

LEGEND

ALL SYMBOLS ARE NOT NECESSARILY USED.

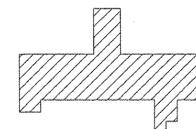
-  SURFACE MOUNT LED LIGHT FIXTURE. "A" INDICATES FIXTURE TYPE.
-  SURFACE MOUNT LED LIGHT FIXTURE WITH EMERGENCY BATTERY PACK
-  SURFACE MOUNT FLOOD LIGHT FIXTURE
-  WALL MOUNTED FIXTURE
-  SINGLE POLE SWITCH
-  JUNCTION BOX - SIZE AS REQUIRED
-  DISCONNECT SWITCH
-  VARIABLE FREQUENCY DRIVE
-  MECHANICAL EQUIPMENT
-  MECHANICAL DAMPER

ELECTRICAL GENERAL NOTES

1. INSPECT THE SITE, PRIOR TO SUBMITTING A BID, AND INVESTIGATE ALL CONDITIONS UNDER WHICH THIS WORK WILL BE PERFORMED. FAILURE TO INSPECT EXISTING CONDITIONS OR TO FULLY UNDERSTAND THE WORK WHICH IS REQUIRED SHALL NOT EXCUSE THE CONTRACTOR FROM THEIR OBLIGATIONS TO SUPPLY AND INSTALL THE WORK IN ACCORDANCE WITH THE SPECIFICATIONS AND THE DRAWINGS AND UNDER ALL SITE CONDITIONS AS THEY EXIST.
2. FURNISH LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY FOR THE PROPER AND COMPLETE INSTALLATION OF ALL ELECTRIC WORK SHOWN ON THE DRAWINGS AND AS HEREIN SPECIFIED.
3. ALL ITEMS NOT SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS, BUT WHICH ARE NECESSARY TO MAKE A COMPLETE ELECTRICAL INSTALLATION, SHALL BE FURNISHED AND INSTALLED AS PART OF THIS PROJECT.
4. CLEAN AT THE END OF EACH DAY ALL AREAS WORKED IN. EMPTY BOXES, RUBBISH, AND OTHER MATERIALS OF NO USE SHALL BE REMOVED FROM THE SITE.
5. THE PLANS DEPICT THE LOCATION OF ALL DEVICES AND ARE INTENDED TO INDICATE THE GENERAL INTENT OF THE WORK IN SCOPE, LAYOUT AND QUALITY OF WORKMANSHIP.
6. ITEMS INDICATED TO BE REMOVED AND NOT SCHEDULED TO BE RELOCATED SHALL BE DISPOSED FROM THE SITE IN ACCORDANCE WITH EPA REGULATIONS.
7. COORDINATE WORK SO THAT IT DOES NOT INTERFERE WITH THE WORK OF OTHER TRADES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT HIS WORK IS INSTALLED IN A TIMELY MANNER.
8. ALL CUTTING, PATCHING AND FIRE STOPPING FOR ELECTRICAL INSTALLATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
9. ELECTRICAL ARRANGEMENTS/LOCATIONS OF EQUIPMENT SHALL BE VERIFIED IN FIELD.
10. ALL WORK SHALL BE NEW, UNLESS NOTED OTHERWISE.
11. WHERE WIRING IS NOT IDENTIFIED, IT SHALL BE 2#12 (PHASE & NEUTRAL) CONDUCTORS AND 1#12 INSULATED GROUND IN 1/2" CONDUIT.
12. ALL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND SHALL BE IN A NEAT PROFESSIONAL WORKMAN LIKE MANNER.
13. ALL CONDUITS, WIRES AND ASSOCIATED DEVICES INSTALLED IN THE FIRE COMPARTMENT AND CRAWL SPACE AREAS IN THE FIRE FIGHTER TRAINER SHALL BE SUITABLE FOR HIGH TEMPERATURE APPLICATION (GREATER THAN 280° C). HIGH TEMPERATURE WIRE SHOULD BE IN ACCORDANCE WITH MILITARY SPECIFICATION MIL-W-25038, TYPE 1.
14. REFER TO DRAWING PP100 FOR ADDITIONAL ELECTRICAL WORK ASSOCIATED WITH PROPANE SYSTEM WORK.
15. FURNISH AND INSTALL TESTED AND LISTED FIRESTOPPING SYSTEMS. COMBINATION OF MATERIALS, OR DEVICES TO FORM AN EFFECTIVE BARRIER AGAINST THE SPREAD OF FLAME, SMOKE AND GASES, AND MAINTAIN THE INTEGRITY OF FIRE RESISTANCE RATED WALLS, PARTITIONS, FLOORS, AND CEILING-FLOOR ASSEMBLIES, INCLUDING THROUGH-PENETRATIONS BY CONDUITS. FIRESTOPPING MATERIALS SHALL PROVIDE FIRE RESISTANCE RATING IN ACCORDANCE WITH ASTM E814 OR UL 1479.

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	LAMP TYPE	LAMP COUNT	LAMP WATTAGE	VOLT.	REMARKS
A	HAZARDOUS CLASS 1 DIV 2, T-STYLE LED LAMPS, 4FT,2-LAMP- 2160 LUMENS PER LAMP-T4C TEMPERATURE RATING-EMERGENCY BATTERY BACKUP- UL 924, 2100 LUMENS ON BATTERY, 5600 COLOR TEMP, 80 CRI, ACRYLIC LENS, 56 WATT, CONSTRUCTED OF NON-CORROSIVE MATERIALS, HEAT & IMPACT RESISTANT, MARINE TYPE.	SURFACE	LED	-	-	120/277	- CRAWL SPACE LIGHTING
B	HALOGEN WIDE FLOOD LIGHT WITH EASY OPEN SNAP CLIPS SECURE DOOR FOR LAMP REPLACEMENT, SUPPLIED WITH 4-FT POWER CORD WITH WEATHER TIGHT COMPRESSION FITTINGS. MARINE-GRADE CAST ALUMINUM HOUSING WITH YELLOW THERMOSTAT POWDER COAT FINISH. HEAVY DUTY TEMPERED GLASS LENS WITH HIGH TEMPERATURE SILICONE GASKET SEAL AND SHOCK MOUNT BASE. UL 1598 LISTED - SUITABLE FOR WET LOCATIONS UL 1598A LISTED - MARINE OUTSIDE TYPE SALTWATER CSA CERTIFIED - ENCLOSURE	SURFACE	HALOGEN	1	500	120V	- LADDER WELL LIGHTING

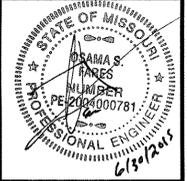


DATE

SYN DESCRIPTION



NAVFAC



6/19/2015

JACOBS

501 NORTH BROADWAY ST. LOUIS, MISSOURI 63102
 TEL 314-335-4000 FAX 314-335-5012

APPROVED

FOR COMMANDER NAVFAC DWG

ACTIVITY

D. COREY MELTON,
TRAINING DIRECTOR SWDS

SATISFACTORY TO: 6/18/15

DES OSF DRW SBW CHK LAN

PH/DM RS / JMS

BRANCH MANAGER

CHIEF ENG/ARCH DWG

FIRE PROTECTION

DEPARTMENT OF THE NAVY

NAVFAC MID-ATLANTIC

NAVFAC FACILITIES ENGINEERING COMMAND

GREAT LAKES NAVAL STATION

GREAT LAKES, ILLINOIS

RENOVATE SWOSU FIREFIGHTING TRAINER (BUILDING 610)

GENERAL NOTES SYMBOLS AND ABBREVIATIONS

SCALE: AS NOTED

EPROJECT NO: 1310337

CONSTR. CENTR. NO: N40085-15-R-8720

NAVFAC DRAWING NO: 12689630

SHEET 68 OF 86

E-001

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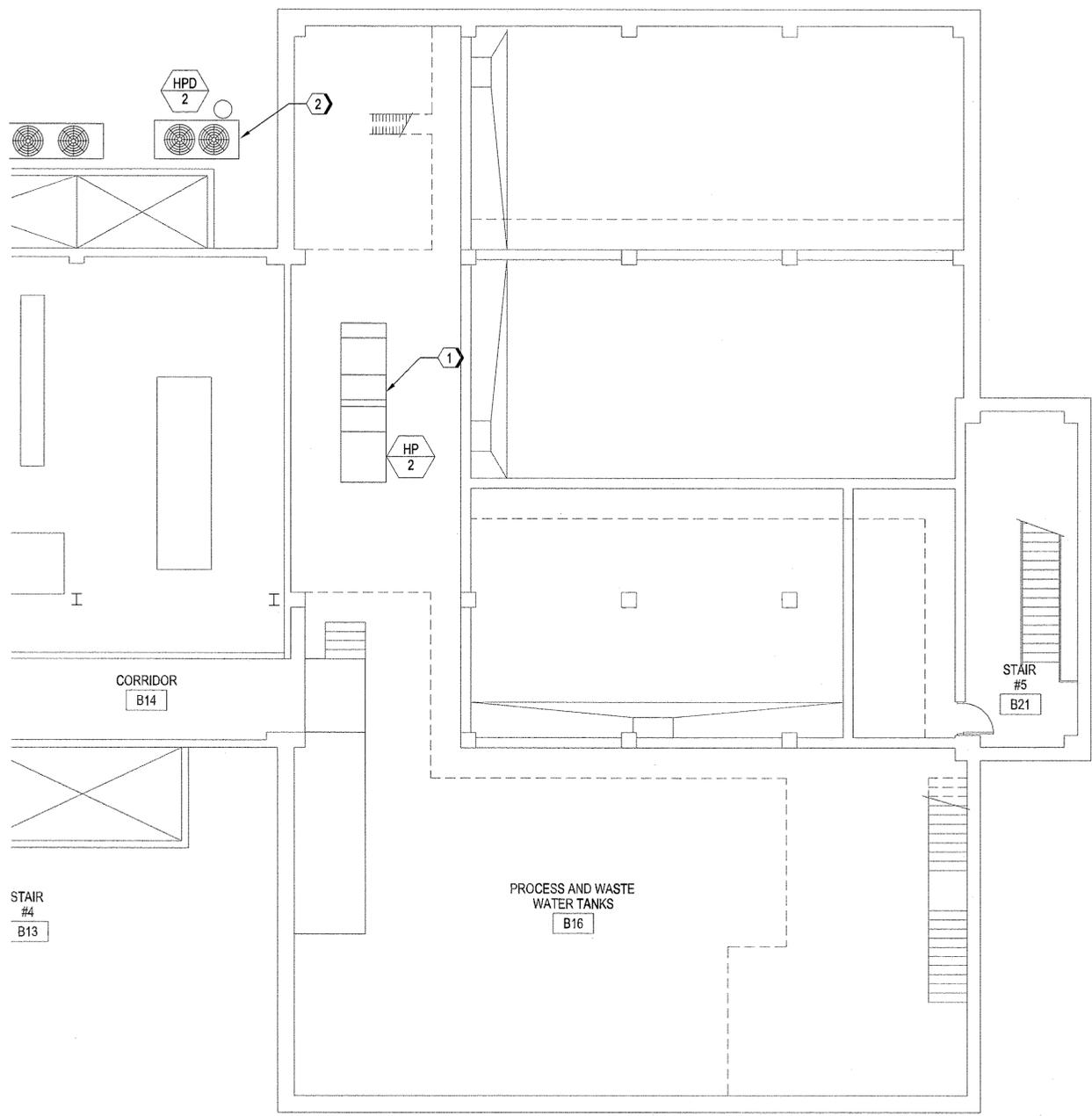
A

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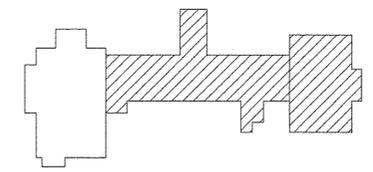


GENERAL ELECTRICAL NOTES

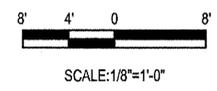
KEYED NOTES

- ① DISCONNECT POWER TO DEMOLISHED UNIT, SAVE CIRCUIT FOR REUSE AND RECONNECT TO NEW REPLACED UNIT. REFER TO MECHANICAL DRAWING FOR MORE INFORMATION. REMOVE EXISTING CIRCUIT BREAKER (100A/3P) FEEDING THIS UNIT IN MOTOR CONTROL CENTER MCCB1 AND REPLACE WITH NEW 80A/3P CIRCUIT BREAKER. NEW CIRCUIT BREAKER TYPE SHALL BE THE SAME AS EXISTING.
- ② DISCONNECT POWER TO DEMOLISHED UNIT, SAVE CIRCUIT FOR REUSE AND RECONNECT TO NEW REPLACED UNIT. REFER TO MECHANICAL DRAWING FOR MORE INFORMATION.

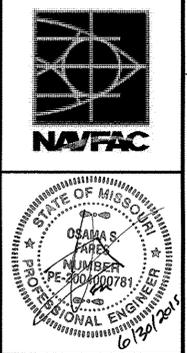
KEY PLAN



A1 PARTIAL BASEMENT FLOOR PLAN
1/8" = 1'-0"



SY#	DESCRIPTION	DATE



JACOBS
501 NORTH BROADWAY ST. LOUIS, MISSOURI 63102
TEL 314-335-4000 FAX 314-335-5012

APPROVED

FOR COMMANDER NAVFAC DWG

ACTIVITY

D. COREY MELTON,
TRAINING DIRECTOR SVOS

SATISFACTORY TO 6/18/15

DES OSF DRW SBW CHK LAN

PM/BM RS / JMS

BRANCH MANAGER

CHIEF ENG/ARCH DWG

FIRE PROTECTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
GREAT LAKES NAVAL STATION
GREAT LAKES, ILLINOIS
RENOVATE SVOSU FIREFIGHTING TRAINER (BUILDING 510)
ELECTRICAL FLOOR NEW WORK PLAN
PARTIAL BASEMENT

SCALE:	AS NOTED
PROJECT NO.:	1310337
CONSTR. CONTR. NO.:	N40085-15-R-8720
NAVFAC DRAWING NO.:	12689631
SHEET	69 OF 86
E-101	

IF SHEET IS LESS THAN 22" X 34"
REDUCED PRINT - USE GRAPHIC SCALES

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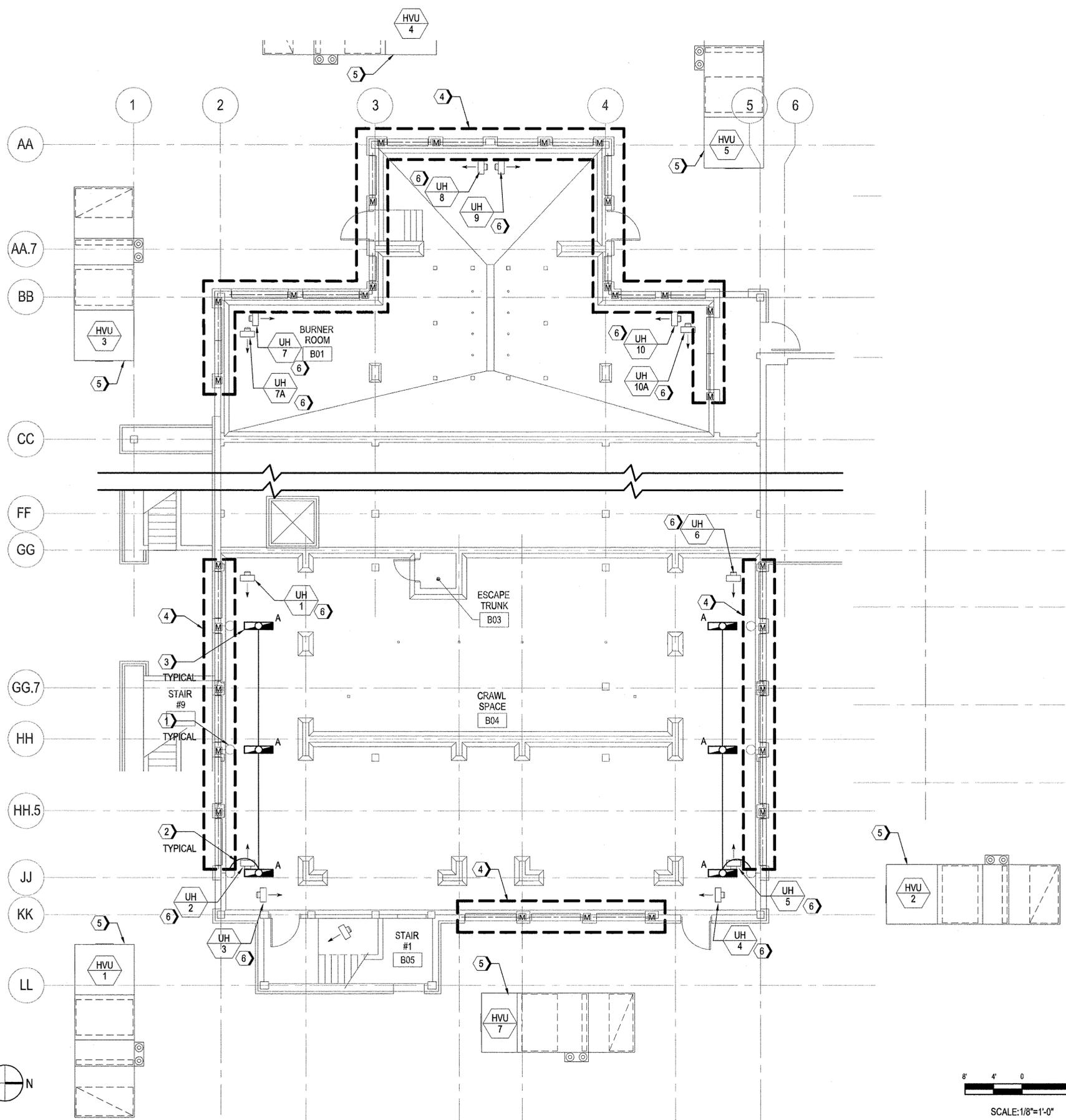
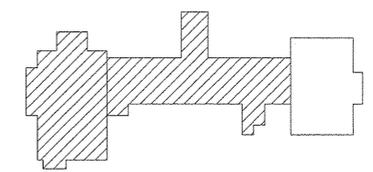
GENERAL ELECTRICAL NOTES

1. PROVIDE UNSWITCHED CIRCUIT TO POWER EMERGENCY LIGHTING BATTERY PACK WITHIN FIXTURE. THE UNSWITCHED CIRCUIT SHALL BE THE SAME CIRCUIT WIRING THAT SUPPLIES THE NORMAL LIGHTING IN THIS AREA AND MUST BE CONNECTED AHEAD OF ANY LOCAL SWITCHES.

KEYED NOTES

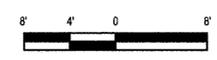
- 1 REMOVE EXISTING WALL MOUNTED EXPLOSION PROOF FIXTURES (3 ON EACH SIDE) AND CAP OFF WIRES IN BOX.
- 2 EXTEND CONDUIT AND WIRES AS NECESSARY TO NEW FIXTURES. CONNECT EXISTING CIRCUIT AND CONTROLS TO NEW FIXTURES.
- 3 NEW FIXTURES SHALL BE SURFACE MOUNTED, COORDINATE EXACT LOCATION OF NEW FIXTURES WITH EXISTING CONDUITS, PIPING, ETC. AND ADJUST LOCATION AS NEEDED.
- 4 DISCONNECT POWER TO DEMOLISHED DAMPERS AND ACTUATORS, SAVE CIRCUIT FOR REUSE AND RECONNECT TO NEW REPLACED UNITS. REFER TO MECHANICAL DRAWING FOR MORE INFORMATION.
- 5 DISCONNECT POWER TO UNIT FOR MOTOR REPLACEMENT, SAVE CIRCUIT FOR REUSE AND RECONNECT TO NEW REPLACED MOTOR. REFER TO MECHANICAL DRAWING FOR MORE INFORMATION.
- 6 DISCONNECT POWER TO DEMOLISHED UNIT HEATER, SAVE CIRCUIT FOR REUSE AND RECONNECT TO NEW REPLACED UNITS. REFER TO MECHANICAL DRAWING FOR MORE INFORMATION.

KEY PLAN



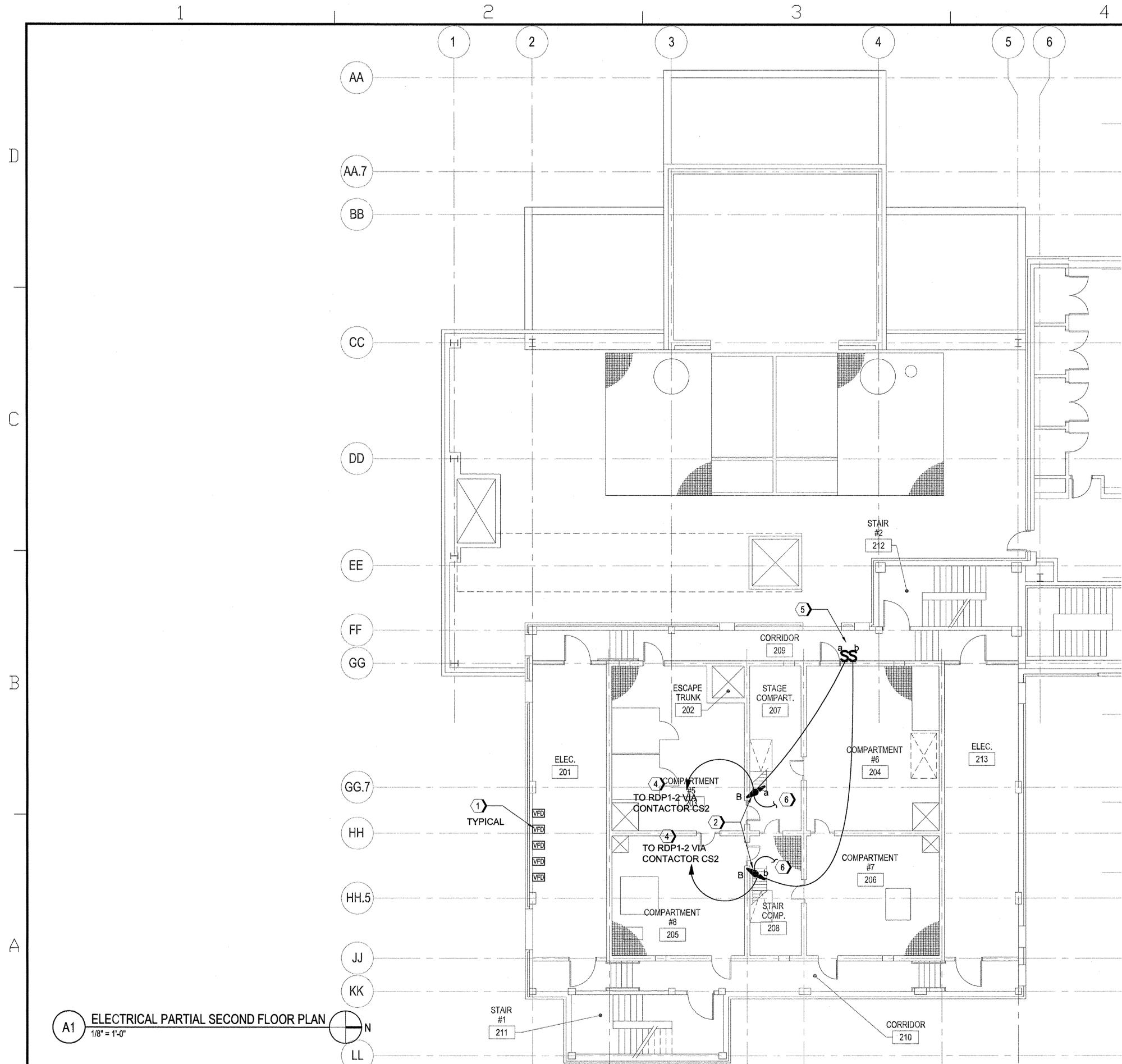
ELECTRICAL PARTIAL FIRST FLOOR CRAWL SPACE PLAN

1/8" = 1'-0"

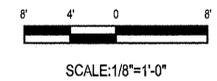


SCALE: 1/8"=1'-0"

DATE	
SYN	DESCRIPTION
JACOBS 501 NORTH BROADWAY ST. LOUIS, MISSOURI 63102 TEL 314-335-4000 FAX 314-335-5012	
APPROVED	
FOR COMMANDER NAVFAC DWG	
ACTIVITY	
BY COREY MELTON, TRAINING DIRECTOR SWDS	
SATISFACTORY TO 6/18/15	
DES OSF DRW SBW CHK LAN	
PM/DM RS / JMS	
BRANCH MANAGER	
CHIEF ENG/ARCH DWG	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY	NAVFAC MID-ATLANTIC
GREAT LAKES NAVAL STATION	GREAT LAKES, ILLINOIS
RENOVATE SWOSU FIREFIGHTING TRAINER (BUILDING 510)	ELECTRICAL
PARTIAL FIRST FLOOR CRAWL SPACE PLAN	
SCALE: AS NOTED	
EPROJECT NO: 1310337	
CONSTR. CONTR. NO: N40085-15-R-8720	
NAVFAC DRAWING NO: 12689632	
SHEET 70 OF 86	
E-102	



A1 ELECTRICAL PARTIAL SECOND FLOOR PLAN
1/8" = 1'-0"



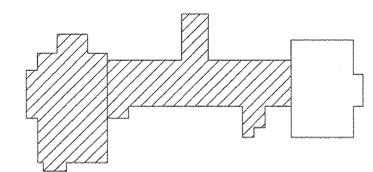
GENERAL ELECTRICAL NOTES

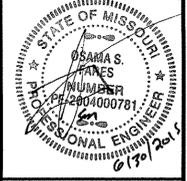
1. EXISTING PANELBOARD RDP1-3 AND CONTACTOR "CS2" ARE LOCATED ON FIRST FLOOR IN ELECTRICAL ROOM 113.
2. CONTACTOR "CS2" SHALL OVERRIDE LIGHT SWITCHES FOR LIGHTS IN STAIRWELLS.
3. ALL NEW LIGHTS IN STAIRWELLS SHALL BE TIED TO EXISTING EMERGENCY STOP CIRCUIT OF THE TRAINER.

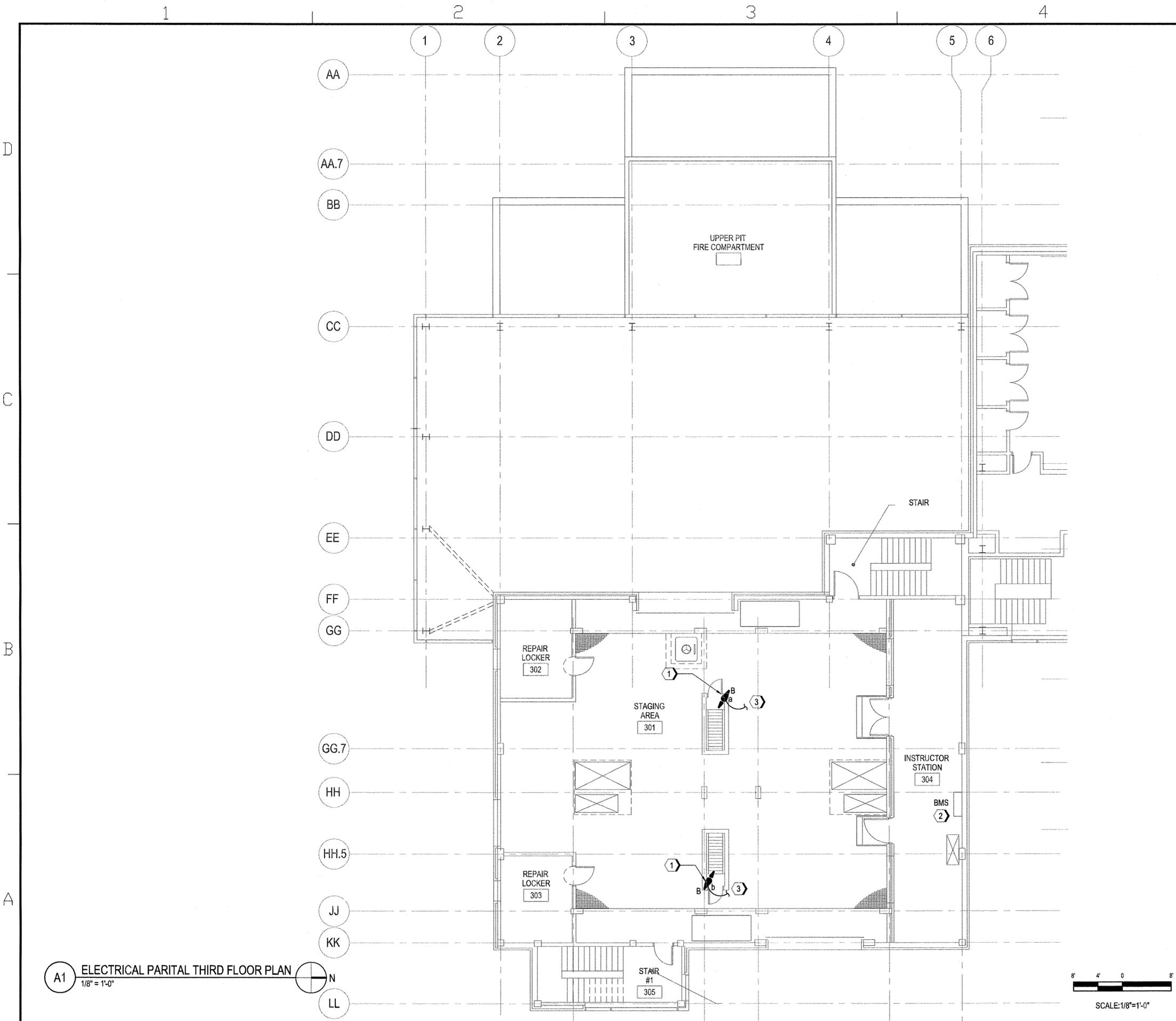
KEYED NOTES

- ① REMOVE EXISTING WALL MOUNTED VFD'S FOR THE FOLLOWING EQUIPMENT: HTEF-1, HTEF-2, HTEF-3, HTEF-4, AND HTEF-8. PROVIDE AND INSTALL NEW VFD'S AT THE SAME LOCATION.
- ② FLOOD LIGHT TO BE MOUNTED 8'-0" ABOVE FINISHED FLOOR. CONNECT FIXTURE TO THE NEAREST EXISTING CIRCUIT AND CONTROL SYSTEM.
- ③ NOT USED.
- ④ ROUTE HOMERUN CIRCUIT TO PANELBOARD RDP1-2 VIA CONTACTOR "CS2" AND VIA LIGHT SWITCH LOCATED ON 2ND FLOOR CORRIDORS. PROVIDE NEW 20A/1P CIRCUIT BREAKER AND INSTALL IN PANELBOARD RDP1-2. NEW CIRCUIT BREAKER TYPE SHALL BE THE SAME AS EXISTING. EACH HOME RUN SHALL BE POWERED FROM DEDICATED CIRCUIT.
- ⑤ TWO MANUAL SWITCHES TO CONTROL LIGHTS AT STAIRWELLS.
- ⑥ UP TO LIGHTS LOCATED AT TOP OF STAIRWELL. REFER TO SHEET E-105 FOR CONTINUATION.

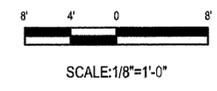
KEY PLAN



	DATE
	DESCRIPTION
	
	
	
501 NORTH BROADWAY ST. LOUIS, MISSOURI 63102 TEL 314-335-4000 FAX 314-335-5012	
APPROVED	
FOR COMMANDER NAVFAC DWG	
ACTIVITY	
B. COREY NELTON, TRAINING DIRECTOR SWOS	
SATISFACTORY TO: 6/18/15	
DES OSF DRW SBW CHK LAN	
PM/DM RS / JMS	
BRANCH MANAGER	
CHIEF ENG/ARCH DWG	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVFAC MID-ATLANTIC	GREAT LAKES, ILLINOIS GREAT LAKES NAVAL STATION RENOVATE SWOSU FIREFIGHTING TRAINER (BUILDING 510) ELECTRICAL PARTIAL SECOND FLOOR PLAN
SCALE: AS NOTED	
PROJECT NO: 1310337	
CONSTR. CONTR. NO. N40085-15-R-8720	
NAVFAC DRAWING NO. 12700892	
SHEET 72 OF 86	
E-104	



A1 ELECTRICAL PARTIAL THIRD FLOOR PLAN
1/8" = 1'-0"



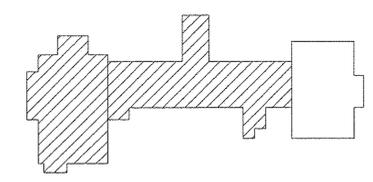
GENERAL ELECTRICAL NOTES

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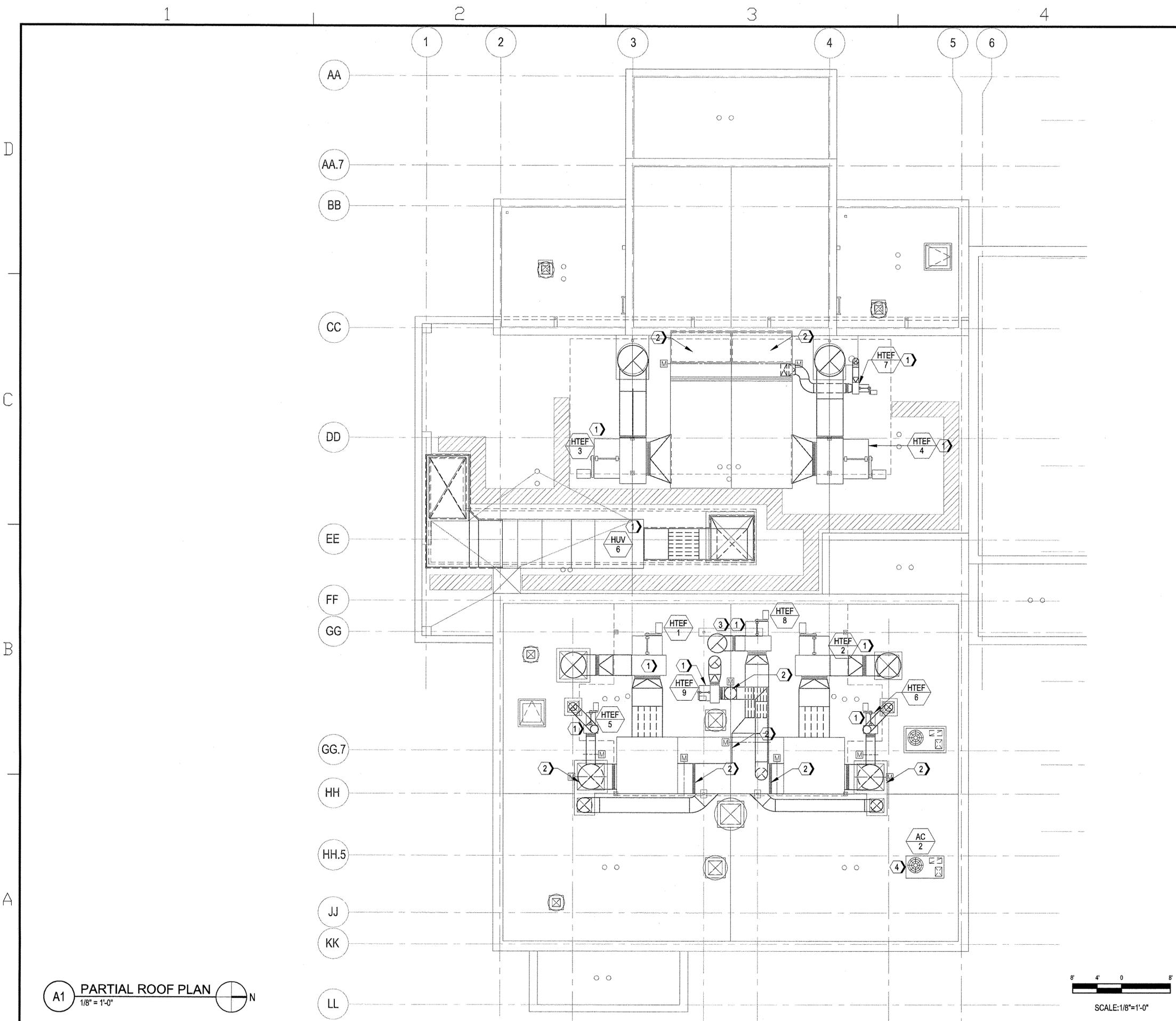
KEYED NOTES

- ① FLOOD LIGHT TO BE MOUNTED ABOVE DOOR.
- ② DISCONNECT POWER TO DEMOLISHED BMS PANEL, SAVE CIRCUIT FOR REUSE AND RECONNECT TO NEW REPLACED PANEL. REFER TO MECHANICAL DRAWING FOR MORE INFORMATION.
- ③ DOWN TO LIGHTS LOCATED AT BOTTOM OF STAIRWELL. REFER TO SHEET E-104 FOR CONTINUATION.

KEY PLAN



DATE	
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JACOBS 501 NORTH BROADWAY ST. LOUIS, MISSOURI 63102 TEL 314-335-4000 FAX 314-335-5012	
APPROVED	
FOR COMMANDER NAVFAC DWG	
ACTIVITY	
D. COREY MELTON, TRAINING DIRECTOR SWCS	
SATISFACTORY TO: 6/18/15	
RES OSF DRW SBW CHK LAN	
PM/BM RS / JMS	
BRANCH MANAGER	
CHIEF ENG/ARCH DWG	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY	NAVFAC MID-ATLANTIC
GREAT LAKES NAVAL STATION	GREAT LAKES, ILLINOIS
RENOVATE SWOSU FIREFIGHTING TRAINER (BUILDING 510)	ELECTRICAL THIRD FLOOR PLAN
SCALE: AS NOTED	
EPROJECT NO: 1310337	
CONSTR. CONTR. NO. N40085-15-R-8720	
NAVFAC DRAWING NO. 12700893	
SHEET 73 OF 86	
E-105	



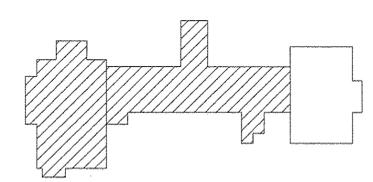
GENERAL ELECTRICAL NOTES

1. REMOVE AND RE-INSTALL EXISTING LIGHTNING PROTECTION SYSTEM COMPONENTS AS REQUIRED TO SUPPORT ROOF REPAIRS WORK ACTIVITIES. REFER TO ARCHITECTURAL ROOF PLAN FOR MORE INFORMATION.

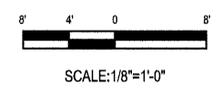
KEYED NOTES

- 1 DISCONNECT POWER TO UNIT FOR MOTOR REPLACEMENT, SAVE CIRCUIT FOR REUSE AND RECONNECT TO NEW REPLACED MOTOR. REFER TO MECHANICAL DRAWING FOR MORE INFORMATION.
- 2 DISCONNECT POWER TO DEMOLISHED ACTUATORS, SAVE CIRCUIT FOR REUSE AND RECONNECT TO ACTUATORS. REFER TO MECHANICAL DRAWING FOR MORE INFORMATION.
- 3 REPLACE EXISTING 60A/3P, NEMA 3R, 600V DISCONNECT SWITCH SERVING HTEF-8 WITH NEW.
- 4 REPLACE PORTION OF CONDUIT SHOWING SIGN OF RUST POWERING AC-2 UNIT WITH NEW.

KEY PLAN



A1 PARTIAL ROOF PLAN
1/8" = 1'-0"



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FOR COMMANDER NAVFAC DWG	
ACTIVITY	
D. COREY MELTON, TRAINING DIRECTOR SWDS	
SATISFACTORY TD 6/18/15	
DES OSF DRW SBW CHK LAN	
PM/DM KS / JMS	
BRANCH MANAGER	
CHIEF ENG/ARCH DWG	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY	NAVFAC MID-ATLANTIC
GREAT LAKES NAVAL STATION	GREAT LAKES, ILLINOIS
RENOVATE SWCSU FIREFIGHTING TRAINER (BUILDING 510)	ELECTRICAL PARTIAL ROOF PLAN
SCALE: AS NOTED	
PROJECT NO: 1310337	
CONSTR. CONTR. NO: N40085-15-R-8720	
NAVFAC DRAWING NO: 12700894	
SHEET 74 OF 86	
E-106	