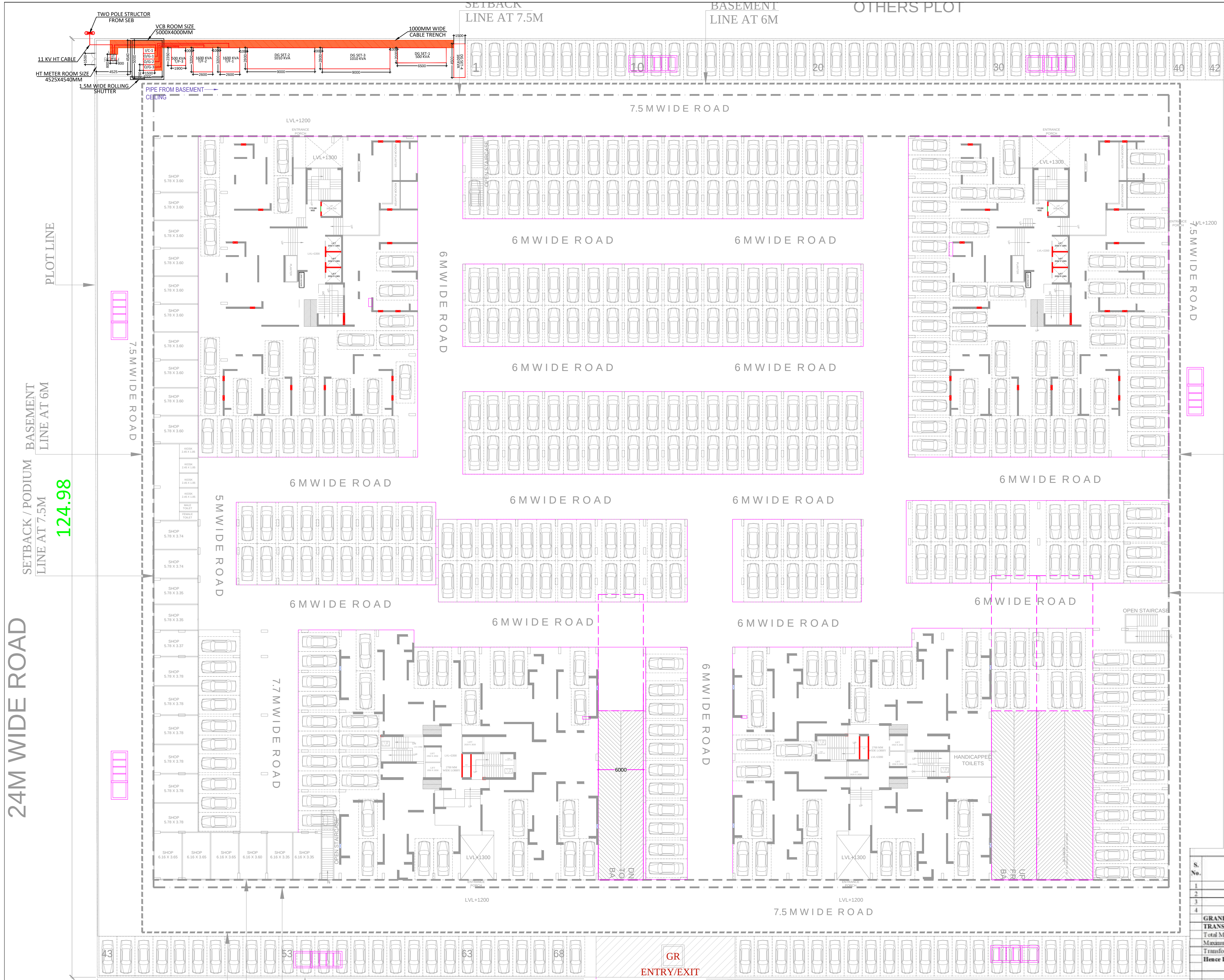




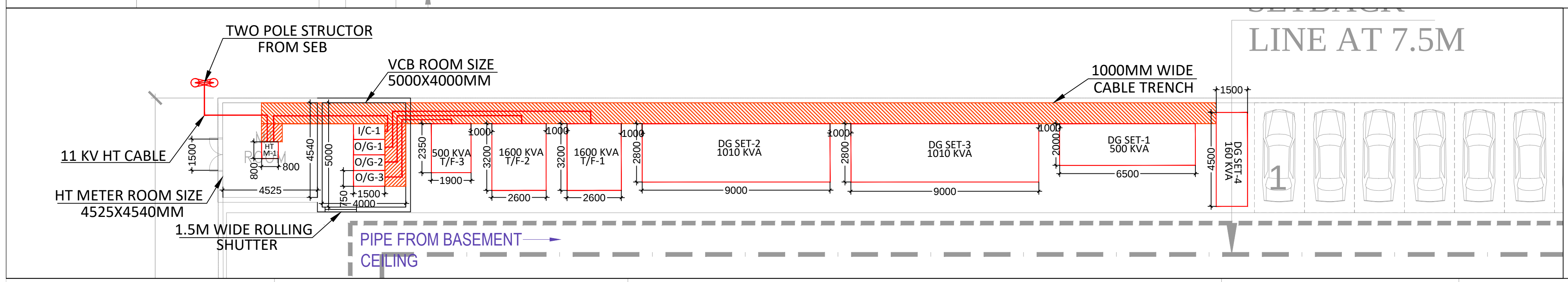
ELECTRICAL LEGEND

-----	LT CABLE
-----	HT CABLE
	CABLE TRENCH
NOTE:	LT CABLE BELOW 700 MM HT CABLE BELOW 900 MM

AREA CHART DETAIL				
S NO.	AREA DETAIL	PERMISSIBLE AREA DETAIL	PROPOSED AREA DETAIL	% AREA DETAIL
1	PLOT AREA	18819.39		
2	F.A.R. @ 3.5	65867.87		
3	GREEN BUILDING F.A.R. @ 5%*3.675	3293.37		
4	FAR AREA FOR RESIDENTIAL	68502.56	68452.98	99.9
5	FAR AREA FOR COMMERCIAL @1%	658.68	657.37	99.8
6	ANCILLARY AREA 15%	9880.18	9879.57	100.0
7	TOTAL F.A.R. @ 3.5 + 15% ANCILLARY AREA + 5% GREEN BUILDING	79041.41	78989.92	99.9
8	GROUND COVERAGE @ 35%	6586.79	4378.59	66.5
9	REQUIRED GREEN AREA 50% OF OPEN AREA	7220.40	8771.16	121.5
10	NO. OF UNITS	878	568	64.7
11	DENSITY CALCULATION LEASE DEED / B.B.L PER UNIT PERSON	3952	2556	64.7
		2100	1358	64.7

AREA CALCULATIONS				
PLOT AREA			18819.390	SQM
BUILT UP AREA CALCULATIONS				
DESCRIPTION	FLOOR PLATE AREA	NO.OF FLOORS	NO.OF TOWERS	TOTAL AREA
LOWER BASEMENT	12447.036	1	----	12447.036 SQM
UPPER BASEMENT	15653.781	1	----	15653.781 SQM
PODIUM/STILT	12724.191	1	----	12724.191 SQM
METER ROOM	25.000	1	----	25.000 SQM
GUARD ROOM	9.000	1	----	9.000 SQM
COMMERCIAL AT GROUND	657.369	1	----	657.369 SQM
COMMUNITY FACILITY AT PODIUM	892.803	2	----	892.803 SQM
TOWER-A&D (4BHK FLOOR)				
TYPICAL FLOOR (4 UNITS)	653.869	26	2	34001.188 SQM
REFUGE FLOOR (4 UNITS)	683.536	2	2	2734.144 SQM
29TH FLOOR (2 UNITS)	381.263	1	2	762.526 SQM
TOWER-B&C (3BHK FLOOR)				
TYPICAL FLOOR (6 UNITS)	678.224	26	2	35267.648 SQM
REFUGE FLOOR (4 UNITS)	708.833	2	2	2835.332 SQM
29TH FLOOR (2 UNITS)	306.746	1	2	613.492 SQM
ARCHITECTURE ELEMENT	24.98	----	----	24.980 SQM
MACHIN ROOM	93.96	----	----	93.960 SQM
WATER TANK	113.55	----	----	113.550 SQM
TOTAL				118856.000 SQM

ELECTRICAL LOAD CALCULATION							
S. No.	DESCRIPTION	NO OF TOWERS	Floor Plate Area(Sqft)	Total Floors	Total Area(Sqft)	Load per Sqft	Demanded load
1	4 BHK Floor	2	8549.34	28	478763.24	5.00 W	2393.82 KW
2	4 BHK 29th Floor	2	4763.03	1	9526.06	5.00 W	47.63 KW
3	3 BHK Floor	2	8968.92	28	502259.56	5.00 W	2511.30 KW
4	3 BHK 29th Floor	2	3927.00	1	7853.99	5.00 W	39.27 KW
GRAND TOTAL							2496.01 KW
TRANSFORMER SELECTION							
Total Maximum Demand Load on Transformer considering 100% Overall Diversity							2496.01 KW
Maximum Demand Load in KVA (Power Factor@0.95)							2617.38 KVA
Transformer Capacity Considering 80% Loading							3284.22 KVA
Hence It is propose to install 2 Nos. 1600 KVA, 11KV/433V Oil Filled Transformer for residential Areas							
COMMON SERVICES							
1	LIFT LOAD	12			180.00 KW		80%
2	PLUMBING LOAD				30.00 KW		80%
3	EXTERNAL LIGHTING				10.00 KW		80%
4	STP LOAD				45.00 KW		80%
5	FIRE FIGHTING LOAD				400.00 KW		5%
6	CLUB	1	810.00	15.00 W	12.15 KW		75%
7	COMMON AREA LOAD FOR ALL TOWERS				20.00 KW		80%
8	BASEMENT VENTILATION				240.00 KW		50%
TOTAL							377.11
TRANSFORMER SELECTION							
Total Maximum Demand Load on Transformer considering 100% Overall Diversity							377.11 KW
Maximum Demand Load in KVA (Power Factor@0.95)							396.96 KVA
Transformer Capacity Considering 80% Loading							496.20 KVA
Hence It is Proposed to install 1 No.500 KVA 11KV/433V Oil Filled Transformer for common services & Community Centre.							
DG SELECTION							
Total Maximum Demand Load on DG for Common Services							377.11 KW
Total Maximum Demand Load on DG for Residential and Commercial Areas							2496.01 KW
Sub Total							2873.12 KW
Considering 75% Diversity							2154.84 KW
Maximum Demand Load in KVA (Power Factor@0.95)							2268.25 KVA
DG Capacity Considering 85% Loading							2668.53 KVA
Hence It is propose to install No. 2 No. 1010 KVA DG Set, 1 No. 500 KVA and 1 No 160 KVA DG Sets							



GENERAL NOTE:- In normal case all three lamps shall be "ON" to indicate that incoming power supply is available. In case of power resumption after failure buzzer shall ring to indicate that power supply is resume, there shall be one push button to acknowledge the same.

Electrical SLD Confirming The Location of all Energy Meter.
(Common Area Lighting, Exterior Area Lighting, Energy Meter For Lifts STP, Pump & Motors, Club House, Dg Sets, Regeneration)

UNIT TRIPPING PROVIDED FOR REF LT CIRCUIT BREAKER & HT CIRCUIT BREAKER BOTH

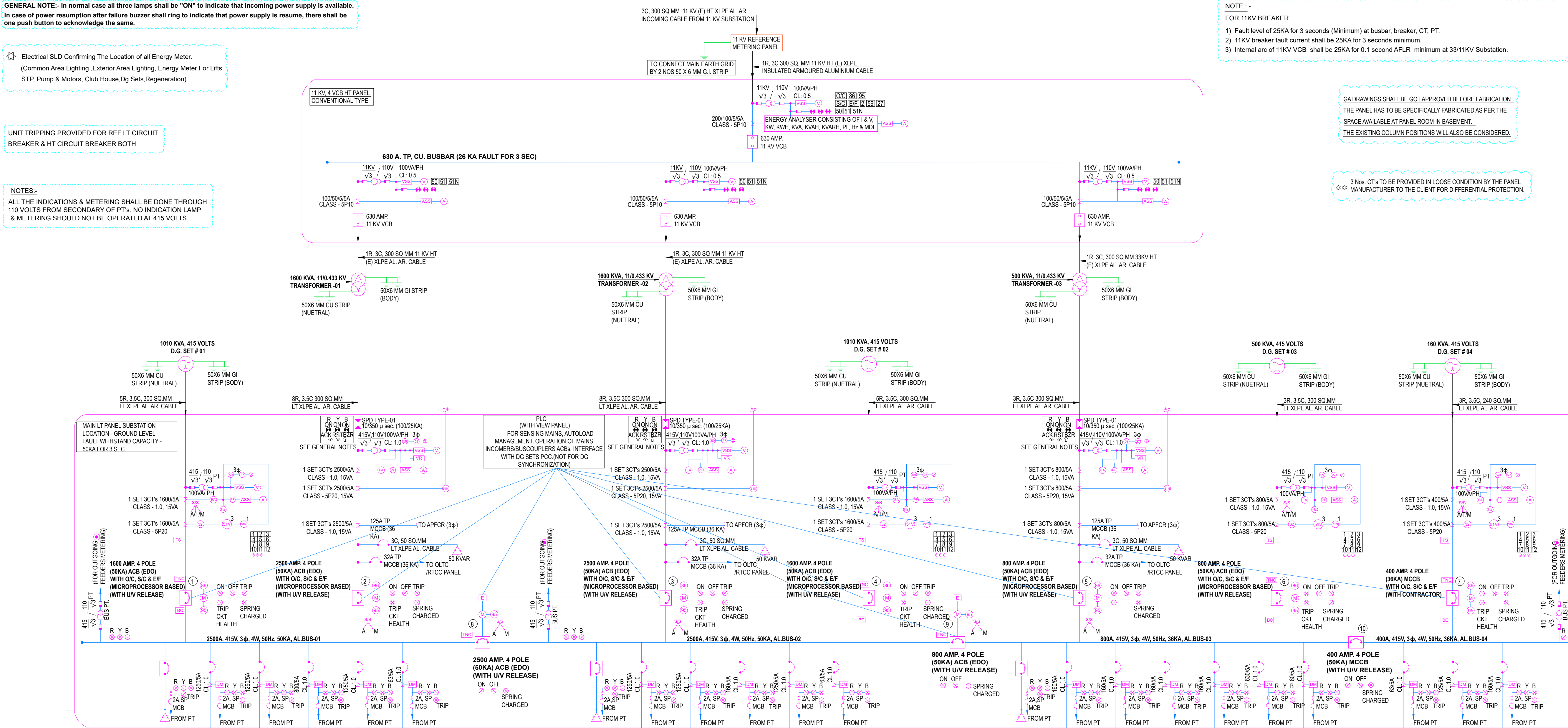
NOTES:-
ALL THE INDICATIONS & METERING SHALL BE DONE THROUGH 110 VOLTS FROM SECONDARY OF PT'S. NO INDICATION LAMP & METERING SHOULD NOT BE OPERATED AT 415 VOLTS.

NOTE :-
FOR 11KV BREAKER
1) Fault level of 25KA for 3 seconds (Minimum) at busbar, breaker, CT, PT.
2) 11KV breaker fault current shall be 25KA for 3 seconds minimum.
3) Internal arc of 11KV VCB shall be 25KA for 0.1 second AFLR minimum at 33/11KV Substation.

GA DRAWINGS SHALL BE GOT APPROVED BEFORE FABRICATION. THE PANEL HAS TO BE SPECIFICALLY FABRICATED AS PER THE SPACE AVAILABLE AT PANEL ROOM IN BASEMENT. THE EXISTING COLUMN POSITIONS WILL ALSO BE CONSIDERED.

3 Nos. CT's TO BE PROVIDED IN LOOSE CONDITION BY THE PANEL MANUFACTURER TO THE CLIENT FOR DIFFERENTIAL PROTECTION.

LEGENDS	
SYMBOL	DESCRIPTION
	33 KV VCB (VACUUM CIRCUIT BREAKER)
	ACB (AIR CIRCUIT BREAKER)
	SURGE PROTECTION DEVICES (MCCBS)
	POTENTIAL TRANSFORMER
	CURRENT TRANSFORMER
	AMMETER
	VOLTMETER
	AMMETER SELECTOR SWITCH
	VOLTMETER SELECTOR SWITCH
	INDICATING LAMP
	ENERGY ANALYSER WITH MDI
	POWER FACTOR METER
	FREQUENCY METER
	CAPACITOR
	VOLTAGE RELAY
	M.C.B. (MINIATURE CIRCUIT BREAKER)
	DUAL REGISTER ENERGY METER
	KILO VOLT AMPERE HOUR METER
	ISOLATOR
	PUSH BUTTON
	SELECTOR SWITCH
	TRIP/NORMAL/CLOSE SWITCH WITH LOST MOTION DEVICE
	ANNUNCIATION WINDOW WITH
	IDMT EARTH FAULT RELAY
	SENSITIVE EARTH FAULT RELAY
	VOLTAGE RESTRAINED OVER CURRENT RELAY
	MASTER TRIP RELAY
	OVER VOLTAGE RELAY
	TRIP CIRCUIT SUPERVISION RELAY
	RESTRICTED EARTH FAULT RELAY
	INST. O/C RELAY
	IDMT RELAY
	IDMT & INSTANTANEOUS RELAY
	OVER VOLTAGE RELAY WITH TIMER
	UNDER VOLTAGE RELAY WITH TIMER
	REVERSE POWER RELAY
	BATTERY RELAY
	DIFFERENTIAL RELAY
	TEMPERATURE SCANNER



FEEDER NUMBER	F - 1	F - 2	F - 3	F - 4	F - 5	F - 6
CIRCUIT BREAKER RATING IN AMPS	1600 A TP EDO ACB (50 KA)	1250 A FP EDO ACB (50 KA)	1250 A FP EDO ACB (50 KA)	800 A FP EDO ACB (50 KA)	1250 A FP EDO ACB (50 KA)	63 A FP MCCB (26 KA)
CABLE SIZE IN SQ. MM. 'AL'	---	4R, 3.5C, 300	4R, 3.5C, 300	3R, 3.5C, 300	---	---
FEEDER DESCRIPTION	CAP. PANEL-01, 640 KVAR	RISING MAINS TOWER - A	RISING MAINS TOWER - D	FIRE FIGHTING	SPARE	SPARE

FEEDER NUMBER	F - 7	F - 8	F - 9	F - 10	F - 11	F - 12
CIRCUIT BREAKER RATING IN AMPS	1600 A TP EDO ACB (50 KA)	1250 A FP EDO ACB (50 KA)	1250 A FP EDO ACB (50 KA)	160 A FP MCCB (26 KA)	1250 A FP EDO ACB (50 KA)	63 A FP MCCB (26 KA)
CABLE SIZE IN SQ. MM. 'AL'	---	4R, 3.5C, 300	4R, 3.5C, 300	1R, 3.5C, 70	---	---
FEEDER DESCRIPTION	CAP. PANEL-02, 640 KVAR	RISING MAINS TOWER - B	RISING MAINS TOWER - C	CLUB	SPARE	SPARE

FEEDER NUMBER	F - 13	F - 14	F - 15	F - 16	F - 17	F - 18	F - 19
CIRCUIT BREAKER RATING IN AMPS	500 A TP MCCB (36 KA)	160 A FP MCCB (26 KA)	160 A FP MCCB (26 KA)	160 A FP MCCB (26 KA)	160 A FP MCCB (26 KA)	630 A FP MCCB (36 KA)	80 A FP MCCB (26 KA)
CABLE SIZE IN SQ. MM. 'AL'	---	1R, 3.5C, 120	1R, 3.5C, 120	1R, 3.5C, 120	1R, 3.5C, 120	2R, 3.5C, 240	1R, 3.5C, 70
FEEDER DESCRIPTION	CAP. PANEL-03, 200 KVAR	COMMON AREA PANEL FOR TOWER-A	COMMON AREA PANEL FOR TOWER-D	COMMON AREA PANEL FOR TOWER-B	COMMON AREA PANEL FOR TOWER-C	BASEMENT VENTILATION	PLUMBING

FEEDER NUMBER	F - 20	F - 21	F - 22
CIRCUIT BREAKER RATING IN AMPS	63 A FP MCCB (26 KA)	125 A FP MCCB (26 KA)	160 A FP MCCB (26 KA)
CABLE SIZE IN SQ. MM. 'AL'	---	1R, 3.5C, 35	1R, 3.5C, 50
FEEDER DESCRIPTION	EXTERNAL LIGHTING	STP	SPARE

AREA CALCULATIONS				
PLOT AREA	FLOOR PLATE AREA	NO. OF FLOORS	NO. OF TOWERS	TOTAL AREA
18819.390 SQM	18819.390	2	2	38000.180 SQM
TOTAL AREA (SQM)				
LOWER BASEMENT	13487.036	1	1	13487.036 SQM
UPPER BASEMENT	15853.791	1	1	15853.791 SQM
GROUND FLOOR	12724.191	1	1	12724.191 SQM
ROOF TOP	15853.791	1	1	15853.791 SQM
WATER TANK	9.000	1	1	9.000 SQM
COMMERCIAL AT GROUND	657.369	2	2	657.369 SQM
AT TOWER	657.369	2	2	657.369 SQM
TOTAL AREA (SQM)				
18819.390	18819.390	2	2	38000.180 SQM
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