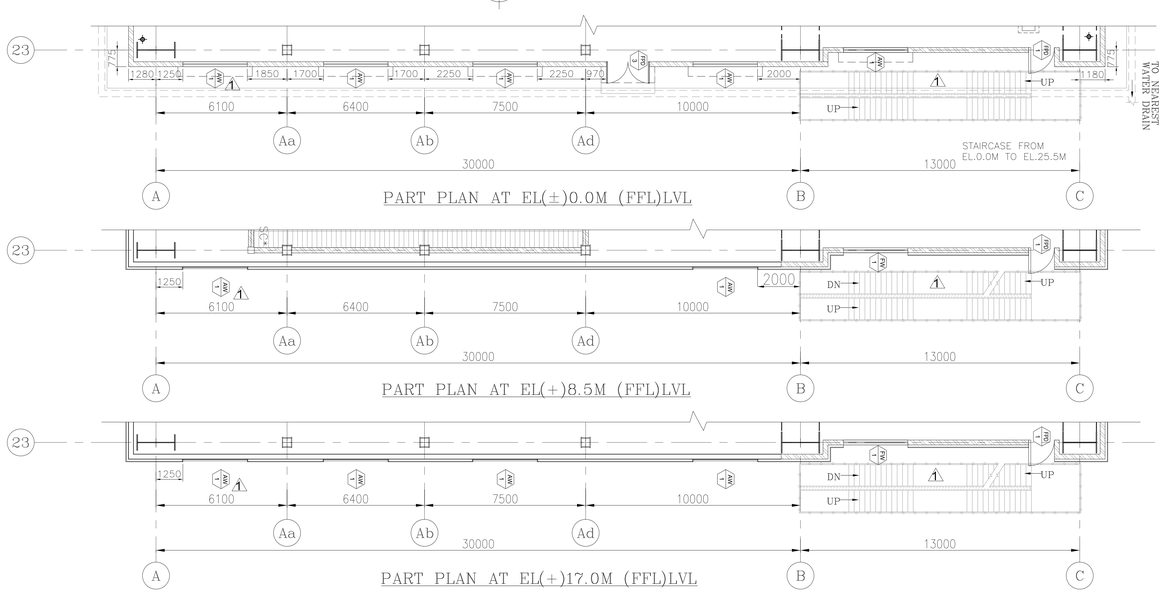
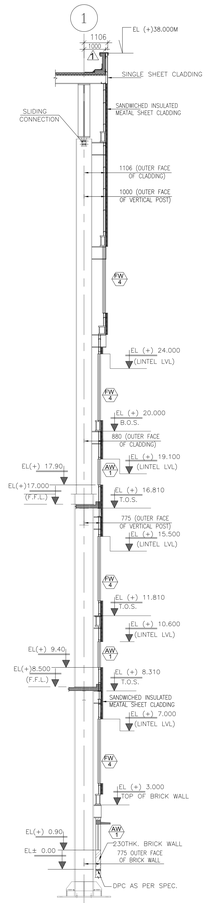
DRAWING NO. PE-DG-412-611-C034

ELECTRONIC FILE NAME

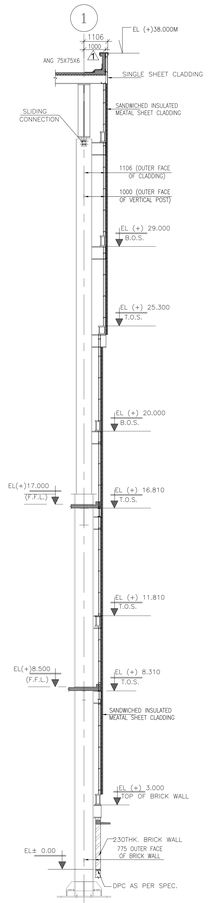



## 1 ELEVATION ALONG GRID-23




SECTION 1–1




SECTION 2–2

### SCHEDULE OF WINDOW OPENINGS (UNIT-2)

| SYMBOL | NOS. | SILL LEVEL AT EL ... | MASONRY OPENING WIDTH | MASONRY OPENING HEIGHT | DESCRIPTION |
|---|---|---|---|---|---|
| FW 4 | 4 | (+)4.000 | 3000 | 3000 | ANODISED ALUMINUM FRAMED FIXED GLAZED WINDOW WITH 6MM THK. WIRED GLASS |
| | 2 | (+)12.500 | | | |
| | 4 | (+)21.000 | | | |
| | 4 | (+)26.000 | | | |
| FW 1 | 3 | AS/ELE | 3000 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLAZED WINDOW WITH 6MM THK. WIRED GLASS |

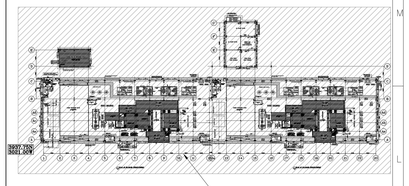
NOTE: SCHEDULE OF WINDOWS OPENINGS THAT ARE NOT VISIBLE IN PLANS ARE COVERED UNDER ELEVATION DWG. AND SHOWN IN ABOVE TABLE, FOR OTHER WINDOW AND DOOR OPENINGS RESPECTIVE FLOOR PLAN DRAWINGS SHALL BE REFERRED. 1

### LEGEND

| SURFACE | OUTER FACE OF WALL & CLADDING FROM GRID-1 |
|---|---|
| S1 | 925 MM |
| S2 | 265 MM |
| S3 | 1106 MM |

### LEGEND 1

| S.NO | LEGEND | DESCRIPTION |
|---|---|---|
| 1 | | TO BE MATCHED WITH RAL 9018 GREY (PLASTERED SURFACE) |
| 2 | | TO BE MATCHED WITH RAL 5021 WATER BLUE (PLASTERED SURFACE) |
| 3 | | RAL 9018 GREY (METAL CLADDING) |
| 4 | | RAL 5021 WATER BLUE (METAL CLADDING) |




## KEY PLAN

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5. PE-DG-412-100-M006-R3 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 24.0M/ 25.5M
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7. PE-DG-412-611-C054-R1 – PH BUILDING – FLOOR PLAN AT EL(+)27.50M
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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 | SOMNATH MISHRA |
| SIGNATURE | –sd– |
| DATE | 05.07.18 |

| | | |
|---|---|---|
| PROJECT | 2x660MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI | |
| | OWNER | TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED |
| | OWNER'S CONSULTANT:- | DESEIN PRIVATE LIMITED DESEIN HOUSE, NEW DELHI |
| | EPC CONTRACTOR:- | BHARAT HEAVY ELECTRICALS LTD |

JOB NO. 412
STATUS CONTRACT
DISTRIBUTION
TO..
No. OF

| REV. | DATE | ALTD | CHD | APPD |
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| REV. | DATE | ALTD | CHD | APPD |
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| 01 | 05.07.18 | OM | A RAMAL/SM | AN |

REVISED AS PER COMMENTS RECEVED VIDE LETTER REF
Lr.No. SE(CTP/ES/AE/Ennore SEZ/TPP /F. (H)) /D.149/17, dt. 13.11.17
& MKD. AS 1

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

| DEPT CODE | | NAME | SIGN | DATE |
|---|---|---|---|---|
| C | DRN | OM | –sd– | 10.07.17 |
| | DESN | A RAWAL | –sd– | 10.07.17 |
| | CHD | N. MISHRA | –sd– | 10.07.17 |
| | APPD | A.NARAYAN | –sd– | 10.07.17 |

TITLE
POWER HOUSE BUILDING
ARCHITECTURAL ELEVATION ALONG GRID-23

DEPT. SCALE: DRAWING NO. PE-DG-412-611-C034
SIGN
DATE
SHEET 2 OF 2 REV. 1

FORMAT SIZE A0

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DRAWING NO. PE-DG-412-611-C043

FIRST ANGLE PROJECTION — ALL DIMENSIONS ARE IN MM

## FINISH SCHEDULE

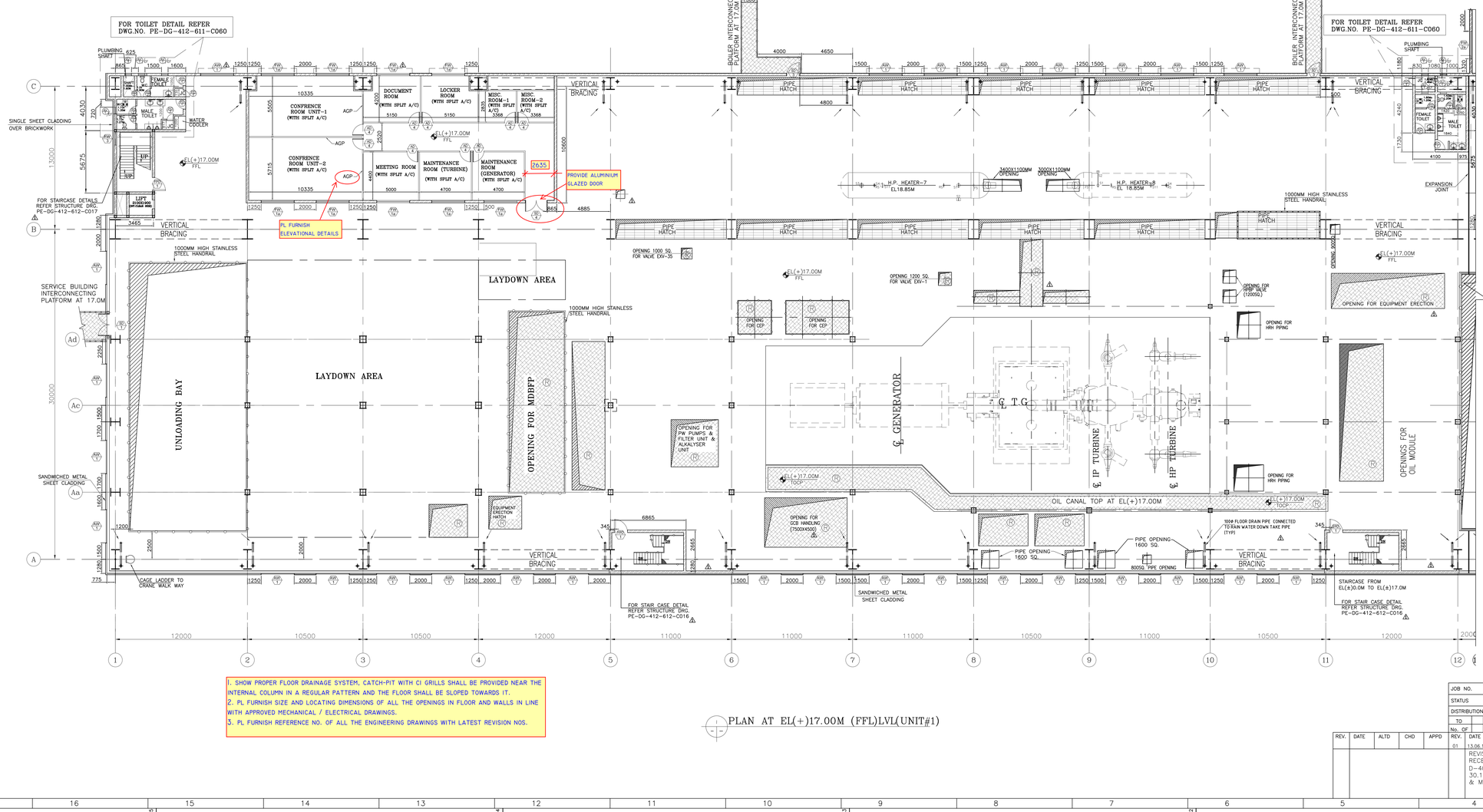
| SERIAL NUMBER | AREAS | FLOORING (TOTAL FLOORING THICKNESS = 50MM): GRANOLITHIC FLOORING | GRANOLITHIC WITH NON-METALLIC HARDENER | CORROBANDIUM TILES | HEAVY DUTY CEMENT CONCRETE TILES (CARBORANDUM) | GRANOLITHIC FLOOR WITH NON METALLIC HARDENER & PVC FINISHED WITH EPOXY COATING. | OIL RESISTANT PAINT | GLAZED VITRIFIED CERAMIC TILES | HEAVY DUTY CERAMIC TILES | ANTI SKID MARSONITE TILES | GLAZED VITRIFIED CERAMIC TILES OVER 20MM THK CEMENT MORTAR BED (HEAT RESISTANT, ANTI SKID OF DIFFERENT PLANE & COLOUR. | HEAVY DUTY ANTI SKID CERAMIC TILES | KOTA STONE. | INTERNAL WALLS — SKIRTING (150MM HIGH): CEMENT CONCRETE SKIRTING OVER CEMENT PLASTER FINISHED WITH EPOXY COATING. | DADO: GLAZED VITRIFIED CERAMIC TILES | CAMBORANDUM TILES | KOTA STONE. | PAINTING: CLADDING WITH GLAZED CERAMIC TILES OVER 20MM THK CEMENT MORTAR (ABOVE 2100M HIGH) | OIL RESISTANT PAINT | CHLORINATED RUBBER BASED PAINT ABOVE 2100MM HEIGHT | ACRYLIC EMULSION PAINT | DADO OF CAST IN SITU TERRAZZO UP TO 2100MM HEIGHT | CEILING (R.C.C) PAINTING: CHLORINATED RUBBER BASED PAINT | ALUMINIUM FALSE CEILING | FALSE CEILING AS PER DETAILS | ACRYLIC WASHABLE WHITE DISTEMPER | EXTERNAL WALL: BRICKWORK UPTO 3M. HIGH | SHEETING ABOVE 3M. | WATER PROOF CEMENT BASED PAINT | PERMANENT COLOUR COATED SANDWICHED INSULATED METAL CLADDING SYSTEM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | OPERATING FLOOR | | | ● | | | | | | | | | | | | | ● | | | | ● | | | | | | ● | | | |
| 2 | LAYDOWN AREA | | | ● | | | | | | | | | | | | | | | | | ● | | | | | | ● | | | |
| 3 | PASSAGE AND GENERAL CIRCULATION AREA | | | | | | | ● | | | | | | | | | ● | | | | ● | | | | | | ● | | | |
| 4 | HEATER AREA | | | | ● | | | | | | | | | | | | | ● | | | | ● | | | | | | ● | | | |
| 5 | CONFRENCE ROOM ⚠ | | | | | | | ● | | | | | | | | | ● | | | | ● | | | ● | | ● | | | | |
| 6 | DOCUMENT ROOM ⚠ | | | | | | | | | | | | | ● | | | | ● | | | ● | | | | | ● | | | | |
| 7 | MEETING ROOM ⚠ | | | | | | | ● | | | | | | | | | ● | | | | ● | | | ● | | ● | | | | |
| 8 | LOCKER ROOM ⚠ | | | | | | | | | | | | | ● | | | | | ● | | ● | | | | | ● | | | | |
| 9 | OTHER AREA | ● | | | | | | | | | | | | | ● | | | | | | ● | | | | | ● | | | | |
| 10 | STEEL STAIR CASE WALL ENCLOSURE ⚠ | | | | | | | | | | | | | | | | | | | | ● | | | | | ● | | | | |
| 11 | TOILETS | | | | | | | | | | | | ● | | | | | | ● | | ● | ● | | | | ● | | | | |
| 12 | LIFT AREA | | | | | | | ● | | | | | | | | | ● | | | | ● | | ● | | | ● | | | | |
| 13 | OIL CANAL ⚠ | | | | | | ● | | | | | | | | | | | | | | | | | ● | | | | | | |

PROVIDE VITRIFIED TILES AS PER CLAUSE 26.05.II OF TECH. SPEC.

## SCHEDULE OF JOINERY

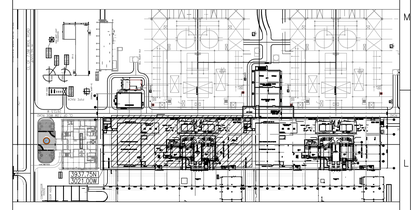
| SYMBOL | NOS. | SILL LEVEL AT EL... | MASONRY OPENING WIDTH | MASONRY OPENING HEIGHT | DESCRIPTION |
|---|---|---|---|---|---|
| SD/1 | 1 | (+)17.000 | 2000 | 2100 | STEEL DOOR – DOUBLE SHUTTER |
| SD/2 | – | (+)17.000 | 1000 | 2100 | STEEL DOOR – SINGLE SHUTTER |
| SD/3 | 2 | (+)17.000 | 1200 | 2100 | STEEL DOOR – SINGLE SHUTTER |
| SD/4 | 1 | (+)17.000 | 2000 | 2400 | STEEL DOOR – DOUBLE SHUTTER |
| FPD/1 | 3 | (+)17.000 | 1200 | 2100 | FIRE PROOF DOOR – SINGLE SHUTTER WITH PANIC DEVICE & VISION PANEL, 6MM THK. GLASS |
| FPD/2 | – | (+)17.000 | 1500 | 2100 | FIRE PROOF DOOR – DOUBLE SHUTTER WITH PANIC DEVICE & VISION PANEL, 6MM THK. GLASS |
| FPD/3 | – | (+)17.000 | 2000 | 2100 | FIRE PROOF DOOR – DOUBLE SHUTTER WITH PANIC DEVICE & VISION PANEL, 6MM THK. GLASS |
| PD/1 | 4 | (+)17.000 | 900 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD/2 | 6 | (+)17.000 | 750 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD/3 | 5 | (+)0.300 | 600 | 1800 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD/4 | – | (+)17.000 | 1000 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| AD/1 | 10 | (+)17.000 | 1200 | 2400 | ALUMINIUM FRAME GLAZED DOOR – SINGLE SHUTTER |
| AW/1 | 24 | (+)17.900 | 3000 | 1200 | ANODISED ALUMINUM FRAMED SLIDING WINDOW WITH 6MM THK CLEAR PLANT GLASS |
| AW/2 | – | (+)17.900 | 2500 | 1200 | ANODISED ALUMINUM FRAMED SLIDING WINDOW WITH 6MM THK CLEAR PLANT GLASS |
| FW/1 | 4 | (+)17.900 | 3000 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLAZED WINDOW |
| FW/2 | – | (+)17.900 | 2500 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLAZED WINDOW |
| FW/3 | – | AS/ZLE | 1200 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLASS WINDOW WITH 6MM THK WIRED GLASS |
| FW/4 | 9 | (+)17.900 | 3000 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLAZED WINDOW WITH DOUBLE SHEET TOUGHENED GLASS HERMITICALLY SEALED |
| AV/1 | 6 | (+)18.800 | 600 | 600 | ANODISED ALUMINUM FRAMED LOUVERED VENTILATOR |
| AV/2 | – | – | 1000 | 400 | ANODISED ALUMINUM FRAMED LOUVERED VENTILATOR |
| AV/3 | 2 | (+)17.450 | 600 | 1650 | ANODISED ALUMINUM FRAMED LOUVERED VENTILATOR |
| EF ⚠ | 7 | (+)19.700 | 330ø | | EXHAUST FAN |

ALL WINDOWS ON EXTERNAL FACE OF THE BUILDING SHALL BE GLAZED WITH 6MM THICK WIRED GLASS, REFER CLAUSE 26.08.00 OF TECH SPEC.




1. SHOW PROPER FLOOR DRAINAGE SYSTEM, CATCH-PIT WITH CI GRILLS SHALL BE PROVIDED NEAR THE INTERNAL COLUMN IN A REGULAR PATTERN AND THE FLOOR SHALL BE SLOPED TOWARDS IT.
2. PL FURNISH SIZE AND LOCATING DIMENSIONS OF ALL THE OPENINGS IN FLOOR AND WALLS IN LINE WITH APPROVED MECHANICAL / ELECTRICAL DRAWINGS.
3. PL FURNISH REFERENCE NO. OF ALL THE ENGINEERING DRAWINGS WITH LATEST REVISION NOS.

## PLAN AT EL(+)17.00M (FFL)LVL(UNIT#1)



## KEY PLAN

### NOTES:–

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS STATED OTHERWISE.
2. ALL ELEVATIONS ARE REFERRED TO POWER HOUSE FINISHED GROUND FLOOR ELEVATION ± 0.00M WHICH CORRESPONDS TO RL(+) 10.00M
3. FOR TG COLs & FLOOR FRAMING REFER CIVIL DRGs SEPARATELY.
4. UNLESS NOTED OTHERWISE WINDOW / DOOR/ ROLLING SHUTTER LOCATION SHALL BE AT CENTER BETWEEN GRIDS.
5. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH CONTRACT TERMS AND CONDITIONS, SPECIFICATION AND SCHEDULE OF ITEMS.

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1. PE-DG-412-100-M001 – PLOT PLAN
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3. PE-DG-412-100-M004-R4 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 8.50M
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5. PE-DG-412-100-M006-R3 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 24.0M/ 25.5M
6. PE-DG-412-100-M007-R2 – CROSS SECTION OF MAIN PLANT

### ARCHITECTURAL STANDARD DRAWINGS.:–

1. PE-DG-412-611-C031 – PH BUILDING-GEN. NOTES & STD. DETAILS FOR ARCH. WORKS

### ARCHITECTURAL DRAWINGS:–

1. PE-DG-412-611-C035 & C036-R1 – PH BUILDING – FLOOR PLAN AT EL(±)0.00M
2. PE-DG-412-611-C039-R1 – PH BUILDING – FLOOR PLAN AT EL(+)3.50M
3. PE-DG-412-611-C040 & C041-R1 – PH BUILDING – FLOOR PLAN AT EL(+)8.50M
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4. PE-DG-412-612-C004-R2 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS –D, E & F

**LEGENDS:–**

- 345 THK FIRE BRICK WALL
- CONCRETE HATCH
- BRICK WALL
- OPENING
- GRATING FLOOR
- CHEQUERED PLATE FLOOR
- (R) REMOVABLE GRATING FLOOR
- (RC) REMOVABLE CHEQUERED PLATE FLOOR
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- RS ROLLING SHUTTER
- HAND RAILING
- BOP – BOTTOM OF OPENING
- ℄ – CENTER LINE
- EF – EXHAUST FAN
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☑ COMMENTS/APPROVAL
☐ PLANNING/INFORMATION
☐ CONSTRUCTION
STAMP ALL PREVIOUS REVISION AS SUPERSEDED

| ISSUED BY | |
|---|---|
| NAME | SOMNATH MISHRA |
| SIGNATURE | |
| DATE | 13.06.18 |

| | |
|---|---|
| PROJECT | 2x660MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI |
| OWNER | TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED |
| OWNER'S CONSULTANT:- | DESEIN PRIVATE LIMITED DESEIN HOUSE, NEW DELHI |
| EPC CONTRACTOR:- | BHARAT HEAVY ELECTRICALS LTD |

| JOB NO. | 412 |
|---|---|
| STATUS | CONTRACT |
| DISTRIBUTION | |
| TO | |
| No. OF | |

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
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| 01 | 13.06.18 | OM | A. RAWAL | AN |

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BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

| DEPT CODE | | NAME | SIGN | DATE |
|---|---|---|---|---|
| C | DRN | OM | –sd– | 07.07.17 |
| | DESN | A. RAWAL | –sd– | 07.07.17 |
| | CHD | S. MISHRA | –sd– | 07.07.17 |
| | APPD | A.NARAYAN | –sd– | 07.07.17 |

TITLE: POWER HOUSE BUILDING
ARCHITECTURAL PLAN AT EL.(+)17.00M(FFL)LVL.(UNIT#1)

DEPT. | SCALE: 1:100 | DRAWING NO. PE-DG-412-611-C043
SIGN | DATE | SHEET 1 OF 1 | REV. 1

FORMAT SIZE A0

ELECTRONIC FILE NAME:

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It must not be used directly or indirectly in any way detrimental to the interest of the company.

ELECTRONIC FILE NAME:

FOR DETAILS REFER STRUCTURE DRG. PE-DG-412-612-C019

STAIRCASE FROM EL(±)0.0M TO EL(+)32.50M

PROVIDE VITRIFIED TILES AS PER CLAUSE 26.05.II of TECH. SPEC.

(*) ALL COLUMN ENCASING TO BE DONE AFTER ERECTION OF CABLES TRAYS.

PROVIDE SLIDING DOOR

CONTROL EQUIPMENT ROOM (FOR UNIT#1)

CONTROL EQUIPMENT ROOM (FOR UNIT#2)

COMPUTER ROOM

COMPUTER ROOM

CONTROL EQUIPMENT ROOM (FOR UNIT#1)

CONTROL EQUIPMENT ROOM (FOR UNIT#2)

COMMON CONTROL ROOM

LAYDOWN AREA

LAYDOWN AREA

UNLOADING BAY

OPENING FOR MDBFP

FW/2A

FW/1A

EL(+)17.00M FFL

PIPES FOR CABLING

PL CHECK FOR BRICK WALL

A/C

PL FURNISH SIZE/ELEVATIONAL DETAILS.

AGP WITH DOUBLE SHEET TOUCHENED GLASS (HERMITICALLY SEALED)

PROVIDE VISITOR LOBBY IN LINE WITH DRG. 145-1401(RL).

1000MM HIGH STAINLESS STEEL HANDRAIL

FOR STAIRCASE DETAILS REFER STRUCTURE DRG. PE-DG-412-612-C017

SHOE RACK

VISITORS GALLERY

PIPE OPENING 800SQ

OPENING 1000 SQ. FOR VALVE EXV-35

OPENING 1200 SQ. FOR VALVE EXV-1

OPENING FOR CEP

OPENING FOR PW PUMPS & FILTER UNIT & ALKALYSER UNIT

OPENING FOR GCB HANDLING (7500X4500)

EQUIPMENT ERECTION HATCH

CAGE LADDER TO CRANE WALK WAY

GLAZING AS PER ELEVATION DRG. NO. PE-DG-412-611-C031 (TYP)

VERTICAL BRACING

PL CHECK THE LAYOUT WITH DRG. 145-1401(RL) AND MODIFY ACCORDINGLY.

PADO ROOM UNIT-1 (A/C ROOM)

PADO ROOM UNIT-2 (A/C ROOM)

BMS ROOM (A/C)

STAIRCASE FROM EL(±)0.0M TO EL(±)17.0M FOR STAIR CASE DETAIL REFER STRUCTURE DRG. PE-DG-412-612-C016

SANDWICHED METAL SHEET CLADDING

BOILER INTERCONNECTING PLATFORM AT 17.0M

PIPE HATCH

1000MM HIGH STAINLESS STEEL HANDRAIL

FOR DETAILS REFER STRUCTURE DRG. PE-DG-412-612-C01

OPENING 900SQ

OPENING FOR HPBP VALVE (1200SQ.)

OPENING FOR HRH PIPING

OPENING FOR EQUIPMENT ERECTION

℄ GENERATOR

℄ T.G

℄ IP TURBINE

℄ HP TURBINE

OIL CANAL TOP AT EL(+)17.00M

OPENINGS FOR OIL MODULE

SANDWICHED METAL SHEET CLADDING

PIPE OPENING 1600 SQ.

800SQ PIPE OPENING

100ø FLOOR DRAIN PIPE CONNECTED TO RAIN WATER DOWN TAKE PIPE (TYP)

SINGLE SHEET CLADDING OVER BRICKWORK

FOR CONTINUATION TO UNIT#1 REFER DRAWING PE-DG-412-611-C043

PLAN AT EL(+)17.00M (FFL)LVL(UNIT#2)

1. SHOW PROPER FLOOR DRAINAGE SYSTEM, CATCH-PIT WITH CI GRILLS SHALL BE PROVIDED NEAR THE INTERNAL COLUMN IN A REGULAR PATTERN AND THE FLOOR SHALL BE SLOPED TOWARDS IT.
2. PL FURNISH SIZE AND LOCATING DIMENSIONS OF ALL THE OPENINGS IN FLOOR AND WALLS IN LINE WITH APPROVED MECHANICAL / ELECTRICAL DRAWINGS .
3. PL FURNISH REFERENCE NO. OF ALL THE ENGINEERING DRAWINGS WITH LATEST REVISION NOS.

## FINISH SCHEDULE

| SERIAL NUMBER | AREAS | FLOORING (TOTAL FLOORING THICKNESS = 50MM) | | | | | | | | | | INTERNAL WALLS | | | | | | | | | | | | CEILING (R.C.C) PAINTING | | | EXTERNAL WALL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | SKIRTING (150MM HIGH) | | | DADO | | | | PAINTING | | | | | | | | | | |
| | | GRANOLITHIC FLOORING | GRANOLITHIC WITH NON-METALLIC HARDENER | CORBORANDUM TILES (HEAVY DUTY CERAMIC) | GRANOLITHIC FLOOR WITH NON METALLIC HARDENER & TOP INSTALLED FLOOR HARDENER & COLOUR | OIL RESISTANT PAINT | GLAZED VITRIFIED CERAMIC TILES | HEAVY DUTY CERAMIC TILES | ANTI SKID MARBONITE TILES | GLAZED VITRIFIED CERAMIC TILES FOR WET AREAS FOR HEAVY DUTY USE OF APPROVED BRAND & COLOUR. | HEAVY DUTY ANTI SKID CERAMIC TILES | KOTA STONE. | CEMENT CONCRETE SKIRTING | CEMENT CONCRETE SKIRTING TOP EXTENDED TO 300MM HIGH | GLAZED VITRIFIED CERAMIC TILES | CARBORANDUM TILES | BACKING WITH GLAZED CERAMIC TILES FOR WET AREAS (ABOVE 610MM HIGH) | CEMENT PLASTER BACKING FOR P.O.P 3MM RUB & FIXED 3MM MARBLE SLABS ABOVE 610MM HEIGHT | PVC LIP FLASH WALL UPTO 2.40M HEIGHT & CEMENT PLASTER UPTO 2.40M | DADO OF CAST IN SITU TERRAZZO UP TO 610MM HEIGHT | ACRYLIC WASHABLE DISTEMPER | OIL RESISTANT PAINT | CHLORINATED RUBBER BASED PAINT | ACRYLIC EMULSION PAINT | CHLORINATED RUBBER BASED PAINT | ALUMINIUM FALSE CEILING | FALSE CEILING AS PER DETAILS | ACRYLIC WASHABLE WHITE DISTEMPER | BRICKWORK UPTO 3M. HIGH | SHEETING ABOVE 3M WITH SHEETING LAPPED 3M WALL | SHEETING ABOVE 3M. |
| 1 | OPERATING FLOOR | | ● | ● | | | | | | | | | | | ● | | | | | | ● | | | | | | | ● | | | |
| | LAYDOWN AREA | | ● | | | | | | | | | | | | | | | | | | | | | | | | | ● | | | |
| | HEATER AREA | | | ● | | | | | | | | | | | | ● | | | | | ● | | | | | | | ● | | | |
| 2 | CENTRAL CONTROL ROOM (A/C) | | | | | | ● | | | | | | | | | ● | | | | | | | ● | | | | ● | | | |
| 3 | CONTROL EQUIPMENT ROOM (A/C) | | | | | | ● | | | | | | | | | ● | | | | | | | ● | | | | ● | | | |
| 4 | STATION INCHARGE ROOM (A/C) | | | | | | ● | | | | | | | | | ● | | | | | | | ● | | | | ● | | | |
| 5 | VISITORS GALLERY (A/C) ⚠ | | | | | | ● | | | | | | | | | ● | | | | | | | ● | | | | ● | | | |
| 6 | PADO ROOM (A/C) | | | | | | ● | | | | | | | | | ● | | | | | | | ● | | | | ● | | | |
| 7 | BMS ROOM (A/C) | | | | | | ● | | | | | | | | | ● | | | | | | | ● | | | | ● | | | |
| 8 | SERVER/ NETWORK ROOM (A/C) | | | | | | ● | | | | | | | | | ● | | | | | | | ● | | | | ● | | | |
| 9 | C&I ENGR ROOM (A/C) | | | | | | ● | | | | | | | | | ● | | | | | | | ● | | | | ● | | | |
| 10 | PANTRY | | | | | | | | | | ● | | | | | | | ● | | | | | | | | | ● | | | |
| 11 | PASSAGE AND GENERAL CIRCULATION AREA | | | | | | ● | | | | | | | | | ● | | | | | | | | | | | ● | | | |
| 12 | OTHER AREA | ● | | | | | | | | | | | | ● | | | | | | | ● | | | | | | ● | | | |
| 13 | STEEL STAIR CASE WALL ENCLOSURE ⚠ | | | | | | | | | | | | | | | | | | | ● | ● | | | | | | ● | | | |
| 14 | TOILETS | | | | | | | | | | ● | | | | | | | ● | | | ● | | | | | | ● | | | |
| 15 | LIFT AREA | | | | | | ● | | | | | | | | | ● | | | ● | | ● | | | | | | ● | | | |
| 16 | OIL CANAL ⚠ | | | | | ● | | | | | | | | | | | | | | | | ● | | | | | | | | |

NOTE: 1.HEIGHT OF FALSE CEILING IN CONTROL ROOM SHALL BE 4.00M FROM FFL.
2.REFER DWG NO PE-DG-412-611-C062 FOR CONTROL ROOM AREA FALSE CEILING DETAILS.

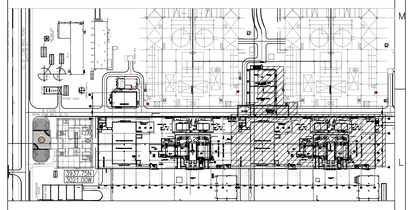
ALUMINIUM FALSE CEILING SYSTEM AS PER SPEC

EXTERNAL WALL: WATER PROOF CEMENT BASED PAINT | SHEETING WITH COLOR COATED SINGLE SHEET METAL CLADDING | FERMANENT COLOR COATED SANDWICHED INSULATED METAL CLADDING SYSTEM

## SCHEDULE OF JOINERY

| SYMBOL | NOS. | SILL LEVEL AT EL.. | MASONRY OPENING WIDTH | MASONRY OPENING HEIGHT | DESCRIPTION |
|---|---|---|---|---|---|
| SD/1 | – | (+)17.000 | 2000 | 2100 | STEEL DOOR – DOUBLE SHUTTER |
| SD/2 | – | (+)17.000 | 1000 | 2100 | STEEL DOOR – SINGLE SHUTTER |
| SD/3 | 2 | (+)17.000 | 1200 | 2100 | STEEL DOOR – SINGLE SHUTTER |
| SD/4 | – | (+)17.000 | 2000 | 2400 | STEEL DOOR – DOUBLE SHUTTER |
| SD/5 | 1 | (+)17.450 | 600 | 1650 | STEEL DOOR – SINGLE SHUTTER (SHAFT DOOR) |
| FPD/1 | 5 | (+)17.000 | 1200 | 2100 | FIRE PROOF DOOR – SINGLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK GLASS |
| FPD/2 | – | (+)17.000 | 1500 | 2100 | FIRE PROOF DOOR – DOUBLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK GLASS |
| FPD/3 | – | (+)17.000 | 2000 | 2100 | FIRE PROOF DOOR – DOUBLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK GLASS |
| PD/1 | – | (+)17.000 | 900 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD/2 | – | (+)17.000 | 750 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD/3 | – | (+)17.300 | 600 | 1800 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD/4 | – | (+)17.000 | 1000 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| AD/1 | 1 | (+)17.000 | 1000 | 2100 | ALUMINIUM FRAME PARTLY GLAZED DOOR – SINGLE SHUTTER |
| AD/2 | – | (+)17.000 | 2000 | 2100 | ALUMINIUM FRAME PARTLY GLAZED DOOR – DOUBLE SHUTTER |
| AD/3 | 8 | (+)17.000 | 1000 | 2400 | ALUMINIUM FRAME GLAZED DOOR – SINGLE SHUTTER |
| AD/4 | 4 | (+)17.000 | 1200 | 2400 | ALUMINIUM FRAME GLAZED DOOR – SINGLE SHUTTER |
| AD/5 | 7 | (+)17.000 | 2000 | 2400 | ALUMINIUM FRAME GLAZED DOOR – DOUBLE SHUTTER |
| SGD/1 | 2 | (+)17.000 | 2000 | 2400 | ANODISED ALUMINUM GLAZED SLIDING DOOR |
| AW/1 | 23 | (+)17.900 | 3000 | 1200 | ANODISED ALUMINUM FRAMED SLIDING WINDOW WITH 6MM THK. CLEAR FLOAT GLASS |
| AW/2 | – | (+)17.900 | 2500 | 1200 | ANODISED ALUMINUM FRAMED SLIDING WINDOW WITH 6MM THK. CLEAR FLOAT GLASS |
| FW/1 | – | (+)17.900 | 3000 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLAZED WINDOW WITH 6MM THK WIRED GLASS |
| FW/2 | – | (+)17.900 | 2500 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLAZED WINDOW WITH 6MM THK WIRED GLASS |
| FW/3 | – | AS/SLE | 1200 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLASS WINDOW WITH 6MM THK WIRED GLASS |
| FW/1A | 8 | (+)17.900 | 3000 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLAZED WINDOW WITH DOUBLE SHEET TOUGHENED GLASS HERMITICALLY SEALED |
| FW/2A | 6 | (+)17.900 | 2500 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLAZED WINDOW WITH DOUBLE SHEET TOUGHENED GLASS HERMITICALLY SEALED |
| AV/1 | 1 | (+)18.800 | 600 | 600 | ANODISED ALUMINUM FRAMED LOUVERED VENTILATOR |
| AV/2 | – | – | 1000 | 400 | ANODISED ALUMINUM FRAMED LOUVERED VENTILATOR |
| AV/3 | – | (+)0.450 | 600 | 1650 | ANODISED ALUMINUM FRAMED LOUVERED VENTILATOR |
| EF ⚠ | 2 | (+)19.700\ | 3304 | | EXHAUST FAN |

ALL WINDOWS ON EXTERNAL FACE OF THE BUILDING SHALL BE GLAZED WITH 6MM THICK WIRED GLASS, REFER CLAUSE 26.08.00 OF TECH SPEC.

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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: SOMNATH MISHRA
SIGNATURE:
DATE: 13.06.18

| | | |
|---|---|---|
| PROJECT | 2x660MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI | |
| OWNER | TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED | |
| OWNER'S CONSULTANT:- | DESEIN PRIVATE LIMITED DESEIN HOUSE, NEW DELHI | |
| EPC CONTRACTOR:- | BHARAT HEAVY ELECTRICALS LTD | |

JOB NO. 412
STATUS CONTRACT
DISTRIBUTION

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| | | | | |

| No. OF REV. | DATE | ALTD | CHD | APPD |
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| 01 | 13.06.18 | OM | A RAWAL | AN |

REVISED AS PER COMMENTS RECEIVED VIDE LETTER REF D-4027/TANGEDCO/1860 DT 30.11.17 & MKD. AS ⚠

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

| DEPT CODE | | NAME | SIGN | DATE |
|---|---|---|---|---|
| C | DRN | OM | –sd– | 07.07.17 |
| | DESN | A RAWAL | –sd– | 07.07.17 |
| | CHD | S. MISHRA | –sd– | 07.07.17 |
| | APPD | A.NARAYAN | –sd– | 07.07.17 |

TITLE: POWER HOUSE BUILDING
ARCHITECTURAL PLAN AT EL(+)17.00M(FFL)LVL(UNIT#2)

DEPT. | SCALE: 1:100 | DRAWING NO. PE-DG-412-611-C044
SIGN
DATE
SHEET 1 OF 1 | REV. 1

FORMAT SIZE A0

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DRAWING NO. PE-DG-412-611-C052

FIRST ANGLE PROJECTION — ALL DIMENSIONS ARE IN MM

## FINISH SCHEDULE

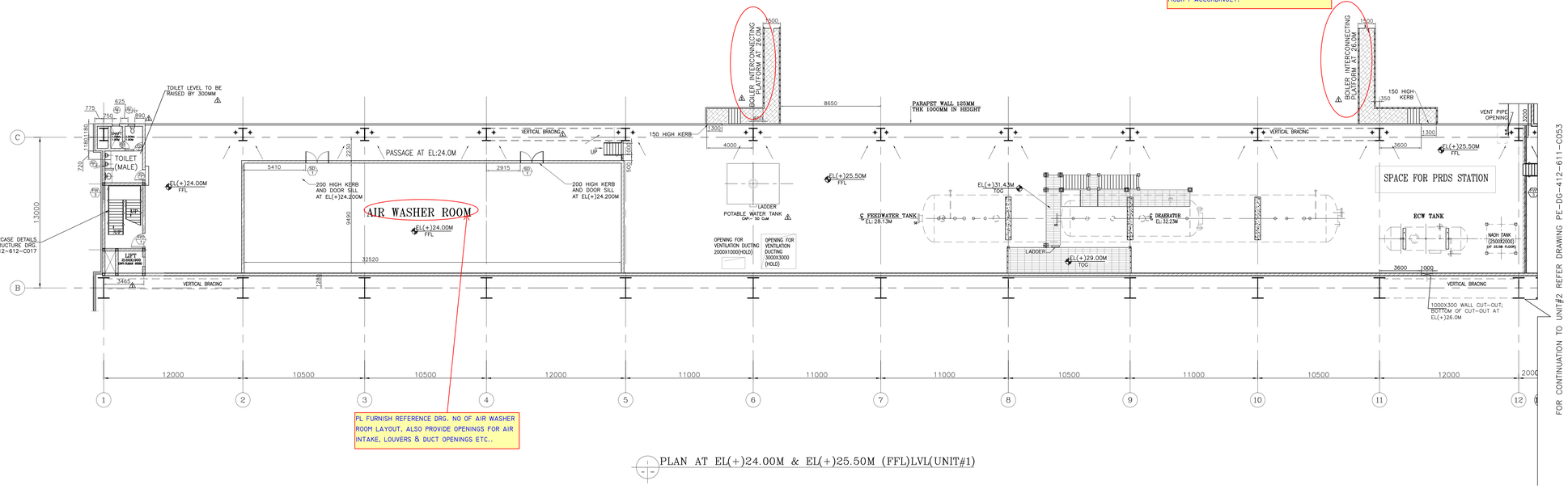
| SERIAL NUMBERS | AREAS | FLOORING (TOTAL FLOORING THICKNESS = 50MM): GRANOLITHIC FLOORING | GRANOLITHIC WITH NON-METALLIC HARDNER | CORBORANDUM TILES | HEAVY DUTY CEMENT CONCRETE TILES (CARBORANDUM) | CHEQUERED PLATE FLOOR WITH NON-METALLIC FLOOR HARDENER & TOP FINISHED WITH EPOXY COATING. | OIL RESISTANT PAINT | GLAZED VITRIFIED CERAMIC TILES | HEAVY DUTY CERAMIC TILES | ANTI SKID MARBONITE TILES | FOR PLANT AREAS (OTHER THAN WET AREAS) HEAVY DUTY ANTI SKID CERAMIC TILES | HEAVY DUTY ANTI SKID CERAMIC TILES | KOTA STONE. | INTERNAL WALLS: LIGHTING (150MM HIGH): CEMENT CONCRETE SKIRTING | CEMENT CONCRETE SKIRTING TOP FINISHED WITH EPOXY COATING. | DADO: GLAZED VITRIFIED CERAMIC TILES | CARBORANDUM TILES | DADOING WITH GLAZED CERAMIC TILES FOR 2100 MM (ABOVE 300MM HIGH) | ACID & ALKALI TILE DADOING FOR 2100 MM | CHLORINATED RUBBER BASED PAINT ABOVE 2100 MM | FOR LIFT FACIA WALL UPTO 2.40M HEIGHT POLISHED GRANITE CLADDING | DADOING WITH GLAZED TILES UPTO 1.20M TERRAZZO UP TO 2.40MM HEIGHT | PAINTING: ACRYLIC WASHABLE DISTEMPER | OIL RESISTANT PAINT UPTO 2.10M HEIGHT | CHLORINATED RUBBER BASED PAINT | ACRYLIC EMULSION PAINT | CEILING (R.C.C) PAINTING: CHLORINATED RUBBER BASED PAINT | ALUMINIUM FALSE CEILING | FALSE CEILING AS PER DETAILS | ACRYLIC WASHABLE WHITE DISTEMPER | EXTERNAL WALL: BRICKWORK UPTO 3M. HIGH | WATER PROOF CEMENT BASED PAINT | SHEETING ABOVE 3M OVER BRICK WALL/ PARAPET WALL. | PERMANENT COLOUR COATED SANDWICHED INSULATED METAL CLADDING SYSTEM | SHEETING ABOVE 3M. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | AIR WASHER ROOM | | ● | | | | | | | | | | | ● | | | | | | | | ● | | | | | | | ● | | | | | |
| 2 | PASSAGE IN GENERAL AREA | ● | | | | | | | | | | | | ● | | | | | | | | ● | | | | | | | ● | | | | | |
| 3 | OTHER AREA | ● | | | | | | | | | | | | ● | | | | | | | | ● | | | | | | | ● | | | | | |
| 4 | STEEL STAIR CASE WALL ENCLOSURE ⚠ | | | | | | | | | | | | | | | | | | | | ● | ● | | | | | | | ● | | | | | |
| 5 | TOILETS | | | | | | | | | | | | ● | | | | ● | | | | | ● | | | | | | | ● | | | | | |
| 6 | LIFT AREA | | | ● | | | | | | | | | | | | | | ● | | | | ● | | | | | | | ● | | | | | |

## SCHEDULE OF JOINERY

| SYMBOL | NOS. | SILL LEVEL AT M... | MASONRY OPENING WIDTH | MASONRY OPENING HEIGHT | DESCRIPTION |
|---|---|---|---|---|---|
| SD1 | 2 | (+)24.200 | 2000 | 2100 | STEEL DOOR – DOUBLE SHUTTER |
| SD2 | – | (+)24.000 | 1000 | 2100 | STEEL DOOR – SINGLE SHUTTER |
| SD3 | – | (+)24.000 | 1200 | 2100 | STEEL DOOR – SINGLE SHUTTER |
| SD4 | – | (+)24.000 | 2000 | 2400 | STEEL DOOR – DOUBLE SHUTTER |
| SD5 | 1 | (+)29.350 | 750 | 2400 | STEEL DOOR – SINGLE SHUTTER |
| FPD1 | 1 | (+)24.000 | 1200 | 2100 | FIRE PROOF DOOR – SINGLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK. GLASS |
| FPD2 | – | (+)24.000 | 1500 | 2100 | FIRE PROOF DOOR – DOUBLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK. GLASS |
| FPD3 | – | (+)24.000 | 2000 | 2100 | FIRE PROOF DOOR – DOUBLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK. GLASS |
| PD1 | 1 | (+)24.000 | 900 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD2 | 1 | (+)24.000 | 750 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD3 | – | (+)24.300 | 600 | 1800 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD4 | – | (+)24.000 | 1000 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| FW1 | – | (+)24.900 | 3000 | 1200 | ANODISED ALUMINIUM FRAMED FIXED GLAZED WINDOW WITH 6MM THK WIRED GLASS |
| FW2 | – | AS/ELE. | 1200 | 1200 | ANODISED ALUMINIUM FRAMED FIXED GLASS WINDOW WITH 6MM THK WIRED GLASS |
| LV1 | 2 | (+)25.800 | 600 | 600 | ANODISED ALUMINIUM FRAMED LOUVERED VENTILATOR |
| LV2 | – | – | 1000 | 400 | ANODISED ALUMINIUM FRAMED LOUVERED VENTILATOR |
| LV3 | 1 | (+)24.450 | 600 | 1650 | ANODISED ALUMINIUM FRAMED LOUVERED VENTILATOR |
| EF ⚠ | 2 | (+)26.700↓ | 330ø | | EXHAUST FAN |

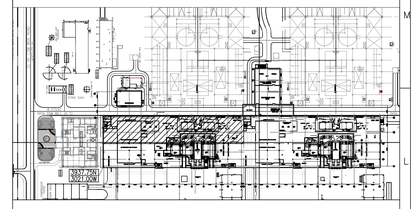
I. PROVIDE FLOOR / ROOF DRAINAGE ARRANGEMENT IN LINE WITH TECH. SPEC..
2. PL FURNISH SIZE AND LOCATING DIMENSIONS OF ALL THE OPENINGS IN FLOOR AND WALLS IN LINE WITH APPROVED MECHANICAL / ELECTRICAL DRAWINGS .
3. REMOVE HOLD

AS PER DRG. M-006(R3), INTERCONNECTING PLATFORM IS AT LVL. 25.5 M, PL CHECK AND MODIFY ACCORDINGLY.




PL FURNISH REFERENCE DRG. NO OF AIR WASHER ROOM LAYOUT, ALSO PROVIDE OPENINGS FOR AIR INTAKE, LOUVERS & DUCT OPENINGS ETC..

PLAN AT EL(+)24.00M & EL(+)25.50M (FFL)LVL(UNIT#1)



## KEY PLAN

### NOTES:–

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS STATED OTHERWISE.
2. ALL ELEVATIONS ARE REFERRED TO POWER HOUSE FINISHED GROUND FLOOR ELEVATION ± 0.00M WHICH CORRESPONDS TO RL(+) 10.00M
3. FOR TG COLs & FLOOR FRAMING REFER CIVIL DRGs SEPARATELY.
4. UNLESS NOTED OTHERWISE WINDOW / DOOR/ ROLLING SHUTTER LOCATION SHALL BE AT CENTER BETWEEN GRIDS.
5. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH CONTRACT TERMS AND CONDITIONS, SPECIFICATION AND SCHEDULE OF ITEMS.

### REFERENCE DRGS.:–

1. PE-DG-412-100-M001 – PLOT PLAN
2. PE-DG-412-100-M003-R5 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 0.0M
3. PE-DG-412-100-M004-R3 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 8.50M
4. PE-DG-412-100-M005-R3 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 17.0M
5. PE-DG-412-100-M006-R3 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 24.0M/ 25.5M
6. PE-DG-412-100-M007-R2 – CROSS SECTION OF MAIN PLANT

### ARCHITECTURAL STANDARD DRAWINGS.:–

1. PE-DG-412-611-C031 – PH BUILDING-GEN. NOTES & STD. DETAILS FOR ARCH. WORKS

### ARCHITECTURAL DRAWINGS:–

1. PE-DG-412-611-C035 & C036-R1 – PH BUILDING – FLOOR PLAN AT EL(±)0.00M
2. PE-DG-412-611-C039-R1 – PH BUILDING – FLOOR PLAN AT EL(+)3.50M
3. PE-DG-412-611-C040 & C041-R1 – PH BUILDING – FLOOR PLAN AT EL(+)8.50M
4. PE-DG-412-611-C042-R1 – PH BUILDING – FLOOR PLAN AT EL(+)12.00M
5. PE-DG-412-611-C043 & C044-R1 – PH BUILDING – FLOOR PLAN AT EL(+)17.00M
6. PE-DG-412-611-C052 & C053-R1– PH BUILDING – FLOOR PLAN AT EL(+)24.00M
7. PE-DG-412-611-C054-R1 – PH BUILDING – FLOOR PLAN AT EL(+)27.50M
8. PE-DG-412-611-C055-R1 – PH BUILDING – FLOOR PLAN AT EL(+)32.50M
9. PE-DG-412-611-C056-R1 – PH BUILDING – ROOF PLAN

### STRUCTURAL DRAWINGS:–

1. PE-DG-412-612-C001-R4 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS–A
2. PE-DG-412-612-C002-R4 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS–B
3. PE-DG-412-612-C003-R3 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS–C
4. PE-DG-412-612-C004-R2 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS –D, E & F

### LEGENDS.:–

- 345 THK FIRE BRICK WALL
- CONCRETE HATCH
- BRICK WALL
- OPENING
- GRATING FLOOR
- CHEQUERED PLATE FLOOR
- (R) REMOVABLE GRATING FLOOR
- (R) REMOVABLE CHEQUERED PLATE FLOOR
- EL(+)X.XXX – LEVEL TAG
- R.S ROLLING SHUTTER
- HAND RAILING

BOP – BOTTOM OF OPENING
℄ – CENTER LINE
EF – EXHAUST FAN
EL – ELEVATION
FFL – FINISHED FLOOR LEVEL
TOC – TOP OF CONCRETE
TOCP – TOP OF CHEQUERED PLATE
TOP – TOP OF PARAPET
TOG – TOP OF GRATING
TYP – TYPICAL
UNO – UNLESS NOTED OTHERWISE

ALL ELECTRICAL AND VENTILATION CUTOUT & PIPE OPENING DETAILS SHALL BE REFERRED FROM RESPECTIVE DRAWINGS BEFORE EXECUTION

| 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 | SOMNATH MISHRA |
| SIGNATURE | –sd– |
| DATE | 13.06.18 |

| | |
|---|---|
| PROJECT | 2x660MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI |
| OWNER | TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED |
| OWNER'S CONSULTANT:- | DESEIN PRIVATE LIMITED DESEIN HOUSE, NEW DELHI |
| EPC CONTRACTOR:- | BHARAT HEAVY ELECTRICALS LTD |

JOB NO. 412
STATUS CONTRACT
DISTRIBUTION
TO
No. OF

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| | | | | |

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| 01 | 13.06.18 | OM | A RAWAL | AN |

REVISED AS PER COMMENTS RECEIVED VIDE LETTER REF Lr.No. SE/CTP/EG/AE/Ennore SEZTPP /F. PHB /D.1407/17, dt. 12.12.17. & MKD. AS ⚠

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

| DEPT CODE | | NAME | SIGN | DATE |
|---|---|---|---|---|
| C | DRN | OM | –sd– | 07.07.17 |
| | DESN | A RAWAL | –sd– | 07.07.17 |
| | CHD | S. MISHRA | –sd– | 07.07.17 |
| | APPD | A.NARAYAN | –sd– | 07.07.17 |

TITLE
POWER HOUSE BUILDING
ARCHITECTURAL PLAN AT EL(+)24.00M & EL(+)25.50M (FFL)LVL (UNIT#1)

DEPT. | SCALE: 1:100 | DRAWING NO. PE–DG–412–611–C052
SIGN | DATE | SHEET 1 OF 1 | REV. 1

FORMAT SIZE A0

ELECTRONIC FILE NAME:

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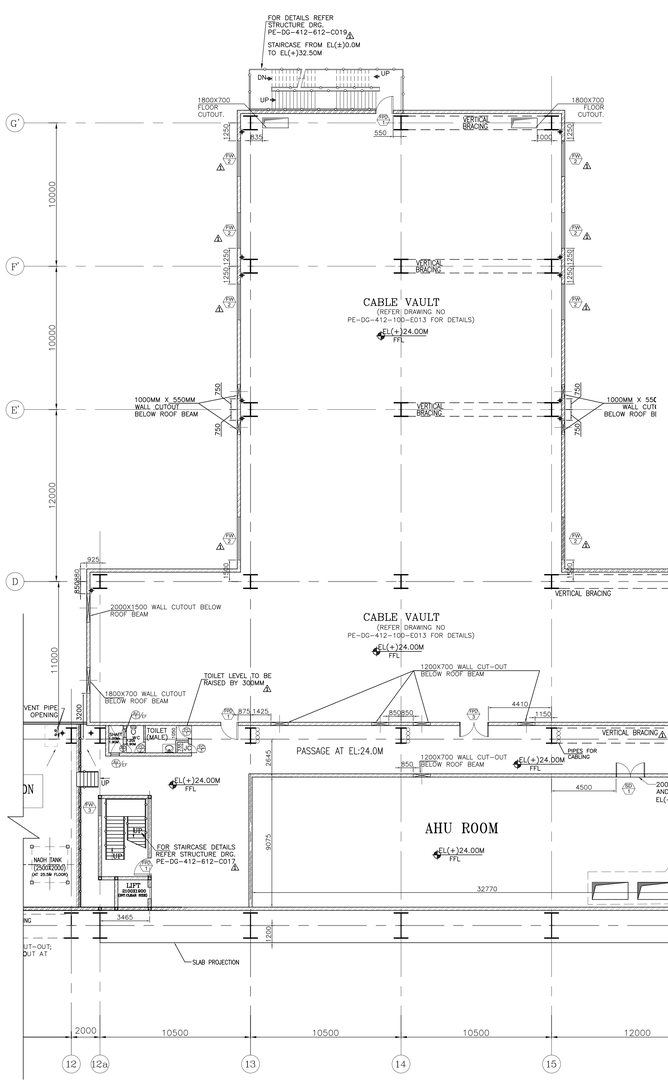
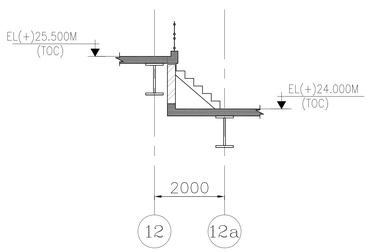
DRAWING NO. PE-DG-412-611-C053

FIRST ANGLE PROJECTION | ALL DIMENSIONS ARE IN MM




PLAN AT EL(+)24.00M & EL(+)25.50M (FFL)LVL(UNIT#2)




SCHEMATIC DETAIL

AS PER DRG. M-006(R3), INTERCONNECTING PLATFORM IS AT.LVL. 25.5 M, PL CHECK AND MODIFY ACCORDINGLY.

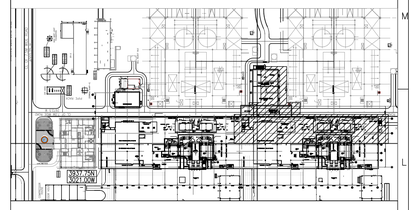
1. PROVIDE FLOOR / ROOF DRAINAGE ARRANGEMENT IN LINE WITH TECH. SPEC..
2. PL FURNISH SIZE AND LOCATING DIMENSIONS OF ALL THE OPENINGS IN FLOOR IN LINE WITH APPROVED MECHANICAL / ELECTRICAL DRAWINGS .
3. DRAWING SHALL COMPLY APPROVED MECHANICAL / ELECTRICAL DRAWINGS.
4. REMOVE HOLD

## FINISH SCHEDULE

| SERIAL NUMBER | AREAS | FLOORING (TOTAL FLOORING THICKNESS = 50MM) | | | | | | | | | | INTERNAL WALLS: SKIRTING (150MM HIGH) | | | | | INTERNAL WALLS: DADO | | | | | PAINTING | | | | | CEILING (R.C.C): PAINTING | | | | EXTERNAL WALL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GRANOLITHIC FLOORING | GRANOLITHIC WITH NON-METALLIC HARDNER | CORBORANDUM TILES | CERAMIC MOSAIC TILES (CARBORANDUM) | GRANOLITHIC FLOOR WITH NON SLIP PROPERTY FINISHED WITH EPOXY COATING | OIL RESISTANT PAINT | GLAZED VITRIFIED CERAMIC TILES | HEAVY DUTY CERAMIC TILES | ANTI SKID MARBONITE TILES | GLAZED VITRIFIED CERAMIC TILES FOR DRY AREAS, ANTI SKID CERAMIC TILES FOR WET AREAS AS APPROVED BRAND & COLOUR. | HEAVY DUTY ANTI SKID CERAMIC TILES | KOTA STONE | CEMENT CONCRETE SKIRTING | CEMENT CONCRETE SKIRTING TOP WITH GLAZED VITRIFIED TILES | GLAZED VITRIFIED CERAMIC TILES | CARBORANDUM TILES | BADDING WITH GLAZED CERAMIC TILES FOR WET AREAS (TILES SHALL BE FIXED ABOVE 2100MM HEIGHT | LIQUID APPLIED RUBBER BASED PAINT ABOVE 2100MM HEIGHT | FULL HEIGHT POLISHED GRANITE CLADDING | DADO OF CAST IN SITU TERRAZZO UP TO 2100MM HEIGHT | ACRYLIC PLASTIC EMULSION PAINT | OIL RESISTANT PAINT UPTO 2.10M HEIGHT | CHLORINATED RUBBER BASED PAINT | ACRYLIC EMULSION PAINT | CHLORINATED RUBBER BASED PAINT | ALUMINIUM FALSE CEILING | FALSE CEILING AS PER DETAIL | ACRYLIC WASHABLE WHITE DISTEMPER | BRICKWORK UPTO 3M. HIGH | SHEETING ABOVE 3M OVER BRICK WALL/ PARAPET WALL. | SHEETING ABOVE 3M. |
| 1 | AHU ROOM | | ● | | | | | | | | | ● | | | | | | | | | | ● | | | | | | | | ● | | | |
| 2 | CABLE VAULT | | ● | | | | | | | | | | | | | | | | | | | ● | | | | | | | | ● | | | |
| 3 | PASSAGE IN GENERAL AREA | ● | | | | | | | | | | ● | | | | | | | | | | ● | | | | | | | | ● | | | |
| 4 | OTHER AREA | ● | | | | | | | | | | ● | | | | | | | | | | ● | | | | | | | | ● | | | |
| 5 | STEEL STAIR CASE WALL ENCLOSURE ⚠ | | | | | | | | | | | | | | | | | | | | | ● | ● | | | | | | | ● | | | |
| 6 | TOILETS | | | | | | | | | | | | ● | | | | | | | | | ● | | | | | | | | ● | | | |
| 7 | LIFT AREA | | | ● | | | | | | | | | | | | | | | | | | ● | | | | | | | | ● | | | |

| SCHEDULE OF JOINERY | | | | | |
|---|---|---|---|---|---|
| SYMBOL | NOS. | SILL LEVEL AT RL... | MASONRY OPENING WIDTH | MASONRY OPENING HEIGHT | DESCRIPTION |
| SD/1 | 1 | (+)24.000 | 2000 | 2100 | STEEL DOOR – DOUBLE SHUTTER |
| SD/2 | – | (+)24.000 | 1000 | 2100 | STEEL DOOR – SINGLE SHUTTER |
| SD/3 | – | (+)24.000 | 1200 | 2100 | STEEL DOOR – SINGLE SHUTTER |
| SD/4 | – | (+)24.000 | 2000 | 2400 | STEEL DOOR – DOUBLE SHUTTER |
| FPD/1 | 2 | (+)24.000 | 1200 | 2100 | FIRE PROOF DOOR – SINGLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK. GLASS |
| FPD/2 | – | (+)24.000 | 1500 | 2100 | FIRE PROOF DOOR – DOUBLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK. GLASS |
| FPD/3 | 1 | (+)24.000 | 2000 | 2100 | FIRE PROOF DOOR – DOUBLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK. GLASS |
| PD/1 | 1 | (+)24.000 | 900 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD/2 | 1 | (+)24.000 | 750 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD/3 | 2 | (+)24.300 | 600 | 1800 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD/4 | – | (+)24.000 | 1000 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| AW/1 | – | (+)24.900 | 3000 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLASS WINDOW WITH 6MM THK WIRED GLASS |
| AW/2 ⚠ | 8 | (+)24.900 | 2500 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLASS WINDOW WITH 6MM THK WIRED GLASS |
| AW/3 | – | AS/SLE. | 1200 | 1200 | ANODISED ALUMINUM FRAMED LOUVERED VENTILATOR |
| AV/1 | 2 | (+)25.800 | 600 | 600 | ANODISED ALUMINUM FRAMED LOUVERED VENTILATOR |
| AV/2 | – | – | 1000 | 400 | ANODISED ALUMINUM FRAMED LOUVERED VENTILATOR |
| AV/3 | – | (+)24.450 | 600 | 1650 | ANODISED ALUMINUM FRAMED LOUVERED VENTILATOR |
| EF ⚠ | 2 | (+)26.700\ | 3300 | | EXHAUST FAN |

(*) AIR TIGHT DOOR TO BE PROVIDED FOR AHU ROOM




## KEY PLAN

**NOTES:–**

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS STATED OTHERWISE.
2. ALL ELEVATIONS ARE REFERRED TO POWER HOUSE FINISHED GROUND FLOOR ELEVATION ± 0.0M WHICH CORRESPONDS TO RL(+) 10.00M
3. FOR TG COLs & FLOOR FRAMING REFER CIVIL DRGs SEPARATELY.
4. UNLESS NOTED OTHERWISE WINDOW / DOOR/ ROLLING SHUTTER LOCATION SHALL BE AT CENTER BETWEEN GRIDS.
5. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH CONTRACT TERMS AND CONDITIONS, SPECIFICATION AND SCHEDULE OF ITEMS.

**REFERENCE DRGS.:–**

1. PE-DG-412-100-M001 – PLOT PLAN
2. PE-DG-412-100-M003-R5 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 0.0M
3. PE-DG-412-100-M004-R3 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 8.50M
4. PE-DG-412-100-M005-R3 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 17.0M
5. PE-DG-412-100-M006-R3 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 24.0M/ 25.5M
6. PE-DG-412-100-M007-R2 – CROSS SECTION OF MAIN PLANT

**ARCHITECTURAL STANDARD DRAWINGS.:–**

1. PE-DG-412-611-C031 – PH BUILDING-GEN. NOTES & STD. DETAILS FOR ARCH. WORKS

**ARCHITECTURAL DRAWINGS:–**

1. PE-DG-412-611-C035 & C036-R1 – PH BUILDING – FLOOR PLAN AT EL(±)0.00M
2. PE-DG-412-611-C039-R1 – PH BUILDING – FLOOR PLAN AT EL(+)3.50M
3. PE-DG-412-611-C040 & C041-R1 – PH BUILDING – FLOOR PLAN AT EL(+)8.50M
4. PE-DG-412-611-C042-R1 – PH BUILDING – FLOOR PLAN AT EL(+)12.00M
5. PE-DG-412-611-C043 & C044-R1 – PH BUILDING – FLOOR PLAN AT EL(+)17.00M
6. PE-DG-412-611-C052 & C053-R1– PH BUILDING – FLOOR PLAN AT EL(+)24.00M
7. PE-DG-412-611-C054-R1 – PH BUILDING – FLOOR PLAN AT EL(+)27.50M
8. PE-DG-412-611-C055-R1 – PH BUILDING – FLOOR PLAN AT EL(+)32.50M
9. PE-DG-412-611-C056-R1 – PH BUILDING – ROOF PLAN

**STRUCTURAL DRAWINGS:–**

1. PE-DG-412-612-C001-R4 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS–A
2. PE-DG-412-612-C002-R4 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS–B
3. PE-DG-412-612-C003-R3 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS–C
4. PE-DG-412-612-C004-R2 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS –D, E & F

**LEGENDS.:–**

- 345 THK FIRE BRICK WALL
- CONCRETE HATCH
- BRICK WALL
- OPENING
- GRATING FLOOR
- CHEQUERED PLATE FLOOR
- (R) – REMOVABLE GRATING FLOOR
- (R) – REMOVABLE CHEQUERED PLATE FLOOR
- EL(+)XX.XXX – LEVEL TAG
- RS – ROLLING SHUTTER
- HAND RAILING
- BOP – BOTTOM OF OPENING
- ℄ – CENTER LINE
- EF – EXHAUST FAN
- EL – ELEVATION
- FFL – FINISHED FLOOR LEVEL
- TOC – TOP OF CONCRETE
- TOCP – TOP OF CHEQUERED PLATE
- TOP – TOP OF PARAPET
- TOG – TOP OF GRATING
- TYP – TYPICAL
- UNO – UNLESS NOTED OTHERWISE

ALL ELECTRICAL AND VENTILATION CUTOUT & PIPI OPENING DETAILS SHALL BE REFERRED FROM RESPECTIVE DRAWINGS BEFORE EXECUTION

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: SOMNATH MISHRA
SIGNATURE: –sd–
DATE: 13.06.18

| | | |
|---|---|---|
| PROJECT | 2x660MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI | |
| OWNER | TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED | |
| OWNER'S CONSULTANT:- | DESEIN PRIVATE LIMITED DESEIN HOUSE, NEW DELHI | |
| EPC CONTRACTOR:- | BHARAT HEAVY ELECTRICALS LTD | |

JOB NO. 412
STATUS CONTRACT
DISTRIBUTION
TO
No. OF

| REV. | DATE | ALTD | CHD | APPD |
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| REV. | DATE | ALTD | CHD | APPD |
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| 01 | 13.06.18 | OM | A RAWAL | AN |

REVISED AS PER COMMENTS RECEIVED VIDE LETTER REF Lr.No. SE/CTP/E6/AE/Ennore SEZTPP /F. PHB /D.1407/17, dt. 12.12.17. & MKD. AS ⚠

BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

| DEPT CODE | | NAME | SIGN | DATE |
|---|---|---|---|---|
| C | DRN | OM | –sd– | 07.07.17 |
| | DESN | A RAWAL | –sd– | 07.07.17 |
| | CHD | S. MISHRA | –sd– | 07.07.17 |
| | APPD | A.NARAYAN | –sd– | 07.07.17 |

TITLE: POWER HOUSE BUILDING
ARCHITECTURAL PLAN AT EL(+)24.00M & EL(+)25.50M (FFL)LVL(UNIT#2)

DEPT. | SCALE: 1:100 | DRAWING NO. PE-DG-412-611-C053
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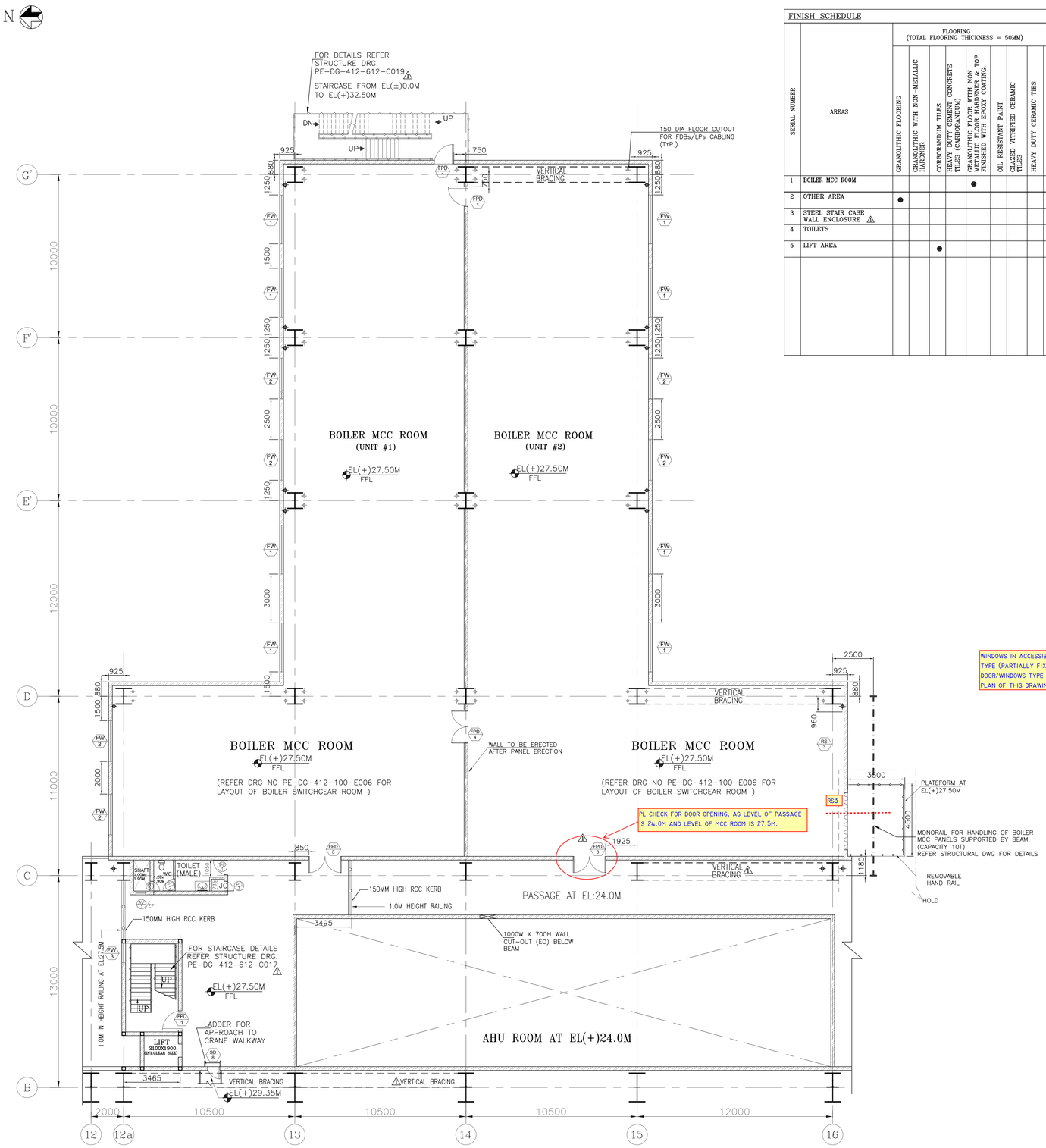
SHEET 1 OF 1 | REV. 1

FORMAT SIZE A0

ELECTRONIC FILE NAME:




PLAN AT EL(+)27.50M (FFL)LVL(UNIT#2)

## FINISH SCHEDULE

| SERIAL NUMBER | AREAS | FLOORING (TOTAL FLOORING THICKNESS = 50MM) | | | | | | | | | | | | | | INTERNAL WALLS: SKIRTING (150MM HIGH) | | | DADO | | | | PAINTING | | | | CEILING (R.C.C): PAINTING | | | | EXTERNAL WALL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GRANOLITHIC FLOORING | GRANOLITHIC WITH NON-METALLIC HARDNER | CORBORANDUM TILES | HEAVY DUTY CEMENT CONCRETE TILES (CARBORANDUM) | GRANOLITHIC FLOOR WITH NON METALLIC FLOOR HARDENER & TOP FINISHED WITH EPOXY COATING | OIL RESISTANT PAINT | GLAZED VITRIFIED CERAMIC TILES | HEAVY DUTY CERAMIC TILES | ANTI SKID MARBONITE TILES | GLAZED VITRIFIED CERAMIC TILES FOR DRY AREAS FOR WET AREAS HAVING SLOPE AS PER APPROVED BRAND & COLOUR. | HEAVY DUTY ANTI SKID CERAMIC TILES | KOTA STONE. | CEMENT CONCRETE SKIRTING | CEMENT CONCRETE SKIRTING TOP FINISHED WITH EPOXY COATING. | GLAZED VITRIFIED CERAMIC TILES | CARBORANDUM TILES | DADOING WITH GLAZED CERAMIC TILES FOR 2100 MM HIGH + ACRYLIC DISTEMPER ABOVE | ACID & ALKALI TILE DADOING FOR 2100 MM HIGH + WATER BASED PAINT ABOVE 2100MM HEIGHT | FOR LIFT FACIA WALL UPTO 2.40M HEIGHT POLISHED GRANITE CLADDING | DADO OF CAST IN STU TERRAZZO UP TO 2100MM HEIGHT | ACRYLIC WASHABLE DISTEMPER | OIL RESISTANT PAINT UPTO 2.10M HEIGHT | CHLORINATED RUBBER BASED PAINT | ACRYLIC EMULSION PAINT | CHLORINATED RUBBER BASED PAINT | ALUMINIUM FALSE CEILING | FALSE CEILING AS PER DETAILS | ACRYLIC WASHABLE WHITE DISTEMPER | BRICKWORK UPTO 3M. HIGH | SHEETING ABOVE 3M OVER BRICK WALL/ PARAPET WALL. | SHEETING ABOVE 3M. |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | BOILER MCC ROOM | | | | | ● | | | | | | | | | ● | | | | | | | | ● | | | | | | | ● | | | |
| 2 | OTHER AREA | ● | | | | | | | | | | | | ● | | | | | | | | | ● | | | | | | | ● | | | |
| 3 | STEEL STAIR CASE WALL ENCLOSURE ⚠ | | | | | | | | | | | | | | | | | | | | | ● | ● | | | | | | | ● | | | |
| 4 | TOILETS | | | | | | | | | | | | ● | | | | | ● | | | | | ● | | | | | | | ● | | | |
| 5 | LIFT AREA | | | ● | | | | | | | | | | | | | | ● | | | | | ● | | | | | | | ● | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

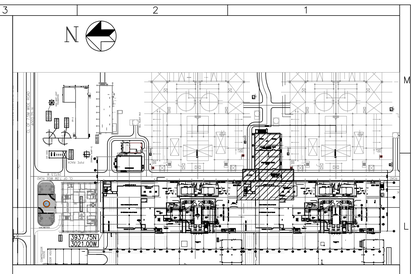
WATER PROOF CEMENT BASED PAINT
PERMANENT COLOUR COATED SINGLE SHEET METAL CLADDING
PERMANENT COLOUR COATED SANDWICHED INSULATED METAL CLADDING SYSTEM

## SCHEDULE OF JOINERY

PL CHECK FOR HEIGHT.

| SYMBOL | NOS. | SILL LEVEL AT EL... | MASONRY OPENING WIDTH | MASONRY OPENING HEIGHT | DESCRIPTION |
|---|---|---|---|---|---|
| RS 1 ⚠ | 1 | (+)27.500 | 3500 | 3500 | STEEL ROLLING SHUTTER |
| SD 1 | – | (+)27.500 | 2000 | 2100 | STEEL DOOR – DOUBLE SHUTTER |
| SD 2 | – | (+)27.500 | 1000 | 2100 | STEEL DOOR – SINGLE SHUTTER |
| SD 3 | – | (+)27.500 | 1200 | 2100 | STEEL DOOR – SINGLE SHUTTER |
| SD 4 | – | (+)27.500 | 2000 | 2400 | STEEL DOOR – DOUBLE SHUTTER |
| SD 6 | 1 | (+)29.350 | 750 | 2100 | STEEL DOOR – SINGLE SHUTTER |
| FPD 1 | 3 | (+)27.500 | 1200 | 2100 | FIRE PROOF DOOR – SINGLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK. GLASS |
| FPD 2 | – | (+)27.500 | 1500 | 2100 | FIRE PROOF DOOR – DOUBLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK. GLASS |
| FPD 3 | 2 | (+)27.500 | 2000 | 2100 | FIRE PROOF DOOR – DOUBLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK. GLASS |
| FPD 4 ⚠ | 1 | (+)27.500 | 2000 | 2700 | FIRE PROOF DOOR – SINGLE SHUTTER WITH PANIC DEVICE & VISION PANEL 6MM THK. GLASS |
| PD 1 | 1 | (+)27.500 | 900 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD 2 | 1 | (+)27.500 | 750 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD 3 | 1 | (+)27.800 | 600 | 1800 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| PD 4 | – | (+)27.500 | 1000 | 2100 | P.V.C. DOOR – SINGLE SHUTTER SOLID CORE PVC FRAME WITH PVC SHUTTER |
| FW 1 | 8 | (+)28.400 | 3000 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLAZED WINDOW WITH 6MM THK WIRED GLASS |
| FW 2 | 6 | (+)28.400 | 2500 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLAZED WINDOW WITH 6MM THK WIRED GLASS |
| FW 3 | – | AS/ELE. | 1200 | 1200 | ANODISED ALUMINUM FRAMED FIXED GLASS WINDOW WITH 6MM THK WIRED GLASS |
| AV 1 | 1 | (+)29.300 | 600 | 600 | ANODISED ALUMINUM FRAMED LOUVERED VENTILATOR |
| AV 2 | – | – | 1000 | 400 | ANODISED ALUMINUM FRAMED LOUVERED VENTILATOR |
| AV 3 | – | – | 600 | 1650 | ANODISED ALUMINUM FRAMED LOUVERED VENTILATOR |
| EF ⚠ | 1 | (+)30.200\ | 330ø | | EXHAUST FAN |

WINDOWS IN ACCESSIBLE AREAS SHALL BE OPENABLE TYPE (PARTIALLY FIXED) ALSO FURNISH ONLY THOSE DOOR/WINDOWS TYPE WHICH ARE MARKED IN FLOOR PLAN OF THIS DRAWING.




## KEY PLAN

### NOTES:–

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS STATED OTHERWISE.
2. ALL ELEVATIONS ARE REFERRED TO POWER HOUSE FINISHED GROUND FLOOR ELEVATION ± 0.00M WHICH CORRESPONDS TO RL(+) 10.00M
3. FOR TG COLs & FLOOR FRAMING REFER CIVIL DRGs SEPARATELY.
4. UNLESS NOTED OTHERWISE WINDOW / DOOR/ ROLLING SHUTTER LOCATION SHALL BE AT CENTER BETWEEN GRIDS.
5. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH CONTRACT TERMS AND CONDITIONS, SPECIFICATION AND SCHEDULE OF ITEMS.

### REFERENCE DRGS.:–

1. PE-DG-412-100-M001 – PLOT PLAN
2. PE-DG-412-100-M003-R5 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 0.0M
3. PE-DG-412-100-M004-R4 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 8.50M
4. PE-DG-412-100-M005-R3 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 17.0M
5. PE-DG-412-100-M006-R3 – T.G. EQUIPMENT LAYOUT PLAN AT EL. 24.0M/ 25.5M
6. PE-DG-412-100-M007-R2 – CROSS SECTION OF MAIN PLANT

### ARCHITECTURAL STANDARD DRAWINGS.:–

1. PE-DG-412-611-C031 – PH BUILDING-GEN. NOTES & STD. DETAILS FOR ARCH. WORKS

### ARCHITECTURAL DRAWINGS:–

1. PE-DG-412-611-C035 & C036-R1 – PH BUILDING – FLOOR PLAN AT EL(±)0.00M
2. PE-DG-412-611-C039-R1 – PH BUILDING – FLOOR PLAN AT EL(+)3.50M
3. PE-DG-412-611-C040 & C041-R1 – PH BUILDING – FLOOR PLAN AT EL(+)8.50M
4. PE-DG-412-611-C042-R1 – PH BUILDING – FLOOR PLAN AT EL(+)12.00M
5. PE-DG-412-611-C043 & C044-R1 – PH BUILDING – FLOOR PLAN AT EL(+)17.00M
6. PE-DG-412-611-C052 & C053-R1– PH BUILDING – FLOOR PLAN AT EL(+)24.00M
7. PE-DG-412-611-C054-R1 – PH BUILDING – FLOOR PLAN AT EL(+)27.50M
8. PE-DG-412-611-C055-R1 – PH BUILDING – FLOOR PLAN AT EL(+)32.50M
9. PE-DG-412-611-C056-R1 – PH BUILDING – ROOF PLAN

### STRUCTURAL DRAWINGS:–

1. PE-DG-412-612-C001-R4 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS–A
2. PE-DG-412-612-C002-R4 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS–B
3. PE-DG-412-612-C003-R3 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS–C
4. PE-DG-412-612-C004-R2 – PH BUILDING STRUCTURAL FRAMING ALONG AXIS –D, E & F

### LEGENDS.:–

- 345 THK FIRE BRICK WALL
- CONCRETE HATCH
- BRICK WALL
- OPENING
- GRATING FLOOR
- CHEQUERED PLATE FLOOR
- REMOVABLE GRATING FLOOR
- REMOVABLE CHEQUERED PLATE FLOOR
- EL(+)X.XXX – LEVEL TAG
- RS – ROLLING SHUTTER
- HAND RAILING
- BOP – BOTTOM OF OPENING
- ℄ – CENTER LINE
- EF – EXHAUST FAN
- EL – ELEVATION
- FFL – FINISHED FLOOR LEVEL
- TOC – TOP OF CONCRETE
- TOCP – TOP OF CHEQUERED PLATE
- TOP – TOP OF PARAPET
- TOG – TOP OF GRATING
- TYP – TYPICAL
- UNO – UNLESS NOTED OTHERWISE

ALL ELECTRICAL AND VENTILATION CUTOUT & OPENING DETAILS SHALL BE REFERRED FROM RESPECTIVE DRAWINGS BEFORE EXECUTION

BHEL–PROJECT ENGINEERING MANAGEMENT(CIVIL)
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☐ PLANNING/INFORMATION
☐ CONSTRUCTION
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ISSUED BY
NAME: SOMNATH MISHRA
SIGNATURE: –sd–
DATE: 13.06.18

| | | |
|---|---|---|
| PROJECT | 2x660MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI | |
| OWNER | TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED | |
| OWNER'S CONSULTANT:- | DESEIN PRIVATE LIMITED DESEIN HOUSE, NEW DELHI | |
| EPC CONTRACTOR:- | BHARAT HEAVY ELECTRICALS LTD | |

JOB NO. 412
STATUS CONTRACT
DISTRIBUTION
TO
No. OF

| REV. | DATE | ALTD | CHD | APPD |
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| REV. | DATE | ALTD | CHD | APPD |
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BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA

| DEPT CODE | | NAME | SIGN | DATE |
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| C | DRN | OM | –sd– | 07.07.17 |
| | DESN | A RAWAL | –sd– | 07.07.17 |
| | CHD | S. MISHRA | –sd– | 07.07.17 |
| | APPD | A.NARAYAN | –sd– | 07.07.17 |

TITLE
POWER HOUSE BUILDING
ARCHITECTURAL PLAN AT EL(+)27.50M (FFL)LVL

DEPT. | SCALE: 1:100 | DRAWING NO. PE-DG-412-611-C054
SIGN
DATE | SHEET 1 OF 1 | REV. 1

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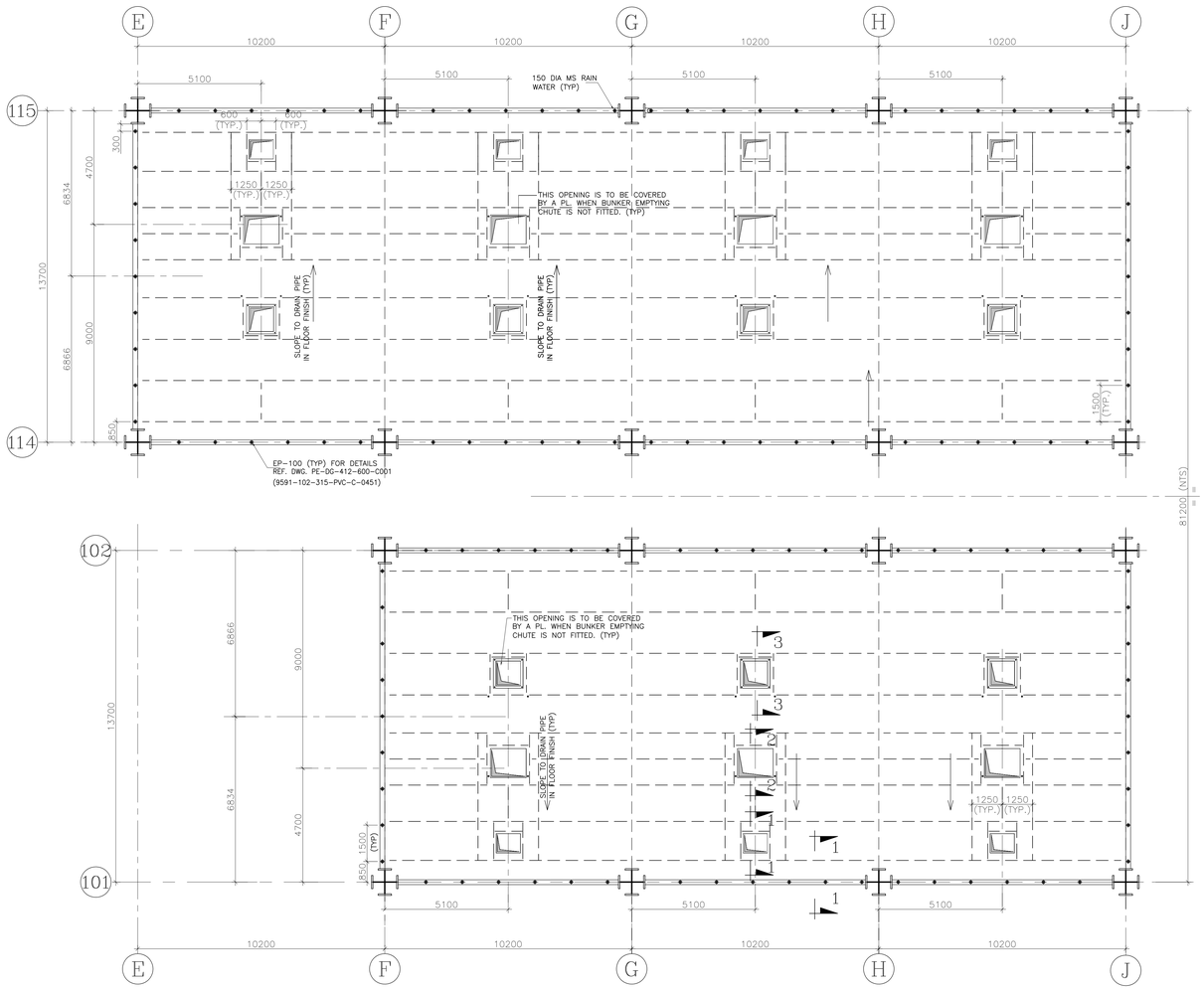
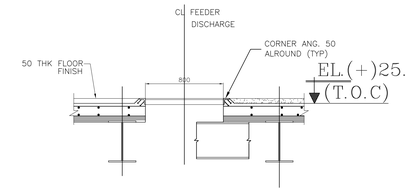



FEEDER FLOOR PLAN AT 22.500 (T.O.C)

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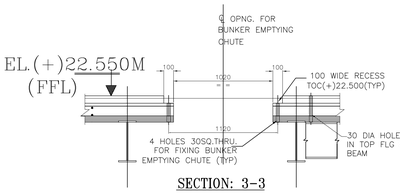


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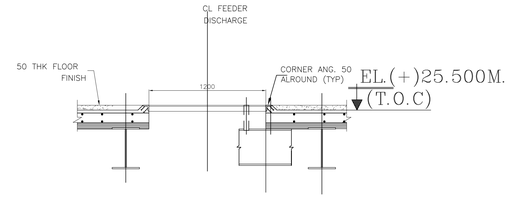


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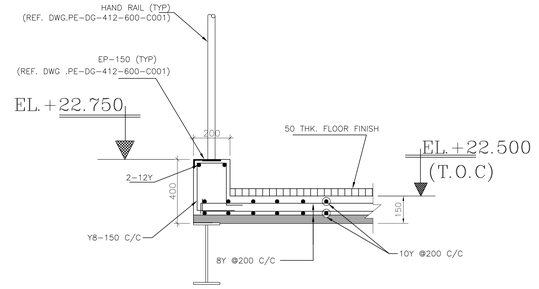


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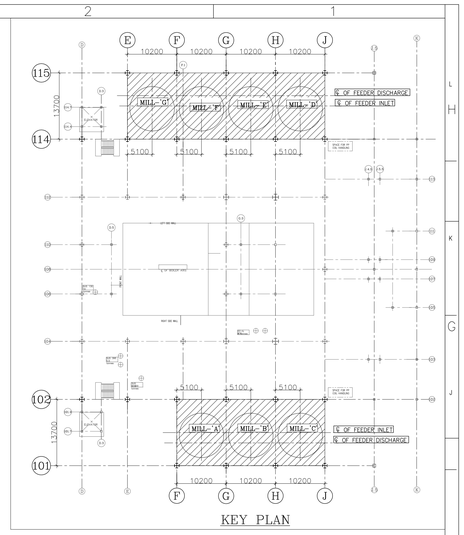



KEY PLAN

## NOTES:

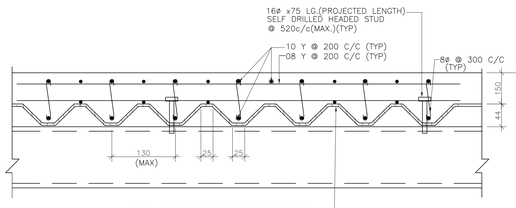
1. ALL DIMENSIONS ARE IN MM. AND LEVELS ARE IN METER UNLESS OTHERWISE SPECIFIED.
2. ALL ELEVATIONS ARE REFERRED TO THE FINISHED GROUND FLOOR LEVEL OF POWER HOUSE BUILDING AS EL. 0.00 M WHICH CORRESPONDS TO RL. +10.00 M. ABOVE MEAN SEA LEVEL.
3. FOR GENERAL NOTES AND STANDARD DETAILS REF. DWG. PE-DG-412-600-C001
4. RCC SLAB/FLOOR FINISH SHALL BE GIVEN A MILD SLOPE IN THE DIRECTION OF ARROW INDICATED TOWARDS SCUPPER DRAIN.
5. CONC SHALL BE OF GRADE M30 WITH 20 mm DOWN GRADED COARSE AGGT.
6. ALL REINFORCEMENT BAR SHALL BE FE 500 CONFIRMING TO IS 11786.

## ENGG REF DWG:

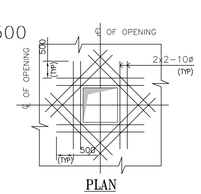
1. MILL BUNKER BAY STRUCTURAL FRAMING PLAN OF FEEDER FLOOR – PE-DG-412-616-C010

## LEGENDS:

| | |
|---|---|
| TYP | TYPICAL |
| T.O.C. | TOP OF CONCRETE |
| CL | CENTRE LINE |
| C/C | CENTRE TO CENTRE |

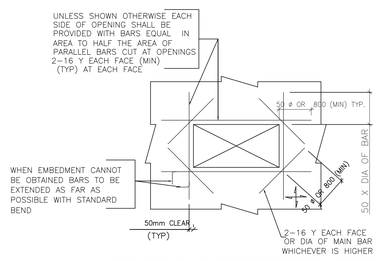



TYP. DETAIL OF SLAB REINF.




PLAN

TYPICAL DETAIL OF REINFORCEMENT AROUND SQUARE OPENING




TYP. DETAIL OF REINFORCEMENT AROUND RECTANGULAR OPENINGS

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| ISSUED BY | |
| NAME | SOMNATH MISHRA |
| SIGNATURE | |
| DATE | 21 AUGUST 2019 |

| REV. | DATE | ALTD | CHD | APPD |
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| 01 | 21.08.19 | YSR | PP | SM |

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| | |
|---|---|
| PROJECT | 2x660 MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI |
| OWNER: | TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED |
| OWNER'S CONSULTANT: | DESEIN PRIVATE LIMITED, DESEIN HOUSE, NEW DELHI |
| | BHARAT HEAVY ELECTRICALS LTD, POWER SECTOR, PROJECT ENGINEERING MANAGEMENT, NEW DELHI |

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| JOB NO. | 412 |
| STATUS | CONTRACT |
| DISTRIBUTION | |
| TO | |
| No. OF | |

| DEPT CODE | | NAME | SIGN | DATE |
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| C | DRN | DK | -sd- | 12/09/17 |
| | DESN | PP | -sd- | 12/09/17 |
| | CHD | SM | -sd- | 13/09/17 |
| | APPD | AN | -sd- | 13/09/17 |

TITLE: MILL & BUNKER BAY
RC DETAIL OF FEEDER FLOOR

DEPT. | SCALE: | DRAWING NO. PE-DG-412-616-C004
SIGN | DATE | SHEET 1 OF 1 | REV. 1

FORMAT SIZE A1

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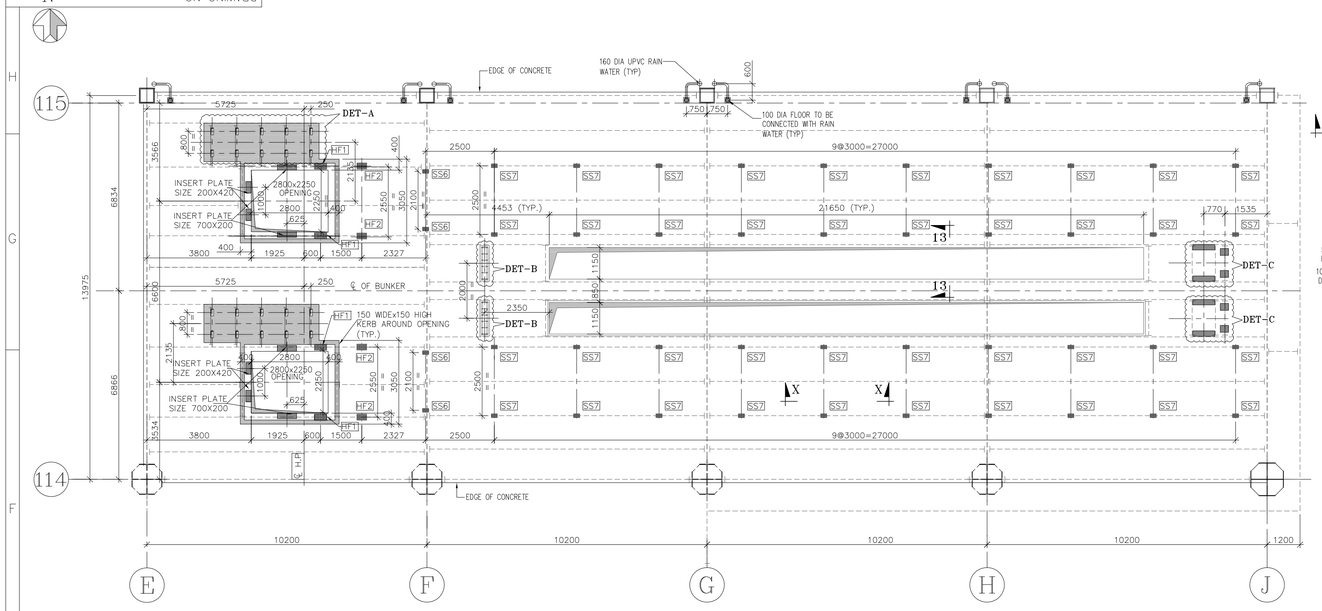
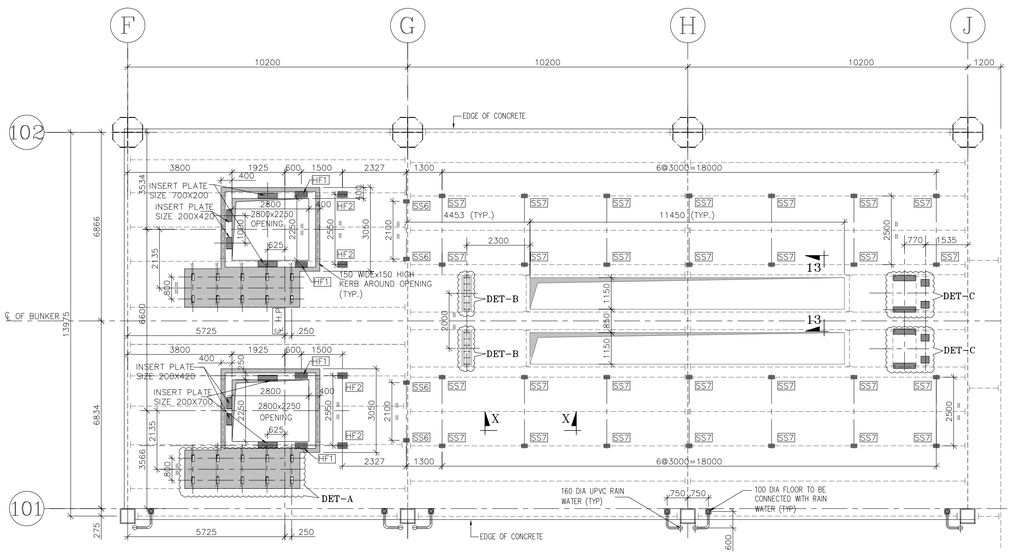
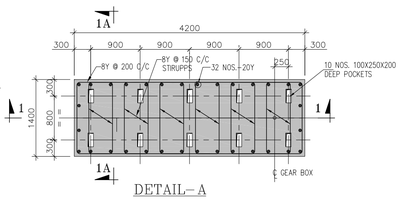


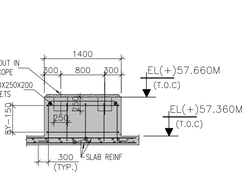

PLAN AT AT EL(+)57.360 (T.O.C)



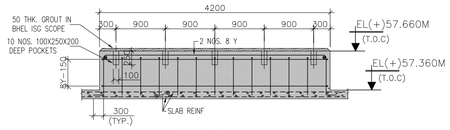

PLAN AT AT EL(+)57.360 (T.O.C)



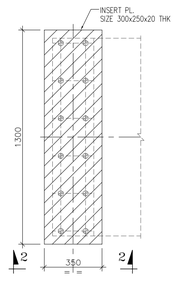

DETAIL–A



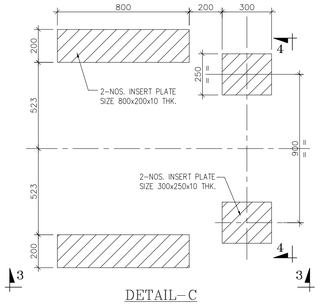

SECTION 1A–1A



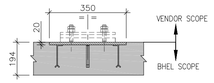

SECTION 1–1



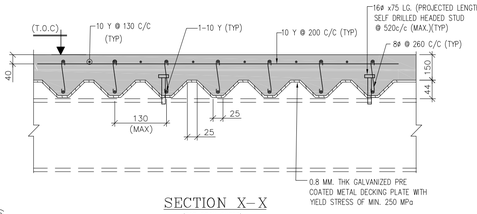

DETAIL–B



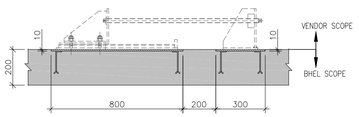

DETAIL–C



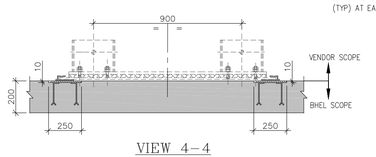

VIEW 2–2



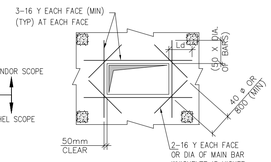

SECTION X–X
(FOR DECK SHEET)



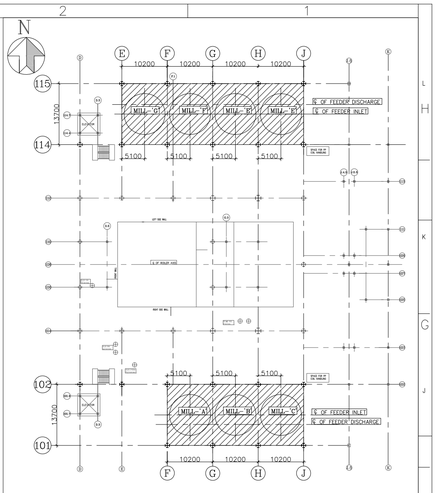

VIEW 3–3

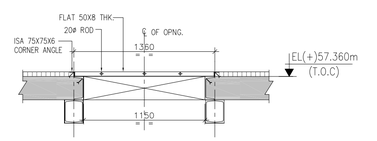



VIEW 4–4




TYP. DET. OF REINF. AROUND OPENINGS




SECTION 13–13




DET. OF PEDESTAL MKD.–HF1



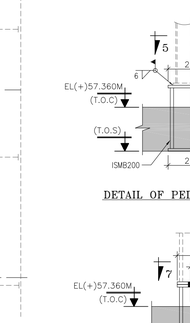

VIEW 9–9



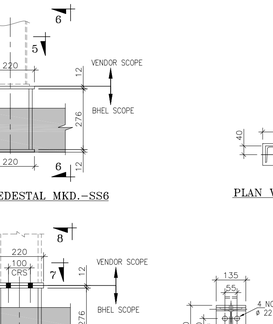

VIEW 10–10




DET. OF PEDESTAL MKD.–HF2




VIEW 11–11



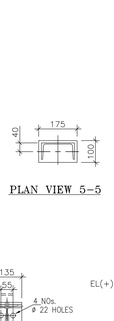

VIEW 12–12



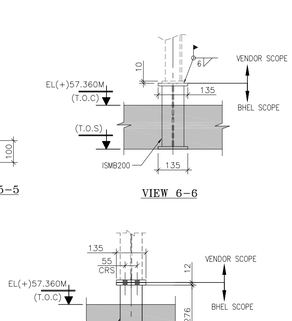

DETAIL OF PEDESTAL MKD.–SS7




DETAIL OF PEDESTAL MKD.–SS6




PLAN VIEW 7–7




VIEW 8–8




PLAN VIEW 5–5




VIEW 6–6




DETAIL OF KERB WALL AROUND OPENING

## NOTES: –

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS STATED OTHERWISE.
2. ALL ELEVATIONS ARE REFERRED TO THE FINISHED FLOOR LEVEL OF POWER HOUSE BUILDING AS EL. 0.00 M WHICH CORRESPONDS TO RL.(+) 10.0 M.
3. ALL ELEVATIONS ARE REFERRED TO THE FINISHED FLOOR LEVEL OF POWER HOUSE BUILDING AS EL. 0.00 M WHICH CORRESPONDS TO RL. 10.00M. ABOVE MEAN SEA LEVEL.
4. ALL STRUCTURAL CONCRETE SHALL BE DESIGN MIX CONC. OF GRADE M–35 UNLESS OTHERWISE NOTED.
5. ALL REINFORCEMENT STEEL SHALL BE HYSD BARS OF GRADE FE–500D CONFIRMING TO IS:1786. (LATEST). AND SHALL BE FUSION BONDED EPOXY COATING CONFORMING TO IS:13620.
6. CEMENT SHALL BE OPC WITH C3A CONTENT FROM 5% TO 8%. GRADE OF CEMENT SHALL BE 43 CONFORMING TO IS :8112.

## ENGINEERING REFERENCE DRAWINGS : –

1. PE–DG–412–600–C002 – GENERAL NOTES & STANDARD DETAILS FOR STRUCTURAL STEEL WORKS.
2. PE–DG–424–100–M002 – MAIN EQUIPMENT PLAN
3. PE–DG–412–616–C015&C016 – GA BUNKER & SUPPORTING DETAILS
4. IS–1–GA–688–101–M018/019//020/021 – GA & LOAD DATA & BELT CONVEYORS TBC 1A/B, 1C/D, 2A/B, 2C/D.

| BHEL–PROJECT ENGINEERING MANAGEMENT(CIVIL) | |
|---|---|
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| ☐ CONSTRUCTION | |
| STAMP ALL PREVIOUS REVISION AS SUPERSEDED | |
| ISSUED BY | |
| NAME | SOMNATH MISHRA |
| SIGNATURE | |
| DATE | 14 AUGUST 2018 |

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| | | | | |

| | |
|---|---|
| PROJECT | 2x660 MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI |
| OWNER: | TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED |
| OWNER'S CONSULTANT: | DESEIN PRIVATE LIMITED DESEIN HOUSE, NEW DELHI |
| | BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT NEW DELHI |

| DEPT CODE | | NAME | SIGN | DATE |
|---|---|---|---|---|
| C | DRN | YSR | | 14/08/18 |
| | DESN | PP | | 14/08/18 |
| | CHD | SM | | 14/08/18 |
| | APPD | AN | | 14/08/18 |

| | |
|---|---|
| JOB NO. | 412 |
| STATUS | CONTRACT |
| DISTRIBUTION | |
| TO | |
| No. OF | |

TITLE: MILL & BUNKER BAY
R.C.C. DTLS OF TRIPPER FLOOR

DEPT. | SCALE: | DRAWING NO. PE–DG–412–616–C005
SIGN | DATE | SHEET 1 OF 1 | REV. 0

FORMAT SIZE A1

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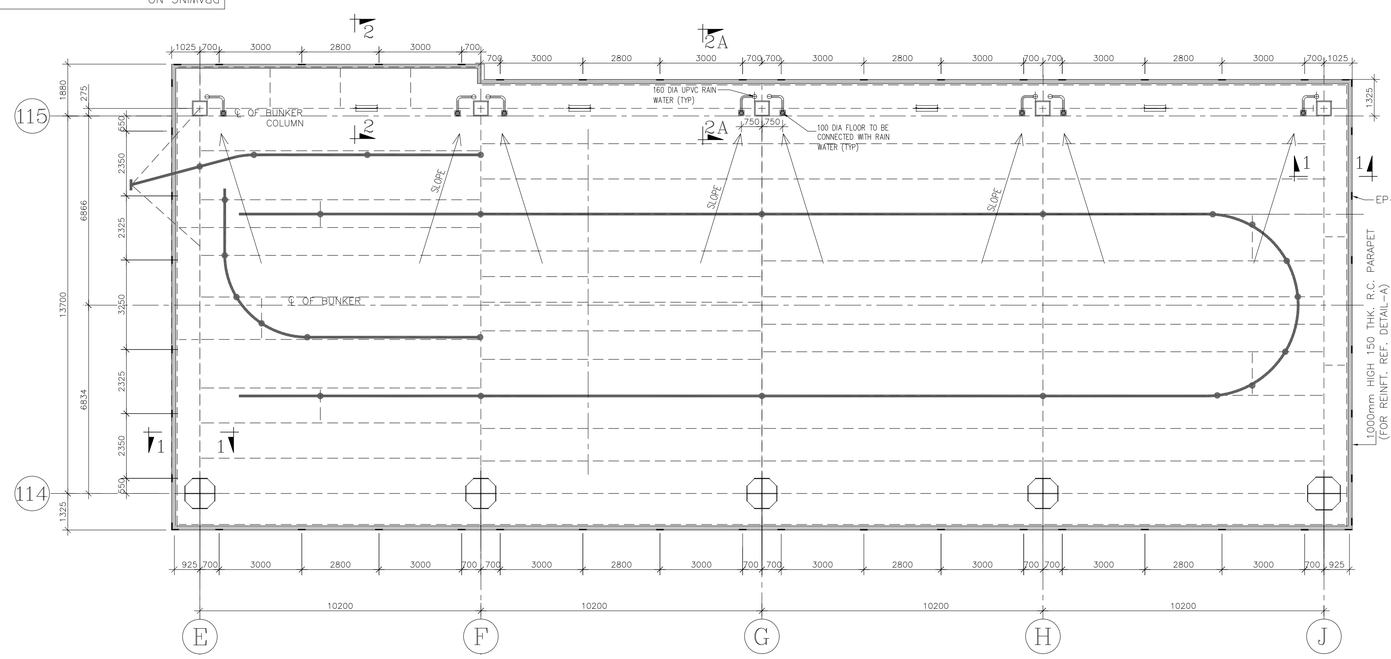
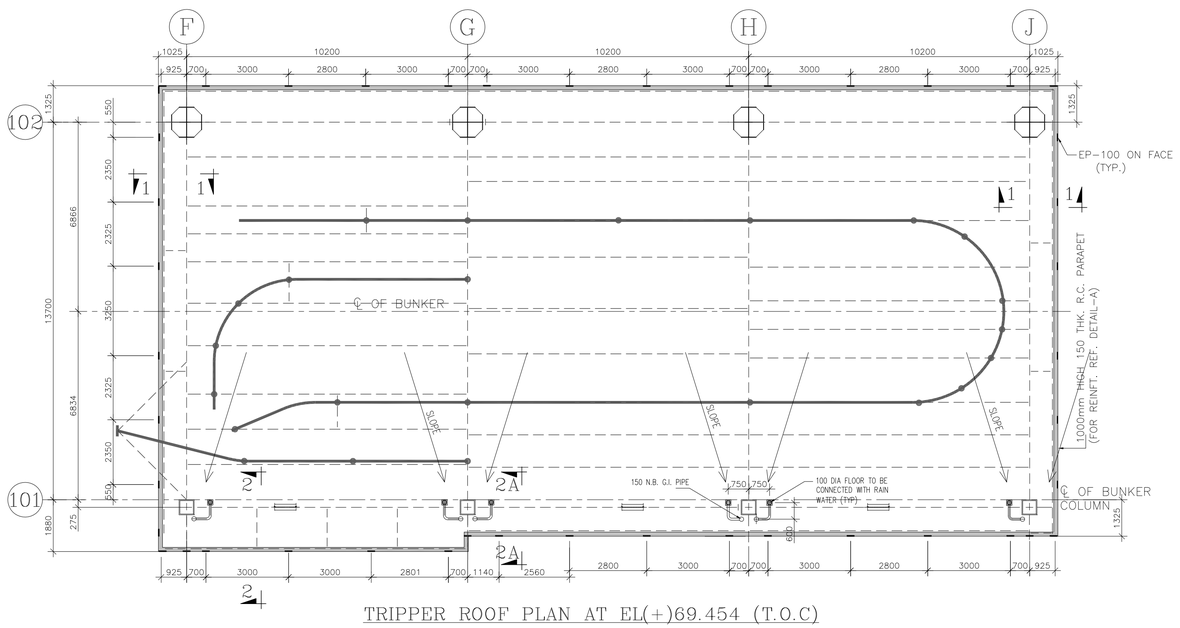
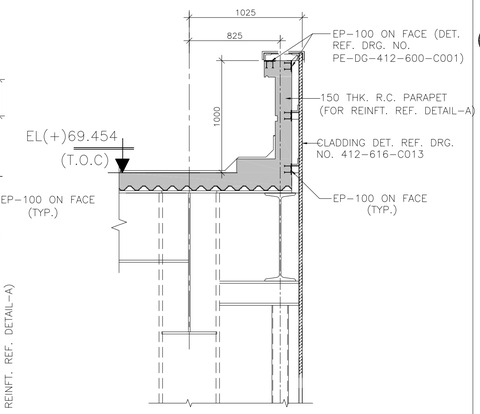


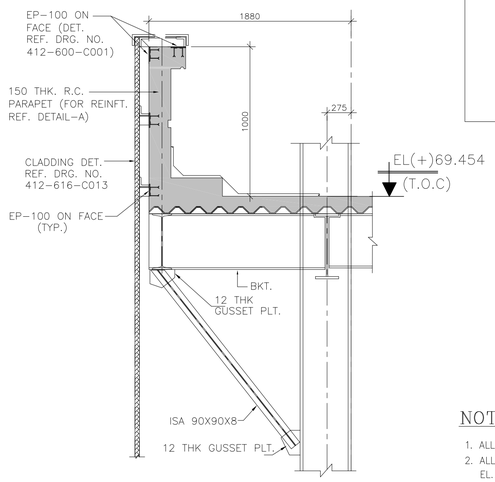

TRIPPER ROOF PLAN AT EL (+) 69.454 (T.O.C)



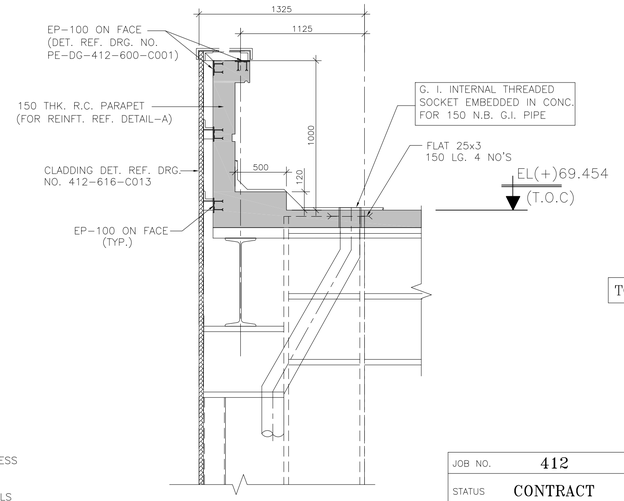

TRIPPER ROOF PLAN AT EL(+)69.454 (T.O.C)



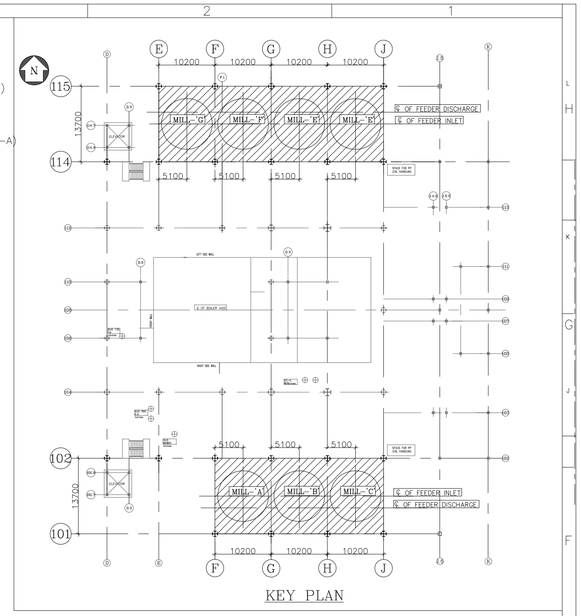

SECTION 1-1




SECTION 2-2




SECTION 2A-2A
(FOR PIPE CLARITY)




KEY PLAN

## NOTES: –

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS STATED OTHERWISE.
2. ALL ELEVATIONS ARE REFERRED TO THE FINISHED FLOOR LEVEL OF POWER HOUSE BUILDING AS EL. 0.00 M WHICH CORRESPONDS TO RL.(+) 10.0 M.
3. ALL STRUCTURAL CONCRETE SHALL BE DESIGN MIX CONC. OF GRADE M-35 UNLESS OTHERWISE NOTED.
4. ALL REINFORCEMENT STEEL SHALL BE HYSD BARS OF GRADE FE-500D CONFIRMING TO IS:1786. (LATEST). AND SHALL BE FUSION BONDED EPOXY COATING CONFORMING TO IS:13620.
5. CEMENT SHALL BE OPC WITH C3A CONTENT FROM 5% TO 8%.

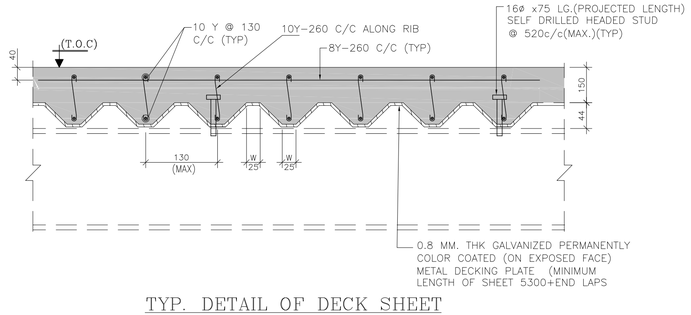
## ENGINEERING REFERENCE DRAWINGS :–

1. PE-DG-412-600-C002 – GENERAL NOTES & STANDARD DETAILS FOR STRUCTURAL STEEL WORKS.
2. MAIN EQUIPMENT PLAN---------- PE-DG-412-100-M002
2. FRAMING PLAN OF BUNKER ROOF ----- PE-DG-412-616-C012

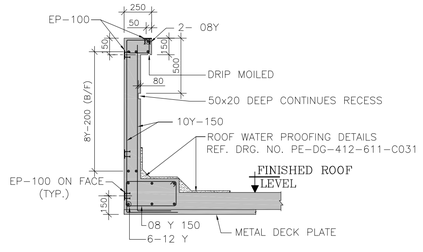
## LEGEND:

1. TOS = TOP OF STEEL
2. TYP. = TYPICAL
3. ℄ = CENTER LINE
4. EL = ELEVATION
5. ■ = LOCATION FOR PLATFORM SUPPORT
6. ● = MONORAIL SUPPORT POINTS

TOTAL QTY. OF CONCRETE = 156 Cum. (APPROX)




TYP. DETAIL OF DECK SHEET




DETAIL- A
(TYP. PARAPET WALL CROSS SECTION)

BHEL-PROJECT ENGINEERING MANAGEMENT(CIVIL)
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☐ PLANNING/INFORMATION
☐ CONSTRUCTION
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| ISSUED BY | |
|---|---|
| NAME | SOMNATH MISHRA |
| SIGNATURE | |
| DATE | 08 OCTOBER 2018 |

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| 01 | 09.10.18 | YSR | PP | SM |

REVISED AS PER COMMENTS RECEIVED VIDE LETTER NO. D.4027/17,DATE 27.09.18.

PROJECT: 2x660 MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI

OWNER: TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED

OWNER'S CONSULTANT: DESEIN PRIVATE LIMITED, DESEIN HOUSE, NEW DELHI

BHARAT HEAVY ELECTRICALS LTD, POWER SECTOR, PROJECT ENGINEERING MANAGEMENT, NEW DELHI

| DEPT CODE | | NAME | SIGN | DATE |
|---|---|---|---|---|
| C | DRN | DK | –sd– | 10/09/18 |
| | DESN | PP | –sd– | 10/09/18 |
| | CHD | SM | –sd– | 10/09/18 |
| | APPD | AN | –sd– | 10/09/18 |

JOB NO. 412
STATUS CONTRACT
DISTRIBUTION
TO
No. OF

TITLE: MILL & BUNKER BAY
R.C.C. DTLS OF ROOF

DEPT. C | SCALE: | DRAWING NO. PE-DG-412-616-C006
SIGN / DATE | SHEET 1 OF 1 | REV. 01

Oct 15, 2018 – 11:39am

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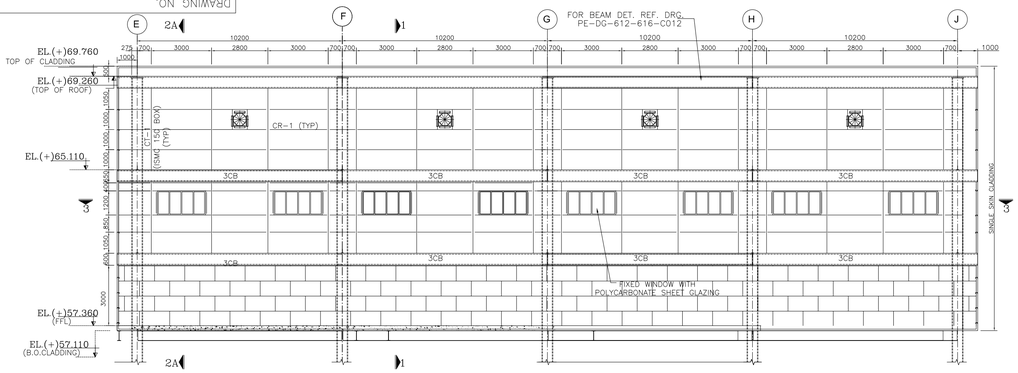
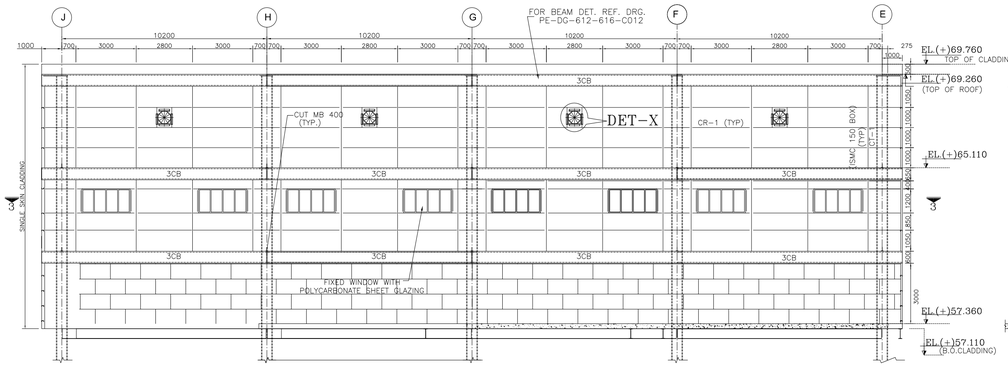



CLADDING FRAMING ON GRID-115

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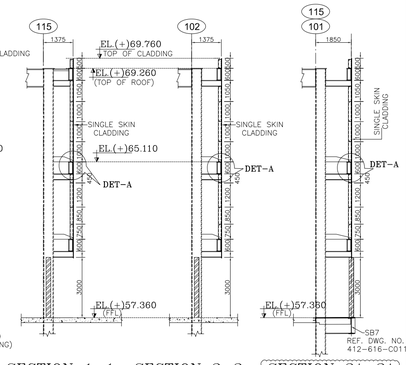
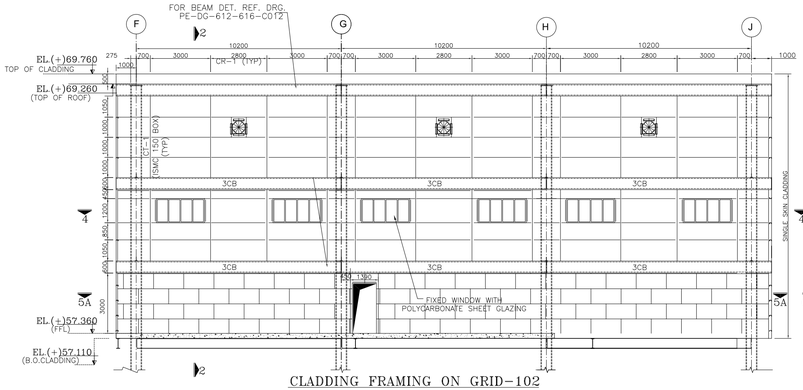



SECTION 1-1 SECTION 2-2 SECTION 2A-2A

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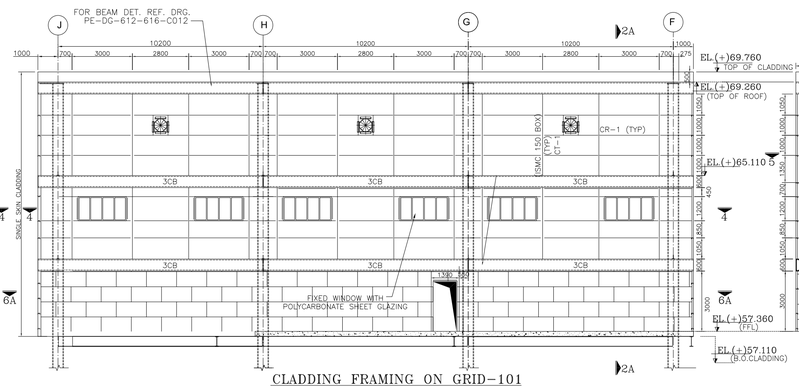
• – BEAMS IN BHEL TRICHY SCOPE

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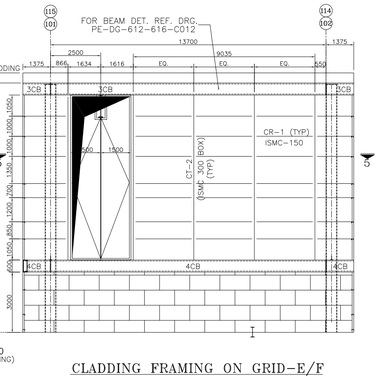
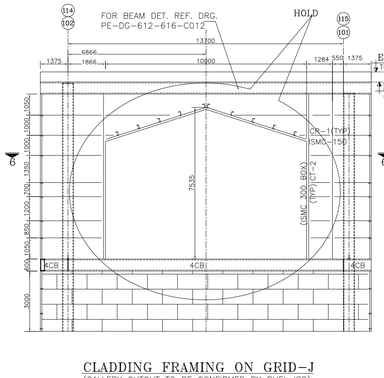
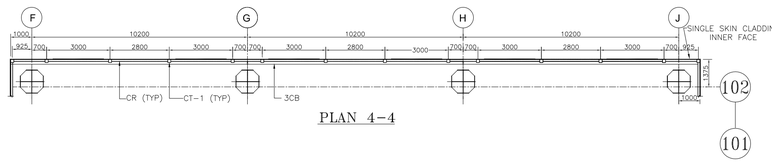


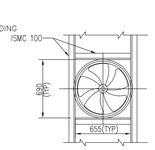

CLADDING FRAMING ON GRID-E/F



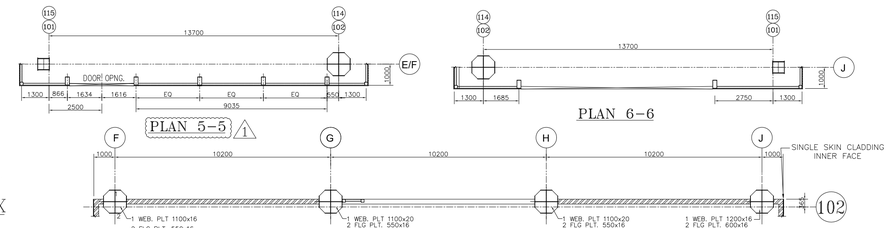

CLADDING FRAMING ON GRID-J
(GALLERY CUTOUT TO BE CONFIRMED BY BHEL ISG)



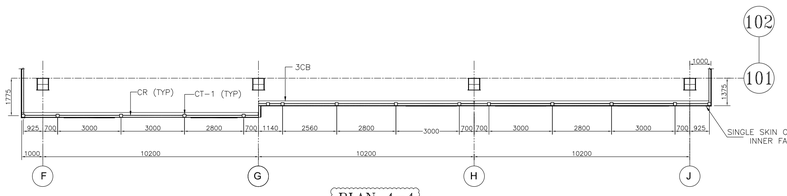

PLAN 4-4



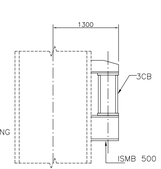

DETAIL-X



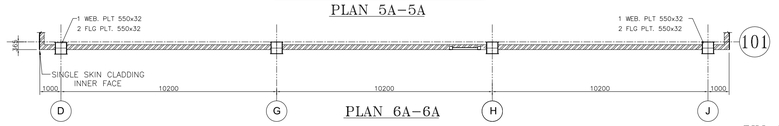

TYP. PLAN OF BRICK WALL
PLAN 5A-5A



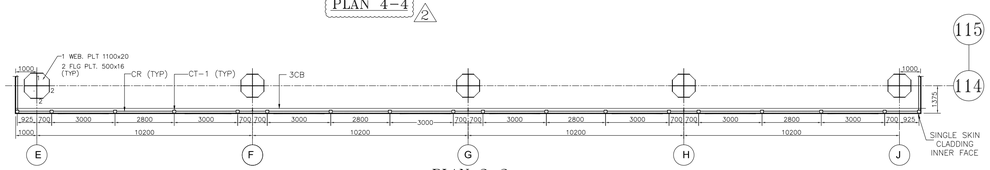

PLAN 4-4



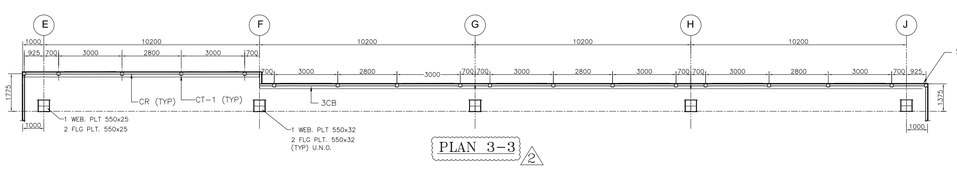

DETAIL -A



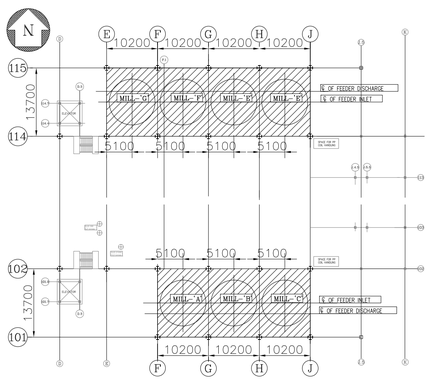

TYP. PLAN OF BRICK WALL
PLAN 6A-6A




PLAN 3-3




PLAN 3-3




KEY PLAN

## NOTES:-

1. ALL DIMENSIONS ARE IN MM & ELEVATIONS IN METERS UNLESS STATED OTHERWISE.
2. ALL ELEVATIONS ARE REFERRED TO THE FINISHED FLOOR LEVEL OF POWER HOUSE BUILDING AS EL. 0.00 M WHICH CORRESPONDS TO RL.(+) 10.00 M.
3. STANDARD NOTES FOR STRUCTURAL STEEL WORKS.-PE-DG-412-600-C002.
4. CONNECTION DETAILS SHOWN ARE INDICATIVE ONLY. SIZE & THICKNESS OF STIFFENERS, NO. & DIA. OF CONNECTION BOLTS, WELD SIZES ETC. SHALL BE SHOWN IN CORRESPONDING FABRICATION DRG.
5. LOCATION AND SIZE OF WINDOWS , DOORS , MONORAIL HANDLING DOOR , CONVEYOR GALLERY CUTOUT ARE TENTATIVE .

## ENGINEERING REFERENCE DRAWINGS :-

1. PLOT PLAN -PE-DG-412-100-M002.
2. BUNKER ROOF -PE-DG-412-616-C012.

## LEGEND:

1. TOS = TOP OF STEEL
2. TYP. = TYPICAL
3. ℄ = CENTER LINE
4. EL = ELEVATION

TOTAL TONNAGE - 140 MT. (APPROX.) FOR ONE UNIT

## GRADE OF MATERIAL

| | |
|---|---|
| i) ROLLED SECTIONS(FULLY/SEMI KILLED) | IS:2062 (GRADE E250 QUALITY:A) |
| ii) PLATE UPTO 20 MM. THICKNESS (FULLY KILLED, NORMALIZED ROLLED) | IS:2062 (GRADE E250 QUALITY:BR) |
| iii) PLATE ABOVE 20 MM AND BELOW 40MM. THICKNESS (FULLY KILLED, NORMALIZED ROLLED) | IS:2062 (GRADE E350 QUALITY:BO) |
| iv) PLATE BEYOND 40MM THICKNESS (FULLY KILLED AND FURNACE NORMALISED VACUUM DEGASSED, UST TESTED) | IS:2062 (GRADE E350 QUALITY:BO) |

## SCHEDULE OF MEMBER

| SL No. | MEMBER MKD. | BEAM SECTION | SHAPE |
|---|---|---|---|
| 1 | 3CB | 1 WEB. PLT 576X20<br>2 FLG PLT. 250X12 | 600 |
| 2 | 4CB | 1 WEB. PLT 550X16<br>2 FLG PLT. 350X25 | 600 |

## BILL OF MATERIAL(MT)

| DESCRIPTION | QUANTITY |
|---|---|
| MC 150 | 31.65 |
| MC 300 | 6.873 |
| MB 500 | 5.387 |
| PLT. 12THK. | 29.50 |
| PLT. 16THK. | 1.38 |
| PLT. 20THK. | 21.98 |
| PLT. 25THK. | 3.38 |
| TOTAL | 100.15 |

| 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 | SOMNATH MISHRA |
| SIGNATURE | -sd- |
| DATE | 29 APRIL 2019 |

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| 02 | 29.04.19 | YSR | PP | SM |
| REVISED AS MKD. 2 | | | | |

| REV. | DATE | ALTD | CHD | APPD |
|---|---|---|---|---|
| 01 | 09.04.19 | -sd- YSR | -sd- PP | -sd- SM |
| REVISED AS PER CUSTOMER'S COMMENTS IN LR.NO. SE/C/TP/E6/AE/ENNORE SEZTPP/F. BTG / D. 559 /18, DT. 18.04.18. REVISED MKD. AS 1 | | | | |

| | |
|---|---|
| JOB NO. | 412 |
| STATUS | CONTRACT |
| DISTRIBUTION | |
| TO | |
| No. OF | |

PROJECT: 2x660 MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI

OWNER: TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED

OWNER'S CONSULTANT: DESEIN PRIVATE LIMITED, DESEIN HOUSE, NEW DELHI

BHARAT HEAVY ELECTRICALS LTD, POWER SECTOR, PROJECT ENGINEERING MANAGEMENT, NEW DELHI

| DEPT CODE | | NAME | SIGN | DATE |
|---|---|---|---|---|
| C | DRN | DK | -sd- | 16/08/17 |
| | DESN | PP | -sd- | 18/08/17 |
| | CHD | SM | -sd- | 18/08/17 |
| | APPD | AN | -sd- | 18/08/17 |

TITLE: MILL & BUNKER BAY
CLADDING AND MIS.DETAILS

DEPT. | SCALE: | DRAWING NO. PE-DG-412-616-C013

SIGN | DATE | SHEET 1 OF 1 | REV. 2

Apr 29, 2019 - 3:06pm

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