



**ELECTRICAL SERVICE SCHEMATIC NOTES**  
(ALL LAYOUTS SHALL BE COORDINATED WITH SQUARE D PRE-FABRICATED ASSEMBLY)

- THE SQUARE D IPAC'S ELECTRICAL DISTRIBUTION AND CONTROL PANEL IS INSTALLED BY THE ELECTRICAL CONTRACTOR AND FURNISHED BY THE OWNER OR AS SPECIFIED.
- THIS CONTROL PANEL INCLUDES ALL SQUARE D PANELBOARDS, BREAKERS, LIGHTING CONTROLS, DISPENSER AND SUBMERSIBLE PUMP CONTROLS, PILOT LIGHTS, SWITCHES, TERMINAL STRIPS AND POWER CONDITIONING DEVICES WHICH ARE PREINSTALLED AND INTERNALLY PREWIRED.
- THE ENCLOSURE MATERIAL IS 1/8" ALUMINUM.
- THE ENTIRE BOTTOM OF CABINET IS OPEN EXCEPT FOR A 1" FLANGE ON EACH SECTION.
- THE ENTIRE TOP OF CABINET IS SOLID. HOLES CAN BE KNOCKED OUT FOR CONDUIT ENTRY EVERYWHERE EXCEPT WHERE CABINETS JOIN TOGETHER.

**NOTES FOR THIS DRAWING**

- THE POWERWALL DISTRIBUTION CENTER (PDC) IS INSTALLED BY THE ELECTRICAL CONTRACTOR AND FURNISHED BY THE OWNER THIS CONTROL PANEL INCLUDES ALL SQUARE 'D' PANELBOARDS, BREAKERS, LIGHTING CONTROLS, DISPENSER, AND SUBMERSIBLE PUMP CONTROLS. PILOT LIGHTS, SWITCHES, TERMINAL STRIPS, AND PANEL 'C' POWER CONDITIONER ARE PREINSTALLED AND INTERNALLY PREWIRED ALL CIRCUIT BREAKERS, LIGHTING CONTROLS WITH BYPASS SWITCHES, DISPENSER AND SUBMERSIBLE PUMP CONTROLS, AND REMOTE EMERGENCY STOP CONTROLS ARE PREWIRED TO TERMINAL STRIPS AT THE TOP OR BOTTOM OF THE PDC. ALL NEUTRAL BARS AND GROUND BARS ARE FURNISHED WITH THE SYSTEM. A SPECIAL ISOLATED GROUND BAR IS FURNISHED WITH PANEL 'C'. REFER TO PDC SHOP DRAWINGS FOR TERMINATION POINTS.
- CASHIER CONTROL CENTER (CONTAINS EMERGENCY STOPS, RESET SWITCH, ALARMS AND LIGHTING OVERRIDE SWITCH), AUXILIARY EMERGENCY STOPS, AND LIGHT SENSOR ARE FURNISHED WITH PDC. INSTALLED BY THE ELECTRICAL CONTRACTOR.
- ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE SHOP DRAWINGS MUST IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD.
- ELECTRICAL CONTRACTOR SHALL BALANCE THE LOAD ON EACH PHASE LEG USING THE UNUSED "AREA LIGHTS", "CANOPY LIGHTS", AND BUILDING SIGNAGE CIRCUITS (STAYING WITHIN SIMILAR BUILDING FUNCTIONS).
- DISCONNECT SWITCHES ARE NOTED AS SIZE/FUSES (EXAMPLE: 60/40 IS 60 AMP FUSED DISCONNECT SWITCH WITH 40 AMP FUSES)
- WIRE SIZE OF BRANCH CIRCUITS SHALL BE MINIMUM #12 AWG, BUT NO LESS THAN PERMITTED BY THE NEC FOR SPECIFIED OVERCURRENT PROTECTION, UNLESS NOTED OTHERWISE, WIRING SHOWN SOLID IS FACTORY INSTALLED, AND WIRING SHOWN DASHED IS FIELD INSTALLED BY POWERWALL AND SIZED PER NEC, BASE ON ORIGINATING BREAKER SEE APPROPRIATE PANELBOARD SCHEDULES.
- THE PDC IS UL LISTED. STANDARD ASSEMBLY IS 65,000 AIC SERIES RATED WITH FEEDER BREAKER. EC SHALL VERIFY AVAILABLE FAULT CURRENT AND SERVICE CHARACTERISTICS WITH LOCAL ELECTRIC UTILITY COMPANY PRIOR TO ORDERING PDC.
- THE PDC WILL BE SHIPPED IN SECTIONS ON A PALLET & BOLTED TOGETHER AT THE JOBSITE. COORDINATE WITH THE GENERAL CONTRACTOR.
- ELECTRICAL CONTRACTOR MUST TERMINATE ALL CONTROLLED BRANCH CIRCUITS FOR LIGHTING AND FUEL CABINET. BRANCH CIRCUITS FOR UNCONTROLLED LOADS CONNECT DIRECTLY TO RESPECTIVE CIRCUIT EQUIPMENT & CONTROL WIRING AT THE TERMINAL STRIPS AT THE TOP OR BOTTOM OF THE POWERWALL. BREAKERS IN THE PANELS.
- LOCATE OUTDOOR LIGHT SENSOR ON ROOF FACING NORTH. LIGHT SENSOR CONTROL WIRING IS FURNISHED AS PART OF THE POWERWALL PACKAGE. AIM SENSOR EYE AWAY FROM ARTIFICIAL LIGHT SOURCES. INSTALL IN ACCORDANCE WITH SHOP DRAWINGS.
- SUBMERSIBLE PUMP POWER WIRING MUST BE #10AWG. A SEPARATE #10 AWG GROUNDING CONDUCTOR MUST BE RUN FROM EACH PUMP TO PANEL 'D' GROUND BAR.
- CIRCUIT BREAKERS FOR FLOOR RECEPTACLES SHALL BE GFI.
- ALL BRANCH CIRCUITS FOR PANEL 'C' LOADS SHALL INCLUDE A GROUNDING CONDUCTOR AND AN ISOLATED GROUNDING CONDUCTOR, WHICH SHALL BE CONNECTED TO THE PANEL 'C' ISOLATED GROUND BAR.
- A VARIETY OF MANY GROUNDING METHODS ARE INDICATED. METHOD(S) SHALL BE IN ACCORDANCE WITH LOCAL REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL PERFORM A FALL OF POTENTIAL TEST, IN ACCORDANCE WITH IEEE STD. 81, TO ENSURE A MAXIMUM EARTH GROUND RESISTANCE OF 25 OHMS AS REQUIRED BY THE NEC.
- PROVIDE 3/4" RIGID CONDUIT FROM PDC TO EACH SUBMERSIBLE TURBINE PUMP. PROVIDE WIRING IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- PROVIDE ALL WIRING FOR TANK MONITORING SYSTEM. WIRING SHALL BE CONTINUOUS WITH NO SPLICES. DO NOT SHARE CONDUITS WITH OTHER WIRING SYSTEMS.
- (1) 3/4" RIGID CONDUIT TO EACH TANK GAUGE MANHOLE
- (1) 3/4" RIGID CONDUIT TO ALL INTERSTITIAL MONITORS
- (1) 1" RIGID CONDUIT TO EACH STP MANHOLE IN TANK SLAB
- PROVIDE ALL WIRING FOR DISTRIBUTION BOX AND GAS CONSOLE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- E.C. SHALL PROVIDE LABELS ON ELECTRICAL EQUIPMENT PER NEC 110.16 AND LOCAL JURISDICTION REQUIREMENTS.

**MAIN DISTRIBUTION PANEL: MDP**

Location: DRY GOODS RECEIVING 110    Volts: 120/208 Wye    A.I.C. Rating: 65,000 SERIES RATED

Supply From: SWITCHBOARD SWBD    Phases: 3    Mains Type: MLO

Mounting: PRE-FABRICATED    Wires: 4    Mains Rating: 800 A

Enclosure: PRE-FABRICATED    MCB Rating: N/A

Notes	CKT	Circuit Description	Circuit Information	Trip	Poles	A	B	C	
--	1	SPACE	--	--	--	0 VA			
--	2	SPACE	--	--	--		0 VA		
--	3	SPACE	--	--	--			0 VA	
--	4	SPACE	--	--	--	0 VA			
--	5	SPACE	--	--	--		0 VA		
--	6	SPACE	--	--	--			0 VA	
--	7	SPACE	--	--	--	0 VA			
--	8	SPACE	--	--	--		0 VA		
--	9	SPACE	--	--	--			0 VA	
--	10								
--	11	FUTURE EQUIPMENT		30 A	3		0 VA		
--	12							0 VA	
--	13	PROVISION FOR LIFT STATION IF REQUIRED		100			0 VA	0 VA	
--	14							0 VA	
--	15							0 VA	
--	16	SPACE	--	--	--	0 VA			
--	17	SPACE	--	--	--		0 VA		
--	18	SPACE	--	--	--			0 VA	
P	19	PANEL M	4#3/0 & 1#6GND, INTERNALLY PREWIRED FACTORY INSTALLED		3	19478 VA	19310 VA	19736 VA	
P	20	PANEL M1	4#3/0 & 1#6GND, INTERNALLY PREWIRED FACTORY INSTALLED	200 A	3	17427 VA	14576 VA	11941 VA	
P	21	PANEL M2	4#3/0 & 1#6GND, INTERNALLY PREWIRED FACTORY INSTALLED	200 A	3	7675 VA	6043 VA	7024 VA	
P	22	PANEL	4#3/0 & 1#6GND, INTERNALLY PREWIRED FACTORY INSTALLED	200 A	3	9421 VA	14890 VA	10568 VA	
P	23	PANEL	4#3/0 & 1#6GND, INTERNALLY PREWIRED FACTORY INSTALLED	200 A	3	9780 VA	8457 VA	7194 VA	
P	24	PANEL B	4#3/0 & 1#6GND, IN 2" CONDUIT, CONNECTION BY E.C.	200 A	3	16196 VA		15430 VA	
P	25	PANEL D	4#3/0 & 1#6GND, IN 2" CONDUIT, CONNECTION BY E.C.	200 A	3	7464 VA		13008 VA	
P	26	PANEL E	4#3/0 & 1#6GND, INTERNALLY PREWIRED FACTORY INSTALLED	200 A	3		7284 VA	6696 VA	
--	27	SPACE	--	--	--	0 VA			
--	28	SPACE	--	--	--		0 VA		
--	29	SPACE	--	--	--			0 VA	
--	30	SPACE	--	--	--	0 VA			
--	31	SPACE	--	--	--		0 VA		
--	32	SPACE	--	--	--			0 VA	
--	33	SPACE	--	--	--	0 VA			
--	34	SPACE	--	--	--		0 VA		
--	35	SPACE	--	--	--			0 VA	
--	36	SPACE	--	--	--	0 VA			
--	37	SPACE	--	--	--		0 VA		
--	38	SPACE	--	--	--			0 VA	
--	39	SPACE	--	--	--	0 VA			
--	40	SPACE	--	--	--		0 VA		
--	41	SPACE	--	--	--			0 VA	
--	42	SPACE	--	--	--	0 VA			
--	43	SPACE	--	--	--		0 VA		
--	44	SPACE	--	--	--			0 VA	
--	45	SPACE	--	--	--	0 VA			
--	46	SPACE	--	--	--		0 VA		
--	47	SPACE	--	--	--			0 VA	
--	48	SPACE	--	--	--	0 VA			
--	49	SPACE	--	--	--		0 VA		
--	50	SPACE	--	--	--			0 VA	
--	51	SPACE	--	--	--	0 VA			
--	52	SPACE	--	--	--		0 VA		
--	53	SPACE	--	--	--			0 VA	
--	54	SPACE	--	--	--	0 VA			
						<b>Total Load:</b>	90412 VA	88980 VA	79157 VA
						<b>Total Amps:</b>	766 A	754 A	660 A

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
HVAC	12672 VA	100.00%	12672 VA	
Lighting	32208 VA	125.00%	40258 VA	<b>Total Conn. Load:</b> 258548 VA
Other	17658 VA	100.00%	17658 VA	<b>Total Est. Demand:</b> 216544 VA
Power	47716 VA	100.00%	47716 VA	<b>Total Conn. Current:</b> 718 A
Receptacle	21010 VA	73.80%	15505 VA	<b>Total Est. Demand Current:</b> 601 A
Kitchen Equipment	127287 VA	65.00%	82736 VA	

Notes:  
1. RECEPTACLE DEMAND LOAD CALCULATED PER NEC 220.44  
2. KITCHEN DEMAND LOAD CALCULATED PER NEC 220.56  
3. LIGHTING DEMAND LOAD CALCULATED PER NEC 215.2

\*REFER TO ELECTRICAL PANEL SCHEDULE SHEETS E410 & E430 FOR GENERAL "ELECTRICAL PANEL SCHEDULE NOTES".

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**DESIGN PROFESSIONALS**  
**HILLFOLEYROSSI & ASSOCIATES**  
ARCHITECTURE  
ENGINEERING  
3680 Pleasant Hill Road  
Suite 200  
Duluth, Georgia 30096  
p 770.622.9858  
f 770.622.9535  
www.hillfoleyrossi.com

**ISSUE/REVISION RECORD**

DATE	DESCRIPTION
02/09/18	ISSUED FOR PERMIT
04/04/18	REV-1 PERMIT COMMENTS

**RaceTrac**  
RACETRAC PETROLEUM, INC.  
200 GALLERIA PKWY SE  
SUITE 900  
ATLANTA, GEORGIA 30339  
(770) 431-7600

**PROJECT NAME**  
**PEACHTREE PKWY & ENG**

**PEACHTREE CORNERS GEORGIA**  
5780 PEACHTREE PKWY  
PEACHTREE CORNERS, GA 30092  
RACETRAC PROJECT NUMBER  
**#1201**

**PROTOTYPE SERIES**  
**2018 BR-RH-MO-M 0105**

**PLAN MODIFICATION NOTICE**  
SPB NO. 0105 DATE 1.05.18

STANDARD PLAN BULLETINS (SPB) MODIFY THE PROTOTYPE SERIES SET NOTED ABOVE. THE LISTED SPB REPRESENTS THE LATEST MODIFICATION INCORPORATED TO THIS PROTOTYPE SERIES SET AT ORIGINAL RELEASE. THE ISSUE/REVISION RECORD COLUMN ABOVE LISTS ANY REVISIONS OR SPB INCORPORATED IN THIS SET AFTER THE ORIGINAL RELEASE. CONTACT RACETRAC ENGINEERING AND CONSTRUCTION FOR ANY SUBSEQUENT BULLETINS NOT INCORPORATED HEREIN.

**PROFESSIONAL SEAL**  
REGISTERED PROFESSIONAL ENGINEER  
WILLIAM S. GAUDY, JR.  
04/04/18

**PROJECT NUMBER**  
18.703.00

**SHEET TITLE**  
**ELECTRICAL RISER DIAGRAM**

**SHEET NUMBER**  
**E411**  
ISSUED FOR PERMIT