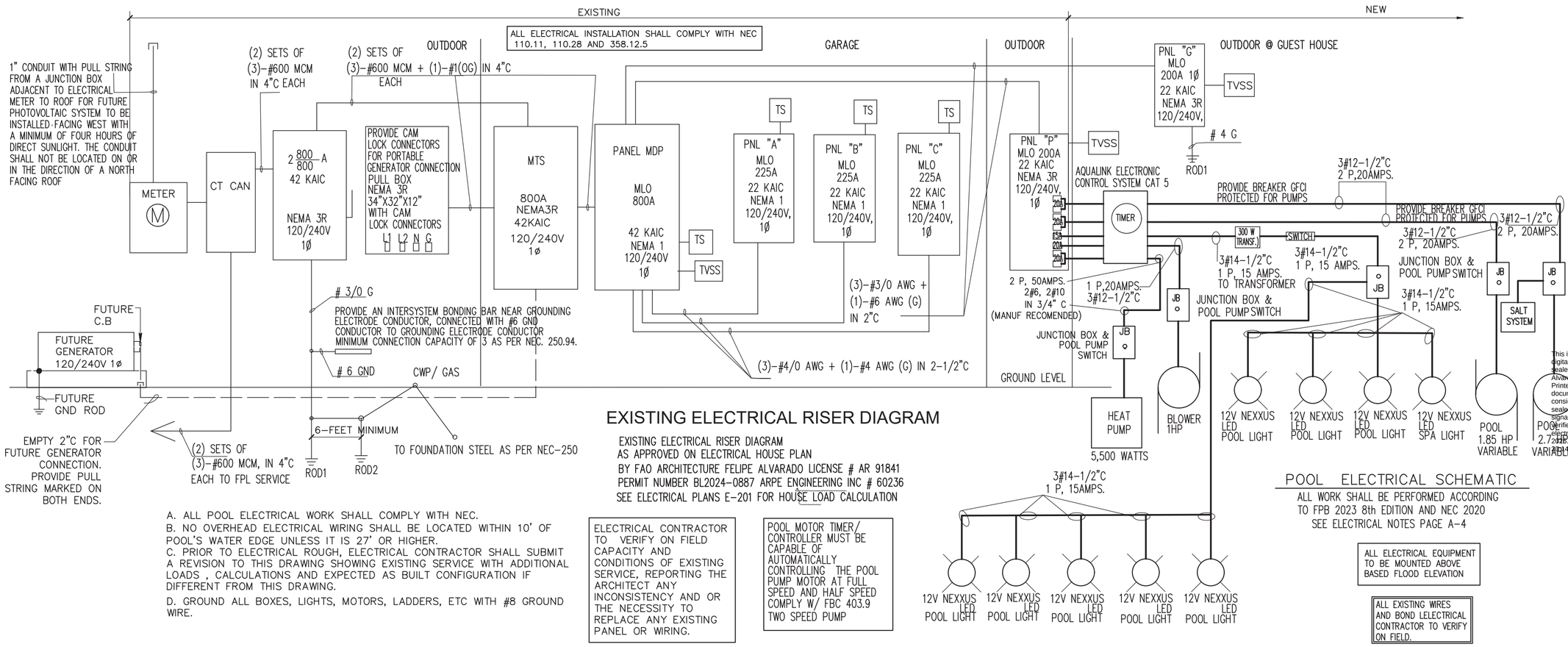

EXISTING ELECTRICAL RISER DIAGRAM

EXISTING ELECTRICAL RISER DIAGRAM
AS APPROVED ON ELECTRICAL HOUSE PLAN
BY FAO ARCHITECTURE FELIPE ALVARADO LICENSE # AR 91841
PERMIT NUMBER BL2024-0887 ARPE ENGINEERING INC # 60236
SEE ELECTRICAL PLANS E-201 FOR HOUSE LOAD CALCULATION

POOL ELECTRICAL SCHEMATIC

ALL WORK SHALL BE PERFORMED ACCORDING TO FPB 2023 8th EDITION AND NEC 2020
SEE ELECTRICAL NOTES PAGE A-4

A. ALL POOL ELECTRICAL WORK SHALL COMPLY WITH NEC.
B. NO OVERHEAD ELECTRICAL WIRING SHALL BE LOCATED WITHIN 10' OF POOL'S WATER EDGE UNLESS IT IS 27' OR HIGHER.
C. PRIOR TO ELECTRICAL ROUGH, ELECTRICAL CONTRACTOR SHALL SUBMIT A REVISION TO THIS DRAWING SHOWING EXISTING SERVICE WITH ADDITIONAL LOADS , CALCULATIONS AND EXPECTED AS BUILT CONFIGURATION IF DIFFERENT FROM THIS DRAWING.
D. GROUND ALL BOXES, LIGHTS, MOTORS, LADDERS, ETC WITH #8 GROUND WIRE.

ELECTRICAL CONTRACTOR TO VERIFY ON FIELD CAPACITY AND CONDITIONS OF EXISTING SERVICE, REPORTING THE ARCHITECT ANY INCONSISTENCY AND OR THE NECESSITY TO REPLACE ANY EXISTING PANEL OR WIRING.

POOL MOTOR TIMER/ CONTROLLER MUST BE CAPABLE OF AUTOMATICALLY CONTROLLING THE POOL PUMP MOTOR AT FULL SPEED AND HALF SPEED COMPLY W/ FBC 403.9 TWO SPEED PUMP

ALL ELECTRICAL EQUIPMENT TO BE MOUNTED ABOVE BASED FLOOD ELEVATION

ALL EXISTING WIRES AND BOND LELECTRICAL CONTRACTOR TO VERIFY ON FIELD.

PANEL: P — NEMA3R — NEW — LOCATION: EXTERIOR AT POOL EQUIP AREA
CIRCUITS 32 — MAIN BREAKER: N/A AMPS — MAIN LUGS: 200 AMPS — K.A.I.C.: 22 AMPS — MOUNTED FLUSH ____ SURFACE X
1 PHASE — 3 WIRE — X 240/120V — ____ FEED THRU

TYPE	CKT NO	IDENTIFICATION	WIRE	GND.	COND	CIRCUIT BREAKER TRIP	POLES	LOAD/PHASE (KVA) A		B		C		BREAKER POLES	TRIP	WIRE	GND.	COND	IDENTIFICATION	CKT NO	TYPE
GF	1	POOL HEATER (GAS) BY OTHERS	12	12	1/2"	20	1	0.3	0.5					1	20	12	12	1/2"	SPA LTS. BY OTHERS	2	GF
GF	3	POOL LTS. BY OTHERS	12	12	1/2"	20	1					0.5	1.5	2	20	12	12	1/2"	POOL PUMP BY OTHERS	4	GF
	5	EXTERIOR RCPTS	12	12	1/2"	20	1	0.5	1.5											6	
	7	SPACE											1.0	2	20	12	12	1/2"	FOUNTAIN PUMP BY OTHERS	8	GF
	9	SPACE							1.0											10	
	11	SPACE											1.0	2	20	12	12	1/2"	POND PUMP BY OTHERS	12	GF
	13	SPACE							1.0											14	
	15	SPACE																	SPACE	16	
	17	SPACE																	SPACE	18	
	19	SPACE																	SPACE	20	
	21	SPACE																	SPACE	22	
	23	SPACE																	SPACE	24	
	25	SPACE																	SPACE	26	
	27	SPACE																	SPACE	28	
	29	SPACE												2	30	10	10	1/2"	TVSS	30	
	31	SPACE																		32	
								0.8	4.0			0.5	3.5								

TOTAL CONNECTED LOAD PER PHASE: A 4.8 — C 4.0
TOTAL CONNECTED LOAD: 8.8 KVA
TOTAL CONNECTED: 36.7 AMP

AF - ARC FAULT PROTECTED CIRCUIT BREAKER
GF - GFCI GROUND FAULT PROTECTED C.B.
NC - NO CONCURRENT LOAD
TS-TIME SWITCH
LS - VIA LOAD SHED RELAY

NOTE: CONTRACTOR SHALL FIELD VERIFY ALL PANEL P EQUIPMENT OCPD NAMEPLATE PRIOR TO INSTALLATION.

HOUSE DEMAND LOAD CALCULATION SERVICE

SF 8870 SQFT — 120/240V 1 PHASE

	QTY.	UNIT	VA	TOTAL CONNECTED KVA	TOTAL DEMAND KVA
GEN. LTG/RECEPT. (NEC 220.12 220.14(J))	8870	SQFT	3	26.6	
SMALL APPLIANCES (NEC 220.52(A))	4	CKT(S)	1500	6.0	
LANDSCAPE LTS	4	EA	500	2.0	
LAUNDRY RCPTS	1	EA	1500	1.5	
TOTAL				36.1	
BATHROOM RECEPTACLES				----	
DEMAND LIGHTING 220.42 (FIRST 3KVA AT 100% REMAINING AT 35%)					14.6 KVA
EQUIPMENT LOAD SUMMARY DEMAND SECTION 220.53					
CLOTHES WASHER	2	EA	1500	3.0	
GAS WATER HEATER / REC. PUMP	4	EA	300	1.2	
TWH - TEMPRA 12	2	EA	12000	24.0	
DISHWASHER	2	EA	1200	2.4	
DISPOSAL	1	EA	800	0.8	
HOOD	2	EA	400	0.8	
WINDOW SHADES	13	EA	500	6.5	
TOILET FEATURE	8	EA	1300	10.4	
U/C BEVERAGE COOLER	1	EA	600	0.6	
U/C ICE MAKER	1	EA	600	0.6	
RERRIGERATOR / FREEZER	2	EA	1400	2.8	
GARAGE DOOR	3	EA	800	2.4	
GATE MOTOR	1	EA	1000	1.0	
POOL EQUIPMENT	1	EA	4300	4.3	
ELEVATOR	1	EA	5000	5.0	
CAR CHARGER	2	EA	9600	19.2	
STEAM UNIT	1	EA	15000	15.0	
WINE CELLAR	1	EA	1000	1.0	
CONDENSATION PUMP (STEAM UNIT)	1	EA	400	0.4	
FOUNTAIN EQUIPMENT	1	EA	2000	2.0	
POND EQUIPMENT	1	EA	2000	2.0	
TV LIFT	1	EA	1000	1.0	
DEMAND LOAD 75% 220.53					79.8 KVA
EQUIPMENT LOAD SUMMARY DEMAND SECTION 220.55					
COOKING APLIANCES TABLE					
DOUBLE OVEN	1	EA	8000	8.0	
MICROWAVE DRAWER	1	EA	1500	1.5	
GAS COOKTOP	1	EA	300	0.3	
GAS BBQ	1	EA	300	0.3	
DEMAND LOAD 55% 220.55					5.6 KVA
EQUIPMENT AT 100% NON DEMAND FACTOR					
CLOTHES DRYER	2	EA	300	0.6	
** HEATING LOAD (240V, 1-PHASE) 100%	50.0	KVA		50.0	
** COOLING LOAD (240V, 1-PHASE)	193.4	AMPS		46.4	
TOTAL CONNECTED LOAD					50.6 KVA
TOTAL DEMAND LOAD					150.5 KVA

150.5 KVA @240V, 1Ø = 627.3 AMPS

** NON-CONCURRENT LOAD

OWNER: CASA ROBLES 131
6545 SW 131st STREET
PINECREST, FL 33156
PH: 305-218-3320

DATE: 08-28-25
PROJECT. # 0084425
SCALE: AS SHOWN
revisions:

This item has been digitally signed and sealed by Alexander F Alvarez, PE95491. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.
2025.09.16 20:53:04'00'
ALEXANDER FAUSTO ALVAREZ LICENSE No. 95491 STATE OF FLORIDA PROFESSIONAL ENGINEER

AFA CONSULTING LLC
ALEXANDER F ALVAREZ PE
(Lic #: 95491)
1601 NE 110th ST MIAMI, FL, 33161

GRAY DOLPHIN POOLS & CONSTRUCTION, INC

PROPOSED NEW POOL FOR
CASA ROBLES 131
ADDRESS: 6545 SW 131st STREET
PINECREST, FL 33156

A-5
5 OF 5