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REVISED: 13-Apr-17
 FAULT CURRENT STUDY
 CABLE IMPEDANCE VALUES BASED ON IEEE STD. 241-1990, TABLE 65.
 PROJECT: WEST PALM BEACH RETAIL BUILDING
 1560 PALM BEACH LAKES, BLVD
 WEST PALM BEACH, FL 33401

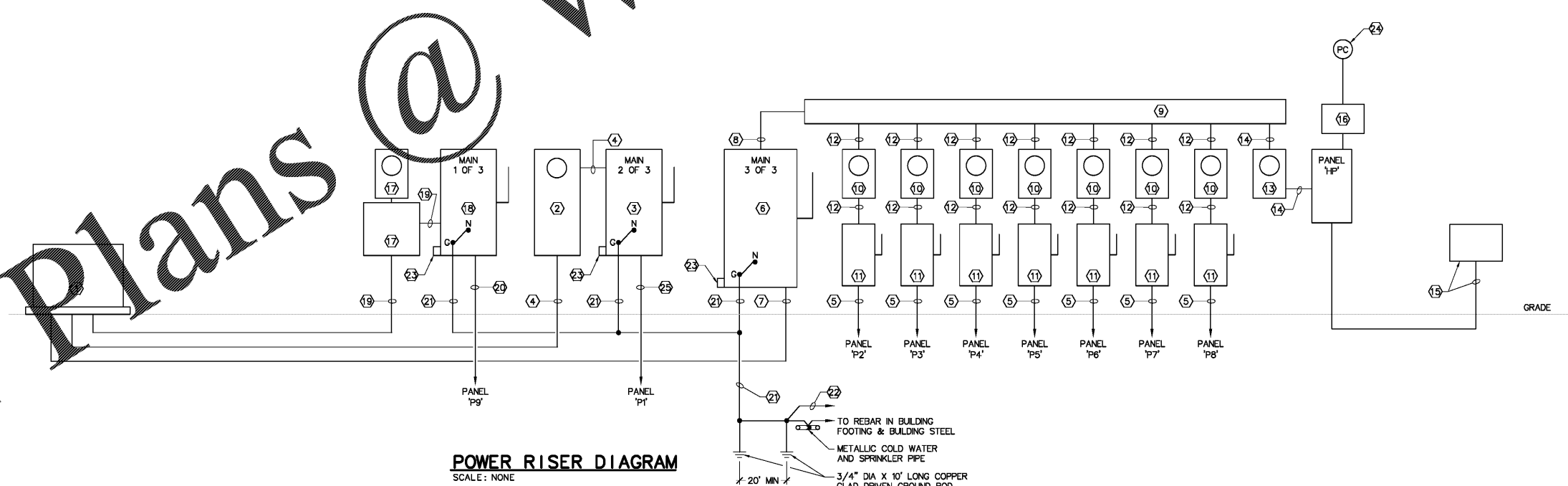
SYSTEM VOLTAGE: 208 WIRE TYPE CU-1
 ASSUMED BASE KVA: 1000 WIRE TYPE AL-2
 UTILITY COMPANY AFC: 32079 PVC CONDUIT
 UTILITY COMPANY X/R RATIO: 12

BUS	SOURCE AFC	SOURCE X/R	WIRE SIZE	WIRE TYPE	# OF RUNS	BUS X/R	BUS AFC
MAIN #1	32079	12.00	350	1	2	3.00	22207
MAIN #2	32079	12.00	600	1	1	3.20	17296
MAIN #3	32079	12.00	600	1	3	5.12	24827
PANEL P1	17296	3.20	600	1	1	2.18	8279
PANEL P2	24827	5.12	3/0	1	1	0.81	6773
PANEL P3	24827	5.12	3/0	1	1	0.85	7449
PANEL P4	24827	5.12	3/0	1	1	0.88	8339
PANEL P5	24827	5.12	3/0	1	1	0.96	9333
PANEL P6	24827	5.12	3/0	1	1	1.03	10438
PANEL P7	24827	5.12	3/0	1	1	1.14	11818
PANEL P8	24827	5.12	3/0	1	1	1.29	13572
PANEL P9	22207	3.00	350	1	2	2.13	18846
PANEL P10	24827	5.12	1	1	1	0.50	5852

ELECTRICAL CONTRACTOR SHALL CONFIRM UTILITY TRANSFORMER SIZE AND AVAILABLE FAULT CURRENT PRIOR TO ORDERING GEAR. IF UTILITY TRANSFORMER IS DIFFERENT THAN AS INDICATED ABOVE, THE ELECTRICAL CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO PROCEEDING FOR SUITABLE AIC RATING. INTEGRATED SERIES RATINGS OF CIRCUIT BREAKERS IS PERMITTED. EC OBTAIN SITE SPECIFIC AIC RATING FOR INSTALLED TRANSFORMER FROM THE UTILITY PROVIDER AND MAKE AVAILABLE FOR INSPECTOR PRIOR TO INITIAL ELECTRICAL INSPECTION.

- NOTES
- UTILITY COMPANY PAD MOUNTED TRANSFORMER WITH 120/208 VOLT SECONDARY. EC SHALL PROVIDE CONCRETE PAD IN ACCORDANCE WITH UTILITY COMPANY SPECIFICATIONS. EC SHALL COORDINATE INSTALLATION OF THE PRIMARY CONDUIT AND ROUTING WITH UTILITY COMPANY.
 - PROVIDE 400AMP SELF-CONTAINED METER SOCKET.
 - 400 AMP HEAVY-DUTY, 3 POLE, 250 VOLT, SERVICE ENTRANCE RATED, NEMA 3R, DISCONNECT WITH SOLID NEUTRAL, FUSED AT 400 AMPS WITH CLASS RK1 CURRENT LIMITING FUSES. PROVIDE PLAQUE INDICATING SERVICE MAIN NUMBER IN ACCORDANCE WITH NEC 230.70.
 - SERVICE LATERAL CONSISTING OF 4" C WITH (4) #600 KCMIL CU.
 - (1) 2-1/2" C WITH 4 #3/0, 1 #6 EG. EXTENDED TO APPROPRIATE PANEL. PROVIDE (1) ADDITIONAL PARALLEL 2-1/2" EMPTY SPARE CONDUIT WITH PULLSTRING. STUB-UP AND CAP AT BOTH ENDS FOR FUTURE USE.
 - 1200 AMP HEAVY-DUTY, 3 POLE, 250 VOLT, SERVICE ENTRANCE RATED, NEMA 3R, DISCONNECT WITH SOLID NEUTRAL, FUSED AT 1200 AMPS WITH CLASS L CURRENT LIMITING FUSES. PROVIDE PLAQUE INDICATING SERVICE MAIN NUMBER IN ACCORDANCE WITH NEC 230.70.
 - SERVICE LATERAL CONSISTING OF (3) RUNS OF 4" C WITH (4) #600 KCMIL CU EACH.
 - (3) PARALLEL RUNS OF 4" C WITH (4) #600 KCMIL CU, 1 #1/0 EG CU EACH.
 - 16"X16"X18" NEMA 3R WIREWAY WITH LOCKABLE COVER. BOND WIREWAY TO EG. EXTEND CONDUCTORS FULL LENGTH OF THE WIREWAY AND TAP IN A STAGGERED FASHION.
 - PROVIDE 200AMP SELF-CONTAINED METER SOCKET.
 - 200 AMP HEAVY-DUTY, 3 POLE, 250 VOLT, SERVICE ENTRANCE RATED, NEMA 3R, DISCONNECT WITH SOLID NEUTRAL, FUSED AT 200 AMPS WITH CLASS RK1 CURRENT LIMITING FUSES. PROVIDE PLAQUE INDICATING TENANT IDENTIFICATION.
 - 2-1/2" C WITH (4) #3/0 CU, 1 #1/0 EG CU.
 - PROVIDE 100AMP SELF-CONTAINED METER SOCKET.
 - 1-1/4" C WITH (4) #1 CU, 1 #1 EG CU.
 - TELEPHONE TERMINAL CABINET (TTC). PROVIDE 3/4" WITH CIRCUITING TO POWER TTC. REFER TO PANEL SCHEDULE TO ASSIGNED CIRCUIT.
 - 24"X24"X6" DEEP NEMA 3R, HINGED COVER BOX WITH FACTORS IN ACCORDANCE WITH SCHEDULE ON THIS SHEET AND 24 HR, 7-DAY, TIME CLOCK. REFER TO CONTROL DIAGRAM ON SHEET E2.1.

- UTILITY METER AND CT CABINET.
 - 600 AMP HEAVY-DUTY, 3 POLE, 250 VOLT, SERVICE ENTRANCE RATED, NEMA 3R, DISCONNECT WITH SOLID NEUTRAL, FUSED AT 600 AMPS WITH CLASS RK1 CURRENT LIMITING FUSES. PROVIDE PLAQUE INDICATING SERVICE MAIN NUMBER IN ACCORDANCE WITH NEC 230.70.
 - SERVICE LATERAL CONSISTING OF (2) PARALLEL RUNS OF 4" C WITH (4) #350 KCMIL CU EACH.
 - (2) RUNS OF 4" C WITH (4) #350 KCMIL CU, 1 #1 EG CU EACH.
 - GROUNDING ELECTRODE CONDUCTOR TO CONSIST OF #3/0 FROM N-1 BOND IN DISCONNECT SWITCH AND EXTENDED UNBROKEN TO TWO (2) 3/4" X 10' L CLAD STEEL VERTICALLY DRIVEN GROUND RODS, NEAREST BUILDING FOUNDATION STEEL (BELOW DISCONNECT SWITCH), AND WATER PIPE SPRINKLER RISER (BOTH WITHIN 5 FT. OF BUILDING ENTRY IN ACCORDANCE WITH NEC 250.104. ROUTE EXTERIOR EXPOSED PORTIONS OF GEC IN PVC. ALL CONCEALED CONNECTIONS SHALL BE BY EXOTHERMIC WELD CONNECTIONS.
 - EXTEND #6 COPPER CONDUCTOR TO TTC AND EXTEND AS REQUIRED TO PROVIDE CONNECTION OF ALL GROUNDING SYSTEMS TOGETHER (GROUND PHONE SERVICES, ETC). ROUTE EXTERIOR EXPOSED PORTIONS OF CONDUCTOR IN PVC.
 - TYPE X SURGE PROTECTIVE DEVICE (SPD) PER NEC 285.
 - 120 VOLT PHOTO CELL (INFORMATIC #1000 OR EQUIVALENT) MOUNTED ON WEATHERPROOF BOX ON ROOF FACING NORTH.
 - (2) PARALLEL RUNS OF 2-1/2" C WITH 4 #3/0, 1 #3 EG EACH.
- GENERAL NOTES
- REFER TO FAULT CURRENT STUDY THIS SHEET FOR AVAILABLE FAULT CURRENT AT EACH PANEL (BUS AFC). EC TO ENSURE PANELBOARDS ARE SUITABLE FOR FAULT CURRENT ENVIRONMENT (BUS AFC). SERIES RATINGS WITH UPSTREAM DEVICES WILL BE ACCEPTED.
 - PROVIDE ENGRAVED PLASTIC LAMINATED SIGNS TO IDENTIFY MAINS AND SUITE NUMBERS.



A NEW DEVELOPMENT FOR:

WEST PALM BEACH RETAIL BUILDING

1560 PALM BEACH LAKES BLVD
 WEST PALM BEACH, FL 33401

- THIS DRAWING HAS BEEN ISSUED.
- FOR REVIEW ONLY
 - FOR PERMITTING ONLY
 - SCHEMATIC DESIGN
 - DESIGN DEVELOPMENT
 - CONSTRUCTION DOCUMENTS

Drawing Title:
 POWER RISER DIAGRAM

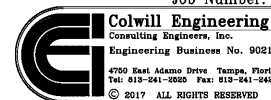
Date: 05/24/17

Designed By: DS
 Drawn By: SW
 Reviewed By: DS

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Revisions:

Job Number: 40103



Sheet No. of E3.1

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