Electrical Abbreviations

A/AMP	AMPERE
AFCI	ARC FAULT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CC	COMMUNICATION / NETWORK CONTRACTOR
CCT/CKT	CIRCUIT
CLG	CEILING
CO	CONVENIENCE OUTLET
CONN	CONNECTION
CTR	COUNTER
CU	COPPER
DISC	DISCONNECT
DN	DOWN
DS	DISCONNECT SWITCH
DWG	DRAWING
E/EM	EMERGENCY OR EMERGENCY SYSTEM
EA	EACH
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EH	ELECTRIC HEAT
ELEC	ELECTRICAL
EMT	ELECTRIC METALLIC TUBING
EQ/EQUIP	EQUIPMENT
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
EX	EXISTING
F	FIXTURE
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS WITH ALL RELATED ELECTRICAL WORK BY ELECTRICAL CONTRACTOR
FC	FOOTCANDLES
FDR	FEEDER
FH	FUME HOOD
FL	FLOOR
FLA	FULL LOAD AMPERE
FLUOR	FLUORESCENT
GRN/GND	GROUND
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
HC	HEATING, VENTILATION, AIR CONDITIONING CONTRACTOR
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HPF	HIGH POWER FACTOR
HTR	HEATER
HVAC	HEATING, VENTILATION, AIR CONDITIONING
HZ	HERTZ
IN	INCH
JB/JBOX	JUNCTION BOX
K	THOUSAND
KVA	KILO-VOLT AMPERES
KW	KILOWATT
LED	LIGHT EMITTING DIODE
LCP	LIGHTING CONTROL PANEL
LTG	LIGHTING
LRP	LIGHTING REPLAY PANEL
LV	LOW VOLTAGE
MC	MECHANICAL CONTRACTOR
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	MANHOLE
MLO	MAIN LUGS ONLY
MSW	MAIN SWITCH AND FUSE
MTD	MOUNTED
MTG	MOUNTING
MTG HT	MOUNTING HEIGHT
N/A	NON APPLICABLE
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN THIS CONTRACT
NL	NIGHT LIGHT
NO / #	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OEM	ORIGINAL EQUIPMENT MANUFACTURER
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
P	POLE
PB	PUSH BUTTON
PBOX	PULL BOX
PC	PLUMBING CONTRACTOR
PH / Ø	PHASE
PNL	PANELBOARD
POS	POSITION
PR	PRESENT LIGHTING FIXTURE, SWITCH, DEVICE, ETC., TO REMAIN

Electrical Abbreviations

PRI	PRIMARY
PRN	PRESENT LIGHTING FIXTURE, SWITCH, DEVICE, ETC., TO BE REMOVED AND REPLACED WITH NEW
PRR	PRESENT LIGHTING FIXTURE, SWITCH, DEVICE,, ETC., SHOWN AT NEW LOCATION
PRX	PRESENT LIGHTING FIXTURE, SWITCH, DEVICE, ETC., TO BE REMOVED AND OUTLET BOX EXTENSION INSTALLED FOR SURFACE CONDUIT OR SMR AND WIRE EXTENSION TO NEW OUTLET SHOWN. REINSTALL PRESENT LIGHTING FIXTURE, SWITCH, DEVICE, ETC.
PWR	POWER
REC/RECPT	RECEPTACLE
REQ'D	REQUIRED
RGS	RIGID GALVANIZED STEEL
RMC	RIGID GALVANIZED METAL CONDUIT
RPC	REMOVE PRESENT FIXTURE, SWITCH, DEVICE, ETC., AND CAP OUTLET
RPP	REMOVE PRESENT FIXTURE, SWITCH, DEVICE, ETC., PATCH THE PLASTER IF IN PLASTER: CAP IF IN METAL OR WOOD
RPX	REMOVED PRESENT FIXTURE, WITCH, DEVICE, ETC., WIRE AND ALL RELATED EXPOSED RACEWAY INSOFAR AS IS POSSIBLE. ALL DAMAGED SURFACES TO BE REPAIRED
SEC	SECONDARY
SM	SURFACE MOUNTED
SW	SWITCH
SWBD	SWITCHBOARD
TEL / TELE	TELEPHONE
TL	TWIST LOCK
TP	TAMPER PROOF
TV	TELEVISION
TYP	TYPICAL
UC	UNDER COUNTER
UCR	UNDER COUNTER REFRIGERATOR RECEPTACLE
UH	UNIT HEATER
UL	UNDERWRITERS' LABORATORIES, INC.
UNO	UNLESS NOTED OTHERWISE
V	VOLTAGE
VT	VAPOR TIGHT
W	WATT OR WIRE
W/	WITH
W/GRD	WITH GROUND WIRE
W/O	WITHOUT
WP	WEATHER PROOF ENCLOSURE
WT	WATER TIGHT
XA	EXISTING TO BE REMOVED COMPLETELY
XR	EXISTING TO BE REMOVED AND RELOCATED
XRN	EXISTING TO BE REMOVED AND REPLACED WITH NEW DEVICE
XRR	RELOCATED EXISTING EQUIPMENT
Y	STAR OR WYE DISTRIBUTION SYSTEM
NE	NORMAL / EMERGENCY POWER

General Notes

1. THE ELECTRICAL POWER DISTRIBUTION SYSTEM WILL PROVIDE A VOLTAGE DROP NOT TO EXCEED 5% BETWEEN THE TRANSFORMER SECONDARY AND THE EQUIPMENT TO BE SERVED.
2. THE LIGHTING SYSTEM WIRING SHALL BE SIZED IN ORDER TO LIMIT THE VOLTAGE DROP TO 3% FROM THE LAST FIXTURE IN ANY CIRCUIT TO THE PANELBOARD.
3. ALL LIGHTING FIXTURE FINISHES SHALL BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLATION.
4. LIGHTING SHALL BE MOUNTED UTILIZING METHODS OF ATTACHMENT IN ACCORDANCE WITH NEC, LATEST APPLICABLE ARTICLE AND UL REQUIREMENTS. CONTRACTOR IS RESPONSIBLE TO COORDINATE FIXTURE INSTALLATION HARDWARE WITH CEILING TYPE.
5. ALL EMPTY CONDUITS (ELECTRICAL, TELEPHONE, DATA, TV, ETC.) SHALL HAVE A CONDUIT MEASURING TAPE INSTALLED WITHIN THEM. THE TAPE SHALL BE SUITABLE FOR USE AS A PULLING LINE. TAPE SHALL BE RATED 130 LB. TENSILE STRENGTH (GREENLEE 435 OR EQUAL) SIZES 2 INCHES OR LARGER SHALL BE SUPPLEMENTED WITH 200 LB. NYLON LINE, TIED AT BOTH ENDS TO TAPE.
6. ALL PULL LINES SHALL BE IDENTIFIED LISTING ORIGIN, INTERMEDIATE PULL POINTS AND TERMINATION, SPECIFIC LOCATIONS OF ORIGIN, INTERMEDIATE PULL POINTS AND TERMINATION. SPECIFIC LOCATIONS OF ORIGIN, INTERMEDIATE PULL POINTS AND TERMINATION SHALL BE INDICATED.
7. WHERE CONDUIT, CABLES, DUCTWORK, OR PIPING PASSES THROUGH FIRE RATED FLOORS OR WALLS, THE SLEEVES SHALL BE COMPLETELY SEALED WITH A FIRESTOP MATERIAL THAT IS UL LISTED, AND ACCEPTED BY THE BUILDING DEPARTMENT AND FIRE DEPARTMENT AS BEING SUITABLE FOR THIS SERVICE SUCH AS DOW CORNING CORP., SILICONE ELASTOMER, DOW CORNING 3-6548 SILICONE TRV FOAM, OR APPROVED EQUAL. THIS MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER TO MAINTAIN THE FIRE RATING OF THE PENETRATED WALL OR FLOOR.
8. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DEVICES AND LIGHTING FIXTURE LOCATIONS.
9. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70) AND LOCAL APPLICABLE CODES.
10. PROVIDE PROPER ACCESS PANELS AS REQUIRED IN WALLS AND GWB CEILINGS FOR ANY EQUIPMENT, DEVICES, SWITCHES, CONTRACTORS, PULL AND JUNCTION BOXES ETC. REQUIRING PANELS TO BE PROVIDED BY TRADE CONTRACTOR FOR INSTALLATION G.C.

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12. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL LOCATIONS OF ELECTRICAL DEVICES PRIOR TO INSTALLATION. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF INSTALLATION OF THE FOLLOWING ELECTRICAL DEVICES BUT IS NOT LIMITED TO ALL POKE THROUGH'S, RECEPTACLES, COMMUNICATION ROUGH-INS, JUNCTION BOXES, ETC. ALL ROUTING AND INSTALLATION OF RACEWAY FEEDING ELECTRICAL DEVICES SHALL BE INSTALLED NEAT AND FLUSH TO SURFACE (WHERE NOT IN DRYWALL) AND SHALL BE CONCEALED FROM VIEW IN DRYWALL WHERE APPLIED.

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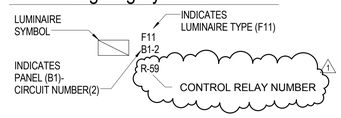
Lighting Symbols



LUMINAIRE TYPES

NORMAL	EMERGENCY	
		RECESSED/SURFACE/PENDANT MOUNTED LINEAR FIXTURE
		WALL/SURFACE MOUNTED FIXTURE
		RECESSED/SURFACE MOUNTED ROUND DOWNLIGHT
		PENDANT/SURFACE MOUNTED LINEAR INDUSTRIAL FIXTURE
		WALL MOUNTED EXIT SIGN - SINGLE OR DOUBLE FACE AND CHEVRONS AS SHOWN ON FLOOR PLANS
		CEILING MOUNTED EXIT SIGN - SINGLE OR DOUBLE FACE AND CHEVRONS AS SHOWN ON FLOOR PLANS
		SITE LIGHTING BOLLARD

Mounting Heights Schedule

6'-8" AFF (BOTTOM OF DEVICE) OR 6" BELOW FINISHED CEILING, (TOP OF DEVICE) WHICH EVER IS LOWER	FIRE ALARM HORNS / STROBES
REFERENCE LUMINAIRE SCHEDULE FOR MOUNTING REQUIREMENTS	PENDANT MOUNTED LUMINARIES
6'-6"	TOP OF PANELBOARDS, CABINETS
6'-0"	TOP OF DISCONNECT SWITCHES, STARTERS, AND CONTACTORS
5'-0"	
3'-10" (CENTER OF DEVICE)	LIGHTS SWITCHES, FIRE ALARM PULL STATIONS, MANUAL MOTOR STARTERS, FIREMAN'S TELEPHONES, NURSE CALL PULL CHORD, PUSH BUTTON, DUTY STATIONS AND PANIC BUTTONS
3'-6" (TOP OF DEVICES)	WALL MOUNTED HANDICAPPED TELEPHONE OUTLETS
2'-0"	ELECTRICAL RECEPTACLES IN MECHANICAL / ELECTRICAL ROOMS & ELEVATOR MACHINE ROOMS
1'-6"	ELECTRICAL RECEPTACLES (U.N.O.) COMMUNICATIONS / DATA OUTLETS (U.N.O.)
0'-0"	FINISHED FLOOR

NOTE;
1. CTR - MOUNTED 6" ABOVE COUNTER OR BACKSPLASH.

Electrical Symbols

B1-3	INDICATES: PANEL (B1)- CIRCUIT NUMBER (3)
	DEVICE SYMBOL
	SINGLE RECEPTACLE
	DUPLEX RECEPTACLE
	QUAD RECEPTACLE
	DUPLEX RECEPTACLE ON NORMAL / EMERGENCY CIRCUIT
	QUAD RECEPTACLE ON NORMAL / EMERGENCY CIRCUIT
WP/GFI	WEATHER-PROOF GROUND FAULT ISOLATED DUPLEX RECEPTACLE
GFI	GROUND FAULT ISOLATED DUPLEX RECEPTACLE
*	DUPLEX RECEPTACLE MOUNTED 6" ABOVE COUNTER
*48	DUPLEX RECEPTACLE MOUNTED 48" AFF
	SPECIAL RECEPTACLE NEMA TYPE AS SHOWN
PB	PULL BOX
J	JUNCTION BOX
	MOTOR CONNECTION - THREE PHASE
	MOTOR CONNECTION - SINGLE PHASE
A-1	HOMERUN TO PANEL BOARD
	BRANCH CIRCUIT - (2)#12 AWG AND #12AWG G. IN 3/4" C. (EMT) U.N.O.
	BRANCH CIRCUIT NUMBER
	PANEL DESIGNATION
	PANELBOARD/RELAY LIGHTING CONTROL PANEL
	GROUNDING ROD

Fire Alarm Symbols

F B	COMBO SYNCHRONIZED HORN/STROBE UNIT
HD	HEAT DETECTOR
SD	SMOKE DETECTOR
F	MANUAL PULL STATION
CM	ADDRESSABLE CONTROL MODULE
FACP	ADDRESSABLE FIRE ALARM CONTROL PANEL

Communications Symbols

S	RECESSED CEILING PAGING SPEAKER WITH GRILLE
W	EMERGENCY WALL PHONE ROUGH-IN ONLY. PROVIDE A 4"/16" SQUARE OUTLET BOX WITH A SINGLE GANG DEVICE RING AND A 1" EMT CONDUIT TO NEAREST ACCESSIBLE CEILING (UNLESS INDICATED OTHERWISE).

Access Symbols

DC	DOOR CHIME
CR	CARD READER ROUGH-IN ONLY. PROVIDE A 4- 11/16" SQUARE OUTLET BOX WITH A SINGLE GANG DEVICE RING AND A 1" EMT CONDUIT TO NEAREST ACCESSIBLE CEILING (UNLESS INDICATED OTHERWISE).

Security Symbols

D	SECURITY TRAC DURESS CEILING SENSOR

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	LAMPING NUMBER	LAMPING LAMP	LUMENS	MOUNTING	VOLTAGE	WATTS	BALLAST/ DRIVER	MANUFACTURER	DESCRIPTION
F01	1	LED	2583	RECESSED CEILING	277	-	DIMMABLE	CORELITE # R2XWO2L351CUNV22X	2'x2' RECESSED LED FIXTURE WITH SMOOTH OPAL ACRYLIC LENS
F02	1	LED	1664	RECESSED CEILING	277	-	DIMMABLE	PORTFOLIO # LD4A13DO1OTE - ERW4A13835 - 4LW1L1	4" DIAMETER LED DOWNLIGHT FIXTURE WITH SIMI-SPECULAR ALZAK REFLECTOR.
F03	1	LED	4462	SURFACE WALL	277	-	-	MCGRAW EDISION #IST-F02-LED-E1-BL3-BZ-P	WALL MOUNTED LED LIGHT FIXTURE WITH PHOTO CELL
FO4	1	LED	2786	SURFACE	277	28	-	METALUX # 2-WNLED-LD4-28SL-UNX-L835-X-1	2' LED SURFACE MOUNTED FIXTURE WITH WRAP LENS
EX-1	1	LED	-	UNIVERSAL TOP, END BACK	277	-	-	MULE # ARS-A-1-R-AA	SINGLE FACE LED EXIT SIGN FIXTURE WITH EXTRUDED ALUMINUM HOUSING AND UNIVERSAL MOUNTING.
EX-2	1	LED	-	UNIVERSAL TOP, END, BACK	277	-	-	MULE # ARS-A-2-R-AA	DOUBLE FACE LED EXIT SIGN FIXTURE WITH EXTRUDED ALUMINUM HOUSING AND UNIVERSAL MOUNTING

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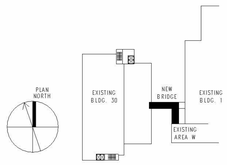

KEY PLAN

PEER REVIEW DOCUMENTS - DECEMBER 21st, 2016

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Drawing Title: **SYMBOLS & LIGHTING FIXTURE SCHEDULE**

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