SCOPE OF WORK

1- REPLACED A/C UNIT AND WATER HEATER, EXISTING LIGHT AND OUTLET TO REMAIN.

CONNECT ALL NEW FIRE ALARM DEVICES TO EXISTING FIRE ALARM CONTROL PANEL AT THE EXISTING FULL FIRE ALARM SYSTEM.

FIRE ALARM DESIGN SHALL MEET THE REQUIREMENTS OF FLORIDA STATUTES 61G15-32.008.

ELECTRICAL SPECIFICATIONS

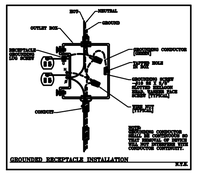
ELECTRICAL DIVISION 16

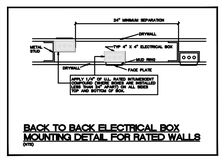
1. THE WORK SHALL COMPLY WITH THE LATEST APPLICABLE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (2020) FLORIDA BUILDING CODE 2020 SEVENTH EDITION, 0.S.H.A. (LOCAL) REQUIREMENTS AND ALL OTHER LOCAL CODES AND ORDINANCES GOVERNING THIS INSTALLATIONS, AS A MINIMUM STANDARD, UNLESS SPECIFICATIONS LISTED HEREIN OR SHOWN ON PLANS REQUIRE A HIGHER STANDARD. ALL ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC (2023) ART. 110.26.THE WORK INCLUDED CONSISTS OF ALL SUPERVISION, LABOR, MATERIAL, EQUIPMENT-FACILITIES AND INSTALLATION REQUIRED FOR THE COMPLETE SATISFACTORY AND APPROVED ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS AND CALLED FOR IN THIS SPECIFICATION OR AS MAY BE REASONABLY IMPLIED BY EITHER. ALL NOTES ON THE DRAWINGS PERTAINING TO THE WORK OF THIS TRADE SHALL BE CONSIDERED AS PART OF THIS SPECIFICATIONS AND CONTRACT.THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND ANY APPLICABLE SPECIFICATIONS. IF A PROBLEM IS ENCOUNTERED IN COMPLYING WITH THIS REQUIREMENT, THE CONTRACTOR SHALL NOTIFY THE OWNER OR HIS REPRESENTATIVE AS SOON AS POSSIBLE AFTER DISCOVERY OF THE PROBLEM, AND SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL THE OWNER HAS DIRECTED THE CORRECTIVE ACTION TO BE TAKEN. THE CONTRACTOR IS REFERRED TO THE ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS, SUCH PLANS AND SPECIFICATIONS ARE TO BE CONSIDERED PART OF THE ELECTRICAL CONTRACT DOCUMENTS. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW APPROXIMATE LOCATIONS AND ARRANGEMENTS ONLY. THE CONTRACTOR SHALL COORDINATE THE PROPOSED LOCATIONS OF ALL ELECTRICAL MATERIALS AND EQUIPMENT WITH THE REPRESENTATIVES OF THE OTHER TRADES INVOLVED BEFORE STARTING INSTALLATIONS OF THOSE ITEMS. COORDINATE THE INSTALLATIONS OF REQUIRED SUPPORTING DEVICES, CONDUIT, AND SLEEVES TO BE SET IN CAST-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED, ALL SLAB AND FIREWALL PENETRATIONS MUST BE FIRE RATED AND MUST CONFORM TO OWNER'S APPROVAL AS TO LOCATION AND CONSTRUCTION DETAILS.
2. MATERIALS: THE MATERIALS AND EQUIPMENT FURNISHED SHALL BE AS INDICATED ON THE DRAWINGS; SUBSTITUTIONS SHALL NOT BE MADE EXCEPT WHERE EXPRESSLY APPROVED BY THE OWNER OR HIS REPRESENTATIVE PRIOR TO STARTING INSTALLATION OF THE ITEMS. THE ELECTRICAL MATERIALS AND EQUIPMENT FURNISHED SHALL BE LISTED OR LABELED BY UNDERWRITERS LABORATORIES OR OTHER RECOGNIZED TESTING ORGANIZATION, AND SHALL BE ACCEPTABLE TO THE LOCAL BUILDING AUTHORITY.
3. GROUNDING: GROUNDING SHALL BE IN ACCORDANCE WITH ARTICLE 250 NEC. PROVIDE GROUND WIRES IN ALL CONDUITS UNLESS OTHERWISE NOTED.
4. THE ELECTRICAL CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN TEMPORARY ELECTRIC POWER AND LIGHTING FOR ALL TRADES.
5. ALL EXPOSED CONDUITS SHALL BE RUN AS NEAT AND INCONSPICUOUS AS POSSIBLE AND PAINTED TO MATCH COLOR OR SURROUNDINGS. PROVIDE FIRE STOP IN ALL ELECTRICAL CONDUITS CROSSING FIRE RATED WALLS.
6. FLEXIBLE CONDUITS SHALL BE USED FOR CONNECTION TO ALL VIBRATING EQUIPMENT SUCH AS MOTORS, LIGHTING FIXTURES, ETC. FLEXIBLE CONDUIT SHALL BE "LIQUID TIGHT" WHEN EXPOSED TO WEATHER.
7. CONDUCTORS SIZE #8 AND LARGER SHALL BE TYPE THWN STRANDED, COPPER. CONDUCTORS SIZE #10 AND SMALLER SHALL BE COPPER, TYPE THWN SOLID, UNLESS NOTED OTHERWISE. CONDUCTORS SHALL CONSIST OF 98% CONDUCTIVITY COPPER AS INDICATED. SIZE ARE AWG. ALL CONDUCTORS SHALL BE RUN IN CONDUIT EXCEPT AS NOTED ON PLANS. POWER, LIGHTING, AND GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN #12 AWG. EXCEPT WHERE OTHERWISE INDICATED. CONTROL CONDUCTORS SHALL NOT BE SMALLER THAN #14 AWG. CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET WITHOUT SPLICES EXCEPT WITHIN WIREWAY OR JUNCTION BOXES. MARK CONDUCTORS IN PANELS. PULL BOXES OR WIREWAYS AND TERMINAL STRIP TERMINALS FOR IDENTIFICATION OF CIRCUITS. CONDUCTORS SHALL BE JOINED USING COMPRESSION SPLICES, EXCEPT THAT CONDUCTORS #10 AND SMALLER MAY BE JOINED USING WIRE NUT TYPE CONNECTORS. CONDUCTORS SHALL BE TERMINATED USING COMPRESSION OR PRESSURE TYPE TERMINAL LUGS, OR IN PRESSURE TERMINAL. COMPRESSION SPLICES SHALL BE INSULATED USING 3M #33+ OR #88 PLASTIC TAPE. SPLICES IN WET LOCATIONS SHALL BE INSULATED WITH ELECTRICAL TAPE AND ENCAPSULATED WITH SCOTCHCAST OR EQUAL POTTING COMPOUND.
8. RECEPTACLES SHALL BE 15/20A, 125 V AS 2 POLE, 3 WIRE SINGLE OR DUPLEX GROUNDED TYPE EXCEPT WHERE SPECIFIC PURPOSE, LOCKING OR HIGHER RATED RECEPTACLES ARE SHOWN ON THE DRAWINGS.
9. ALL SWITCHES SHALL BE OF THE TOTALLY ENCLOSED TUMBLER TYPE WITH BODIES OF PHENOLIC COMPOUND. HANDLES SHALL BE IVORY COLORED.
10. CONTRACTOR SHALL VERIFY ALL EQUIPMENT NAMEPLATE DATA FOR WIRING AND OVERCURRENT PROTECTION REQUIREMENTS BEFORE PERFORMING ROUGH-IN WORK. NEC 110-16A, 215-5, 220-2, 240-3,240-6 AND 384-2 SHALL APPLY.
11. PROVIDE AND INSTALL JUNCTION AND PULL BOXES WHERE INDICATED AND WHERE NECESSARY TO TERMINATE, TAP OFF, OR REDIRECT MULTIPLE CONDUIT RUNS, OF SIZE INDICATED OR A REQUIRED BY NEC. WHERE FEEDER SPLICES ARE TO BE MADE, INSTALL BOXES LARGE ENOUGH TO PROVIDE AMPLE WORK SPACE.
12. FIXTURES WITH ADJUSTMENTS AFFECTING LIGHT DISTRIBUTION SHALL BE SET TO PROVIDE THE REQUIRED LIGHT PATTERNS PRIOR TO THE FINAL DEMONSTRATION TEST. ALL RECESSED LIGHTING FIXTURES SHALL CONFORM TO NEC 410-64.
13. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY CONTROL WIRING FOR ALL EQUIPMENT. ELECTRICAL POWER AND CONTROL WIRING FOR HVAC, POOL EQUIPMENT AND MECHANICAL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. SEE MECHANICAL DRAWINGS AND SPECIFICATIONS FOR WIRING DIAGRAMS AND REQUIREMENTS.
14. PANEL DIRECTORIES SHALL BE TYPED ACCURATELY TO SHOW AS BUILT CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY BALANCING ALL BRANCH CIRCUITS BETWEEN THE PHASES OF THE SYSTEM REGARDLESS OF CIRCUITING INDICATED.
15. ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THE ARCHITECT BEFORE ROUGH INSTALLATIONS OF LIGHTS, RECEPTACLES AND SWITCHES FOR EXACT LOCATION.
16. THE ENTIRE INSTALLATIONS SHALL BE PERFORMED IN A FIRST-CLASS WORK MANNER. THE CONTRACTOR SHALL TOUCH-UP OR REFINISH THE FACTORY FINISH OF EQUIPMENT MARRED DURING SHIPMENT OR INSTALLATION.
17. TESTS: AFTER EACH SYSTEM HAS BEEN COMPLETED, A FUNCTIONAL TEST SHALL BE PERFORMED TO DEMONSTRATE THAT THE SYSTEM OPERATES IN ACCORDANCE WITH THE REQUIREMENTS OF THE DRAWINGS. THE TEST SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF THE OWNER OR HIS REPRESENTATIVE. ALL WORK SHALL BE GUARANTEED FREE FROM DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. AT THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL REMOVE ALL RUBBISH CAUSED BY HIS WORK AND SHALL THOROUGHLY CLEAN ALL ELECTRICAL EQUIPMENT.
18. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO OBTAIN A COMPLETE AND SATISFACTORY INSTALLATIONS; AN ATTEMPT HA BEEN MADE TO SEPARATE AND COMPLETELY DEFINE THE WORK IN SEPARATE SECTIONS OF THE SPECIFICATIONS; HOWEVER, SUCH SEPARATIONS SHALL NOT RELIEVE THE CONTRACTOR FROM FULL RESPONSIBILITY OF COMPLIANCE WITH THE WORK OF HIS/HER TRADE WHICH MAY BE INDICATED ON ANY OF THE DRAWINGS AND OTHER SECTIONS OF THE SPECIFICATIONS.
19. THE CONTRACTOR SHALL CAREFULLY REVIEW AND VERIFY THE ARCHITECTURAL, STRUCTURAL, POOL EQUIPMENT, MECHANICAL DRAWINGS AND SPECIFICATIONS IN ADDITION TO THE ELECTRICAL AND OTHER RELATED TRADES AND SECTIONS. SHOULD ANY DISCREPANCIES BE FOUND THE ARCHITECT/ENGINEER MUST BE NOTIFIED. THIS COORDINATION SHALL BE DONE PRIOR TO SUBMITTING THE BID.
20. THE ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE ELECTRICAL DRAWINGS WITH REFERENCE TO BUILDING CONSTRUCTION AND DIMENSIONS. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC BUR ARE TO BE FOLLOWED AS CLOSELY AS THE ACTUAL CONSTRUCTION OF THE BUILDING AND THE WORK OF THE OTHER TRADES WILL PERMIT.
21. ALL JUNCTION BOXES SHALL BE ACCESSIBLE AS PER NEC
22. ALL PANELBOARDS MAIN BUS BARS SHALL BE COPPER, SIZED IN ACCORDANCE WITH STANDARDS TO LIMI THE TEMPERATURE RISE ON ANY CURRENT CARRYING PART TO A MAXIMUM OF 50 DEGREES C. ABOVE AN AMBIENT OF 40 DEGREE C. MAXIMUM. PROVIDE MAIN CIRCUIT, CIRCUIT BREAKERS, MAIN LUGS OR SUB-FEED LUGS AS REQUIRED. ALL NEW PANELBOARDS 400A OR ABOVE SHALL BE SQ."D" I-LINE, SIEMENS P2, ALL OTHERS MANUFACTURER SHALL BE EQUIVALENT TO THIS
23. NOT LESS THAN 90% OF THE LAMPS IN PERMANENTLY INSTALLED LUMINARIES SHALL HAVE AN EFFICACY OF AT LEAST 45 LUMENS-PER-WATT OR SHALL UTILIZE LAMPS WITH AN EFFICIENCY OF NOT LESS THAN 65 LUMENS-PER-WATT AS PER R404.1 AND C405.1 2020 FBC EC.
24. SAFETY SWITCHES/CIRCUIT BREAKER DISCONNECTS: SAFETY SWITCHES SHALL BE HEAVY DUTY TYPE KD, FUSIBLE OR NON-FUSIBLE WITH POLES, AMPERAGE, VOLTAGE, HORSEPOWER AND AIC RATINGS INDICATED AND SHALL HAVE SOLID NEUTRALS. LUGS SHALL BE U.L. LISTED FOR COPPER-ALUMINUM.
ENCLOSURES FOR SAFETY SWITCHES SHALL BE NEMA-1, GENERAL PURPOSE, EXCEPT THAT SWITCHES INDICATED (WP) WEATHERPROOF, SHALL BE NEMA-3R ENCLOSURES WITH SUITABLE GASKETS AND BONDING MEANS.
SWITCHES AND DISCONNECT SHALL BE AS MANUFACTURED BY SQUARE "D" OR APPROVED EQUAL. CIRCUIT BREAKER DISCONNECTS MAY BE USED IN LIEU OF SAFETY SWITCHES PROVIDING THEY COMPLY WITH THE SAFETY SWITCH REQUIREMENTS AND ARE SUPPLIED WITHIN THEIR RATINGS AND A SCHEDULE IS SUBMITTED FOR APPROVAL

VOLTAGE DROP:

FEEDERS:
ALL FEEDER CONDUCTORS ARE SIZED FOR A MAXIMUM VOLTAGE DROP OF 2.0% AT DESIGN LOAD.

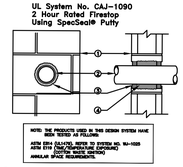
BRANCH CIRCUITS:
ALL BRANCH CIRCUITS CONDUCTORS ARE SIZED FOR A MAXIMUM VOLTAGE DROP OF 3.0% AT DESIGN LOAD.





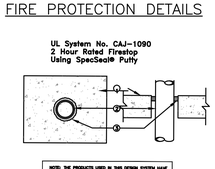
BACK TO BACK ELECTRICAL BOX MOUNTING DETAIL FOR RATED WALLS (UL)

FIRE PROTECTION DETAILS

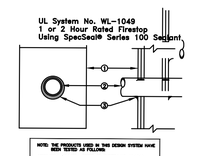


① Concrete or concrete block wall.
② Steel, Iron, Copper or Rigid PVC conduit.
③ SpecSeal® Putty installed in a 3/4"depth with additional material used to form a 1/4" crown.
④ Fiberglass forming material packed into wall cavity.

* Note: Forming material is optional with steel and iron penetrants when the putty is installed to a full 1" depth, recessed 1/2" into both sides of the wall.



① Concrete slab or concrete over steel deck.
② Steel, iron pipe or Rigid PVC conduit up to 8" trade size.
③ SpecSeale Putty installed to 1"depth. Recessed 1/2" from top surface. Annulus ranging from 1/4" minimum to 1" maximum.



① Rated gypsum wall board assembly.
② Steel, iron pipe, or Rigid PVC conduit (flexible or rigid) or EMT.
③ SpecSeale Series 100 Sealant.
Product depth:
- One hour rated assemblies, 5/8" depth with 1/4" crown.
- Two hour rated assemblies, 1" depth with 1/4" crown.
- Annulus ranging from point contact to 1/4" maximum.

Metallic or PVC Pipe Through Concrete Walls — STI Drawing No. DS1023 — NOT TO SCALE
* Refer to UL Fire Resistance Directory For Complete Installation Requirements.

Metallic Pipe or PVC Conduit Through Concrete Floors — STI Drawing No. DS1003 — NOT TO SCALE
* Refer to UL Fire Resistance Directory For Complete Installation Requirements.

Metallic Pipe or Rigid PVC Through Gypsum Board Walls — STI Drawing No. DS1032 — NOT TO SCALE
* Refer to UL Fire Resistance Directory For Complete Installation Requirements.

GENERAL ELECTRICAL NOTES;

1- ALL LIGHT FIXTURE TYPES SHALL BE SELECTED BY OWNER/ARCHITECT.

2- ALL CEILING RECESSED LIGHT FIXTURES IN DIRECT CONTACT WITH INSULATION SHALL BE 'IC' TYPE AS REQUIRED BY N.E.C. AIR TIGHT AND HOUSING SHALL BE SEALED WITH A GASKET OR CAULK TO CEILING OR WALL. R402.4

3- ALL LIGHTING, EXIT SIGN & EMERGENCY LIGHT TO BE SELECTED BY OWNER.

4- VERIFY EQUIPMENT LOCATIONS WITH ARCHITECTURAL DRAWINGS.

5- NOT USED.

6- CONTRACTOR SHALL COORDINATE WITH OWNER/ARCHITECT PROPER INSTALLATION AND FINAL LOCATION OF ALL HVAC DIFFUSERS AND LIGHTS PRIOR TO ROUGH-INS AND INSTALLATIONS.

7- VERIFY EQUIPMENT ELECTRICAL LOADS WITH EQUIPMENT "CUT SHEETS" AND NAMEPLATE OF EQUIPMENT BEFORE INSTALLATION OF POWER CONDUCTORS.

8- REFER TO MECHANICAL PLANS FOR EXACT LOCATION OF MECH. EQUIPMENT.

9- PROVIDE AND INSTALL ALL NEEDED RELAYS, STARTERS AND CONTROL WIRING NOT SHOWN ON THESE PLANS FOR COMPLETE INSTALLATION OF A/C SYSTEMS SHOWN.

10- ALL NEW INTERIOR AND EXTERIOR LIGHT FIXTURES SHALL BE SELECTED BY THE OWNER OR OWNER'S INTERIOR DESIGNER.

11- NOT USED.

12- ALL LED LIGHT FIXTURES SHALL BE FULL SPECTRUM WITH WARM WHITE LIGHT

13- 90% OF ALL FIXTURES/LAMPS SHALL BE ENERGY EFFICIENT.

14- INTERSYSTEM BONDING REQUIRED TELEPHONE AND LOW VOLTAGE SYSTEM AS PER NEC ARTICLE 250.94

COMPLETION REQUIREMENTS: (TO COMPLY WITH CHAPTER 13-413.1 ABC.2 FBC 2020 7TH EDITION)
DRAWINGS.

CONSTRUCTION DOCUMENTS SHALL REQUIRE THAT WITHIN 30 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE, RECORD DRAWINGS OF THE ACTUAL INSTALLATION SHALL BE PROVIDED TO THE BUILDING OWNER, INCLUDING:

1. A SINGLE-LINE DIAGRAM OF THE BUILDING ELECTRICAL DISTRIBUTION SYSTEM AND
2. FLOOR PLANS INDICATING LOCATION AND AREA SERVED FOR ALL DISTRIBUTION.

MANUALS
CONSTRUCTION DOCUMENTS SHALL REQUIRE THAT AN OPERATING MANUAL AND MAINTENANCE MANUAL BE PROVIDED TO THE ESTABLISHMENT OWNER. THE MANUALS SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:

1. SUBMITTAL DATA STATING EQUIPMENT RATING AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE.
2. OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE. REQUIRE ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.
3. NAMES AND ADDRESSES OF AT LEAST ONE QUALIFIED SERVICE AGENCY

NOTE:

THIS DESIGN COMPLIES WITH THE REQUIREMENTS OF ASHRAE 90.1 (2016) SECTION 8 AS ADOPTED BY THE 7TH EDITION (2020) FLORIDA BUILDING CODE IN THE ENERGY CODE (FBC CE 405).

8.4.2 AUTOMATIC RECEPTACLE CONTROL - THE FOLLOWING SHALL BE AUTOMATICALLY CONTROLLED: AT LEAST 50% OF ALL 125V, 15 AND 20 AMP RECEPTACLES IN ALL PRIVATE OFFICES, CONFERENCE ROOMS, ROOMS USED PRIMARELY FOR PRINTING AND/OR COPYING FUNTION, BREAK ROOMS, CLASSROOMS, AND INDIVIDUAL WORKSTATIONS.

THIS CONTROL SHALL FUNCTION ON:
A - A SCHEDULED BASIS USING A IME-OF-DAY OPERATED CONTROL DEVICE THAT TURNS RECEPTACLES OFF AT SPECIFIC PROGRAMMED TIMES-AN INDEPENDENT PROGRAM SCHEDULE SHALL BE PROVIDED FOR AREAS OF NO MORE THAN 5,000 SQ. FT. AND NOT MORE THAN ONE FLOOR (THE OCCUPANT SHALL BE ABLE TO MANUALLY OVERRIDE THE CONTROL DEVICE FOR UP TO TWO HOURS); OR
B - AN OCCUPANT SENSOR THAT SHALL TURN RECEPTACLES OFF WITHIN 20 MINUTES OF ALL OCCUPANTS LEAVING SPACE; OR
C - A AUTOMATED SIGNAL FROM ANOTHER CONTROL OR ALARM SYSTEM THAT SHALL TURN RECEPTACLES OFF WITHIN 20 MINUTES AFTER DETERMINING THAT THE AREA IS UNOCCUPIED. ALL CONTROLLED RECEPTACLES SHALL BE PERMANENTLY MARKED TO VISUALLY DIFFERENTIATE THEM FROM UNCONTROLLED RECEPTACLES AND ARE TO BE UNIFORMLY DISTRIBUTED THROUGHOUT THE SPACE. PLUG-IN DEVICES SHALL NOT BE USED TO COMPLY WITH SECTION 8.4.2.
D - DESIGN COMPLIES WITH FBC CE 405.1 ILLUMINATION
E - DESIGN COMPLIES WITH NEC 700.12

EXCEPTIONS: RECEPTACLES FOR THE FOLLOWING SHALL NOT REQUIRE AN AUTOMATIC CONTROL DEVICE
A - RECEPTACLES SPECIFICALLY DESIGNATED FOR EQUIPMENT REQUIRING 24 HOUR OPERATION
B - SPACES WHERE AN AUTOMATIC SHUTOFF WOULD ENDANGER THE SAFETY OR SECURITY OF THE ROOM OR BUILDING OCCUPANT(S)

ELECTRICAL SYMBOL LEGEND

- CEILING LIGHT / FAN
- FLAT LENS 2' x 4' FLUORESENT FIXTURE
- PARABOLIC 2' x 4' FLUORESCENT LIGHT FIXTURE
- 2' x 4' FLUORESCENT LIGHT FIXTURE W/ EMERG. BALLAST.
- RECESSED INCANDESCENT OR FLUORESCENT DOWNLIGHT
- RECESSED INCANDESCENT DOWNLIGHT
- OPEN EGG CRATE 2' x 2' FLUORESCENT LIGHT FIXTURE LUMAX 3PG33224-C09L18--FX1-L941-AH04
- TRACK LIGHTING
- WALL MOUNTED EXIT SIGN W/ BATT. BACK-UP
- EXTERIOR WALL PACKS
- CEILING MOUNTED CORD RECEPTACLES
- 20AMP, 115V, SINGLE RECEPT. @ 18" AFF
- 20AMP, 115V, DUPLEX RECEPT. @ 18" AFF
- 20AMP QUADPLEX RECEPT. @ 18" AFF
- GFCI 20AMP, 115V, DUPLEX RECEPT. W/ G.F.C.I.
- 20AMP, 115V, DUPLEX RECEPT. 6" ABOVE COUNTER
- 20AMP, 115V, FLOOR RECPTACLE
- SPECIAL RECEPTACLE 36" AFF U.N.O.
- TELEPHONE JUNCTION BOX @ 18" AFF
- DATA OUTLET BOX @ 18" AFF
- $_M MOTORIZED SWITCH
- TELEPHONE/DATA JUNCTION BOX @ 18" AFF
- H TV T.V. CABLE OR ANTENNA OUTLET
- FLOOR MOUNTED RECEPT. AND VOICE/DATA
- DR MOTOR OR FAN
- CEILING MOUNT OCCUPANCY SENSOR
- WALL MOUNTED EMERGENCY LIGHT W/ BATTERY BACK-UP
- A LIGHTING FIXTURE TYPE. LETTER REFERS TO SCH.
- W.H. WATER HEATER
- J JUNCTION BOX
- GFCI GROUND FAULT CIRCUIT INTERRUPTER
- 3 15/30 DISCONNECT HEAVY DUTY (3) POLES, 15A FUSE, 30A FRAME
- MOTOR STARTER OR CONTACTOR
- CONDUIT
- DR BRANCH CIRCUIT HOMERUN. LONG HASHMARK W/FLAG DENOTES GROUND WIRE, LONG HASHMARK W/O FLAG DENOTES NEUTRAL WIRE, SHORT HASHMARK DENOTES PHASE WIRE.
- C.U. CONDENSING UNIT
- A.F.F. ABOVE FINISHED FLOOR
- SECURITY CAMERAS
- $ SINGLE POLE LIGHT SWITCH - 48" AFF
- $_3 THREE WAY SWITCH - 48" AFF U.N.O.
- A.F.G. ABOVE FINISHED GRADE
- $D SINGLE POLE LIGHT DIMMER SWITCH - 48" A.F.F., U.N.O. WITH AUTOMATIC SHUT-OFF, DUAL (PDT) TYPE FEATURE.
- AHU AIR HANDLING UNIT
- DUCT HEATER
- ELECTRICAL PANEL - SURFACE MOUNTED
- WP WEATHER PROOF
- EF EXHAUST FAN
- CEILING MOUNTED EMERGENCY LIGHT W/ BATTERY BACK-UP

* NOT ALL SYMBOLS SHOWN HERE MAY APPLY FOR THIS PROJECT

1 / E-1 **ELECTRICAL NOTES AND DETAILS**
Scale: N.T.S

ANA STUDIO ARCHITECTURE, PC
ANA R.ESKREIS,RA
200 RIVERSIDE DRIVE (8H), NEW YORK, N.Y.10025
+1(516.641.5416 +35 (0) 45.96.24.53
ANASTUDIO2013@GMAIL.COM
www.FRENCHDIBS.com

WEXLER RESIDENCE
300 SOUTHPOINTE DR.
4204

MIAMI BEACH, FL.
33139

NOTES

No.	Date	Description

TITLE

SEAL & SIGNATURE:

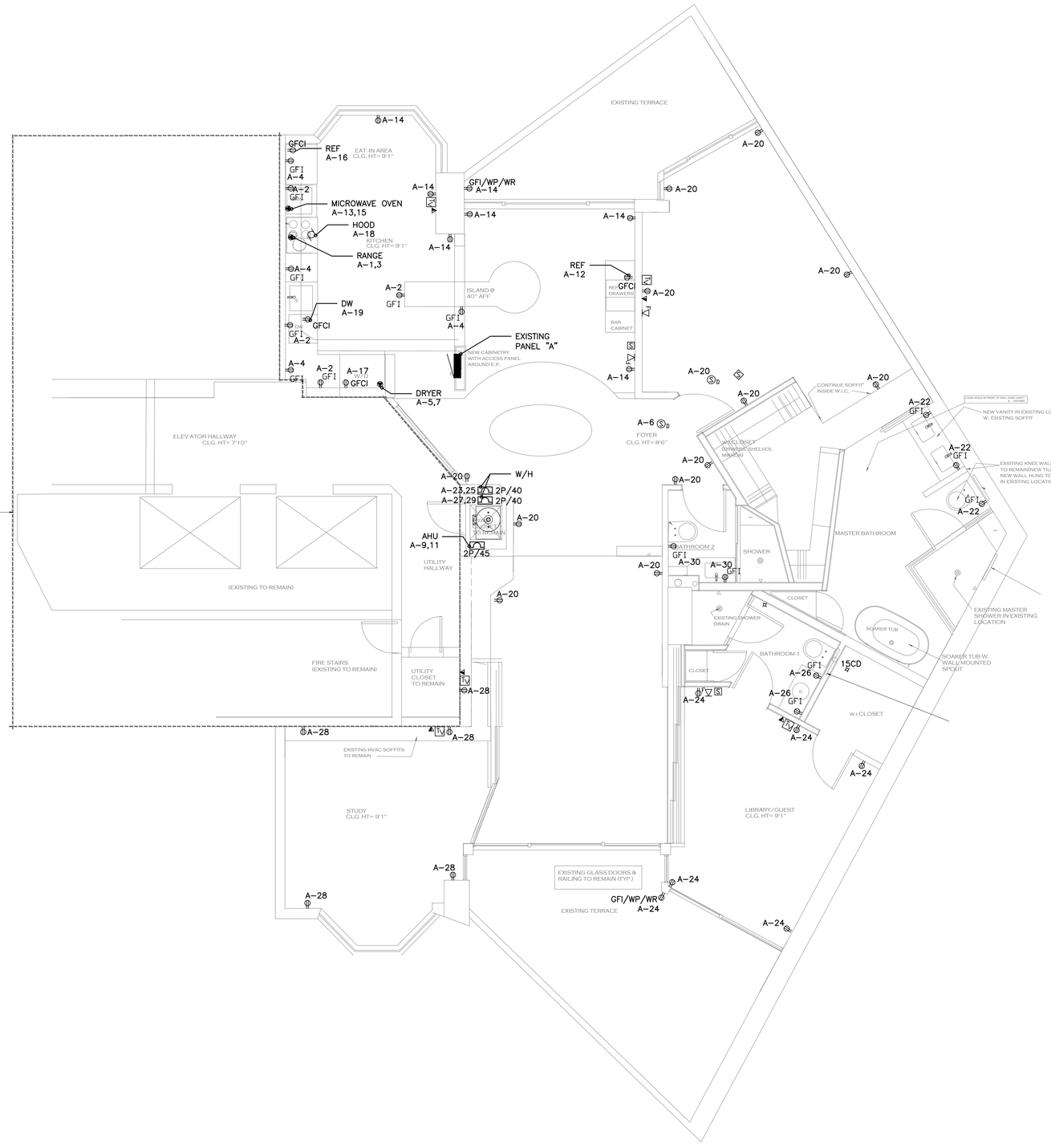
DATE: 12.12.2025
PROJECT No:
DRAWN BY:
CHECKED BY:
DWG No:

PAGE OF

E-1

SPACE FOR NYC-ISCAN STICKER

Fine Line Engineers Inc.
Electrical, Mechanical, Plumbing
Fire Protection, Construction Administration
2089 W. 76TH STREET Hialeah, Fl. 33016
Voice: 786.953-4901 - Fax: 786.953-4907
E-mail: cadinfo@flengineers.com
GEORGE FREIJO, P.E.
REGISTERED ENGINEER NO. 32578
STATE OF FLORIDA CA# 29796



1 E-2 **ELECTRICAL POWER**

1/4"=1'-00"

ANA STUDIO ARCHITECTURE, PC

ANA R.ESKREIS,RA

280 RIVERSIDE DRIVE (6H), NEW YORK, N.Y.10025
+1(516.641.5416 · +35 (1) 43.96.24.53
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WEXLER RESIDENCE
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MIAMI BEACH, FL.
33139

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DWG No:

Fine Line Engineers Inc.
Electrical, Mechanical, Plumbing
Fire Protection, Construction Administration
2089 W. 76TH STREET Hialeah, Fl. 33016
Voice: 786.953-4901 - Fax: 786.953-4907
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GEORGE FREIJO, P.E.
REGISTERED ENGINEER NO. 32578
STATE OF FLORIDA CA#. 29796

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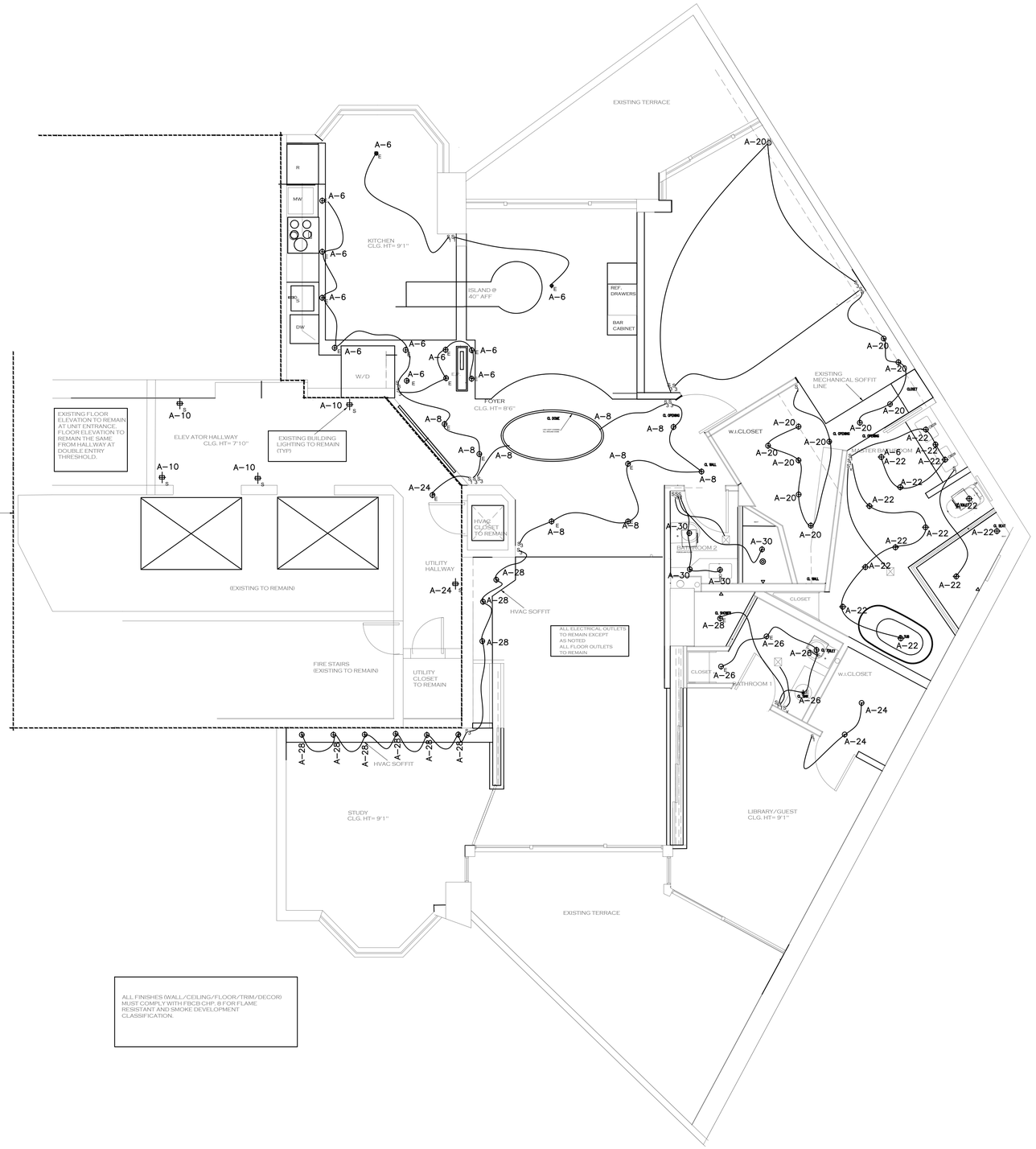
SPACE FOR NYC-BSCAN STICKER



1 **ELECTRICAL LIGHTING**
E-3 1/4"=1'-00"

LEGEND

E	"J" BOX FOR SURFACE MNTD. LIGHT FIXTURE (B.O.)
E	2.5" Low voltage LED RECESSED FIXTURE WAC (HR-836-BN(white) 4000 K TO REPLACE EXISTING RECESSED FIXTURE
	NEW 2.5" Low voltage LED RECESSED FIXTURE WAC (HR-836-BN(white) 4000 K
S	EXISTING WALL MNTED. SCONCE IN ELEVATOR HALLWAY TO REMAIN
	ELECTRICAL DUPLEX OUTLET
A	ELECTRICAL APPLIANCE OUTLET
GFI	ELECTRICAL GROUND FAULTED OUTLET
S	SINGLE POLE SWITCH WITH DIMMER (0-10)
3	3-WAY LIGHT SWITCH WITH DIMMER
SD	SMOKE DETECTORS(HARD-WIRED)(VIF), 120V BACK UP BATTHERYINTERCONNECTED & LOCATED 36" MIN. FROM ANY SUPPLY GRILLE.
V	BATHROOM EXHAUST FAN TO REMAIN
T	ELECTRICAL FEED FOR LED DRIVER

NOTE 1:

ALL OULETLOCATIONS TO MEET LOCAL CODES

REPLACE EXISTING RECEPTACLES /SWITCHES TO MATCH NEW
ALL WHITE DECORA SCREWLESS WALL PLATES, DIMMERS T.B.S.
KITCHEN BACKSPLASH: SATIN s/s SCREWLESS WALL PLATES

NOTE 2:

INVENTORY & REVIEW EXISTING RECEPTACLES/GFCI'S FOR CODE COMPLIANCE, ADD AS NECESSARY, IN UNIT AND ELEVATOR HALLWAY. ALL FLOOR OUTLETS TO REMAIN

FAIR HOUSING APPLIES FOR ALL DOOR WIDTHS, KITCHEN & BATHROOM.

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WEXLER RESIDENCE
300 SOUTHPOINTE DR.
4204

MIAMI BEACH, FL.
33139

NOTES

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TITLE

SEAL & SIGNATURE:

DATE: 12.12.2025
PROJECT No.:
DRAWN BY:
CHECKED BY:
DWG No:

Fine Line Engineers Inc.
Electrical, Mechanical, Plumbing
Fire Protection, Construction Administration
2089 W. 76TH STREET Hialeah, Fl. 33016
Voice: 786.953-4901 · Fax: 786.953-4907
E-mail: cadinfo@fenglneers.com
GEORGE FREIJO, P.E.
REGISTERED ENGINEER NO. 32578
STATE OF FLORIDA CA# 29796

SPACE FOR NYC-BSCAN STICKER

REPLACED

TYPE: SIEMENS
SERVICE: 120/208 V 1Ø 3W
MOUNTING: SURFACE
POLES: 30

PANEL "A"

MAIN BUS: 150 AMP
NEUTRAL: FULL
MAINS: 150A M.L.O.
A.I.C. 10K SERIES RATED

DEM. K.V.A.	NO DEM. K.V.A.	TRIP POLE	CON-DUIT	WIRE	REMARKS	CKT NO.	PHASE	CKT. NO.	REMARKS	WIRE	CON-DUIT	TRIP POLE	NO DEM. K.V.A.	DEM. K.V.A.
	8.0	2	EXISTING	EXISTING	RANGE	1		2	SMALL APPLIANCE	12	1/2"	1-20	1.50	④⑤
		50				3		4	SMALL APPLIANCE	12	1/2"	1-20	1.50	④⑤
	5.0	2	EXISTING	EXISTING	DRYER	5		6	KITCHEN LTS	12	1/2"	1-20	-	④⑤
		30				7		8	FOYER LTS/REC.	12	1/2"	1-20	-	④⑤
	5.18	2	1"	8	AHU-1 (NEW)	9		10	CORRIDOR LTS/REC.	12	1/2"	1-20	-	④⑤
		50				11		12	REFRIGERATOR DRAWER	12	1/2"	1-20	1.20	④⑤
	4.99	2	EXISTING	EXISTING	MICROWAVE OVEN	13		14	DINING LTS/REC.	12	1/2"	1-20	-	④⑤
		50				15		16	REFRIGERATOR	12	1/2"	1-20	1.00	④⑤
	1.50	1-20	1/2"	12	WASHER	17		18	KITCHEN HOOD	12	1/2"	1-20	0.80	
	0.86	1-20	1/2"	12	DISHWASHER	19		20	MASTER BEDRM LTS/REC.	12	1/2"	1-20	-	④⑤
④⑤	-	1-20	1/2"	12	LIBRARY/GUESS	21		22	MASTER BATHRM LTS/REC.	12	1/2"	1-20	-	④⑤
	9.00	2	1"	6	NEW INSTANT WATER HEATER (ELEMENT -1)	23		24	LIBRARY/GUEST	12	1/2"	1-20	-	④⑤
		40				25		26	BATHRM#1 LTS/REC.	12	1/2"	1-20	-	④⑤
	9.00	2	1"	6	NEW INSTANT WATER HEATER (ELEMENT -2)	27		28	STUDY LTS/REC.	12	1/2"	1-20	-	④⑤
		40				29		30	BATHRM#2 LTS/REC.	12	1/2"	1-20	-	④⑤

TOTAL DEMANDAD LOAD 28.87 KVA = 138.78 AMPS

FEED: SEE ELECTRICAL RISER DIAGRAM

PANEL SCHEDULE NOTES

1. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION AND CHARACTERISTICS OF HVAC EQUIPMENT. PROVIDE HVAC RATED CIRCUIT BREAKER. HEATING & COOLING ARE NON-CONCURRENT LOADS. HIGHEST VALUE USED FOR KVA CALCULATIONS.
2. ELECTRICAL CONTRACTOR SHALL VERIFY ALL KITCHEN EQUIPT. REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN.
3. ALL SMALL APPLIANCE RECEPTACLES IN KITCHEN SHALL BE GFCI PROTECTED IN ACCORDANCE WITH NEC 210-8.
4. THIS IS PART OF GENERAL LIGHTING LOAD AS SET FORTH IN NEC 220-3(b). 3 WATT PER SQ. FT.
5. ALL BEDROOMS, FAMILY ROOMS, DINNING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, SUNROOMS, RECREATION ROOMS, CLOSETS AND HALLWAYS CIRCUITS SHALL BE PROTECTED BY USE OF A LISTED COMBINATION TYPE ARC FAULT INTERRUPTER CIRCUIT BREAKERS (A.F.C.I.) AS REQUIRED BY N.E.C. 210.12 (A) (B)
6. NOT USED
7. GFCI PROTECTED CIRCUIT BREAKER
8. THIS BREAKER MUST BE ABLE LOCKED IN THE OFF POSITION

Engineering Corporation
DESIGN CALCULATIONS

JOB NAME **PORTOFINO APT 4204 1** 1 OR 3 PHASE?
VOLTAGE: 120 / 208 , 1 PHASE, 3W PANEL - **"A"**

LIGHTING LOAD 3 W/SQFT (NEC 220.12)	**2,322**	SQFT	6.97 KVA
SMALL APPLIANCE @ 1.5 KVA EA.(NEC 220.52)			3.00 KVA
COOK TOP			**8.00** KVA
REFRIGERATOR			**1.00** KVA
DISHWASHER			0.86 KVA
WASHER			1.50 KVA
DRYER			5.00 KVA
WATER HEATER			**18.00** KVA
MICROWAVE / OVEN			4.99 KVA
REFRIGERATOR			1.10 KVA
LOAD			0.00 KVA
HOOD			**0.80** KVA
REFRIG DRWRS			**1.20** KVA
LOAD			**0.00** KVA
LOAD			**0.00** KVA
LOAD			**0.00** KVA
LOAD			**0.00** KVA
LOAD			**0.00** KVA
LOAD			**0.00** KVA
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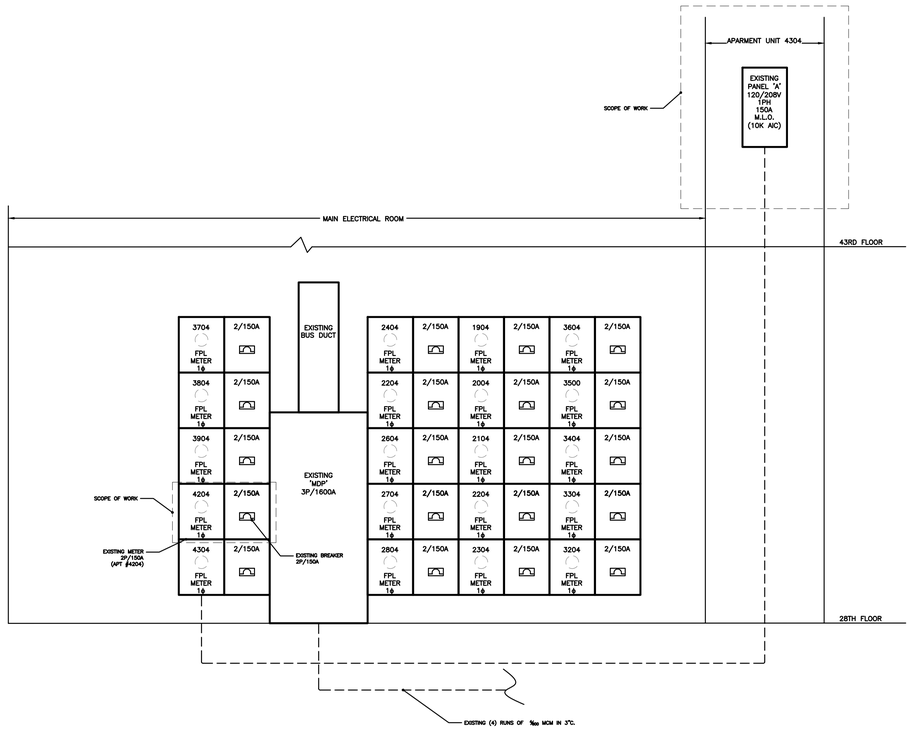
LOAD			**0.00** KVA
LOAD			**0.00** KVA
LOAD			**0.00** KVA
LOAD			**0.00** KVA
LOAD			**0.00** KVA
PER N.E.C. 220.82		SUB-TOTAL	**52.42** KVA
FIRST 8 KVA @ 100%			8.00 KVA
REMAINDER KVA 44.42 KVA		AT 40 %	17.77 KVA
AC LOAD- COOLING @ 100% =	**0.00** KVA		0.00 KVA
- OR HTG.@ 65% =	**4.77** KVA x.65=	3.10	3.10 KVA
WHICHEVER GREATER			
			28.87 KVA
		TOTAL	**28.87** KVA
PER N.E.C.			
TOTAL DEMAND LOAD **28.87** KVA =		**138.78** AMPS	



1 ELECTRICAL PANEL AND RISER
E-4 N.T.S

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