



ISG BANGALORE

PROJECT: 1X800MW NORTH CHENNAI STPP, STAGE-III**Corrigendum-4
Dated 30.08.2021****LHP & GHP Package for FGD****Tender No. 77/21/6057/Raj
Dated 03.08.2021****Please note the following point**

Sl. No.	Event Description	To Note
1	Techno-commercial	Corrigendum-4 is issued to include the following: 1. To extend the due date of submission of offers from 30.08.2021 to 09.09.2021 2. Technical pre-bid clarifications (Annexure-T3) 3. Appendix-3 4. Appendix-4 5. Appendix-5
2	All other terms & conditions	Remain unchanged.

Note:

Also, please note that the full tender document can be downloaded from the website
<https://eprocurebhel.co.in/nicgep/app>

Contact Person:

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Commercial	Manish Kumar Sahoo, Sr.Mgr./MM Contact No: - 080-22184564 Mail: mp@bhel.in	Raj Kumar, Dy. Mgr./MM Contact No. 080-22184087 Mail: rajkumar1@bhel.in

All other terms and conditions remain the same as per the original enquiry and its subsequent amendment / addendum / corrigendum /clarification.

Any further addendum / corrigendum/ clarification/ notice of due date extension such issued shall be part of the bidding documents and this will be available at the web site from where the original documents have been received / downloaded by the bidder.

Hence, bidders are requested to visit the web site on regular basis.

TECHNICAL PRE-BID CLARIFICATIONS DATED 30.08.2021
1X800MW NORTH CHENNAI STPP, STAGE-III
LHP & GHP OF FGD

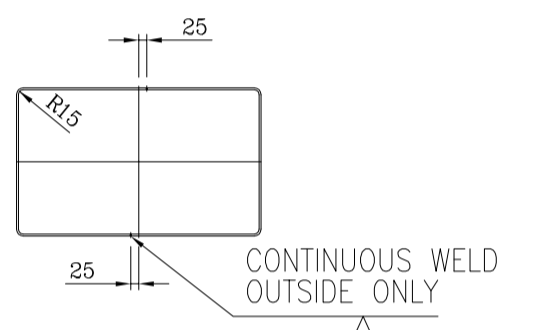
S. No.	Spec. Clause No.	Page No.	Specified in the Tender specification	Clarification Sought by Bidder	BHEL Replies dated 30.08.2021
1.	Corrigendum-3, Technical Pre Bid Clarifications dated 20.08.2021, Annexure – T2, Sl. No 17		In corrigendum-3, BHEL clarified that tender specification prevails	<p>It is noticed that, structural shed with sheeting is envisaged for Limestone stockpile and Gypsum stockpile. DE system will not be effective if stockpile area is not fully covered. In structural shed there will be various openings through which outside air will be sucked by dust extraction system which cannot be limited. Moreover, dust particles will also escape through the openings/ louvers etc.</p> <p>In view of above there is no proper basis to calculate the air capacity for selecting the DE equipment. So it can be differing in large quantity during detail engineering stage from the consideration during tendering stage. Accordingly it is requested kindly confirm the minimum Air Capacity which has to be considered for selecting the DE equipment in limestone and gypsum storage shed.</p>	DE system for the entire shed length, where material is stacked, shall be divided into compartments for dust collection & suction. Number of suction points from each zone will be decided during detail engineering and sucked air will be then sent to the dust extraction system. So based on this philosophy system sizing is to be done which will subject to approval of TANGEDCO during detail engineering.
2.	Vol. II, SUB-SECTION - 2.2 Limestone Conveying System 5.0.0 DESIGN CRITERIA	3 of 36	Lump size of (-) 250mm can be handled by bucket elevator designed to handle the specified limestone.	Please note that the Lump size of (-)250mm shall be very big size to consider for bucket elevator design, as bucket elevator receives the material after the crusher which shall be (-)20mm. Please mention the feed size for bucket elevator design.	As Bucket elevator is after Crusher house, feed size for the Bucket elevator will be (-)20 mm as per spec so accordingly Bucket elevator to be designed.
3.	Flow Diagram Drg. No – IS-1-GA-758-201-M001, Rev.-2		Height of the day silo is not mentioned in the Flow diagram.	Please provide the height of the day silo for BC-2A/B conveyor profile development.	Bidders to Refer Technical Enquiry specification Pt 66. in this regards.

S. No.	Spec. Clause No.	Page No.	Specified in the Tender specification	Clarification Sought by Bidder	BHEL Replies dated 30.08.2021
4.	Vol. II, SUB-SECTION - 2.2 Limestone Conveying System 7.0.0 CONSTRUCTION REQUIREMENTS	10 of 26	Bucket elevators shall be double chain bucket type and shall be manufacturer's standard size and design, modified only as required and suitable for duty	Please note that the required capacity can be achieved easily by Single chain bucket elevator. As Bidder having a vast experience of the equipment, Bidder request to BHEL to give liberation for the selection of single chain bucket elevator for limestone feeding.	Tender specifications prevail.
5.	IS-1-20-2003/CONV Clause 28	28 of 38	Bidder to note that time is the essence of the contract, thus bidder to adhere to the drg/doc. submission schedule as per enclosed ANNEXURE-12.	Please replace the word "essence" with "important aspect"	Tender specifications prevail.
6.	Vol.II Part 1 Clause 3.7.8	386 of 1194	11KV cables & control cables between Station Switchgear located at main plant building and FGD switchgear shall be laid on overhead cable trays, suitably providing structure support, all along Boiler and ESP	Please describe the cable routing for HT cables for bidder's scope of cable tray estimation.	11 KV HT cable and control cable for 11KV / 415 V Dry Type transformer for LHP MCC shall be laid from FGD MCC Building to LHP MCC Building. Supply of cable is in BHEL scope. Supply of Trays, supports and laying & termination of cables is in Bidder's scope. Please refer to remarks column of point no. 7 of ANNEXURE-2 ELECTRICAL AND C&I SCOPE MATRIX.
7.	General		Drawing	AutoCAD version of floor plan is required	LHP MCC Building floor plan is provided with the tender with all dimensions clearly marked. Bidder is requested to make their estimation based on the same. However BHEL to consider cable vaults instead of trench in LHP MCC Building.

Notes:

- A. All Bidders to Note Vol. II, Section 2 Page: 16 of 26 Vol 2 Sec 2-2_Limestone Sec. 2.2 Lime Stone Conveying System, 17. Technological structures a) Stringers/Short supports - Min. stringer size shall be ISMC 100 Short post shall be provided with sufficient cross bracing and knee bracing wherever required.
- B. Bidder to note following appendix are being issued along with these clarifications:
 - a. Appendix - 3
 - b. Appendix - 4
 - c. Appendix - 5

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TYP. SAMPLE CHUTE CROSS SECTION

EQUIPMENT	TYPE OF DRIVE	NAME PL. RATING KW	FRAME SIZE	OUTPUT RPM	EQUIPMENT LEVEL
PRIMARY SAMPLER	GEARED MOTOR WITH BUILT IN BRAKE	7.5 x 2NOS.	132S	25 APPROX.	EL(+)25.3M
BELT FEEDER (REVERSIBLE)	GEARED MOTOR	1.1 x 1N0.	80M	10 APPROX.	EL(+)21.5M
CRUSHER	V – BELT DRIVE STANDARD MOTOR	37.0 x 1N0.	225M	1440 APRX. (MOTOR)	EL(+)17.6M
SECONDARY SAMPLER	GEARED MOTOR WITH BUILT IN BRAKE	0.37 x 1N0.	71 M	15 APPROX.	EL(+)15.1M
BOTTLE COLLECTOR	GEARED MOTOR WITH BUILT IN BRAKE	0.37 x 1N0.	71 M	1.1 APPROX.	EL(+)3.8M
SCREW FEEDER	GEARED MOTOR	1.1 x 1N0.	90S	29 APPROX.	EL(+)12.6M
SCREW FEEDER SLIDE GATE		0.25 x 1N0.			EL(+)12.6M

NTPC DRG. NO.	DESCRIPTION
IS-1-GA-758-201-M001	FLOW DIAGRAM LHP & GHP
IS-1-GA-758-201-M003	TYP. GALLERY CONV. CROSS SECTION
IS-1-GA-758-201-M007	GA & LOAD DATA OF LHP BELT CONVEYOR -1A/B ALONG WITH PENT HOUSE
IS-1-GA-758-211-M016	GA OF LIMESTONE SAMPLING UNIT FOR LIMESTONE CRUSHER HOUSE (INCLUDING TECHNICAL DATA SHEET)
IS-1-GA-758-206-M020	GA & TDS OF VIBRATING SCREEN FEEDER FOR LIMESTONE IN LCH
IS-1-GA-758-206-M019	GA OF LIMESTONE REVERSIBLE HAMMER MILL CRUSHER
IS-1-GA-758-224-M009	GA & TDS OF VIBRATION ISOLATION SYSTEM IN CRH
IS-1-GA-758-201-M012	GA & LOAD DATA OF LHP BELT CONVEYOR -2A/B
IS-1-GA-758-210-M039	DUCT LAYOUT OF DE SYSTEM FOR ALL BUILDINGS LHP & GHP

F.F.L = FINISHED FLOOR LEVEL
F.G.L = FINISHED GROUND LEVEL
T.O.F.F =TOP OF FINISHED FLOOR
T.O.S = TOP OF STEEL
T.O.C.G =TOP OF CRANE GIRDER
B.O.M.R = BOTTOM OF MONORAIL
M.H = MANUAL HOIST
E.H = ELECTRIC HOIST
T.P = TRANSFER POINT
BC = LIMESTONE BELT CONVEYOR
C.J.S = CHUTE JAMMING SWITCH

JOB No.				
STATUS OF DRAWING				
DISTRIBUTION OF PRINTS				QTY.
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ZONE				

PROJECT	Flue Gas Desulphurisation System & Auxiliaries for North Chennai TPP – Stage-III 1x800 MW Supercritical Thermal Power Station Project
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INDUSTRIAL SYSTEMS GROUP, BANGALORE

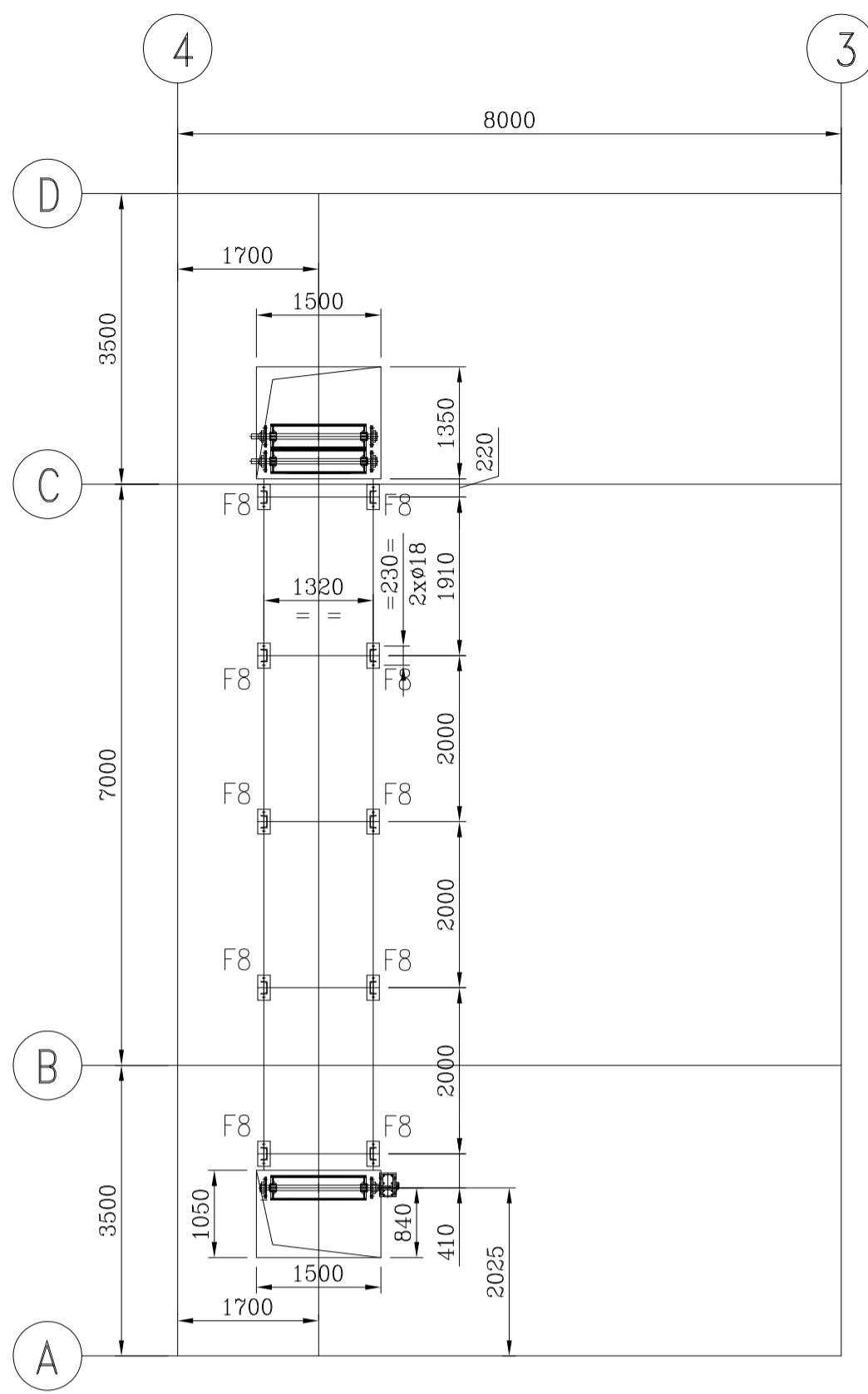
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CHD.	PARTEEK		28-07-21	
APPD.	IDEY		28-07-21	

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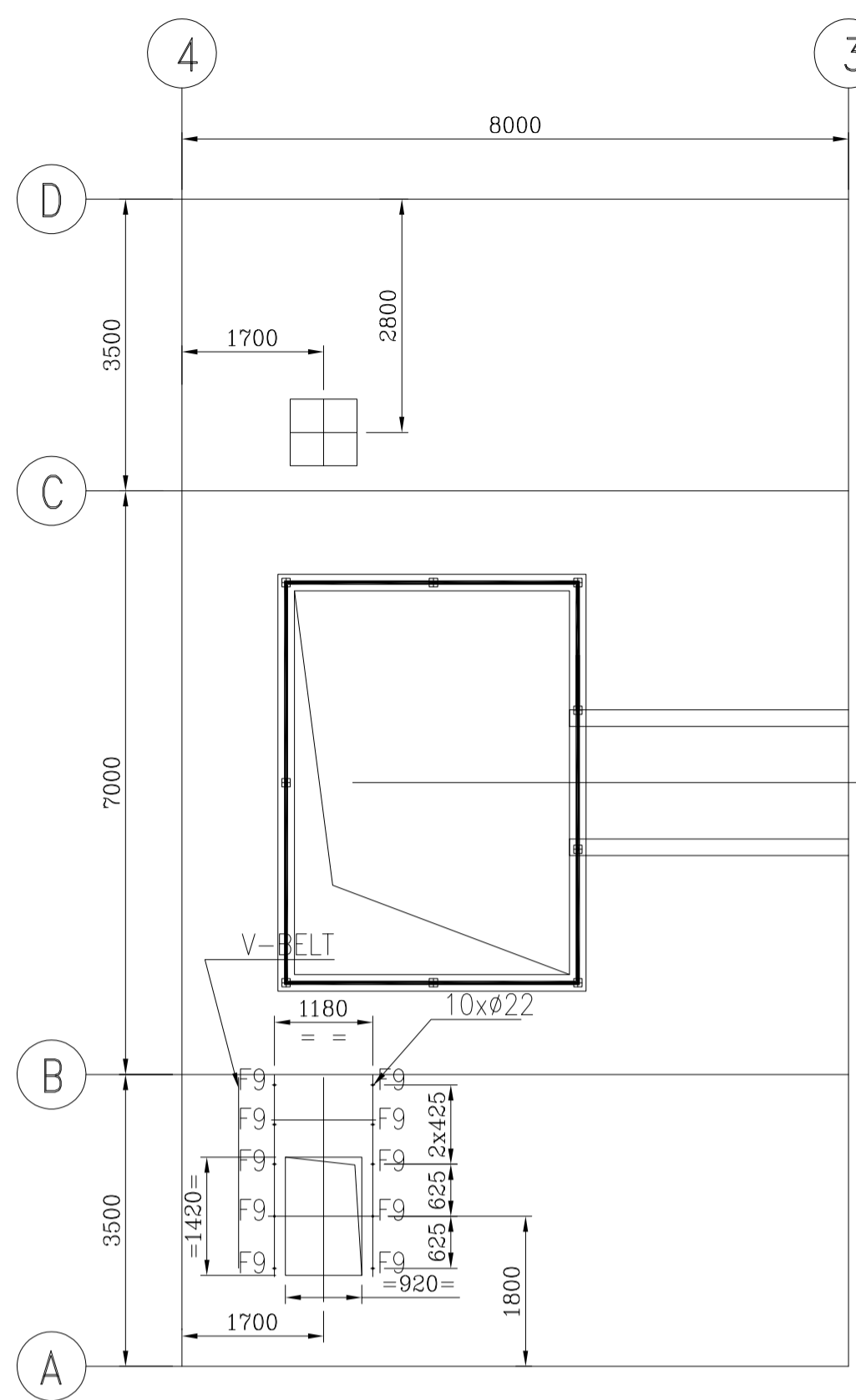
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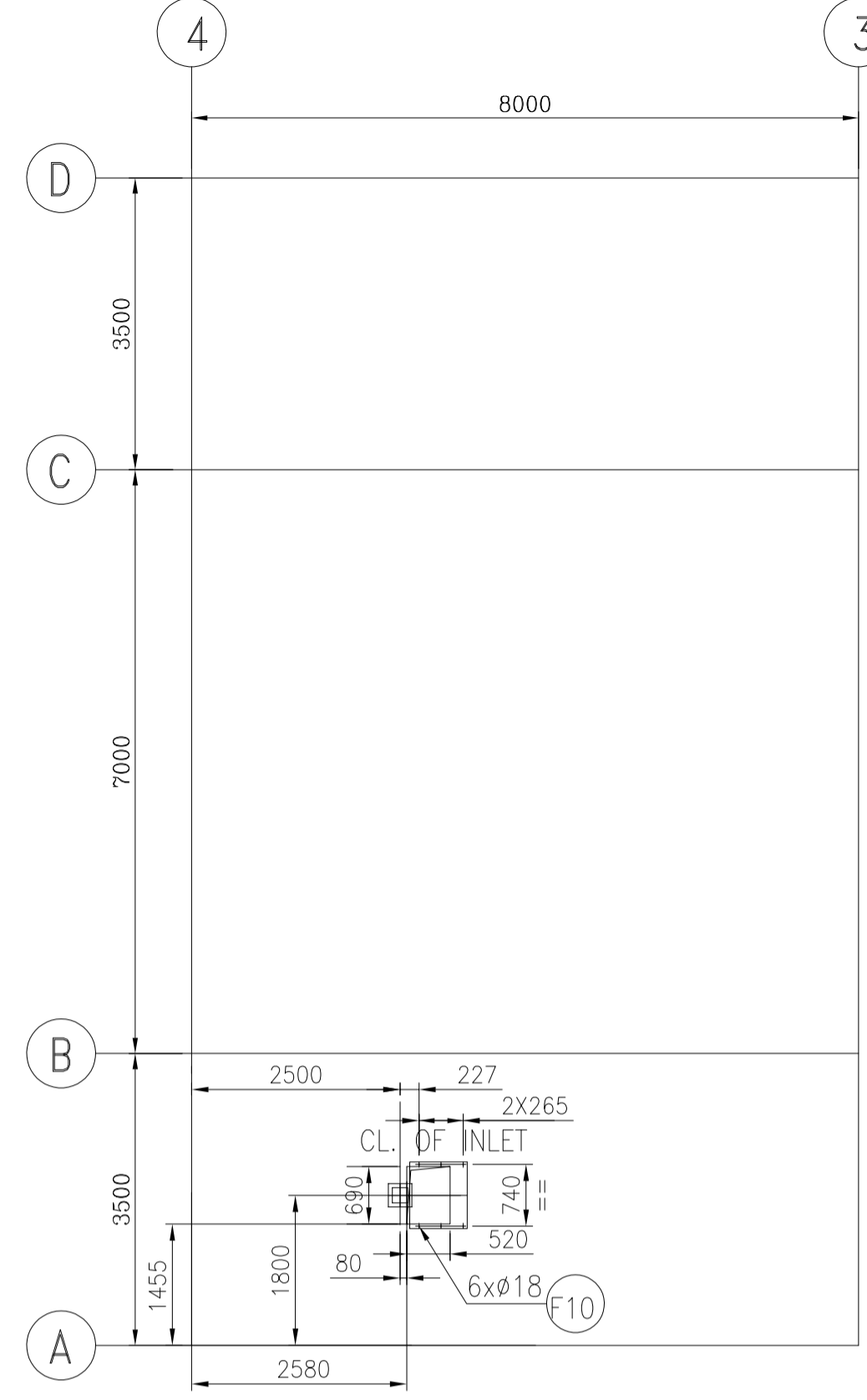
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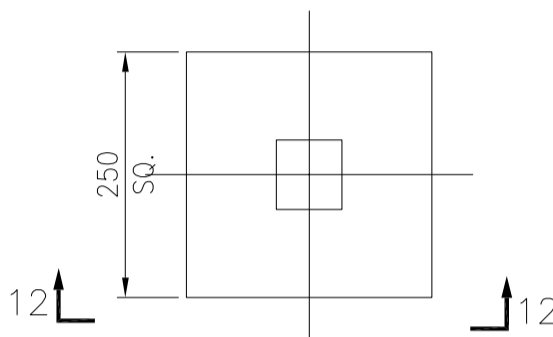
PLAN AT EL(+)
21.500M.



PLAN AT EL(+)
17.600M.





PLAN AT EL(+) 12.600M.

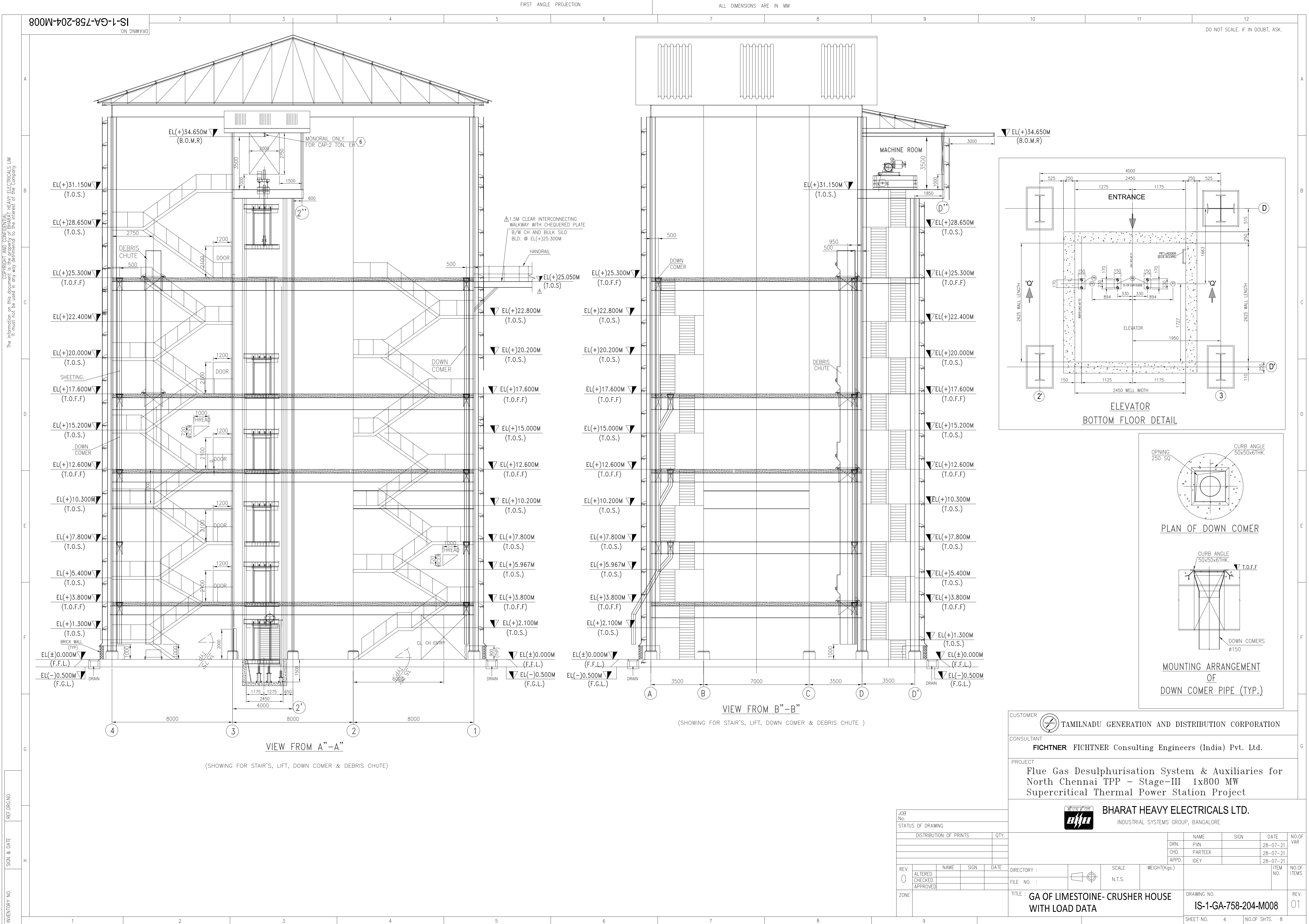


DETAIL-F11



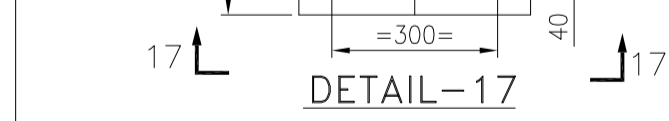
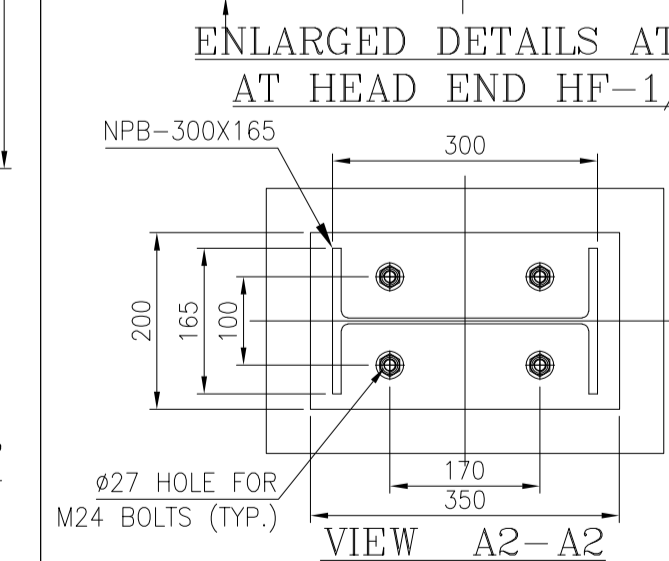
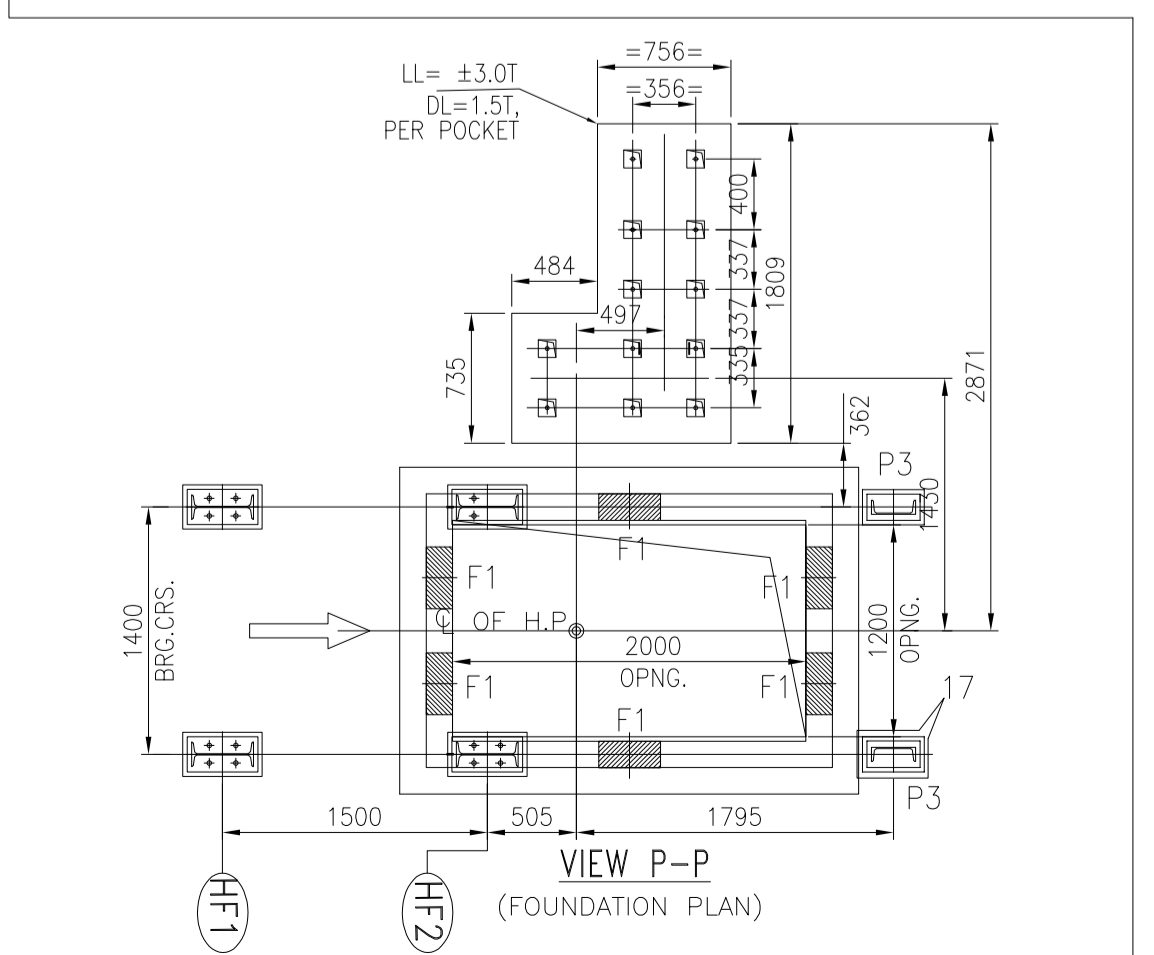
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PRIMARY SAMPLER	F6	4	(+)200	(+)300	—	—	EL(+)25.3M
	F7	4	(+)300	(+)450	—	—	
BELT FEEDER (REVERSIBLE)	F8	10	(+)300	—	(±)65	(+)15	EL(+)21.5M
CRUSHER	F9	10	(+)300	(+)450	—	—	EL(+)17.6M
SECONDARY SAMPLER	F10	6	(+)80	(+)90	—	—	EL(+)15.1M
BOTTLE COLLECTOR	F11	4	(+)200	(+)250	—	—	EL(+)3.8M
SCREW FEEDER	F12	8	(+)85	(+)100	—	—	EL(+)12.6M



JOB No.				 BHARAT HEAVY ELECTRICALS LTD. INDUSTRIAL SYSTEMS GROUP, BANGALORE															
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								CHD.		PARTEEK		28-07-21							
								APPD.		IDEY		28-07-21							
REV.				NAME		SIGN		DATE		DIRECTORY : 		SCALE		WEIGHT(Kgs.)		ITEM NO.		NO. OF ITEMS	
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ZONE										TITLE : GA OF LIMESTONE- CRUSHER HOUSE WITH LOAD DATA		DRAWING NO. IS-1-GA-758-204-M008				REV. 01			
9												SHEET NO. 3				NO.OF SHTS. 8			



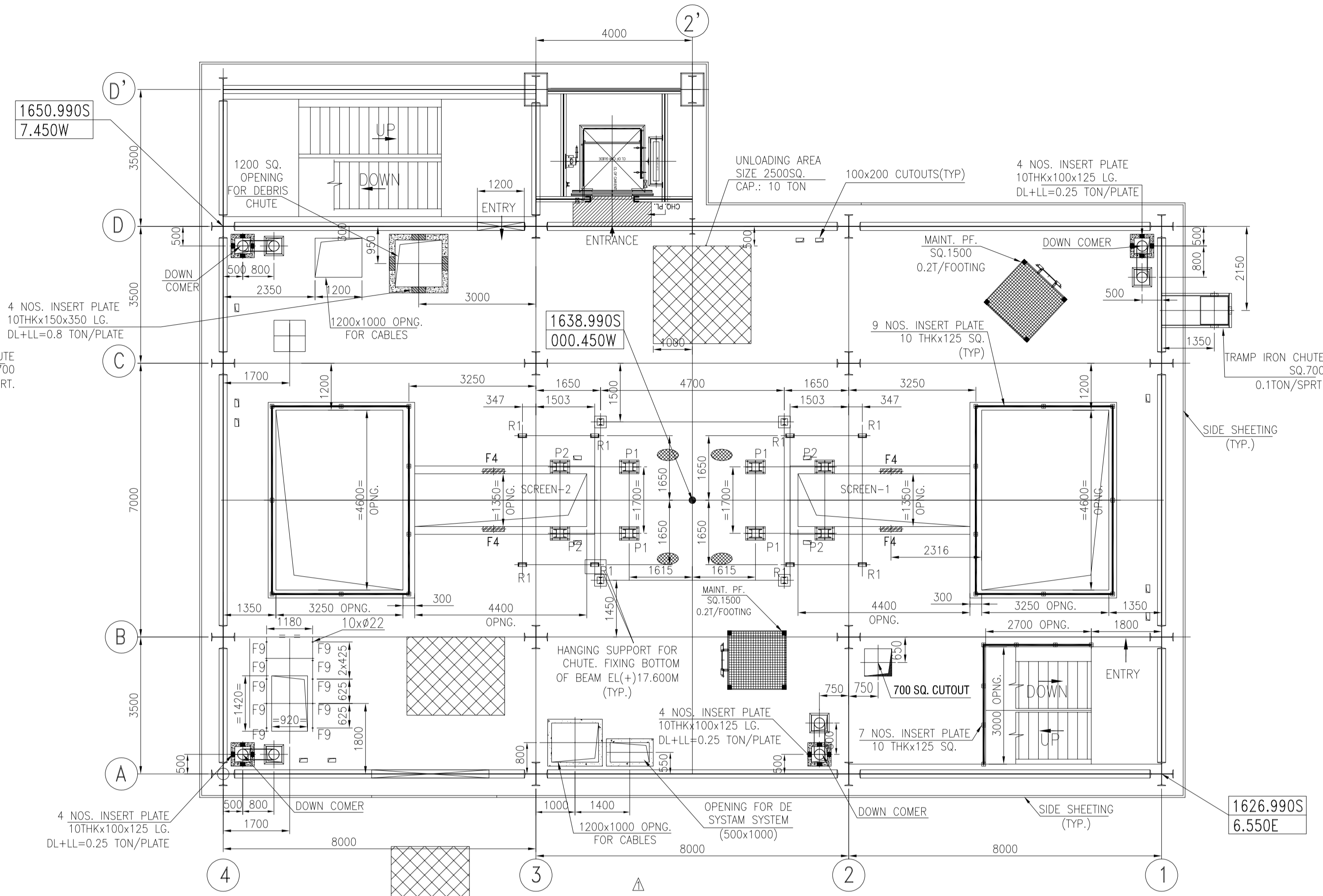
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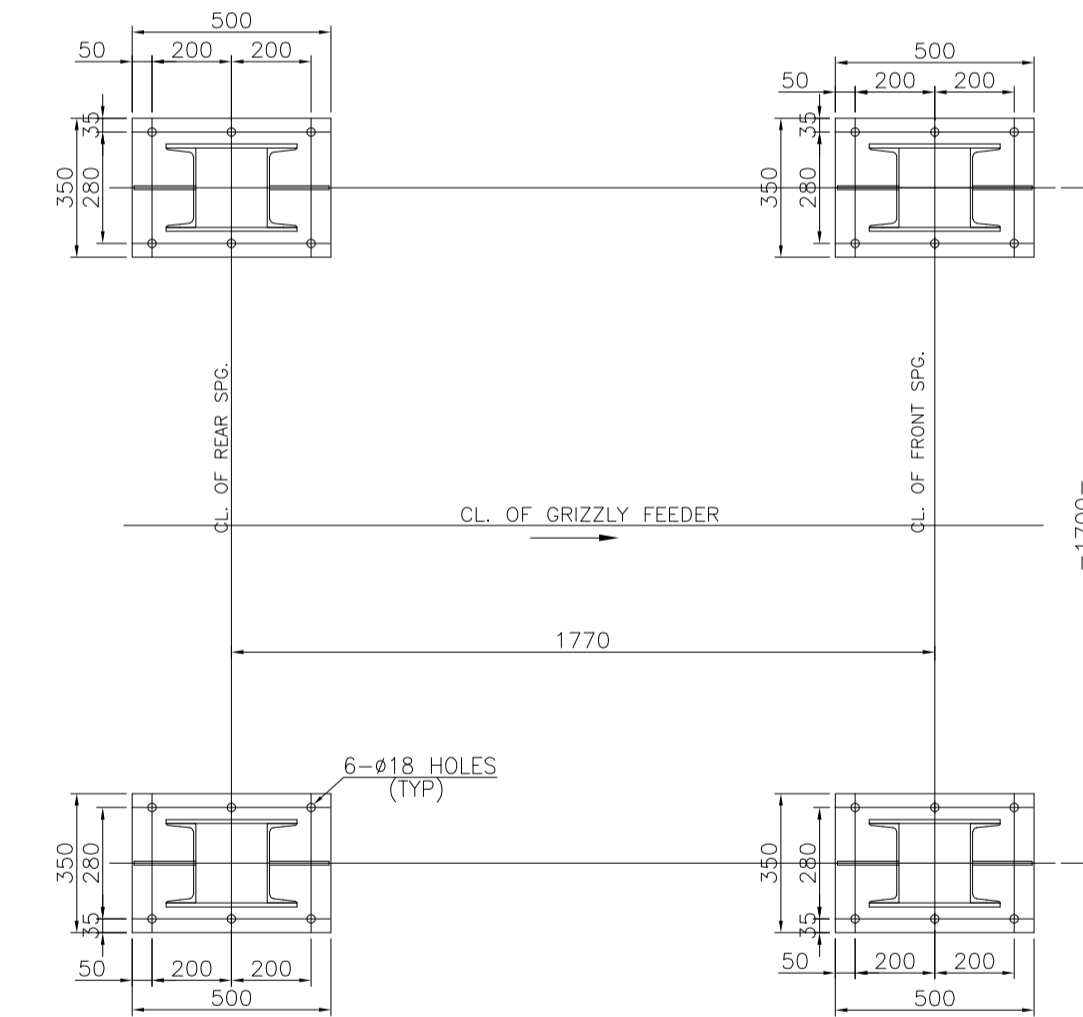


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		CHD. PARTEEK		28-07-21	
		APPD. IDEY		28-07-21	
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TITLE : GA OF LIMESTONE- CRUSHER HOUSE WITH LOAD DATA			DRAWING NO. IS-1-GA-758-204-M008		

INVENTORY NO.



FOUNDATION PLAN AT LEVEL
EL(+)17.600M (TOFF)



1500

1000

500

W

W

32 NB MS PIPE
MEDIUM CLASS

TOE GUARD
/CURB WALL
100 MM HEIGHT

100

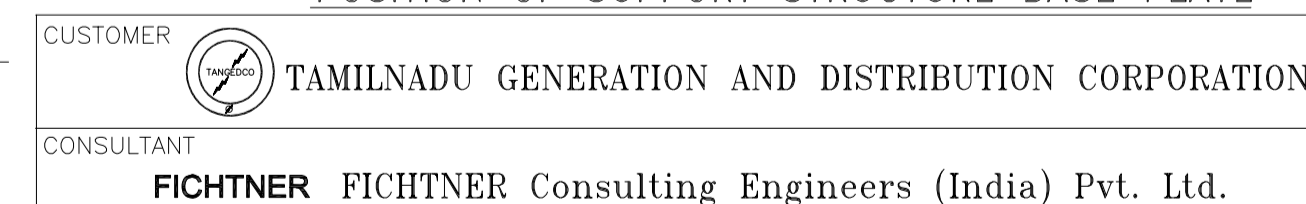
▽ (T.O.F.)

(P1) (FOR SCREEN) (P2)

POSITION OF SUPPORT STRUCTURE BASE PLATE



- * STATIC LOADS ARE INCLUSIVE OF MATERIAL LOAD ON DECK.
- * DYNAMIC LOADS ARE OVER AND ABOVE THE STATIC LOADS.
- * DIRECTION OF HORIZONTAL DYNAMIC LOAD IS ALONG THE LENGTH OF THE SCREEN.
- * FACTOR OF 1.2 TO BE CONSIDERED FOR DESIGN PURPOSE




Flue Gas Desulphurisation System & Auxiliaries for
North Chennai TPP – Stage-III 1x800 MW
Supercritical Thermal Power Station Project

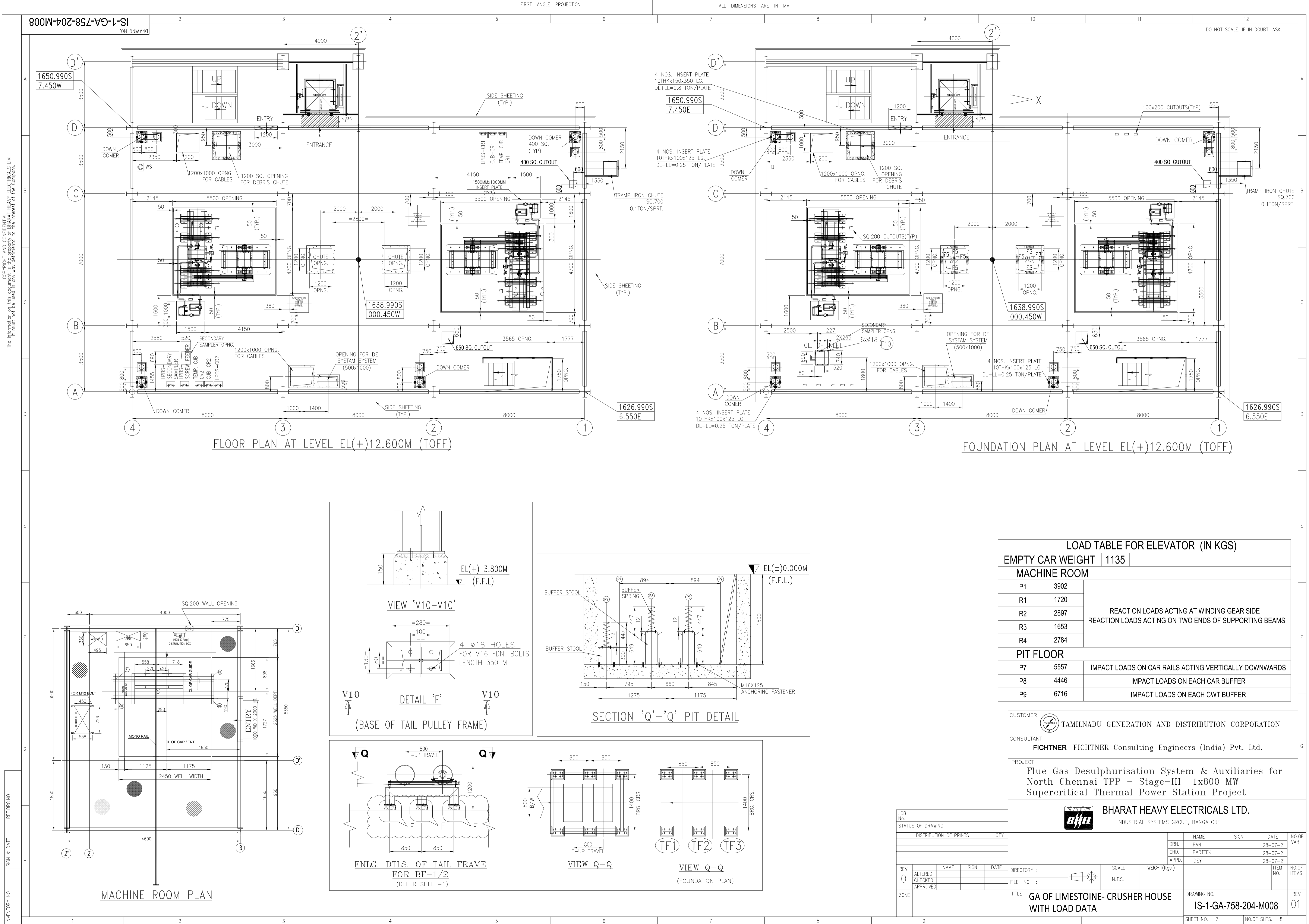


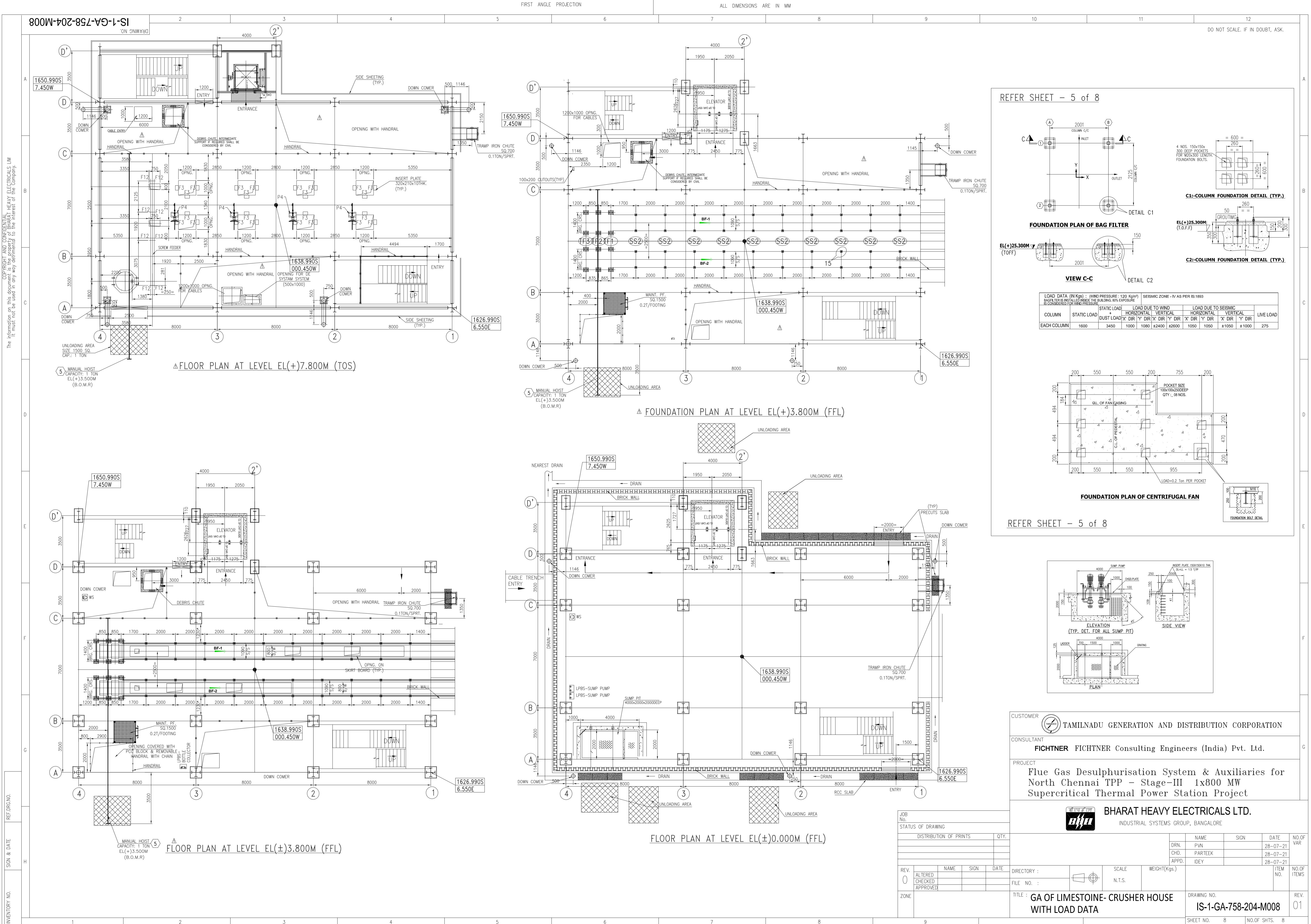
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INDUSTRIAL SYSTEMS GROUP, BANGALORE

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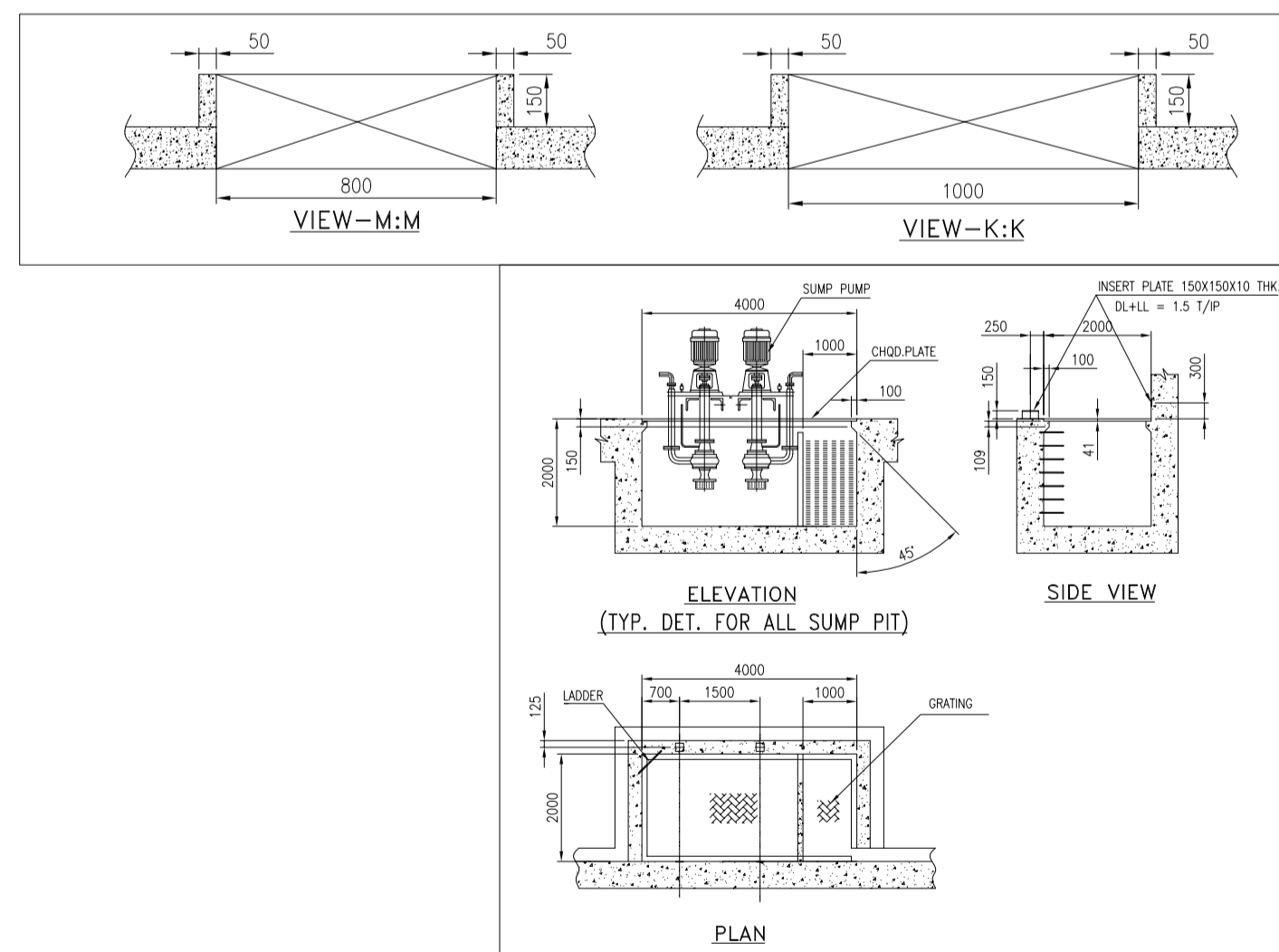
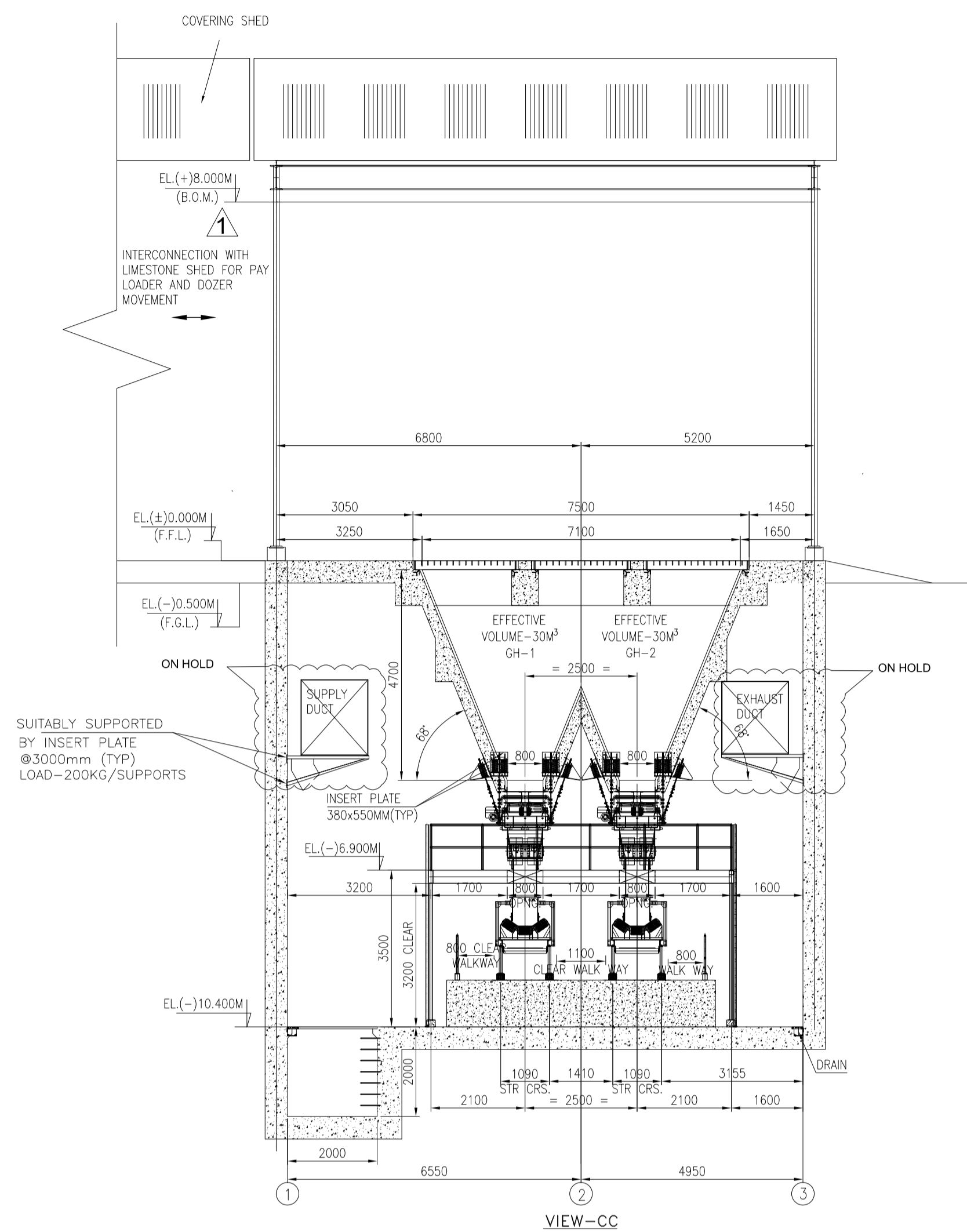
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DRN.	PVN		28-07-21	
CHD.	PARTEEK		28-07-21	
APPD.	IDEY		28-07-21	
Kgs.)			ITEM NO.	NO. OF ITEMS
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	SHEET NO. 6	NO. OF SHEETS 8		



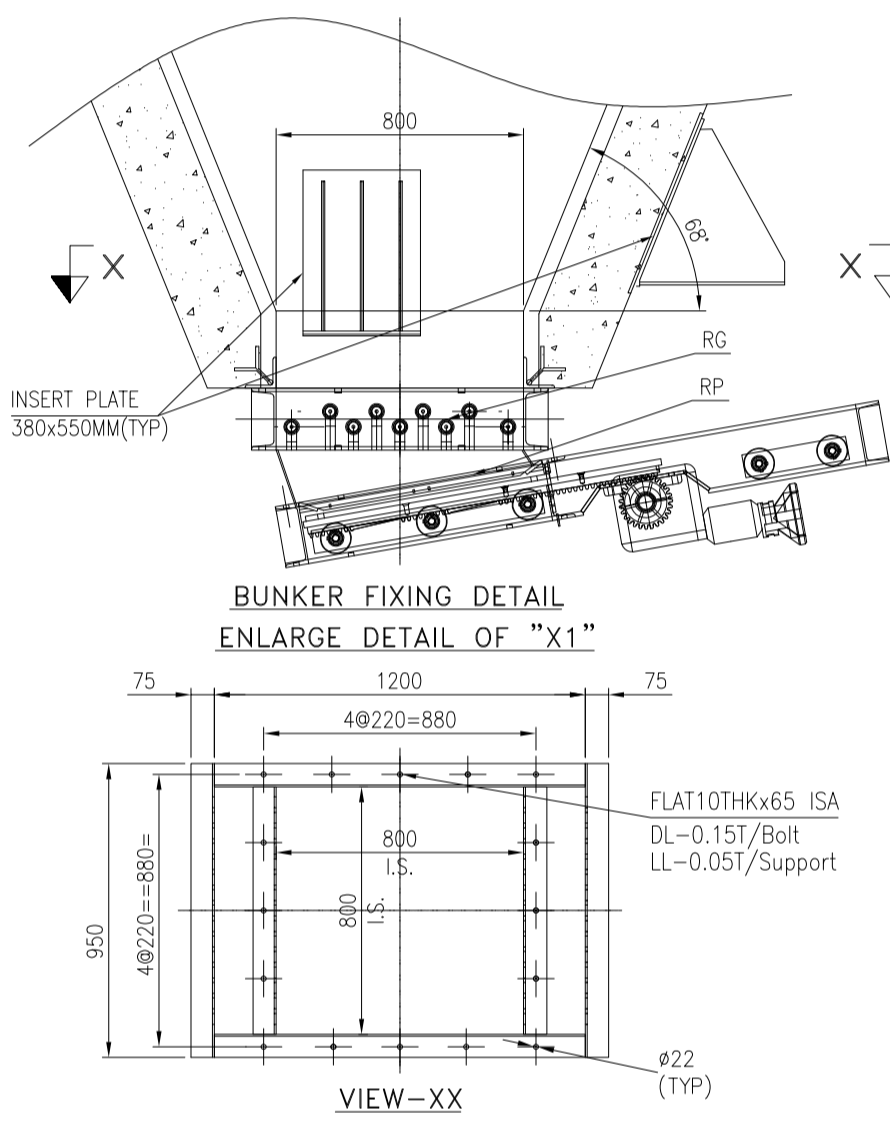


INVENTORY NO.	SIGN & DATE	RFF.DRG.NO.
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1. Plot Plan Drg No. PE-DC-485-100-M001
2. GA OF LIMESTONE STORAGE SHED - IS-1-GA-758-204-M004
3. DUCT LAYOUT OF DE SYSTEM FOR ALL BUILDINGS LHP & GHP - IS-1-GA-758-210-M039
4. DBR and P&ID DIAGRAM FOR DUST EXTRACTION SYSTEM - IS-1-DB-758-210-M048

JOB No. _____				
STATUS OF DRAWING _____				
DISTRIBUTION OF PRINTS _____				QTY _____
REV.	NAME	SIGN	DATE	
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ZONE				



1. ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METER
2. RCC STAIRCASE SHALL BE 1200mm WIDE.
3. ORIENTATION OF COLUMN IS TENTATIVE ONLY & FOR ORIENTATION REFER STRUCTURAL GA DRAWING
4. ALL DETAIL WITH REGARD TO STAIRS, LANDING, LEVEL & HAND RAIL AROUND THE OPENING ETC. SHALL BE FURNISHED IN STRUCTURAL GA DRAWING.
5. AS PER SPECIFICATION SITE GRADING TO BE DONE BY CUSTOMER.
IN DRAWING RL 9.5M CORRESPONDS TO EL(-) 0.500M FGL
6. THE DIMENSION MARK WITH * ARE TENTATIVE
7. READ THIS DRAWING IN CONJUNCTION WITH SHEET 2 OF 2 OF THIS DRAWING.
8. LINER FIXING ARRANGEMENT WILL BE SHOWN IN SEPARATE CIVIL DRAWING.
9. GRIZZLY OVER RECLAIM UNDERGROUND HOPPER SHALL BE DESIGNED TO TAKE LOAD OF THE TRUCK / PAY LOADER / BULLDOZER IN CASE IT MOVES OVER IT.

[illegible]

DESIGN & DATE	REF.DRG.NO.
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		SHEET NO. 2 of 2		NO.OF SHTS. 2	
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INVENTORY NO.



1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METERS
2. EL. (+0.50M IS FGL. WHICH CORRESPONDS TO RL. (+9.5M
3. THE EQUIPMENT /MACHINERY SIZES SHOWN IN THE DRAWING IS INDICATIVE ONLY AND WILL BE CONFIRMED AFTER VENDOR DATA. THE MAXIMUM ANTICIPATED SIZE AND LOADING IS PROVIDED IN THE DRAWING.
4. ALL FLOORING OPENING SHALL BE PROVIDED WITH CURB WALL AND SAFETY HANDRAIL.
5. DETAILS OF STAIRCASE, SUITABLE DOORS, WINDOWS AND VENTILATORS SHALL BE CONSIDERED BY CIVIL DESIGNER
6. * Marked dimensions are under hold

PROJECT
Flue Gas Desulphurisation System & Auxiliaries
for North Chennai TPP – Stage-III
1x800 MW Supercritical Thermal Power Station Project

BHARAT HEAVY ELECTRICALS LTD
INDUSTRIAL SYSTEMS GROUP, BANGALORE

T(Kgs.)		ITEM NO.	NO.OF ITEMS
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		SHEET NO. 1	NO.OF SHTS. 3
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[illegible]

TITLE :	GA & LOAD DATA OF LIMESTONE	DRAWING NO.	REV.
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GA & LOAD DATA OF LIMESTONE STORAGE SILO & BUILDING	IS-1-GA-758-204-M011	01
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STORAGE SILO & BUILDING		10 x 10 x 100 20' HIGH	
QUANTITY: 1	UNIT PRICE: 100.00	QUANTITY: 1	UNIT PRICE: 100.00

		SHEET NO. 1	NO. OF SHES. 3
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FORM-66.101

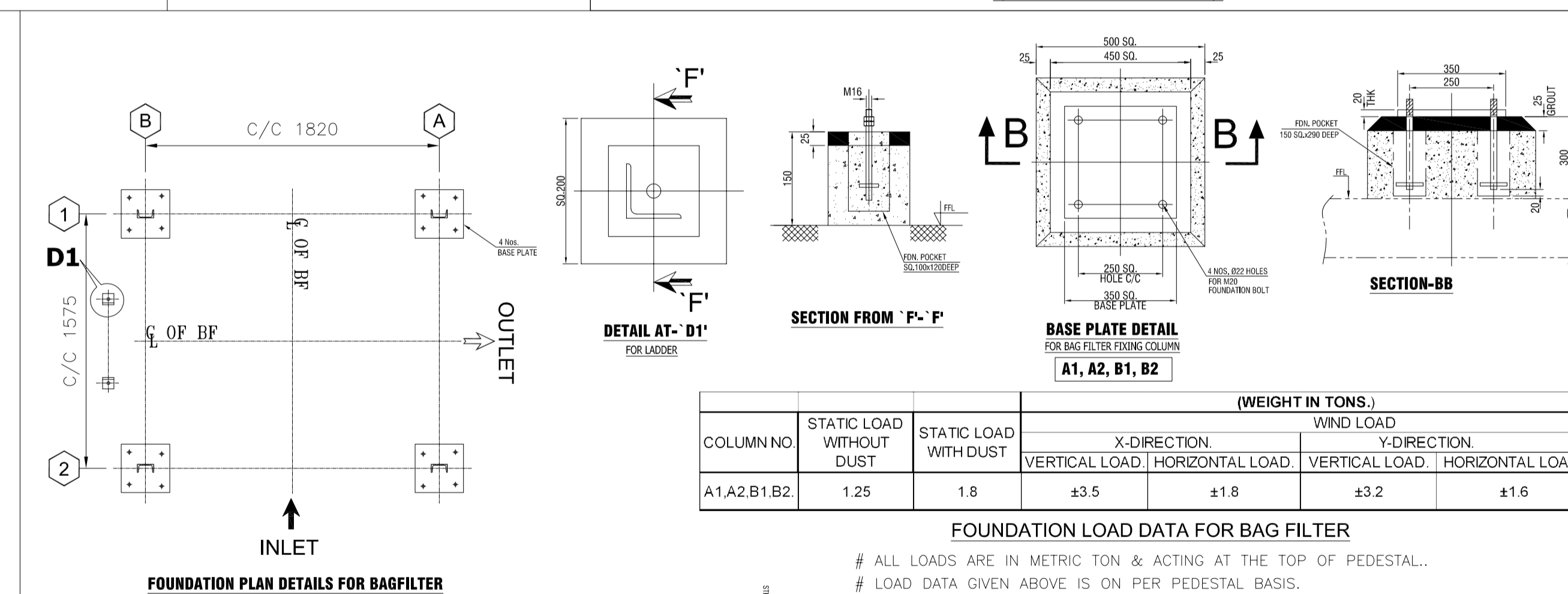
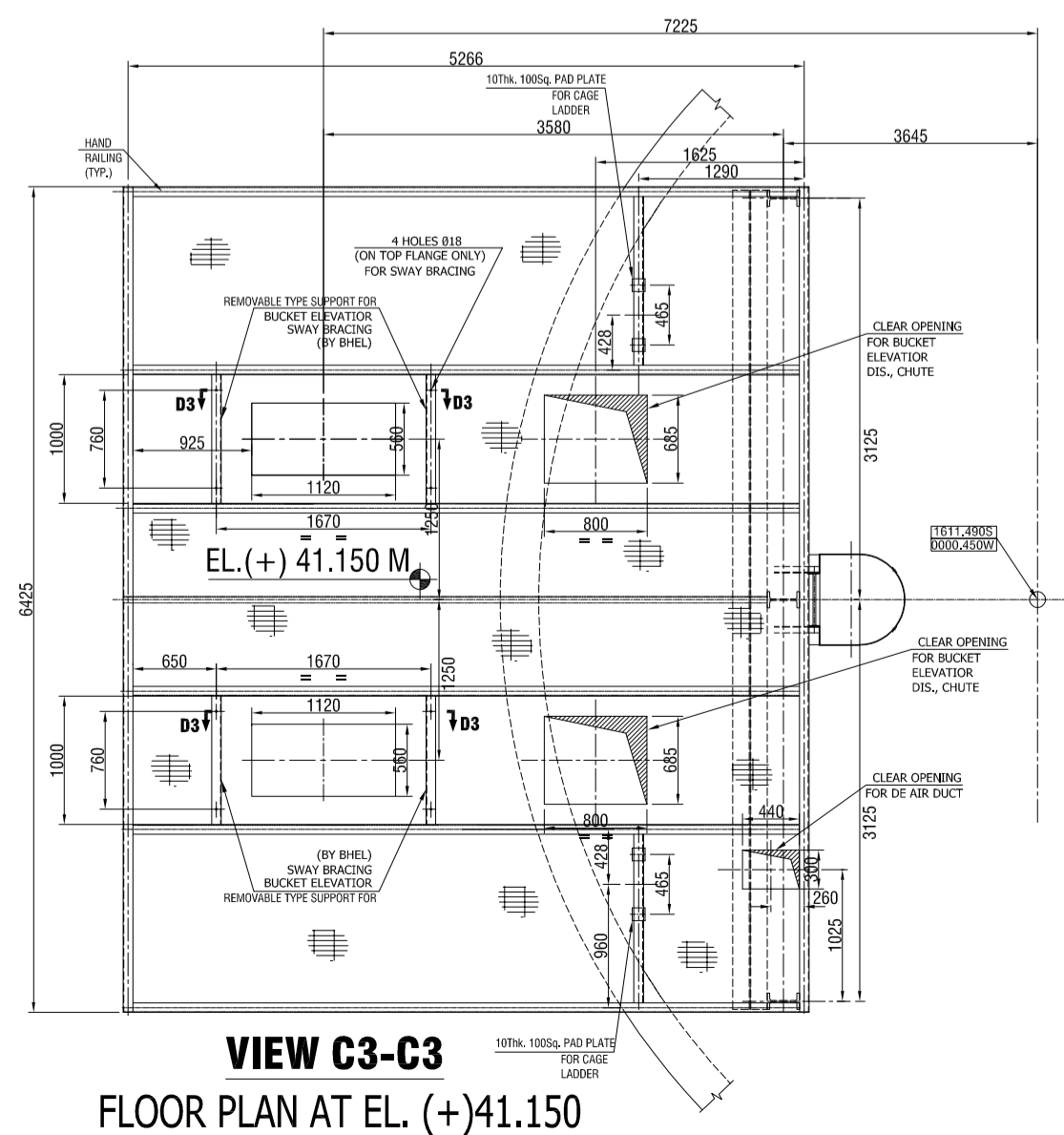
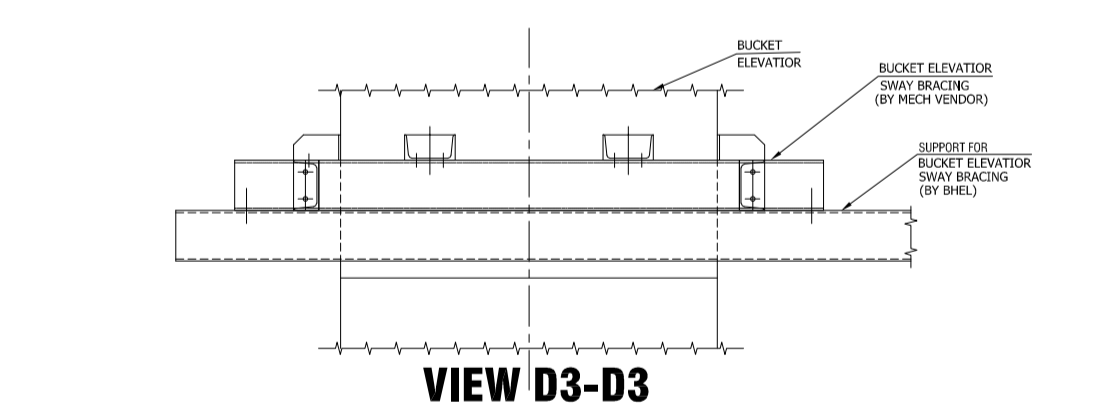
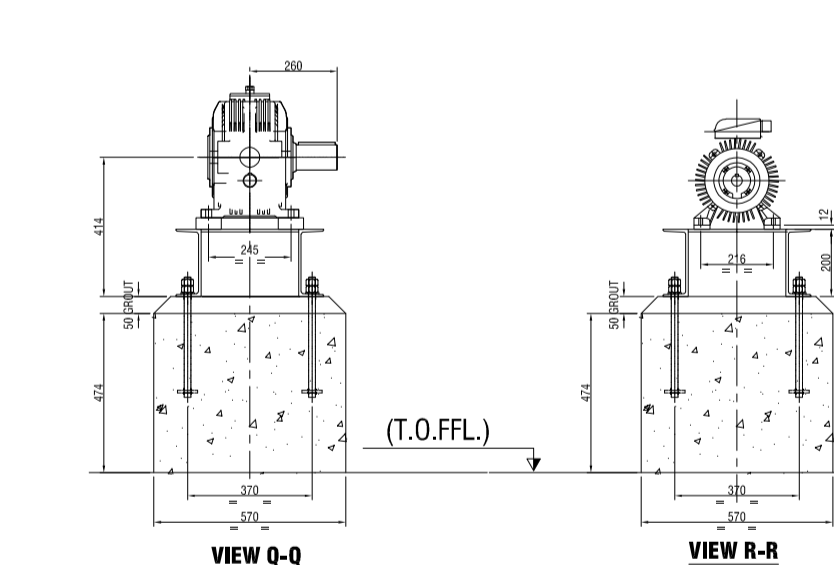
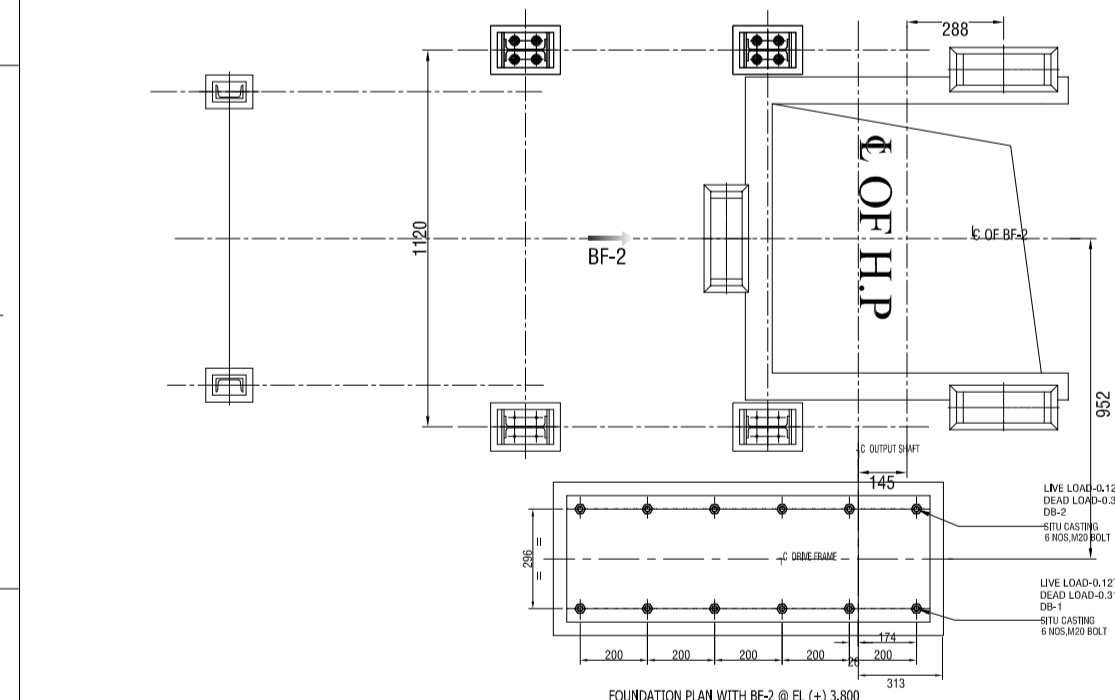
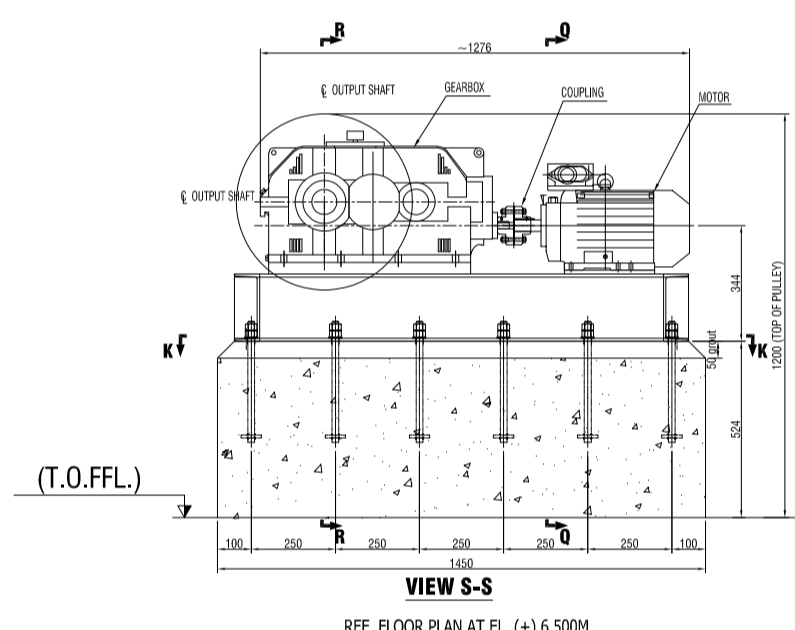
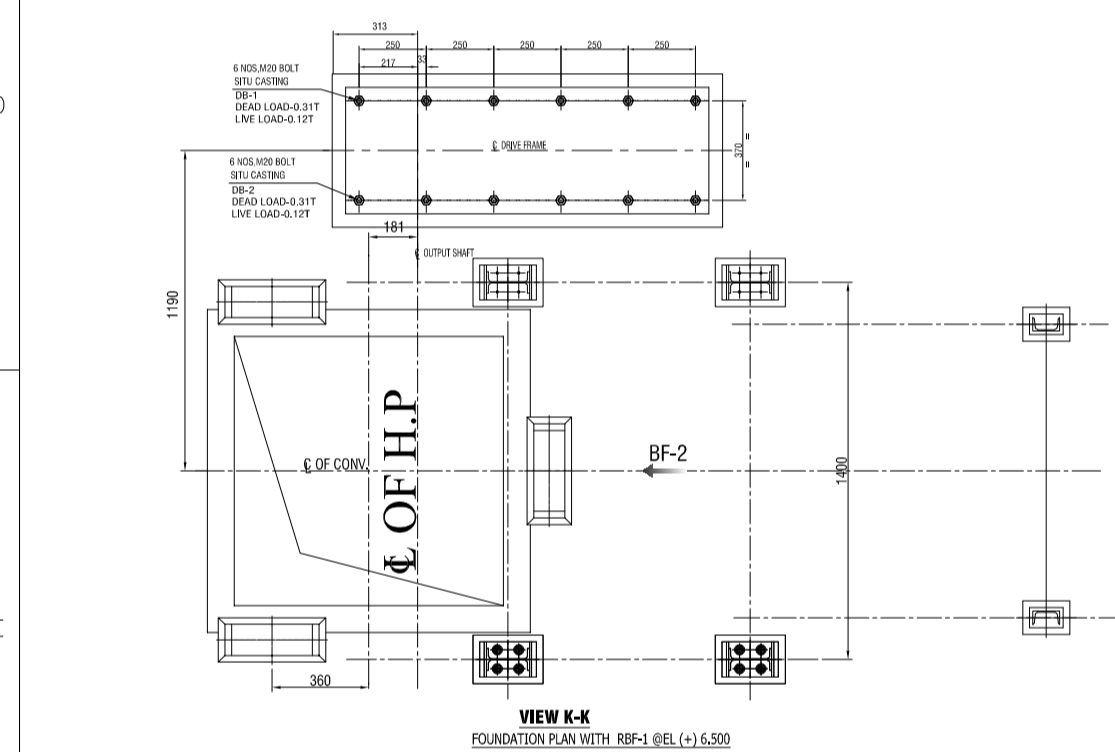
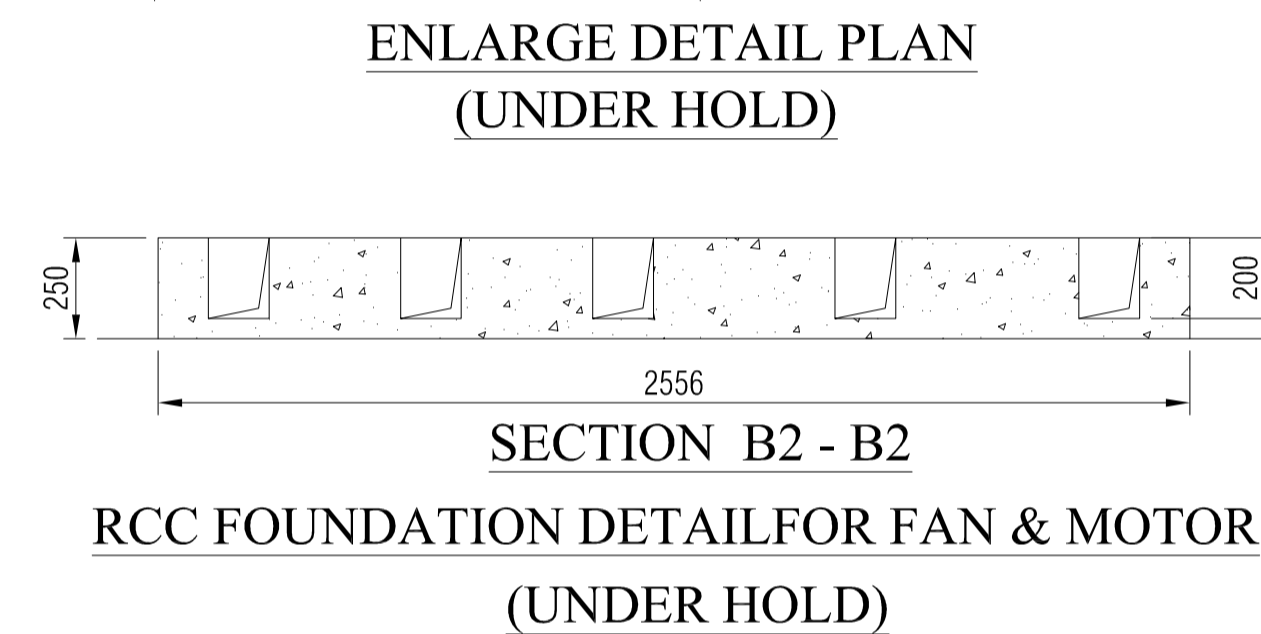
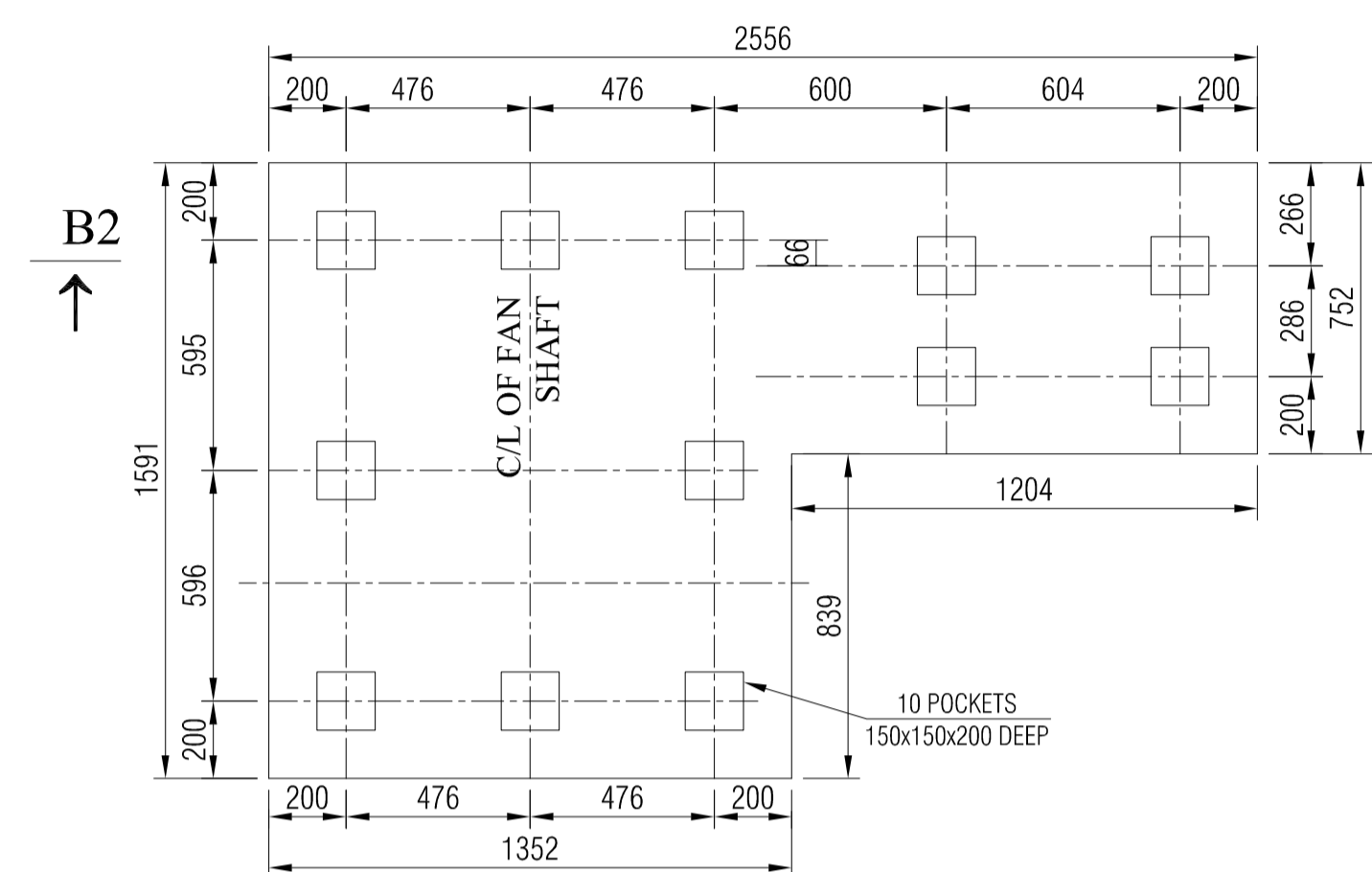
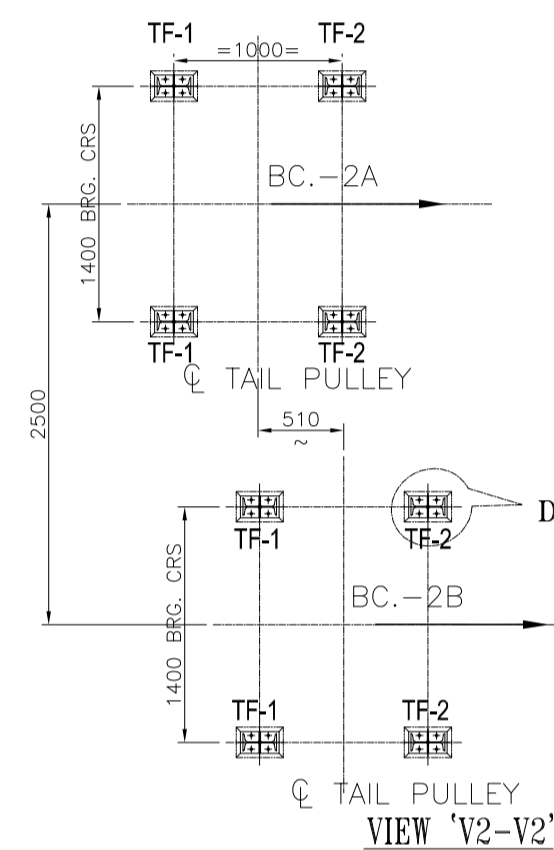
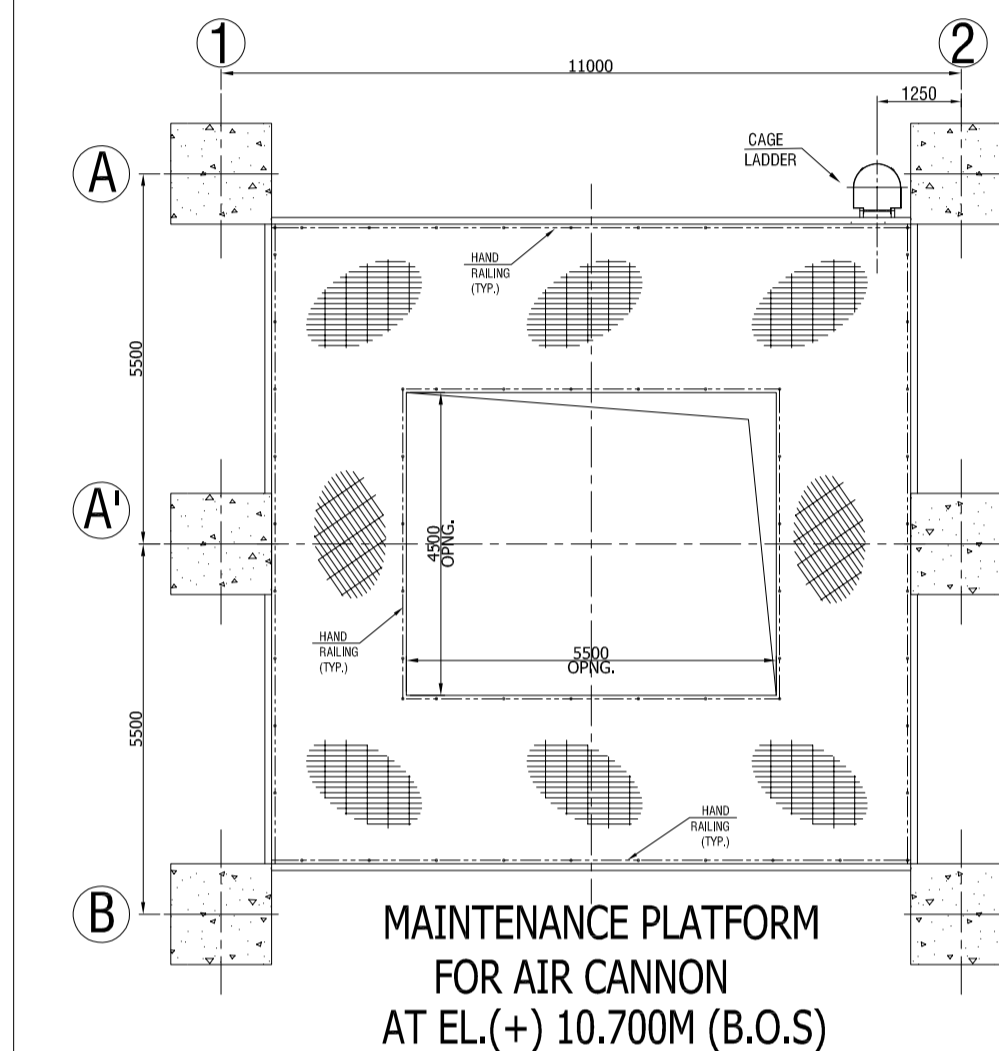
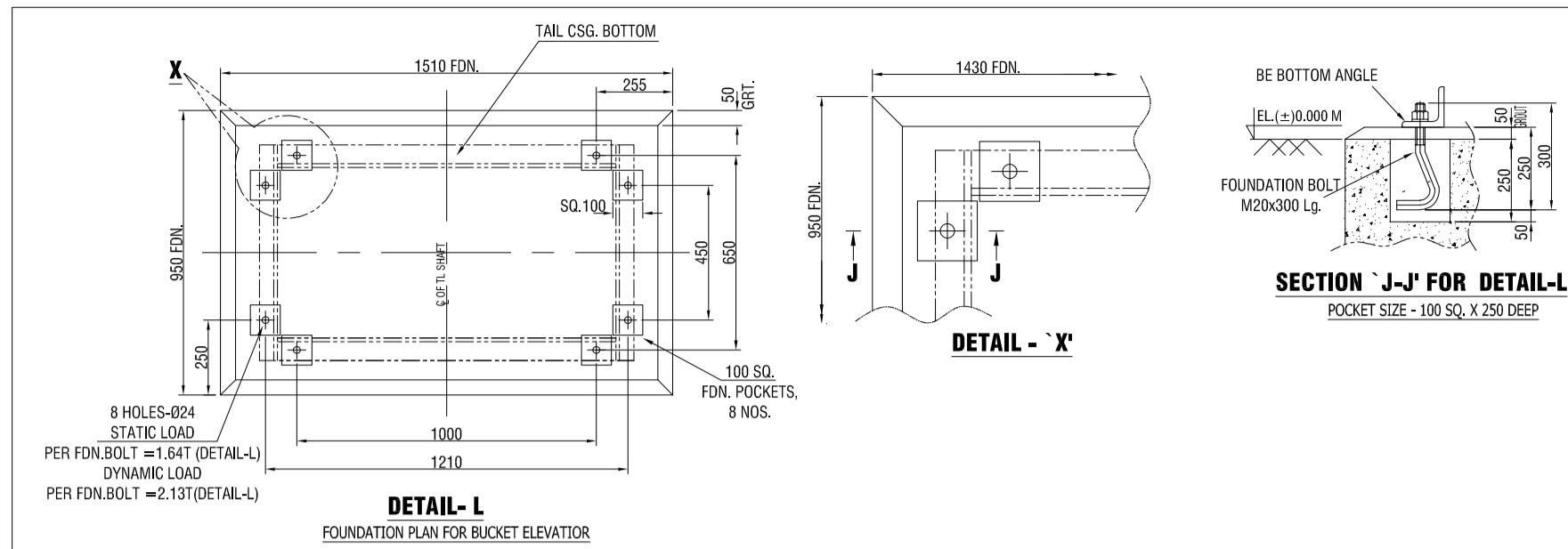
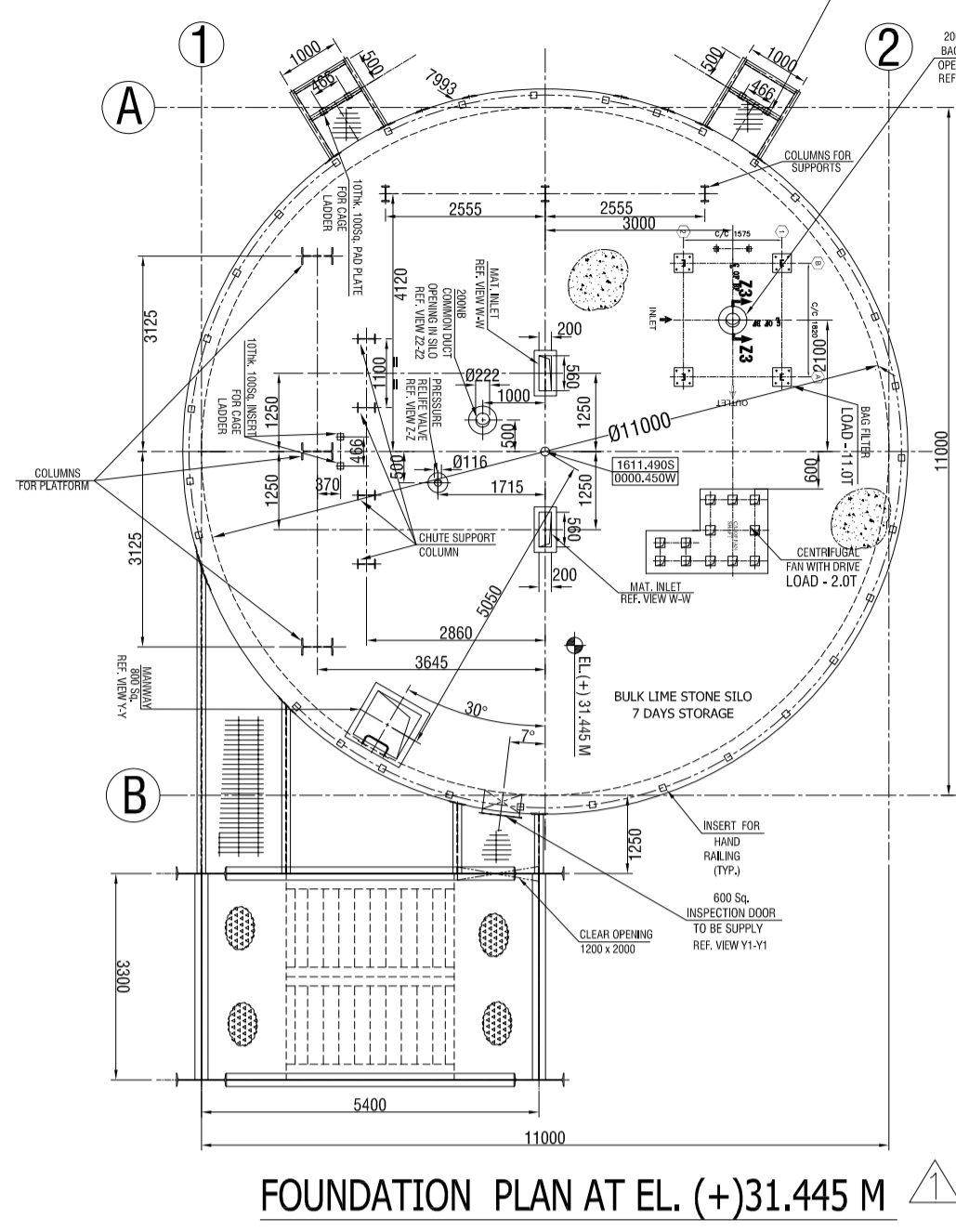
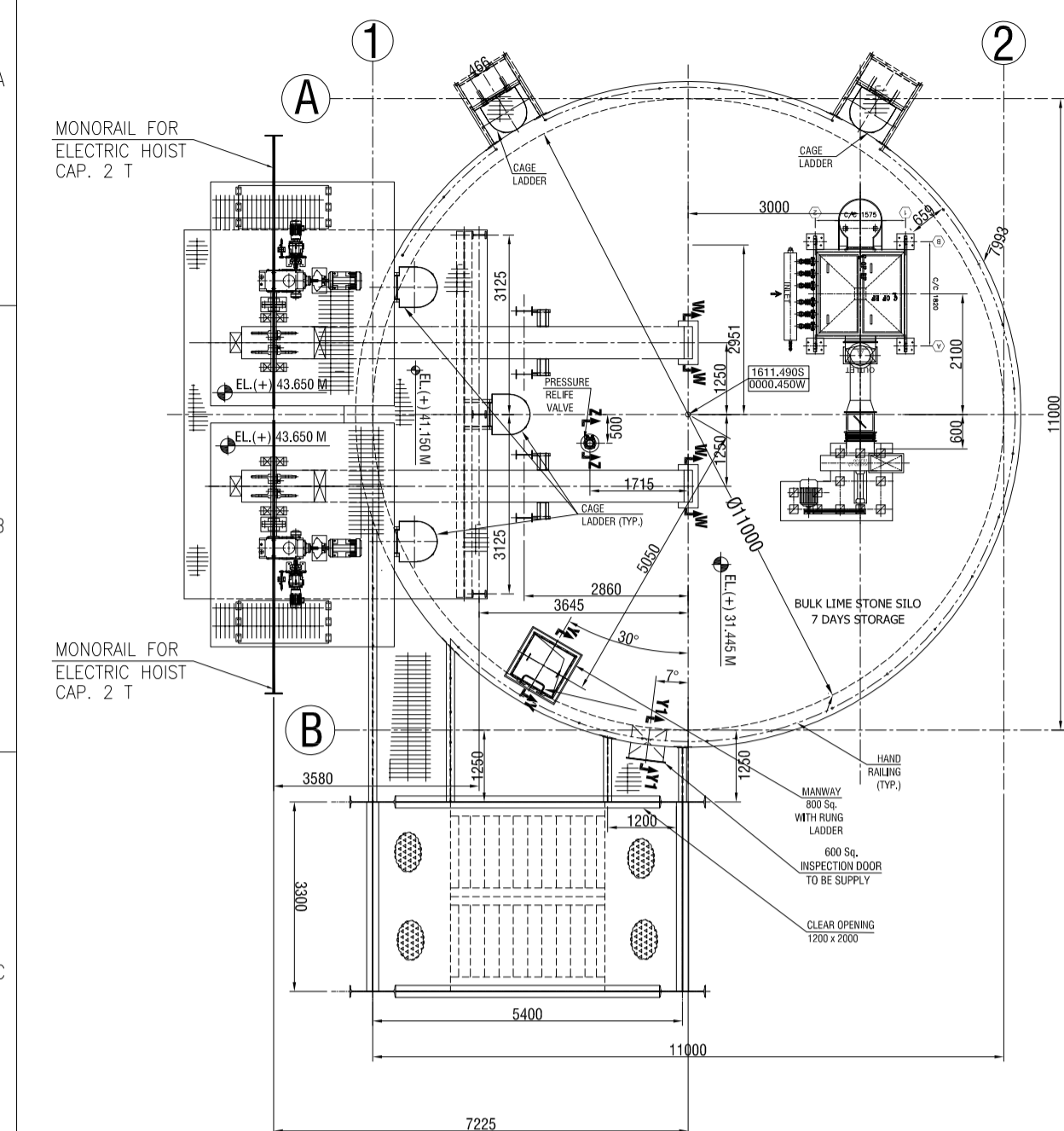
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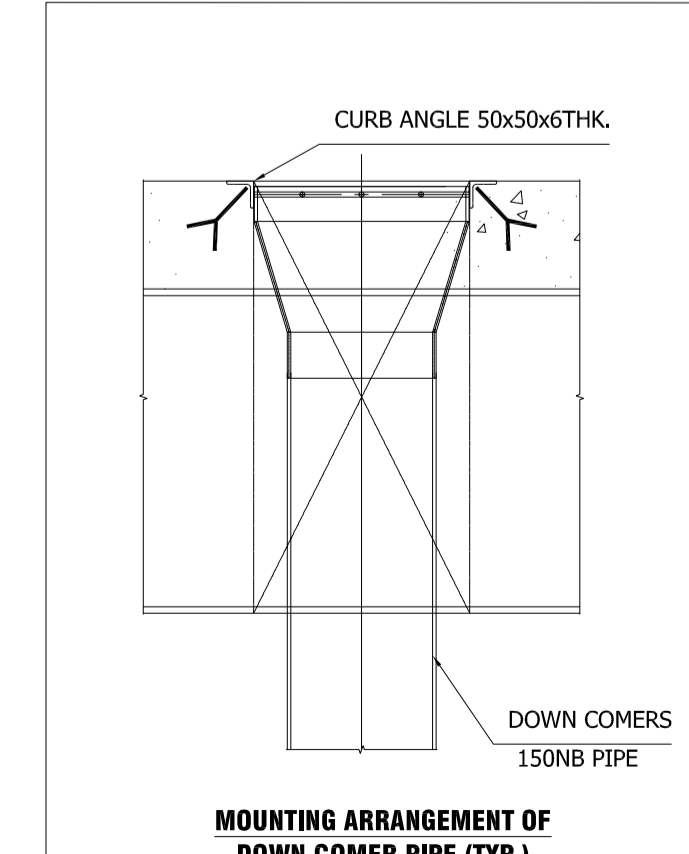
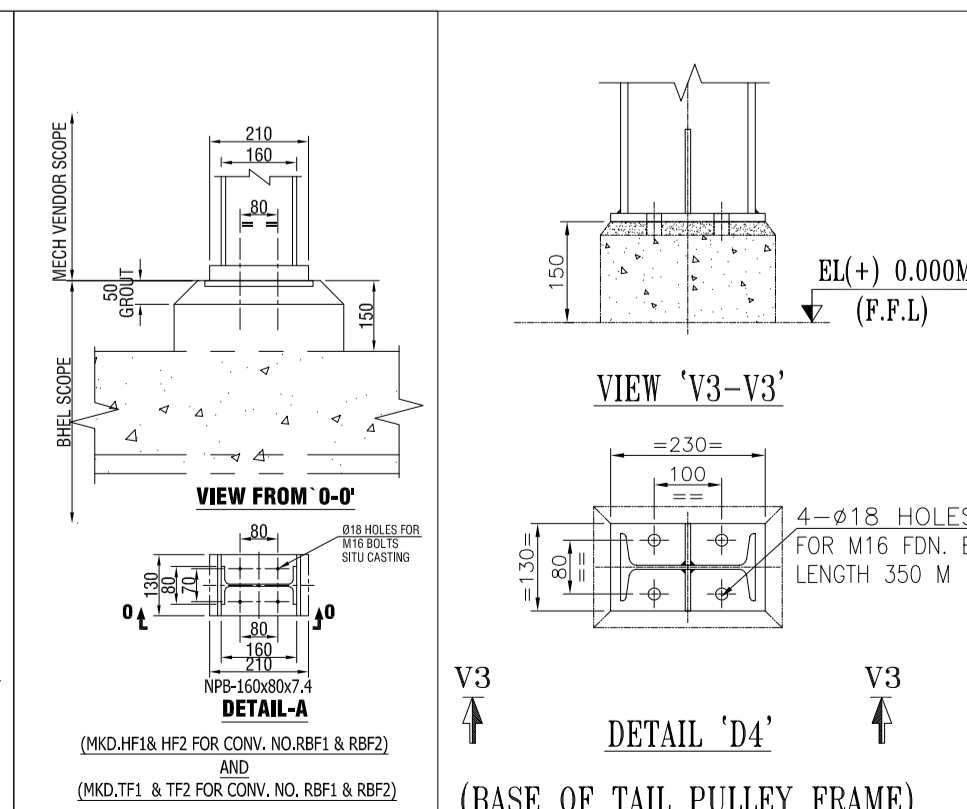
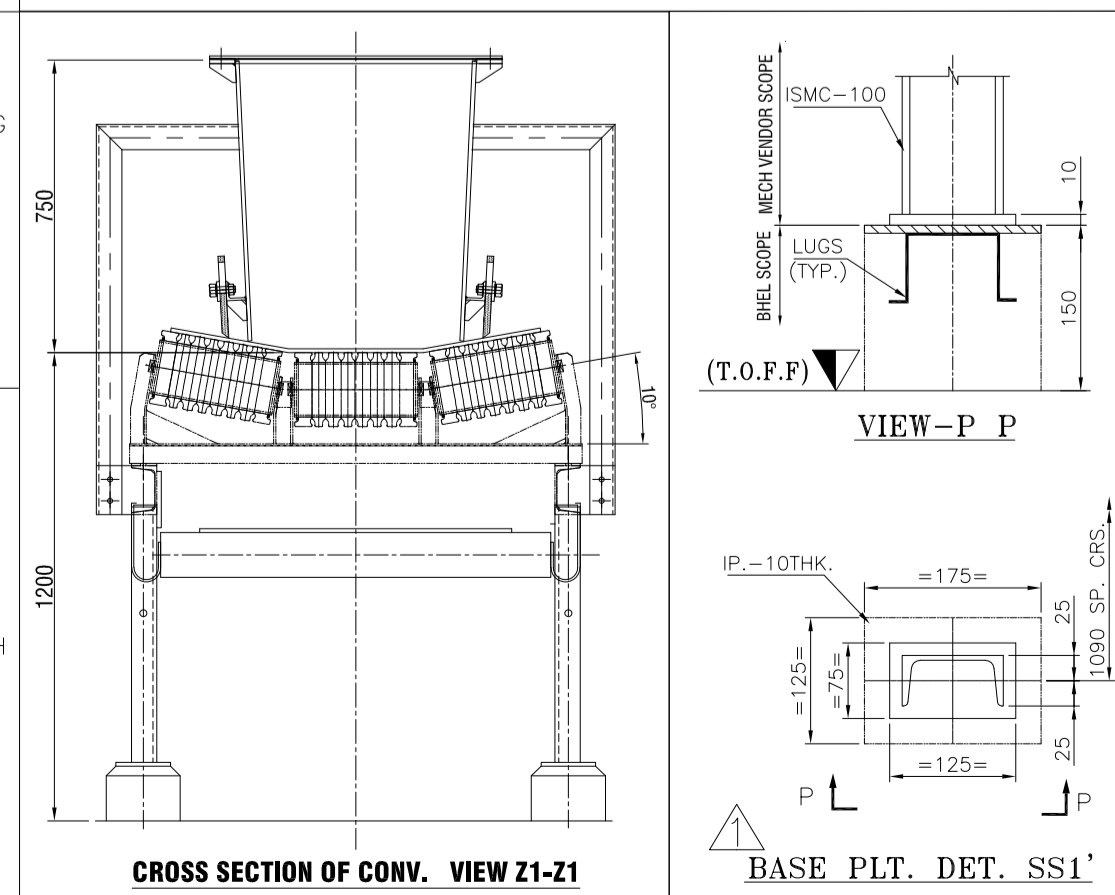
HORIZONTAL: +ve Indicates towards head end of conveyor and -ve indicates tail end
VERTICAL: +ve Indicates downward load and -ve indicates upward load.

FORM-66.101






		(WEIGHT IN TONS.)				
COLUMN NO.	STATIC LOAD WITHOUT DUST	STATIC LOAD WITH DUST	WIND LOAD			
			X-DIRECTION	Y-DIRECTION		
			VERTICAL LOAD	HORIZONTAL LOAD	VERTICAL LOAD	HORIZONTAL LOAD
A1.A2.B1.B2.	1.25	1.8	±3.5	±1.8	±3.2	±1.6

ALL LOADS ARE IN METRIC TON & ACTING AT THE TOP OF PEDESTAL.
LOAD DATA GIVEN ABOVE IS ON PER PEDESTAL BASIS.



JOB No.				
STATUS OF DRAWING				
DISTRIBUTION OF PRINTS				Q
REV.		NAME	SIGN	DATE
0	ALTERED			
	CHECKED			
	APPROVED			
ZONE				

CUSTOMER		 TAMILNADU GENERATION AND DISTRIBUTION CORPORATION				
CONSULTANT						
FICHTNER FICHTNER Consulting Engineers (India) Pvt. Ltd.						
PROJECT						
Flue Gas Desulphurisation System & Auxiliaries for North Chennai TPP – Stage-III 1x800 MW Supercritical Thermal Power Station Project						
		BHARAT HEAVY ELECTRICALS LTD. INDUSTRIAL SYSTEMS GROUP, BANGALORE				
TY.				NAME	SIGN	DATE
				DRN.	PVN	02-07-
				CHD.	PARTEEK	02-07-
				APPD.	IDEY	02-07-
E	DIRECTORY :		SCALE	WEIGHT(Kgs.)		ITEM NO.
	FILE NO. :		N.T.S.			
TITLE :				DRAWING NO.		
GA & LOAD DATA OF LIMESTONE STORAGE SILO & BUILDING				IS-1-GA-758-204-M011		