

REVISIONS		
No.	DESCRIPTION	DATE

PO BOX 362192 SAN JUAN P.R. 00936
TEL. (787) 724-4331, FAX. (787) 977-7990
WWW.ABACUSARQ.COM

DESIGNER IN CHARGE
DESIGN CAPTAIN
JOB CAPTAIN
CHECKED BY
DRAWN BY

SCHEMATIC COPY

DRAWING TITLE

8TH FLOOR ELECTRICAL
NOTES & LEGENDS

SCALE 1/4" = 1'-0"	DRAWING No. E0-01
PROJECT No.	SHEET No.
DATE	

	5-20R GFCI DUPLEX RECEPTACLE, P&S 2095-GRY IN 4"x4" JUNCTION BOX WITH TP8-GRY ONE GANG WALL PLATE @ 18" A.F.F. IN HORIZONTAL POSITION
	5-20R DUPLEX RECEPTACLE, P&S BR20-GRY IN 4"x4" JUNCTION BOX WITH TP8-GRY ONE GANG WALL PLATE @ 18" A.F.F. IN HORIZONTAL POSITION
	DITTO BUT POWERED FROM UPS
	5-20R GFCI DUPLEX RECEPTACLE, P&S 2095-GRY IN 4"x4" JUNCTION BOX WITH TP8-GRY ONE GANG WALL PLATE @ 42" A.F.F. OR 6" A.C.T. IN HORIZONTAL POSITION
	5-20R DUPLEX RECEPTACLE, P&S BR20-GRY IN 4"x4" JUNCTION BOX WITH TP8-GRY ONE GANG WALL PLATE @ 42" A.F.F. OR 6" A.C.T. IN HORIZONTAL POSITION
	5-20R QUADRUPLUX RECEPTACLE, P&S 420-GRY IN 4"x4" JUNCTION BOX @ 18" A.F.F. IN HORIZONTAL POSITION
	5-20R QUADRUPLUX RECEPTACLE, P&S BR20-GRY IN 4"x4" JUNCTION BOX @ 42" A.F.F. OR 6" A.C.T.
	5-15R DUPLEX RECEPT./ OUTLET AND USB CHARGER, RKA22-0 IN 4"x4" JUNCTION BOX WITH RWPM-1PG ONE GANG WALL PLATE @ 42" A.F.F. OR 6" A.C.T. IN HORIZONTAL POSITION
	5-20R SINGLE RECEPTACLE, P&S S3713-I IN 4"x4" JUNCTION BOX IN GRADE
	TOGGLE SWITCH FOR A/C EXHAUST FAN 20A/208V/3ø
	EXISTING ELECTRICAL LOADCENTER PANEL SEE PANEL SCHEDULE FOR DETAILS.
	SAFETY SWITCH WITH NUMBER OF POLES AND RATING AS REQUIRED, NEMA-3R ENCLOSURE IF LOCATED OUTDOORS, SEE SAFETY SWITCH SCHEDULE FOR DETAILS.
	DRY-TYPE TRANSFORMER, SEE SINGLE LINE DIAGRAM FOR DETAILS.

NOTES:

- 1) RECEPTACLES SHALL BE EQUAL OR SIMILAR TO THE SPECIFIED.
- 2) MODULAR OUTLETS MUST BE COMPATIBLE WITH NEW FURNITURE.
- 3) HEIGHTS DESCRIBED IN LEGEND CAN BE OVER WRITED ON DRAWINGS.
- 4) NEUTRAL CONDITIONS SHALL BE COMMON IN NO MORE THAN TWO CIRCUITS.

ELECTRICAL LEGEND

SCALE: N.T.S.

1. ALL INDICATED HEIGHTS ARE FROM CENTER OF THE EQUIPMENT TO FINISHED FLOOR UNLESS INDICATED.
2. NO WIRE SHALL BE SMALLER THAN #12 AWG THHN, 600V INSULATION.
3. NO CONDUIT SHALL BE SMALLER THAN 3/4" DIAMETER.
4. ELECTRICAL CONTRACTOR SHALL BALANCE ALL THE LOADS.
5. PROVIDE GREEN BONDING JUMPER BETWEEN THE OUTLET BOX GROUNDING SCREW AND ALL RECEPTACLES, GROUNDING TERMINALS, EXCEPT SELF-GROUNDING TYPE RECEPTACLES.
6. PROVIDE MULTI-WIRE BRANCH CIRCUITS UTILIZING COMMON NEUTRALS(EXCEPT WHEN OTHERWISE NOTED), FOR LIGHTING, RECEPTACLES AND SINGLE PHASE EQUIPMENT CIRCUIT NUMBERS ADJACENT TO THE "HOME RUN" ARE INDICATED AS A GUIDE FOR PROPER CONNECTION OF MULTIWIRE CIRCUIT AT PANELS, THE CONTRACTOR SHALL COORDINATE THE FINAL ARRANGEMENT AND ROUTING OF BRANCH CIRCUITS.
7. ALL WIRING SHALL BE DONE IN E.M.T. CONDUIT UNLESS SPECIFIED.
8. IF CABLES ARE NOT ALLOWED, ONLY STRANDED COPPER THHN (OR AS SPECIFIED) INSULATED SHALL BE USED.
9. ELECTRICAL CONTRACTOR SHALL REVIEW DIMENSION OF JUNCTION BOXES TO ENSURE CABLE PERMISSIBLE RADIUS AT FIELD.
10. ELECTRICAL CONTRACTOR SHALL COORDINATE, WITH ALL TRADES, THE CONDUIT ROUTING IN ORDER TO AVOID CONFLICTS, IN CASE OF CONFLICT THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ARCHITECT.
11. THE CONTRACTOR SHALL VISIT THE JOB SITE AND BECOME ACQUAINTED WITH THE EXISTING FIELD CONDITIONS IT SHALL BE THE DIRECT RESPONSABILITY OF THE CONTRACTOR TO BRING PROMPTLY TO THE ATTENTION OF THE DESIGNER ANY DISCREPANCIES BETWEEN THE EXISTING FIELD CONDITIONS AND THOSE USED FOR DESIGN PURPOSES.
12. THE CONDUIT TRAYECTORY SHOWN IN THE LAYOUTS IS OF A SCHEMATIC NATURE AND IS INTENDED ONLY TO INDICATE INTERCONNECTIONS BETWEEN OUTLETS, EXACT ROUTING OF THE CONDUITS SHALL BE DETERMINED AT JOB SITE TO CONFORM TO THE STRUCTURAL CONDITIONS AND SHALL BE APPROVED BY THE ENGINEER.
13. PROVIDE EXPANSION JOINT COUPLINGS OR THE REQUIRED TYPE AND SIZE WHENEVER A CONDUIT CROSSES AN EXPANSION JOINT.
14. ELECTRICAL CONTRACTOR MUST MAKE SURE THAT THE ENTIRE ELECTRICAL SYSTEM HAS GROUND CONTINUITY.
15. ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT REQUIREMENTS WITH THE EQUIPMENT SUPPLIER, BEFORE FINAL CONNECTION OF CONDUITS AND WIRING.
16. PROVIDE TYPEWRITTEN IDENTIFICATION CARDS FOR ALL BRANCH CIRCUITS INSIDE THE PANELBOARDS.
17. ALL RELATED ELECTRICAL EQUIPMENT SHALL BE NEW AND CONSTRUCTED ACCORDING TO ANSI, NEMA AND PREPA STANDARDS.
18. ALL ELECTRICAL CONSTRUCTION WORKS SHALL BE DONE IN A THROUGH AND WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS, SPECS AND CONSTRUCTION DRAWINGS, THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE SHALL BE FOLLOWED EXCEPT WHERE LOCAL REGULATIONS ARE MORE STRINGENT.
19. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY INTERCONNECTIONS BETWEEN THE MOTORS AND THE MOTORS AND THE STARTING/DISCONNECTING EQUIPMENT.

ELECTRICAL NOTES

SCALE: N.T.S.

	CONDUIT STUBBED AND BUSHED.
	CONCEALED RACEWAY IN FLOOR, UNDERFLOOR OR UNDERGROUND.
	CABLETRAY AT PLENUM, DIMENSION INDICATED ON DRAWINGS.
	HOMERUN TO PANELBOARD WITH CIRCUIT NUMBERS AS INDICATED. SHORT LEG, LONG LEG & LONG LEG WITH TICK INDICATES HOT, NEUTRAL & GROUND RESPECTIVELY.
	4"x4"x2" JUNCTION BOX INSIDE PLENUM OR CONCEALED IN CEILING FACING DOWN.
	J-HOOK INSIDE PLENUM
	FURNITURE MULTI-SERVICE POWER POLE
	4"x4"x2" JUNCTION BOX WALL MOUNT @ 18" AFF UNLESS OTHERWISE NOTED.
	4"x4" JUNCTION BOX WALL MOUNT @ 7'-6" A.F.F. UNLESS OTHERWISE NOTED.

WIRING METHOD LEGEND

SCALE: N.T.S.

	TELECOMM OUTLET IN 4"x4" JUNCTION BOX @ 18" A.F.F. IN HORIZONTAL POSITION
	TELECOMM OUTLET IN 4"x4" JUNCTION BOX WITH AC-SFP ONE GANG WALL PLATE @ 42" A.F.F. OR 6" A.C.T. IN HORIZONTAL POSITION
	FLUSH FLOOR TELECOMM OUTLET, WALKER 880C SERIES CAST IRON, GANG TYPE, FULLY ADJUSTABLE FLOOR BOX WITH BRASS COVER PLATE AND FLANGE.
	TELECOMM CONDUIT, MINIMUM 1" EMT CONDUIT WITH PULL STRING, UNLESS OTHERWISE NOTED.
	TELEPHONE PLYWOOD FIRE RESISTANT TREATED

TELECOMM LEGEND

SCALE: N.T.S.

1. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES TO PERFORM ALL OPERATIONS REQUIRED FOR THE COMPLETE INSTALLATION AND RELATED WORK AS SHOWN ON DRAWINGS AND SPECIFIED HEREIN. ELECTRICAL AND TELECOMMUNICATIONS EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER.
2. MINIMUM SIZE OF CONDUITS TO BE AS FOLLOWS: 1"ø FOR TELECOMMUNICATIONS, 3/2"ø FOR SECURITY & AUDIO, OR AS SPECIFIED IN PLANS.
3. ALL CONDUITS SHALL BE PROVIDED WITH A 1/4" NYLON FISHWIRE.
4. PROVIDE ALL REQUIRED SUPPORTS AND ACCESSORIES.
5. INSTALL ALL WORK IN COMPLIANCE WITH THE LATEST EDITION OF:
A. THE NATIONAL ELECTRICAL CODE, NFPA-70
B. BICSI TELECOMMUNICATIONS DISTRIBUTION METHODS MANUAL
C. JUNTA REGLAMENTADORA DE TELECOMUNICACIONES (JRT) REQUIREMENTS
6. PROVIDE COVERS DESIGN AND STYLE TO SUIT BOX AND LOCATION.
7. FLUSH RECESSED WHEREVER POSSIBLE AND SECURELY SUPPORTED FROM BUILDING CONSTRUCTION.
8. MOUNTING HEIGHT OF OUTLET BOXES SHALL BE 1'-6" AFF OR AS INDICATED IN THE PLANS.
9. TELECOMMUNICATION CABLES AND ELECTRICAL WIRING SHALL NEVER PASS THROUGH THE SAME HOLES OR SHARE SAME CONDUIT.
10. MINIMUM CONDUIT BENDS RADIO SHALL BE AS FOLLOWS:
18" FOR 1" TO 1.5" DIAM. CONDUIT
24" FOR 2" DIAM. CONDUIT
30" FOR 3" TO 4" DIAM. CONDUIT
11. PROVIDE 1"ø LIQUIDTIGHT FLEXIBLE NON-METALLIC CONDUIT & FITTINGS FOR ALL TRANSITIONS BETWEEN JUNCTION WALL OR FLOOR BOXES AND MODULAR FURNITURE SYSTEMS OR TABLE BOXES.
12. COORDINATE EXACT LOCATION OF FLOOR BOXES WITH ARCHITECT AT FIELD.
13. PROVIDE CABLE SLACK OF 12" AT OUTLET BOX AND 10' ORGANIZED ON TOP OF THE RACK IN A FIGURE "8".
14. ALL NON-WELDED CONNECTIONS TO THE TGB AND TO THE OBJECTS BEING BONDED SHALL BE MADE WITH TWO-HOLE LUGS.
15. NO MORE THAN 180 DEGREES OF CONDUIT BENDS SHALL BE PERMITTED BETWEEN PULL POINTS.
16. CABLING NOT IN CONTRACT.
17. SUPPORT AND BOND CONDUITS TO CABLE TRAY.
18. ALL TELECOMMUNICATIONS WORKS WITHIN COMMUNAL AREAS SHALL BE CARRIED OUT BY THE ADMINISTRATION OFFICE'S DESIGNATED CONTRACTOR.

TELECOMM NOTES

SCALE: N.T.S.

	2'x2' FLUORESCENT FIXTURE AND OUTLET, IDENTIFICATION NUMBER AS INDICATED IN LUMINAIRE SCHEDULE.
	FIXTURES WITH SHADING SHALL BE CONNECTED TO EMERGENCY POWER SOURCE 1100 LUMEN OUTPUT BATTERY PACK OR APPROVED EQUAL.
	4"x4" JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO FIXTURE.
	SINGLE POLE SWITCH, P&S 2621-I IN 2"x4" JUNCTION BOX WITH TPJ26-I ONE GANG WALL PLATE @ 46" A.F.F. IN VERTICAL POSITION
	GANGED TOGETHER.
	THREE-WAY SWITCH, P&S 2623-I IN 2"x4" JUNCTION BOX WITH TPJ26-I ONE GANG WALL PLATE @ 46" A.F.F. IN VERTICAL POSITION

LIGHTING LEGEND

SCALE: N.T.S.

1. LETTER "L" AND NUMBER DENOTES FIXTURE TYPE AS DESCRIBED IN LIGHTING FIXTURE SCHEDULE. SMALL LETTER INDICATES SWITCH WITH CORRESPONDING SMALL LETTER CONTROLLING FIXTURE. FIXTURE SYMBOLSWITH SHADING DENOTES FIXTURES TO BE USED AS NIGHT AND/OR EMERGENCY SYSTEM.
2. FOR THE EXACT LOCATION OF LIGHTING FIXTURES IN AREAS HAVING A HUNG CEILING, SEE LIGHTING REFLECTED CEILING PLANS.
3. FINAL LOCATION FOR FIXTURES MOUNTED IN EXPOSED AREAS IS TO BE COORDINATED WITH THE HVAC DUCTS AND EQUIPMENT, PIPING CONDUITS OR PIPE RACKS.
4. ALL LIGHTING FIXTURES SHOWN WITH HATCH SHALL BE PROVIDED WITH EMERGENCY BATTERY PACKOF TWO HOUR OPERATION.
5. FIXTURES WITH HATCH SHALL BE NIGHT LIGHT & EMERGENCY BATTERY PACK.
6. FOR LIGHTING FIXTURES SCHEDULES AND ADDITIONAL NOTES SEE SHEET L2-01.
7. THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATE CONNECTION OF THE PARKING LIGHTING SYSTEM IN ORDER FOR IT TO OPERATE ADEQUATELY. SEE LIGHTING CONTROL DIAGRAM FOR DETAILS.
8. ALL CIRCUIT BREAKER USED TO CONTROL LIGHTING CIRCUITS SHALL BE RATED FOR SWITCHING DUTY.
9. ALL LIGHTING FIXTURES SHALL BE U/L LISTED. FLUORESCENT BALLAST SHALL BE U/L APPROVED AND HAVE A HIGH POWER FACTOR.
10. CONTRACTOR SHALL VERIFY PANEL VOLTAGES BEFORE BUYING LIGHT FIXTURES AND/OR WIRING DEVICES.

LIGHTING NOTES

SCALE: N.T.S.

	FIRE ALARM SMOKE DETECTOR, COMPATIBLE WITH HONEYWELL PHOTOELECTRIC TYPE @ CEILING.
	FIRE ALARM HEAT DETECTOR, COMPATIBLE WITH HONEYWELL PHOTOELECTRIC TYPE @ CEILING.
	FIRE ALARM MANUAL PULL STATION, COMPATIBLE WITH HONEYWELL @ 46" A.F.F. UNLESS OTHERWISE NOTED.
	CEILING MOUNTED EXIT FIXTURE WITH DIRECTIONAL ARROWS AS INDICATED. IDENTIFICATION NUMBER AS INDICATED IN LUMINAIRE SCHEDULE.
	FIRE ALARM HORN AND STROBE, COMPATIBLE WITH HONEYWELL @ 60" A.F.F. OR 6" BELOW CEILING WHICHEVER IS LOWER. MINIMUM 60" CANDELA.
	FIRE ALARM REMOTE PANEL, COMPATIBLE WITH EXISTING HONEYWELL MAIN F/A PANEL, COORDINATE WITH BUILDING OWNER @ 5'-0" A.F.F. FROM CENTER
	EMERGENCY LIGHTING CEILING OR WALL FIXTURE, IDENTIFICATION NUMBER AS INDICATED IN LUMINAIRE SCHEDULE.

NOTES:

SEE SPECIFICATIONS FOR DEVICE AND WIRING REQUIREMENTS. ALL SYSTEM IS EXISTING AND ADDITIONAL DEVICES SHALL BE COMPATIBLE WITH EXISTING BUILDING ALARM SYSTEM MODEL HONEYWELL.

FIRE ALARM LEGEND

SCALE: N.T.S.

1. ALL CONDUITS, WIRING & DEVICE REQUIREMENTS SHALL BE COORDINATED WITH THE MANUFACTURER PRIOR TO INSTALLATION. CONDUITS SHALL BE 3/4" EMT FOR CEILING PLENUM OR WALLS AND 3/4" PVC FOR CONCRETE SLABS.
2. ALL JUNCTION BOXES FOR THE FIRE ALARM SYSTEM SHALL BE IDENTIFIED AND PAINTED RED.
3. THE WIRING OF THE FIRE ALARM SYSTEM SHALL BE CLASS "B".
4. THE CONTRACTOR SHALL INSTALL ALL REQUIRED WIRING & DEVICES TO COMPLETE THE SYSTEM AS ILLUSTRATED ON DRAWINGS.
5. SMOKE DETECTORS SHALL NOT BE INSTALLED MORE THAN SIX INCHES (6") FROM THE HIGHEST POINT OF CEILING SLAB. COORDINATE THE EXACT REQUIREMENTS WITH MANUFACTURER.
6. THE MECHANICAL CONTRACTOR SHALL INSTALL ONE SMOKE DETECTOR IN THE SUPPLY DUCT HOUSING FOR AIR HANDLING UNITS (A/C) OF 2,000 TO 15,000 CFM. FOR MORE THAN 15,000 CFM CONTRACTOR SHALL INSTALL ANOTHER SMOKE DETECTOR IN THE RETURN DUCT HOUSING. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL DRAWINGS AND WITH MANUFACTURER.
7. THE FIRE ALARM SYSTEM SHALL BE FURNISHED AND INSTALLED COMPLETE WITH ALL ACCESSORIES FOR A NORMAL OPERATION AS REQUIRED BY APPLICABLE CODES, THE OWNER AND "AMERICANS WITH DISABILITIES ACT" (ADA).

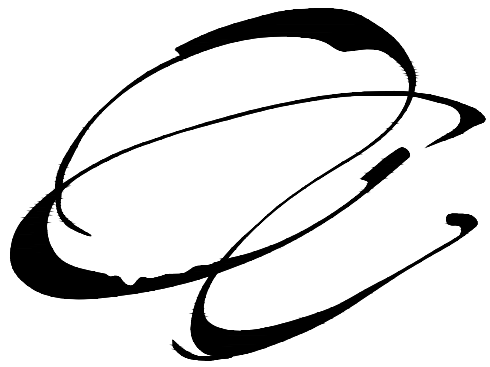
FIRE ALARM NOTES

SCALE: N.T.S.

A/C	AIR CONDITIONING	KCMIL	1000 CIRCULAR MILS
A.C.T.	ABOVE COUNTER TOP	K.V.	KILOVOLT
A.F.C.	ABOVE FINISHED CEILING	KVA	KILOVOLT-AMPS
A.F.F.	ABOVE FINISHED FLOOR	K.W.	KILOWATT
A.F.G.	ABOVE FINISHED GROUND	KWH.	KILOWATT-HOUR
A.F.C.I.	ARC FAULT CIRCUIT INTERRUPTER	LTG.	LIGHTING
A.H.J.	AUTHORITY HAVING JURISDICTION		
AIC	AMPERE INTERRUPTING CAPACITY		
AMPS.	AMPERES		
A.N.S.I.	AMERICA NATIONAL STANDARDS INSTITUTE	M.	MODULAR OUTLET
ARCH.	ARCHITECTURAL, ARCHITECT	MAX.	MAXIMUM
ATS	AUTOMATIC TRANSFER SWITCH	MCA.	MINIMUM CIRCUIT AMPACITY
AUX	AUXILIARY	MCB.	MAIN CIRCUIT BREAKER
AWG	AMERICAN WIRE GAGE	MCC.	MOTOR CONTROL CENTER
		MECH.	MECHANICAL
B.F.F.	BELOW FINISHED FLOOR	MH.	MANHOLE, METAL HALIDE
BKR	BREAKER	MIN.	MINIMUM
BLDG.	BUILDING	MLO.	MAIN LUGS ONLY
		MTD.	MOUNTED
C.	CONDUIT	N/A	NOT APPLICABLE
CB	CIRCUIT BREAKER	N	NORMAR OUTLET
CATV	CABLE TELEVISION SYSTEM	NC.	NORMALLY CLOSED
CCTV.	CLOSED CIRCUIT TELEVISION SYSTEM	NEC.	NATIONAL ELECTRICAL CODE
CKT.	CIRCUIT	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S CODE
DIA.	DIAMETER	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
DISC.	DISCONNECT	N.I.C.	NOT IN CONTRACT
DN.	DOWN	N.O.	NORMALLY OPEN
DPDT	DOUBLE-POLE, DOUBLE THROW	N.T.S.	NOT TO SCALE
DPST	DOUBLE-POLE, SINGLE THROW		
DWG.	DRAWING	OCPD	OVERCURRENT PROTECTIVE DEVICE
		OSHA.	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
EA.	EACH		
EF.	EXHAUST FAN	P.F.	POWER FACTOR
ELEC.	ELECTRICAL	PH.	PHASE
EMT	ELECTRICAL METALLIC TUBING	PNL.	PANEL
ENT	ELECTRICAL NONMETALLIC TUBING	PVC.	POLYVINYL CHLDRIDE
ENCL.	ENCLOSURE		
EQUIP.	EQUIPMENT	QTY.	QUANTITY
EXH.	EXHAUST		
E.	EXISTING		
FA.	FIRE ALARM	REQD.	REQUIRED
FACP.	FIRE ALARM CONTROL PANEL	REV.	REVISION, REVISED
F.B.O.	FURNISHED BY OWNER	RGS.	RIGID GALVANIZED STEEL
FLEX.	FLEXIBLE	RM.	ROOM
FMC	FLEXIBLE METAL CONDUIT	RMC	RIGID METAL CONDUIT
FMT	FLEXIBLE METAL TUBING		
FT	FOOT, FEET	SD	SMOKE DAMPER
		SECT.	SECTION
GND.	GROUND	SHT.	SHEET
GA.	GAUGE	SIM.	SIMILAR
GALL.	GALLON	SPEC.	SPECIFICATION
GFCI.	GROUND FAULT CIRCUIT INTERRUPTER	SPD	SURGE PROTECTIVE DEVICE
GFR.	GROUND FAULT RELAY	SQ.	SQUARE
GND.	GROUND	SS.	STAINLESS STEEL
		STD.	STANDARD
		SURF.	SURFACE
H.	HEIGHT		
HID.	HIGH INTENSITY DISCHARGE	TR	TAMPER RESISTANT
HP.	HORSEPOWER	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
HZ.	HERTZ	TYP.	TYPICAL
HV.	HIGH VOLTAGE		
ID.	INSIDE DIAMETER	UL.	UNDERWRITERS LABORATORIES, INC.
IG.	INSULATED GROUND	UON.	UNLESS OTHERWISE NOTED
		UPS.	UNINTERRUPTIBLE POWER SUPPLY
J.B.	JUNCTION BOX	WP	WEATHER PROOF
		WT	WATERTIGHT

ABBREVIATION LEGEND

SCALE: N.T.S.



elementz

ENGINEERING PSC

1148 4318 Ave. Esmeralda 404 Guaynabo, P.R. 00969

tel. 787-221-5655

www.elementzcorp.com

REVISION 0

PRELIMINARY DRAWINGS

FEB/28/2023

NEW IMPROVEMENTS ACAA BUILDING
255-273 AVENIDA DE LA CONSTITUCION
SAN JUAN, PUERTO RICO

ELECTRICAL DEMOLITION ROOM PLAN
SCALE: 1/4"=1'-0"

1. THE ELECTRICAL CONTRACTOR SHALL, AS PART OF HIS WORK, PERFORM ALL RELATED DEMOLITION, MODIFICATIONS, RELOCATION OF SERVICES AND RELATED WORK, INCLUDING NEW WORK NECESSARY TO COMPLETE THE PROJECT.
2. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING BIDS. REFER TO ARCHITECTURAL, PLUMBING, MECHANICAL AND ELECTRICAL WORK SHOWN ON OTHER DRAWINGS AND VISIT THE SITE TO DETERMINE THE EXTENT OF THE DEMOLITION AND NEW WORK REQUIRED.
3. THE ELECTRICAL CONTRACTOR SHALL NOT DISCONNECT EQUIPMENT AND ELECTRICAL CIRCUITS IN THE RENOVATION AREA OR ANY PART OF THE BUILDING WITHOUT PRIOR NOTIFICATION AND PERMISSION FROM THE OWNER. EXTREME CARE SHALL BE TAKEN TO MINIMIZE DISTURBANCE TO THE SURROUNDING AREA.
4. ITEMS REMOVED AND NOT SCHEDULED TO BE RELOCATED SHALL BE OFFERED TO THE OWNER FOR THEIR USE AND IF NOT ACCEPTED BY OWNER, THE ELECTRICAL CONTRACTOR SHALL DISPOSE OF THE MATERIAL FROM THE SITE IN ACCORDANCE WITH E.P.A. REGULATIONS. THE ELECTRICAL CONTRACTOR SHALL DELIVERY ITEMS ACCEPTED BY THE OWNER TO THE DESIGNATED LOCATION AS DIRECTED BY THE OWNER.
5. IN ALL CASES WHERE WORK IS REMOVED, THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS, EQUIPMENT AND LABOR TO SUSTAIN OPERATION OF ALL PARTS OF SYSTEMS CONNECTING TO, OR FROM, THE PART REMOVED, COMPLETING ALL WORK IN STRICT ACCORDANCE WITH APPLICABLE CODES.
6. ALL WIRING, CABLES AND FEEDERS INCLUDING BOTH CONNECTED TO DEVICES AND EQUIPMENT TO BE DEMOLISHED AND EXISTING THAT WERE ABANDONED IN PLACE SHALL BE REMOVED BACK TO THEIR SOURCES. UNLESS NOTED OTHERWISE, CONDUITS AND/OR WIRING SHALL, WHERE NECESSARY, BE RECIRCUITED AROUND THE REMOVED PART, KEEPING OCCUPIED PARTS OF THE BUILDING SYSTEM IN FULL SERVICE. EACH TRADE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND RELOCATION OF SERVICES, EQUIPMENT AND MATERIALS RELATING TO EACH HVAC, PLUMBING/FIRE PROTECTION AND ELECTRICAL TRADE, RESPECTIVELY.
7. ALL EXISTING CONDUITS WHICH HAS BEEN ABANDONED OR IS UNUSED SHALL BE REMOVED.
8. PROVIDE BLANK METAL COVER PLATES FOR ALL JUNCTION/DEVICE BOXES NO LONGER IN USE THAT ARE EMBEDDED IN FLOOR SLAB OR MASONRY WALLS. PROVIDE PLUGS FOR ALL PANELS WHERE CONDUIT HAS BEEN REMOVED, COVER PLATES SHALL BE PAINTED TO MATCH EXISTING CONDITIONS.
9. COORDINATE WITH THE ARCHITECTURAL DRAWINGS AND THE G.C. FOR EXISTING PARTITIONS TO BE REMOVED. DISCONNECT EXISTING BRANCH CIRCUITS SERVING DEVICES IN PARTITIONS TO BE REMOVED. MAINTAIN CONTINUITY OF CIRCUITS SERVING EXISTING DEVICES IN OTHER AREAS TO REMAIN.
10. ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTING AND POWER AS REQUIRED.
11. ELECTRICAL CONTRACTOR SHALL PROVIDE UPDATED TYPE WRITTEN PANEL DIRECTORIES FOR ALL PANELS AFFECTED BY THE DEMOLITION AND/OR NEW WORK. CIRCUIT BREAKERS NOT USED FOR NEW WORK SHALL BE LABELED AS SPARE.
12. FOR EXISTING DEVICES/CIRCUITRY THAT ARE INDICATED TO BE REMOVED BACK TO POINT OF ORIGIN - THESE ITEMS ARE TO BE REMOVED BACK TO POINT OF ORIGIN UNLESS THERE WILL BE EXISTING DEVICES ON THE SAME CIRCUIT THAT ARE LOCATED OUTSIDE AREA OF WORK THAT ARE TO REMAIN. IN THAT CASE, REMOVE THE EXISTING DEVICES/CIRCUITRY IN AREA OF WORK BACK TO THESE EXISTING DEVICES TO REMAIN. ALL DEVICES/CIRCUITRY IN SURROUNDING AREAS THAT ARE TO REMAIN ARE TO BE KEPT ENERGIZED. FOR REMOVAL OF CONDUIT AND WIRING OUTSIDE OF AREA OF WORK COORDINATE AND SCHEDULE WITH OWNER PRIOR TO PERFORMING WORK.
13. NO WORKS SHALL BE LEFT INCOMPLETE, NOR ANY HAZARDOUS SITUATION CREATED, WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS. AT NO TIME SHALL THE WORK INTERFERE WITH OR CUT OFF ANY OF THE EXISTING SERVICES WITHOUT THE OWNER'S PRIOR WRITTEN PERMISSION.

DEMOLITION NOTES
SCALE: N.T.S.

REVISIONS		
No.	DESCRIPTION	DATE


PO BOX 362192 SAN JUAN P.R. 00936
TEL. (787) 724-4331, FAX. (787) 977-7980
WWW.ABACUSARQ.COM

PARTNER IN CHARGE
DESIGN CAPTAIN
JOB CAPTAIN
CHECKED BY
DRAWN BY

PRELIMINARY COPY

DRAWING TITLE
8TH FLOOR
ELECTRICAL DEMOLITION

SCALE 1/4" = 1'-0"	DRAWING No. ED-01
PROJECT No.	SHEET No.
DATE	



elementz
ENGINEERING PCO

PMB #518 Ave. Esmeraldo 405 Guaynabo, P.R. 00969
www.elementzcorp.com
Tel. 787-221-3255

REVISION 0
BID DRAWINGS
FEB/28/2023

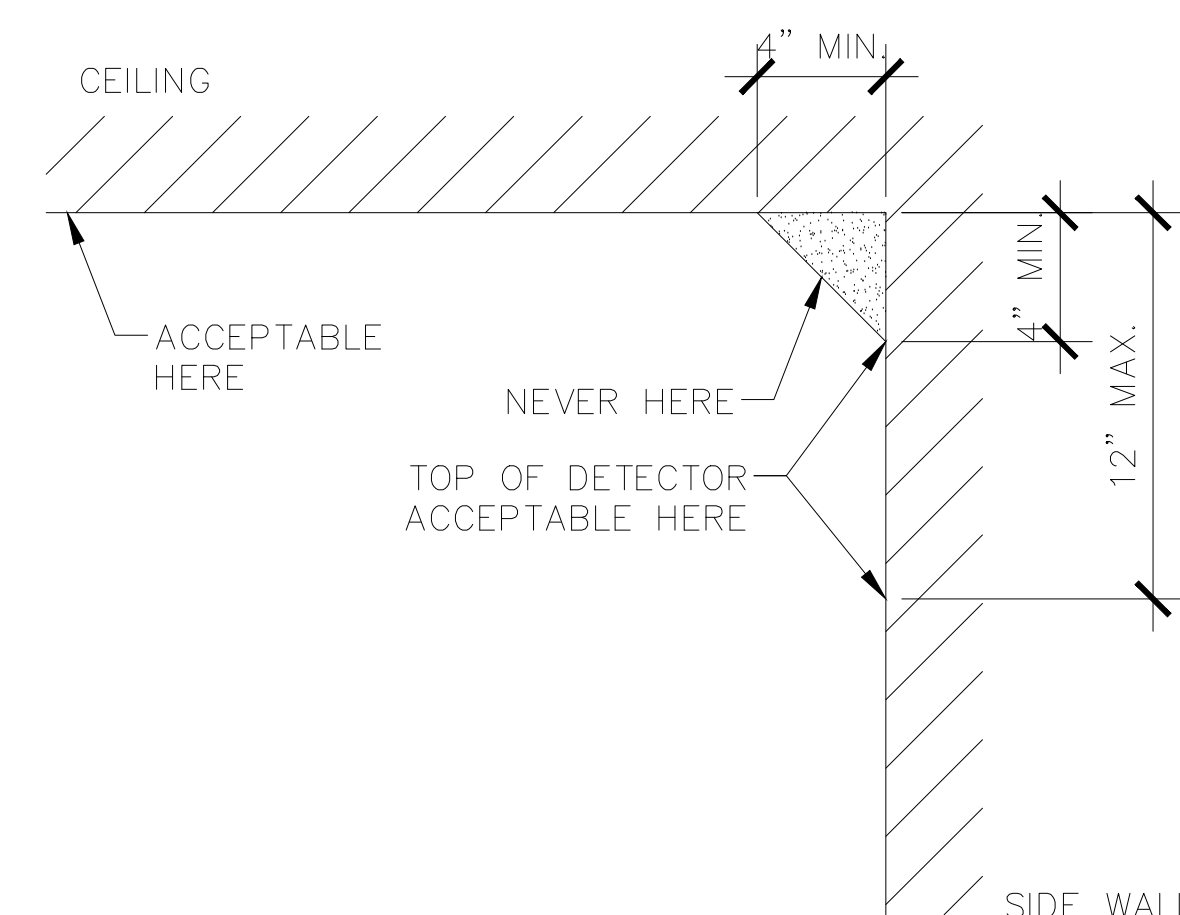
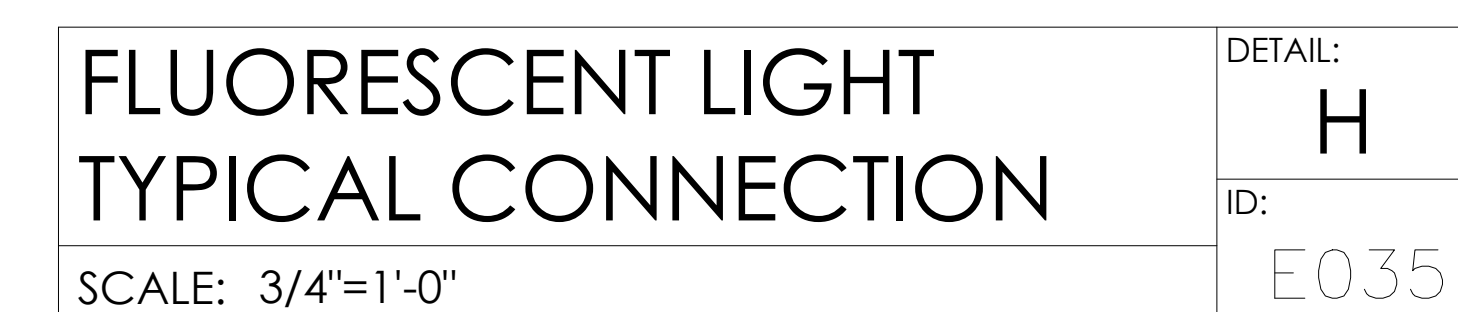
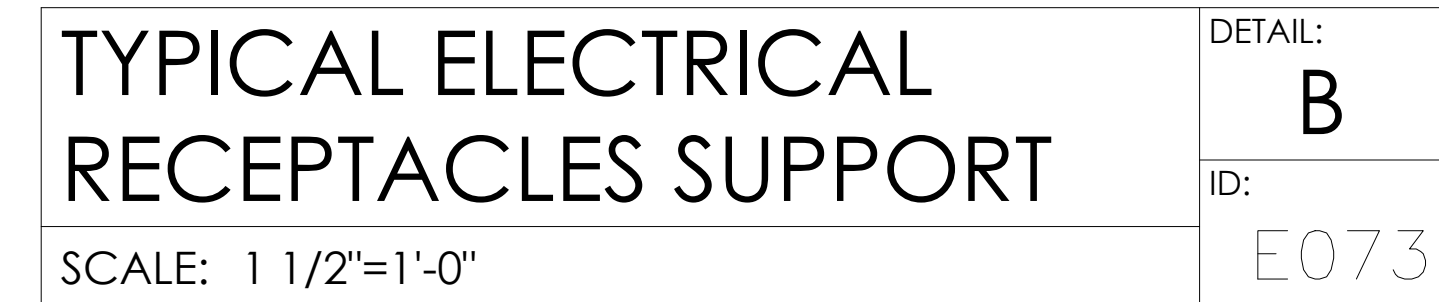
NEW IMPROVEMENTS ACAA BUILDING
255-273 AVENIDA DE LA CONSTITUCION
SAN JUAN, PUERTO RICO

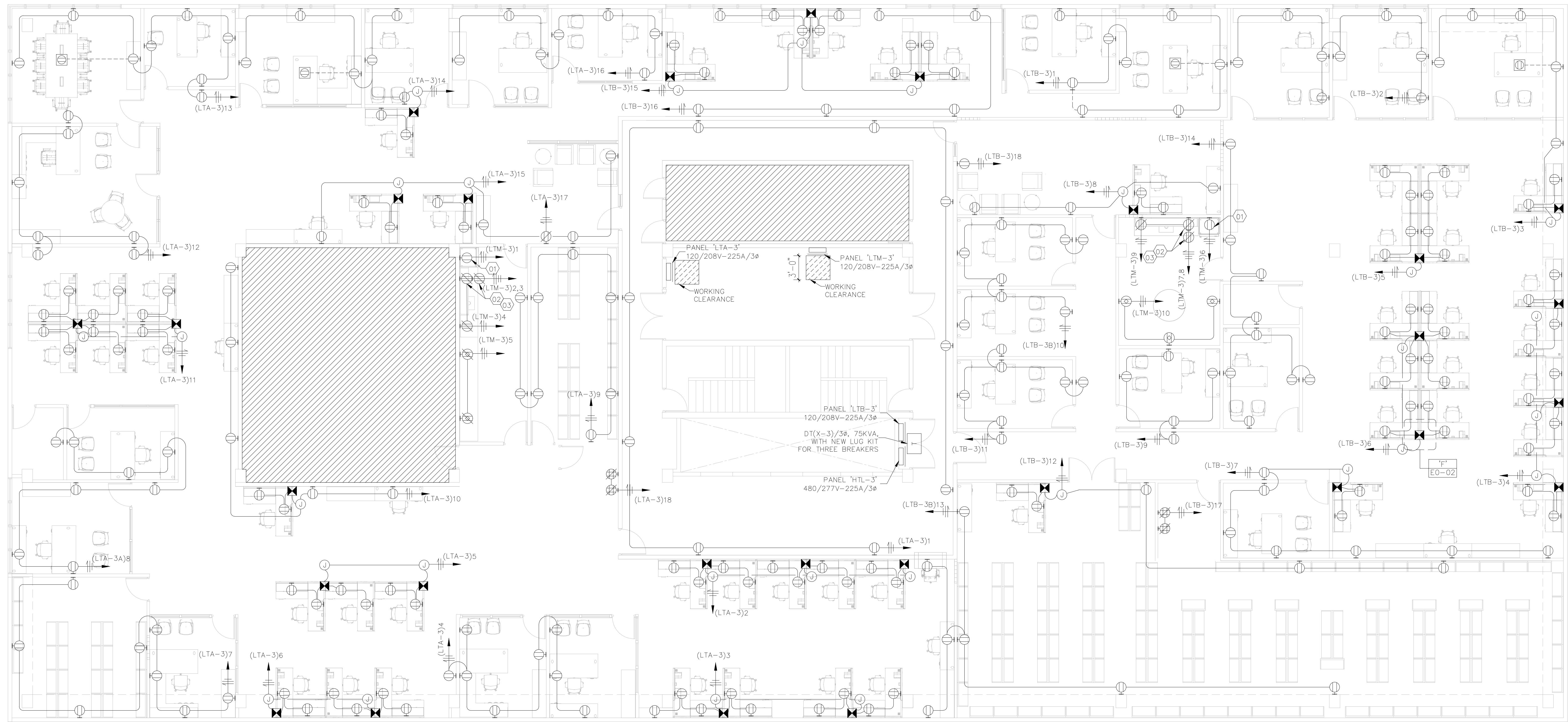
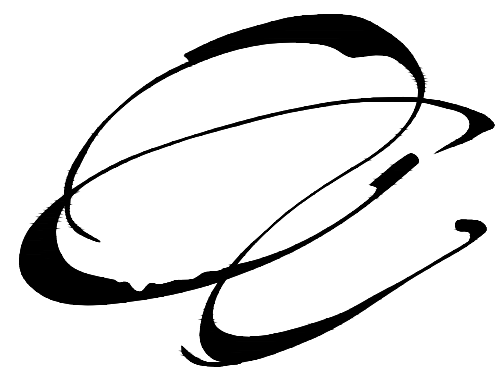
[illegible]

PARTNER IN CHARGE _____
DESIGN CAPTAIN _____
JOB CAPTAIN _____
CHECKED BY _____
DRAWN BY _____

DRAWING TITLE

SCALE AS NOTED	DRAWING No. E0-02
PROJECT No.	
DATE	SHEET No.





EXISTING ELECTRICAL CONDITIONS TO REMAIN
CONTRACTOR SHALL VERIFY EXISTING ELECTRICAL
INFRASTRUCTURE CONDITIONS BEFORE INSTALLATION.

ELECTRICAL FLOOR PLAN

SCALE: 1/8"=1'-0"

KITCHEN EQUIPMENT ELECTRICAL SCHEDULE				
ID	DESCRIPTION	RECEPTACLE HEIGHT	EXPOSED OR CONCEALED	VOLTS (V)
01	REFRIGERATOR	18"	CONCEALED	120
02	MICROWAVE	58"	CONCEALED	120
03	MICROWAVE	74"	CONCEALED	120

NEW IMPROVEMENTS ACAA BUILDING
255-273 AVENIDA DE LA CONSTITUCION
SAN JUAN, PUERTO RICO

REVISIONS		
No.	DESCRIPTION	DATE

PO BOX 362192 SAN JUAN P.R. 00936
TEL. (787) 724-4331, FAX. (787) 977-7980
WWW.ABACUSARQ.COM

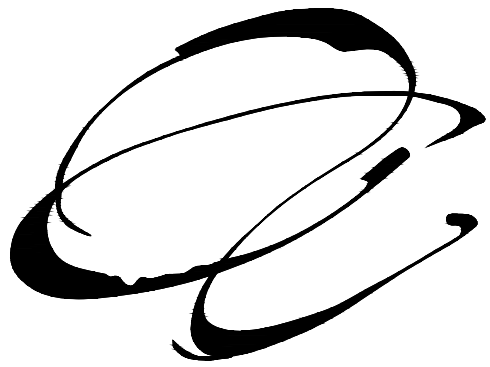
OWNER IN CHARGE
DESIGN CAPTAIN
JOB CAPTAIN
CHECKED BY
DRAWN BY

SCHEMATIC COPY

DRAWING TITLE

8TH FLOOR ELECTRICAL
FLOOR PLAN

SCALE 1/8"=1'-0"	DRAWING No. E1-01
PROJECT No.	SHEET No.
DATE	



DESIGNATION	BRAND:	MAIN	VOLTAGE (V)	CIRCUIT			LOAD
				NUM.	POLES	AMPS.	
'HTL-3'	SQUARE D	EXISTING	277/480V	1-9	1	20	LIGHTING
LOCATION:	TYPE:	CAPACITY (A):	SYSTEM:	10,11	1	20	EMERGENCY LIGHTS
ELECTRICAL ROOM	NEMA 1	225	4W	12/14/16	3	100	DRY TYPE 'X-3'.
		INT. CAPACITY (K.A.I.C.):		13/15/17	3	20	AHU-01 SAFETY SWITCH
		-		18/20/22	3	20	AHU-02 SAFETY SWITCH
		-		23-42	-	-	SPACE
DESIGNATION	BRAND:	MAIN	VOLTAGE (V)	CIRCUIT			LOAD
				NUM.	POLES	AMPS.	
'LTA-3'	SQUARE D	LUGS	120/208V	1-16	1	20	RECEPTACLES
LOCATION:	TYPE:	CAPACITY (A):	SYSTEM:	17	1	20	REMOTE FIRE ALARM PANEL
ELECTRICAL ROOM	NEMA 1	225	4W	18	1	20	TELECOMM RACK #1 (DA)
		INT. CAPACITY (K.A.I.C.):		19-30	-	-	SPACE
		-		31-42	-	-	SPACE
		-		31-42	-	-	SPACE
DESIGNATION	BRAND:	MAIN	VOLTAGE (V)	CIRCUIT			LOAD
				NUM.	POLES	AMPS.	
'LTB-3'	SQUARE D	EXISTING	120/208V	1-16	1	20	RECEPTACLES
LOCATION:	TYPE:	CAPACITY (A):	SYSTEM:	17	1	20	TELECOMM RACK #2 (DB)
ELECTRICAL ROOM	NEMA 1	225	4W	18	1	20	REMOTE FIRE ALARM PANEL
		INT. CAPACITY (K.A.I.C.):		19-30	-	-	SPACE
		-		31-42	-	-	SPACE
		-		31-42	-	-	SPACE
DESIGNATION	BRAND:	MAIN	VOLTAGE (V)	CIRCUIT			LOAD
				NUM.	POLES	AMPS.	
'LTM-3'	SQUARE D	LUGS	120/208V	1,6	1	20	REFRIGERATOR
LOCATION:	TYPE:	CAPACITY (A):	SYSTEM:	2,3	1	20	MICROWAVE RECEPTACLES
ELECTRICAL ROOM	NEMA 1	225	4W	4	1	20	KITCHEN COUNTER RECEPTACLE
		INT. CAPACITY (K.A.I.C.):		5	1	20	MICROWAVE RECEPTACLES
		-		6	1	20	REFRIGERATOR
		-		7,8	1	20	MICROWAVE RECEPTACLES
		-		9	1	20	KITCHEN COUNTER RECEPTACLE
		-		10	1	20	MICROWAVE RECEPTACLES
		-		11	1	20	HAND DRYER WOMAN BATHROOM
		-		12	1	20	HAND DRYER MEN BATHROOM
		-		13-42	1	20	SPACE

ELECTRICAL PANEL SCHEDULE

SCALE: N.T.S.

CONDUITS & CONDUCTORS INFORMATION				
BREAKER	CURRENT CARRYING CONDUCTOR SIZE	GROUND CONDUCTION	CONDUITS SIZE*	
			1 POLE	3 POLES
15A	#12	#12	3/4"ø	3/4"ø
20A	#12	#12	3/4"ø	3/4"ø
25A	#10	#10	3/4"ø	3/4"ø
30A	#10	#10	3/4"ø	3/4"ø
35A	#8	#10	3/4"ø	3/4"ø
40A	#8	#10	3/4"ø	3/4"ø
45A	#6	#10	1"ø	1"ø
50A	#6	#10	1"ø	1"ø
60A	#4	#10	1"ø	1 1/4"ø
70A	#4	#8	1"ø	1 1/4"ø
80A	#3	#8	1"ø	1 1/4"ø
90A	#2	#8	1 1/4"ø	1 1/2"ø
100A	#2	#8	1 1/4"ø	1 1/2"ø
125A	#1	#6	1 1/4"ø	1 1/2"ø
150A	#1/0	#6	1 1/4"ø	2"ø
175A	#2/0	#6	1 1/2"ø	2"ø
200A	#3/0	#3	1 1/2"ø	2"ø
*ASSUME THHN/THWN INSULATION AND EMT CONDUIT, OTHER TYPES OF INSULATION AND CONDUITS MATERIALS ARE DESCRIBE BELOW.				

CONDUITS & CONDUCTORS SCHEDULE

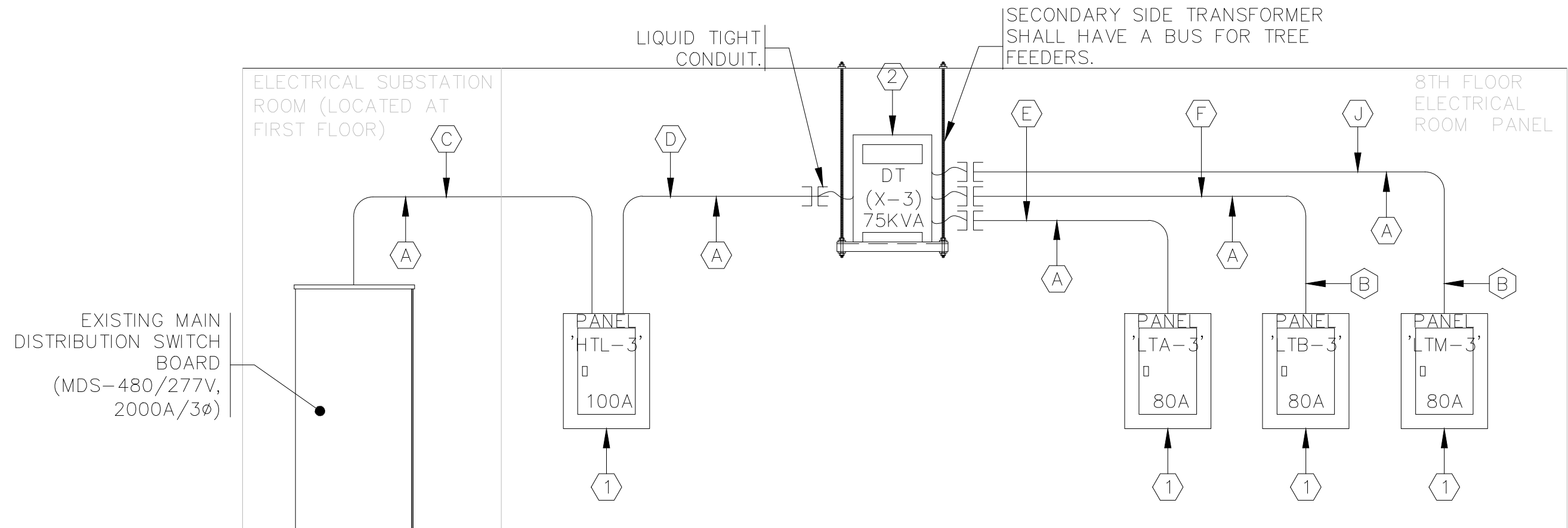
SCALE: N.T.S.

ID	DESCRIPTION	MANUFACTURER	MODEL	VOLTS	BALLAST TYPE	LAMPS OR TUBES			TOTAL WATTS
						NUM.	WATTS	TYPE	
L1	2'x2' LED FIXTURE	LITHONIA LIGHTING	3400LM 80 CRI 40K MIN10 ZT 277V	277	DR	-	-	-	-
ES	EXIT SIGN	LITHONIA LIGHTING	ECBG LED M6	277	DR	1	3	LED	3

FIXTURE NOTES:
-EB DENOTES 'ELECTRONIC BALLAST'.
-DB DENOTES 'DIMMABLE BALLAST'.
-IN DENOTES 'INCANDESCENT LAMP'.

LIGHTING SCHEDULE

SCALE: N.T.S.



- (1) - ELECTRICAL PANEL 225A, SEE SCHEDULE FOR DETAILS.

(2) - EXISTING 75KVA 480V PRI./120/208V SEC. DRY TYPE TO REMAIN.

(A) - EXISTING FEEDER TO REMAIN. ELECTRICAL CONTRACTOR SHALL VERIFY THAT CABLE CONDITION AND INSULATION ARE IN OPERATIONAL CONDITIONS BEFORE RE-ENERGIZE.

(B) - IF NO EXISTING CONDUIT, ELECTRICAL CONTRACTOR SHALL VERIFY THAT ITS PATHWAY TO BE CONSTRUCTED BEFORE RE-ENERGIZE.
- (C) - (4)#2/0-CU-IN 2"ø EMT CONDUIT.

(D) - (4)#2/0-CU-THW IN 1.25"ø EMT CONDUIT.

(E) - (4)#4/0-CU-THW IN 2.5"ø EMT CONDUIT.

(F) - (4)#4-CU-THW IN 1.25"ø EMT CONDUIT.

(J) - (4)#4-CU-THW IN 1.25"ø EMT CONDUIT.

ELECTRICAL SINGLE LINE DIAGRAM

SCALE: N.T.S.

REVISIONS		
No.	DESCRIPTION	DATE

PO BOX 362192 SAN JUAN P.R. 00936
TEL. (787) 724-4331, FAX. (787) 977-7980
WWW.ABACUSARQ.COM

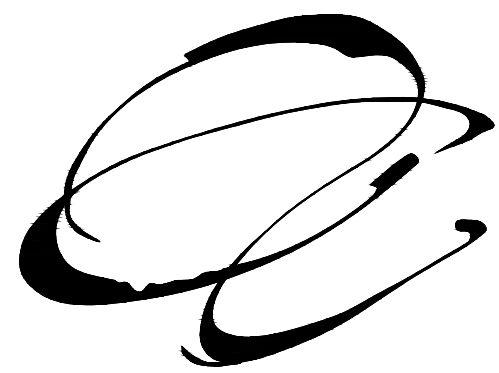
DESIGNER IN CHARGE
JOB: CAPTAIN
CHECKED BY
DRAWN BY

SCHEMATIC COPY

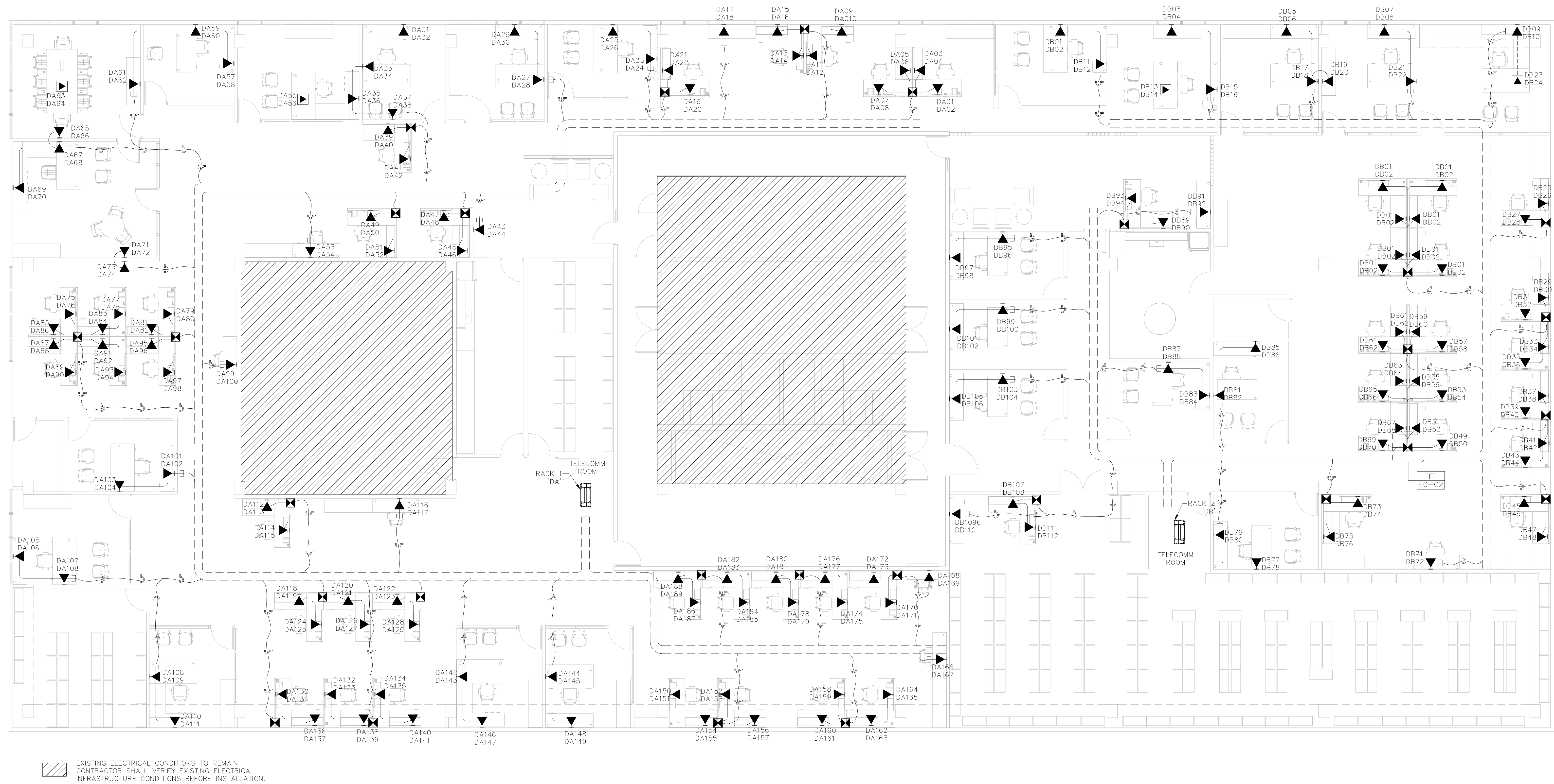
DRAWING TITLE

ELECTRICAL SCHEDULES

SCALE	AS NOTED	DRAWING No.	
PROJECT No.		E2-01	
DATE		SHEET No.	



NEW IMPROVEMENTS ACAA BUILDING
255-273 AVENIDA DE LA CONSTITUCION
SAN JUAN, PUERTO RICO



TELECOMM FLOOR PLAN
SCALE: 1/8"=1'-0"

REVISIONS		
No.	DESCRIPTION	DATE

PO BOX 362192 SAN JUAN P.R. 00936
TEL. (787) 724-4331, FAX. (787) 977-7980
WWW.ABACUSARQ.COM

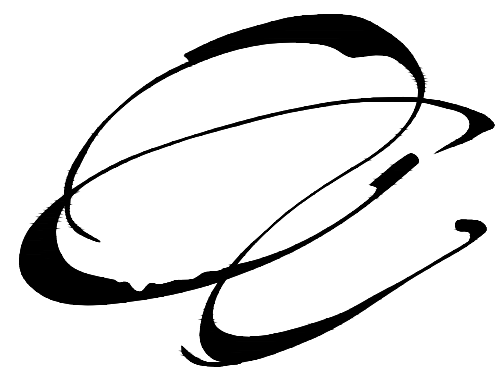
DESIGNER IN CHARGE
JOB CAPTAIN
CHECKED BY
DRAWN BY

PRELIMINARY COPY

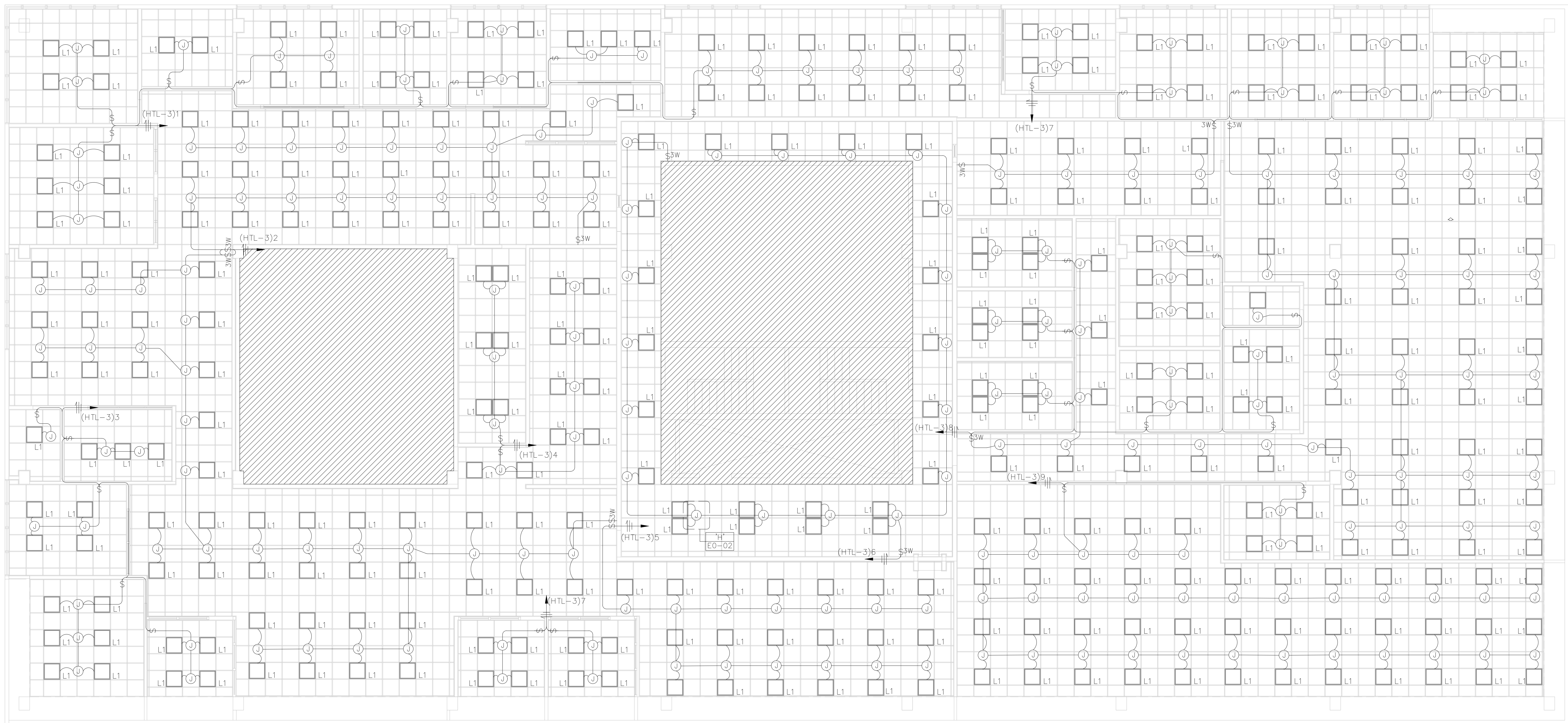
DRAWING TITLE

EIGHTH FLOOR TELECOMM
PLAN

SCALE 1/8"=1'-0"	DRAWING No. T1-01
PROJECT No.	SHEET No.
DATE	



NEW IMPROVEMENTS ACAA BUILDING
255-273 AVENIDA DE LA CONSTITUCION
SAN JUAN, PUERTO RICO



LIGHTING FLOOR PLAN
SCALE: 1/8"=1'-0"

REVISIONS		
No.	DESCRIPTION	DATE

PO BOX 362192 SAN JUAN P.R. 00936
TEL. (787) 724-4331, FAX. (787) 977-7980
WWW.ABACUSARQ.COM

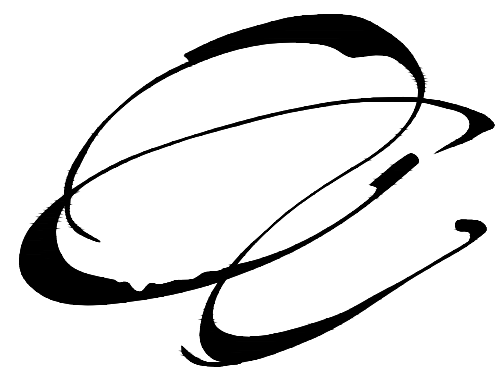
DESIGNER IN CHARGE
DESIGN CAPTAIN
JOB CAPTAIN
CHECKED BY
DRAWN BY

PRELIMINARY COPY

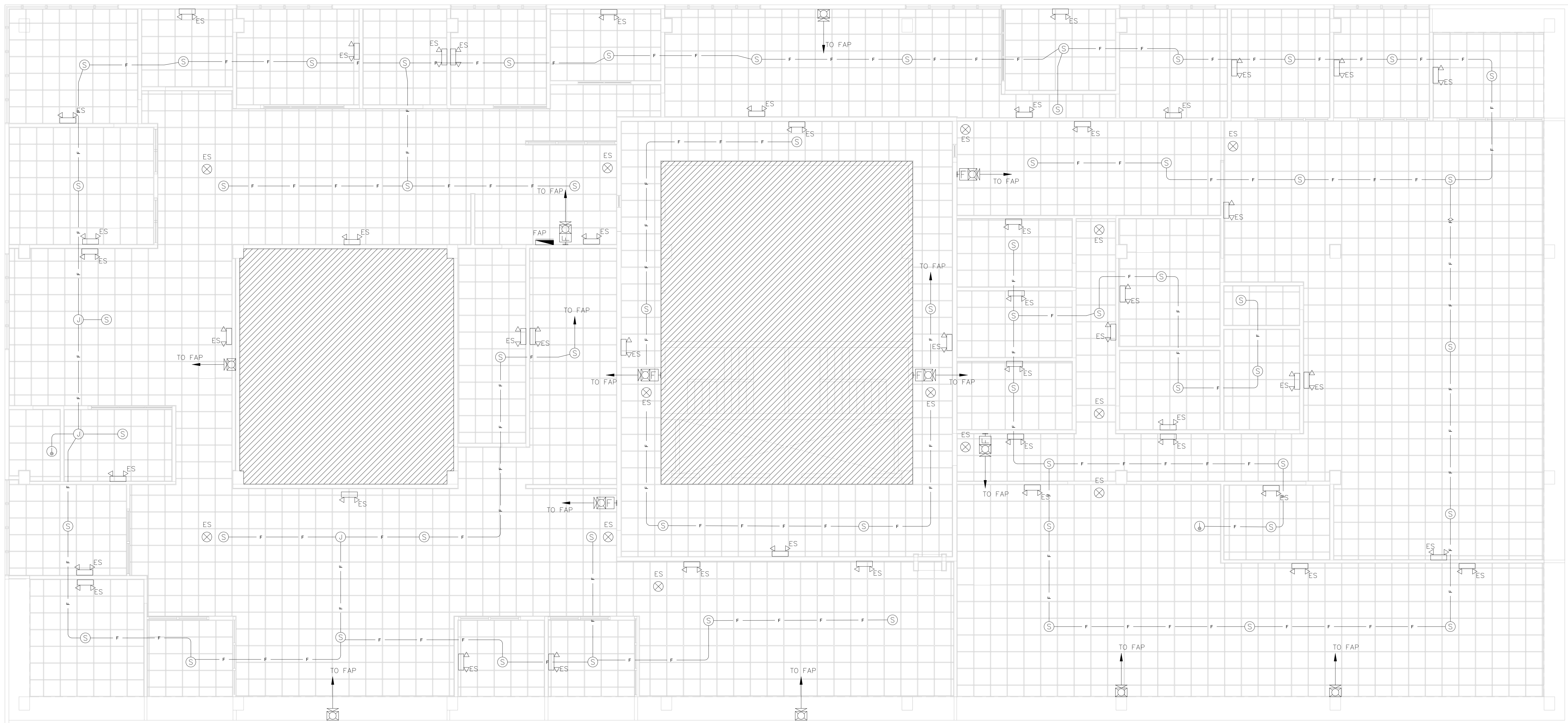
DRAWING TITLE

8TH FLOOR LIGHTING
FLOOR PLAN

SCALE 1/8"=1'-0"	DRAWING No. L1-01
PROJECT No.	SHEET No.
DATE	



NEW IMPROVEMENTS ACAA BUILDING
255-273 AVENIDA DE LA CONSTITUCION
SAN JUAN, PUERTO RICO



EXISTING ELECTRICAL CONDITIONS TO REMAIN
CONTRACTOR SHALL VERIFY EXISTING ELECTRICAL
INFRASTRUCTURE CONDITIONS BEFORE INSTALLATION.

IMPORTANT NOTE:
- CONNECT EXIT SIGN & EMERGENCY LIGHTS
ON CIRCUITS (HTL-3)7 & (HTL-3)8.
- SMOKE DETECTOR MUST CONNECT TO FAP

FIRE ALARM FLOOR PLAN

SCALE: 1/8"=1'-0"

REVISIONS		
No.	DESCRIPTION	DATE

PO BOX 362192 SAN JUAN P.R. 00936
TEL. (787) 724-4331, FAX. (787) 977-7980
WWW.ABACUSARQ.COM

PARTNER IN CHARGE
DESIGN CAPTAIN
JOB CAPTAIN
CHECKED BY
DRAWN BY

PRELIMINARY COPY

DRAWING TITLE

8TH FLOOR FIRE ALARM
FLOOR PLAN

SCALE 1/8"=1'-0"	DRAWING No. F1-01
PROJECT No.	
DATE	SHEET No.