CONNECTED LOAD SUMMARY			
LOAD	KVA CONN.	D.F.	KVA NET
LIGHTING	22.1	1.25	28.4
HVAC (LARGEST MTR)	33.1	1.25	42.1
HVAC (REMAINING)	33.1	1.0	33.1
WATER HEATER	1.1	1.25	2.1
RECEPTACLES	12.9	NEC	11.5
OTHER	3.8	1.0	3.8
SPARE	0.0	1.0	0.0
TOTAL	108.5		121.6
LOAD CALCULATION			
121.6 KVA / 0.36 KV = 337.8 AMPS			

ELECTRICAL WHIP W/PIGTAIL SCHEDULE

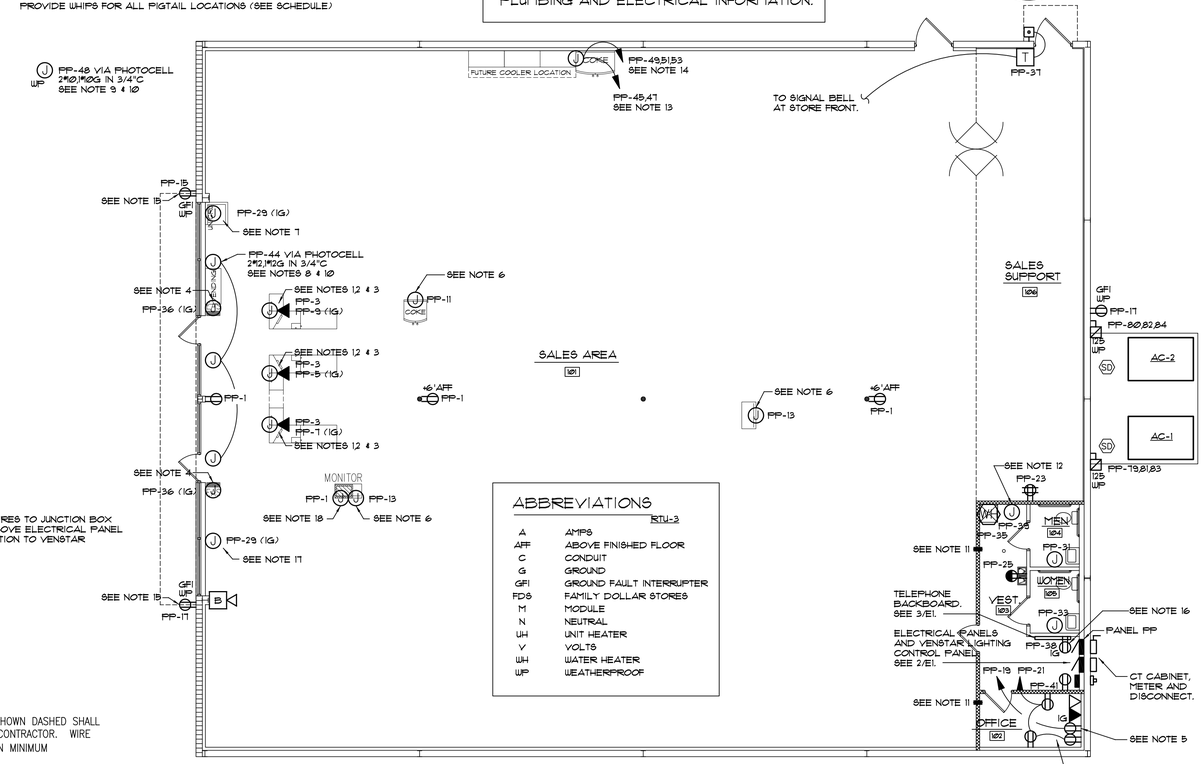
QTY	ITEM #	DESCRIPTION	POWER POLES	NOTES (SEE E1)	LENGTH OF WHIP
6	ID3 - 000MW055	STANDARD STARTING CONNECTOR (BROWN PIGTAIL)	CHECKOUTS(3), PROMO'(2), COKE	1,6	15'
1	ID4-IG - 000MW055A	ISOLATED GROUND STARTING CONNECTOR (GREEN PIGTAIL)	CHECKOUTS(3), UNICRU EAS(2), ATM	1,4,7	15'
1	624FD8005	35' WHIP SET 120/208V 4 115V (BROWN PIGTAIL)	FREEZER AND COOLERS	13,14	35'
0	624FD8001	FOR SINGLE PHASE WHIP ID8-35FT (REQ'D AS 3RD WHIP)	FREEZER AND COOLERS	13,14	35'
1	000MW054F	RECEPTACLE ASSEMBLY (BROWN PIGTAIL)	SECURITY MONITOR	18	15'

NOTE: CONFIRM EXACT LOCATION OF ALL J-BOXES WITH FDS PROJECT MANAGER PRIOR TO INSTALLATION. MOUNT ALL J-BOXES AT 12'-0" AFF.
CONTACT D4P CUSTOM LIGHTS AT (800) 251-2200, ATTN: TAMMY FOR WHIPS WITH PIGTAILS FOR CONNECTION TO J-BOXES ABOVE CEILING.

PROVIDE WHIPS FOR ALL PIGTAIL LOCATIONS (SEE SCHEDULE)

NOTE: SEE SHEET A-3 FOR RESTROOM PLUMBING AND ELECTRICAL INFORMATION.

REVISED PLANS FROM GAS HVAC UNITS TO ALL ELECTRIC HVAC UNITS. 1



ABBREVIATIONS

RTU-3

A	AMPS
AFF	ABOVE FINISHED FLOOR
C	CONDUIT
G	GROUND
GFI	GROUND FAULT INTERRUPTER
FDS	FAMILY DOLLAR STORES
M	MODULE
N	NEUTRAL
UH	UNIT HEATER
V	VOLTS
WH	WATER HEATER
WP	WEATHERPROOF

ELECTRICAL POWER PLAN NOTES:

1. FURNISH AND INSTALL WIRING AND HOOKUP FOR EACH CASHIER'S MODULE INCLUDING: CONVENIENCE CIRCUIT, DEDICATED CIRCUIT WITH ISOLATED GROUND AND PHONE/DATA CONNECTION. CIRCUITS SHALL BE TERMINATED AT A JUNCTION BOX MOUNTED 12'-0" AFF, WITH 15' WHIP AND FINAL CONNECTION MADE TO SPECIAL PLUG-IN 'PIGTAIL' CONNECTORS. FDS OPENING TEAM WILL INSTALL POWER POLES TO FINAL CHECKOUT LOCATIONS BY ATTACHING THESE CONNECTORS. VERIFY EXACT LOCATION OF EACH REQUIRED DROP WITH TENANT'S CONSTRUCTION REPRESENTATIVE.
2. ALL CIRCUITS SERVING RECEPTACLES TO CHECK-OUT AND VENDING MAY BE RUN IN THE SAME CONDUIT.
3. FDS REQUIRES (4) TELEPHONE/DATA DROPS, (1) IN OFFICE WITH QUAD WALL JACK AND (3) AT CASH CHECKOUT. FIELD VERIFY EXACT LOCATIONS. INSTALLATION AND QUANTITY OF DEVICES WITH FDS STORE OPENER AT JOB SITE. E.C. SHALL PROVIDE ¾" CONDUIT UP IN WALLS (IF NOT LOCATED IN POWER POLE) TO ABOVE CEILING. ALL CAT. 5 CABLES SHALL BE RUN BY OTHERS.
4. FURNISH AND INSTALL WIRING AND HOOKUP FOR ONE DEDICATED CIRCUIT WITH ISOLATED GROUND ABOVE CEILING AT STOREFRONT DOORS FOR SECURITY SYSTEM (EAS). CIRCUIT SHALL BE TERMINATED AT A JUNCTION BOX MOUNTED 12'-0" AFF, WITH FINAL CONNECTION MADE TO SPECIAL PLUG-IN 'PIGTAIL' CONNECTOR. FDS OPENING TEAM WILL INSTALL POWER POLE TO FINAL LOCATION BY ATTACHING TO THIS CONNECTOR. VERIFY EXACT LOCATION WITH TENANT'S CONSTRUCTION REPRESENTATIVE.
5. PROVIDE DEDICATED ISOLATED GROUND RECEPTACLES WITH ISOLATED GROUNDING CONDUCTOR BACK TO SERVICE GROUND.
6. FURNISH AND INSTALL WIRING AND HOOKUP FOR REFRIGERATED DRINK BOX AND PROMO DISPLAY. CIRCUIT SHALL BE TERMINATED AT A JUNCTION BOX MOUNTED 12'-0" AFF, WITH 15' WHIP AND WITH FINAL CONNECTION MADE TO SPECIAL PLUG-IN 'PIGTAIL' CONNECTOR. FDS OPENING TEAM WILL INSTALL POWER POLE TO FINAL LOCATION BY ATTACHING TO THIS CONNECTOR. VERIFY EXACT LOCATION WITH TENANT'S CONSTRUCTION REPRESENTATIVE.
7. FURNISH AND INSTALL WIRING AND HOOKUP FOR UNICRU COMPUTER STATION INCLUDING DEDICATED CIRCUIT. CIRCUIT SHALL BE TERMINATED AT A JUNCTION BOX MOUNTED 12'-0" AFF, WITH FINAL CONNECTION MADE TO SPECIAL PLUG-IN 'PIGTAIL' CONNECTORS. FDS OPENING TEAM WILL INSTALL POWER POLE TO FINAL LOCATION BY ATTACHING THIS CONNECTOR. VERIFY EXACT LOCATION WITH TENANT'S CONSTRUCTION REPRESENTATIVE.
8. FURNISH AND INSTALL CONDUIT AND WIRING FOR EXTERIOR BUILDING SIGN. CIRCUIT SHALL BE TERMINATED AT A JUNCTION BOX ABOVE CEILING. CIRCUIT SHALL BE CONTROLLED BY PHOTOCELL. FINAL CONNECTIONS SHALL BE MADE BY THE ELECTRICAL CONTRACTOR.
9. ELECTRICAL CONTRACTOR SHALL PROVIDE A WEATHERPROOF JUNCTION BOX FOR LIGHTED ROAD SIGN. MOUNT TO SIGN PEDESTAL OR POLE. ELECTRICAL CONTRACTOR SHALL RUN WIRE IN CONDUIT AS SPECIFIED ON PLANS TO SIGN. FINAL CONNECTIONS SHALL BE MADE BY THE ELECTRICAL CONTRACTOR.
10. ALL EXTERIOR LIGHTING AND SIGN CIRCUITS SHALL BE CONTROLLED BY PHOTOCELL MOUNTED ON BACK SIDE OF FRONT PARAPET WALL.
11. PROVIDE A (1') ONE FOOT PIECE OF 3" EMPTY CONDUIT RUNNING THROUGH THE WALL AT LOCATIONS AS SPECIFIED ON THE PLANS. ALL CONDUITS SHALL BE LOCATED 12" ABOVE THE CEILING. PROVIDE FIRE CAULK AND CAP OFF CONDUIT FOR FUTURE USE BY FAMILY DOLLAR.
12. PROVIDE ELECTRICAL CIRCUIT FOR HEAT TAPE ON DOMESTIC WATER LINES IN NORTHERN CLIMATES ONLY. FIELD COORDINATE EXACT ELECTRICAL REQUIREMENTS AND LOCATION WITH PLUMBING CONTRACTOR.

NOT USED

13. FURNISH AND INSTALL WIRING (2#0 HOTS, 1#0 NEUTRAL, 1#0 GROUND) AND HOOKUP FOR ONE 208V-1PH 20A DEDICATED CIRCUIT FOR FREEZER. CIRCUIT SHALL BE TERMINATED AT A JUNCTION BOX MOUNTED 12'-0" AFF, WITH 35' WHIP AND WITH FINAL CONNECTION MADE TO SPECIAL PLUG-IN 'PIGTAIL' CONNECTOR. FDS OPENING TEAM WILL INSTALL POWER POLE TO FINAL LOCATION BY ATTACHING TO THIS CONNECTOR. VERIFY EXACT LOCATION WITH TENANT'S CONSTRUCTION REPRESENTATIVE.
14. FURNISH AND INSTALL WIRING (3#0 HOTS, 1#0 NEUTRAL, 1#0 GROUND) AND HOOKUP FOR THREE 120V-1PH 20A DEDICATED CIRCUITS FOR COOLERS. CIRCUITS SHALL BE TERMINATED AT A JUNCTION BOX MOUNTED 12'-0" AFF, WITH 35' WHIP AND WITH FINAL CONNECTION MADE TO SPECIAL PLUG-IN 'PIGTAIL' CONNECTOR. FDS OPENING TEAM WILL INSTALL POWER POLE TO FINAL LOCATION BY ATTACHING TO THIS CONNECTOR. VERIFY EXACT LOCATION WITH TENANT'S CONSTRUCTION REPRESENTATIVE.
15. MOUNT RECEPTACLE FLUSH IN MASONRY.
16. PROVIDE DEDICATED ISOLATED GROUND RECEPTACLES WITH ISOLATED GROUNDING CONDUCTOR BACK TO SERVICE GROUND. SEE TELEPHONE BOARD DETAIL.
17. FURNISH AND INSTALL WIRING AND HOOKUP FOR ATM STATION INCLUDING DEDICATED CIRCUIT. CIRCUIT SHALL BE TERMINATED AT A JUNCTION BOX MOUNTED 12'-0" AFF, WITH FINAL CONNECTION MADE TO SPECIAL PLUG-IN 'PIGTAIL' CONNECTORS. FDS OPENING TEAM WILL INSTALL POWER POLE TO FINAL LOCATION BY ATTACHING THIS CONNECTOR. VERIFY EXACT LOCATION WITH TENANT'S CONSTRUCTION REPRESENTATIVE.
18. FURNISH AND INSTALL WIRING AND HOOKUP FOR SECURITY MONITOR. CIRCUIT SHALL BE TERMINATED AT A JUNCTION BOX MOUNTED 12'-0" AFF, WITH 15' WHIP AND WITH FINAL CONNECTION MADE TO SPECIAL PLUG-IN 'PIGTAIL' CONNECTOR. VERIFY EXACT LOCATION WITH TENANT'S CONSTRUCTION REPRESENTATIVE. SEE MONITOR DETAIL ON ARCHITECTURAL DRAWINGS FOR ADDITIONAL INSTALLATION INSTRUCTIONS.

ELECTRICAL SYMBOL SCHEDULE

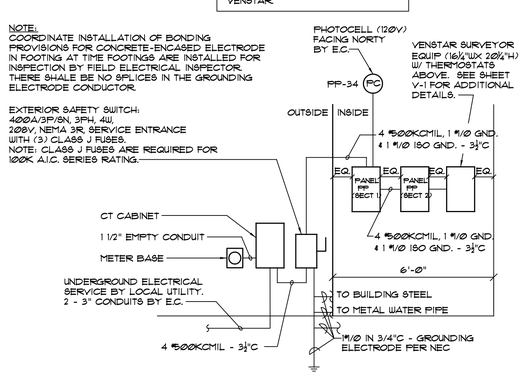
	CONDUIT RUN CONCEALED, UNLESS NOTED OTHERWISE
	CIRCUIT CONTINUES BUT NOT SWITCH LEG.
	HOMERUN TO PANEL. ARROWS INDICATE QUANTITY OF CIRCUITS
	STRIP FLUORESCENT FIXTURE, LETTER INDICATES TYPE.
(NL/EM)	FIXTURE ON NIGHT/EMERGENCY LIGHT CIRCUIT.
	CEILING OR WALL MOUNTED EXIT SIGN RESPECTIVELY. ARROWS AS INDICATED ON PLANS, BATTERY POWERED.
S S_3	20 AMPERE, SINGLE POLE OR THREE-WAY SWITCH, RESPECTIVELY. MOUNT 48" AFF.
S_*	OCCUPANCY DETECTION SENSOR SWITCH. SENSOR SWITCH MODEL * WSD-WH
B	SIGNAL BELL MOUNTED 11'-0" AFF. CONNECT TO SIGNAL BELL TRANSFORMER
	DUPLEX RECEPTACLE, MOUNT 18" AFF.
	DUPLEX RECEPTACLE, MOUNT 24" AFF.
GFI	GROUND FAULT INTERRUPTER RECEPTACLE.
WP	WEATHERPROOF RECEPTACLE.
IG	ISOLATED GROUND RECEPTACLE, MOUNT 18"AFF.
	DUPLEX RECEPTACLE MOUNTED IN CEILING.
	RECEPTACLE FOR WATER COOLER. VERIFY EXACT LOCATION WITH PLUMBING CONTRACTOR.
	QUADRAPLEX RECEPTACLE, MOUNT 18" AFF.
	TELEPHONE OUTLET, MOUNT 18" AFF, PROVIDE 4" SQUARE BOX WITH SINGLE GANG RING & TELEPHONE TYPE PLATE. (NOTE 3)
	SIMILAR TO ABOVE EXCEPT, MOUNT ABOVE COUNTER HEIGHT OR 60" AFF. (NOTE 3)
	DATA OUTLET, MOUNT 18" AFF. PROVIDE 4" SQUARE BOX WITH SINGLE GANG RING & TELEPHONE TYPE PLATE, AND EMPTY 3/4" CONDUIT RUN BACK TO THE TELEPHONE BACKBOARD. (NOTE 3)
WH	CONNECT ELECTRIC HOT WATER HEATER INSTALLED ON PLATFORM ABOVE MOP SINK.
UH	CONNECT UNIT HEATER.
V	JUNCTION BOX PER N.E.C.
T	SIGNAL BELL TRANSFORMER
	SIGNAL BELL PUSHBUTTON MOUNTED 76" A.F.G.
S_M	FRACTIONAL HORSEPOWER MANUAL MOTOR STARTER.
$\square_{30}$	NONFUSED SAFETY SWITCH, NUMBER INDICATES SWITCH RATING.
$\square^{J}_{20}$	AND CONNECT TO BUILDING GROUNDING ELECTRODE SYSTEM. FUSED SAFETY SWITCH, NUMBER INDICATES FUSE RATING.
F	FRACTIONAL HORSEPOWER MOTOR CONNECTION.
	ELECTRICAL PANEL RECESSED MOUNTED
	4'x8'x3/4" FLAME RETARDANT PAINTED PLYWOOD COMMUNICATION BACKBOARD. SEE DETAIL 2/E2.

EXTERIOR MOTION SENOR SYSTEM DETAIL

3 / E1

SCALE: N.T.S.

NOTE:
ALL INSTALLATION INSTRUCTIONS FOR VENSTAR SURVEYOR EQUIPMENT WILL BE PROVIDED TO THE ELECTRICAL CONTRACTOR BY VENSTAR.



POWER RISER DIAGRAM

2 / E1

SCALE: N.T.S.

ELECTRICAL CONTRACTOR SHALL PROVIDE NEW METER BASE AND CT CABINET AND UNDERGROUND ELECTRICAL SERVICE BACK TO TRANSFORMER. COORDINATE EXACT REQUIREMENTS WITH LOCAL UTILITY.

ELECTRICAL POWER PLAN

1 / E1

SCALE: 1/8" = 1'-0"

ALL RECEPTACLES AND TELEPHONE OUTLETS IN OFFICE SHALL BE MOUNTED 24" AFF.

NON-SERVICE ENTRANCE RATED — PANEL FP (SECTION 1) — 208Y/120 VOLTS, 3Φ, 4W — CLASS: 100KAIC SERIES RATED — 400 AMP MAIN LUGS ONLY — NEUTRAL: INSULATED

KVA CONN.	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	CIRCUIT NO.			KVA CONN.
0.5	RECEPTACLES - SALES AREA	12	20	1	2	#20 12	LIGHTING - EMERG/EGRESS 0.8
1.1	RECEPTACLES - CHECKOUT	12	20	3	4	20 12	LIGHTING - SALES AREA 1.5 (30%)
0.2	(IG) CASH REGISTER	12	20	5	6	20 12	LIGHTING - SALES AREA 1.3 (30%)
0.2	(IG) CASH REGISTER	12	20	7	8	20 12	LIGHTING - SALES AREA 1.0 (30%)
0.2	(IG) CASH REGISTER	12	20	9	10	20 12	LIGHTING - SALES AREA 0.8 (30%)
0.5	COKE MACHINE	12	20●	11	12	20 12	LIGHTING - RECEIVING 1.4 (30%)
0.4	PROMO DISPLAY (2)	12	20●	13	14	20 12	LIGHTING - SALES AREA 1.3 (10%)
0.2	RECEPTACLES - EXTERIOR	12	20	15	16	20 12	LIGHTING - SALES AREA 0.8 (10%)
0.4	RECEPTACLES - EXTERIOR	12	20	17	18	20 12	LIGHTING - SALES AREA 1.0 (10%)
0.2	RECEPTACLES - OFFICE	12	20	19	20	20 12	LIGHTING - SALES AREA 1.0 (10%)
0.5	RECEPTACLES - OFFICE	12	20	21	22	20 12	LIGHTING - SALES AREA 1.0 (10%)
0.4	RECEPTACLE - BREAK AREA	12	20	23	24	20 12	LIGHTING - SALES AREA 1.2 (10%)
0.5	ELEC. WATER COOLER	12	20	25	26	20 12	LIGHTING - SALES AREA 1.2 (10%)
-	SPARE	-	20	27	28	20 -	SPARE - (10%)
0.4	UNI-CRU / ATM	12	20●	29	30	#20 12	NUTECH ALARM SYSTEM 0.2
1.5	HAND DRYER	12	20	31	32	#20 12	OUTSIDE ALARM SYSTEM 0.2
1.5	HAND DRYER	12	20	33	34	#20 12	LIGHTING CONTROL CIRCUIT 0.2
1.7	WATER HEATER	12	20	35	36	#20 12	EAS 0.4
0.2	SIGNAL BELL	12	20	37	38	20 12	TELEPHONE BOARD 0.2
-	SPARE	-	20	39	40	20 -	SPARE -
0.2	IRRIGATION SYSTEM	12	20	41	42	20 -	SPARE -
108.8	SUBTOTAL			TOTAL KVA 26.3			SUBTOTAL 15.5

● PROVIDE HANDLE LOCKING DEVICE

PROVIDE 400A THRU FEED LUGS

(30%) 30% LIGHTING (CONTROLLED BY VENSTAR SYSTEM)
(10%) 70% LIGHTING (CONTROLLED BY VENSTAR SYSTEM)

NON-SERVICE ENTRANCE RATED — PANEL FP (SECTION 2) — 208Y/120 VOLTS, 3Φ, 4W — CLASS: 100KAIC SERIES RATED — 400 AMP MAIN LUGS ONLY — NEUTRAL: INSULATED

KVA CONN.	REMARKS OR EQUIPMENT SERVED	WIRE SIZE	TRIP AMPS	CIRCUIT NO.			KVA CONN.	
-	SPARE	-	20	43	44	20 12	LIGHTING - PARAPET SIGN	1.9 (PC)
2.2	FREEZER	10	20●	45	46	20 -	SPARE	- (PC)
				47	48	20 10	LIGHTING - ROAD SIGN	0.8 (PC)
1.4	COOLER	10	20●	49	50	20 12	LIGHTING - CANOPY	0.6 (PC)
1.4	COOLER	10	20●	51	52	20 10	LIGHTING - EXT. BLDG.	0.7 (PC)
1.4	COOLER	10	20●	53	54	20 10	LIGHTING - EXT. BLDG.	0.7 (PC)
-	SPARE	-	20	55	56	20 10	LIGHTING - EXT. BLDG.	1.1 (PC)
-	SPARE	-	20	57	58	20 10	LIGHTING - FLOODS	1.3 (PC)
-	SPARE	-	20	59	60	20 10	LIGHTING - FLOODS	1.3 (PC)
-	SPACE ONLY	-	-	61	62	20 -	SPARE	-
-	SPACE ONLY	-	-	63	64	20 -	SPARE	-
-	SPACE ONLY	-	-	65	66	20 -	SPARE	-
-	SPACE ONLY	-	-	67	68	- -	SPACE ONLY	-
-	SPACE ONLY	-	-	69	70	- -	SPACE ONLY	-
-	SPACE ONLY	-	-	71	72	- -	SPACE ONLY	-
-	SPACE ONLY	-	-	73	74	- -	SPACE ONLY	-
-	SPACE ONLY	-	-	75	76	- -	SPACE ONLY	-
-	SPACE ONLY	-	-	77	78	- -	SPACE ONLY	-
33.1	AC-1	1	125	79	80			
				81	82	125 1	AC-2	33.1
				83	84			
40.1	SUBTOTAL			TOTAL KVA 82.2			SUBTOTAL	42.1

(PC) = PHOTOCELL CONTROLLED

C.L. Helt, Architect Inc.

1136 Greenwood Cliff
Charlotte, NC 28204

Ph. 704-342-1686
Fx. 704-343-0054
E-MAIL CHETHELT @ CLHELT.COM

ARCHITECT'S PROJECT # 0911?

Project:
FAMILY DOLLAR
FOR
BOOS DEVELOPMENT GROUP, INC
STATE ROUTE 89
MILTON, FLORIDA
DESIGN BASED ON 2009-04 FD PROTOTYPE

Sheet Description:
ELECTRICAL
POWER PLAN
SCALE 1/8" = 1'-0"

THIS DRAWING AND ITS COPIES ARE THE COPYRIGHT OF THE ARCHITECT. THEY MAY NOT BE USED FOR PROJECTS OTHER THAN THE DESIGNATED PROJECT WITHOUT THE SPECIFIC WRITTEN APPROVAL OF C. L. HELT ARCHITECT INC., AND OR CHESTER LEROY HELT, ARCHITECT

Drawn By : D. MYERS

Checked By : D. MYERS

Revisions :
1 2/3/10 - CHANGED FROM GAS HVAC TO ALL ELECTRIC
2
3
4

Seal

Date : 12/22/09

Sheet No. E-1E of : 2

G:\FAMILY DOLLAR\FD-FL-Milton-80x100\09-04\09127pme\Milton_FL_E1E.dwg, Model, 2/11/2010 1:51:57 PM