ELECTRICAL LEGEND

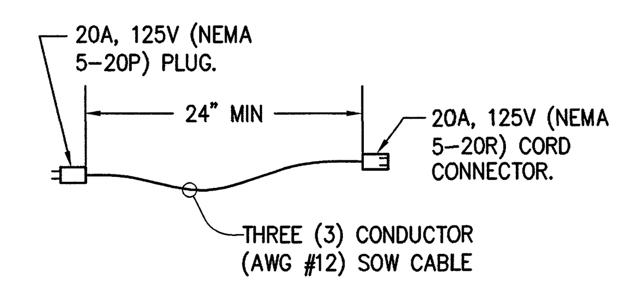
Symbol	Description
	2x4 RECESSED LIGHTING FIXTURE. SUBSCRIPT WHEN SHOWN INDICATES SWITCH TO CONTROL FIXTURE
	2x4 RECESSED LIGHTING FIXTURE WITH EMERGENCY BATTERY PACK. CONNECT BATTERY PACK AHEAD OF LOCAL SWITCHING
	1X4 LIGHTING FIXTURE. SUBSCRIPT WHEN SHOWN INDICATES SWITCH TO CONTROL FIXTURE
	1X4 LIGHTING FIXTURE WITH EMERGENCY BATTERY PACK. CONNECT BATTERY PACK AHEAD OF LOCAL SWITCHING
o EM	RECESSED DOWN LIGHTING FIXTURE OR PENDANT MOUNTED CYLINDER LIGHTING FIXTURE. SUBSCRIPT "EM" WHEN SHOWN INDICATES FIXTURE WITH EMERGENCY BATTERY PACK. CONNECT BATTERY PACK AHEAD OF LOCAL SWITCHING
	WALL MOUNTED LIGHTING FIXTURE
	WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY PACK. CONNECT BATTERY PACK AHEAD OF LOCAL SWITCHING
	4' FLUORESCENT STRIP LIGHTING FIXTURE
	PENDANT MOUNTED DECORATIVE LIGHTING FIXTURE OR POST MOUNTED LIGHTING FIXTURE
	CEILING MOUNTED ILLUMINATED EXIT SIGN. DARKENED QUADRANTS INDICATE FACES OF SIGN USED. PROVIDE DIRECTIONAL ARROWS AS SHOWN
	WALL MOUNTED ILLUMINATED EXIT SIGN. DARKENED QUADRANTS INDICATE FACES OF SIGN USED. PROVIDE DIRECTIONAL ARROWS AS SHOWN
	EMERGENCY LIGHTING FIXTURE. CONNECT AHEAD OF LOCAL SWITCHING
	WALL MOUNTED FLOOD LIGHTING FIXTURE
A	LIGHTING FIXTURE TYPE SYMBOL, SEE LIGHTING FIXTURE SCHEDULE ON SHEET E-101
S_a	LIGHTING NETWORKED PUSHBUTTON STATION, NLIGHT OR EQUAL. SUBSCRIPT INDICATES FIXTURES CONTROLLED. SEE LIGHTING CONTROL SYSTEM DIAGRAM ON SHEET E-101. MOUNT 48" AFF UON
D_a	LIGHTING NETWORKED PUSHBUTTON STATION WITH UP DOWN DIMMING, NLIGHT OR EQUAL. SUBSCRIPT WHEN SHOWN INDICATES FIXTURES CONTROLLED. SEE LIGHTING CONTROL SYSTEM DIAGRAM ON SHEET E-101.. MOUNT 48" AFF UON
OS_a	DUAL TECHNOLOGY TYPE NETWORKED LOW VOLTAGE CEILING OCCUPANCY SENSOR, NLIGHT OR EQUAL. SUBSCRIPT INDICATES FIXTURES CONTROLLED. SEE LIGHTING CONTROL SYSTEM DIAGRAM ON SHEET E-101.
$	SINGLE-POLE TOGGLE SWITCH, 120V, 20A. MOUNT 48" AFF UON
$\$_D$	0-10V DIMMER SWITCH WITH POWER SWITCHING. MOUNT 48" AFF, UON. PROVIDE 0-10V WIRING AS REQUIRED AND 120V.
$\$_3$	SINGLE-POLE 3-WAY TOGGLE SWITCH. MOUNT 48" AFF UON
$\$_{WP}$	SINGLE-POLE TOGGLE SWITCH IN WEATHERPROOF ENCLOSURE. MOUNT 48" AFF UON
$OS	SINGLE-POLE 120V PUSH BUTTON STATION WITH DUAL TECHNOLOGY OCCUPANCY SENSOR. MOUNT 48" AFF UON.
OS	PASSIVE INFRARED LOW VOLTAGE CEILING OCCUPANCY SENSOR. SUBSCRIPT INDICATES FIXTURES CONTROLLED. SEE POWER PACK DETAILS ON SHEET E-501
DT	DUAL TECHNOLOGY LOW VOLTAGE CEILING OCCUPANCY SENSOR. SUBSCRIPT INDICATES FIXTURES CONTROLLED. SEE POWER PACK DETAILS ON SHEET E-501
3P $\frac{60}{40}$ 3R,NF	DISCONNECT SWITCH, 240V IN NEMA-1 ENCLOSURE UON; 3P=No. OF POLES, 60=SWITCH RATING, 40=FUSE RATING; 3R INDICATES NEMA-3R ENCLOSURE; SN INDICATES SOLID NEUTRAL BAR; 4X INDICATES NEMA 4X STAINLESS STEEL ENCLOSURES; NF INDICATES NON-FUSIBLE
	COMBINATION MAGNETIC MOTOR STARTER/FUSED DISCONNECT SWITCH, MOUNT 5'-0" AFF ADJACENT TO EQUIPMENT BEING SERVED NEMA SIZE AND POLES AS INDICATED, IN NEMA 1 ENCLOSURE UON
	BRANCH CIRCUIT OR FEEDER WIRING IN CONDUIT, NO TICK MARKS INDICATE 2#12 CONDUCTORS AND 1#12 GROUND IN 1/2" CONDUIT UON. TICK MARKS, WHEN SHOWN, INDICATE NUMBER OF #12 CONDUCTORS IF OTHER THAN THREE; ( ) INDICATES GROUND. CONDUIT LARGER THAN 1/2" AND WIRE LARGER THAN #12, SHALL BE AS INDICATED
A-1,3	HOMERUNS TO PANEL. PANEL AND CIRCUIT DESIGNATIONS AS INDICATED
	HOMERUN WIRING FROM FAN COIL UNITS TO MECHANICAL EQUIPMENT BRANCH POWER CONTROLLER (BP), 4#14 IN 1/2"C, UON. ONE OF THE #14 CONDUCTORS SHALL BE A GREEN EQUIPMENT GROUND. COORDINATE WITH MANUFACTURES REQUIREMENTS.
	TRANSMISSION CABLING TO OTHER BP UNIT OR TO OUTDOOR UNIT AS REQUIRED. TRANSMISSION WIRING SHALL BE SHEATHED TWO CONDUCTOR #16 CABLE PER MANUFACTURER'S REQUIREMENTS IN 1/2" CONDUIT.
WP GFI	DUPLEX RECEPTACLE WITH INTEGRAL GROUND FAULT PROTECTION, 20A, 125VAC; "WP", WHEN SHOWN, INDICATES WEATHERPROOF ENCLOSURE; MOUNT 24" AFF OR AFG UON
	20A, 125VAC DUPLEX CONVENIENCE RECEPTACLE. MOUNT 18" AFF UON
GFI	20A, 125VAC DUPLEX CONVENIENCE RECEPTACLE, SUBSCRIPT "GFI", WHEN SHOWN, INDICATES RECEPTACLE WITH INTEGRAL GROUND FAULT PROTECTION MOUNT 8" ABOVE COUNTERTOP
W	20A, 125VAC DUPLEX CONVENIENCE RECEPTACLE FOR WASHING MACHINE. MOUNT 8" ABOVE WASHER TO SUIT WASHER
	30A, 125/250VAC, 3P, 4W DRYER RECEPTACLE. MOUNT 8" ABOVE DRYER TO SUIT DRYER
50A	50A, 125/250VAC, 3P, 4W RANGE RECEPTACLE. MOUNT TO SUIT RANGE.
CM	20A, 125VAC DUPLEX RECEPTACLE FOR CEILING MOUNTED PROJECTOR. MOUNT ADJACENT TO PROJECTOR, FLUSH WITH CEILING.
EWC	20A, 125VAC GFCI TYPE DUPLEX CONVENIENCE RECEPTACLE FOR ELECTRIC WATER COOLER. MOUNT TO SUIT WATER COOLER
	20A, 125VAC DOUBLE DUPLEX CONVENIENCE RECEPTACLE. MOUNT 18" AFF UON
250V 30A	SINGLE RECEPTACLE. VOLTAGE AND RATING AS INDICATED. MOUNT 18" AFF UON
E	ELECTRICAL EQUIPMENT CONNECTION
1/4 F	EXHAUST FAN CONNECTION, HORSEPOWER AS INDICATED
1/4 M	MOTOR CONNECTION, HORSEPOWER AS INDICATED
S UH	UNIT HEATER WITH INTEGRAL DISCONNECTING MEANS
J	ELECTRICAL JUNCTION BOX
1/2 P	PUMP CONNECTION, HORSEPOWER AS INDICATED
	SURFACE MOUNTED PANELBOARD, 208Y/120V, 3ø, 4W UON
CR	ELECTRICAL CABLE REEL, WOODHEAD 9385 OR EQUAL. PROVIDE A RIGID SUPPORT OF CABLE REEL FROM STRUCTURE ABOVE. PROVIDE BALL STOP AND 3-WIRE, 20A, 125V (NEMA 5-20) RECEPTACLE WITH CABLE REEL. PROVIDE 24" PIGTAIL AS SHOWN ON DETAIL ON THIS SHEET.
M	METERBASE, FURNISHED BY UTILITY CO., INSTALLED BY ELECTRICAL CONTRACTOR
TC	TIMECLOCK
LC	LIGHTING CONTACTOR
	DOOR CONTROL PUSH BUTTON STATION - OPEN, CLOSE, STOP; MOUNT 48" AFF
ST	AMBER COLOR 120VAC STROBE LIGHT, MOUNT 84" AFF. FEDERAL SIGNAL CORP. MODEL FB2PST OR APPROVED EQUAL STROBE LIGHT. SEE DETAIL ON SHEET E-102.
	FAN ON-OFF PUSH BUTTON STATION; MOUNT 48" AFF
CB	ENCLOSED CIRCUIT BREAKER WITH SHUNT TRIP FEATURE IN A NEMA 1 ENCLOSURE
SPD	SURGE PROTECTOR DEVICE
LC	LIGHTING CONTACTOR
MGB	MAIN SERVICE GROUND BAR
TGB	TELECOMMUNICATIONS GROUND BAR
TMGB	TELECOMMUNICATIONS MAIN GROUND BAR
	TELECOMMUNICATIONS FLOOR RACK
	TELECOMMUNICATIONS WALL RACK
	CONDUIT SLEEVES
	FIRE RATED 3/4" PLYWOOD FROM FLOOR TO 8'-0" AFF
	DATA/COMMUNICATIONS OUTLET MOUNT 18" AFF UON. 4"X4"X2 1/8" DEEP OUTLET BOX WITH SINGLE GANG PLASTER RING AND BLANK COVERPLATE. COVERPLATE SHALL BE STAINLESS STEEL. PROVIDE ONE 1" EC FROM BOX UP TO ACCESSIBLE SPACE ABOVE CEILING AND TERMINATE WITH PLASTIC BUSHING.
	DATA/COMMUNICATIONS OUTLET. MOUNT IN 4" FLOOR BOX WITH BRASS COVER. PROVIDE ONE 1" EC FROM BOX TO ACCESSIBLE SPACE ABOVE CEILING AND TERMINATE WITH PLASTIC BUSHING.
W	WALL TELEPHONE OUTLET, MOUNT 60" AFF UON. 4"X4"X2 1/8" DEEP OUTLET BOX WITH SINGLE GANG PLASTER RING AND BLANK, STAINLESS STEEL COVERPLATE. PROVIDE ONE 1" EC FROM BOX TO ACCESSIBLE SPACE ABOVE CEILING AND TERMINATE WITH PLASTIC BUSHING.
	TELEVISION OUTLET, MOUNT 72" AFF ADJACENT TO TV RECEPTACLE, UON. 4"X4"X2 1/8" DEEP OUTLET BOX WITH SINGLE GANG PLASTER RING AND BLANK, STAINLESS STEEL COVERPLATE. PROVIDE ONE 1" EC FROM BOX TO ACCESSIBLE SPACE ABOVE CEILING AND TERMINATE WITH PLASTIC BUSHING.
1	ELECTRICAL DEMOLITION NOTE
2	ELECTRICAL NEW WORK NOTE
3	ELECTRICAL RISER DIAGRAM NOTE
	INDICATION OF REQUIRED SAFE WORKING CLEARANCE IN ACCORDANCE WITH NEC.

ABBREVIATIONS

A	AMPS, AMPERAGE
AFF	ABOVE FINISHED FLOOR TO CENTERLINE OF DEVICE UON
AFG	ABOVE FINISHED GRADE TO CENTERLINE OF DEVICE UON
BFG	BELOW FINISHED GRADE
BP	MECH EQUIP. BRANCH POWER CONTROLLER
C	CONDUIT
CB	MOLDED-CASE CIRCUIT BREAKER
CEE	CONCRETE ENCASED ELECTRODE
Db	DECIBLE
EMT	ELECTRICAL METALLIC TUBING
EC	EMPTY CONDUIT WITH PULL WIRE OR TAPE
EF	EXHAUST FAN
EOLR	END OF LINE RESISTOR
GEC	GROUNDING ELECTRODE CONDUCTOR
GND	GROUND
GRS, RMC	GALVANIZED RIGID STEEL CONDUIT
HP	HORSEPOWER
IAW	IN ACCORDANCE WITH
ø	PHASE
KAIC	ONE-THOUSAND AMPERE INTERRUPTING CAPACITY SYMMETRICAL AT CIRCUIT BREAKER OPERATING VOLTAGE
KW	KILOWATT
LTS	LIGHTS
MCB	MAIN CIRCUIT BREAKER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRICAL CODE
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
PIV	POST INDICATOR VALVE
PVC	POLYVINYL CHLORIDE PIPE
RECPT(S)	RECEPTACLE(S)
GRS, RMC	RIGID METAL CONDUIT
SF	SUPPLY FAN
SM	SURFACE MOUNT
TYP	TYPICAL
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VOLTAGE, VOLTS
W	WIRE OR WATTS
W/	WITH

GENERAL NOTES

1. COORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES IN FIELD PRIOR TO BEGINNING ANY ROUGH-IN WORK. COORDINATE ALL ELECTRICAL WORK, WITH MECHANICAL, ARCHITECTURAL, AND CIVIL DRAWINGS PRIOR TO ROUGH IN.
2. ALL ELECTRICAL DISCONNECTS, FUSES, ETC. SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR, UON.
3. INSTALLER SHALL TORQUE ALL CONNECTIONS IN PANELBOARDS AND AND DISTRIBUTION PANELS IN ACCORDANCE WITH NECA.
4. PROPERLY SEAL ALL FLOOR, CEILING, AND WALL PENETRATIONS IN ACCORDANCE WITH VUSBC. SEE ARCHITECTURAL SHEETS FOR DETAILS ON WALL CONSTRUCTION.
5. LAY OUT WORK IN ADVANCE. EXERCISE CARE WHERE CUTTING, CHANNELING, CHASING, OR DRILLING OF WALLS, PARTITIONS, CEILINGS, OR OTHER SURFACES AS NECESSARY FOR PROPER INSTALLATION, SUPPORT, OR ANCHORAGE OF CONDUIT, RACEWAYS, OR OTHER ELECTRICAL WORK. REPAIR DAMAGE TO BUILDINGS, PIPING, AND EQUIPMENT USING SKILLED CRAFTSMEN OF TRADES INVOLVED.
6. AT THE END OF THE PROJECT, THE CONTRACTOR SHALL PROVIDE CURRENT TYPEWRITTEN CIRCUIT DIRECTORIES FOR ALL PANELBOARDS.
7. ELECTRICAL EQUIPMENT AND CIRCUITS SHALL BE MARKED AND LABELED FOR IDENTIFICATION PURPOSES IN ACCORDANCE W/ NEC 408.4. JUNCTION AND PULL BOXES MAY BE LABELED USING A BLACK INDELIBLE MARKER. ALL SWITCH COVERS AND OUTLET BOX COVERS SHALL BE LABELED WITH CLEAR SELF ADHESIVE TAPE WITH BLACK LETTERS/NUMBERS. LABELS SHALL INDICATE PANEL DESIGNATION AND BREAKER NUMBER. PLACE LABEL ON THE BACK OF THE COVER PLATE.
8. DIG NOTICE:
   WHERE DIGGING IS REQUIRED AS PART OF THE CONSTRUCTION EFFORT, INCLUDE "CONTACT MISS UTILITY AT 811, 1-800-552-7001, OR HTTP://WWW.MISSUTILITYOFVIRGINIA.COM NO LESS THAN 72 HOURS PRIOR TO EXCAVATION AND DO NOT DISTURB THE SOIL UNTIL DIG TICKET HAS BEEN PROCESSED." ON THE WORKING DRAWINGS.
9. CLEARANCE MARKINGS:
   A 2" WIDE YELLOW LINE SHALL BE PAINTED ON ALL CONCRETE FLOOR IN THE ELECTRICAL ROOM INDICATING THE ELECTRICAL WORKING SPACE AS DEFINED BY THE NEC. STENCIL "NO STORAGE – ELECTRICAL WORKING SPACE" IN 2" HIGH, YELLOW LETTERS CENTERED IN THE SPACE OUTLINED AREA.
10. PROVIDE PERMANENT LABELS TO PROVIDE IDENTIFICATION ON ALL SERVICE ENTRANCE EQUIPMENT IN ACCORDANCE W/ NEC 230.66.
11. PROVIDE AN ENGRAVED LABEL AT ALL DISCONNECTS INDICATING THE SOURCE CIRCUIT AND EQUIPMENT THEY SERVE IN ACCORDANCE W/ NEC 110.22(A). PROVIDE AN ENGRAVED LABEL AT ALL PANELBOARDS INDICATING ID AND THE ELECTRICAL FEED ORIGIN PANEL.
12. RECESSED AND SEMI-RECESSED LIGHTING FIXTURES SHALL BE INDEPENDENTLY SUPPORTED FROM THE BUILDING STRUCTURE BY A MINIMUM OF FOUR (4) WIRES, OR STRAPS OR RODS PER FIXTURE AND LOCATED NEAR EACH CORNER OF EACH FIXTURE.
13. PROVIDE AN ARC FLASH WARNING LABEL ON ALL PANELBOARDS IN ACCORDANCE W/ NEC 110.16.
14. PROVIDE DOOR STOPS WHERE NEEDED TO ENSURE PANELS WILL NOT BE IMPACTED BY DOORS WHERE APPLICABLE.
15. CONDUIT ON THE ROOF AND IN SPRINKLER ROOM SHALL BE GRS.
16. ALL CONDUITS 4" OR LARGER SHALL BE BUSHED. SPLIT BUSHINGS ARE NOT ACCEPTABLE.
17. ALL BRANCH CIRCUIT WIRES SHALL LABELED ON EACH END, INCLUDING NEUTRALS. DO NOT SHARE NEUTRALS.
18. USE PIGTAILS IN RECEPTACLES IN LIEU OF SERVING DOWN STREAM LOADS FROM DEVICE.
19. CONDUCTORS EXCEPT GROUND WIRES SHALL BE STRANDED.
20. CONDUCTORS SHALL BE COPPER. ALUMINUM CONDUCTORS ARE NOT ACCEPTABLE.
21. ALL CIRCUITS SHALL HAVE A SEPERATE EQUIPMENT GROUNDING CONDUCTOR. USING RACEWAYS IS NOT ACCEPTABLE.
22. ROUTE TELECOMMUNICATIONS CABLES IN HALLWAY, ABOVE CEILING WITH OPEN SUPPORTS MAX 50' ON CENTER.
23. MC CABLE MAY BE PROVIDED IN LIEU OF WIRE AND CONDUIT WHERE ROUTED CONCEALED WITHIN WALLS AND ABOVE ACCESSIBLE CEILINGS.



CABLE REEL PIGTAIL DETAIL

NOT TO SCALE (TYPICAL FOR 3)

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PROFESSIONAL ENGINEER

COUNTY OF ALBEMARLE

PANTOPS PUBLIC SAFETY FACILITY

IFB # 2017-11223-20

CHARLOTTESVILLE, VIRGINIA

REVISIONS

NO.	DATE	DESCRIPTION

COMMISSION NUMBER
2160310

SCALE:	AS NOTED
DESIGNED:	DEL
DRAWN:	DEL
CHECKED:	JAM
DATE:	10.28.2016

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SHEET TITLE
ELECTRICAL LEGEND, ABBREVIATIONS, AND NOTES

SHEET NUMBER
E-001