ELECTRICAL SYMBOLS

LIGHTING

SYMBOL	DESCRIPTION
A	CEILING MOUNTED FLOURESCENT LIGHTING FIXTURE, SIZE AND SHAPE AS SCHEDULED, LETTER DENOTES TYPE
A	CEILING MOUNTED FLOURESCENT LIGHTING FIXTURE WITH EMERGENCY BATTERY PACK, SIZE AND SHAPE AS SCHEDULED, LETTER DENOTES TYPE
A	CEILING MOUNTED LIGHTING FIXTURE, SIZE AS INDICATED, LETTER DENOTES TYPE
A	CEILING MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY PACK, SIZE AS INDICATED, LETTER DENOTES TYPE
A	CEILING MOUNTED WALL WASH LIGHTING FIXTURE, SIZE AS INDICATED LETTER DENOTES TYPE; ARROW INDICATES AIM DIRECTION
	TRACK LIGHTING FIXTURE AND TRACK, SIZE AS INDICATED, LETTER DENOTES TYPE
	EXIT SIGN, UNIVERSAL MOUNT, ARROWS AS INDICATED, DARKENED AREA DENOTES LIGHTING FACE; ARROW INDICATES EXIT DIRECTION LETTER DENOTES TYPE
	CEILING OR WALL MOUNTED EMERGENCY LIGHTING FIXTURE WITH BATTERY PACK CONNECTED TO LOCAL LIGHTING CIRCUIT, LETTER DENOTES TYPE
AA	WALL MOUNTED HID LIGHTING FIXTURE, SIZE AS INDICATED LETTER DENOTES TYPE
AA	CEILING MOUNTED HID LIGHTING FIXTURE, SIZE AS INDICATED LETTER DENOTES TYPE
S	SINGLE POLE SWITCH – WALL MOUNTED
S_3	THREE WAY SWITCH – WALL MOUNTED
S_x	SINGLE POLE SWITCH – WALL MOUNTED "x" INDICATES KEYED SWITCH, "p" INDICATES PILOT LIGHT SWITCH
	CEILING MOUNTED OCCUPANCY SENSOR
PC	PHOTOCELL
NL	NIGHT LIGHT CIRCUIT

POWER

SYMBOL	DESCRIPTION
	SINGLE RECEPTACLE (120VAC)
	DUPLEX RECEPTACLE (120VAC)
	QUAD DUPLEX RECEPTACLE (120VAC)

POWER

SYMBOL	DESCRIPTION
	DUPLEX RECEPTACLE RECEPTACLE RECESSED IN FLOOR (120VAC)
	QUAD DUPLEX RECEPTACLE RECESSED IN FLOOR (120VAC)
f	SPECIAL PURPOSE OUTLET; f TYPE IDENTIFIER: A,B,ETC.
GFI WP	DUPLEX WALL MOUNTED OUTLET. "GFI" INDICATES GROUND FAULT CIRCUIT INTERRUPTER; "WP" INDICATES WEATHERPROOF
	BUZZER
	PUSH BUTTON
J	CEILING MOUNTED JUNCTION BOX
J	FLOOR MOUNTED OR WALL MOUNTED JUNCTION BOX
	HOMERUN TO PANEL WITH CIRCUIT NUMBER(S) AS INDICATED
	POWER WIRING
	LOW VOLTAGE WIRING
####/# AF	DISCONNECT SWITCH ####/# INDICATES SWITCH, FUSE SIZE AND POLE
####/#	COMBINATION MAGNETIC STARTER AND DISCONNECT SWITCH ####/# INDICATES SWITCH, FUSE SIZE AND POLE
S_T	MANUAL MOTOR STARTER WITH THERMAL OVERLOAD (FRACTIONAL HP)
C	CONTACTOR
T	THERMOSTAT
T_S	TEMP. SENSOR 4
	PANEL BOARD
T	DRY TYPE TRANSFORMER – 600V MAX.
M	MOTOR
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
U	UTILITY COMPANY ELECTRIC METER
	SURFACE WIREMOLD WITH OUTLETS AS INDICATED

POWER

SYMBOL	DESCRIPTION
S_{WT}	WEATHERPROOF HEAT TRACE TOGGLE DISCONNECT SWITCH
M	MOTORIZED DAMPER
FSD	FIRE/SMOKE DAMPER
	WIREWAY
	BELL
	BACKBOARD

SYSTEMS

SYMBOL	DESCRIPTION
TV	TELEVISION OUTLET WALL MOUNTED. (CATV)
	WALL MOUNTED TELEPHONE OUTLET
	TELEPHONE OUTLET FLOOR MOUNTED
PP	PAY PHONE
	WALL MOUNTED TELEPHONE/DATA OUTLET
	WALL MOUNTED DATA OUTLET
CR	CARD READER
	SECURITY T.V. CAMERA
S_{CFA}	CALL-FOR-AID SWITCH
B_{CFA}	CALL-FOR-AID BELL
L_{CFA}	CALL-FOR-AID LIGHT

FIRE ALARM

SYMBOL	DESCRIPTION
S	FIRE ALARM SMOKE DETECTOR
H	FIRE ALARM HEAT DETECTOR
S_D	FIRE ALARM DUCT SMOKE DETECTOR
S_E	FIRE ALARM SMOKE DETECTOR ELEVATOR RECALL
FX	WALL MOUNTED FIRE ALARM COMBINATION AUDIBLE/VISUAL DEVICE
F	FIRE ALARM MANUAL PULL STATION
FX	WALL MOUNTED FIRE ALARM STROBE LIGHT
FACP	FIRE ALARM CONTROL PANEL
RAP	FIRE ALARM REMOTE ANNUNIATOR PANEL
FS	FLOW SWITCH
SS	SUPERVISORY SWITCH
DPA	DRY PIPE ALARM

MISCELLANEOUS

SYMBOL	DESCRIPTION
WAP	WIRELESS ACCESS POINT LOCATION
S	SCALE LOCATION
R	REGISTER LOCATION
D	DATA OUTLET
EQ	EQUIPMENT TAG
S	REFRIG. SENSOR 4

NOTES:

1.) ALL SYMBOLS NOT NECESSARILY USED.
2.) REFER TO ARCHITECT'S DOCUMENTS FOR ALL DEVICE MOUNTING HEIGHTS.

ELECTRICAL NOTES

1. PROVIDE ELECTRICAL WORK IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL BUILDING CODES AND IN PARTICULAR, NFPA 70, REFERRED TO AS THE NATIONAL ELECTRICAL CODE (NEC). PROVIDE ALL PERMITS, LICENSES & CERTIFICATES REQUIRED FOR THE ELECTRICAL WORK.

2. PROVIDE ALL TRENCHING, BACKFILLING AND RESURFACING REQUIRED FOR THE ELECTRICAL WORK. PROVIDE ALL CUTTING, PATCHING AND FINISHING OF WALLS, FLOORS AND CEILINGS REQUIRED FOR THE ELECTRICAL WORK. PROVIDE ALL SUPPLEMENTARY STEEL AND SUPPORTS REQUIRED FOR THE ELECTRICAL WORK.

3. PROVIDE TEMPORARY LIGHT AND POWER FOR THE DURATION OF THE PROJECT. PROVIDE TEMPORARY LIGHT AND POWER WHEN ANY TRADE IS WORKING OR FOR OVERTIME DELIVERIES BY OTHER TRADES.

4. CONTRACTOR SHALL SEAL ALL ELECTRICAL PENETRATIONS THRU FIRE RATED PARTITIONS WITH FIRE RATED MATERIAL INSTALLED PER MANUFACTURERS GUIDELINES AND LISTING REQUIREMENTS. MATERIAL SELECTION SHALL BE BASED ON RATING OF PARTITION PENETRATED. COORDINATE WITH ARCHITECTURAL DOCUMENTS.

5. THESE DRAWINGS ARE DIAGRAMATIC ONLY. EXACT LOCATIONS OF ALL EQUIPMENT, DEVICES, CONDUIT, ETC. MUST BE FIELD DETERMINED AND COORDINATED. WHERE THE CONTRACT DOCUMENTS DO NOT AGREE, THE MORE RESTRICTIVE AND COSTLY APPROACH SHALL BE USED AND IDENTIFIED IN THE BID PROPOSAL. ALL EQUIPMENT AND DEVICES SHALL BE NEW AND BE LISTED OR LABELLED BY U.L. OR AN EQUIVALENT ORGANIZATION.

6. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL DEVICES SHOWN ON THE ELECTRICAL DOCUMENTS WITH ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS PRIOR TO FINAL PLACEMENT. CONTRACTOR SHALL COORDINATE THE WORK TO PROVIDE THE GREATEST POSSIBLE CLEARANCE FOR INSTALLATION OF PLUMBING AND MECHANICAL INSTALLATION. CONDUIT AND WIRING INSTALLATION TO BE THROUGH OR ABOVE CEILING TRUSSES WHERE POSSIBLE.

7. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND DETAILS FOR THE EXACT LOCATION OF ALL LIGHTING FIXTURES AND ANY OTHER EQUIPMENT INSTALLED IN THE CEILING SYSTEM. VERIFY EXACT MOUNTING HEIGHTS AND FINISHES WITH ARCHITECT PRIOR TO ROUGH-IN OR INSTALLATION.

8. ALL UNUSED OR ABANDONED CONDUIT AND WIRING SHALL BE DISCONNECTED AND MADE SAFE BY THE ELECTRICIAN FOR REMOVAL FROM THE BUILDING.

9. ALL WIRING SHALL BE CONCEALED AND RUN IN WALLS OR ABOVE CEILINGS. SURFACE RACEWAY AND EXPOSED CONDUIT IS NOT PERMITTED UNLESS INDICATED IN THE DOCUMENTS. FIRE RATED EXPOSED CABLING FOR DATA/TELEPHONE/CONTROL AND OTHER LOW VOLTAGE APPLICATIONS SHALL BE PERMITTED ABOVE ACCESSIBLE CEILING AREAS WHEN INDICATED IN THE DOCUMENTS.

10. CONTRACTOR SHALL VERIFY NAMEPLATE LOADS OF ALL EQUIPMENT (INCLUDING EQUIPMENT SUPPLIED BY OTHER DIVISIONS OR THE OWNER) TO INSURE PROPER WIRE SIZING AND OVERCURRENT PROTECTION AND SHALL NOTIFY ENGINEER OF DISCREPANCIES.

11. ELECTRICAL DESIGN HAS BEEN BASED ON THE INSTALLATION OF 75°C CONDUCTORS CONNECTED TO TERMINAL LUGS AND EQUIPMENT LISTED FOR A MINIMUM 75°C. SWITCHBOARDS, PANELBOARDS, DISCONNECT SWITCHES, TRANSFORMERS AND CONTACTORS ARE TO BE "LISTED" AND "IDENTIFIED" AS RATED FOR USE WITH 75°C CONDUCTOR TERMINATIONS. CONDUCTORS TERMINATED ON EQUIPMENT WITHOUT A RATING OR WITH A LOWER RATING (60°C) SHALL HAVE CONDUCTOR SIZE INCREASED TO CONFORM TO NFPA CODES AND LOCAL BUILDING CODES. ALL HOME RUNS GREATER THAN 100' SHALL BE #10 WIRE MINIMUM. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A PULL LINE.

12. PROVIDE INSULATED GROUNDING CONDUCTOR IN ALL CONDUITS AND CABLE ASSEMBLIES. BRANCH FOR ISOLATED GROUND CIRCUITS SHALL HAVE ONE EQUIPMENT GROUND CONDUCTOR (GREEN) AND ONE ISOLATED GROUND CONDUCTOR (GREEN W/ YELLOW STRIPE) INSTALLED IN RACEWAY.

13. INSTALLATION OF LIGHT FIXTURES SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, LOCAL SIESMIC REQUIREMENTS AND CEILING SYSTEM MANUFACTURERS INSTALLATION REQUIREMENTS.

14. PANEL DIRECTORIES SHALL BE COMPLETELY FILLED IN AT COMPLETION OF JOB. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION ATTESTING THAT WORK HAS BEEN COMPLETED TO THE SATISFACTION OF THE OWNER/ARCHITECT.

Electrical Abbreviations

A OR AMP	AMPERES	GFI, GFCI	GROUND FAULT CIRCUIT INTERRUPTER	NL	NIGHT LIGHT
AAC	ABOVE ACCESSIBLE CEILING	G, GND	GROUND	NO	NORMALLY OPEN
AC	ALTERNATING CURRENT			NTS	NOT TO SCALE
ACT	ABOVE COUNTER TOP	HOA	HANDS-OFF AUTOMATIC SWITCH		
AFF	ABOVE FINISHED FLOOR	HP	HORSEPOWER	OC	OCCUPANCY SENSOR
AFG	ABOVE FINISHED GRADE	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	P	POLE
AHJ	AUTHORITY HAVING JURISDICTION			PB	PULL BOX
AHU	AIR HANDLING UNIT.			PC	PULL CHAIN
AIC	INTERRUPTING CAPACITY(RMS SYMMETRICAL AMPERES)	IG	ISOLATED GROUND	PE	PNEUMATIC ELECTRIC SWITCH
ATS	AUTOMATIC TRANSFER SWITCH	IMC	INTERMEDIATE METALLIC CONDUIT	PH	PHASE
BFG	BELOW FINISHED GRADE	JB	JUNCTION BOX	P/T	POTENTIAL TRANSFORMER
BKBD	BACKBOARD			PVC	POLYVINYL CHLORIDE
		KCML	1000 CIRCULAR MILS		
C OR COND	CONDUIT	KV	KILOVOLTS (1000 VOLTS)	RGS	RIGID GALVANIZED STEEL
C/T	CURRENT TRANSFORMER	KVA	KILOVOLT AMPERES (1000 VOLT-AMPERES)	RMC	RIGID METALLIC CONDUIT
CB, C/B	CIRCUIT BREAKER	KW	KILOWATTS (1000 WATTS)	RTU	ROOFTOP UNIT
CFA	CALL FOR AID				
CLG	CEILING	LRA	LOCKED ROTOR AMPS	SW	SWITCH
CPT	CURRENT POTENTIAL TRANS.			SWBD	SWITCHBOARD
CU	CONDENSING UNIT	MCA	MINIMUM CIRCUIT AMPS		
		MCB	MAIN CIRCUIT BREAKER	TEL	TELEPHONE
DISC. SW	DISCONNECT SWITCH	MCC	MOTOR CONTROL CENTER	TYP	TYPICAL
DN	DOWN	MCM	THOUSAND CIRCULAR MILS		
		MD	MOTORIZED DAMPER	UF	UNDERFLOOR
EC	ELECTRICALLY OPERATED	MDP	MAIN DISTRIBUTION PANEL	UG	UNDERGROUND
EDH	ELECTRIC DUCT HEATER	MFR, MFTR	MANUFACTURER	UL	UNDERWRITERS LABORATORIES
EF	EXHAUST FAN	MH	MECHANICALLY HELD	UP	UP
EM	EMERGENCY	MIC	MICROPHONE	UTP	UNSHIELDED TWISTED PAIR
EP	ELECTRIC PNEUMATIC SWITCH				
ETR	EXISTING TO REMAIN	MLO	MAIN LUGS ONLY	V	VOLTS
EUH	ELECTRIC UNIT HEATER	MO	MOTOR OPERATED	VP	VAPORPROOF
EWC	ELECTRIC WATER COOLER	MTD	MOUNTED	VSD	VARIABLE SPEED DRIVE
EWH	ELECTRIC WALL HEATER	MUA, MAU	MAKE-UP AIR UNIT	VFD	VARIABLE FREQUENCY DRIVE
		NC	NORMALLY CLOSED		
FA	FIRE ALARM	NEC	NATIONAL ELECTRIC CODE	W/	WITH
FACP	FIRE ALARM CONTROL PANEL	NF	NOT FUSED	WP	WEATHERPROOF
FCU	FAN COIL UNIT.	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION		
FLA	FULL LOAD AMPS	NIC	NOT IN CONTRACT	XFMR, TX'FMR	TRANSFORMER

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355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

WHOLE FOODS MARKET

ISSUED FOR CONSTRUCTION

PROPOSED GROCERY STORE
2 SOMERSET STREET
PORTLAND, CUMBERLAND COUNTY, MAINE

No.	Date	Desc.

REVISIONS No.	Date	Desc.

ARCHITECT/ENGINEER SEAL

Designed	G.K.
Drawn	G.K.
Checked	J.W.L.
Approved	J.W.L.
Scale	AS NOTED
Project No.	04C0829
Date	04-24-06
CAD File	E04C0829L102

Title
ELECTRICAL SYMBOLS AND NOTES

Sheet No.
E0.01

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