GROUND FLOOR ESTIMATED LOAD CALCS

GROUND FLOOR RETAIL: 23,800 S.F.

LIGHTING AT 3VA/S.F.: 71,400 VA x 1.25 = 89,250 VA
RECEPTACLES AT 1VA/S.F.: 23,800 VA
MECHANICAL AT 10VA/S.F.: 238,000 VA x 1.25 = 297,500 VA
OTHER AT 1VA/S.F.: 23,800 VA

TOTAL ESTIMATED VA: 416,500 VA
AT 120/208V, 3 PHASE: 1157 AMPS

PROVIDE SERVICE: 1200A, 277/480V, 3 PHASE

GROUND FLOOR GYM: 3,600 S.F.

LIGHTING AT 3.5VA/S.F.: 12,600 VA x 1.25 = 15,750 VA
RECEPTACLES AT 5VA/S.F.: 18,000 VA
MECHANICAL AT 10VA/S.F.: 36,000 VA x 1.25 = 45,000 VA
OTHER AT 1VA/S.F.: 3,600 VA

TOTAL ESTIMATED VA: 82,350 VA
AT 120/208V, 3 PHASE: 228.8 AMPS

PROVIDE SERVICE: 400A, 120/208V, 3 PHASE

GROUND FLOOR RESTAURANT: 5,000 S.F.

LIGHTING AT 2VA/S.F.: 10,000 VA x 1.25 = 12,500 VA
RECEPTACLES AT 3VA/S.F.: 15,000 VA
MECHANICAL (MINUS KITCHEN) AT 15VA/S.F.: 60,000 VA x 1.25 = 75,000 VA
OTHER AT 2VA/S.F.: 10,000 VA
KITCHEN MECHANICAL AT 30VA/S.F.: 30,000 VA

TOTAL ESTIMATED VA: 142,500 VA
AT 120/208V, 3 PHASE: 396 AMPS

PROVIDE SERVICE: 400A, 120/208V, 3 PHASE

SECOND FLOOR ESTIMATED LOAD CALCS

SECOND FLOOR OFFICE: 33,840 S.F.

LIGHTING AT 3.5VA/S.F.: 118,440 VA x 1.25 = 148,050 VA
RECEPTACLES AT 1VA/S.F.: 33,840 VA
10,000 VA AT 100%, REMAINING AT 50%: 21,920 VA
MECHANICAL AT 8VA/S.F.: 270,720 VA x 1.25 = 338,400 VA

TOTAL ESTIMATED VA: 542,210VA
AT 120/208V, 3 PHASE: 1506.1 AMPS

PROVIDE SERVICE: 1600A, 120/208V, 3 PHASE

SERVICE DISTRIBUTION PANELS SHALL BE LEGIBLY MARKED WITH THE MAXIMUM AVAILABLE FAULT CURRENT AT THEIR LOCATIONS 69KAIC MARKINGS SHALL COMPLY WITH NEC 110.24 .

PROVIDE "ARC FLASH HAZARD" WARNING SIGN AT ALL PANELBOARDS, ATS AND DISTRIBUTION PANEL PER NEC 110.16.

DRAWING KEY NOTES

1. UTILITY PAD MOUNTED TRANSFORMER. SEE TYPICAL DETAIL ON SHEET E501. COORDINATE WITH UTILITY COMPANY FOR EXACT REQUIREMENTS. AN ADDITIONAL SWITCH CABINET IS REQUIRED NEXT TO THE TRANSFORMER TO ALLOW FOR MORE THAN 12 CONDUITS COMING INTO THE TRANSFORMER.
2. TERMINATE CONDUITS IN EXACT MANNER AND LOCATION AS REQUIRED BY UTILITY COMPANY. LEAVE 10 FT. SLACK PER CONDUCTOR FOR EXTENSION AND CONNECTION FOR UTILITY COMPANY.
3. BUILDING GROUNDING BAR. SEE DETAIL ON SHEET E501.
4. BUILDING GROUNDING ELECTRODE SYSTEM. SEE DETAIL E501.
5. PROVIDE 2"C. FROM ELECTRICAL ROOM TO ROOF FOR FUTURE ELECTRICAL CONNECTION OF POSSIBLE BDA SYSTEM (BY OTHERS) AS DETERMINED BY FIRE MARSHAL. STUB 6" ABOVE ROOF WITH WEATHERHEAD.
6. TVSS – PQ PROTECTION MODEL PQ5300 OR APPROVED EQUAL
7. TVSS – PQ PROTECTION MODEL PQC100 OR APPROVED EQUAL
8. TO METER CENTER
9. TO 125A METER AND DISCONNECT
10. (4)#1 & (1)#6GND IN 2"C.
11. (4)#4/0 & (1)#4GND IN 2 1/2"C.
12. (4)#600KCMIL & (1)#3GND IN 4"C.

ELECTRICAL RISER DIAGRAM
SCALE: N.T.S.

RISE | FL architecture

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STRUCTURAL CONSULTANT:

MEP CONSULTANT:
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P.I.T. MGR: STEPHEN BENDER, P.E.
PROJECT #: 230515-G

CIVIL CONSULTANT:

DESIGNER CONSULTANT:

REVISIONS:

NO.	DATE	DESCRIPTION

CLIENT:
CLIENT NAME

PROJECT NAME / LOCATION:
PROJECT NAME
PROJECT ADDRESS

DRAWING TITLE:
ELECTRICAL RISER DIAGRAM

EXAMINER'S SIGNATURE:

PROFESSIONAL SEAL:
Digitally signed by George SanJuan
Date: 2023.12.27 11:11:11 -05'00'
GEORGE SANJUAN, P.E.
FLORIDA LICENSE #46100

SCALE: AS SHOWN
DATE:
PROJECT NO:

E401

DRAWING NO:

BARCODE

THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ARCHITECTS. DO NOT SCALE DRAWING. THE DRAWING SHALL NOT BE USED UNTIL SIGNED BY CONSULTANTS.