

POWER LEGEND	
SYMBOL	DESCRIPTION
	SINGLE 13A SWITCHED SOCKET OUTLET(UPS POWER)
	SINGLE 13A SWITCHED SOCKET OUTLET (NORMAL POWER)
	SINGLE 13A SWITCHED SOCKET OUTLET(WEATHER PROOF)
	CEILING MOUNTSINGLE 13A SWITCHED SOCKET OUTLET (NORMAL POWER)
	TWIN 13A SWITCHED SOCKET OUTLET(UPS POWER)
	TWIN 13A SWITCHED SOCKET OUTLET (NORMAL POWER)
	FUSED ISOLATOR SWITCH C/W NEON INDICATOR
	20A SWITCHED & FUSED SPUR OUTLET WITH NEON INDICATOR(CEILING MOUNTED).
	TP & N ISOLATOR
	RJ45 VOICE /DATAOUTLET
	MAIN DISTRIBUTION BOARD.
	SUB MAIN MCCB DISTRIBUTION BOARD.
	DISTRIBUTION BOARD.
	SINGLE POLE M.C.C.B
	TRIPLE POLE M.C.C.B
	EARTH LEAKAGE CIRCUIT BREAKER.
	WITHDRAWABLE TYPE AIR CIRCUIT BREAKER.
	N/A ISOLATOR.
	CAPACITOR BANK.
	EARTH CONNECTION.
	EARTH PIT.
	KILO WATT HOUR METER (CT OPERATED TYPE).
	KILO WATT HOUR METER (DIRECT READING TYPE).
	MOTOR CONTROL CENTER.
	ANTI CONDENSATION HEATER.
	POWER FACTOR METER.
	PHASE INDICATION LAMP.
	VOLT METER – DIGITAL.
	AMMETER – DIGITAL.
	SELECTOR SWITCH.
	STAR – DELTA STARTER.
	UVR + TIMER + CONTACTOR.
	LIGHTING CONTROL PANEL.
	KILOWATT HOUR WATER CABINET.

LIGHTING L LEGEND	
SYMBOL	DESCRIPTION
	LED FIXTURE
	EMERGENCY – LED FIXTURE
	WALL MOUNTED FIXTURE
	RECESSED CAN CEILING FIXTURE
	EMERGENCY – RECESSED CAN CEILING FIXTURE
	EXIT LIGHT
	CEILING MOUNTED EXIT LIGHT SHOWING DIRECTION FOR EXIT DOOR
	SINGLE POLE SWITCH 1200mm A.F.F. U.N.O.
	THREE-WAY TOGGLE SWITCH 1200mm A.F.F. U.N.O.
	FOUR-WAY TOGGLE SWITCH 1200mm A.F.F. U.N.O.

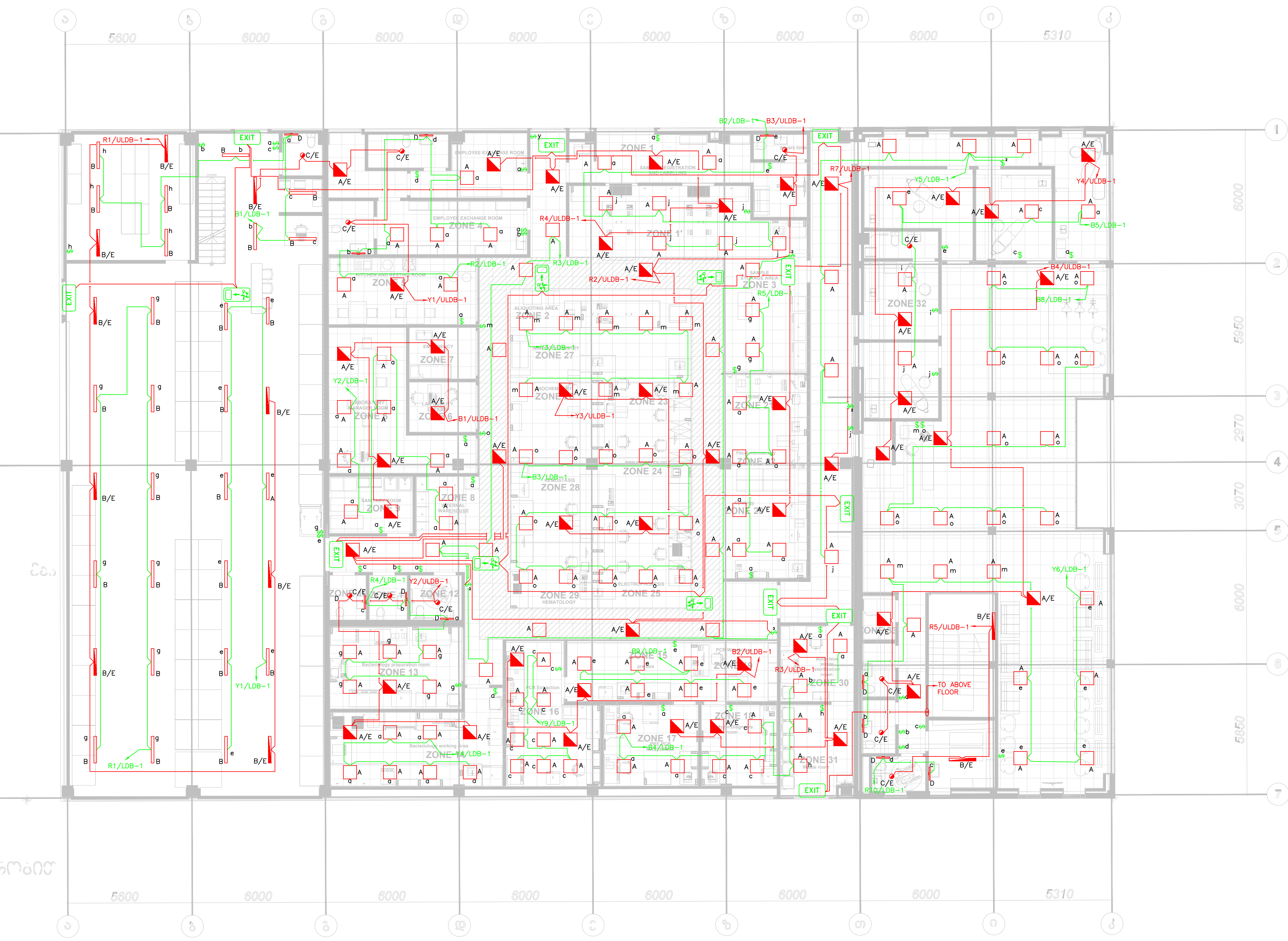
LIGHT FIXTURE SCHEDULE							
MARK	DESCRIPTION	LAMPS				WATTS PER FIXTURE	MANUFACTURER & MODEL
		TYPE	VOLT	COLOR	LUMENS		
A	60X60 RECESSED SQUARE LIGHT FIXTURE	LED	220/230	4000K	3991	36W	PHILIPS RC048B LED40S 840 W60L60 LA
B	LINEAR LIGHT LED FIXTURE	LED	220/230	4000K	6400	49W	PHILIPS BN126C L1200 LED64S/- NO
C	RECESSED DOWNLIGHT FIXTURE	LED	220/230	4000K	2500	21.5W	PHILIPS DN571B PSE-E C
D	600mm MIRROR LED LIGHT FIXTURE	LED	220/230	4000K	1373	9.5W	PHILIPS

FIRE ALARM SYMBOLS		
SYMBOL	DESCRIPTION	MOUNTING
	SMOKE DETECTOR	CEILING MOUNT
	MULTI DETECTOR	CEILING MOUNT
	HEAT DETECTOR	CEILING MOUNT
	FIRE ACCESS CONTROL PANEL	TOP OF PANEL 1800mm AFFL
	MANUAL CALL POINT	1200mm AFFL
	VISUAL STROBE LIGHT	2100mm AFFL
	SOUNDER	2100mm AFFL
	SOUNDER AND STROBE LIGHT	2100mm AFFL
	CEILING SOUNDER AND STROBE LIGHT	CEILING MOUNT

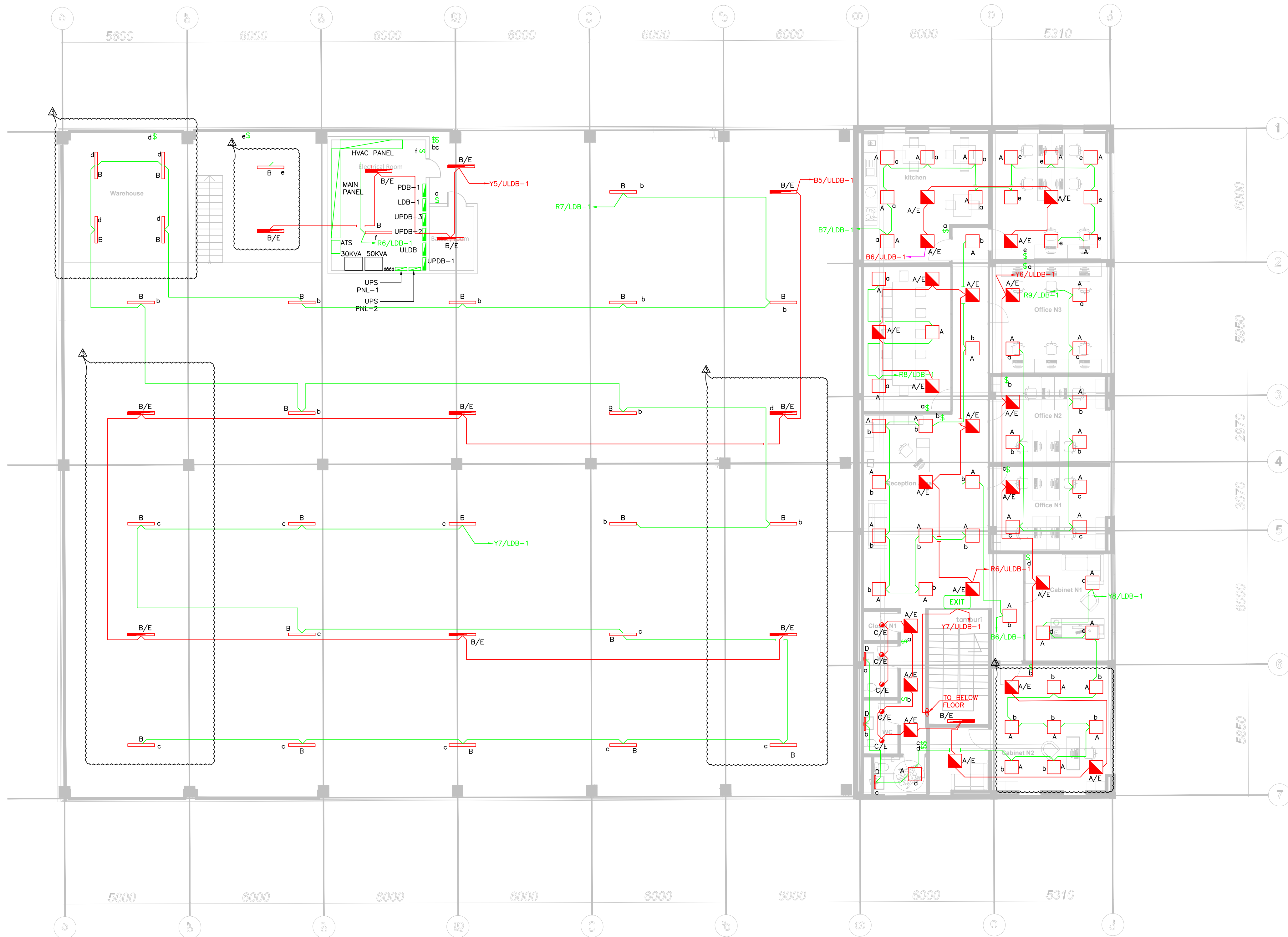
GENERAL NOTES:

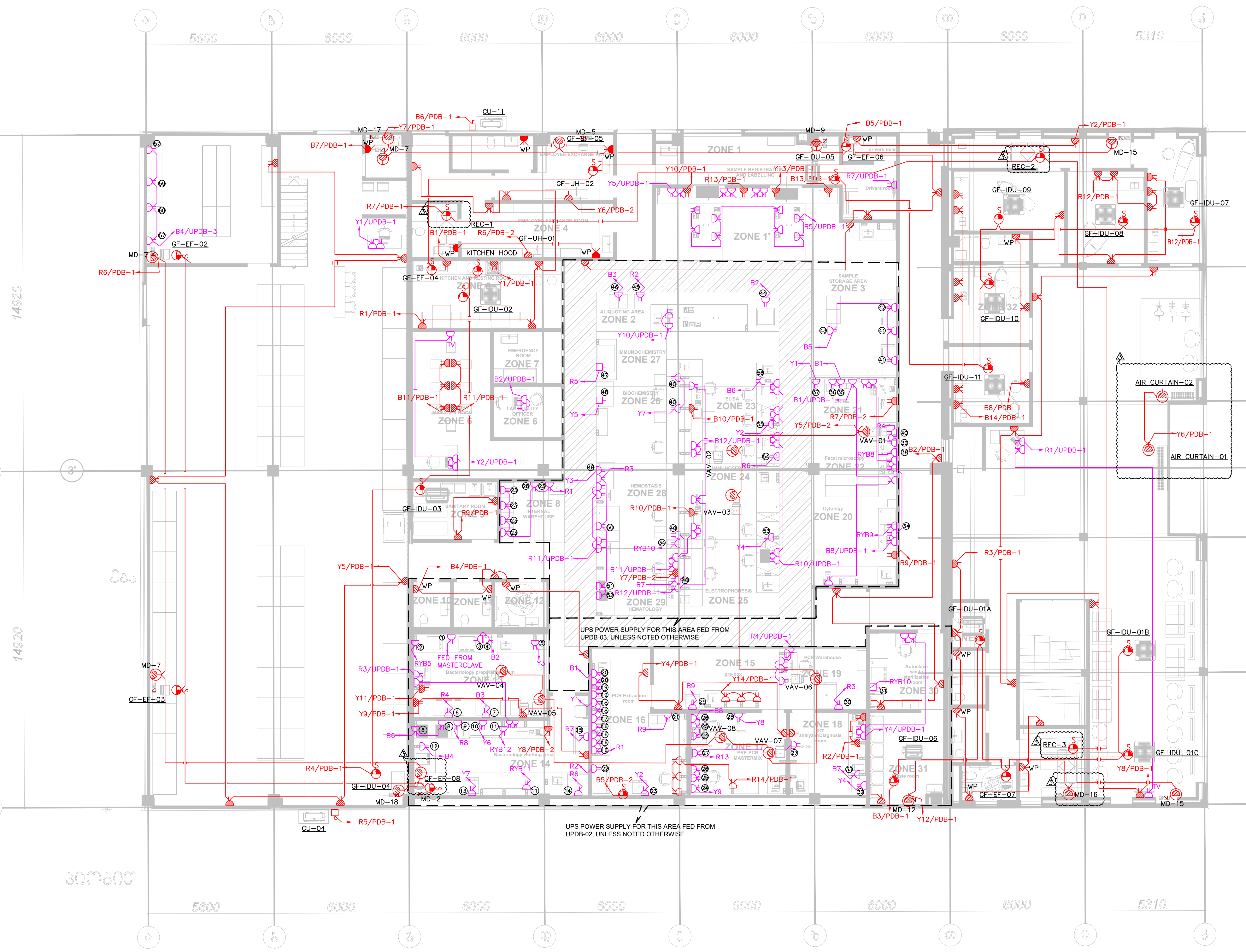
- ALL CONDUCTORS SHALL BE COPPER IN CONDUIT UNLESS NOTED TO BE ALUMINUM (FEEDERS).
- PROVIDE A SEPARATE NEUTRAL CONDUCTOR WITH EACH 20A., 230V. POWER CIRCUIT
- ALL 20 AMP, 230 VOLT POWER CIRCUITS SHALL CONSIST OF 2.5 SQmm CONDUCTORS UNLESS INDICATED OTHERWISE.
- ALL EMPTY CONDUITS SHALL BE INSTALLED WITH PULLWIRE PER SPECIFICATIONS.
- ALL SURFACE PATCHING AND FINISHING SHALL BE BY THE ELECTRICAL CONTRACTOR OR TO POINT CONSISTENT WITH G.C. RESPONSIBILITIES.
- ALL WIRING AND CONDUIT SHALL BE INSTALLED CONCEALED ABOVE ALL LAY-IN CEILING SYSTEMS. WHERE WIRING IS REQUIRED TO BE RUN EXPOSED ALONG WALLS AND CEILINGS, IT SHALL BE RUN IN METAL SURFACE RACEWAY (WIREMOLD UNLESS INDICATED OTHERWISE – COORDINATE EXACT SERIES NUMBER WITH OWNER AND PROVIDE ACCORDINGLY) MOUNTED TIGHT TO EXISTING SURFACE MATCHING CONTOUR OF BUILDING LINES AND PAINTED TO MATCH SURFACES ON WHICH THEY ARE MOUNTED. COORDINATE ALL LOCATIONS AND ROUTES WITH ENGINEER PRIOR TO ROUGH-IN.
- ALL EXTERIOR EXPOSED CONDUIT ABOVE GRADE SHALL BE RIGID GALVANIZED METALLIC WITH ALL STEEL FITTINGS, PAINTED TO MATCH SURFACES ON WHICH THEY ARE MOUNTED.
- ALL EXTERIOR MOUNTED CONDUIT SHALL BE SEALED WATER AND MOISTURE TIGHT. ALL EXTERIOR MOUNTED DEVICES SHALL BE WEATHERPROOF NEMA 3R, UNLESS OTHERWISE NOTED.
- E.C. IS RESPONSIBLE TO PROVIDE CONCRETE PADS FOR ALL ELECTRIC EQUIPMENT ASSOCIATED WITH HIS WORK, NOT ALL CONCRETE PADS ARE NECESSARILY INDICATED OR SPECIFIED ON THE DRAWINGS AND SPECIFICATIONS. COORDINATE EXACT SIZE, REINFORCING AND OTHER SPECIFIC REQUIREMENTS WITH THE APPROPRIATE EQS AND PROVIDE ACCORDINGLY.
- PROVIDE ACOUSTICAL OUTLET BACKER PUTTY PAD ON DEVICE JUNCTION BOXES MOUNTED IN AIC (ACOUSTICALLY ISOLATED CONSTRUCTION) WALLS. SEALANT TO BE MANUFACTURED BY KINETICS (ISO BACKER), ACOUSTICAL SOLUTIONS (QUIET PUTTY) OR SOUND PROOFING COMPANY(PUTTY PADS). PENETRATION IN ACOUSTICAL WALLS DENOTED ON ARCHITECTURAL DRAWINGS AND/OR DEVICE MOUNTING ON/IN ACOUSTICAL WALLS TO BE COORDINATED.
- THIS CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES, MISCELLANEOUS CONDUITS AND PIPING PRIOR TO ANY DIGGING. ANY DAMAGE TO ABOVE MENTIONED ITEMS SHALL BE HIS RESPONSIBILITY TO REPAIR.
- COORDINATE EXACT ROUTE OF ALL UNDERGROUND CONDUITS WITH CIVIL ENGINEER AT SITE PRIOR TO EXCAVATION UTILIZE LONG SWEEPING BENDS ON ALL UNDERGROUND CONDUITS.
- FIRESTOPPING ASSEMBLIES SHALL BE PROVIDED AT PENETRATIONS OF CONDUITS, BUS DUCTS, CABLES, CABLE TRAYS AND OTHER ELECTRICAL ITEMS THRU FIRE RATED FLOORS, FIRE RATED FLOOR-CEILING AND ROOF CEILING ASSEMBLIES, FIRE RATED WALLS AND PARTITIONS AND FIRE RATED SHAFT WALLS AND PARTITIONS. IN ADDITION, FIRESTOPPING ASSEMBLIES SHALL BE PROVIDED AT PENETRATIONS THRU 0-HOUR RATED FLOORS.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES, WHERE REFLECTED CEILING PLANS INDICATE A LARGER QUANTITY OF LIGHTING FIXTURES THAN THAT SHOWN ON THE ELECTRICAL DRAWINGS FOR A PARTICULAR SPACE, THE REFLECTED CEILING PLANS SHALL BE FOLLOWED FOR THAT SPACE.
- VERIFY EXACT LOCATION OF ALL LIGHTING FIXTURES WITH REFLECTED CEILING PLAN AND /OR ARCHITECT PRIOR TO ROUGH-IN. COORDINATE LOCATIONS OF LIGHTING FIXTURES WITH MECHANICAL DUCTS AND SPRINKLE PIPES AND HEADS BEFORE ROUGH-IN TO PREVENT CONFLICTS.
- STAGGER SOCKETS AND OTHER RECESSED OUTLETS WHEN LOCATED ON OPPOSITE SITES OF PARTITION TO ELIMINATE SOUND TRANSMISSION FROM ONE SPACE TO THE OTHER. CENTER DEVICES WHERE APPLICABLE IN EACH WALL SECTION.
- EXACT LOCATION OF ALL DEVICES SERVING EQUIPMENT TO BE VERIFIED AT SITE WITH OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
- COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF ALL NEW ELECTRICAL DEVICES WITH THE ARCHITECT PRIOR TO ROUGH-IN. DEVICES SHALL INCLUDE ALL NEW WORK INDICATED ON THE DRAWINGS; INCLUDING BUT NOT LIMITED TO POWER RECEPTACLES, TV OUTLET, LIGHTING CONTROLS AND SWITCHES.
- ALL SOCKETS AND DATA OUTLETS TO BE MOUNTED AT 450mm M.H. UNLESS OTHERWISE NOTED. DATA OUTLETS LOCATED ADJACENT TO TWIN SOCKET AND DOUBLE TWIN SOCKET SHALL BE MOUNTED AT THE SAME M.H. WITH THE RESPECTIVE SOCKET.
- E.C. IS RESPONSIBLE TO COORDINATE ALL DEVICE LOCATIONS WITH CASEWORK DRAWINGS AND ARCHITECT PRIOR TO ROUGH-IN TO AVOID CONFLICTS. ANY DEVICE LOCATION NOT PROPERLY COORDINATED WITH CASEWORK, FURNITURE, WHITEBOARDS, ETC SHALL BE THE COST RESPONSIBILITY OF THE E.C. TO RELOCATE PROPERLY.
- ALL WIRING AND CABLING MOUNTED ABOVE CEILINGS SHALL BE PLENUM RATED.
- THE NOTES AND SYMBOLS SET DOWN ON THESE DRAWINGS ARE FOR THE GUIDANCE OF ALL TRADES INVOLVED IN THE PROJECT AND MUST BE FOLLOWED TO EXECUTE THE WORK AS INTENDED.
- IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. SEE SPECIFICATIONS FOR MORE SPECIFIC DETAILS ON RESPONSIBILITIES .
- FIELD VERIFY DIMENSIONAL INFORMATION PRIOR TO ORDERING EQUIPMENT. DO NOT SCALE DRAWINGS.
- DIMENSIONS ARE TYPICALLY INDICATED TO THE FINISHED FACE OF WALLS OR PARTITIONS AND CENTER LINES OF COLUMNS UNLESS OTHERWISE INDICATED.
- ALL WORK SHALL BE PERFORMED IN COMPLETE COMPLIANCE WITH ALL GOVERNING CODES AND STANDARDS.

ELECTRICAL SHEET INDEX	
SHEET NUMBER	SHEET NAME
E0.0	ELECTRICAL GENERAL NOTES & LEGENDS
E1.1	LIGHTING LAYOUT-GROUND FLOOR
E1.2	LIGHTING LAYOUT-FIRST FLOOR
E2.1	POWER LAYOUT-GROUND FLOOR
E2.2	POWER LAYOUT-FIRST FLOOR
E2.3	POWER LAYOUT-ROOF
E3.1	FIRE ALARM LAYOUT-GROUND FLOOR
E3.2	FIRE ALARM LAYOUT-FIRST FLOOR
E4.1	RISER DIAGRAM & PANEL SCHEDULE
E4.2	PANEL SCHEDULE SHEET 01 OF 02
E4.3	PANEL SCHEDULE SHEET 02 OF 02



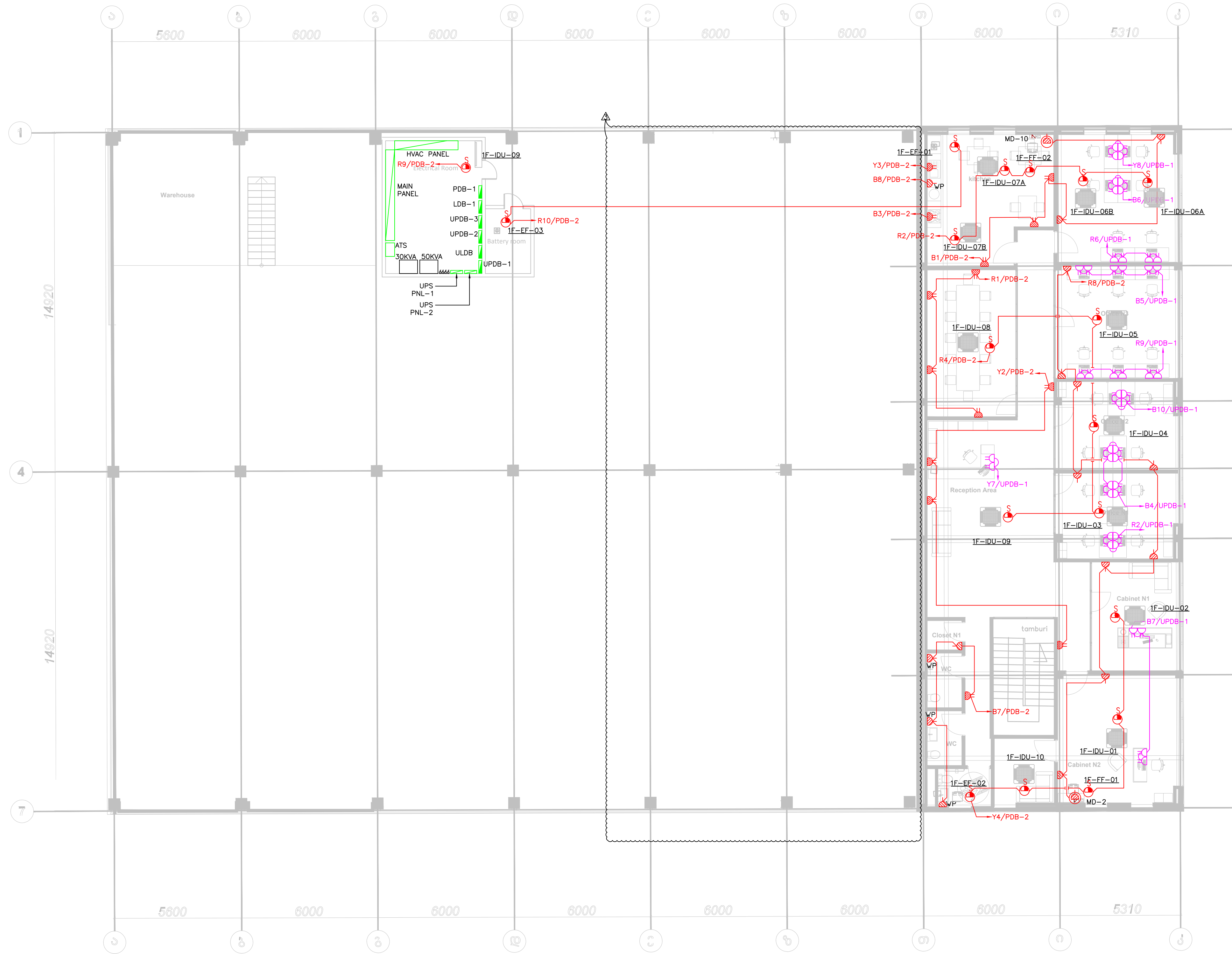
LIGHTING LAYOUT-GROUND FLOOR



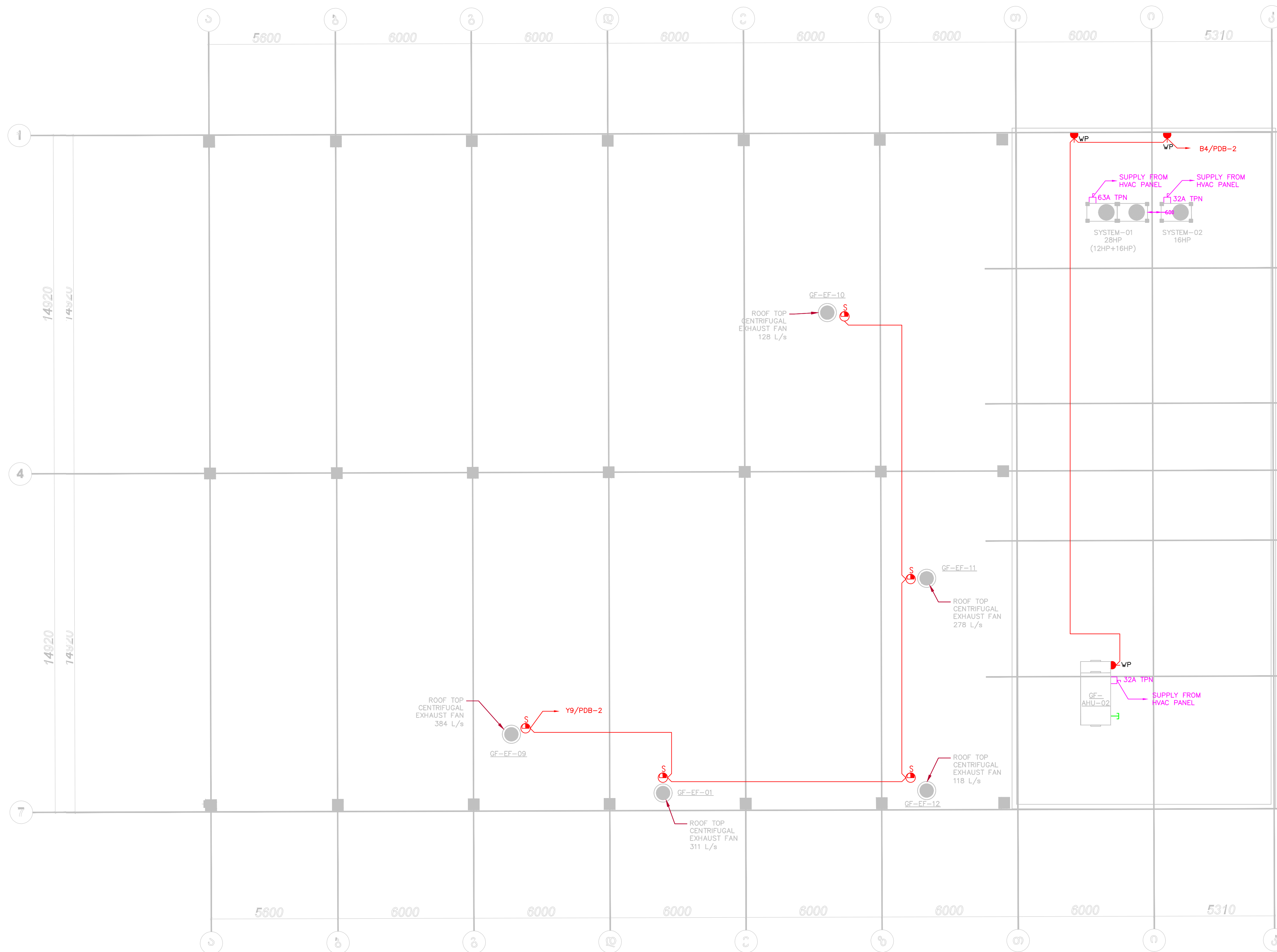


Number	Zone purpose	ITEM	MODEL	Electric power consumption
1	Bacteriology preparation room	Master Clave	Masterclave 10	Power Consumption : 8000 W Power Supply : 230V three phase 60Hz
2	Bacteriology preparation room	Media preparator	APS ONE	Power Consumption : 100 W Power Supply : 230V single phase 50/60Hz
3	Bacteriology preparation room	Scale	BA303C	Power Consumption : 100 W Power Supply : 230V single phase 50/60Hz
4	Bacteriology preparation room	Ph-Meter	PHS-25CW/3BW	Power Consumption : 100 W Power Supply : 230V single phase 50/60Hz
5	Bacteriology preparation room	Water bath	SWB-A	Power Consumption : 2000 W Power Supply : 230V single phase 50/60Hz
6	Bacteriology preparation room	Biosafety Cabinet Class 2	BSC-4FA2(E)	Power Consumption : 500 W Power Supply : 230V single phase 50/60Hz
7	Bacteriology preparation room	two door refrigerator (+2+8) degree fridge	BPR-SV588	Power Consumption : 540 W Power Supply : 230V single phase 50/60Hz
8	Bacteriology working room	DNI 80	DNI-80	Power Consumption : 700 W Power Supply : 230V single phase 50/60Hz
9	Bacteriology working room	Centrifuge (Բեմճ գաճաճընճ)	3-SN Urine Sediment Centrifuge	Power Consumption : 450 W Power Supply : 230V single phase 50Hz
10	Bacteriology working room	Biosafety Cabinet Class 2	BSC-4FA2(E)	Power Consumption : 500 W Power Supply : 230V single phase 60Hz
11	Bacteriology working room	Microscope	Leica DM3000 LED	Power Consumption : 300 W Power Supply : 230V single phase 50/60Hz
12	Bacteriology working room	Bactalari 3D 120	Bactalari 3D 120	Power Consumption : 640 W Power Supply : 230V single phase 50Hz
13	Bacteriology working room	Vitec 2 compact	Vitec 2 compact 30	Power Consumption : 100 W Power Supply : 230V single phase 50/60Hz
14	Bacteriology working room	(-80) 1 door refrigerator	BDF-86V408	Power Consumption : 890 W Power Supply : 230V single phase 50/60Hz
15	PCR Extraction room	two door refrigerator (+2+8) degree fridge	BPR-SV588	Power Consumption : 540 W Power Supply : 230V single phase 50/60Hz
16	PCR Extraction room	Vortex Mixer (գաճաճընճան Բեմճ)	V-32, Multi-vortex, incl. Platforms PL-1, PL-32	Power Consumption : 3.8 W Power Supply : 230V single phase 50/60Hz
17	PCR Extraction room	UP Vortex Mixer (գաճաճընճան Բեմճ)	V-1 plus Personal Vortex	Power Consumption : 3.8 W Power Supply : 230V single phase 50/60Hz
18	PCR Extraction room	High speed centrifuge table top	HETTICH Microfuge Centrifuge, Without Rotor MK80	Power Consumption : 390 W Power Supply : 230V single phase 50/60Hz
19	PCR Extraction room	Dry heat block	TS-100C, Thermo-Shaker for microtubes and PCR plates 85-010120-AA / 5C-24NC, Block for 2x1.5ml microtubes and 96-well	Power Consumption : 60 W Power Supply : 230V single phase 50/60Hz
20	PCR Extraction room	Personal minifuges	Thermo Fisher Scientific / mySPIN® 6 Mini Centrifuge, Cat: 7500A01	Power Consumption : 50 W Power Supply : 230V single phase 50/60Hz
21	PCR Extraction room	Automatic extractor	KingFisher™ Flex Purification System/ 540020	Power Consumption : 175 W Power Supply : 230V single phase 50/60Hz
22	PCR Extraction room	Biosafety Box	BSC-4FA2(E)	Power Consumption : 500 W Power Supply : 230V single phase 50/60Hz
23	PCR Extraction room	(+2-8) degree one door refrigerator	BPR-SV310	Power Consumption : 600 W Power Supply : 230V single phase 50/60Hz
24	Pre-PCR Master mix area	PCR BOX	PCR1300	Power Consumption : 600 W Power Supply : 230V single phase 50/60Hz
25	Pre-PCR Master mix area	Plate centrifuge	Biosan CVP-2, Centrifuge/Vortex for PCR plates	Power Consumption : 18 W Power Supply : 230V single phase 50/60Hz
26	Pre-PCR Master mix area	Personal minifuges	Thermo Fisher Scientific / mySPIN® 6 Mini Centrifuge, Cat: 7500A01	Power Consumption : 50 W Power Supply : 230V single phase 50/60Hz
27	Pre-PCR Master mix area	Pass through	JH-500	Power Consumption : 100 W Power Supply : 230V single phase 50/60Hz
28	Pre-PCR Master mix area	(-25) degree one door refrigerator	BDF-25V368	Power Consumption : 300 W Power Supply : 230V single phase 50/60Hz
29	Prebox	(+2-8) degree one door refrigerator	BPR-SV310	Power Consumption : 600 W Power Supply : 230V single phase 50/60Hz
30	PCR Warehouse	(-80) degree one door refrigerator ?	BDF-86V588	Power Consumption : 815 W Power Supply : 230V single phase 50/60Hz
31	Autoclave Waste Sterilization room	Autoclave	Raypak AFS-110	Power Consumption : 4000 W Power Supply : 400V three phase 50/60Hz
32	PCR analyzer/diagnosis room	(25) degree one door refrigerator ?	BDF-25V328	Power Consumption : 180 W Power Supply : 230V single phase 50/60Hz
33	PCR analyzer/diagnosis room	RT-PCR system	QuantStudio™ 5 Real-Time PCR System, 96-well, 0.2 mL	Power Consumption : 190 W Power Supply : 230V single phase 50/60Hz
34	Cytology	Microscope	Leica DM2000 LED	Power Consumption : 300 W Power Supply : 230V three phase 50/60Hz
35	Urine Biochemistry/Urine Microscopy	DocuReader 2 Pro	DocuReader 2 Pro	Power Consumption : 100 W Power Supply : 230V single phase 50/60Hz
36	Urine Biochemistry/Urine Microscopy	Urised Mini	Urised Mini	Power Consumption : 100 W Power Supply : 230V single phase 50/60Hz
37	Urine Biochemistry/Urine Microscopy	Centrifuge (գաճաճընճան Ալիկոտըն) (սեմճ Բեմճ)	3-SN Urine Sediment Centrifuge (սեմճ)	Power Consumption : 450 W Power Supply : 230V single phase 50/60Hz
38	Stool (fecal) microscopy	Microscope	Leica DM500 LED	Power Consumption : 300 W Power Supply : 230V single phase 50/60Hz
39	Stool (fecal) microscopy	Bench refrigerator (+2+8)	BPR-SV50(G)	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
40	Stool (fecal) microscopy	Bench refrigerator +4	BPR-SV50(G)	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
41	Sample Storage Area	(+2+8) degree fridge	BPR-SV588 (2 DOOR)	Power Consumption : 560 W Power Supply : 230V single phase 50/60Hz
42	Sample Storage Area	(-25) degree fridge	BDF-25V328	Power Consumption : 180 W Power Supply : 230V single phase 50/60Hz
43	Sample Storage Area	Thermostat (Բեմճ գաճաճընճան)	DNI- 30	Power Consumption : 300 W Power Supply : 230V single phase 50/60Hz
44	Aliquoting area	Biosafety cabinet level 2	112318BC36	Power Consumption : 1300 W Power Supply : 230V single phase 50/60Hz
45	Aliquoting area	Centrifuge (refrigerated)	H4-21KR Floor High Speed Refrigerated Centrifuge	Power Consumption : 1300 W Power Supply : 230V single phase 50/60Hz
46	Immunohistochemistry	Centrifuge	LS-5K Floor standing low speed centrifuge (սեմճ)	Power Consumption : 750 W Power Supply : 230V single phase 50/60Hz
47	Biochemistry	Automatic Analyzer	Cobas E411	Power Consumption : 800 W Power Supply : 230V single phase 50/60Hz
48	Biochemistry	Biochemistry analyzer	Cobas C 811	Power Consumption : 350 W Power Supply : 230V single phase 50/60Hz
49	Hematology	Automatic Analyzer	Stago STA Compact Max	Power Consumption : 1400 W Power Supply : 230V single phase 50/60Hz
50	Hematology	Automatic Analyzer	XN-3000 (SA-10)	Power Consumption : 270 W (Main Unit), 110 W (Sampler) Power Supply : 230V single phase 50/60Hz
51	Hematology	Shaker for test tubes	Biobase MX-76-S Shaker-Roller	Power Consumption : 25 W Power Supply : 230V single phase 50/60Hz
52	Hematology	ERS Analyzer (device)	SRS 20VII	Power Consumption : 240 W Power Supply : 230V single phase 50/60Hz
53	Electrophoresis	Capillary electrophoresis system	Miniap	Power Consumption : 300 W Power Supply : 230V single phase 50/60Hz
54	ELISA	Combawash 18460	Combawash 18460	Power Consumption : 140 W without incubator Power Consumption : 40 W with incubator Power Supply : 230V single phase 50/60Hz
55	ELISA	HumaReader HS	HumaReader HS	Power Consumption : 250 W Power Supply : 230V single phase 50/60Hz
56	ELISA	Plate Shaker-Thermostat (գաճաճընճան Բեմճ)	Biosan PST-60HL	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
57	Hemostasis	Bench refrigerator +4	BPR-SV50(G)	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
58	ELISA	Bench refrigerator +4	BPR-SV50(G)	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
59	Immunoserology	Bench refrigerator +4	BPR-SV50(G)	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
60	Biochemistry	Bench refrigerator +4	BPR-SV50(G)	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
61	Bacteriology preparation room	Water distillator 20 liters	Laboratory Water Still DS 8012	Power Consumption : 5000 W Power Supply : 400V three phase 50/60Hz
62	Biochemistry	Water distillation system	ELGA Medica R7	Power Consumption : 83 W Power Supply : 230V single phase 50/60Hz
63	Biochemistry	Water distillation system	ELGA Medica Pro 120	Power Consumption : 150 W Power Supply : 230V single phase 50/60Hz

1 POWER LAYOUT-GROUND FLOOR
E2.1 SCALE: 1:100



Number	Zone purpose	ITEM	MODEL	Electric power consumption
1	Bacteriology preparation room	Master Clave	Masterdave 3D	Power Consumption : 8000 W Power Supply : 230V three phase 60Hz
2	Bacteriology preparation room	Media preparator	APS ONE	Power Consumption : 100 W Power Supply : 230V three phase 60Hz
3	Bacteriology preparation room	Scale	DA303C	Power Consumption : 100 W Power Supply : 230V single phase 50/60Hz
4	Bacteriology preparation room	Ht-Meter	HIS-25CW/38W	Power Consumption : 100 W Power Supply : 230V single phase 50/60Hz
5	Bacteriology preparation room	Water bath	SWB-A	Power Consumption : 2000 W Power Supply : 230V single phase 50/60Hz
6	Bacteriology preparation room	Biosafety Cabinet Class 2	BSC-4FA2(4)	Power Consumption : 500 W Power Supply : 230V single phase 60Hz
7	Bacteriology preparation room	two - door refrigerator (+2-8) degree fridge	BPR-5V588	Power Consumption : 500 W Power Supply : 230V single phase 50/60Hz
8	Bacteriology working room	DNI 80	DNI-80	Power Consumption : 700 W Power Supply : 230V single phase 50/60Hz
9	Bacteriology working room	Centrifuge (Բժժմ զանաձևային)	3-5L Urine Sediment Centrifuge	Power Consumption : 450 W Power Supply : 230V single phase 50Hz
10	Bacteriology working room	Biosafety Cabinet Class 2	BSC-4FA2(4)	Power Consumption : 500 W Power Supply : 230V single phase 60Hz
11	Bacteriology working room	Microscope	Leica DM2000 LED	Power Consumption : 300 W Power Supply : 230V three phase 50/60Hz
12	Bacteriology working room	Bactalert 3D 120	Bactalert 3D 120	Power Consumption : 140 W Power Supply : 230V single phase 50Hz
13	Bacteriology working room	Vitec 2 compact	Vitec 2 compact 3D	Power Consumption : 300-600 W Power Supply : 230V single phase 50/60Hz
14	Bacteriology working room	(-80) 1 door refrigerator	BDP-8BV08	Power Consumption : 800 W Power Supply : 230V single phase 50/60Hz
15	Bacteriology working room	two - door refrigerator (+2-8) degree fridge	BPR-5V588	Power Consumption : 560 W Power Supply : 230V single phase 50/60Hz
16	PCR Extraction room	Vortex Mixer (զանաձևային Բժժմ)	V-32, Multi-vortex, incl. Platforms PL-1, PV-32, BS-03057-A46G	Power Consumption : 3.8 W Power Supply : 230V single phase 50/60Hz
17	PCR Extraction room	LP Vortex Mixer (զանաձևային Բժժմ)	V 1 plus Personal Vortex	Power Consumption : 3.8 W Power Supply : 230V single phase 50/60Hz
18	PCR Extraction room	High speed centrifuge table top	HETTICH Microtiter Centrifuge, Without Rotor MIKRO 185 / Angle rotor 24-plate for 1203 Microtiter Centrifuge 1226 1203	Power Consumption : 390 W Power Supply : 230V single phase 50/60Hz
19	PCR Extraction room	Dry heat block	TS-302C, Thermo-Shaker for microtubes and PCR plates BS-030120-AA / SC-24NC, Block for 24x1.5 ml microtubes and SC35AC	Power Consumption : 60 W Power Supply : 230V single phase 50/60Hz
20	PCR Extraction room	Personal minifuges	Thermo Fisher Scientific / mySPIN™ 6 Mini Centrifuge Cat: 75004061	Power Consumption : 50 W Power Supply : 230V single phase 50/60Hz
21	PCR Extraction room	Automatic extractor	KingFisher™ Flex Purification System/ 540060	Power Consumption : 175 W Power Supply : 230V single phase 50/60Hz
22	PCR Extraction room	Biosafety Box	BSC-4FA2(4)	Power Consumption : 500 W Power Supply : 230V single phase 50/60Hz
23	PCR Extraction room	(+2-8) degree one door refrigerator	BPR-5V310	Power Consumption : 180 W Power Supply : 230V single phase 50/60Hz
24	Pre-PCR Master mix area	PCR BIX	PCR1300	Power Consumption : 1400 W Power Supply : 230V single phase 50/60Hz
25	Pre-PCR Master mix area	Plate centrifuge	Biosan CUP-2, Centrifuge/Vortex for PCR plates	Power Consumption : 18 W Power Supply : 230V single phase 50/60Hz
26	Pre-PCR Master mix area	Personal minifuges	Thermo Fisher Scientific / mySPIN™ 6 Mini Centrifuge Cat: 75004061	Power Consumption : 50 W Power Supply : 230V single phase 50/60Hz
27	Pre-PCR Master mix area	Pass through	JH-500	Power Consumption : 100 W Power Supply : 230V single phase 50/60Hz
28	Pre-PCR Master mix area	(-25) degree one door refrigerator	BDP-25V368	Power Consumption : 180 W Power Supply : 230V single phase 50/60Hz
29	Prebox	(+2-8) degree one door refrigerator	BPR-5V310	Power Consumption : 180 W Power Supply : 230V single phase 50/60Hz
30	PCR Warehouse	(-80) degree one door refrigerator ?	BDP-8BV588	Power Consumption : 815 W Power Supply : 230V single phase 50/60Hz
31	Autoclave Waste sterilization room	Autoclave	Raypa AES-110	Power Consumption : 1600 W Power Supply : 400V three phase 50/60Hz
32	PCR analyzer/diagnosis room	(25) degree one door refrigerator ?	BDP-25V128	Power Consumption : 180 W Power Supply : 230V single phase 60Hz
33	PCR analyzer/diagnosis room	RT-PCR system	QuantStudio™ 5 Real-Time PCR System, 96-well, 0.2 ml.	Power Consumption : 360 W Power Supply : 230V single phase 50/60Hz
34	Cytology	Microscope	Leica DM2000 LED	Power Consumption : 300 W Power Supply : 230V single phase 50/60Hz
35	Urine Biochemistry/Urine Microscopy	DocuReader 2 Pro	DocuReader 2 Pro	Power Consumption : 100 W Power Supply : 230V single phase 50/60Hz
36	Urine Biochemistry/Urine Microscopy	Urised Mini	Urised Mini	Power Consumption : 100 W Power Supply : 230V single phase 50/60Hz
37	Urine Biochemistry/Urine Microscopy	Centrifuge (զանաձևային Aliquoting Կենտրոնական)	3-5L Urine Sediment Centrifuge (Քսիլոնկ)	Power Consumption : 450 W Power Supply : 230V single phase 50/60Hz
38	Stool (fecal) microscopy	Microscope	Leica DM500 LED	Power Consumption : 300 W Power Supply : 230V three phase 50/60Hz
39	Stool (fecal) microscopy	Bench refrigerator (+2-8)	BPR-5V50(G)	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
40	Stool (fecal) microscopy	Bench refrigerator +4	BPR-5V50(G)	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
41	Sample Storage Area	(+2-8) degree fridge	BPR-5V588 (2 DOOR)	Power Consumption : 560 W Power Supply : 230V single phase 50/60Hz
42	Sample Storage Area	(-25) degree fridge	BDP-25V328	Power Consumption : 180 W Power Supply : 230V single phase 50/60Hz
43	Sample Storage Area	Thermostat (Բժժմ զանաձևային)	DNI- 30	Power Consumption : 300 W Power Supply : 230V single phase 50/60Hz
44	Aliquoting area	Biosafety cabinet level 2	11231BRC86	Power Consumption : 500 W Power Supply : 230V single phase 50/60Hz
45	Aliquoting area	Centrifuge (refrigerated)	H4-21KR Floor High Speed Refrigerated Centrifuge	Power Consumption : 1300 W Power Supply : 230V single phase 50/60Hz
46	Aliquoting area	Centrifuge	L5-SL Floor standing low speed centrifuge (կոկեթն)	Power Consumption : 750 W Power Supply : 230V single phase 50/60Hz
47	Immunochemistry	Automatic Analyzer	Cobas E411	Power Consumption : 800 W Power Supply : 230V single phase 50/60Hz
48	Biochemistry	Biochemistry analyzer	Cobas C 311	Power Consumption : 250 W Power Supply : 230V single phase 50/60Hz
49	Hemostasis	Automatic Analyzer	Stago STA Compact Max	Power Consumption : 1400 W Power Supply : 230V single phase 50/60Hz
50	Hematology	Automatic Analyzer	XN-1000 (SA-10)	Power Consumption : 270 W (Main Unit), 110 W (reagent)
51	Hematology	Shaker for test tubes	Biobase MX-T6-S Shaker-Roller	Power Consumption : 25 W Power Supply : 230V single phase 50/60Hz
52	Hematology	ERS Analyzer (device)	SRS 20/H	Power Consumption : 240 W Power Supply : 230V single phase 50/60Hz
53	Electrophoresis	Capillary electrophoresis system	Minicap	Power Consumption : 300 W Power Supply : 230V single phase 50/60Hz
54	ELISA	Combiwash 18460	Combiwash 18460	Power Consumption : 230 W Power Supply : 230V single phase 50/60Hz
55	ELISA	HumaReader HS	HumaReader HS	Power Consumption : 40 W Power Supply : 230V single phase 50/60Hz
56	ELISA	Plate Shaker-Thermostat (զանաձևային Բժժմ)	Biosan PST-60HL	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
57	Hemostasis	Bench refrigerator +4	BPR-5V50(G)	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
58	Eliza	Bench refrigerator +4	BPR-5V50(G)	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
59	Immunoserology	Bench refrigerator +4	BPR-5V50(G)	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
60	Biochemistry	Bench refrigerator +4	BPR-5V50(G)	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
61	Immunoserology	Bench refrigerator +4	BPR-5V50(G)	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
62	Bacteriology preparation room	Water distillator 20 liters	Laboratory Water Still DS 8012	Power Consumption : 9000 W Power Supply : 400V three phase 50/60Hz
63	Biochemistry	Water deionization system	ELGA Medica R7	Power Consumption : 85 W Power Supply : 230V single phase 50/60Hz
64	Biochemistry	Water deionization system	ELGA Medica Pro 120	Power Consumption : 650 W Power Supply : 230V single phase 50/60Hz





1 FIRE ALARM LAYOUT-GROUND FLOOR
 E3.1 SCALE: 1:100



PROJECT NAME: WESTFASER LABS				CABLE SIZE: 40-12W-1TOLPER W/AFI (SEE 110-12W-1T5E)																
PANEL NAME: URBAN				SUPPLY VOLTAGE: 480V																
SHEET NO: 400-0000-001				PAGE: 1																
SECTION: 1ST FLOOR ELECTRICAL ROOM				MAIN BREAKER RATING: 100A TPN MCCB																
CIRCUIT NO	CIRCUIT DESCRIPTION	CIRCUIT TYPE	WIRE SIZE	CONNECTED LOAD POINTS											W (VA)	LOAD PER CIRCUIT (%)			REMARKS	
				LTA	MOTORS	EL	EL	EL	EL	EL	EL	EL	EL	EL		EL	A	B		C
1	RECEPTION ROOM		12													100				
2	RECEPTION ROOM		12													100				
3	QUALITY CONTROL ROOM		12													100				
4	WORKING ROOM		12													100				
5	WORKING ROOM		12													100				
6	WORKING ROOM		12													100				
7	WORKING ROOM		12													100				
8	WORKING ROOM		12													100				
9	WORKING ROOM		12													100				
10	WORKING ROOM		12													100				
11	WORKING ROOM		12													100				
12	WORKING ROOM		12													100				
13	WORKING ROOM		12													100				
14	WORKING ROOM		12													100				
15	WORKING ROOM		12													100				
16	WORKING ROOM		12													100				
17	WORKING ROOM		12													100				
18	WORKING ROOM		12													100				
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28	WORKING ROOM		12													100				
29	WORKING ROOM		12													100				
30	WORKING ROOM		12													100				
31	WORKING ROOM		12													100				
32	WORKING ROOM		12													100				
33	WORKING ROOM		12													100				
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38	WORKING ROOM		12													100				
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56	WORKING ROOM		12													100				
57	WORKING ROOM		12													100				
58	WORKING ROOM		12													100				
59	WORKING ROOM		12													100				
60	WORKING ROOM		12													100				
TOTAL													1000	100	100	100	100			
TOTAL CONNECTED LOAD (KVA)													4.00							
DEMAND FACTOR													0.80							
DEMAND LOAD (KVA)													3.20							
DEMAND LOAD (AMPS)													6.35							

PROJECT NAME: WESTFASER LABS				CABLE SIZE: 40-12W-1TOLPER W/AFI (SEE 110-12W-1T5E)												
PANEL NAME: HVAC PANEL				SUPPLY VOLTAGE: 480V												
SHEET NO: 400-0000-001				PAGE: 1												
SECTION: 1ST FLOOR ELECTRICAL ROOM				MAIN BREAKER RATING: 100A TPN MCCB												
CIRCUIT NO	CIRCUIT DESCRIPTION	CIRCUIT TYPE	WIRE SIZE	CONNECTED LOAD POINTS				W (VA)	LOAD PER CIRCUIT (%)			REMARKS				
				LTA	MOTORS	EL	EL		A	B	C					
1	200W ROOM AIR UNIT		14										100			
2	200W ROOM AIR UNIT		14										100			
3	SPACE		14										100			
4	SPACE		14										100			
TOTAL								100	100	100	100					
TOTAL CONNECTED LOAD (KVA)								0.75								
DEMAND FACTOR								1.00								
DEMAND LOAD (KVA)								0.75								
DEMAND LOAD (AMPS)								1.54								

PROJECT NAME: WESTFASER LABS				CABLE SIZE: 40-12W-1TOLPER W/AFI (SEE 110-12W-1T5E)															
PANEL NAME: URBAN				SUPPLY VOLTAGE: 480V															
SHEET NO: 400-0000-001				PAGE: 1															
SECTION: 1ST FLOOR ELECTRICAL ROOM				MAIN BREAKER RATING: 100A TPN MCCB															
CIRCUIT NO	CIRCUIT DESCRIPTION	CIRCUIT TYPE	WIRE SIZE	CONNECTED LOAD POINTS											W (VA)	LOAD PER CIRCUIT (%)			REMARKS
				LTA	MOTORS	EL	EL	EL	EL	EL	EL	EL	EL	EL		EL	A	B	
1	RECEPTION ROOM		12												100				
2	RECEPTION ROOM		12												100				
3	QUALITY CONTROL ROOM		12												100				
4	WORKING ROOM		12												100				
5	WORKING ROOM		12												100				
6	WORKING ROOM		12												100				
7	WORKING ROOM		12												100				
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27	WORKING ROOM		12												100				
28	WORKING ROOM		12												100				
29	WORKING ROOM		12												100				

