LEGEND

ALL DEVICES, FIXTURES, ETC. SHALL BE NEW UNLESS DESIGNATED WITH THE FOLLOWING TAGS:

E EXISTING TO REMAIN
ER EXISTING RELOCATED
NR NEW TO REPLACE EXISTING IN EXISTING LOCATION
R EXISTING TO BE REMOVED
RR REMOVE & RELOCATE EXISTING

- NIGHT LIGHT
- FLUORESCENT FIXTURE - UPPERCASE LETTER IS TYPE, LOWERCASE LETTER IS SWITCH CONTROL GROUP RECTANGLES INDICATE NUMBER FIXTURES IN A ROW.
- CEILING MOUNTED FIXTURE - NOTES SAME AS ABOVE
- WALL MOUNTED FIXTURE - NOTES SAME AS ABOVE
- CEILING MOUNTED EXIT SIGN - ARROW INDICATES DIRECTIVE ARROW ON SIGN
- WALL MOUNTED EXIT SIGN - ARROW INDICATES DIRECTIVE ARROW ON SIGN EMERGENCY LIGHTING
- BATTERY PACK WITH EMERGENCY LAMPS AS SHOWN
- REMOTE EMERGENCY LAMP LIGHT FIXTURES
- S SPST FLUSH WALL TOGGLE SWITCH - MOUNT AT 48" A.F.F TO CENTER - LETTER INDICATES SWITCH GROUP
- S_3 THREE-WAY TOGGLE SWITCH - NOTES SAME AS SPST SWITCH ABOVE
- S_D DIMMER SWITCH - NOTES SAME AS SPST SWITCH ABOVE
- S_4 FOUR-WAY TOGGLE SWITCH - NOTES SAME AS SPST SWITCH ABOVE
- S_V VACANCY SENSOR - NOTES SAME AS ABOVE
- S_V^D DIMMING VACANCY SENSOR - NOTES SAME AS ABOVE
- OS CEILING MOUNTED OCCUPANCY SENSOR
- PE PHOTO CELL
- 20 AMP DUPLEX CONVENIENCE RECEPTACLE - MOUNT AT 18" A.F.F. TO CENTER
  UNLESS INDICATED OTHERWISE - "GFI" INDICATES GROUND FAULT DEVICE;
  "***" INDICATES GFI PROTECTED BY UPSTREAM DEVICE, "WP" INDICATES WEATHERPROOF.
  "IG" INDICATES INSULATED/ISOLATED GROUND, "C" INDICATES CEILING MOUNTED, "F" INDICATES FLOOR MOUNTED
- 20 AMP QUADRAPLEX (DOUBLE DUPLEX) - NOTES SAME AS ABOVE
- SPECIAL PURPOSE OUTLET OR EQUIPMENT CONNECTION - COORDINATE LOCATION AND TYPE OF CONNECTION WITH EQUIPMENT BEING SERVED.
- JUNCTION BOX WITH COVER
- MOTOR - SIZE AS INDICATED - COORDINATE W/ ACTUAL EQUIPMENT BEING SERVED
- S_M MANUAL STARTER - COORDINATE WITH EQUIPMENT BEING SERVED SINGLE THROW
- FUSED DISCONNECT SWITCH - NEMA ENCLOSURE AS REQUIRED REMOTE CONTROL
- MAGNETIC STARTER - COORDINATE W/ EQUIPMENT BEING SERVED
- GROUND
- ADA ELECTRICALLY-ASSISTED DOOR OPENER PUSHBUTTON
- BRANCH CIRCUIT RUN IN CEILING OR IN WALLS
- LOW VOLTAGE OR CONTROL WIRING - #12 MINIMUM OR AS NOTED
- MULTI-CONDUCTOR BRANCH CIRCUIT - NUMBER OF HASHMARKS IS NUMBER OF WIRES (NOT INCLUDING GROUND WIRE) WITHOUT HASHMARKS IS TWO WIRE
- HOMERUN TO CIRCUIT AND PANEL INDICATED - NUMBER OF ARROWS IS NUMBER OF PHASE WIRES - NUMBER OF WIRES AS INDICATED ABOVE
- CONTINUATION OF CIRCUIT
- DIRECTIVE ARROW
- PANELBOARD - SEE PANELBOARD SCHEDULE(S)
- COMBINATION VOICE/DATA JACK - "V" INDICATES NUMBER OF VOICE LINES, "D" INDICATES NUMBER OF DATA LINES, PROVIDE (1) EACH UNLESS NOTED OTHERWISE - "U" INDICATES 48" TO CENTER A.F.F. - PROVIDE 4"SQ DEVICE BOX & 1" CONDUIT WITH PULLSTRING STUBBED TO ABOVE NEAREST ACCESSIBLE CEILING FOR CABLING AND TERMINATIONS BY OWNER'S VENDOR.
- VOICE JACK - NOTES SAME AS VOICE/DATA JACK ABOVE - "W" INDICATES WALL PHONE, (1) VOICE LINE ONLY
- DATA JACK - NOTES SAME AS VOICE/DATA JACK ABOVE
- W WIRELESS ACCESS PORT
- TV TELEVISION JACK - NOTES SAME AS RECEPTACLES
- RECESSED FLOOR OR CEILING MOUNTED BOX - POWER & COMMUNICATIONS AS SHOWN-"F" INDICATES FLOOR MOUNTED, "C" INDICATES CEILING MOUNTED - NOTES SAME AS VOICE/DATA JACK ABOVE
- WALL MOUNTED CLOCK
- SP CEILING SPEAKER (SOUND OR INTERCOM SYSTEM AS SHOWN) WALL
- SP SPEAKER (SOUND OR INTERCOM SYSTEM AS SHOWN)
- LOUD SPEAKER
- M MICROPHONE
- INTERCOM SYSTEM CALL STATION
- INT INTERCOM SYSTEM CONTROL PANEL
- TELEPHONE/INTERCOM SYSTEM HAND SET
- CABLE TRAY
- FACP FIRE ALARM SYSTEM CONTROL PANEL
- FAA FIRE ALARM ANNUNCIATOR
- H FIRE ALARM SYSTEM CEILING MOUNTED HEAT DETECTOR
- S FIRE ALARM SYSTEM CEILING MOUNTED SMOKE DETECTOR
- S FIRE ALARM SYSTEM DUCT MOUNTED SMOKE DETECTOR
- F WALL MOUNTED FIRE ALARM SYSTEM MANUAL PULL STATION
- F FIRE ALARM SYSTEM WALL MOUNTED AUDIO/VISUAL DEVICE WITH VISUAL DEVICE CANDELA RATING AS NOTED
- F FIRE ALARM SYSTEM WALL MOUNTED VISUAL DEVICE ONLY - CANDELA RATING AS NOTED FIRE ALARM SYSTEM
- DH DOOR HOLD-OPEN DEVICE CONNECTION
- PS FIRE ALARM SYSTEM/SPRINKLER SYSTEM PRESSURE SWITCH
- FS FIRE ALARM SYSTEM/SPRINKLER SYSTEM FLOW SWITCH
- TS FIRE ALARM SYSTEM/SPRINKLER SYSTEM TAMPER SWITCH
- SACP SECURITY ALARM SYSTEM CONTROL PANEL
- CR ACCESS CONTROL SYSTEM CARD READER
- MD SECURITY ALARM SYSTEM MOTION DETECTOR
- SECURITY ALARM SYSTEM SIREN/STROBE
- PS POSITION SWITCH
- VIDEO SURVEILLANCE CAMERA

LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	SIZE	MANUFACTURER CAT. NO.	LENS/LOUVER	LAMPS (1)	DRIVER (1)	EFFICENCY MAINE CODE	MINIMUM EFFICACY	LISTING	WATTS PER FIXTURE	VOLT.	NOTES
A	CEILING RECESSED ARCHITECTURAL	2' X 4'	FINELITE HPR LED-A-2X4-DCO-S-840-277V-SC-	FROSTED ACRYLIC	LED	0-10V DIMMING	---	140	DLC STANDARD	27	277	(2)
A1	CEILING RECESSED ARCHITECTURAL	2' x 2'	FINELITE HPR LED-A-2X2-DCO-S-840-277V-SC-	FROSTED ACRYLIC	LED	0-10V DIMMING	---	140	DLC STANDARD	27	277	(2)
A2	CEILING RECESSED ARCHITECTURAL	1' x 4'	FINELITE HPR LED-A-1X4-DCO-S-840-277V-SC-	FROSTED ACRYLIC	LED	0-10V DIMMING	---	140	DLC STANDARD	27	277	(2)
B	CEILING SUSPENDED PENDANT	8' L	FINELITE SERIES 16 LED ID DCO-8'-SE-S-8-40-20U80D-277V-SC-FA-FE-C*	FROSTED ACRYLIC	LED	0-10V DIMMING	---	132	---	30	277	
B1	CEILING SUSPENDED PENDANT	4' L	FINELITE SERIES 16 LED ID DCO-4-2E-S-8-40--20U80D-277V-SC-FA-FE-C*	FROSTED ACRYLIC	LED	0-10V DIMMING	---	132	---	15	277	
B2	CEILING SUSPENDED PENDANT	12' L	FINELITE SERIES 16 LED ID DCO-12-SE-S-8-40-20U80D-277V-SC-FA-FE-C*	FROSTED ACRYLIC	LED	0-10V DIMMING	---	132	---	45	277	
C	CEILING RECESSED DOWNLIGHT	6" DIA.	PRESCOLITE LF6LEDG4-6LFLED5G440	OPEN	LED	0-10V DIMMING	---	75	ES	15	UNV	
	EXIT SIGNAGE	--	DUAL-LITE LXURLIE	RED LETTERS	LED	--	--	--	--	4	UNV.	REFER TO PLANS FOR # OF FACES AND DIRECTIONAL ARROWS.

NOTES:
(1) ALL FIXTURES (WHERE INDICATED) SHALL BE EITHER DESIGN LIGHT CONSOTIUM (DLC) OR ENERGY STAR (ES) LISTED AND ELIGIBLE FOR EFFICENCY MAINE.
(2) NO SUBSTITUTIONS - USM STANDARD

GENERAL ELECTRICAL DEMO NOTES:

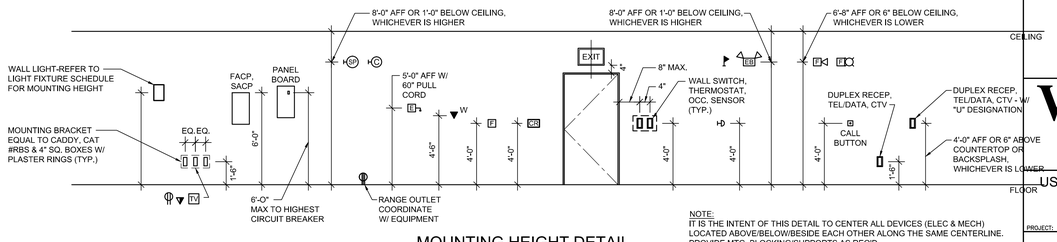
1. ELECTRICAL CONTRACTOR SHALL REVIEW ALL TRADE'S DRAWINGS. AREAS NOTED TO BE DEMOLISHED ARE SHOWN ON ARCHITECTURAL PLANS. THIS SHALL INCLUDE ALL ELECTRICAL DEVICES, FIXTURES AND/OR SWITCHGEAR. ALL EXISTING EQUIPMENT SHALL REMAIN ON EXISTING SURFACES UNLESS SPECIFICALLY NOTED OTHERWISE.
2. WIRING FOR EXISTING BRANCH CIRCUIT DEVICES TO BE DEMOLISHED SHALL BE REMOVED BACK TO THE PANELBOARD. THE ASSOCIATED CIRCUIT BREAKER SHALL BE TURNED OFF AND MARKED AS SPARE IN THE PANELBOARD DIRECTORY. DO NOT ABANDON BRANCH CIRCUIT WIRING ABOVE CEILINGS OR IN WIREWAYS.
3. ALL RACEWAYS & CABLES, NO LONGER IN USE, SHALL BE REMOVED.
4. MAINTAIN, OR RESTORE IF INTERRUPTED BY REMOVALS OR IN PATH OF NEW CONSTRUCTION, ALL CONDUITS, BRANCH CIRCUITS, AND FEEDERS PASSING THROUGH AND SERVING UNDISTURBED AREAS (SHOWN OR NOT SHOWN).
5. ALL EXISTING CONDUITS STUBBED THROUGH FLOOR SERVING ITEMS TO BE REMOVED (SHOWN OR NOT SHOWN) AND NOT REQUIRED TO BE REUSED SHALL BE CUT OFF FLUSH WITH THE SLAB DECK AND SEALED.
6. IN ANY AREA REQUIRING THE PERFORMANCE OF ANY TRADES WORK, THIS ELECTRICAL CONTRACTOR SHALL CAREFULLY REMOVE AND STORE ANY ELECTRICAL ITEMS IN THE PATH OF WORK, REINSTALLING AND RECONNECTING SAME AS REQUIRED IN ACCORDANCE WITH THE PLANS AND/OR AS DIRECTED AFTER COMPLETION OF OTHER TRADES WORK IN THAT AREA.
7. ENSURE REMOVAL OF ELECTRICAL DEVICES IN CONSTRUCTION AREA DOES NOT EFFECT ADJACENT AREAS.
8. ALL ELECTRICAL FIXTRUES, DEVICES AND EQUIPMENT SHALL BE TURNED OVER TO THE OWNER. IF OWNER DOES NOT WISH TO KEEP ITEMS, THEY BECOME THE PROPERTY OF THE ELECTRICAL CONTRACTOR AND MUST BE REMOVED FROM THE SITE.

GENERAL NOTES:

1. ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMAN LIKE MANNER, RECTILINEAR TO BUILDING STRUCTURE, AND IN ACCORDANCE WITH ALL APPLICABLE CODES, INCLUDING, BUT NOT LIMITED TO NFPA 70, 90A, 101 AND DIRECTION OF AUTHORITY HAVING JURISDICATION.
2. EXACT LOCATION OF MECHANICAL EQUIPMENT THAT REQUIRES ELECTRICAL CONNECTION IS SHOWN ON THE MECHANICAL PLANS.
3. CONTRACTOR SHALL REVIEW ALL TRADES CONTRACT DOCUMENTS, AND FIELD VERIFY TO DETERMINE SPECIFIC MOUNTING LOCATIONS FOR ELECTRICAL EQUIPMENT AND CONDUITS.
4. COORDINATE ARRANGEMENT, MOUNTING, AND SUPPORT OF ELECTRICAL CONDUIT AND EQUIPMENT TO PROVIDE FOR EASE OF DISCONNECTING THE EQUIPMENT WITH MINIMUM INTERFERENCE TO OTHER INSTALLATIONS; TO ALLOW RIGHT OF WAY FOR PIPING INSTALLED AT A REQUIRED SLOPE; AND SO CONNECTING RACEWAYS SHALL BE CLEAR OF OBSTRUCTIONS AND OF THE WORKING AND ACCESS SPACE OF OTHER EQUIPMENT.
5. RUN SEPARATE NEUTRAL WIRE FOR EACH DEDICATED BRANCH CIRCUIT SHOWN ON THE PLANS.
6. DEVICES SHALL NOT BE INSTALLED BACK-TO-BACK IN ADJACENT ROOMS. ADJUST LOCATIONS AS NECESSARY TO AVOID THIS CONDITION.

ABBREVIATIONS

A	AMPERES
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ATS	AUTOMATIC TRANSFER SWITCH
BATT	BATTERY
BHEC	BANGOR HYDRO ELECTRIC CO.
BKR	BREAKER
BLDG	BUILDING
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CLG	CEILING
CMP	CENTRAL MAINE POWER CO.
CT	CURRENT TRANSFORMER
DN	DOWN
DWG	DRAWING
EMERG	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EQUIP	EQUIPMENT
FA	FIRE ALARM
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FA-PE	FIRE ALARM SYSTEM POWER EXTENDER
FIN	FINISH, FINISHED
FLR	FLOOR
GND	GROUND
HP	HORSEPOWER, HEAT PUMP
JB	JUNCTION BOX
KVA	KILO VOLT AMPS
KW	KILOWATT(S)
LTG	LIGHTING
MAX	MAXIMUM
MIN	MINIMUM
N	NEW
OC	ON CENTER
OS/OI	OWNER SUPPLIED, OWNER INSTALLED ITEM
PAR	PARTIAL CIRCUIT
PVC	POLYVINYL CHLORIDE
RECEP	RECEPTACLE
TEL	TELEPHONE
TYP	TYPICAL
UG	UNDERGROUND
V	VOLTS
W	WATTS
WG	WIRE GUARD
WM	WIREMOLD
WP	WEATHERPROOF



MOUNTING HEIGHT DETAIL
NOT TO SCALE

NOTE:
IT IS THE INTENT OF THIS DETAIL TO CENTER ALL DEVICES (ELEC & MECH) LOCATED ABOVE/BELOW/BESIDE EACH OTHER ALONG THE SAME CENTERLINE. PROVIDE MTG. BLOCKING/SUPPORTS AS REQ'D.

REV.	DESCRIPTION	DATE
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0	BID DOCUMENTS	02-03-17

STATE OF MAINE LURA J. WARD 13007 REGISTERED PROFESSIONAL ENGINEER
02.03.17

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USM SCIENCE BUILDING OFFICE RENOVATIONS

PROJECT: PORTLAND, ME

ELECTRICAL LEGEND

SHEET TITLE:
WBRC CAD FILE: 4128.10 – E-001
PROJECT No. 4128.10
SCALE: AS NOTED
PROJECT MANAGER: MEJ
DRAWN BY: DVS
CHECKED BY: LJW
GRAPHIC SCALE: 0" 1"
SHEET No. E-001

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A1	ELECTRICAL LEGEND
NTS	--

2/1/2017 7:47 AM T:\02 PROJECTS – MAINE\4101–4200\4128\10 USM SCIENCE BLDG CONSOLIDATION\2 DESIGN\DWGS\BLDG\USM SCIENCE BUILDING\SHEETS\4128.10–E–001 ELECTRICAL LEGEND.DWG DREW VANSTEENBERGHE