



DAMMON ENGINEERING, INC.

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ARCHITECTURE

ENGINEERING

STUDIES

PLANNING

INVESTIGATION

EXPERT WITNESS

CECIL BOYD'S
CAR WASH
LOT 5A
EAST HALL ST.
SLIDELL, LA

ELECTRICAL
POWER PLAN,
NOTES, &
SCHEDULES

REV:

SCALE: AS NOTED

JOB#: 2074

DATE: 09-13-10

SHEET 16

E-1

OF 18

PANEL: P-1		LOCATION: CARWASH EQUIPMENT ROOM		VOLTAGE: 208/120V, 600A 3Ø, 4W		ENCLOSURE: SURFACE MOUNTED W/EQUIPMENT GND BAR		FEEDER SOURCE: CLECO		
QTY.	THHN SIZE	LOAD DESCRIPTION	BREAKER	LOAD (VA)	POLE	LOAD (VA)	BREAKER	LOAD DESCRIPTION	THHN SIZE	QTY.
1	#12	ENTRY UNIT (110V)	20 1	1760		1760	1 20	ENTRY UNIT (110V)	#12	2
3				20775		20775				4
5	#6	WASH BAY #1 JUNCTION BOX	200 3	20774		20774	3 200	WASH BAY #2 JUNCTION BOX	#6	6
7				20775		20775				8
9				5764		1664				10
11	#6	VACUUM SYSTEM	60 3	5764		1664	2 20	EXTERIOR SIGN JUNCTION BOX	#6	12
13				5764		1440	1 20	EQUIPMENT ROOM 101 RECEPTACLES	#12	14
15	#12	RESTROOM 102 RECEPTACLES	20 1	640		1536	1 20	WASH BAY #1 LIGHTS	#12	16
17	#12	VACUUM SYSTEM AREA-EXT WEATHERPROOF GFI RECEPTACLE	20 1	160		1536	1 20	WASH BAY #2 LIGHTS	#12	18
19	#12	EQUIPMENT & RESTROOM 101 & 102 LIGHTS	20 1	460		180	1 20	AIR COMPRESSOR DEDICATED RECEPTACLE IN EQUIP. ROOM	#12	20
21	#8	SITE LIGHTING	30 2	2496		24	1 20	EXIT/EMERGENCY LIGHTS	#12	22
23				2496		2407				24
25	#12	REVERSE OSMOSIS UNIT IN EQUIPMENT ROOM (5.7A)	20 1	1642		2405		AIR COMPRESSOR IN EQUIPMENT ROOM (16.7A)	#8	26
27	#12	REPRESSURIZATION UNIT IN EQUIPMENT ROOM (5.7A)	20 1	1642		1642	1 20	REPRESSURIZATION UNIT IN EQUIPMENT ROOM (5.7A)	#12	28
29				4419		4419				30
31	#6	WHEEL BLASTER-GATLING PUMP UNIT IN EQUIPMENT ROOM (46A)	50 3	4420		4420	3 50	WHEEL BLASTER-GATLING PUMP UNIT IN EQUIPMENT ROOM (46A)	#6	32
33				4419		4419				34
35	#12	TIRE SHINE PANEL DEDICATED RECEPTACLE IN EQUIP. ROOM	20 1	180		1024	1 20	VACUUM CANOPY LIGHTS	#12	36
37	#12	SPARE	20 1	-		-	1 20	SPARE	#12	38
39	#12	TIRE SHINE PANEL DEDICATED RECEPTACLE IN EQUIP. ROOM	20 1	180		-	1 20	SPARE	#12	40
41	#12	SPARE	20 1	-		-	1 20	SPARE	#12	42
				TOTAL CONNECTED LOAD (VA)=197,334				GROUND BUS		
				Aa=65,781 Bb=65,856 Cc=65,597				GROUND WIRE (G)		

POWER LEGEND

- ⊕ - RECEPTACLE 20A 115V
- ⊕ (with GFI symbol) - GFI WEATHERPROOF RECEPTACLE
- ⊞ - JUNCTION BOX
- ⊞ (with P) - POWER PANEL
- ⊕ (with 20A 110V symbol) - DEDICATED RECEPTACLE 20A 110V

ELECTRICAL NOTES

1. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, THE GOVERNING ELECTRICAL CODE AND ALL OTHER INSPECTION DEPARTMENTS HAVING JURISDICTION. OBTAIN CERTIFICATES OR APPROVAL WHERE REQUIRED.
2. ALL MATERIALS FURNISHED SHALL BE NEW AND SHALL BE U.L. LISTED.
3. THE DRAWINGS INDICATE SIZE AND GENERAL LOCATION OF WORK. SCALE DIMENSIONS SHALL NOT BE USED. THE EXACT LOCATION AND LOCATION OF ALL LIGHTING FIXTURES, RECEPTACLES AND TELEPHONE OUTLETS, ETC. SHALL BE DETERMINED BY ACTUAL CONDITIONS IN THE FIELD.
4. PRIOR TO BIDDING, CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS.
5. ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES AND WITH OTHER CONTRACTORS WHOSE WORK MAY AFFECT THIS INSTALLATION.
6. ELECTRICAL CONTRACTOR SHALL COORDINATE INCOMING ELECTRICAL SERVICE WITH UTILITY COMPANY AND INCLUDE IN HIS BID ALL CHARGES AND FEES INCURRED IN MODIFICATIONS.
7. WHERE MORE THAN ONE SWITCH OCCURS IN THE SAME LOCATION, THEY SHALL BE INSTALLED IN A GANG TYPE BOX UNDER ONE COVER PLATE.
8. ELECTRICAL CONTRACTOR, BEFORE INSTALLING ANY OF THE WORK, SHALL SEE THAT IT DOES NOT INTERFERE WITH CLEARANCES REQUIRED FOR FINISHED COLUMNS, HUNG CEILINGS, PLASTER, PARTITIONS, WALLS, ETC. AS SHOWN IN THE ARCHITECTURAL DRAWINGS AND DETAILS. IF ANY WORK IS INSTALLED AND IT LATER DEVELOPS THAT SUCH DETAILS OR DESIGN CANNOT BE FOLLOWED, THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL MAKE SUCH CHANGES IN THE WORK AS DIRECTED BY THE ARCHITECT. AS WELL AS TO PERMIT THE INSTALLATION OF THE ARCHITECTURAL WORK AS SHOWN ON THE PLANS AND DETAILS.
9. PERFORM TEST REQUIRED BY THE OWNER OR THE ENGINEER IN CONNECTION WITH THE OPERATION OF THE ELECTRICAL SYSTEM IN THE BUILDING.
10. ALL TESTS SHALL BE MADE IN ACCORDANCE WITH THE LATEST STANDARD OF THE IEEE AND THE NATIONAL ELECTRICAL CODE.
11. MINIMUM CONDUCTOR SIZE SHALL BE #12, 600V INSULATION. MINIMUM SIZE CONDUIT SHALL BE 3/4" EMT FOR INTERIOR USE, AND 3/4" RIGID ALUMINUM FOR EXTERIOR USE. USE CONDUIT # WIRE OR TYPE MC CABLE COPPER, FOR LIGHTS AND RECEPTACLE CIRCUITS. EXTERIOR FITTINGS SHALL BE CAST BOXES AND COVERS. INTERIOR FITTINGS SHALL BE CAST WHERE EXPOSED ON WALLS. STAMPED BOXES MAY BE USED ABOVE CEILINGS IN AIR CONDITIONED SPACES. WHERE LAY IN FIXTURES ARE IN USE, USE 1/4" 2 IS ALLOWED FOR 6" WIPs.
12. ALL ELECTRICAL SWITCHES AND RECEPTACLES SHALL BE RATED AT NOT LESS THAN 20 AMPS.
13. CONTRACTOR SHALL INSTALL WIRING AND OTHER CIRCUIT COMPONENTS TO MATCH EQUIPMENT ACTUALLY INSTALLED.
14. BONDING AND GROUNDING SHALL BE IN ACCORDANCE WITH NFPA 70:230-63, NFPA 250-23, 250-71 & 250-72.
15. GROUND NEUTRAL IN ACCORDANCE WITH NFPA 70:250-23b.
16. FUSES SHALL BE ITC CLASS K5, 250 VOLT, 200,000 AMP INTERRUPTING CAP.
17. EXTERIOR LIGHTING SHALL BE SHADED OR INWARDLY DIRECTED IN SUCH A MANNER SO THAT NO DIRECT LIGHTING OR GLARE IS CAST BEYOND THE PROPERTY LINE. THE INTENSITY OF SUCH LIGHTING SHALL NOT EXCEED ONE FOOT CANDLE AS MEASURED AT THE ABUTTING PROPERTY LINE.
18. ALL ELECTRICAL, MECHANICAL AND PLUMBING PENETRATING FIRE PARTITIONS SHALL BE FIRE CAULKED. (PENETRATIONS THROUGH RATED CONSTRUCTION SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN TESTED IN ACCORDANCE WITH ASTM-E8 1.4.)

