

PANEL SCHEDULE												
PANEL: P1 ELECTRICAL ROOM AC = 22,000			VOLTAGE: 208/120V, 3Ø, 4W MAIN BREAKER ENCLOSURE: SURFACE MOUNTED W/ EQUIPMENT GND BAR SQUARE D, I-LINE PANELBOARD									
CKT NO	THHN WIRE SIZE	LOAD DESCRIPTION	BREAKER	LOAD (VA)	AD	BP	CP	LOAD (VA)	BREAKER	LOAD DESCRIPTION	THHN WIRE SIZE	CKT NO
		LOCATION	AMP POLE						POLE AMP	LOCATION		
1				16970				4800				2
3	250KCM	PANELS 'P2' AND 'P3'	200 3	18090				4800	3 3Ø	CREMATOR NO. 1	#6	4
5				16840				4800				6
7				950				4800				8
4	#12	BODY COOLER	15 3	950				4800	3 3Ø	CREMATOR NO. 2	#6	10
11				950				4800				12
13												14
15		SPARE	40 3						3 3Ø	SPARE		16
11												18
14	#10	HVAC NO. 1	30 2	1800							SPACE	20
21				1800								22
23	#6	HVAC NO. 2	50 2	2400							SPACE	24
25				2400								26
21	#10	HVAC NO. 3	30 2	1800				1800	2 4Ø	CONDENSER UNIT NO. 2	#6	28
24				1800				1800				30
31	#6	HVAC NO. 4	50 2	2400				1200	2 3Ø	CONDENSER UNIT NO. 3	#12	32
33				2400				1200				34
35	#6	HVAC NO. 5	50 2	2400				1600	2 4Ø	CONDENSER UNIT NO. 4	#6	36
37				2400				1600				38
34	#12	CONDENSER UNIT NO. 1	15 2	460				450	2 2Ø	CONDENSER UNIT NO. 5	#10	40
41				460				450				42
SOLID NEUTRAL NEUTRAL WIRE (N)				TOTAL CONNECTED LOAD (VA) = 118,920				GROUND BUS GROUND WIRE (G)				
				AD = 40,820	BP = 38,880	CP = 39,220						

PANEL SCHEDULE												
PANEL: P2 ELECTRICAL ROOM AC = 22,000			VOLTAGE: 208/120V, 2Ø, 3Ø, 4W N/M/LØ ENCLOSURE: SURFACE MOUNTED W/ EQUIPMENT GND BAR SQ D TYPE GO LOAD CENTER									
CKT NO	THHN WIRE SIZE	LOAD DESCRIPTION	BREAKER	LOAD (VA)	AD	BP	CP	LOAD (VA)	BREAKER	LOAD DESCRIPTION	THHN WIRE SIZE	CKT NO
		LOCATION	AMP POLE						POLE AMP	LOCATION		
1	#12	RECEPTACLES, EXTERIOR	20 1	900				1000	1 2Ø	RECEPTACLES, DRESSING ROOM, RESTROOMS, OFFICE	#12	2
3	#12	RECEPTACLES, EQUIPMENT AND PREP ROOMS	20 1	1440				1200	1 2Ø	RECEPTACLE, UNISEX REST ROOM	#12	4
5	#12	DEDICATED RECEPTACLE, PREP ROOM	20 1	1200				1620	1 2Ø	RECEPTACLES, CENTER OFFICES	#12	6
7	#12	DEDICATED RECEPTACLE, PREP ROOM	20 1	1200				1200	1 2Ø	RECEPTACLE, WOMENS REST ROOM	#12	8
4	#12	DEDICATED RECEPTACLE, DRESSING ROOM	20 1	1200				1200	1 2Ø	RECEPTACLE, MENS REST ROOM	#12	10
11	#12	DEDICATED RECEPTACLE, DRESSING ROOM	20 1	1200				1080	1 2Ø	RECEPTACLES, CHAPEL AND SOUND ROOM	#12	12
13	#12	RECEPTACLES, OFFICE	20 1	720				1080	1 2Ø	RECEPTACLES, OFFICE 2 AND LOBBY	#12	14
15	#12	RECEPTACLES, PROCESSING AREA, OFFICE AND UTILITIES	20 1	900				1080	1 2Ø	RECEPTACLES, OFFICE 1 AND OFFICE 2	#12	16
17	#12	RECEPTACLES, MERCH ROOM	20 1	1080				1260	1 2Ø	RECEPTACLES, COFFEE LOUNGE	#12	18
14	#12	RECEPTACLES, MECHANICAL RM	20 1	1080				1500	1 2Ø	DEDICATED RECEPTACLE, COFFEE LOUNGE	#12	20
21	#12	RECEPTACLES, VIEWING AND ID ROOM	20 1	1080				1500	1 2Ø	DEDICATED RECEPTACLE, COFFEE LOUNGE	#12	22
23	#12	RECEPTACLES, RECEIVING/ CREMATOR	20 1	900				1200	1 2Ø	DEDICATED RECEPTACLE, SOUND ROOM	#12	24
25	#12	RECEPTACLES, ATTIC	20 1	1260				1200	1 2Ø	DEDICATED RECEPTACLE, SOUND ROOM	#12	26
27	#12	CONTROL POWER TO CREMATOR NO. 1	15 1	500				1200	1 2Ø	DEDICATED RECEPTACLE, SOUND ROOM	#12	28
24	#12	CONTROL POWER TO CREMATOR NO. 2	15 1	500				500	1 1Ø	CONTROL POWER GAS WATER HEATER	#12	30
31	#12	BODY COOLER, EVAPORATOR AND LIGHTS	20 1	500				500	1 2Ø	LOUVERED VENT CREMATOR	#12	32
33	#10	3Ø RECEPTACLE FOR PROCESSING STATION	30 1	2500				500	1 2Ø	LOUVERED VENT CREMATOR	#12	34
35	#12	CONTROL POWER TO KEY SWITCH CREMATOR VIEWING ROOM	15 1	500								36
37												38
34												40
41												42
SOLID NEUTRAL NEUTRAL WIRE (N)				TOTAL CONNECTED LOAD (VA) = 31,560				GROUND BUS GROUND WIRE (G)				
				AD = 12,220	BP = 14,300	CP = 11,040						

FAULT CURRENT FROM UTILITY

TRANSFORMER RATING (KVA) = 150
 TRANSFORMER VOLTAGE = 208
 POWER FACTOR = 100%
 TRANSFORMER IMPEDANCE = 1.50%

$$I_{FA} = \frac{KVA \times 1000}{E \times 1.732} = \frac{150 \times 1000}{208 \times 1.732} = 416$$

$$I_{SCA} = \frac{I_{FA} \times F}{Z} = \frac{416 \times 1.50}{1.50} = 27757$$

AIC FROM UTILITY AT TRANSFORMER IS **27757**

FAULT CURRENT AT MAIN DISCONNECT

AVAILABLE FAULT CURRENT FROM UTILITY (I) = 27757
 CONDUCTOR SIZE FROM UTILITY
 UTILITY FEED LENGTH (L) = 500
 CONDUCTOR C VALUE = 100
 NUMBER OF CONDUCTORS PER PHASE = 21391

$$f = \frac{1.73 \times L \times I}{N \times C \times E_{LL}} = \frac{1.73 \times 100 \times 27757}{1 \times 21391 \times 208} = 1.0793$$

$$M = \frac{1}{1+f} = \frac{1}{1+1.0793} = 0.4809$$

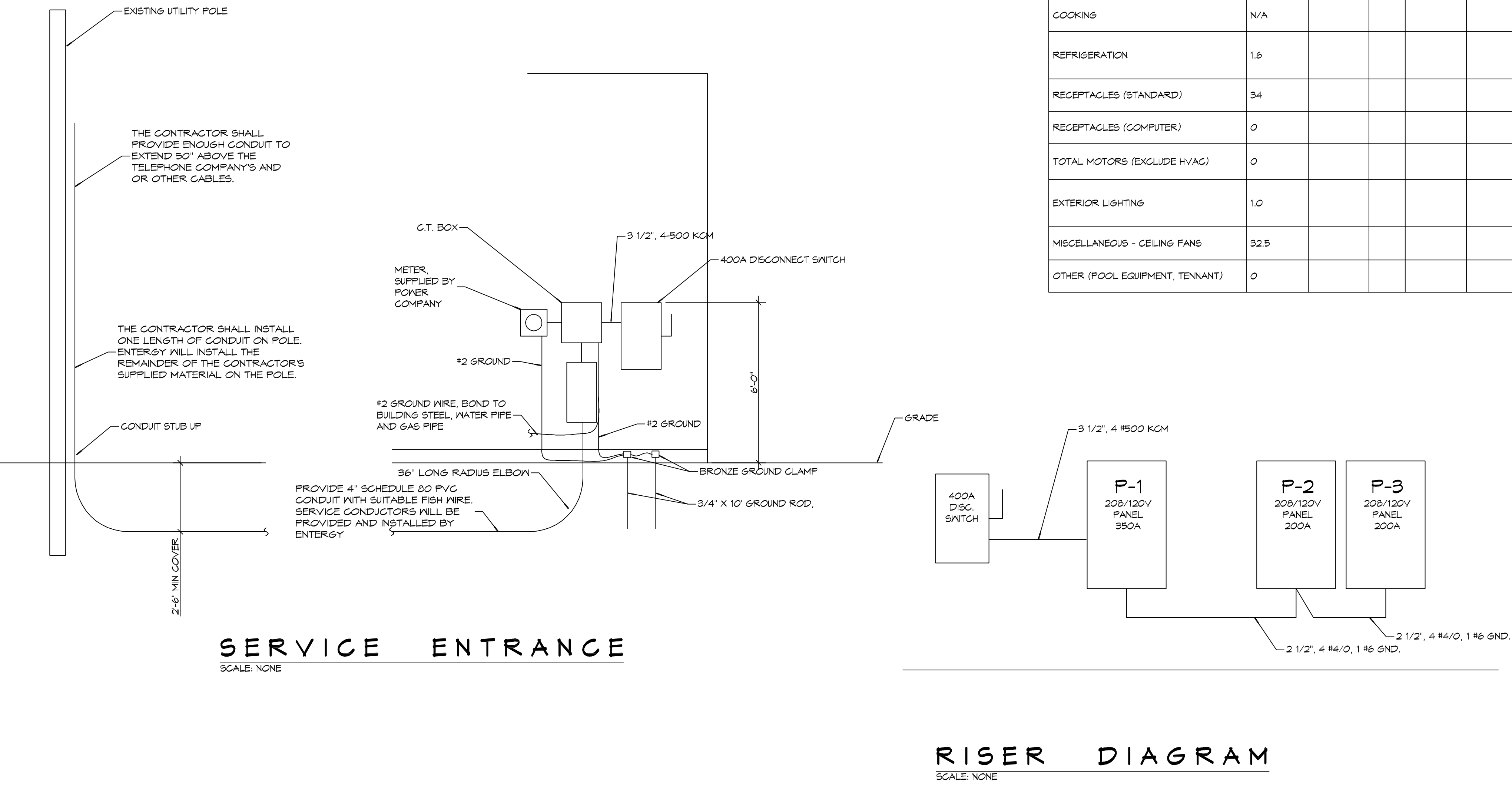
AIC AT BUILDING MAIN = $I_{SCA} \times M = 13350$

MINIMUM AMPERE INTERRUPTING CAPACITY 22,000 AIC

ELECTRICAL LOAD SUMMARY

ENERGY POWER COMPANY					
PROJECT NAME:	BOYD FAMILY FUNERAL HOME				
PROJECT ADDRESS:	4800 DOWNMAN ROAD				
CITY/TOWN:	NEW ORLEANS, LOUISIANA				
INTENDED USER:	BOYD				
REQ SERV:	208 V 3 PHASE 4 WIRES				
SERV ENTR SIZE:	350 AMPS				
HVAC TONNAGE:	19 TONS				
LARGEST MOTOR:	HP				
(NOTE: MOTORS ABOVE 20HP MAY REQUIRE REDUCED VOLTAGE STARTING AND ARE NEVER RECOMMENDED FOR USE IV 120/240V, 1Ø, 3Ø SERVICE)					
TOTAL BUILDING SQ FT:	11000 SF				
INDIVIDUAL UNIT SQUARE FOOTAGE:	SF (MULT OCCUPANCY)				
INDIVIDUAL UNIT DESIGNATION:	(MULT OCCUPANCY)				
LOAD SOURCE	Ø-KVA	3Ø-KVA	OR	Ø-KVA	3Ø-KVA
BUILDING LIGHTING	14.0				
ELECTRIC WATER HEATING	0.0				
HEAT PUMPS					
SUPPLEMENTAL HEAT SYSTEMS					
AIR COND CONDENSING UNITS	11.6				
ELEC HEATING (PRIMARY) - AHU'S	24.6				
COOKING	N/A				
REFRIGERATION	1.6				
RECEPTACLES (STANDARD)	34				
RECEPTACLES (COMPUTER)	0				
TOTAL MOTORS (EXCLUDE HVAC)	0				
EXTERIOR LIGHTING	1.0				
MISCELLANEOUS - CEILING FANS	32.5				
OTHER (POOL EQUIPMENT, TENANT)	0				

PANEL SCHEDULE												
PANEL: P3 ELECTRICAL ROOM AC = 22,000			VOLTAGE: 208/120V, 2Ø, 3Ø, 4W N/M/LØ ENCLOSURE: SURFACE MOUNTED W/ EQUIPMENT GND BAR SQ D TYPE GO LOAD CENTER									
CKT NO	THHN WIRE SIZE	LOAD DESCRIPTION	BREAKER	LOAD (VA)	AD	BP	CP	LOAD (VA)	BREAKER	LOAD DESCRIPTION	THHN WIRE SIZE	CKT NO
		LOCATION	AMP POLE						POLE AMP	LOCATION		
1	#12	LIGHTS, DRESSING ROOM AND CORRIDOR	20 1	1000				1500	1 2Ø	LIGHTS, RESTROOMS	#12	2
3	#12	LIGHTS, ELECTRICAL ROOM UNISEX RESTROOM AND OFFICES	20 1	1100					1 2Ø	SPARE		4
5	#12	LIGHTS, CORRIDOR	20 1	800				1000	1 2Ø	LIGHTS, LOBBY	#12	6
7	#12	LIGHTS, CHAPEL	20 1	1100					1 2Ø	SPARE		8
4	#12	LIGHTS, CENTER OFFICES AND SOUND ROOM	20 1	700				1000	1 2Ø	LIGHTS, MERCH ROOM AND OFFICES	#12	10
11	#12	LIGHTS, VIEWING ID ROOM AND COFFEE LOUNGE	20 1	1600				900	1 2Ø	LIGHTS, FRONT PORCH	#12	12
13	#12	SPARE	20 1					400	1 2Ø	LIGHTS, ATTIC	#12	14
15	#12	LIGHTS, HOLDING, OFFICES, STORAGE ROOM	20 1	500					2Ø	SPARE		16
17	#12	LIGHTS, RECEIVING, CREMATOR	20 1	1100								18
14	#12	OUTSIDE LIGHTING, REAR THROUGH LIGHTING CONTACTOR	20 1	350								20
21	#10	PARKING LOT LIGHTS THROUGH LIGHTING CONTACTOR	20 2	450								22
23				450								24
25												26
27												28
24												30
31												32
33												34
35												36
37												38
34												40
41												42
SOLID NEUTRAL NEUTRAL WIRE (N)				TOTAL CONNECTED LOAD (VA) = 13,150				GROUND BUS GROUND WIRE (G)				
				AD = 4,350	BP = 3,750	CP = 5,050						



DAMMON ENGINEERING, INC.
LOUISIANA & MISSISSIPPI

Chief Engineer: Brian Misch, PE
554 Old Spanish Trail
Slidell, LA 70458
www.dammonengineering.com
info@dammonengineering.com
PH: 985.649.5832

DATE: 02/03/2021

SEAL: RICKY JOHN KASTNER JR License No. 37664

REVISIONS:

#	DESCRIPTION	DATE

PROJECT: BOYD FAMILY FUNERAL HOME
 ADDRESS: 4800 DOWNMAN ROAD, NEW ORLEANS, LA
 INTENDED USER: BOYD
 REQ SERV: 208 V 3 PHASE 4 WIRES
 SERV ENTR SIZE: 350 AMPS
 HVAC TONNAGE: 19 TONS
 LARGEST MOTOR: HP
 TOTAL BUILDING SQ FT: 11000 SF
 INDIVIDUAL UNIT SQUARE FOOTAGE: SF (MULT OCCUPANCY)
 INDIVIDUAL UNIT DESIGNATION: (MULT OCCUPANCY)

LOAD SOURCE SUMMARY TABLE (see table in Electrical Load Summary)

BOYD FAMILY FUNERAL HOME

4800 DOWNMAN ROAD
NEW ORLEANS, LA

JOB NO: 2386 DATE: 11-10-2020
 DRAWN BY: AF/JAG/MK CHECKED BY: AP

SHEET TITLE: ELECTRICAL PANEL SCHEDULES
 DRAWING NUMBER: E105
 SHEET No: 21 of # 21