IC — INTERCOM STATION

N — NURSE CALL PATIENT STATION, PROVIDE EMPTY CONDUITS FOR USE BY OWNER'S NURSE CALL VENDOR. COORDINATE WITH OWNER.

L — NURSE CALL DOME LIGHT, PROVIDE EMPTY CONDUITS FOR USE BY OWNER'S NURSE CALL VENDOR. COORDINATE WITH OWNER.

SP — PAGING SPEAKER

MS — MUSIC SPEAKER

V — VOLUME CONTROL

F1 CLOCKS AND SPEAKERS (P.A.)

NO SCALE

20A, 125V, 2P, 3W, NEMA 5-20R

20A, 125V, 2P, 3W, NEMA L5-20R (TWISTLOCK)

30A RECEPTACLE~208/120V,3P,4W, GROUNDING, NEMA L21-30R, (4)#10+(1)#10G TO 30A, 3P CIRCUIT BREAKER

30A, 125V, 2P, 3W, NEMA 5-30R

50A RANGE RECEPTACLE~250V,2P,3W, NEMA 14-50R, (3)#8+ (1)#10 TO 40A,2P CIRCUIT BREAKER

60A RECEPTACLE ~208/120V, 3PH, 4W, (3)#6+(1) #8G TO 60A, 3P CIRCUIT BREAKER

NOTE:

PROVIDE MATCHING CORD AND PLUG FOR SINGLE RECEPTACLES

F3 SINGLE RECEPTACLES

NO SCALE

F1 — LIGHT FIXTURE, RECESSED TROFFER, TYPICAL
a — INDICATES LIGHT FIXTURE TYPE ON LUMINAIRE SCHEDULE
— LOWER CASE LETTER INDICATES SWITCHING, TYPICAL
NUMBER INDICATES CIRCUITING, TYPICAL

L1 a — UNDERCABINET LIGHT

NOTE: TYPE 'F1A' RECESSED TROFFER SHALL BE FINELITE HIGH PERFORMANCE RECESSED TROFFER, CAT. NO. HPR-A-2X4-DCO-2T8 (277V) WITH (2) F32T8/3500K LAMPS. PROVIDE "SUPER T8" LAMPS AND MATCHING BALLASTS; BASIS OF DESIGN BASED ON SYLVANIA PROSTART PSX PROGRAMMED RAPID START BALLAST (.71 BALLAST FACTOR) AND MATCHING OCTRON XPS LAMPS.

TYPE 'L1' UNDERCABINET LIGHT SHALL BE PHILIPS 21" LED, CAT. NO. 523-000027-52.

F5 LUMINAIRES

NO SCALE

FACP — FIRE ALARM CONTROL PANEL, MOUNT WITH TOP OF PANEL NOT MORE THAN 72"AFF

FAA — FIRE ALARM ANNUNCIATOR, MOUNT WITH TOP OF PANEL NOT MORE THAN 72"AFF

S — SMOKE DETECTOR

S E — SMOKE DETECTOR, "E" INDICATES CONNECTION FOR ELEVATOR RECALL

S SS — SINGLE STATION SMOKE DETECTOR WITH AUDIBLE INDICATING APPLIANCE, MOUNT 80"AFF TO BOTTOM OR 6" BELOW CEILING WHICHEVER IS LOWER

S SS AV — SINGLE STATION SMOKE DETECTOR WITH AUDIBLE/VISUAL INDICATING APPLIANCE, MOUNT 80"AFF TO BOTTOM OR 6" BELOW CEILING WHICHEVER IS LOWER

H — HEAT DETECTOR

D — DUCT SMOKE DETECTOR

RTS — REMOTE TEST/INDICATOR FOR DUCT SMOKES, MOUNT ON CEILING BENEATH UNIT, OR WALL MOUNT WHERE INDICATED ON PLANS

F — MANUAL PULL STATION, MOUNT 48" AFF

30 F — AUDIO/VISUAL INDICATING APPLIANCE, CANDELA AS NOTED ON PLANS, MOUNT 80" AFF TO BOTTOM OR 6" BELOW CEILING WHICHEVER IS LOWER

15 — VISUAL INDICATING APPLIANCE, CANDELA AS NOTED ON PLANS, MOUNT 80"AFF TO BOTTOM OR 6" BELOW CEILING WHICHEVER IS LOWER

R — VISUAL INDICATING APPLIANCE, 15 CANDELA, 120V, CONNECT TO OPERATE UPON ACTIVATION OF ROOM SMOKE DETECTOR

M — MINI HORN

30 F F — AUDIO/VISUAL INDICATING APPLIANCE WITH PULL STATION DIRECTLY BELOW

DH — MAGNETIC DOOR HOLD OPEN DEVICE

T — TRANSFORMER

F — SPRINKLER SYSTEM WATER FLOW SWITCH, PROVIDED UNDER DIVISION 23, WIRED UNDER DIVISION 26

T — SPRINKLER SYSTEM TAMPER SWITCH, PROVIDED UNDER DIVISION 23, WIRED UNDER DIVISION 26

C — SPRINKLER SYSTEM CHECK VALVE PRESSURE SWITCH, FURNISHED AND INSTALLED UNDER DIVISION 23, WIRED UNDER DIVISION 26

P — SPRINKLER SYSTEM EXCESS PRESSURE PUMP, FURNISHED AND INSTALLED UNDER DIVISION 23, WIRED UNDER DIVISION 26

K — KNOX BOX, MOUNT 60" AFF ~ PROVIDE IN ACCORDANCE WITH LOCAL FIRE DEPARTMENT REQUIREMENTS

SD — SMOKE DAMPER

D7 FIRE ALARM SYSTEM

NO SCALE

PANELBOARD ~ SURFACE MOUNTED

PANELBOARD ~ FLUSH MOUNTED

FUSED DISCONNECT SWITCH

NON-FUSED DISCONNECT SWITCH

00 — MOTOR STARTER ~ NUMBER INDICATES NEMA SIZE

00 — COMBINATION MOTOR STARTER/FUSED DISCONNECT

MOTOR

M — METER AND CABINET

J — JUNCTION BOX ~ CEILING MOUNTED

J — JUNCTION BOX ~ WALL MOUNTED

J — JUNCTION BOX ~ FLOOR MOUNTED

J — JUNCTION BOX ~ PEDESTAL MOUNTED

T# — TRANSFORMER ~ NUMBER INDICATES DESIGNATION SEE TRANSFORMER SCHEDULE

VFD — VARIABLE FREQUENCY DRIVE

TVSS — TRANSIENT VOLTAGE SURGE SUPPRESSOR

E — EMERGENCY SHUTOFF SWITCH ~ WALL MOUNTED 48" TO CENTERLINE ~ PROVIDE TAMPER-PROOF COVER

CONDUIT TURNING UP

CONDUIT TURNING DOWN

WIRING UNDERGROUND OR UNDERSLAB

HOMERUN ~ (2)#12+(1)#12G UNO (EXCEPT COMPUTER AND LIGHTING CIRCUITS: (1)#12+(1)#10N+(1)#12G UNO)

SINGLE-PHASE HOMERUN OR MULTIPLE HOMERUN UTILIZING THE SAME CONDUIT

3-PHASE HOMERUN OR MULTIPLE HOMERUN UTILIZING THE SAME CONDUIT

L~20A,1P — INDICATES 20A,1P LOCKING CIRCUIT BREAKER

FLEXIBLE CONNECTION

GROUNDING SYSTEM

P — POWER POLE

PUSHBUTTON

D9 POWER DISTRIBUTION

NO SCALE

AFF ABOVE FINISHED FLOOR
AFG ABOVE FINISHED GRADE
BAS BUILDING AUTOMATION SYSTEM
BKBD BACKBOARD
CATV CABLE TV
CB CIRCUIT BREAKER
FWE FURNISHED WITH EQUIPMENT
P/O PART OF
MT MOUNT
NEC NATIONAL ELECTRICAL CODE
NF NON-FUSED
TEL TELEPHONE
UNO UNLESS NOTED OTHERWISE
WP WEATHERPROOF
WG WIREGUARD
XFMR TRANSFORMER

(E) EXISTING ITEM TO REMAIN
(R) REMOVE ITEM AND DISPOSE OF PROPERLY
(ER) RELOCATED ITEM AT NEW LOCATION
(RL) REMOVE AND RELOCATE

D1 ABBREVIATIONS

-

DUPLEX RECEPTACLE ~ 20A, 125V, 2P, 3W, NEMA 5-20R

DOUBLE DUPLEX RECEPTACLE

DUPLEX RECEPTACLE, HATCH INDICATES CONNECTION TO EMERGENCY CIRCUIT

GFCI DUPLEX RECEPTACLE, MOUNT 44" AFF UNO

GFCI DOUBLE DUPLEX RECEPTACLE, MOUNT 44" AFF UNO

WP — GFCI RECEPTACLE WITH WEATHERPROOF COVER

GFCI RECEPTACLE IN WP ENCLOSURE ON ROOF

WIREMOLD SERIES 4000 OR EQUAL WITH DIVIDER, OUTLETS SPACED AS INDICATED ON DRAWING. SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT.

NOTES:

1. MOUNT RECEPTACLES WITH CENTERLINE 18" AFF UNO
2. MOUNT EXTERIOR RECEPTACLES WITH CENTERLINE 24" AFG UNO

D3 RECEPTACLES

NO SCALE

HATCHING INDICATES FIXTURE ON LIFE SAFETY BRANCH

BP# # — EMER BATTERY UNIT WITH NO HEADS, MT 7'-6"AFF BP# INDICATES BATTERY UNIT DESIGNATION NUMBER INDICATES CIRCUITING

BP# # — EMER BATTERY UNIT WITH INTEGRAL HEADS, MT 7'-6" AFF BP# INDICATES BATTERY UNIT DESIGNATION NUMBER INDICATES CIRCUITING

BP# — SINGLE REMOTE EMERGENCY LIGHT HEAD, MOUNT 7'-6" AFF, BP# INDICATES BATTERY UNIT CONNECTED TO

BP# — DOUBLE REMOTE EMERGENCY LIGHT HEAD, MOUNT 7'-6" AFF, BP# INDICATES BATTERY UNIT CONNECTED TO

BP# — DOUBLE REMOTE EMERGENCY LIGHT HEAD, CEILING MOUNTED, BP# INDICATES BATTERY UNIT CONNECTED TO

BP# — EXIT SIGN, CEILING MOUNTED, SHADING INDICATES FACE(S), ARROWHEAD INDICATES CHEVRON(S) REQUIRED, BP# INDICATES BATTERY UNIT CONNECTED TO

BP# — EXIT SIGN, SELF-POWERED, WALL MOUNTED, SHADING INDICATES FACE(S), MOUNT AT 7'-6" AFF OR OVER DOOR, BP# INDICATES BATTERY UNIT CONNECTED TO

— EXIT SIGN, SELF-POWERED, CEILING MOUNTED, SHADING INDICATES FACE(S), ARROWHEAD INDICATES CHEVRON(S) REQUIRED, NUMBER INDICATES CIRCUIT NUMBER, TYPICAL

— EXIT SIGN, SELF-POWERED, WALL MOUNTED, SHADING INDICATES FACE(S), MOUNT AT 7'-6" AFF OR OVER DOOR, NUMBER INDICATES CIRCUIT NUMBER, TYPICAL

D5 EMERGENCY LUMINAIRES

NO SCALE

SEC — SECURITY PANEL, MOUNT WITH TOP OF PANEL NOT MORE THAN 72"AFF

ANN — ANNUNCIATOR, MOUNT WITH TOP OF PANEL NOT MORE THAN 72"AFF

KP — KEYPAD, MOUNT 48"AFF

MSP — MOTION SENSOR, PASSIVE INFRARED (PIR), WALL MOUNTED 96"AFF

MSP — MOTION SENSOR, PASSIVE INFRARED (PIR), CEILING MOUNTED

MSM — MOTION SENSOR, MICROWAVE, WALL MOUNTED

MSM — MOTION SENSOR, MICROWAVE, CEILING MOUNTED

MS — MOTION SENSOR, DUAL TECHNOLOGY, PIR/MICROWAVE, WALL MOUNTED

MS — MOTION SENSOR, DUAL TECHNOLOGY, PIR/MICROWAVE, CEILING MOUNTED

C — CAMERA

CA — CARD ACCESS

DC — DOOR CONTACT

DL — MAGNETIC DOOR LOCK

DR — DOOR RELEASE BUTTON

DS — DOOR SWITCH

B — BELL

C — CHIME

SS — STROBE

SH — HORN

TRANSFORMER

A1 SECURITY SYSTEM

F — DUPLEX RECEPTACLE, 20A, 125V, 2P, 3W, NEMA 5-20R, MOUNT IN FLUSH FLOOR BOX

F — DOUBLE DUPLEX RECEPTACLE, 20A, 125V, 2P, 3W, NEMA 5-20R, MOUNT IN FLUSH FLOOR BOX

F J — JUNCTION BOX, MOUNT IN FLUSH FLOOR BOX

F E — EMPTY FLUSH FLOOR BOX

P — DUPLEX RECEPTACLE, PEDESTAL MOUNTED

P — SINGLE RECEPTACLE, PEDESTAL MOUNTED

P J — JUNCTION BOX, PEDESTAL MOUNTED

C — DUPLEX RECEPTACLE, FLUSH MOUNTED IN CEILING

C — DOUBLE DUPLEX RECEPTACLE, FLUSH MOUNTED IN CEILING

C — DUPLEX GFCI RECEPTACLE, FLUSH MOUNTED IN CEILING

C — DOUBLE DUPLEX GFCI RECEPTACLE, FLUSH MOUNTED IN CEILING

C — DATA OUTLET, FLUSH MOUNTED IN CEILING, SEE SCHEDULE FOR TYPE

C J — JUNCTION BOX, FLUSH MOUNTED IN CEILING

OVERHEAD RECEPTACLE DROP, DUPLEX

OVERHEAD RECEPTACLE DROP, DOUBLE DUPLEX

OVERHEAD RECEPTACLE DROP, GFCI

A3 FLOOR AND CEILING DEVICES

NO SCALE

~ CENTERLINE 48" AFF, UNO ~

$a — LIGHT SWITCH, 20A,125/277V, LETTER INDICATES SWITCHING

$3 — THREE-WAY LIGHT SWITCH

$4 — FOUR-WAY LIGHT SWITCH

$2 — TWO-POLE SWITCH

$K — KEY OPERATED SWITCH

$M — MOTOR RATED SWITCH

$P — SINGLE POLE SWITCH WITH RED PILOT LIGHT ~ RED LIGHT SHALL GLOW WHEN CIRCUIT IS ENERGIZED

$a $b — MULTI-GANGED SWITCHES, GANG UNDER ONE PLATE, LETTER INDICATES SWITCHING

$OS — OCCUPANCY SENSOR SWITCH, WALL MOUNTED

$OS2 — 2-BUTTON OCCUPANCY SENSOR SWITCH

OS — OCCUPANCY SENSOR, CEILING MOUNTED

OS — OCCUPANCY SENSOR, WALL MOUNTED

$D — INCANDESCENT DIMMER SWITCH

$FD — FLUORESCENT DIMMER SWITCH

$F $L — HANDICAP SWITCHES FOR HOOD LIGHT AND FAN

$T — TIMER SWITCH, 60 MINUTES

$LV — LOW VOLTAGE LIGHT SWITCH

$LV2 — LOW VOLTAGE LIGHT SWITCH WITH STEP DIMMING

LTC — LIGHTING TIME CLOCK

LC — LIGHTING CONTACTOR

LCP — LIGHTING CONTROL PANEL

PC — PHOTOCELL

A5 LIGHT SWITCHES

NO SCALE

W — TELEPHONE WALL OUTLET, 44" AFF UNO

DATA OUTLET, 18" AFF UNO

TEL/DATA OUTLET, 18" AFF UNO

TELEPHONE OUTLET, 18" AFF UNO

WA — WIRELESS ACCESS POINT CEILING MOUNTED

WA — WIRELESS ACCESS POINT WALL MOUNTED

1. CONDUIT PROVIDED TO NEAREST CABLE TRAY. 1" CONDUIT TO DOUBLE GANG BOXES. BOXES, CONDUIT AND CABLE PATHWAYS SHALL BE PROVIDED UNDER DIVISION 26, CABLING, TERMINATIONS AND TESTING SHALL BE BY OWNER.

A5 TECHNOLOGY

NO SCALE

NOTE

SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION INTO THE DESIGN

1. BRANCH CIRCUIT WIRING NOT SHOWN. WIRE AND CONNECT ELECTRICAL ITEMS TO CIRCUITS INDICATED.
2. DISCONNECT, REMOVE, RELOCATE, AND RECONNECT ELECTRICAL CONDUIT, WIRING, DEVICES, BOXES, FIXTURES, EQUIPMENT, ETC. AS INDICATED AND AS REQUIRED TO FACILITATE WORK OF DIVISION 26 AND OTHER DIVISIONS. WHERE ELECTRICAL ITEMS ARE REMOVED, REMOVE CONDUIT AND WIRING BACK TO SOURCE.
3. DO NOT SCALE THE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS.
4. THE LOCATION OF EQUIPMENT, OUTLETS, ETC. AS GIVEN ON THE DRAWINGS, IS APPROXIMATE. IT SHALL BE UNDERSTOOD THAT THESE LOCATIONS ARE SUBJECT TO MODIFICATION AS MAY BE FOUND NECESSARY OR DESIRABLE AT THE TIME OF INSTALLATION IN ORDER TO MEET PROJECT REQUIREMENTS. SUCH CHANGES SHALL BE MADE WITHOUT EXTRA CHARGE.
5. ALL ELECTRICAL DEVICES, WHEN INSTALLED, SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. COVER PLATES SHALL BE INSTALLED AFTER FINISH MATERIALS HAVE BEEN APPLIED.
6. COORDINATE ALL WORK WITH OTHER DIVISIONS. VERIFY EXACT POWER REQUIREMENTS OF MECHANICAL EQUIPMENT WITH DIVISION 23. POWER WIRING FOR EQUIPMENT & CONTROL IS TO BE PERFORMED BY DIVISION 26. CONTROL WIRING BY DIVISION 23.

A9 GENERAL NOTES

-

HKTA / architects, inc.
482 Congress Street Suite 502
Portland, Me.
HKTA/arch
phone: 207. 774.
fax: 207. 774. 0123
email: hkta@maine.com

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/19/14

Allied Engineering
Structural Mechanical Electrical Commissioning
160 Veranda Street
Portland, Maine 04103
T: 207.221.2260
F: 207.221.2266
Web: www.allied-eng.com

REVISIONS

NUMBER	DATE	BY	DESCRIPTION

Date: 3/28/2014
Drawn By: GMC
Checked By: SRM
Project Mgr: IAM
Project No: 14003
Cad File: 14003E.DWG
Graphic Scale: 0 1"

ELECTRICAL LEGENDS, ABBREVIATIONS AND GENERAL NOTES

UNIVERSITY OF SOUTHERN MAINE BIO-SCIENCE
~ 3rd FLOOR LAB FIT-UP
PORTLAND, MAINE

© COPYRIGHT 2014 ALLIED ENGINEERING, INC.

E-000

N:\Projects\201414003 - USM Bio Science\00 Drawing Files\14003E.dwg Mar 27, 2014 - 10:13am