

Tender

No. D-3A/AMC/2021-22/01

Dated : 01.04.2021

NIT. No. 2021_DoHR_599877

Tender documents

For Maintenance Contract (non-comprehensive basis) for utility services at ICMR-NICED-I (Dr. S.C. Pal Building) and ICMR-NICED- II Building.

At

**ICMR-National Institute Of Cholera &
Enteric Diseases (ICMR-NICED)**

ICMR-National Institute of Cholera & Enteric Diseases
P-33, C.I.T. Road, Scheme – XM, Beliaghata,
Kolkata – 700 010

Dated: 01/04/2021

Sealed Tender / Quotations are invited for Maintenance Contract (non-comprehensive basis) for utility services at ICMR-NICED-I, Kolkata.

Sealed Tender, complete in all respect, duly signed with stamped of firm on each page including the tender should be dropped in the tender box, placed before the Despatch section (Dr. S.C. Pal Building) on 1st Floor on any working day from Monday to Friday within 10.30 a.m. to 5.30 p.m. Tender will be opened by Tender Opening Committee and in presence of tenderers or authorised representative.

Important Instruction

- i) The cost of Tender Fee of **Rs. 500/-** (Rupees Five hundred only) [Non-Refundable] in the form of Demand Draft /Pay Order in favour of Director, NICED, Kolkata from any Nationalised Bank should be submitted along with the Technical Bid.
- ii) The validity of tender will be one year from the date of approval of the Tender.
- iii) The tenders must attach self-attested photocopies of latest and valid GST registration certificate and proof of filling Income Tax returns last 3 years and onwards. Failure to submit the same Tender will be invalid automatically. However Govt. of India / State Govt. Department and Public Sector Undertakings (Central/State) are exempted from submitting GST & Income Tax clearance certificate.
- iv) Self-attested PAN card should be submitted.
- v) Tender document duly signed with rubber seal of the firms in token of acceptance by the tenderer of all terms & conditions.
- vi) Before submitting quotation party may contact Admn. Officer or Mr. Kanu Dey, Sr. Technician I and Maintenance Division Incharge or Mr. Sudipta Dhani, Skilled Engineer, ICMR-NICED for further information.
- vii) Prior permission is required to be taken from ICMR-NICED Office before site inspection.

Cost of Tender Fee Rs. 500.00
(non-refundable)

Tender Notice

ICMR-National Institute Of Cholera & Enteric Disease

P-33, C.I.T. Road, Scheme-XM, Beliaghata, Kolkata-700010.

Website- www.niced.org.in

Telephone No. : 033-2353-6479, 2370-4478/5533.

Fax no. : 033-2370-5066, 2363 2398.

Email: store.niced@icmr.gov.in / storeniced1@gmail.com

NIT. No. 2021_DoHR_599877

Sealed Tenders are invited to execute of the following maintenance work at ICMR-N.I.C.E.D.,
Kolkata

Sl. No.	Tender Code No.	Description	Estimated amount of scope of work (Rs.)	EMD (Rs.)	Last date of submission of bid (upto 1.30 P.M)	Date of opening (3.00 P.M)
1.	D-3A/AMC/2021-22/01 (NIT No. 2021_DoHR_599877_1)	Maintenance Contract (non-comprehensive basis) for utility services at ICMR-NICED-I (Dr. S.C. Pal Building) and ICMR-NICED- II Building.	15,00,000.-	3,00,000.	22.04.2021	22.04.2021

Tender Notice

National Institute Of Cholera & Enteric Diseases (NICED)

**An Autonomous Body Funded by Govt. Of India.
P-33, C.I.T. Road, Scheme-XM, Beliaghata, Kolkata-700010.**

Telephone No. : 033- 2370 4478/5533.

Fax no. : 033-2370 5066.

Email: storeniced1@gmail.com

NIT.No. NICED.....

Expression of Interest (EOI)

Sealed two Bid system (Separate Technical & Price bid) tenders are invited from eligible contractors working with Govt. of India/Govt. of West Bengal/Autonomous bodies of Govt. of India. Contractor must have vast experience and expertise in operational work of Electrical and Mechanical services and round the clock Maintenance and Operation work of two sub-stations for NICED –I & II Building and maintenance and operation of NICED I & II Building's, Electrical and Mechanical Operation which includes water pump and fire fighting equipments on non-comprehensive basis.

Name of Work: maintenance and operational work of two sub-station for NICED-I & II Building. Electrical and Mechanical Operation which includes water pump and fire fighting equipments on non-comprehensive basis.

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INTRODUCTION

National Institute Of Cholera & Enteric Diseases (NICED), Kolkata is a premiere Institute of ICMR, an Autonomous body funded by under Ministry of health & family welfare, Govt. of India and engaged for significant research work on Diarrhoeal diseases and others infectious diseases. NICED is also involved Collaborative scientific research work with various national and international organizations.

TYPE AND NATURE OF WORK

Annual Maintenance Contract (non-comprehensive basis) on the following utility services of NICED I & NICED II & JICA Building by deputing the manpower on round the clock basis is required to obtain quotation from inviting tender is as mention below:

- 1) Operation & Maintenance of all Electrical LT distribution which includes all switch boards, light, fans, AC power points, Equipment power points at NICED I & II & JICA Buildings.
- 2) Operation & Maintenance of 2 Nos. 11 KV substation, one at NICED I campus and other at NICED II campus includes one 315 KVA, 1 no. 500 KVA oil filled transformer at NICED I Building & 2 nos. 500 KVA transformer at NICED II campus, & 4 module type oil type HT (high tension) Switch Gear 11 KV grade & associated control circuit.
- 3) Operation & Maintenance of Fire Fighting & fire Protection & Fire Detection Equipment at NICED I & II & JICA Buildings including periodical Fire training to deputed Staff.
- 4) Operation & Maintenance of one 200 KVA TIL make, Diesel Generator at NICED I Building & One 500 KVA Diesel generator-Kirloskar Make at NICED II building and 400 KVA-Groves cotton at JICA Building.
- 5) Pump operation & Maintenance to maintain to fill up all water tanks Overhead & Under-ground tanks of NICED I & NICED II & JICA Buildings.
- 6) To attend at the time of institutional function at NICED I & NICED II & JICA campus to tackle any emergency situation arises.
- 7) Operation & Maintenance of all Electrical items that includes HT distribution systems, Switch Gears, Capacitor banks, AMF Panel, earthing System, LA ETC throughout areas of JICA building, NICED 1 & NICED 2 building.
- 8) Operation & Maintenance of all water system which includes, water treatment plants, water tanks (Periodical Cleaning), plumbing & sanitary system & Drainage system of NICED I & II and JICA Buildings.
- 9) Operation & Maintenance of Waste Water Treatment plant/System at NICED I, II & JICA Buildings wherever applicable.
- 10) Operation & Maintenance of Miscellaneous electrical, Mechanical & Plumbing & sanitary items i.e Water Purifier (Only Operation), Gas bank, minor carpentry job, Lift Operation (Only Operation), UPS, Signage's etc. as and when required at JICA Building, NICED 1 & NICED 2 building.
- 11) Vendor need to maintain 52 weeks Utility PPM Schedule and need to maintain both Hard copy & soft copy of reports, History card and need to provide wherever required.
- 12) Workmanship to be followed by Proper Safety precaution & using of proper PPE, LO-TO System, & application of best engineering practices.
- 13) All type of Tools & tackles is part of Vendors scope only.
- 14) All necessary log books, Uniform, softcopy, History cards & Service reports (Both

Soft & Hard Copy), Stationary, computer system need to maintain by vendor side only.

- 15) Vendor need to be ensured proper servicing of every installed utility equipment on time to time.
- 16) Vendor should able to Submit Rectification cost on immediate basis for each breakdown case /Supply of spares on proper rate and should even ready to execute the rectification work subject to Approval & Proper order from NICED, irrespective of any minimum order-value of Spares/Jobs. The Contractor/Vendor shall attend to any defect report immediately and repair/ set right the defect within 24 hours depending on Approval and nature of work, failing which a penalty of Rs. 1,000/- (Rupees one thousand only) per day per equipment may be imposed by the Institute.
- 17) Service provider need to Provide/Suggest all periodical equipment testing & validation & corrective action related practices as per standards norms of Installed equipment; separate costing of Routine test-cost may be considered subject to approval from ICMR-NICED.
- 18) Any item throughout the Institute related to engineering scope (Electrical & Mechanical) required technical support as part of the contract.
- 19) Maintenance work includes Preventive & Routine type.
- 20) Any winding related job, Fabrication & work-shop base work costing will be considered separately subject to approval from ICMR-NICED.
- 21) For day to day minor spare requirement on monthly basis 15000.00 may be spent as pre-approved condition with approval from ICMR-NICED, with this contract for which monthly bill submission required along with signed delivery challan for payout. Beyond this limit vendor need to follow regular practices i.e. Quotation, approval & purchase order/work order based workout.
- 22) All minor spare like Oil & Grease, Insulation tape, Teflon tape, Gland rope, White cement & other minor necessary items shall be on vendor scope within the contract.
- 23) Annexure Contains Either Schematic Diagram or Tentative Electrical & Plumbing Point details & Other necessary Drawing.

N.B. : For maintaining the work mentioned above minimum 7 nos. of staff should be deployed in distributed manner for maintaining round the clock duty at our Institute Campus & One Dedicated SPOC(Supervisor) to be provided for Official & Day to Day Communication &. These staff should be of the following category.

- i) Electrician: Workmanship certificate holder from govt. body.
- ii) Plumber: Plumbing certificate from any municipal authority or any recognised body.

◆ Before submitting the quotation parties are requested to inspect actual site and contact Administrative Officer or Mr. Kanu Dey, Sr. Technician I and Maintenance Division Incharge or Mr. Sudipta Dhani, Skilled Engineer, ICMR-NICED for detailed job specification at the time of pre-bid conference.

CALENDER EVENT

Pre Bid Conference	13.04.2021 at 3.00 PM
Last Date Of Submission	22.04.2021 at 1.30 PM
Place Of Submission Of EOI Documents	Tender Box kept on the 1 st Floor of NICED-I Building
Date of opening Of Technical Bid	22.04.2021 at 3.00 PM
Date Of Opening Of Financial Bid	To be announced after Verification of Technical Documents
Place Of Opening Of EOI Documents	ICMR- NICED
Address	P-33, CIT Road, Scheme XM, Kolkata – 700010
Telephone No.	033-2370-5533, 2370-4478

SUBMISSION OF EOI

Total Documents Content in **Two Envelopes.**

Envelope 1 Contain : 2% of estimated cost of Rs. 15 lakh as Earnest Money in the form of Bank Draft on any Nationalized Bank. Technical Bid documents, Notice Inviting EOI, Instruction for bidders, Terms & Condition, Obligation of Employer, Declaration of Contactor, Credential – 80% of total estimated cost of maintenance of 15 lakh value in a single work order or 2 Nos. work order value of 7.5 lac each of same type of Govt. Research Organization of National repute. Copy of License to be produced for contractor and works men. Electrical Supervisor License, ESI & EPF Registration Certificate, VAT Registration Certificate & GST/CST, Bank Draft / Bankers Cheque No. with Date to be mentioned including the name of the Nationalized Bank, Last 3 years Income Tax & Service Tax Clearance Certificate, Professional Tax certificate, current bank solvency certificate, The firm must have submit self-attested copy of valid electrical licence, issued by the competent authority.

Envelope 2 Contain : Financial Bid Documents.

Envelope 3 Contain: Containing envelope 1 & 2 with superscripted with the Details address including the name of the work, tender no., address to Director-in-Charge, National Institute Of Cholera & Enteric Diseases, P-33, C.I.T. Road, Scheme –XM, Beliaghata, Kolkata700010.

EMD in favor of The Director, National Institute of Cholera and Enteric Diseases.

GENERAL TERMS & CONDITIONS

- 1) Soft Copy in the form the CD for Technical & Price Bid Separately along with the hard copy.
- 2) The tender documents should be typed. Any cutting / overwriting may be signed by the tenderer otherwise the rates in r/o that particular item may not be considered.
- 3) Each and every page of tender must be numbered and signed by the tenderer along with the seal of the firm.
- 4) Covering letter should clearly indicate the list of enclosures.
- 5) EMD is liable to be forfeited if the tenderer withdraws the tender or impairs or derogates the bid in any respect.
- 6) EMD shall be released to unsuccessful bidders after completion of tender process, subject to compliance to all other terms & conditions of Tender.
- 7) **Penalty Clause for Non-compliance of work order :**
EMD will be forfeited and necessary action will be initiated.
- 8) A. Contractors must have enlisted in Class-1 at Government Department.
B. The Contractors should have satisfactory executed the work within last three years, involving operation/routine maintenance/preventive maintenance of.
 1. Minimum capacity 500 KVA D.G. set
 2. Minimum capacity 500KVA Sub station.

Completion certificates issued by the Client Department by rank not below Executive Engineer or equivalents are to be furnished along with the application.

C. The Contractors should submit self-attested copy of valid electrical license, issued by the Competent Authority.

D. The Contractors must have Service Tax/VAT/ESIC and EPF registration.

- 9) Triplicate bills duly pre receipted on appropriate revenue stamp affixed to be submitted in the name of the Director in respective store.
- 10) The bill should be in printed form having printed bill number, VAT/CST/GST/TIN number as well as D.L.No. (whichever applicable).

- 11) All rejected stores shall be at risk of the supplier and must be removed immediately.
- 12) In case it is a computer-generated bill it must have the seal of the firm affixed on it.
- 13) Payment: Payment will be made after successful completion of work. Advance payment will be considered on necessary Bank Guarantee (100%).
- 14) **EXCLUSIVE RIGHT OF DIRECTOR:** The Director, ICMR-NICED Kolkata has the full and exclusive right to accept or reject any or all the tenders without assigning any reasons whatsoever. No enquires, verbal or written shall be entertained in respect of acceptance / rejection of the tender.

ROLE OF CONTACTOR

Work to be done in the Institute as per Institute norms. As this is a Govt. institute (ICMR), so necessary precaution should be taken that no hazard or any untoward incident could be happened within the campus of the Institute . All work should be executed in consultation with the competent authority of NICED. Any damage of Institute assets/ property during the execution of the work within the campus will be liable to the contractor. A maximum of one (1) authorized representative of the contractor will be permitted to be present during the opening of the tender. The representatives should possess appropriate letter of authorization in the letterhead of the company and duly signed, clearly indicating the name of the representative and that he / she has been authorized to represent and sign on behalf of the company. He/ She should also possess the official seal of the company for signing necessary document as an when required.

Canvassing (directly / indirectly) for the tender is strictly prohibited and will be liable to rejection of the bid.

Electrical Points Inventory
of
NICED-I Building.

Total Light Points : 915

Total Fan Points : 238

Total 5/15A Power Points : 639

Total Telephone Points : 103

Total AC Points : 139

[illegible]

Room No.	Tube Light	Four	2x2' 9" 1x1' 9"	15A power plug	AC power point	telephone point	Exhaust Fan point	loud point	Sodium vapour (Ecow)	LED garden Light	metal Halogen (Ecow)	1x1' 9" Light	foot light	5A power plug			
3rd																	
Band's toilet	2						2					2					
Ladies Toilet	2						2					2					
Corridor	5			5								18					
4th																	
501		2	4	4	2	1											
502		2	4	4	2	1											
503		2	4	5	2	1											
504		2	4	4	2	1											
506		2	4	4	2	1											
507		2	2	4	2	1											
Guests Toilet			1				2	3									
Ladies Toilet			1				2	3									
Small Room	1							16									
Corridor																	
Union Room 1		1	3	3	2												
Union Room 2		2	5	7	2		1										
Lift Shaft				1				1									
Lift room	2			2			1							1			
TOTAL		505	152	129	25	616	139	103	48	142	9	13	7	6	61	18	23

Halogen LED metal
(500w) garden Halogen 1X11N Pool
Light Light 5A wall
plug Fan

NICED-II BUILDING ELECTRICAL POINT INVENTORY

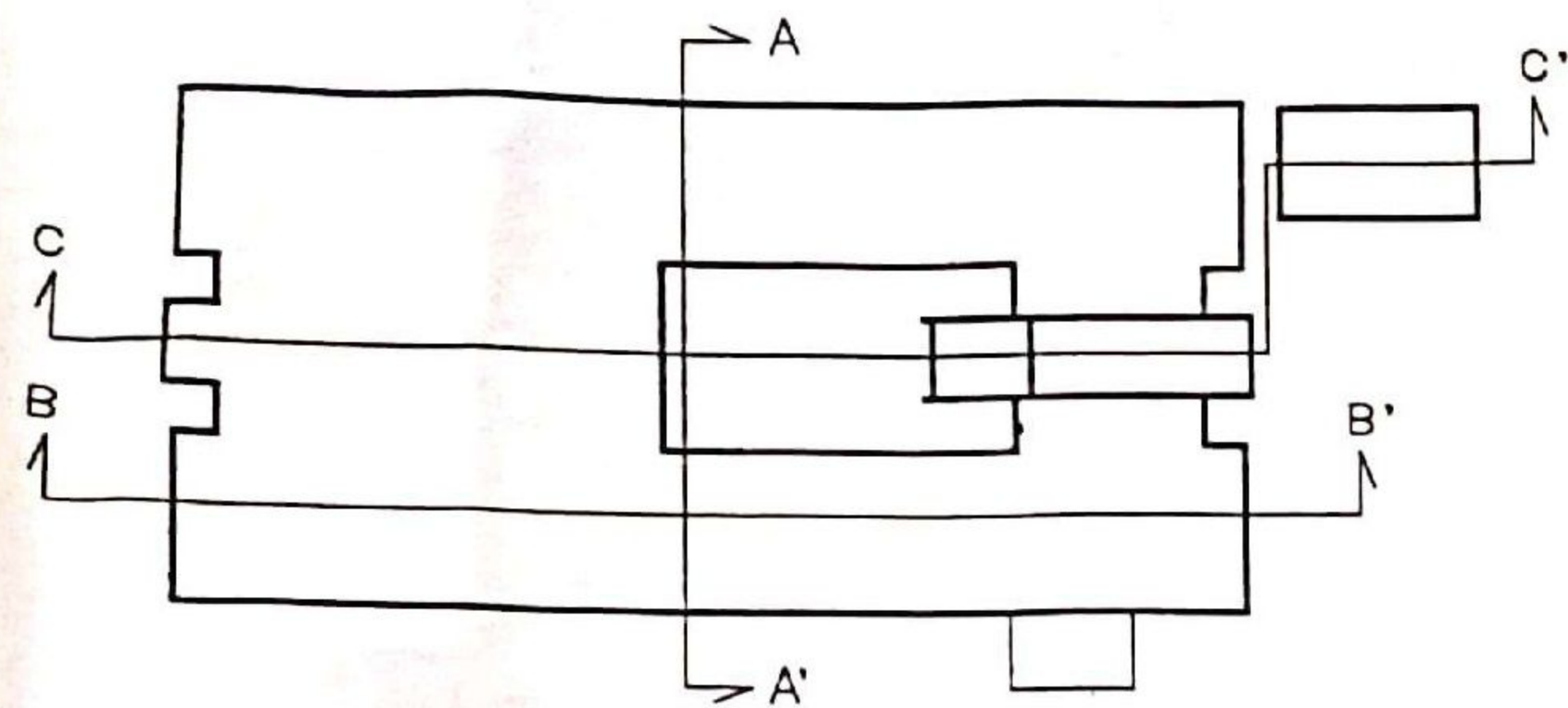
FLOOR	ROOM NAME / NO.	F.L. TUB E	CEILING FAN PONT	2 x 11 watt PL	2 x 18 watt PL	2 x 36 watt PL	1 x 11 watt PL	15A POWER PLUG	5A POWER PLUG	AC Point	TELEPHONE PT.	FIRE FIGHTING POINT	EXHAUST FAN	BOUNDARY LIGHT	FOCUS LIGHT	METAL LIGHT	WALL FAN
Ground	Outside	19		3										23		8	
	Reception		3		3	6	10	6		2	1				3		
	Lift Shaft																
	Store	1						1									
	Lift lobby	2	2														
	Corridore	8	1		4		2					11					
	Rising room	1															
	Gen. Toilet			3			1										
	004 -	3	1					3		1	3	2	1				
	004 - Toilet			1			1			1	1	2					
	003 -	2	2					4					1				
	003 - Toilet			1													
	002 -	3	2					4		1	1	2	3				
	L. Toilet			6													
	001 -	19	15	1				20		6	6	14					
	Stair(back)	2															
1st	101	2	1					2			1	1					
	102	3	2	2			1	6		1	1	1	1				
	103	3	1					4	3	1	2						
	104	3	1	1				2		2	1	1					
	105	3	1					2	8		1	1					
	106	3	1					6		1	1	1					
	107	3	1					4		1	2	1					
	108	6	1					3		4	1	2					
	109	9	3					9	14		1	3					
	110	12	6	2			1	14	1		3	5					1
	113			2								1					
	114	2	1					3		1	1	1					
	115	3	1					2		1	1	1					
	116	1		1				3				1					
	Corridore	1			20		3	2				6					2

FLOOR	NAME/NO.	TUB E	FAN PONT	watt PL	watt PL	watt PL	watt PL	POWER PLUG	POWER PLUG	Point	PT.	FIGHTING POINT	WALL FAN	FOCUS LIGHT	BOUNDARY LIGHT	WALL FAN
2nd	Stair(back)	2														
	201	6	3					3			1	2				
	201-Toilet			2			1	1					1			
	202	2	1					3		1	2	1				
	203	2	1					2				1				
	204	14	6					6			5	3				
	205	6	3	4				2	9		11	3				
	206	12	6	2				6	37		28	4				
	207	7	1	2				2	16	1	12	2				
	Stair(Front)	2														
	Corridore			3	10		3	1		2		4				
	AC room	3						2			1	1				
	L. Toilet			6									2			
3rd	Stair(back)	2														
	301	2	1					1			1	1				
	302	2	2					2			2					
	302-Toilet			2			1						1			
	303	7	3					6			5					
	304	6	3					3		2	1	2				
	305	6	4					3		1	1					
	306	2	1					6			1					
	307						15		20		8	2				
	308						19	7	18	1	8	4				
	309	2						2	6	2	1	1				
	310	2	1					1	14	2	7	1				
	311			2				1	14	1	7	1				
4th	Corridore	1		8				2	1			3				
	AC room	3	1					3			1	1				
	Stair(Front)	2										1				
	Lift lobby	2	2													
	G.Toilet			6									2			
	Stair(back)	1										1				
	401(Semr.)	15	8	8				14			5	4				
	Div.Trng.	6		2				5				1				
	Div.toilet			2									1			

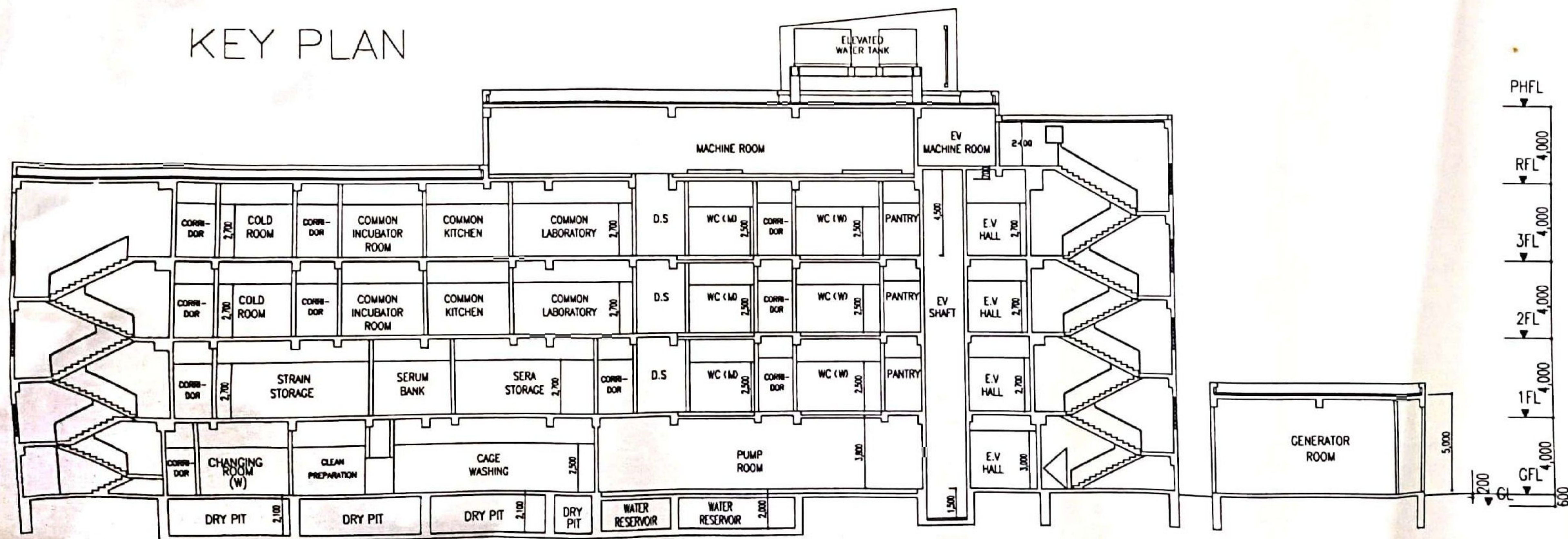
NAME/NO.	TUB E	FAN PONT	watt PL	watt PL	watt PL	POWER PLUG	Point	PT.	FIGHTNING POINT	FAN	LIGHT	LIGHT	FAN
402	15	6	3			18		5	2				
402 (a)	4	2				6		2	2				
402 (b)	2	1				6	1	3	1				
403	2	1				4	1	1	1				
404	2	1				3	1	1	1				
405			2			3		1	1				
Stair(Front)	2												
Corridore			2	10		1			6				
AC room	3					2		1	1				
L. Toilet			4			2				2			
Stair(back)	2												
Canteen	9	9				5		1	1				
501	2	1				1		1	1				
502	2	1				2			1				
503	2	1				2			1				
504	2	1				2	1	1	1				
505	2	1				2	1		1				
507	6	6	2			12		1					
508	3	3	1			13	1	8	2				
509				13		5	3	5	2				
510	2	1				2	1		1				
511	1		1			3	1	1	1				
512			2			2			1				
Corridore	1		1	12		3			5				
Lift lobby	3	2							1				
AC room	3					2		1	1				
G.Toilet			4							2			
Roof	3												
Roof													
stair(B)	2												
Lift room	6					3				4			
LT room	2	2				5		1	3	1			
CESC room	2	1				1				1			
TF-1 room	2	1				1							

FLOOR	ROOM NAME/NO.	TUB E	FAN PONT	4 A 11 watt PL	4 A 10 watt PL	4 A 09 watt PL	4 A 08 watt PL	POWER PLUG	POWER PLUG	Point	PT.	FIGHTING POINT	FAN	LIGHT	LIGHT	LIGHT	FAN
Elect.	TF-2 room	2	1					1									
	HT room	4	2					2					1				
	Sub station	20	7					5					5				
	SubStn.tolt	1											1				
	SS store	1															
	DG inside																
	TOTAL	346	135	82	69	53	34	299	167	46	170	139	30	23	3	8	3

TOTAL LIGHT POINTS : **618**TOTAL FAN POINTS : **168**TOTAL 5/15A POWER POINTS : **466**TOTAL TELEPHONE POINTS : **170**TOTAL AC POINTS : **46**



KEY PLAN



C-C' SECTION

SIGNATURE OF OWNER

NOTE:

DOTTED LINE SHOWS SANCTIONED BUT NOT CONSTRUCTED-MARKED YELLOW ☐
 INTERNAL ADDITION/MODIFICATION-MARKED RED ☐
 FIRM LINE SHOWS SANCTIONED & CONSTRUCTED-MARKED YELLOW ☐

PLAN SHOWING THE INTERNAL CHANGE WITHIN THE SANCTIONED COVERED SPACE (VIDE SANCTION NO.54 (B-III) DT.29.06.2005)AS PER RULE 25 (2A), OF CMC BUILDING RULES 1990 OF FOUR STORED BUILDING OF JICA-AIDED PROJECT FOR DIARRHEAL RESEARCH AND CONTROL CENTRE AT PREMISES NO. 57, Dr. SURESH CHANDRA BANERJEE ROAD, KOLKATA 700 010, WARD No.-33, BOROUGH-III.

C-C SECTION

DRG. NO. 1105/SD/J-N/08(R)/05

SCALE : 1 : 100

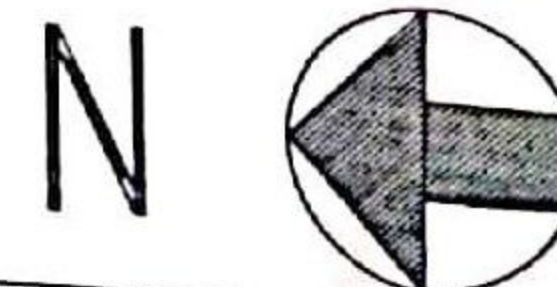
DATE : 20. 08 .2005

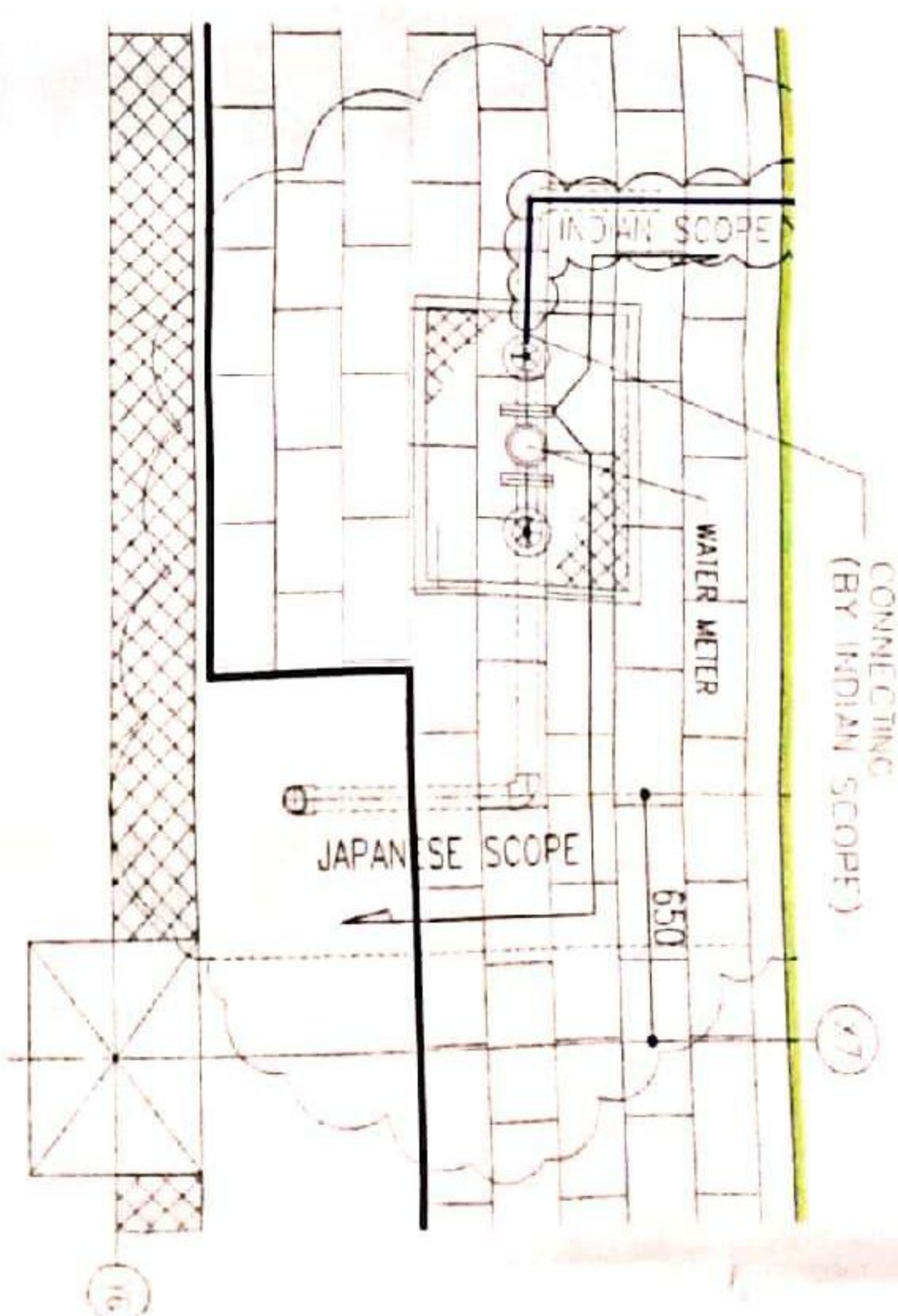
CONSULTANT:-
 J. C. CHAKRABURTTY & SONS
 ARCHITECTURAL & STRUCTURAL CONSULTANT
 6, OLD POST OFFICE STREET
 KOLKATA-700001.

DRAWN BY: D. BANERJEE

CHECKED BY: S. H. C.

SIGNATURE OF ARCHITECT



Sumitomo Mitsui Construction Co.

SYMBOL	DESCRIPTION
DISCONNECTING SWITCH	
LIGHTING APPL. (BY OWNER)	
PRIMARY CIRCUIT SWITCH (BY OWNER)	
CAS OF VOLTAGE CIRCUIT BREAKER (BY OWNER)	
AIR CIRCUIT BREAKER (BY OWNER)	
WIND CIRCUIT BREAKER	
MAGNETIC CONTACTOR	
AUTOMATIC TRANSFER SWITCH (DOUBLE THROW)	
AUTOMATIC POWER FACTOR CONTROL DEVICE	
WATT METER	
WATT-HOUR METER	
POWER FACTOR METER	
FREQUENCY METER	
VOLT METER	
VOLT METER SELECTOR SWITCH	
AMMETER	
AMMETER SELECTOR SWITCH	
DUAL TYPE THERMOMETER	
POTENTIAL TRANSFORMER	
CURRENT TRANSFORMER	
STATIC CONDENSER	
SERIES REACTOR	
CABLE HEAD	

HV PANEL SHALL BE PROVIDED WITH THE FOLLOWING PROTECTION DEVICES

OVER CURRENT GROUND RELAY

OVER CURRENT RELAY

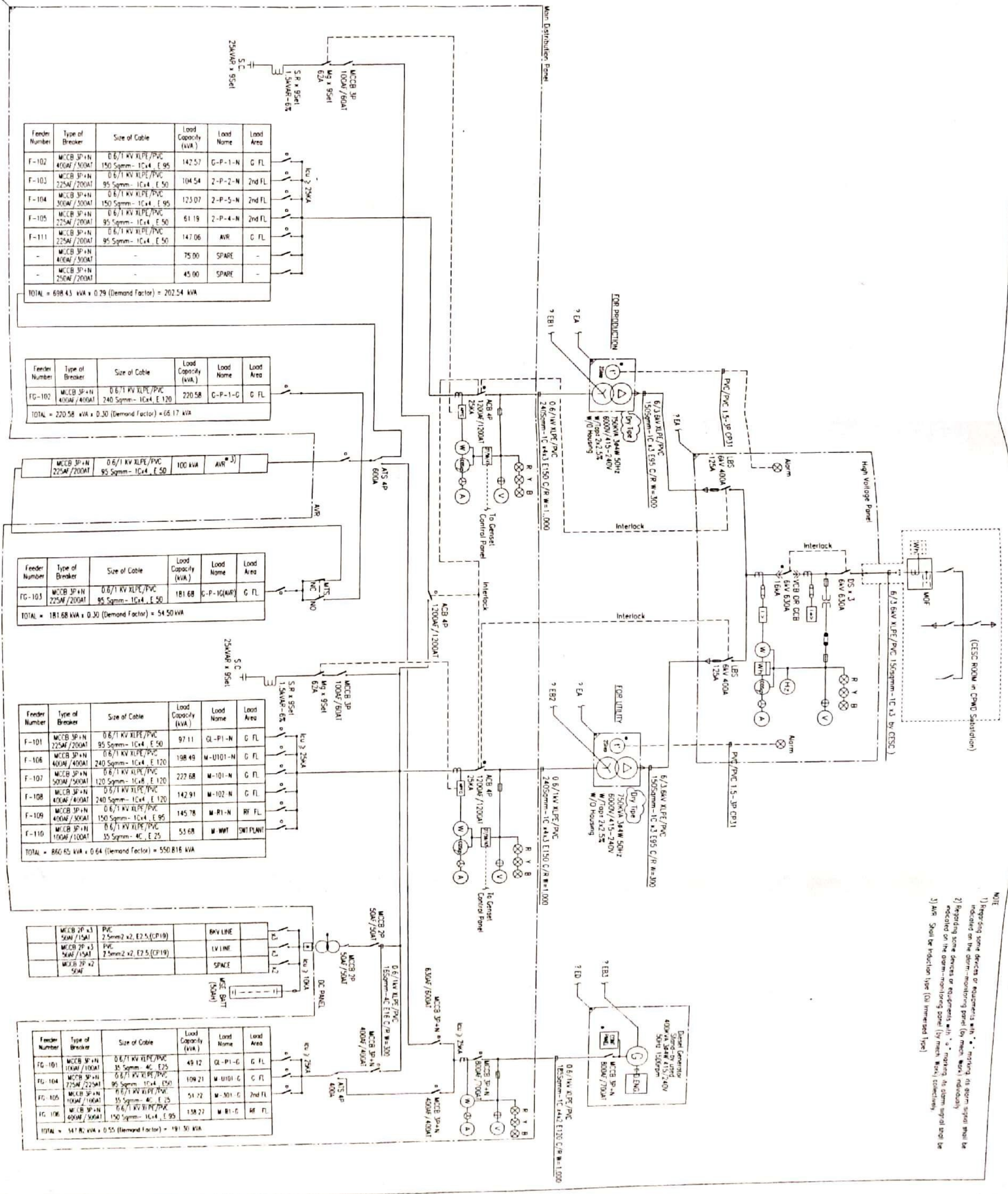
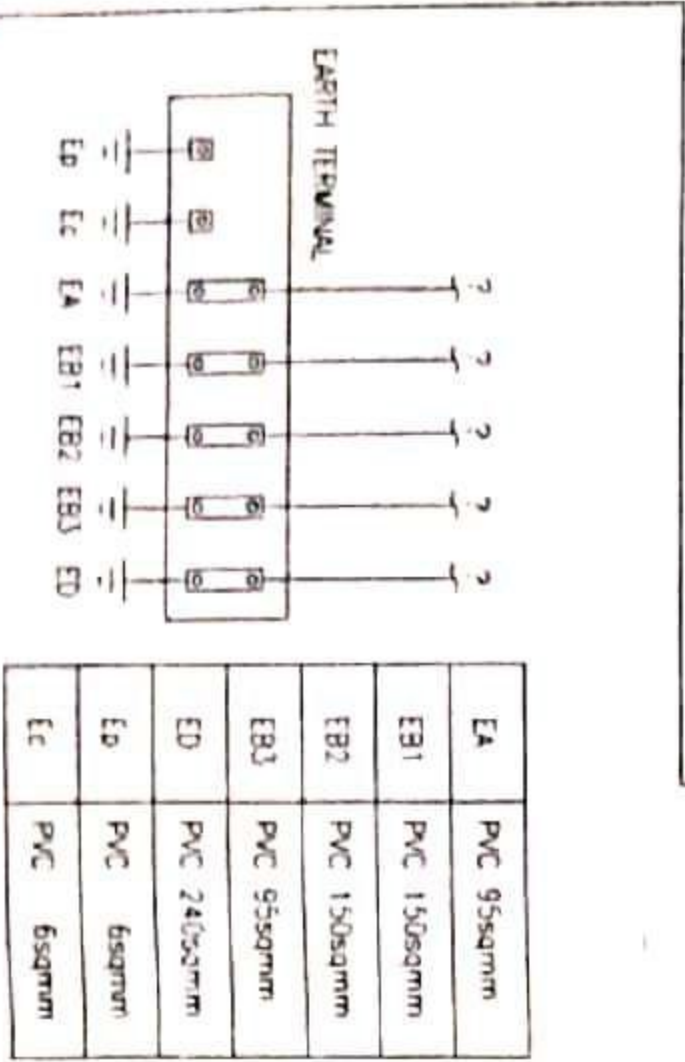
MAIN DISTRIBUTION PANEL SHALL BE PROVIDED WITH THE FOLLOWING PROTECTION DEVICES

UNDER/OVER VOLTAGE & PHASE REVERSE RELAY

OVERCURRENT GROUND RELAY (BUILT-IN ACB TYPE)

NO.	ITEM	INDICATION LAMP	TRIP	ALARM	BULBZ	ALARM PANEL
1	HV PANEL W/O OR C/B TRIP					
2	TRANSFORMER THERMAL ABNORMAL					
3	UNDER/OVER VOLTAGE					
4	PHASE REVERSE					
5	OVERCURRENT					
6	GROUND FAULT					
7	OVERTEMPERATURE					
8	OVERVOLTAGE					
9	UNDERVOLTAGE					
10	PHASE REVERSE					
11	OVERCURRENT					
12	GROUND FAULT					
13	OVERTEMPERATURE					
14	OVERVOLTAGE					
15	UNDERVOLTAGE					
16	PHASE REVERSE					
17	OVERCURRENT					
18	GROUND FAULT					
19	OVERTEMPERATURE					
20	OVERVOLTAGE					
21	UNDERVOLTAGE					
22	PHASE REVERSE					
23	OVERCURRENT					
24	GROUND FAULT					
25	OVERTEMPERATURE					
26	OVERVOLTAGE					
27	UNDERVOLTAGE					
28	PHASE REVERSE					
29	OVERCURRENT					
30	GROUND FAULT					
31	OVERTEMPERATURE					
32	OVERVOLTAGE					
33	UNDERVOLTAGE					
34	PHASE REVERSE					
35	OVERCURRENT					
36	GROUND FAULT					
37	OVERTEMPERATURE					
38	OVERVOLTAGE					
39	UNDERVOLTAGE					
40	PHASE REVERSE					
41	OVERCURRENT					
42	GROUND FAULT					
43	OVERTEMPERATURE					
44	OVERVOLTAGE					
45	UNDERVOLTAGE					
46	PHASE REVERSE					
47	OVERCURRENT					
48	GROUND FAULT					
49	OVERTEMPERATURE					
50	OVERVOLTAGE					
51	UNDERVOLTAGE					
52	PHASE REVERSE					
53	OVERCURRENT					
54	GROUND FAULT					
55	OVERTEMPERATURE					
56	OVERVOLTAGE					
57	UNDERVOLTAGE					
58	PHASE REVERSE					
59	OVERCURRENT					
60	GROUND FAULT					
61	OVERTEMPERATURE					
62	OVERVOLTAGE					
63	UNDERVOLTAGE					
64	PHASE REVERSE					
65	OVERCURRENT					
66	GROUND FAULT					
67	OVERTEMPERATURE					
68	OVERVOLTAGE					
69	UNDERVOLTAGE					
70	PHASE REVERSE					
71	OVERCURRENT					
72	GROUND FAULT					
73	OVERTEMPERATURE					
74	OVERVOLTAGE					
75	UNDERVOLTAGE					
76	PHASE REVERSE					
77	OVERCURRENT					
78	GROUND FAULT					
79	OVERTEMPERATURE					
80	OVERVOLTAGE					
81	UNDERVOLTAGE					
82	PHASE REVERSE					
83	OVERCURRENT					
84	GROUND FAULT					
85	OVERTEMPERATURE					
86	OVERVOLTAGE					
87	UNDERVOLTAGE					
88	PHASE REVERSE					
89	OVERCURRENT					
90	GROUND FAULT					
91	OVERTEMPERATURE					
92	OVERVOLTAGE					
93	UNDERVOLTAGE					
94	PHASE REVERSE					
95	OVERCURRENT					
96	GROUND FAULT					
97	OVERTEMPERATURE					
98	OVERVOLTAGE					
99	UNDERVOLTAGE					
100	PHASE REVERSE					

THE CONTROL CIRCUIT SHALL BE USED DC POWER & USE BATTERY SHALL BE PROVIDED.



NOTE

1) Feeder some devices or equipment with " " marking in alarm signal shall be indicated on the alarm-monitoring panel (by owner's responsibility).

2) Regarding some devices or equipment with " " marking in alarm signal shall be indicated on the alarm-monitoring panel (by owner's responsibility).

3) All " " Shall be indicated (by owner's responsibility).

FLOOR	ROOM NAME / NO.	FAN TUBE	CEILING FAN PONT	2 X 11 watt PL	2 X 16 watt PL	2 X 30 watt PL	2 X 11 watt PL	POWER PLUG	POWER PLUG	AC Point	TELEPHONE PT.	FIGHTNING POINT	FAN	LIGHT	LIGHT	LIGHT	FAN
Elect.	TF-2 room	2	1					1									
	HT room	4	2					2					1				
	Sub station	20	7					5					5				
	SubStn.tolt	1											1				
	SS store	1															
	DG inside						1										
	TOTAL	346	135	82	69	53	34	299	167	46	170	139	30	23	3	8	3

TOTAL LIGHT POINTS : **618**

TOTAL FAN POINTS : **168**

TOTAL 5/15A POWER POINTS : **466**

TOTAL TELEPHONE POINTS : **170**

TOTAL AC POINTS : **46**

NICED-II BUILDING ELECTRICAL POINT INVENTRY

FLOOR	ROOM NAME / NO.	F.L TUB E	CEILING FAN PONT	2 x 11 watt PL	2 x 18 watt PL	2 x 36 watt PL	1 x 11 watt PL	15A POWER PLUG	5A POWER PLUG	AC Point	TELEPHONE PT.	FIRE FIGHTNING POINT	EXHAUST FAN	BOUNDARY LIGHT	FOCUS LIGHT	METAL LIGHT	WALL FAN
Ground	Outside	19		3										23	3	8	
	Reception		3		3	6		6		2	1						
	Lift Shaft						10										
	Store	1						1									
	Lift lobby	2	2														
	Corridore	8	1		4		2					11					
	Rising room	1															
	Gen. Toilet			3			1										
	004 -	3	1					3		1	3	2					
	004 - Toilet			1			1						1				
	003 -	2	2					4		1	1	2					
	003 -Toilet			1									1				
	002 -	3	2					4		1	1	2					
	L. Toilet			6									3				
	001 -	19	15	1				20		6	6	14					
	Stair(back)	2															
1st	101	2	1					2			1	1					
	102	3	2	2			1	6		1	1	1	1				
	103	3	1					4	3	1	2						
	104	3	1	1				2		2	1	1					
	105	3	1					2	8		1	1					
	106	3	1					6			1	1					
	107	3	1					4		1	2	1					
	108	6	1					3		4	1	2					
	109	9	3					9	14		1	3					
	110	12	6	2			1	14	1		3	5					
	113			2								1					1
	114	2	1					3		1	1	1					
	115	3	1					2		1	1	1					
	116	1		1				3				1					
	Corridore	1			20		3	2				6					2

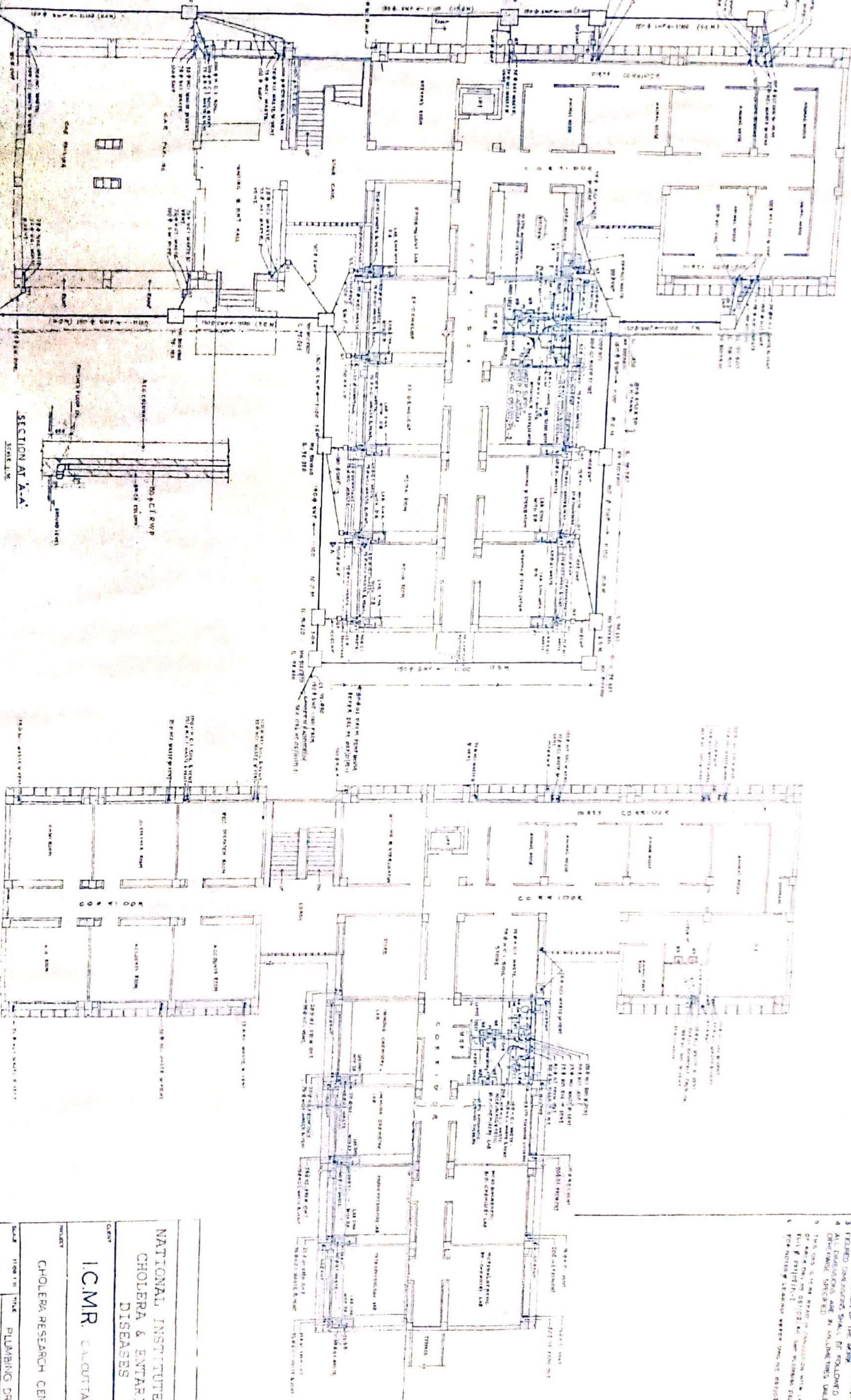
	NAME/NO.	TUB E	FAN PONT	watt PL	watt PL	watt PL	POWER PLUG	POWER PLUG	Point	PT.	FIGHTING POINT	FAN	BOUNDARY LIGHT	FOCUS LIGHT	METAL LIGHT	WALL FAN
2nd	Stair(back)	2														
	201	6	3				3			1	2					
	201-Toilet			2			1					1				
	202	2	1				3		1	2	1					
	203	2	1				2				1					
	204	14	6				6			5	3					
	205	6	3	4			2	9		11	3					
	206	12	6	2			6	37		28	4					
	207	7	1	2			2	16	1	12	2					
	Stair(Front)	2														
	Corridore			3	10		1		2		4					
	AC room	3					2			1	1					
	L. Toilet			6								2				
3rd	Stair(back)	2														
	301	2	1				1			1	1					
	302	2	2				2			2						
	302-Toilet			2		1						1				
	303	7	3				6			5						
	304	6	3				3		2	1	2					
	305	6	4				3		1	1						
	306	2	1				6			1						
	307				15			20		8	2					
	308				19		7	18	1	8	4					
	309	2					2	6	2	1	1					
	310	2	1				1	14	2	7	1					
	311			2			1	14	1	7	1					
	Corridore	1			8		2	1			3					
	AC room	3	1				3			1	1					
	Stair(Front)	2									1					
	Lift lobby	2	2													
	G.Toilet			6								2				
4th	Stair(back)	1									1					
	401(Semr.)	15	8	8			14			5	4					
	Div.Trng.	6			2		5				1					
	Div.toilet			2								1				

NAME / NO.	TUB E	FAN PONT	watt PL	watt PL	watt PL	POWER PLUG	POWER PLUG	Point	PT.	FIGHTNING POINT	FAN	LIGHT	LIGHT	FAN
402	15	6	3			18			5	2				
402 (a)	4	2				6			2	2				
402 (b)	2	1				6		1	3	1				
403	2	1				4		1	1	1				
404	2	1				3		1	1	1				
405			2			3			1	1				
Stair(Front)	2													
Corridore			2	10		1				6				
AC room	3					2			1	1				
L..Toilet			4			2					2			
Stair(back)	2													
Canteen	9	9				5			1	1				
501	2	1				1			1	1				
502	2	1				2				1				
503	2	1				2				1				
504	2	1				2		1	1	1				
505	2	1				2		1		1				
507	6	6	2			12			1					
508	3	3	1			13		1	8	2				
509				13		5	6	3	5	2				
510	2	1				2		1		1				
511	1		1			3		1	1	1				
512			2			2				1				
Corridore	1		1	12		1				5				
Lift lobby	3	2								1				
AC room	3					2			1	1				
G.Toilet			4								2			
Roof														
stair(F)	3													
Roof														
stair(B)	2													
Lift room	6					3					4			
LT room	2	2				5			1	3	1			
CESC room	2	1				1					1			
TF-1 room	2	1				1								

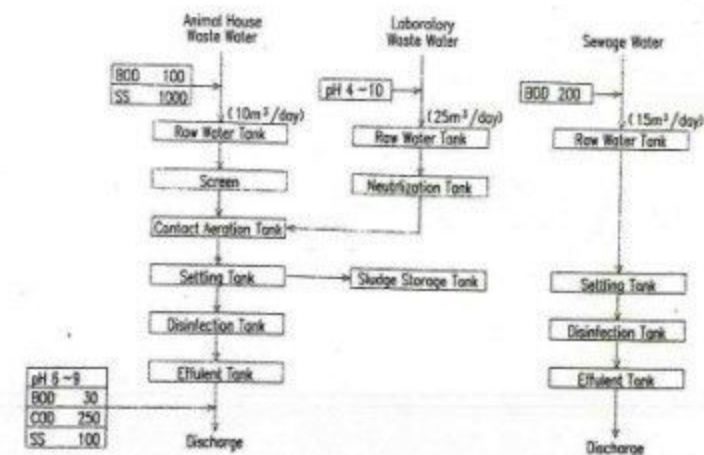
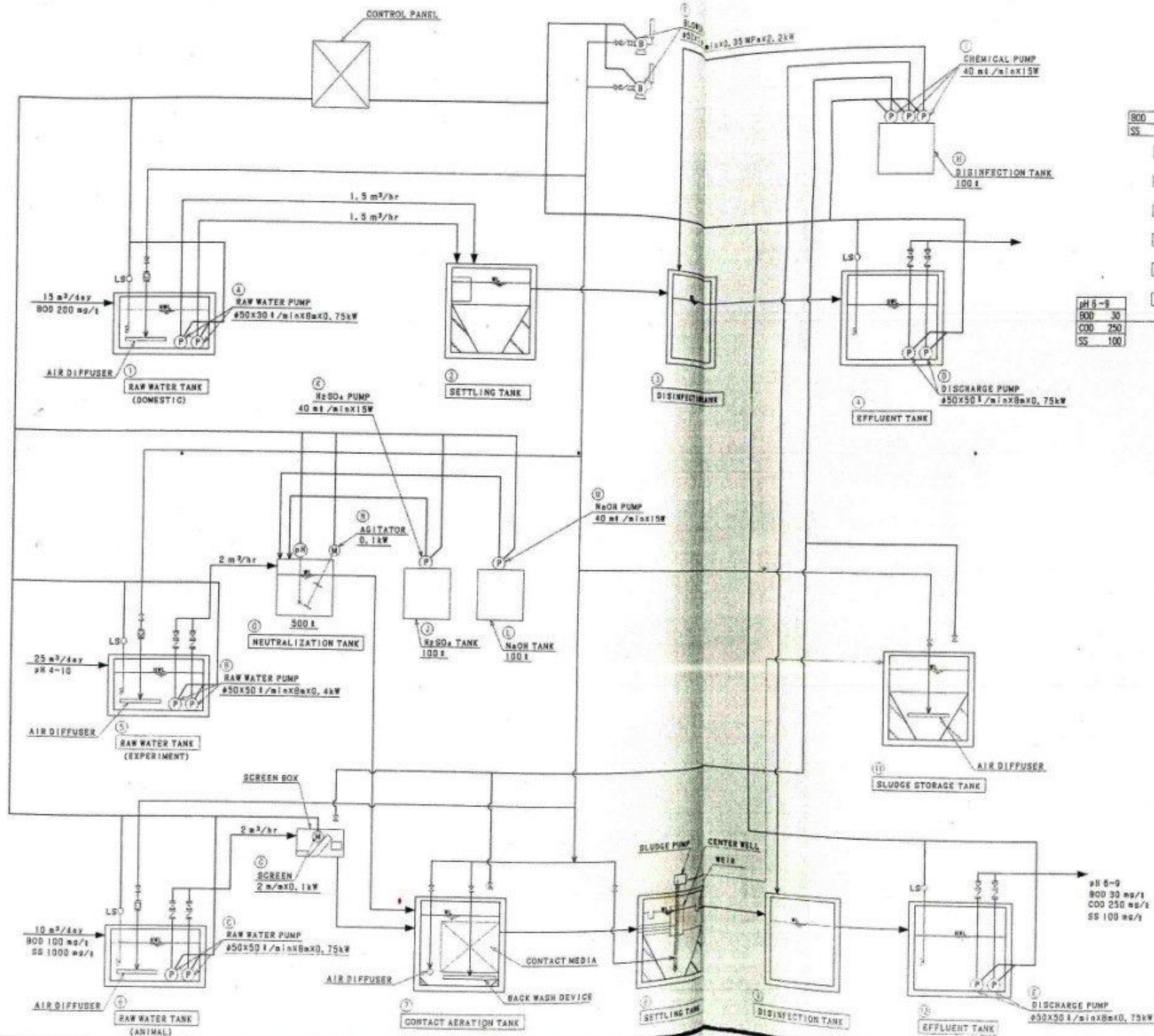
Top

Elect.

1. ALL DIMENSIONS SHALL BE CHECKED & VERIFIED
2. BUILDING COMMENCEMENT OF THE WORK
3. NOTICE OF MANAGER (IN CHARGE & DESIGN) / NO OBJECT
4. THESE DIMENSIONS SHALL BE FOLLOWED
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED
6. THIS DRAWING IS TO BE CONSIDERED WITH ALL THE
7. THESE DIMENSIONS ARE TO BE FOLLOWED
8. FOR NOTES & CLARIFICATIONS SEE DRAWING NO. 03/01/19-2



NATIONAL INSTITUTE OF CHOLERA & ENTERIC DISEASES	
CLIENT	I.C.M.R. CALCUTTA
PROJECT	CHOLERA RESEARCH CENTRE
SCALE	1:1000 IN THIS
PLUMBING DRAWING	
GROUND FLOOR PLAN	
FIRST FLOOR PLAN	



Waste Water System

Waste Water Treatment System

1. Inlet Water Flow Rate
 - Sewage Waste Water: 15m³/day
 - Experiment Waste Water: 25m³/day
 - Animal Waste Water: 10m³/day
 - Total: 50m³/day
2. Raw Water Quality
 - Sewage Waste Water: BOD 200mg/L
 - Experiment Waste Water: PH 4-10
 - Animal Waste Water: BOD 100mg/L
 - SS: 1,000mg/L
3. Treated Water Quality (Animal Waste Water)
 - BOD 30mg/L, SS 100mg/L, COD 250mg/L, PH 6-9
4. Treatment System
 - 4-1 Sewage Waste Water: Settling System for SS
 - 4-2 Experiment Waste Water: Neutralization System for PH control
 - 4-3 Animal Waste Water: Contact Aeration System for the Removal BOD



NIHON SEKKEI, INC.

Planning, Architecture, Engineering, Project Management

APPROVED	DESIGN
CHECKED	
SCALE	

The Project for Construction of
Clinical Research and Control Centre

FILE
Drawings for Drainage Water Treatment System
AS-S-0017
SCALE
1/50 SCALE

NO. 4231
MECHANICAL