



BHARAT HEAVY ELECTRICALS LIMITED
PROJECT ENGINEERING MANAGEMENT, NOIDA

Date-28-Aug-20

CORRIGENDUM- 02

PROJECTs	:	5X800 MW YADADRI TPS
PACKAGE	:	AIRCONDITIONING SYSTEM
ENQUIRY NO	:	PE/PG/YAD/E-6487/2020 Dated 18.08.2020
SUBJECT	:	PRE- BID CLARIFICATION

Type of Corrigendum			
Technical Corrigendum -	☒	Commercial Corrigendum -	☐

Bidders are requested to go through the following changes

1. Refer attached reply to pre-bid replies.

All the other terms and conditions of the tender enquiry remain unchanged. All the bidders are requested to quote accordingly.

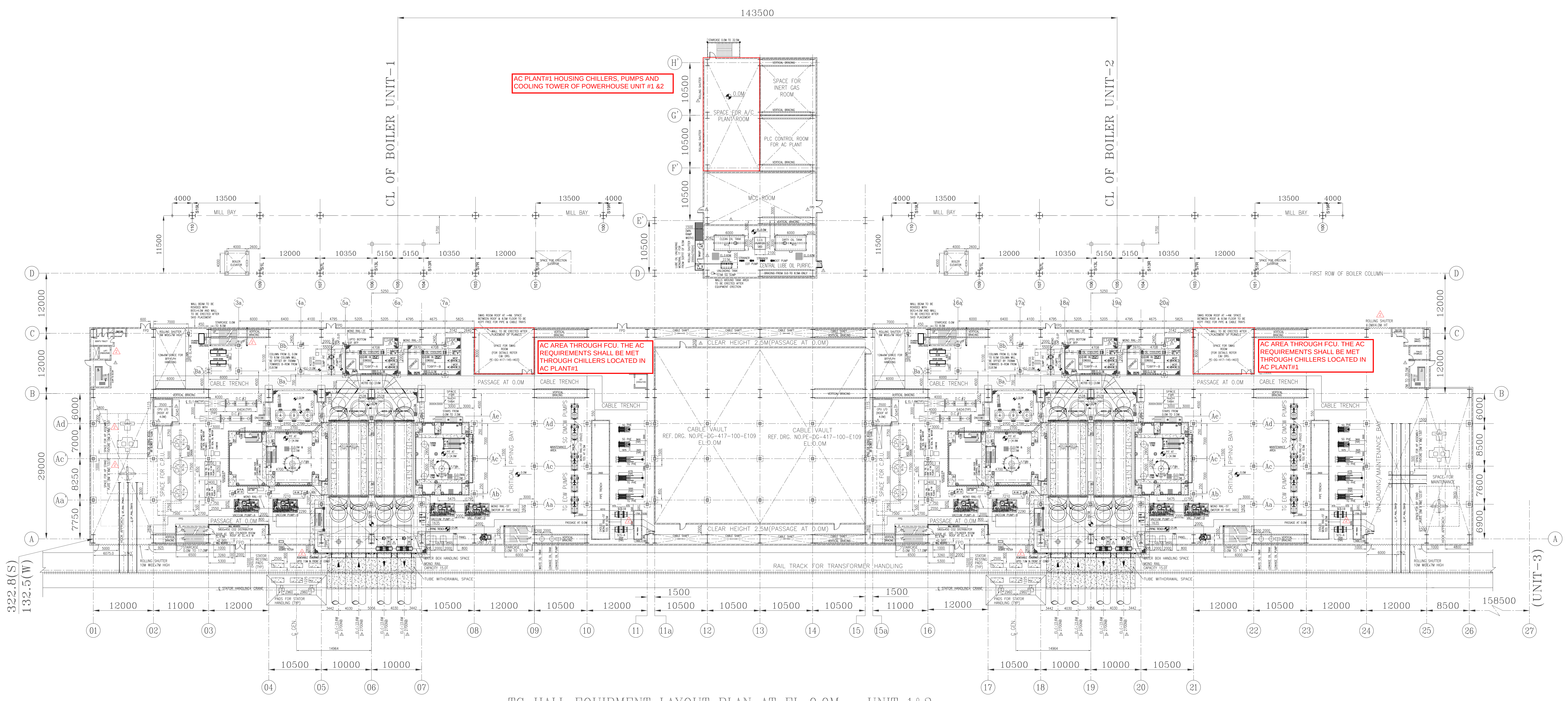
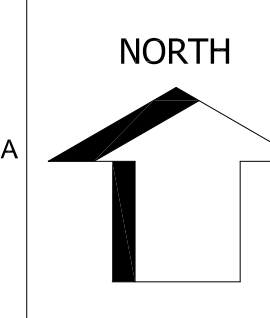
Yours faithfully,

**UPENDRA
CHAUDH
ARY**

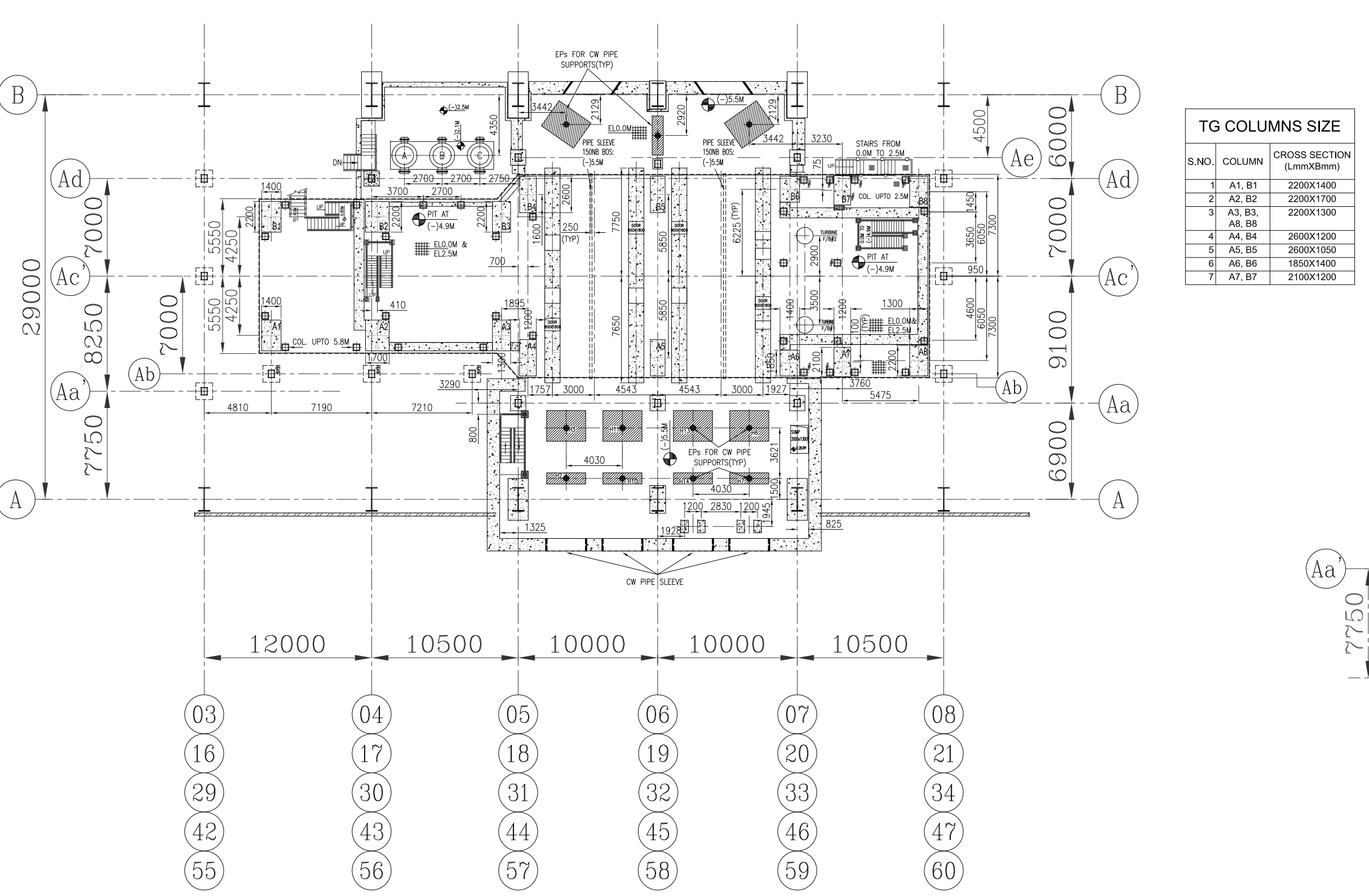
For and on behalf of BHEL
Upendra Chaudhary
Manager/BOP

Digitally signed by UPENDRA
CHAUDHARY
DN: c=IN, o=BHARAT HEAVY
ELECTRICALS LIMITED, ou=PS PEM,
postalCode=201301, st=Uttar
Pradesh,
2.5.4.20=9aef92814d1167bffa18bea
4c9c2ce391b8276731139d007915db
f62a123dc9f, cn=UPENDRA
CHAUDHARY
Date: 2020.08.28 14:37:11 +05'30'

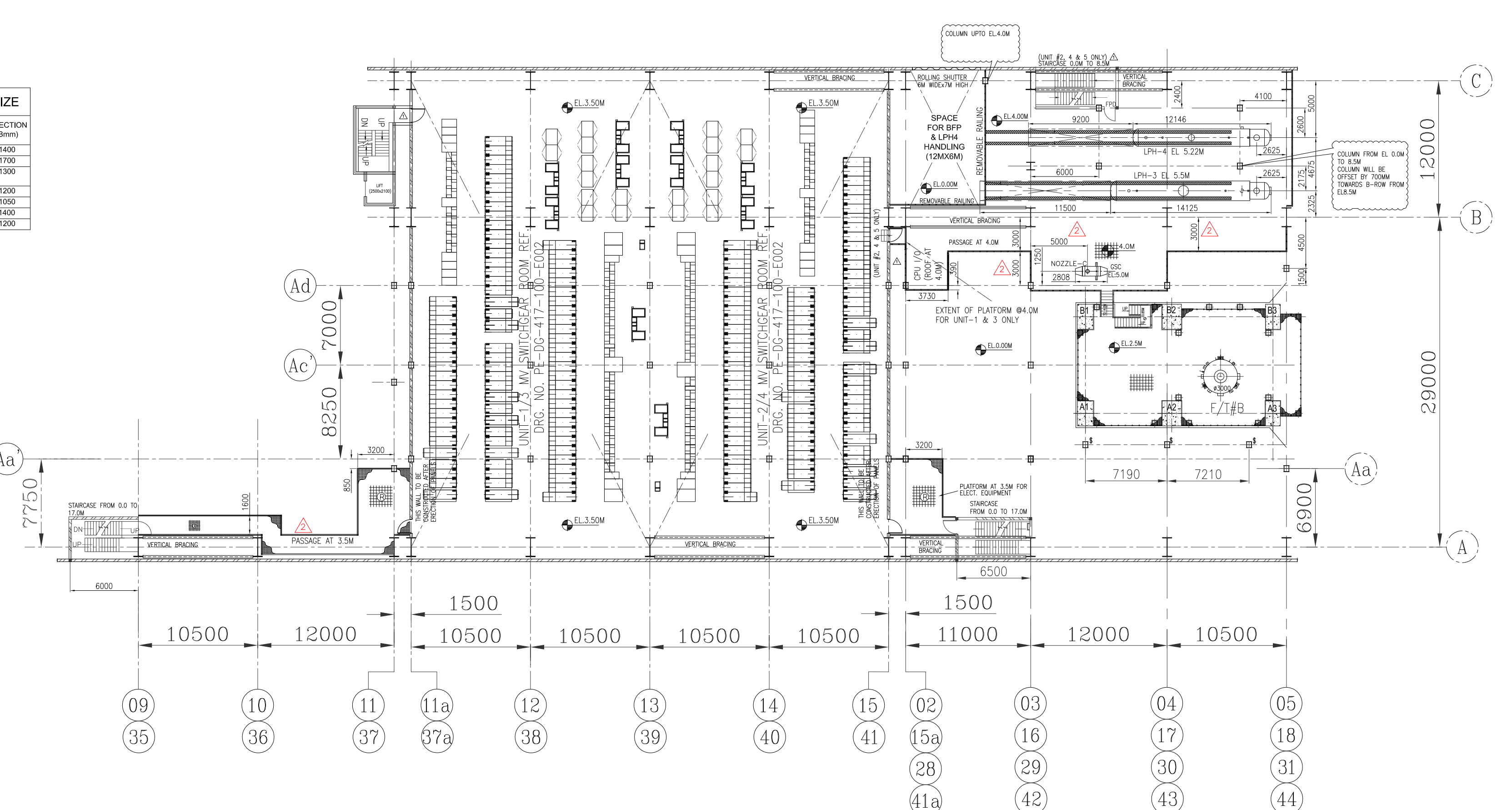
Customer : BHEL- PEM	SX800 MW YADADRI TPS-AIRCONDITIONING SYSTEM - PRE BID CLARIFICATION SCHEDULE	Specification No : PE-TS-417-553-A001(Rev 00)		
		Section I		
		Rev No 00		Date : 20.08.20
PRE BID CLARIFICATION SCHEDULE				
Sl No	Section/ Clause/ Page No	Staement of the referred Clause	Clarification Required	BHEL Reply
1	Technical specification_Part 2 Page No 15 of 82	Underdeck Insulation	Please confirm if Underdeck insulation is in scope of Bidder as the same is not figuring in BOQ	Under deck insulation is excluded from the scope of bidder.
2	Technical specification_Part 10_Part5 Page Nos 4 and 5 of 9- Layout Drawings	Drawing ref : PE-DG-417-100-M003-Rev 04 dtd 17.03.20 Sheet 2 of 2 and Sheet 1 of 2 Title : TG Equipment Layout Plan at Ground Floor	Not able to identify the AC Plant room for Unit 5 (AC Plant No 3) . Please clarify/confirm as the data is required for estimation of piping.	Please refer technical specification. The drawing is attached herewith for ready reference.
3	Technical specification_Part 10_Part5 Page Nos 8 and 9 of 9- Layout Drawings	Drawing ref : PE-DG-417-100-M003-Rev 06 dtd 17.03.20 Sheet 2 of 2 and Sheet 1 of 2 Title : TG Equipment Layout Plan at Misc. Floors above Operating floor in BC Bay	Not able to identify the AHU room for Unit 5 (AC Plant No 3) . Also the location of Cooling Towers for AC plant No 3 is not identifiabel. Please clarify/confirm as the data is required for estimation of piping.	Please refer technical specification. The drawing is attached herewith for ready reference.
4	Technical specification_Part 1- Section I- Subsection C1 Page No 11 of 82 Clause 2.1	System Description- Power House Building- AC Plant-1 (Applicable to AC Plant 2 &3 also)- Specification reads as follows : The 2 X 50% AHUs at 24 ML serving the UPS I room areas at 17 ML shall be provided with 3 X 50 % DIDW Centrifugal Fans	Kindly explain the Technical Feasilbity of this.Please clarify since the AHU Capacity is determined by the Air quantity and the static pressure it handles. Also the Fans are mounted on a single shaft and the the total capacity of the AHU is the total capacity of the identical fans mounted over the shaft of the AHU	Bidder to follow technical specification.
5	Technical specification_Part 1- Section I- Subsection C1 Page No 11 of 82 Clause 2.1	System Description- Power House Building- AC Plant-1 (Applicable to AC Plant 2 &3 also)- Specification reads as follows : The 2 X 50% AHUs at 32.5 ML serving the control room areas at 17 ML shall be provided with 2 X 100 % DIDW Centrifugal Fans	Kindly explain the Technical Feasilbity of this.Please clarify since the AHU Capacity is determined by the Air quantity and the static pressure it handles. Also the Fans are mounted on a single shaft and the the total capacity of the AHU is the total capacity of the identical fans mounted over the shaft of the AHU	Bidder to follow technical specification.
6	Technical specification_Part 1- Section I- Subsection C1 Page No 61 of 82	P&I Diagram of AC System- Power House Unit1 & Unit 2 (Applicable to Stage II- Units 3&4 and Aclant-3 Unit 5)	Please confirm the AHU capacity or Equipment heatload inside the Control room,or UPS Rooms for us to arrive at the capacity of AHUs and the chilled water pipe sizing for the AHUs meant for the CCR and UPS Rooms	Bidder to follow technical specification and estimate the AHU capacity based on the details available in the tender.



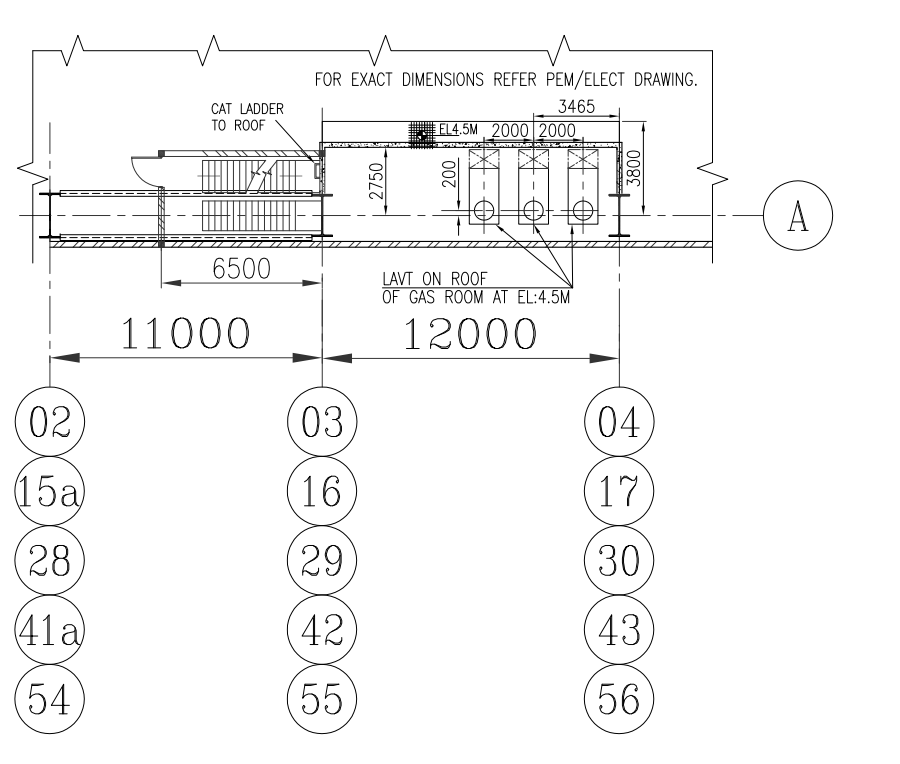
TG HALL EQUIPMENT LAYOUT PLAN AT EL 0.0M - UNIT 1&2



PLAN BELOW 0.0M



PLAN AT EL. 3.5/4.0M - UNIT 1,2 & 3,4



PLAN OVER GAS ROOM AT EL:4.5M

NOTES:-
1. FOR NOTES REFER DRG. PE-DG-417-100-M003 SHEET-02.

CIVIL TO NOTE:
\$ COLUMN FROM 0.0 TO ~13.5(BOTTOM OF OIL CAVAL)
COLUMN UPTO EL:2.5M
@ COLUMN UPTO BOTTOM OF BFP DECK
MAX BEAM DEPTH FOR PLATFORM BELOW TG DECK AT EL:2.5M TO BE RESTRICTED TO 400MM.

FOR TENDER PURPOSE ONLY

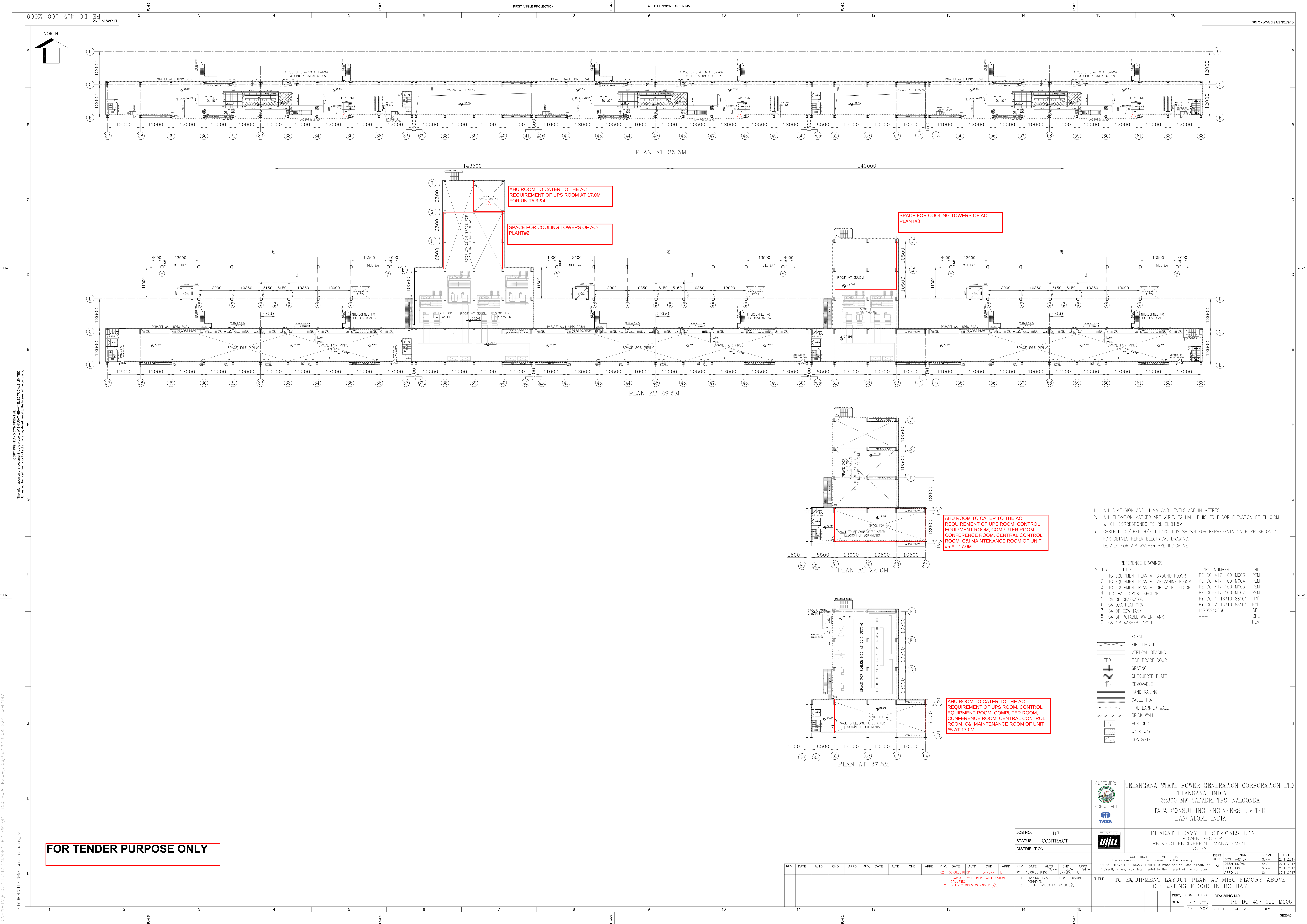
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01	01.08.2018				02	01.08.2018				03	01.08.2018				04	01.08.2018			
1. DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS.										1. DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS.									
2. OTHER CHANGES AS MARKED.										2. OTHER CHANGES AS MARKED.									

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

CUSTOMER:	TELANGANA STATE POWER GENERATION CORPORATION LTD TELANGANA, INDIA 5x800 MW YADADRI TPS, NALGONDA
CONSULTANT:	TATA CONSULTING ENGINEERS LIMITED BANGALORE INDIA
PROJECT:	BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT Noida

DEPT	NAME	SIGN	DATE
DRN	RAJES/DR	S5/-	27.11.2017
DESIN	SV/DR	S5/-	27.11.2017
CHK	ERA	S5/-	27.11.2017
APPO	AP	S5/-	27.11.2017

TITLE	TG EQUIPMENT LAYOUT PLAN AT GROUND FLOOR
DEPT.	SCALE 1:100
SIGN	DRAWING NO.
	PE-DG-417-100-M003
SHEET 1	OF 2
REV.	02



FOR TENDER PURPOSE ONLY

1. ALL DIMENSION ARE IN MM AND LEVELS ARE IN METRES.
2. ALL ELEVATION MARKED ARE W.R.T. TG HALL FINISHED FLOOR ELEVATION OF EL 0.0M WHICH CORRESPONDS TO RL EL.81.5M.
3. CABLE DUCT/TRENCH/SUIT LAYOUT IS SHOWN FOR REPRESENTATION PURPOSE ONLY. FOR DETAILS REFER ELECTRICAL DRAWING.
4. DETAILS FOR AIR WASHER ARE INDICATIVE.

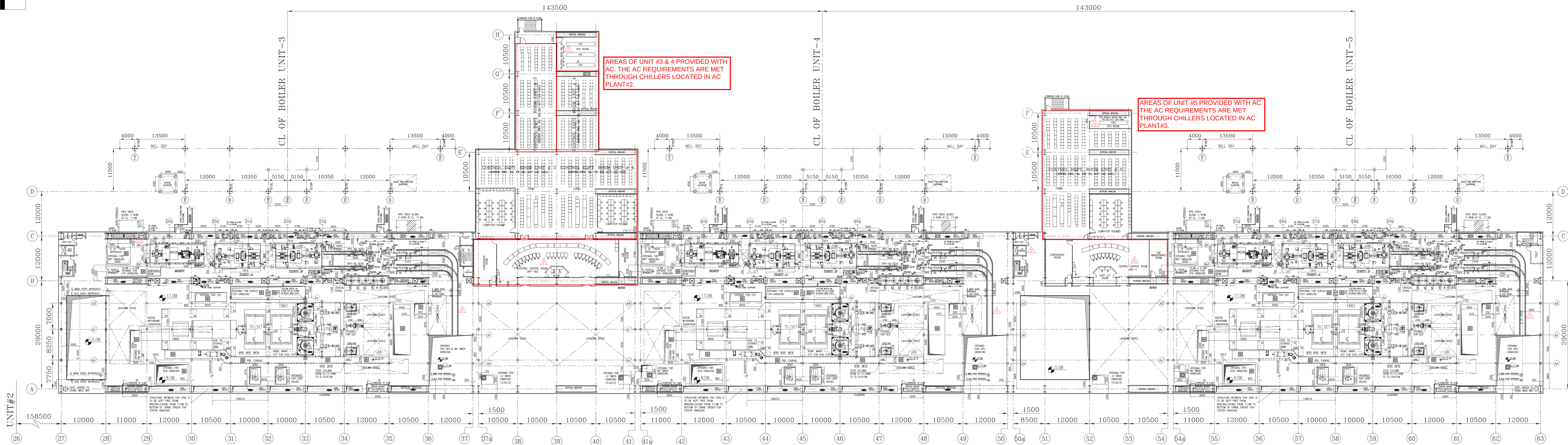
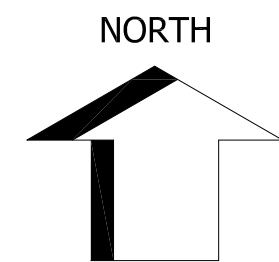
REFERENCE DRAWINGS:		DRG. NUMBER		UNIT	
SL No	TITLE				
1	TG EQUIPMENT PLAN AT GROUND FLOOR	PE-DG-417-100-M003	PEM		
2	TG EQUIPMENT PLAN AT MEZZANINE FLOOR	PE-DG-417-100-M004	PEM		
3	TG EQUIPMENT PLAN AT OPERATING FLOOR	PE-DG-417-100-M005	PEM		
4	T.G. HALL CROSS SECTION	PE-DG-417-100-M007	PEM		
5	GA OF DEAEATOR	HY-DG-1-16310-B8101	HYD		
6	GA D/A PLATFORM	HY-DG-2-16310-B8104	HYD		
7	GA OF EOW TANK	11705240856	BPL		
8	GA OF POTABLE WATER TANK	---	BPL		
9	GA AIR WASHER LAYOUT	---	PEM		

LEGEND:	
	PIPE HATCH
	VERTICAL BRACING
	FIRE PROOF DOOR
	GRATING
	CHEQUERED PLATE
	REMOVABLE
	HAND RAILING
	CABLE TRAY
	FIRE BARRIER WALL
	BRICK WALL
	BUS DUCT
	WALK WAY
	CONCRETE

CUSTOMER:		TELANGANA STATE POWER GENERATION CORPORATION LTD	
CONSULTANT:		TATA CONSULTING ENGINEERS LIMITED	
JOB NO.		417	
STATUS		CONTRACT	
DISTRIBUTION			
Bharat Heavy Electricals Ltd		POWER SECTOR	
PROJECT ENGINEERING MANAGEMENT		Noida	
TITLE		TG EQUIPMENT LAYOUT PLAN AT MISC FLOORS ABOVE OPERATING FLOOR IN BC BAY	
DEPT.		SCALE 1:100	
SIGN		DRAWING NO.	
		PE-DG-417-100-M006	
		SHEET 1 OF 2	
		REV. 02	

REV.	DATE	ALTD	CHD	APPD	REV.	DATE	ALTD	CHD	APPD	REV.	DATE	ALTD	CHD	APPD
01	21.08.2018				01	21.08.2018				01	21.08.2018			
02	21.08.2018				02	21.08.2018				02	21.08.2018			

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ELECTRONIC FILE NAME : 417-100-M006.P2



TG HALL EQUIPMENT LAYOUT PLAN AT EL 17.0M – UNIT 3,4&5

- NOTES:-
1. ALL DIMENSION ARE IN MM AND LEVELS ARE IN METRES.
 2. ALL ELEVATION MARKED ARE W.R.T. TG HALL FINISHED FLOOR ELEVATION OF EL 0.0M WHICH CORRESPONDS TO RL EL:81.5M.
 3. CABLE DUCT/TRENCH/SPLIT LAYOUT IS SHOWN FOR REPRESENTATION PURPOSE ONLY. FOR DETAILS REFER ELECTRICAL DRAWING.

REFERENCE DRAWINGS:		
SL. NO.	TITLE	NUMBER
1	TO EQUIPMENT PLAN AT MEZZANINE FLOOR	PG-00-417-1000-0003
2	TO EQUIPMENT PLAN AT MEZZANINE FLOOR	PG-00-417-1000-0003
3	TO EQUIPMENT LAYOUT PLAN AT MEZZ FLOORS NEAR OPERATING FLOOR IN BG SH	PG-00-417-1000-0006
4	T.C. CROSS SECTION	PG-00-417-1000-0007
5	GA OF MBOPF	HY-DC-1-18000-57742
6	GA OF TDBPF	HY-DC-1-18000-57741
7	GA OF HP HEATER BA	HY-DC-2-27511-36303
8	GA OF HP HEATER BCB	HY-DC-2-27512-36403
9	GA OF DESUPERHEATER-BA	HY-DC-2-27518-36503
10	GA OF DESUPERHEATER-BGB	HY-DC-2-27519-36603
11	FOUNDATION ARRANGEMENT FOR BPP AND DRIVE TURBINE	HY-DC-1-31301-14235
12	FOUNDATION OF MBOPF	HY-DC-1-18000-57744
13	TO DECK FOUNDATION PLAN	0131005025-01513
14	ON CABLE DETAILS	G-13100-01001
15	FOUNDATION OF GENERATOR COMPONENTS	C-1310-00-01089
16	LAYOUTS OF TURBINE COMPONENTS	1-13100-05016
17	MOVABLE MAINTENANCE PLATFORM FOR PSV	1-13100-05090

LEGEND:-	
	PIPE HATCH
	VERTICAL BRACING
	FIRE PROOF DOOR
	GRATING
	CHEQUERED PLATE
	REMOVABLE
	HAND RAILING
	CABLE TRAY
	FIRE BARRIER WALL
	BRICK WALL
	BUS DUCT
	CONCRETE

FOR TENDER PURPOSE ONLY

REV.	DATE	ALTD	CHD	APPD	REV.	DATE	ALTD	CHD	APPD	REV.	DATE	ALTD	CHD	APPD	REV.	DATE	ALTD	CHD	APPD
02	06.08.2018	OK			02	06.08.2018	OK	OK/BA	JJ	01	15.06.2018	OK	OK/BA	JJ					
1. DRAWING REVISED INLINE WITH CUSTOMER COMMENTS. 2. OTHER CHANGES AS MARKED. 										1. DRAWING REVISED INLINE WITH CUSTOMER COMMENTS. 2. OTHER CHANGES AS MARKED. 									

JOB NO.	417
STATUS	CONTRACT
DISTRIBUTION	

CUSTOMER:	TELANGANA STATE POWER GENERATION CORPORATION LTD TELANGANA, INDIA
CONSULTANT:	5x800 MW YADADRI TFS, NALGONDA TATA CONSULTING ENGINEERS LIMITED BANGALORE INDIA
OWNER OF THE PROJECT:	BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT NOIDA

COPY RIGHT AND CONFIDENTIAL		DEPT	NAME	SIGN	DATE
The information on this document is the property of		CODE			
BHARAT HEAVY ELECTRICALS LIMITED it must not be used directly or indirectly in any way detrimental to the interest of the company,		M	DRN	AMS/DK	Sd/- 27.11.2017
			DESN	DK/MK	Sd/- 27.11.2017
			CHK	BKA	Sd/- 27.11.2017
			APPD	JJ	Sd/- 27.11.2017

TITLE													TG EQUIPMENT LAYOUT PLAN AT OPERATING FLOOR												
										DEPT.	SCALE 1:100			DRAWING NO.											
										SIGN				PE-DG-417-100-M005											
										SHEET 2 OF 2					REV. 02										

[illegible]

NOTES:

1. FOR NOTES REFER DRG. PE-DG-417-100-M005 SHEET-02.

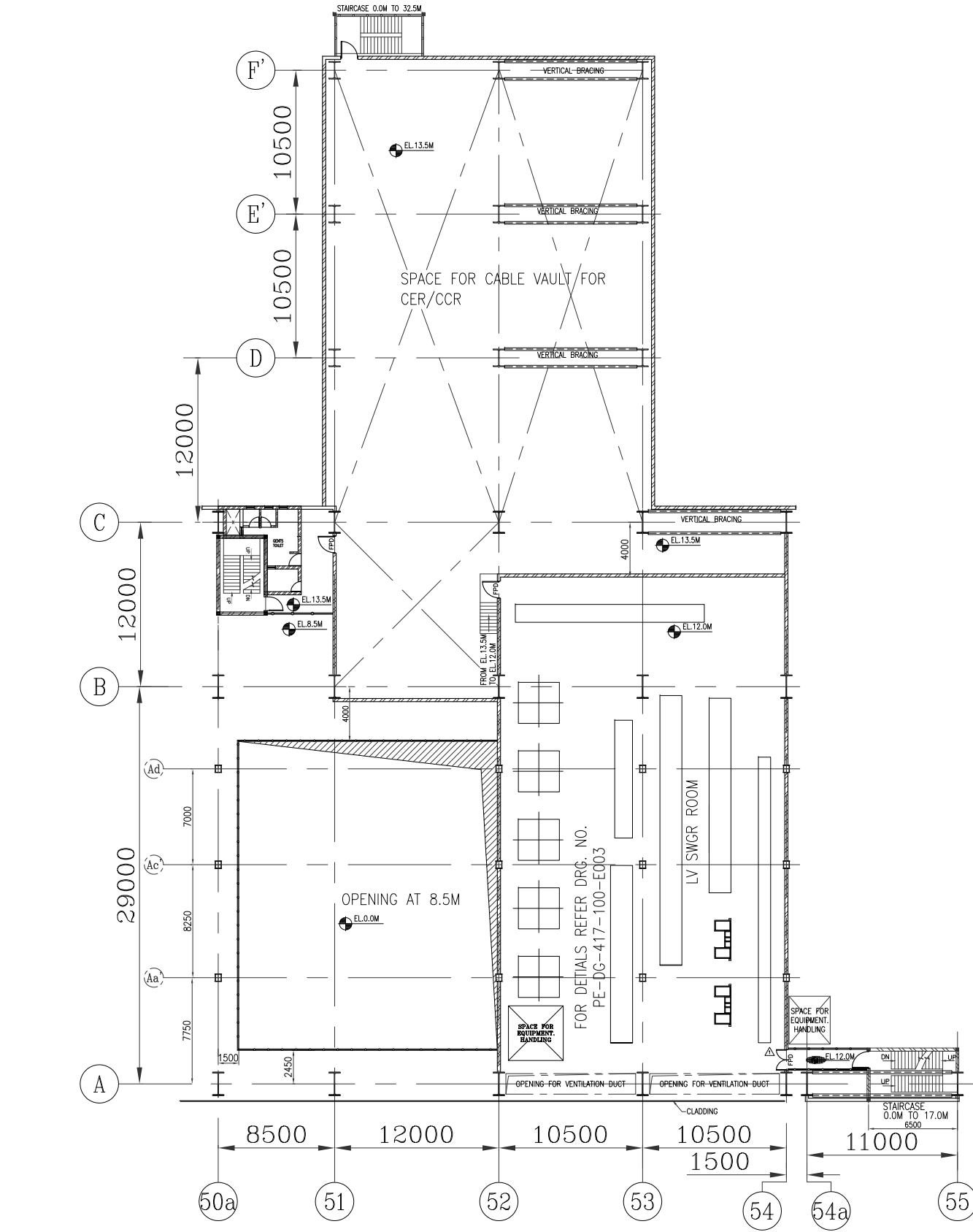
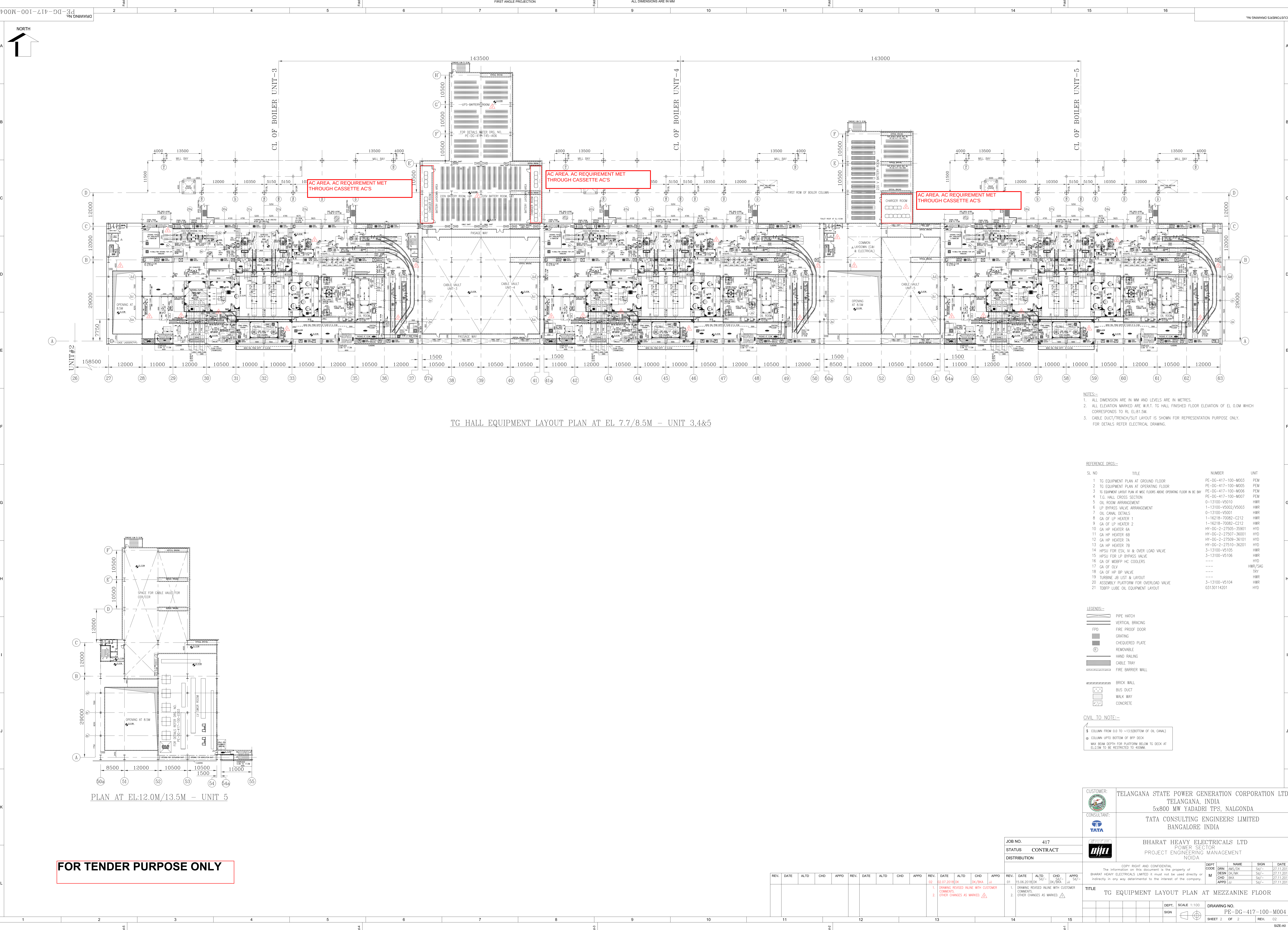
FOR TENDER PURPOSE ONLY

REV.	DATE	CHKD	APPD	REV.	DATE	ALTD	CHD	APPD	REV.	DATE	ALTD	CHD	APPD	BHARAT HEAVY ELECTRICALS LIMITED it must not be used directly or indirectly in any way detrimental to the interest of the industry.	M	DENB	CHKD/MK	Sd/-	27.11.2017																									
02	06.08.2018	OK		01	15.06.2018	OK	OK/BBA	JJ	01	15.06.2018	OK	OK/BBA	JJ	Sd/-		01	15.06.2018	OK	OK/BBA	JJ	Sd/-	27.11.2017																						
1. DRAWING REVISED INLINE WITH CUSTOMER COMMENTS									1. DRAWING REVISED INLINE WITH CUSTOMER COMMENTS									TITLE TG EQUIPMENT LAYOUT PLAN AT OPERATING FLOOR																										
2. OTHER CHANGES AS MARKED									2. OTHER CHANGES AS MARKED																																			
															DEPT.					SCALE 1:100					DRAWING NO. PE-DG-417-100-M005																			
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11					12					13					14					15																								
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ELECTRONIC FILE NAME : 417-100-M004_P2

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PLAN AT EL:12.0M/13.5M - UNIT 5

FOR TENDER PURPOSE ONLY

- NOTES:-
1. ALL DIMENSION ARE IN MM AND LEVELS ARE IN METRES.
 2. ALL ELEVATION MARKED ARE W.R.T. TO HALL FINISHED FLOOR ELEVATION OF EL 0.0M WHICH CORRESPONDS TO RL EL:81.5M.
 3. CABLE DUCT/TRENCH/SUT LAYOUT IS SHOWN FOR REPRESENTATION PURPOSE ONLY. FOR DETAILS REFER ELECTRICAL DRAWING.

REFERENCE DRGS:-

SL. NO	TITLE	NUMBER	UNIT
1	TG EQUIPMENT PLAN AT GROUND FLOOR	PE-00-417-100-M003	PEM
2	TG EQUIPMENT PLAN AT OPERATING FLOOR	PE-00-417-100-M005	PEM
3	TG EQUIPMENT LAYOUT PLAN AT WSC FLOORS ABOVE OPERATING FLOOR IN BS. BAY	PE-00-417-100-M006	PEM
4	T.G. HALL CROSS SECTION	PE-00-417-100-M007	PEM
5	OIL ROOM ARRANGEMENT	0-13100-V5010	HWR
6	LP BYPASS VALVE ARRANGEMENT	1-13100-V5002/V5003	HWR
7	OIL CANAL DETAILS	0-13100-V5001	HWR
8	GA OF LP HEATER 1	1-16218-70082-C212	HWR
9	GA OF LP HEATER 2	1-16218-70082-C212	HWR
10	GA HP HEATER 6A	HY-00-2-27505-36001	HYD
11	GA HP HEATER 6B	HY-00-2-27507-36001	HYD
12	GA HP HEATER 7A	HY-00-2-27509-36101	HYD
13	GA HP HEATER 7B	HY-00-2-27510-36201	HYD
14	HPSU FOR ESH, IV & OVER LOAD VALVE	3-13100-V5105	HWR
15	HPSU FOR LP BYPASS VALVE	3-13100-V5106	HWR
16	GA OF MDBFP HC COOLERS	----	HYD
17	GA OF OLIV	----	HWR/SAG
18	GA OF HP HP VALVE	----	TRY
19	TURBINE JIB LIST & LAYOUT	----	HWR
20	ASSEMBLY PLATFORM FOR OVERLOAD VALVE	3-13100-V5104	HWR
21	TDBFP LUBE OIL EQUIPMENT LAYOUT	03130114201	HYD

LEGENDS:-

- PIPE HATCH
- VERTICAL BRACING
- FPO
- GRATING
- CHECKERED PLATE
- REMOVABLE
- HAND RAILING
- CABLE TRAY
- FIRE BARRIER WALL

CIVIL TO NOTE:-

- * COLUMN FROM 0.0 TO -13.5 (BOTTOM OF OIL CANAL)
- * COLUMN UP TO BOTTOM OF BITP DECK
- * MAX BEAM DEPTH FOR PLATFORM BELOW TO DECK AT EL:2.5M TO BE RESTRICTED TO 400MM.

CUSTOMER:	TELANGANA STATE POWER GENERATION CORPORATION LTD TELANGANA, INDIA 5x800 MW YADADRI TPS, NALGONDA																		
CONSULTANT:	TATA CONSULTING ENGINEERS LIMITED BANGALORE INDIA																		
DEPT CODE	BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT Noida																		
JOB NO.	417																		
STATUS	CONTRACT																		
DISTRIBUTION																			
REV.	DATE	ALTD	CHD	APPO	REV.	DATE	ALTD	CHD	APPO	REV.	DATE	ALTD	CHD	APPO	REV.	DATE	ALTD	CHD	APPO
01	22.07.2018	OK			02	22.07.2018	OK			01	13.08.2018	OK			01	13.08.2018	OK		
1. DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS.										1. DRAWING REVISED IN LINE WITH CUSTOMER COMMENTS.									
2. OTHER CHANGES AS MARKED.										2. OTHER CHANGES AS MARKED.									
TITLE										TG EQUIPMENT LAYOUT PLAN AT MEZZANINE FLOOR									
DEPT. SCALE 1:100										DRAWING NO. PG-DG-417-100-M004									
SHEET 2 OF 2										REV. 02									

SIZE-A0

