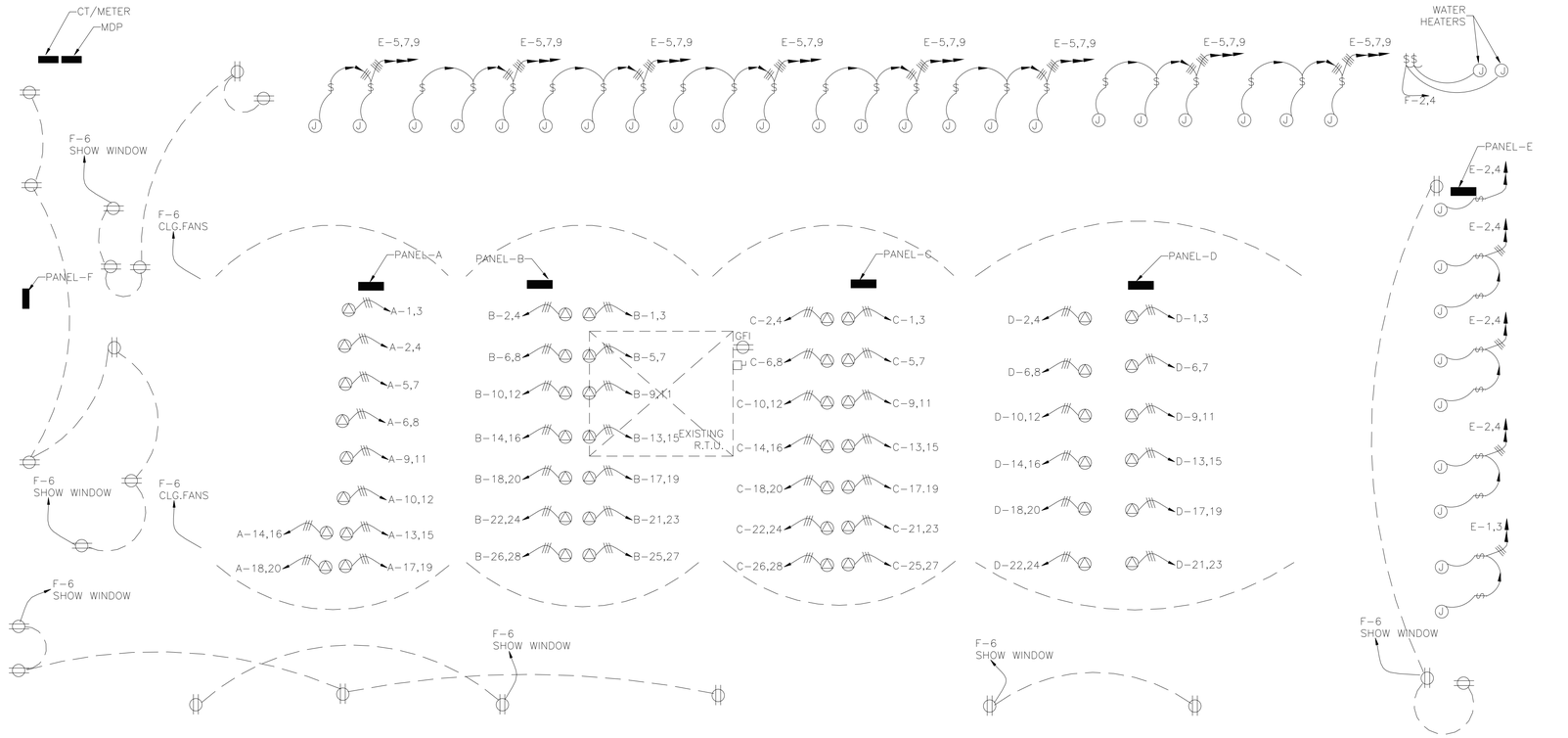
ELECTRICAL SYMBOLS

1	LIGHTING FIXTURE: (SEE SCHEDULE FOR TYPE AND DESCRIPTION). LETTER OR NUMBER INDICATES TYPE.
1E	LIGHTING FIXTURE ON EMERGENCY CIRCUIT OR WITH EMERGENCY BATTERY BALLAST. (SEE SCHEDULE FOR TYPE AND DESCRIPTION). LETTER OR NUMBER INDICTAES TYPE.
PEC	PHOTOELECTRIC CELL
	EXIT LIGHT TO MATCH BUILDING STANDARD.
	EMERGENCY LIGHT W/BATTERY BACK-UP
S	SINGLE POLE SWITCH MOUNTED 48" A.F.F., U.O.N.
S_3	3-WAY TOGGLE SWITCH MOUNTED 48" A.F.F., U.O.N.
	PANELBOARD
	DISCONNECT SWITCH SIZE AS REQUIRED TO BE FUSED UNLESS OTHERWISE NOTED
	COMBINATION DISCONNECT SWITCH SIZE AS REQUIRED TO BE FUSED UNLESS OTHERWISE NOTED
	HEATING ELEMENT CONNECTION
M	MOTOR CONNECTION
F	FAN CONNECTION
J	JUNCTION BOX. MOUNT AS SHOWN ON PLANS. SIZE AS REQUIRED. BRANCH CIRCUIT WIRING CONCEALED IN CEILING AND/OR WALL SPACE
	BRANCH CIRCUIT WIRING CONCEALED IN SLAB OR UNDERGROUND
	BRANCH CIRCUIT HOMERUN TO PANELBOARD. NUMBER OF ARROWS DENOTE NUMBER OF CIRCUITS. NUMBER OF HASHMARKS DENOTE NUMBER OF WIRES WHEN MORE THEN TWO.
	CONDUIT UP
	CONDUIT DOWN
	GROUND AS PER LOCAL AND NATIONAL CODES
	SPECIAL OUTLET- COORDINATE OUTLET CONFIGURATION AND REQUIREMENT WITH EQUIPMENT MANUFACTURER.
	DUPLEX RECEPTACLE 120 VOLTS, 20 AMPS, UP 18" A.F.F., U.O.N.
	QUAD RECEPTACLE 120 VOLTS, 20 AMPS, UP 18" A.F.F., U.O.N.
	QUAD RECEPTACLE 120 VOLTS, 20 AMPS, UP 18" A.F.F., U.O.N. W/ISOLATED GROUND
	DUPLEX RECEPTACLE 120 VOLTS, 20 AMPS, UP 18" A.F.F., U.O.N., G.F.I. TYPE
	DUPLEX RECEPTACLE 120 VOLTS, 20 AMPS, UP 18" A.F.F., U.O.N., W/ ISOLATED GROUND
	TELEPHONE OUTLET MOUNTED @18" A.F.F., U.O.N. WITH 3/4" E.C. W/ PULLWIRE, EXTEND TO ABOVE FINISHED CEILING.
	COMBINATION DATA/TELEPHONE OUTLET MOUNTED @18" A.F.F., U.O.N. WITH 1" E.C. W/ PULLWIRE, EXTEND TO ABOVE FINISHED CEILING.
1	PLAN NOTE DESIGNATION
1	RISER DIAGRAM NOTE DESIGNATION



FLOOR PLAN - POWER

SCALE: 1/4"=1'-0"

GENERAL: ELECTRICAL SPECIFICATION

1. PROVIDE ALL LABOR,TOOLS, EQUIPMENT, SUPERVISION, SERVICES, ETC. NECESSARY FOR AND INCIDENTAL TO THE COMPLETE INSTALLATION OF ALL ELECTRICAL WORK AND RELATED SYSTEMS AS SHOWN ON THE DRAWINGS SPECIFIED HEREIN, AND/OR REQUIRED TO DELIVER TO THE OWNER A COMPLETE INSTALLATION READY FOR CONTINUOUS AND SATISFACTORY OPERATION. ALL ITEMS, SYSTEMS, ETC. NECESSARY OR REQUIRED TO MAKE THE ELECTRICAL INSTALLATION COMPLETE AND OPERABLE SHALL BE UNDERSTOOD AS PART OF THE WORK. THE CONTRACTOR SHALL EXAMINE THE PREMISES PRIOR TO SUBMITTING HIS BID. ANY QUESTIONS AS TO THE WORKING CONDITIONS OF THE SCOPE OF THE ELECTRICAL WORK SHALL BE SUBMITTED TO THE ARCHITECT FOR RESOLUTION PRIOR TO BID.

2. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS. ALL CERTIFICATES OF FINAL INSPECTION SHALL BE DELIVERED TO THE ARCHITECT PRIOR TO FINAL ACCEPTANCE OF THE ELECTRICAL WORK. ALL ELECTRICAL WORK SHALL BE GUARANTEED BY THE CONTRACTOR FOR ONE (1) YEAR AFTER THE DATE OF FINAL ACCEPTANCE. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL REPAIRS AND ADJUSTMENTS TO THE ELECTRICAL EQUIPMENT AND SYSTEMS DURING THIS GUARANTY PERIOD.

3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELCTRICAL CODE (NEC) AND APPLICABLE STATE AND LOCAL CODES.

4. ALL WORK COVERED UNDER THESE SPECIFICATIONS AND DRAWINGS SHALL BE PERFORMED USING THE FOLLOWING REFERENCES AS MINIMUM STANDARDS FOR CONSTRUCTION AND TESTING:
   A. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
   B. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA).
   C. THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).

5. ALL MATERIALS AND EQUIPMENT SHALL BE "APPRUVED FOR THE PURPOSE" BY NATIONAL RECOGNIZED TESTING LABORATORIES, SUCH AS UNDERWRITER'S LABORATORIES, INC. (UL). ELECTRICAL TESTING LABORATORIES (ETL). OR FACTORY MUTUAL (FM).

6. THE CONTRACTOR SHALL HAVE COMPETENT SUPERVISION ON THE SITE AT ALL TIMES TO LAYOUT, CHECK, COORDINATE WITH OTHER TRADES AND SUPERVICE THE INSTALLATION OF ALL ELECTRICAL WORK AND BE RESPONSIBLE FOR THE ACCURACY THEREOF.

7. ALL WARNINGS SHALL BE TYPE SE, NM OR MC CABLE OR INDIVIDUAL CONDUCTORS INSTALLED IN CONDUIT.

8. CONDUIT SHALL BE:
   A. RIGID GALVANICED STILL CONDUIT (RGS) SHALL BE USED IN DAMP AND WET LOCATIONS WHERE REQUIRED BY THE NEC.
   B. ELECTRICAL METALLIC TUBING (EMT) MAY BE USED IN DRY LOCATIONS THROUGHOUT, EXCEPT WHERE FLEXIBLE CONDUIT IS PERMITTED OR INDICATED.
   C. FEXIBLE METAL CONDUIT SHALL BE USED FOR CONNECTIONS TO AND BETWEEN RECESSED LIGHTING FIXTURES AND OUTLET BOXES IN LENGHTHS AS PERMITTED MAXIMUM SIZE SHALL NOT EXCEED 1- 1/4", BY THE NEC.
   D. MINIMUM CONDUIT SHALL BE 1/2". ALL CONDUIT IN FINISHED AREAS SHALL BE INSTALLED CONCEALED. CONDUITS MAY BE EXPOSED ONLY IN MECHANICAL AND ELECTRICAL EQUIPMENT SPACES AND AT SURFACE-MOUNTED PANELBOARDS OR WHERE REQUIRED FOR EQUIPMENT CONNECTIONS.

9. ALL WIRING FOR PANELBOARD FEEDERS SHALL BE STRANDED ALUMINUM. MINIMUM #6 AWG 600V INSULATION NEC TYPE THHN OF THWN. UNLESS OTHERWISE INDICATED. ALL WIRING SHALL BE COLOR CODED.

10. BRANCH CIRCUIT WIRING SHALL BE COPPER, 600V. INSULATION, NEC TYPE THHN, OR THWN, UNLESS INDICATED. ALL WIRING #8 AND LARGER AND FOR CONTROL CIRCUITS SHALL BE STRANDED. MINIMUM WIRE SIZE SHALL BE #12. ALL WIRING SHALL BE COLOR CODED.

11. PANELBOARDS SHALL BE DISTRIBUTION TYPE OR LOAD CENTER TYPE TO SUIT THE INTENDED USE. PROVIDE A TYPED DIRECTORY OF ALL CIRCUITS.

12. WIRING DIVICES SHALL BE SPECIFICATION GRADE TYPE. ALL DEVICES SHALL BE SUITABLE FOR THE PURPOSE AND LOCATION INDICATED. DEVICE PLATES SHALL BE STAINLESS STEEL WITH SATIN FINISH.

13. EXISTING LIGHTING TO REMAIN. CONTRACTOR SHALL COORDINATE WITH OWNER AND REWORK LIGHTS AND SWITCHING WHERE REQUIRED TO SUIT NEW WALL LOCATIONS. PROVIDE NEW LIGHTING FIXTURES AS DIRECTED BY THE OWNER.

14. PROVIDE NEW EMERGENCY AND LED EXIT LIGHTING WITH BATTERY BACKUP AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION. NEW EMERGENCY AND EXIT LIGHTING SHALL BE CONNECTED TO THE LIGHTING CIRCUIT SERVING SAME ROOM AND CONNECTED AHEAD OF ANY SWITCHING.

15. CONTRACTORS SHALL SELECT NIGHT LIGHT FIXTURE TO ILLUMINATE THE PUBLIC AREAS, MEANS OF EGRESS AND CONNECT TO NIGHT LIGHT CIRCUIT. PROVIDE A SWITCH FOR NIGHT LIGHT IN A NONE PUBLIC LOCATION AS DIRECTED BY THE OWNER.

16. GROUND FAULT INTERRUPTER (GFCI) TYPE DUPLEX RECEPTACLE 20A. - 125V.

17. POWER OUTAGES: THE CONTRACTOR SHALL COORDINATE ALL POWER OUTAGES WITH THE OWNER. ALL SERVICE INTERRUPTIONS SHALL BE AT THE CONVENIENCE OF THE OWNER AND DOWN TIME SHALL BE KEPT TO A MINIMUM PRIOR TO THE COMMENCEMENT OF ANY WORK. THE CONTRACTOR SHALL SUBMIT A TENTATIVE SCHEDULE LISTING OF THE NUMBER, DURATION, AND DATES OF PLANNED OUTAGES.

18. NEW SERCICE INDICATED SHALL BE COORDINATED AND IN COMPLIANCE WITH POTOMAC & ELECTRIC POWER CO.

19. SURGE PROTECTION DEVICE (SPD) SHALL HAVE A PEAK SURGE CURRENT OF NO LESS THAN 160KA/PHASE 180KA/MODE FOR A 8 X 20 MICROSEC WAVEFORM. THE SPD SHALL BE INDIVIDUALLY FUSED AND SHALL BE EXTERNALLY MOUNTED BELOW THE PANELBOARD. WIRE SHALL BE AS REQUIRED BY THE MANUFACTURER THE UNIT SHALL PROVIDE PROTECTION FOR L-N, L-G, L-L AND N-G IN ACCORDANCE WITH ANSI/IEEE C62.41 AND C62.45, 2002. CATEGORIES B3/C1 AND C3 BI-WAVE, 90 DEGREES PHASE ANGLE, POSITIVE POLARITY. MEASUREMENTS IN PEAK VOLTAGE FROM THE REFERENCE, FOR THE VOLTAGE LEVELS INDICATED PROVIDED SPD AS MANUFACTURED BY JOSLYN OR EQUIVALENT.

ELECTRICAL ABBREVIATIONS

A	AMPER
AFF	ABOVE FINISH FLOOR
AL	ALUMINIUM
C	CONDUIT
DN	DOWN
DWG	DRAWING
EF	EXHAUST FAN
EGC	EQUIPMENT GRODUNGING CONDUCTOR
EMT	ELECTRICAL METALLIC TUBING
EX	EXISTING
F	FUSED OR FUSIBLE
FR	FRAME
GEC	GROUNDING ELECTRODE CONDUCTOR
GFI	GROUND FAULT INTERRUPTER
GRD	GROUND
HP	HORSEPOWER
ISCA	INSTANTANEOUS SHORT CIRCUIT AMPERES
JB	JUNCTION BOX
KVA	KILOVOLT AMPERES
KW	KILOWATTS
LTG	LIGHTING
MH	MOUNTING HIGHT
MIN	MINIMUM
MTD	MOUNTED
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NO., #	NUMBER
P	PDLE (1P., 2P., 3P.)
PEPCO	POTOMAC ELECTRIC POWER COMPANY
PH	PHASE
RECEPT	RECEPTACLE
SE	SERVICE ENTRANCE
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
V	VOLTS
W	WATTS
W/	WITH
WP	WEATHERPROOF

LAUNDRY EQUIPMENT SCHEDULE / ELECTRICAL REQUIREMENTS

ITEM	QTY.	MANUFACTURER	MODEL	DESCRIPTION	REQ'D. NO. OF CKTS. PER MACHINE	VOLTAGE	KVA PER UNIT	TOTAL KVA	CIRCUIT BREAKER	WIRE SIZE
①	10	SPEED QUEEN	SC20BC2	WASHER-EXTRACTOR	2	208-240/60/3Ø	1.2	12.0	15A	AWG14
②	14	SPEED QUEEN	SC30BC2	WASHER-EXTRACTOR	2	208-240/60/3Ø	2.5	35.0	15A	AWG14
③	14	SPEED QUEEN	SC40BC2	WASHER-EXTRACTOR	2	208-240/60/3Ø	2.3	32.2	20A	AWG12
④	10	SPEED QUEEN	SC60BC2	WASHER-EXTRACTOR	2	208-240/60/3Ø	3.5	35.0	20A	AWG12
⑤	2	SPEED QUEEN	SC80BCV	WASHER-EXTRACTOR	2	208-240/60/3Ø	4.5	18.0	15A	AWG14
⑥	17	SPEED QUEEN	STT30N	STACK TUMBLER	1	110-120/60/1Ø	1.3	22.1	20A	AWG12
⑦	13	SPEED QUEEN	STT45N	STACK TUMBLER	1	208-240/60/1Ø	1.6	20.8	15A	AWG14
⑧	2	SPEED QUEEN	STO75N	TUMBLER	1	110-120/60/1Ø	1.6	3.2	20A	AWG12
⑨	2	HAMILTON ENGINEERING	HW 299 & HW 399	GAS WATER HTR.	1					
⑩	2	EDS	VTM	CARD SYSTEM	1					
⑬	3	ROWE	500	BILL CHANGER	1					
							TOTAL	178.3A		

NOTES:

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Issue Date:

Revisions		
No.	Date	Description

Permit Set
Oct. 15, 2009

TROPICANA LAUNDROMAT
LAUNDROMAT FIT-UP PLANS
8010 FENTON STREET
SILVER SPRING MD, 20910

Project Number: Drawn By:

Designed By: Checked By:

Sheet Title:
FOOR PLAN POWER

Sheet Number:
E-1