GENERAL NOTES

1. THE SCOPE OF THIS PROJECT INCLUDES DESIGNING AND PROVIDING A FIRE ALARM/MASS NOTIFICATION SYSTEM AS DESCRIBED HEREIN FOR HANGAR 111 LOCATED AT THE OCEANA NAVAL AIR STATION IN VIRGINIA BEACH, VIRGINIA. THIS INCLUDES THE FOLLOWING:
   - a. REMOVE THE EXISTING MAIN BUILDING FIRE ALARM CONTROL PANEL AND PROVIDE A COMPLETE, SUPERVISED, INTELLIGENT ADDRESSABLE, VOICE EVACUATION FIRE ALARM CONTROL PANEL. RECONNECT THE CONVENTIONAL ZONED CIRCUITS (TOTAL OF FOUR) OUTSIDE OF THE HANGAR BAY ON THE ADDRESSABLE MAIN BUILDING FIRE ALARM/MASS NOTIFICATION CONTROL PANEL.
   - b. REMOVE FIRE ALARM APPLIANCES LOCATED IN THE HANGAR BAY INCLUDING HEAT DETECTORS, MANUAL PULL STATIONS, HORN/STROBE APPLIANCES, AQUEOUS FILM–FORMING FOAM (AFFF) NOTIFICATION APPLIANCES, ABORT STATIONS, AFFF MANUAL RELEASE STATIONS, TEMPERATURE SENSORS, ADDRESSABLE MONITOR MODULES, ASSOCIATED CONDUIT/CIRCUITS AND FIRE ALARM/AFFF SIGNAGE. THE EXISTING 36 INFRARED (IR) FLAME DETECTORS MUST REMAIN.
   - c. REMOVE DUCT SMOKE DETECTION FROM THE SIX AIR HANDLING UNITS LOCATED IN THE MECHANICAL ROOMS, WHICH IS INCLUDED AS A BID OPTION.
   - d. RELOCATE EXISTING RELEASING CONTROL PANEL LOCATED IN FOAM ROOM AND THE EXISTING MONACO PANEL LOCATED IN ELECTRIC ROOM TO THE NEW FIRE ALARM CLOSET LOCATED IN THE FOAM ROOM. PROVIDE BATTERIES FOR BOTH PANELS SIZED PER SPECIFICATIONS.
   - e. PROVIDE AMPLIFIERS SIZED PER SPECIFICATIONS.
   - f. PROVIDE BUILDING FIRE ALARM/MASS NOTIFICATION, NOTIFICATION APPLIANCES, MANUAL PULL STATIONS AND ADDRESSABLE MONITOR MODULES IN THE HANGAR BAY.
   - g. PROVIDE AFFF NOTIFICATION APPLIANCES, AFFF MANUAL RELEASE STATIONS, AFFF ABORT STATIONS AND SIGNAGE ASSOCIATED WITH MANUAL RELEASE STATIONS AND ABORT STATIONS IN THE HANGAR BAY.
   - h. RECONFIGURE AND REALIGN EACH OF THE EXISTING 36 IR DETECTORS (MODEL # X3301 BY DET–TRONICS) IN THE HANGAR BAY. THIS INCLUDES REVIEWING PROGRAM SETTINGS FOR EACH IR DETECTOR HEAD AND DOCUMENTING, VERIFYING AND ADJUSTING THE SETTINGS. DET–TRONICS MUST PERFORM ALL DOCUMENTATION AND ADJUSTMENTS TO PROGRAMMING. SUBMIT RESULTS OF EXISTING SETTING AND NEW SETTINGS IN WRITING. UPON REATTACHMENT OF IR DETECTOR HEAD, REALIGN THE IR DETECTOR TO OBTAIN DETECTION COVERAGE WITHIN THE PROTECTED ZONE. PROTECT ALL AREAS OF ZONE BY A MINIMUM OF THREE IR DETECTORS. SUBMIT IN WRITING BY DET–TRONICS THAT AREA OF COVERAGE MEETS REQUIREMENTS. IN ADDITION, PROVIDE A COLLAR AND/OR SITE LIMITER ON THOSE IR DETECTORS AS INDICATED ON THE DRAWINGS.
   - i. PROVIDE DUCT SMOKE DETECTORS AND ASSOCIATED ADDRESSABLE RELAY MODULES FOR AIR HANDLING UNITS AND LOW LEAKAGE DAMPERS, WHICH IS INCLUDED AS A BID OPTION.
   - j. PROVIDE EMERGENCY HVAC SHUTDOWN BUTTON IN OFFICE AREAS AS INDICATED ON THE FLOOR PLANS, WHICH IS INCLUDED AS A BID OPTION.

   THE SYSTEM MUST INCLUDE ALL WIRING, RACEWAYS, PULL BOXES, TERMINAL CABINETS, OUTLET AND MOUNTING BOXES, CONTROL EQUIPMENT, ALARM, AND SUPERVISORY SIGNAL INITIATING DEVICES, ALARM NOTIFICATION APPLIANCES, NOTIFICATION APPLIANCE BOOSTER PANELS, AMPLIFIERS, INTERFACE EQUIPMENT, AND OTHER ACCESSORIES AND MISCELLANEOUS ITEMS INCLUDING SOFTWARE, SYSTEM PROGRAMMING, TESTING AND CONSTRUCTION PERMITS REQUIRED FOR A COMPLETE OPERATING SYSTEM EVEN THOUGH EACH ITEM IS NOT SPECIFICALLY MENTIONED OR DESCRIBED. PROVIDE SYSTEM COMPLETE AND READY FOR OPERATION. EXCEPT WHERE OTHERWISE NOTED ON THE CONTRACT DOCUMENTS THE SYSTEM MUST COMPLY WITH THE LATEST EDITIONS OF UFC 3–600–01, UFC 3–600–10N, UFC 4–010–01, UFC 4–211–01N & UFC 4–021–01, NFPA STANDARDS 70 (2014), 72 (2013) AND 409 (2016). IN ADDITION, PROVIDE THE EQUIPMENT FROM A SINGLE MANUFACTURER AND LISTED FOR THE INTENDED PURPOSE BY A NATIONAL RECOGNIZED TESTING LABORATORY.

2. TO THE MAXIMUM EXTENT POSSIBLE PROVIDE ALL WIRING FROM APPLIANCE TERMINAL TO APPLIANCE TERMINAL. PROVIDE CONDUCTORS THAT ARE TERMINATED, SPLICED, OR OTHERWISE INTERRUPTED IN ANY ENCLOSURE, CABINET, MOUNTING, OR JUNCTION BOX CONNECTED TO SCREW–TYPE TERMINAL BLOCKS. WIRE NUTS AND SIMILAR DEVICES ARE PROHIBITED.

3. PROVIDE ALL FIRE ALARM CIRCUITS SUPERVISED AS FOLLOWS IN ACCORDANCE WITH NFPA 72:
   - INITIATING DEVICE CIRCUITS (IDC) – CLASS B
   - NOTIFICATION APPLIANCE CIRCUITS (NAC) – CLASS B, SYNCHRONIZED
   - SIGNALING LINE CIRCUITS (SLC) – CLASS B, STYLE 4

4. PROVIDE MANUAL PULL STATIONS, AFFF RELEASING STATIONS AND AFFF ABORT STATIONS 44 INCHES ABOVE FINISHED FLOOR. PROVIDE MANUAL PULL STATIONS WITHIN 5 FEET OF THE ENTRANCE TO EACH EXIT.

5. PROVIDE SMOKE DETECTORS A MINIMUM OF 3 FEET FROM AIR DIFFUSERS.

6. PROVIDE DUCT SMOKE DETECTORS PER NFPA 90A. PROVIDE DUCT DETECTOR AT SUPPLY SIDE OF AIR HANDLING UNITS. PROVIDE REMOTE TEST STATION FOR EACH DUCT SMOKE DETECTOR.

7. PROVIDE EACH ADDRESSABLE MODULE WITHIN HANGAR BAY IN MINIMUM NEMA 4 ENCLOSURE WITH CLEAR FRONT.

8. PROVIDE VISUAL WARNING STROBE/AUDIBLE NOTIFICATION APPLIANCES TO ACHIEVE MAXIMUM AUDIBILITY AND VISIBILITY IN ACCORDANCE WITH NFPA 72 GUIDELINES AND REQUIREMENTS OF UFC 04–021–01. PROVIDE CARE IN LOCATING VISUAL WARNING STROBE APPLIANCES TO ENSURE VISIBILITY AND AVOID OBSTRUCTIONS. PROVIDE GENERAL EVACUATION FOR THE BUILDING AND AS SUCH PROVIDE THE BUILDING AS A SINGLE FIRE ALARM NOTIFICATION ZONE.

9. WITH THE EXCEPTION OF BEACON NOTIFICATION POWER CIRCUITS, PROVIDE ALL OTHER STROBE NOTIFICATION APPLIANCE CIRCUIT POWER REQUIREMENTS AND CONDUCTOR SIZES AS TO NOT TO EXCEED A 15% (3.6v) VOLTAGE DROP. EACH VISUAL NOTIFICATION APPLIANCE CIRCUIT MUST NOT EXCEED 75% OF ITS RATED OUTPUT WHICH ASSUMES THE MAXIMUM AVAILABLE LOAD IS DISTRIBUTED EQUALLY OVER 4 CIRCUITS. 70.7 VRMS AUDIO VOICE NAC CIRCUITS AND CONDUCTOR SIZES PROVIDED MUST NOT ALLOW MORE THAN 0.5 dB (12.5%) LOSS.

10. MAINTAIN A MINIMUM OF 18 VDC AT THE IR DETECTORS. CALCULATIONS MUST ASSUME 100% HEATER POWER WITH IR DETECTORS IN AN ALARM STATE.

11. UNLESS NOTED OTHERWISE PROVIDE SPEAKER APPLIANCES AT 2 WATT TAP. IN ADDITION, INDIVIDUAL SPEAKER AMPLIFIER/CIRCUIT MUST NOT BE LOADED MORE THAN 70% OF RATED AMPLIFIER POWER OUTPUT.

12. LABEL ALL ADDRESSABLE INPUT/OUTPUT FIRE ALARM COVER PLATES AND APPLIANCES (INCLUDING SPEAKERS, STROBES, SMOKE DETECTORS, MANUAL PULL STATIONS AND ADDRESSABLE MODULES) WITH THEIR ADDRESS UTILIZING A LABELING MACHINE. HAND WRITTEN LABELS MUST NOT BE USED. ADDRESS MUST INCLUDE NAC OR SLC NUMBER FOLLOWED BY APPLIANCE NUMBER. EACH SLC FIELD APPLIANCE ADDRESS MUST MATCH THE FIRE ALARM DISPLAY ADDRESS.

13. UNLESS NOTED OTHERWISE THE PROJECT ELECTRICAL CONDUIT STANDARD IS ELECTRICAL METALLIC TUBING (EMT) AND PROVIDE THROUGHOUT THE PROJECT. REFERENCE TO CONDUIT IS EQUIVALENT TO STATING EMT. PROVIDE ALL WIRING IN CONDUIT. FLEXIBLE METAL CONDUIT IS LIMITED TO 6 FEET AND SECURED PER THE NATIONAL ELECTRIC CODE.

14. IN THE HANGAR BAYS, PROVIDE CONNECTIONS TO ALL FIRE ALARM APPLIANCES FROM CONDUIT ENTERING FROM THE BOTTOM OF THE APPLIANCE. CONDUIT MUST NOT ENTER FROM THE TOP OF THE APPLIANCE.

15. PROVIDE CONDUIT AS UNOBTRUSIVELY AS POSSIBLE, AS CLOSE AS POSSIBLE TO FLOOR/ CEILING SLAB AND PARALLEL AND AT RIGHT ANGLES TO STRUCTURAL STEEL OR CONCRETE ELEMENTS. THESE DRAWINGS ARE DIAGRAMMATIC TO SHOW DESIGN INTENT ONLY.

16. PROVIDE ELECTRICAL BOXES AS FOLLOWS: UNLESS NOTED OTHERWISE PROVIDE CAST METAL BELL TYPE BOXES WITH THREADED HUBS ON EXPOSED WORK, EXCEPT WHERE FACTORY BOXES ARE PROVIDED. CONCEALED BOXES MAY BE STAMPED STEEL BOXES. PROVIDE TERMINAL CABINETS OF SOLID WALL CONSTRUCTION WITH NO FACTORY CONDUIT KNOCK OUTS.

17. PAINT ALL FIRE ALARM JUNCTION BOXES AND COVERS RED IN UNFINISHED AREAS (FOAM ROOM, MECHANICAL ROOM, HANGAR BAY AREA). IN FINISHED AREAS, PROVIDE CONDUIT AND JUNCTION BOXES PAINTED TO MATCH ROOM FINISH, THE INSIDE COVER OF THE JUNCTION BOX IDENTIFIED AS "FIRE ALARM" AND THE CONDUIT PAINTED WITH RED BANDS 2 INCH WIDE AT 10 FOOT CENTERS AND AT EACH SIDE OF A FLOOR, WALL OR CEILING PENETRATION.

18. CORE DRILL PENETRATIONS IN MASONRY WALLS AND FLOOR/CEILING SLABS WITH MASONRY TYPE CORE BIT.

19. AFTER CONDUIT INSTALLATION, PROVIDE NEW PENETRATIONS IN FIRE RESISTIVE WALLS AND FLOOR/CEILING AND ROOF SLABS PROPERLY CLEANED AND PROTECTED WITH A COMPLETE, TESTED THROUGH–PENETRATION ASSEMBLY SYSTEM OF EQUAL OR GREATER FIRE RESISTANCE TO THE ASSEMBLY BEING PENETRATED. PROVIDE EACH SYSTEM LABELED TO IDENTIFY FIRESTOP UL SYSTEM NUMBER, FIRESTOP RATING, DATE OF INSTALLATION AND CONTRACTOR'S NAME. RESTORE ALL PENETRATIONS THROUGH SLAB OR CUTTING OF FIRE RATED ASSEMBLIES TO THEIR ORIGINAL FIRE RATING.

20. BOTH EXPOSED AND CONCEALED CONDUIT INCLUDING RISERS UP TO 2 INCHES IN DIAMETER MUST UTILIZE COMPRESSION TYPE STEEL FITTINGS AND CONNECTORS. UNLESS NOTED OTHERWISE PROVIDE ALL CONDUIT 3/4 INCH MINIMUM TRADE SIZE. PROVIDE VERTICAL RISERS ONE INCH DIAMETER MINIMUM. PROVIDE PLENUM RATED WIRING CONDUCTORS (TYPE FPLP) WHEN FLEX CONDUIT IS UTILIZED. PROVIDE SOLID COPPER WIRING CONDUCTORS INSTALLED IN CONDUIT FOR THE FOLLOWING CIRCUITS (AT MINIMUM):
    - INITIATION – 14/2 AWG
    - SIGNALING LINE CIRCUIT – 16/2 AWG TWISTED SHIELDED PAIR
    - VISUAL NOTIFICATION APPLIANCES – 12/2 AWG, MINIMUM
    - AUDIO NOTIFICATION APPLIANCES – 16/2 AWG TWISTED SHIELDED PAIR, MINIMUM
    - IR DETECTOR POWER – 14/2 AWG TWISTED SHIELDED PAIR
    - 120 VAC – PRIMARY POWER – NO. 12 AWG, THHN/THWN 600VAC INSULATED

    PROVIDE ALL WIRING UL LISTED FOR ITS INTENDED USE.

21. SECURE ALL NECESSARY CONSTRUCTION PERMITS, INSPECTIONS AND FINAL SYSTEM ACCEPTANCE.

22. CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLIMENTARY AND USED IN CONJUNCTION TO OBTAIN COMPLETE CONSTRUCTION INFORMATION. CONTRACTOR MUST COORDINATE ALL DRAWINGS AND SPECIFICATIONS PRIOR TO COMMENCING WORK. PROMPTLY BRING UP QUESTIONS REGARDING DESIGN INTENT OR SYSTEM OPERATION TO THE CONTRACTING OFFICER.

23. VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE CONCERNING THE WORK BEFORE PROCEEDING WITH EITHER FABRICATION OR INSTALLATION OF WORK. LOCATION OF EQUIPMENT IS APPROXIMATE. VERIFY THE LOCATION OF ALL SYSTEM COMPONENTS. REPORT ANY DISCREPANCIES WITH THESE DRAWINGS TO THE CONTRACTING OFFICER IMMEDIATELY.

24. AVOID ALL CONFLICTS WITH LIGHT FIXTURES, HVAC DIFFUSERS, GRILLS, DUCTS, CONDUIT AND OTHER PIPING OR OTHER OBSTRUCTIONS ENCOUNTERED. COORDINATE ALL WORK WITH FIELD CONDITIONS. PROMPTLY NOTIFY CONTRACTING OFFICER PRIOR TO INITIATING WORK IF ANY MOUNTING LOCATIONS ARE OBSTRUCTED AND/OR IF ANY MOUNTING CONFLICTS OR PROBLEMS ARE DISCOVERED.

25. DO NOT CUT, DRILL OR BURN ANY STRUCTURAL MEMBERS UNLESS PREVIOUSLY APPROVED BY THE CONTRACTING OFFICER. DO NOT CUT OR PATCH STRUCTURAL WORK IN A MANNER THAT WOULD RESULT IN A REDUCTION OF LOAD–CARRYING OR LOAD–DEFLECTION RATIO.

26. COORDINATE ALL WORK WITH THE CONTRACTING OFFICER, INCLUDING ACCESS TO THE BUILDING. SCHEDULE WORK TO MINIMIZE DISRUPTION TO OCCUPANTS OF THE BUILDING. BEFORE THE EXISTING FIRE ALARM SYSTEM IS SHUTDOWN, THE CONTRACTOR MUST NOTIFY THE CONTRACTING OFFICER 14 DAYS IN ADVANCE.

27. MAINTAIN CLEAR EGRESS PATHS IN BUILDING DURING CONSTRUCTION IF AREA IS TO REMAIN OCCUPIED. ROPE OFF OCCUPIED WORK AREAS. CONSTRUCTION WORK WHICH BLOCKS OR OTHERWISE IMPEDES AN EGRESS PATH MUST ONLY BE PERFORMED DURING HOURS WHEN THE BUILDING IS UNOCCUPIED.

28. PREPARE A DETAILED WRITTEN PHASING PLAN AND SUBMIT FOR APPROVAL TO THE CONTRACTING OFFICER. WORK MUST NOT START UNTIL THIS PLAN IS APPROVED. REPORT CHANGES TO THE CONTRACTING OFFICER ON A WEEKLY BASIS.

29. "PROVIDE" MEANS CONTRACTOR MUST FURNISH NEW AND INSTALL COMPLETE AND READY FOR INTENDED USE.

30. "REMOVE" MEANS CONTRACTOR MUST DISCONNECT, REMOVE FROM SITE (ONLY IF APPROVED BY CONTRACTING OFFICER) AND LEGALLY DISPOSE.

ABBREVIATION

ABBREVIATION	DESCRIPTION
AHU	AIR HANDLER UNIT
AFF	ABOVE FINISHED FLOOR
AFFF	AQUEOUS FILM–FORMING FOAM
AMP	AMPERE
AWG	AMERICAN WIRE GAUGE
BM	BEAM
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
DN	DOWN
(E)	EXISTING
EMT	ELECTRICAL METALLIC TUBING
EOL	END OF LINE SUPERVISION DEVICE
EQUIP	EQUIPMENT
FACP	FIRE ALARM CONTROL PANEL
FL	FLOOR
FRCP	FOAM RELEASING CONTROL PANEL
FT	FEET
GYP	GYPSUM BOARD
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
IDC	INITIATING DEVICE CIRCUIT
IN	INCH
IR	INFRARED
MECH	MECHANICAL
NAC	NOTIFICATION APPLIANCE CIRCUIT
NAP	NOTIFICATION APPLIANCE PANEL
NEC	NATIONAL ELECTRICAL CODE – NFPA 70
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NTS	NOT TO SCALE
RM	ROOM
SLC	SIGNALING LINE CIRCUIT
STR	STAIR
TC	TERMINAL CABINET
TYP	TYPICAL
UFC	UNIFIED FACILITIES CRITERIA
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
VAC	VOLTS ALTERNATING CURRENT
VDC	VOLTS DIRECT CURRENT
W	WATT
WP	WEATHERPROOF
ZN	ZONE

SYMBOL LIST

SYMBOLS	DESCRIPTION
	EXISTING TO REMAIN – LINE TYPE
	EXIST TO BE RELOCATED – LINE TYPE
	EXISTING TO BE REMOVED – LINE TYPE
	NEW WORK – LINE TYPE
	FIRE ALARM ZONE BOUNDARY – LINE TYPE
	MATCHLINE
	EXIT SIGN
	EMERGENCY FLOOR LIGHTING
	FIRE ALARM BELL (ELECTRIC)
	TWO AFFF SYSTEM INFRARED FLAME DETECTORS LOCATED IN SAME LOCATION
	AFFF SYSTEM INFRARED FLAME DETECTOR
CND	AFFF SYSTEM STROBE APPLIANCE CND – CANDELA RATING
ZN# MNT	AFFF SYSTEM BEACON APPLIANCE MNT – MOUNTING LOCATION, ZN# – ZONE LOCATION
T	TEMPERATURE SENSING APPLIANCE
A	AFFF SYSTEM ABORT SWITCH (WITHIN NEMA 4 ENCLOSURE)
M	AFFF SYSTEM MANUAL RELEASE STATION (MINIMUM NEMA 4)
AI D	DUAL ADDRESSABLE MONITOR MODULE
AR	ADDRESSABLE RELAY MODULE
FS	AFFF SYSTEM SIGNAGE
NM	NOTIFICATION APPLIANCE CONTROL MODULE
MNT TYPE	FIRE ALARM SMOKE DETECTOR APPLIANCE MNT – MOUNTING LOCATION, TYPE – APPLIANCE TYPE
MNT TYPE	FIRE ALARM HEAT DETECTOR APPLIANCE MNT – MOUNTING LOCATION, TYPE – APPLIANCE TYPE

SYMBOLS	DESCRIPTION
	FIRE ALARM DUCT SMOKE DETECTOR
H MNT	FIRE ALARM HORN NOTIFICATION APPLIANCE, MNT – MOUNTING LOCATION
CND MNT	FIRE ALARM HORN/STROBE NOTIFICATION APPLIANCE, MNT – MOUNTING LOCATION, CND – CANDELA RATING
MNT	FIRE ALARM SPEAKER NOTIFICATION APPLIANCE, MNT – MOUNTING LOCATION
CND MNT	FIRE ALARM SPEAKER/STROBE NOTIFICATION APPLIANCE, MNT – MOUNTING LOCATION, CND – CANDELA RATING
RTS	FIRE ALARM REMOTE TEST STATION
F	FIRE ALARM MANUAL PULL STATION (MINIMUM NEMA 4)
	EMERGENCY HVAC POWER OFF PUSH BUTTON
	120 VAC, 20 AMP FIRE ALARM POWER SUPPLY
TS	VALVE SUPERVISORY SWITCH, CONNECTION ONLY
WF	WATER FLOW SWITCH, CONNECTION ONLY
PS	PRESSURE SWITCH, CONNECTION ONLY
AP	HIGH/LOW AIR PRESSURE SWITCH, CONNECTION ONLY
AI	ADDRESSABLE MONITOR MODULE
WS	WATER SENSOR
T	TEMPERATURE SENSOR
R	RELEASING MODULE
ZM	ADDRESSABLE ZONE MODULE
FMCP	FIRE ALARM/MASS NOTIFICATION CONTROL PANEL
RCP	FIRE RELEASE CONTROL PANEL
FACP	FIRE ALARM CONTROL PANEL

SYMBOLS	DESCRIPTION
NAP	NOTIFICATION APPLIANCE BOOSTER PANEL
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
PS	POWER SUPPLY PANEL
FATC	FIRE ALARM TERMINAL CABINET
BATT	BATTERY BOX
MONACO	MONACO REPORTING PANEL
WAVES	WAVES BASEWIDE NOTIFICATION SYSTEM CONNECTION
AMP	AMPLIFIER
UPS	UNINTERRUPTIBLE POWER SUPPLY
FAMC	FIRE ALARM MODULE CABINET
FATC	FIRE ALARM TERMINAL CABINET
	CEILING MOUNT LIGHT FIXTURE
	CEILING MOUNT FAN
	RADIANT HEATING
#	KEYNOTE INDICATOR
E–ZONE #	EXISTING FIRE ALARM ZONE INDICATOR
ZONE #	FIRE ALARM ZONE INDICATOR
	DETAIL BUBBLE INDICATOR: DETAIL IDENTIFICATION NUMBER / SHEET DETAIL IS SHOWN ON
	ELEVATION BUBBLE INDICATOR: ELEVATION IDENTIFICATION NUMBER / SHEET ELEVATION IS SHOWN ON
	SECTION BUBBLE INDICATOR: SECTION IDENTIFICATION NUMBER / SHEET SECTION IS SHOWN ON

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

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FOR COMMANDER NAVFAC
ACTIVITY
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DES MCP | DRW LDB | CHK MJB
PM/DM KPL/IAS
BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
HAMPTON ROADS IPT NAS OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

REFERENCE SHEET - FIRE ALARM

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716308
SHEET 86 OF 170

FA001

DRAWFORM REVISION: 10 MAY 2014

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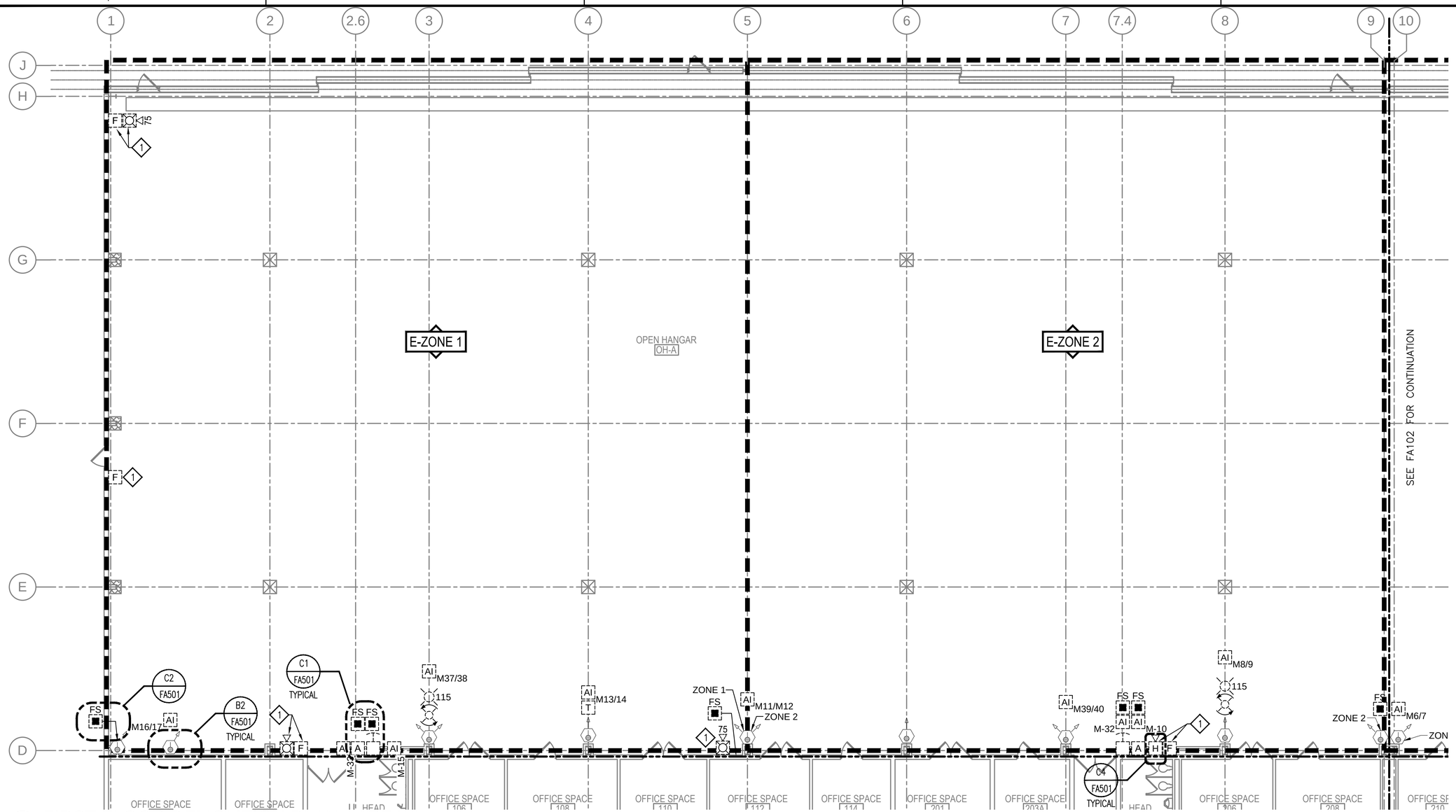

A1 FIRST FLOOR DEMOLITION PLAN - AREA A

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

SHEET NOTES

1. REMOVE FIRE ALARM APPLIANCES LOCATED IN THE HANGAR BAY UNLESS NOTED OTHERWISE. THIS INCLUDES HEAT DETECTORS, MANUAL PULL STATIONS, HORN/STROBE APPLIANCES, AQUEOUS FILM-FORMING FOAM (AFFF) NOTIFICATION APPLIANCES, ABORT STATIONS, AFFF MANUAL RELEASE STATIONS, TEMPERATURE SENSORS, ADDRESSABLE MONITOR MODULES, ASSOCIATED CONDUIT/CIRCUITS AND FIRE ALARM/AFFF SIGNAGE. EXISTING 36 INFRARED FLAME DETECTORS AND ASSOCIATED 3-5 FEET OF FLEXIBLE CONDUIT ON EACH IR DETECTOR MUST REMAIN.

KEY NOTES

1. REMOVE FIRE ALARM APPLIANCE RECESSED IN WALL AND FINISH WALL SURFACE TO MATCH SURROUNDING CONDITIONS. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

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A/E INFO

APPROVED 5/2/16
FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO

DES	MCP	DRW	LDB	CHK	MJB

PM/DM KPL/IAS
BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
HAMPTON ROADS DIT NAS OCEANA - VIRGINIA BEACH, VIRGINIA

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

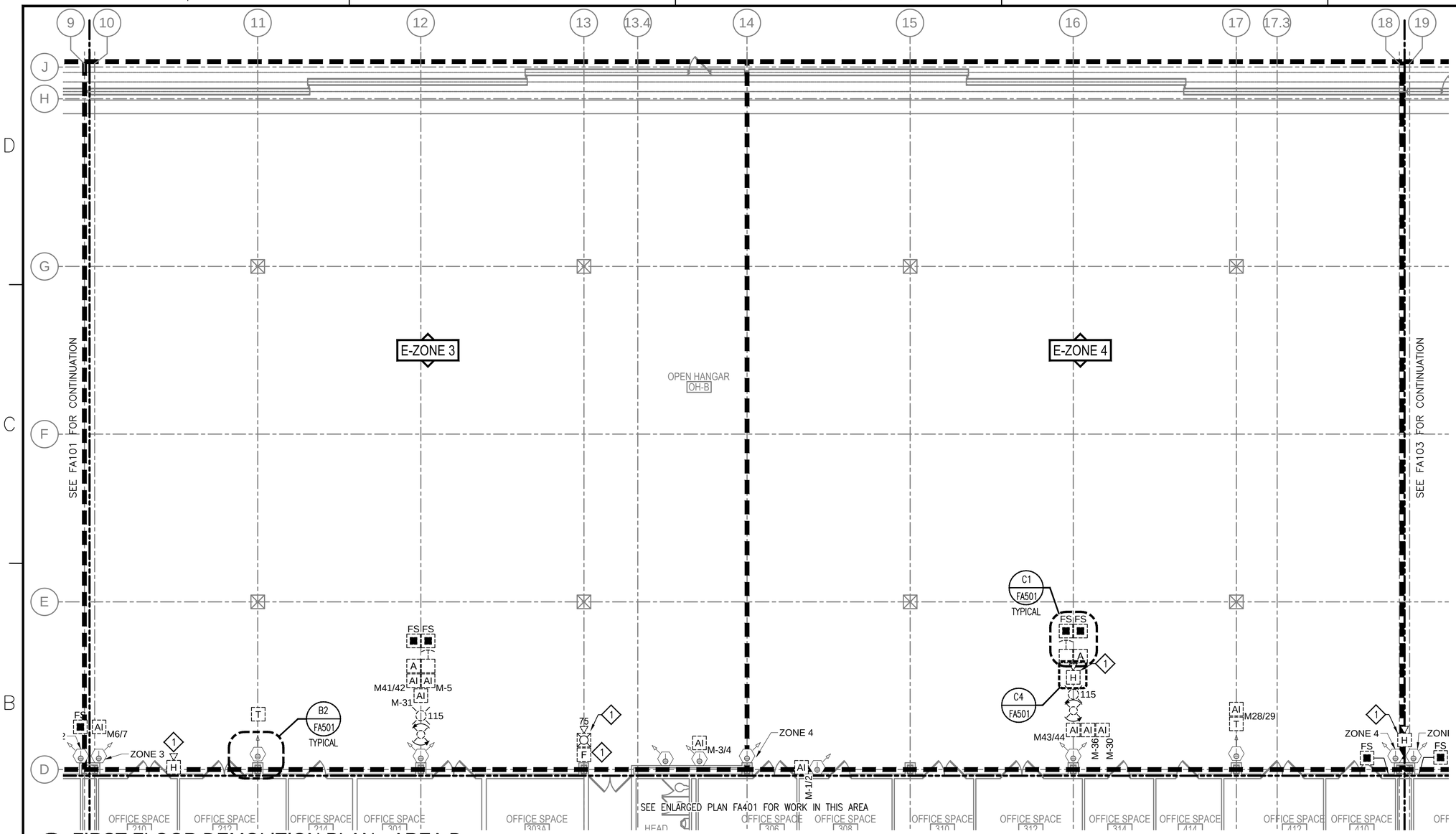
1st FLOOR DEMOLITION PLAN - FIRE ALARM - AREA A

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716309
SHEET 87 OF 170

FA101

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA101.dwg LAYOUT NAME: Area A PLOTTED: Friday, April 22, 2016 - 11:31am USER: acjones



A1 FIRST FLOOR DEMOLITION PLAN - AREA B

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

PROJECT NORTH

SHEET NOTES

1. REMOVE FIRE ALARM APPLIANCES LOCATED IN THE HANGAR BAY UNLESS NOTED OTHERWISE. THIS INCLUDES HEAT DETECTORS, MANUAL PULL STATIONS, HORN/STROBE APPLIANCES, AQUEOUS FILM-FORMING FOAM (AFFF) NOTIFICATION APPLIANCES, ABORT STATIONS, AFFF MANUAL RELEASE STATIONS, TEMPERATURE SENSORS, ADDRESSABLE MONITOR MODULES, ASSOCIATED CONDUIT/CIRCUITS AND FIRE ALARM/AFFF SIGNAGE. EXISTING 36 INFRARED FLAME DETECTORS AND ASSOCIATED 3-5 FEET OF FLEXIBLE CONDUIT ON EACH IR DETECTOR MUST REMAIN.

KEY NOTES

1. REMOVE FIRE ALARM APPLIANCE RECESSED IN WALL AND FINISH WALL SURFACE TO MATCH SURROUNDING CONDITIONS. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

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BRANCH MANAGER DPS

CHIEF ENG/ARCH Mark J. Airaghi, PE

FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
HAMPTON ROADS IPT NAS OCEANA - VIRGINIA BEACH, VIRGINIA

NAVAL AIR STATION OCEANA VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

1st FLOOR DEMOLITION PLAN - FIRE ALARM - AREA B

SCALE: AS SHOWN

EPROJECT NO.: 1372146

CONSTR. CONTR. NO.

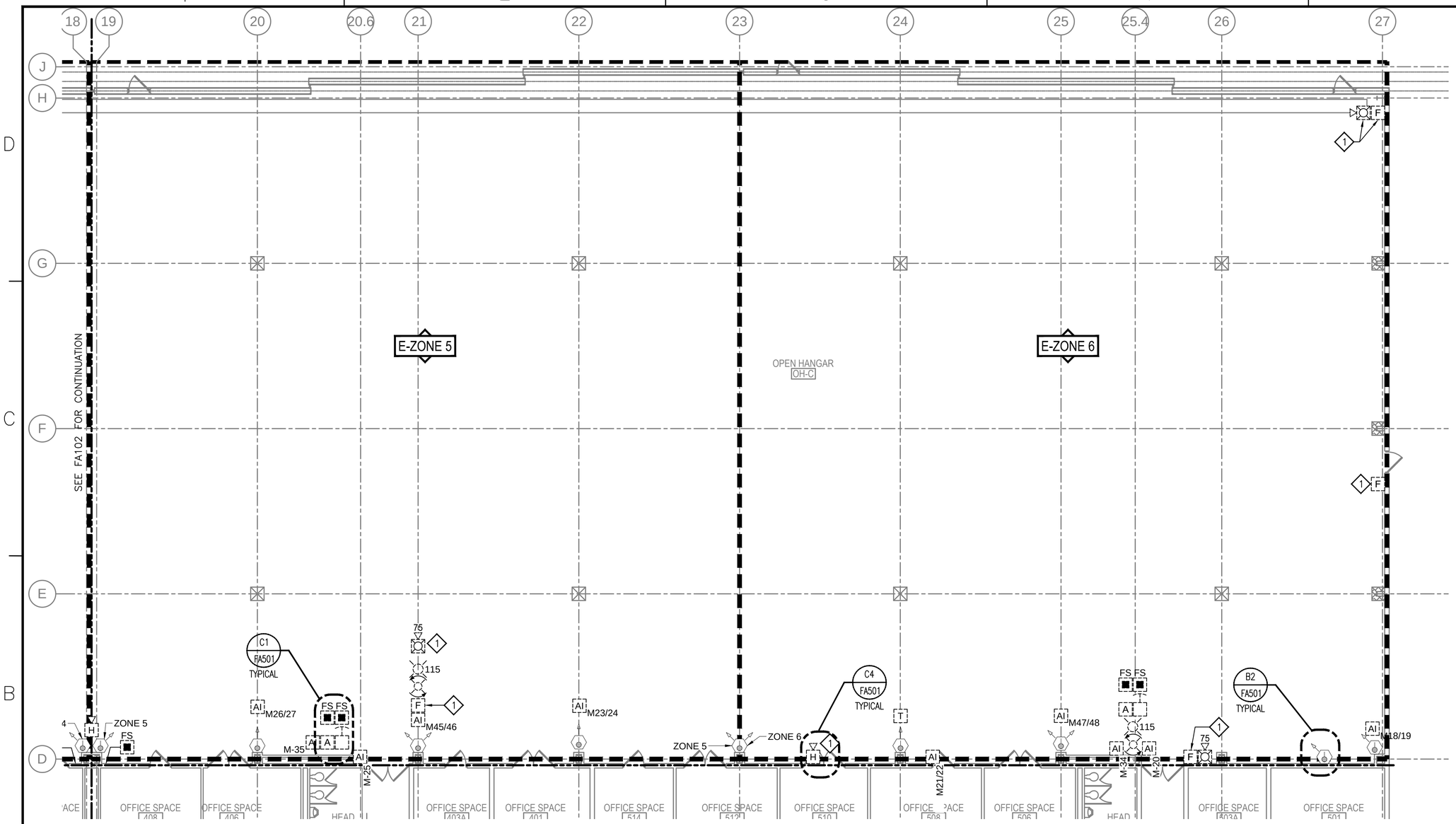
NAVFAC DRAWING NO. 12716310

SHEET 88 OF 170

FA102

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA102.dwg LAYOUT NAME: Area B PLOTTED: Friday, April 22, 2016 - 11:32am USER: acjones



A1 FIRST FLOOR DEMOLITION PLAN - AREA C

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

PROJECT NORTH

SHEET NOTES

1. REMOVE FIRE ALARM APPLIANCES LOCATED IN THE HANGAR BAY UNLESS NOTED OTHERWISE. THIS INCLUDES HEAT DETECTORS, MANUAL PULL STATIONS, HORN/STROBE APPLIANCES, AQUEOUS FILM-FORMING FOAM (AFFF) NOTIFICATION APPLIANCES, ABORT STATIONS, AFFF MANUAL RELEASE STATIONS, TEMPERATURE SENSORS, ADDRESSABLE MONITOR MODULES, ASSOCIATED CONDUIT/CIRCUITS AND FIRE ALARM/AFFF SIGNAGE. EXISTING 36 INFRARED FLAME DETECTORS AND ASSOCIATED 3-5 FEET OF FLEXIBLE CONDUIT ON EACH IR DETECTOR MUST REMAIN.

KEY NOTES

1. REMOVE FIRE ALARM APPLIANCE RECESSED IN WALL AND FINISH WALL SURFACE TO MATCH SURROUNDING CONDITIONS. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

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A/E INFO

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ACTIVITY

SATISFACTORY TO

DES	MCP	DRW	LDB	CHK	MJB

PM/DM KPL/IAS
BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
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HAMPTON ROADS IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

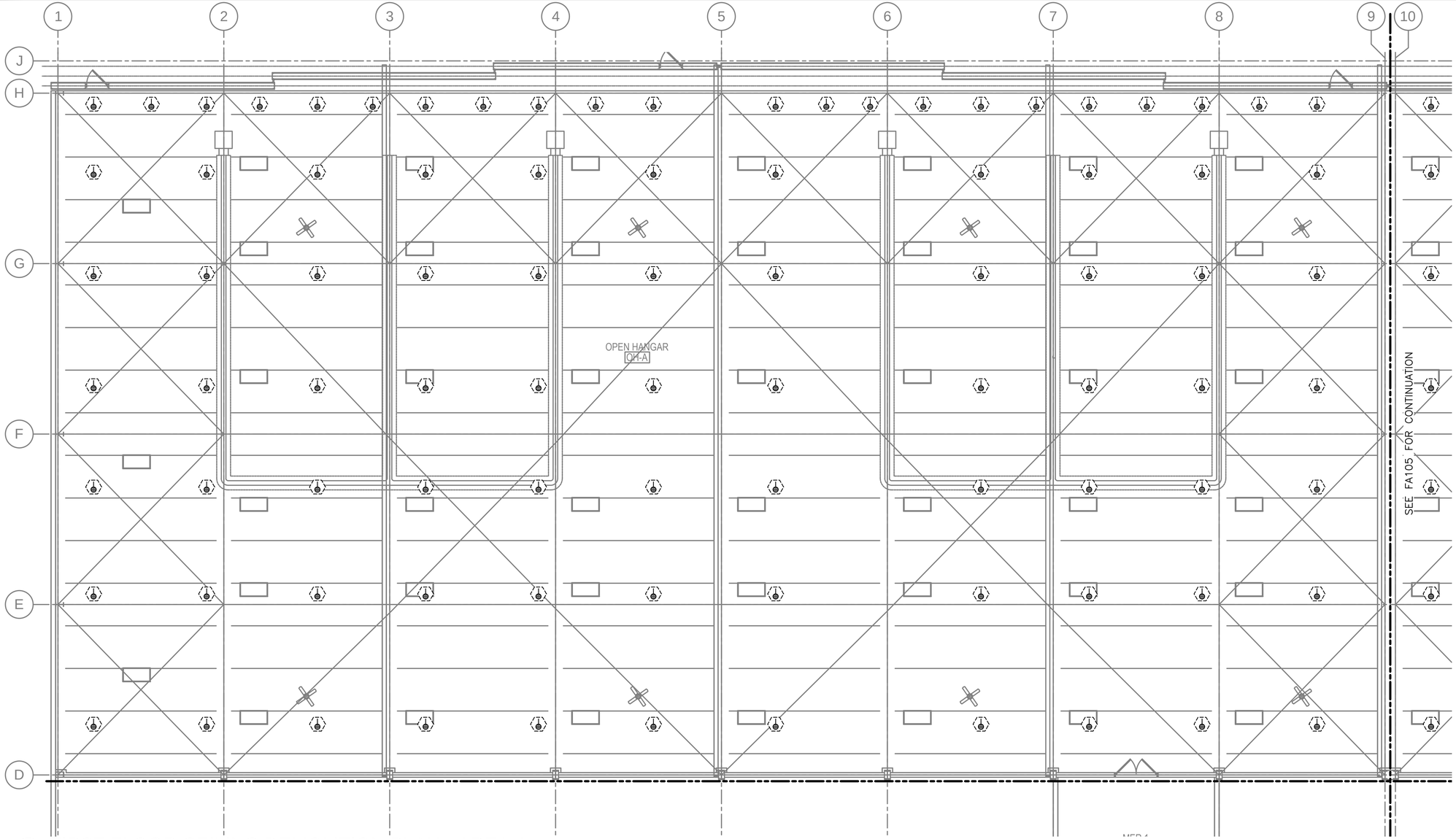
1st FLOOR DEMOLITION PLAN - FIRE ALARM - AREA C

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716311
SHEET 89 OF 170

FA103

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA103.dwg LAYOUT NAME: Area C PLOTTED: Friday, April 22, 2016 - 11:32am USER: acjones



A1 FIRST FLOOR CEILING DEMOLITION PLAN - AREA A
SCALE: 1/8" = 1'-0"

PROJECT NORTH

SHEET NOTES

1. REMOVE HEAT DETECTORS AND ASSOCIATED CONDUIT/CIRCUITS AND HANGERS.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'
⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

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A/E INFO

APPROVED 5/2/16
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ACTIVITY

SATISFACTORY TO

DES	MCP	DRW	LDB	CHK	MJB

PM/DM KPL/IAS
BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

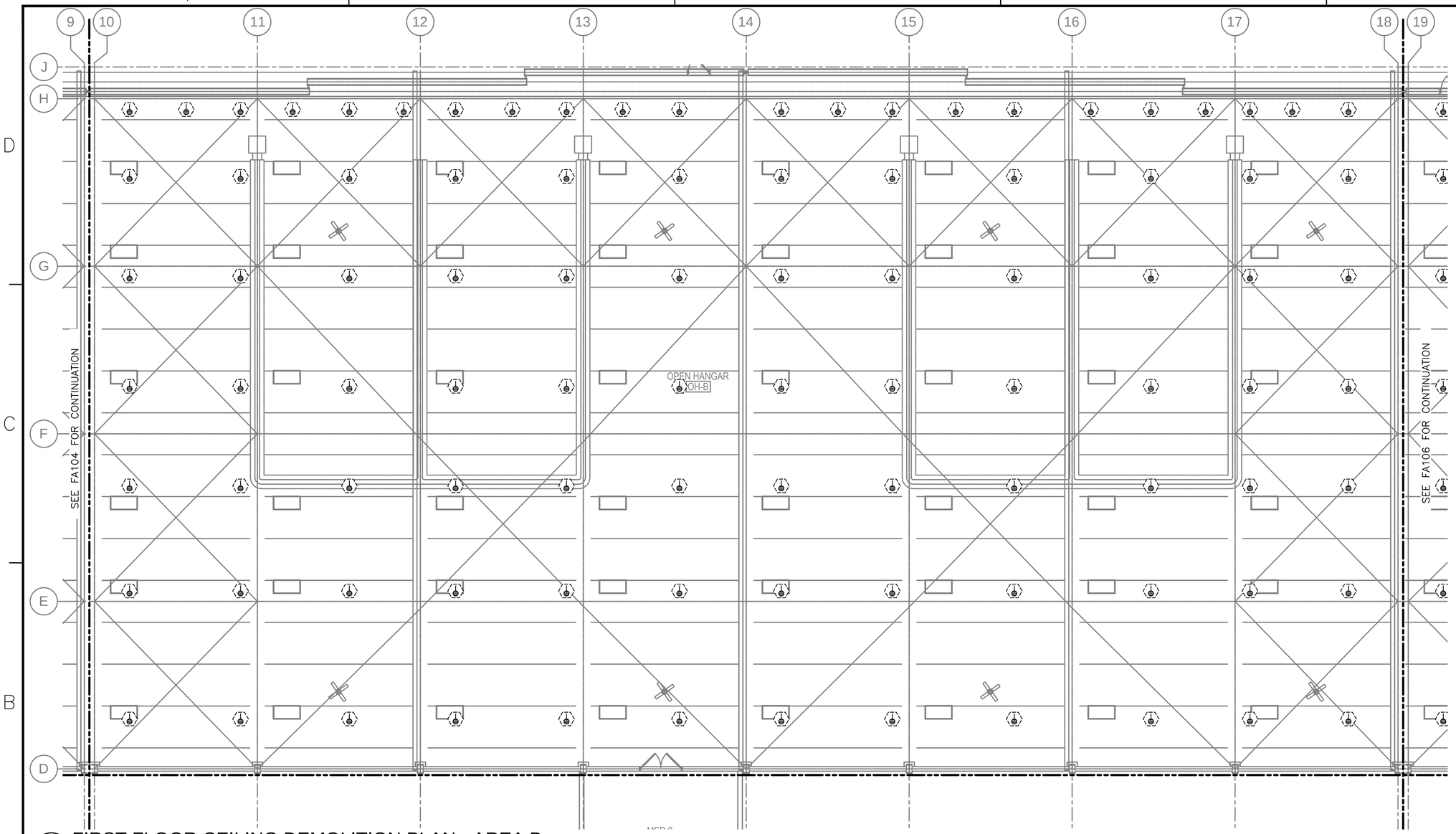
1st FLOOR CEILING DEMOLITION PLAN - FIRE ALARM - AREA A

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716312
SHEET 90 OF 170

FA104

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\861\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA104.dwg LAYOUT NAME: Area A PLOTTED: Friday, April 22, 2016 - 11:32am USER: ocjones



A1 FIRST FLOOR CEILING DEMOLITION PLAN - AREA B

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

PROJECT NORTH

SHEET NOTES

1. REMOVE HEAT DETECTORS AND ASSOCIATED CONDUIT/CIRCUITS AND HANGERS.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

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A/E INFO

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ACTIVITY

SATISFACTORY TO

DES	MCP	DRW	LDB	CHK	MJB

PM/DM KPL/IAS
BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

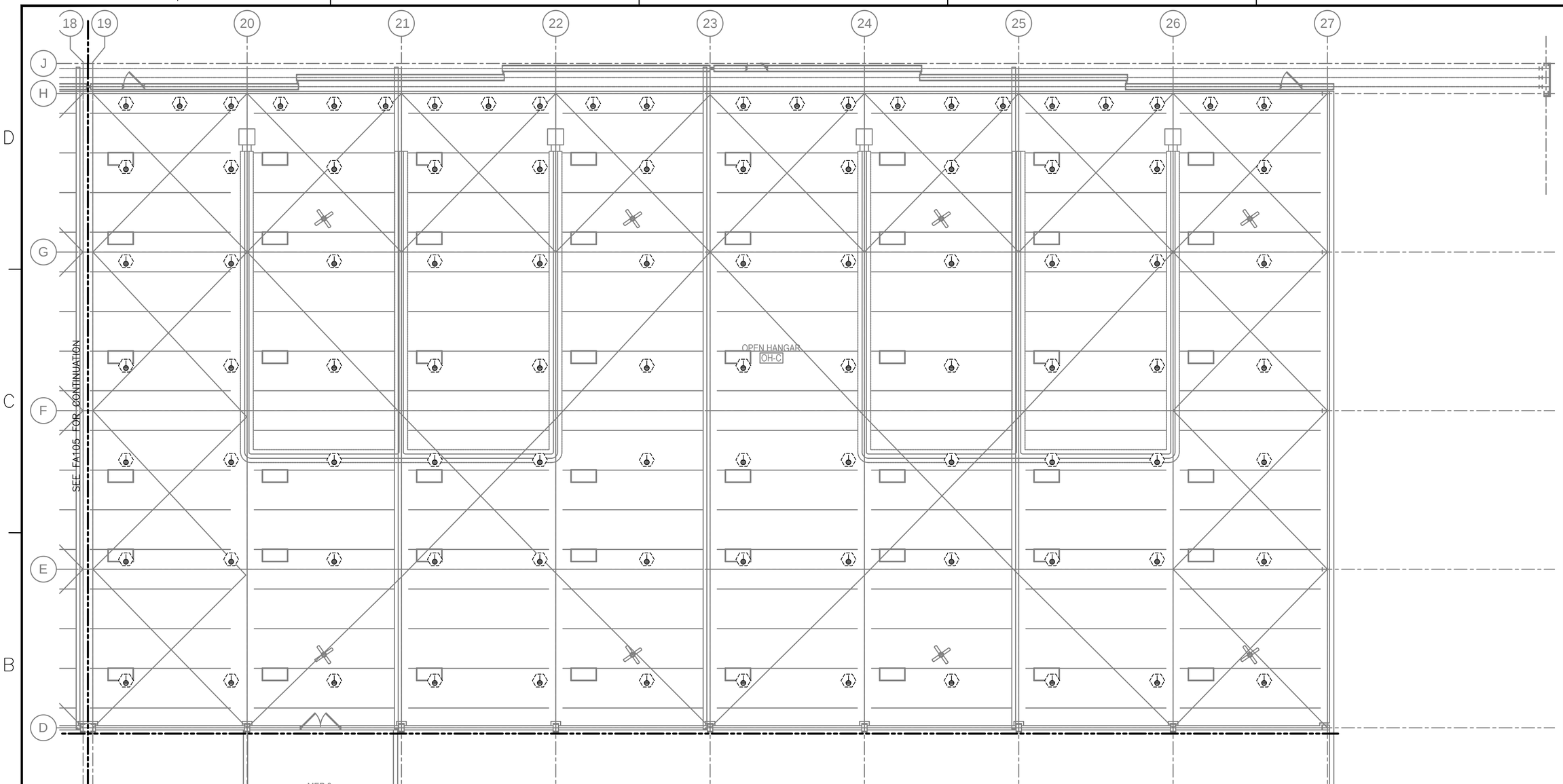
1st FLOOR CEILING DEMOLITION PLAN - FIRE ALARM - AREA B

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716313
SHEET 91 OF 170

FA105

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\JCS\Chantilly\Projects\861\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA105.dwg LAYOUT NAME: Area B PLOTTED: Friday, April 22, 2016 - 11:32am USER: ocjones



A1 FIRST FLOOR CEILING DEMOLITION PLAN - AREA C

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

PROJECT NORTH

SHEET NOTES

1. REMOVE HEAT DETECTORS AND ASSOCIATED CONDUIT/CIRCUITS AND HANGERS.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

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ACTIVITY

SATISFACTORY TO

DES	MCP	DRW	LDB	CHK	MJB

PM/DM KPL/IAS

BRANCH MANAGER DPS

CHIEF ENG/ARCH Mark J. Airaghi, PE

FIRE PROTECTION DPS

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NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

1st FLOOR CEILING DEMOLITION PLAN - FIRE ALARM - AREA C

SCALE: AS SHOWN

EPROJECT NO.: 1372146

CONSTR. CONTR. NO.

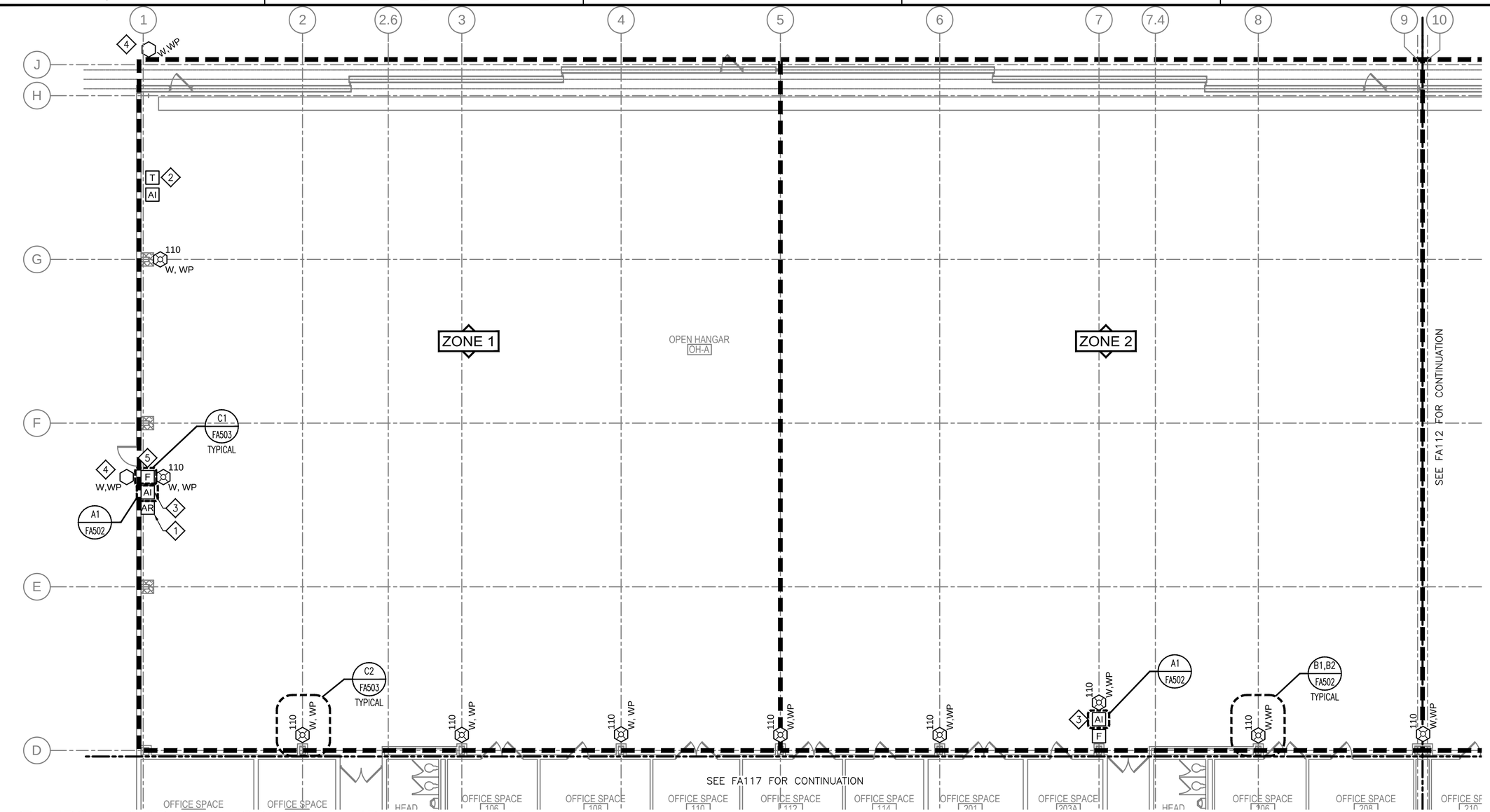
NAVFAC DRAWING NO. 12716314

SHEET 92 OF 170

FA106

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA106.dwg LAYOUT NAME: Area C PLOTTED: Friday, April 22, 2016 - 11:32am USER: acjones



A1 FIRST FLOOR NEW WORK PLAN - FIRE ALARM - AREA A
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. CONDUIT MUST ENTER THE BOTTOM OF EACH FIRE ALARM APPLIANCE. CONDUIT MUST NOT ENTER FROM THE SIDES OR TOP OF THE APPLIANCE.
2. PROVIDE EACH ADDRESSABLE MODULE WITHIN HANGAR BAY IN MINIMUM NEMA 4 ENCLOSURE WITH CLEAR FRONT.
3. PROVIDE MANUAL PULL STATION, NOTIFICATION APPLIANCES IN HANGAR BAY AND EXTERIOR NOTIFICATION APPLIANCES MINIMUM NEMA 4.
4. PROVIDE MASS NOTIFICATION/FIRE ALARM NOTIFICATION APPLIANCES, MANUAL PULL STATIONS, TEMPERATURE SENSORS AND ASSOCIATED MODULES AS INDICATED ON THE DRAWING AND ALL ASSOCIATED FIRE ALARM CONDUIT/CIRCUITS.

KEY NOTES

1. PROVIDE ADDRESSABLE RELAY MODULE WITHIN 3 FEET OF DIVERTER PANEL. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
2. PROVIDE LOW TEMPERATURE SENSOR SET AT 40 DEGREES FAHRENHEIT APPROXIMATELY 8 FEET ABOVE THE FINISHED FLOOR. MONITOR MODULE MUST SUPERVISE TEMPERATURE SENSOR. PROVIDE LOW TEMPERATURE SENSOR AND MONITOR MODULE WITHIN A MINIMUM NEMA 4 ENCLOSURE.
3. PROVIDE ADDRESSABLE MONITOR MODULE FOR MANUAL PULL STATION. PROVIDE PULL STATION A MINIMUM NEMA 4 WITH MINI MODULE.
4. PROVIDE SPEAKER AT 8-WATT TAP AT APPROXIMATELY 30 FEET ABOVE FINISHED FLOOR.
5. MAINTAIN A MINIMUM 5 FOOT SEPARATION BETWEEN MANUAL PULL STATION AND AFFF MANUAL RELEASE STATION.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED
0 4' 8' 12' 16'
⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

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A/E INFO

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ACTIVITY

SATISFACTORY TO

DES	MCP	DRW	LDB	CHK	MJB

PM/DM KPL/IAS
BRANCH MANAGER DPS
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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

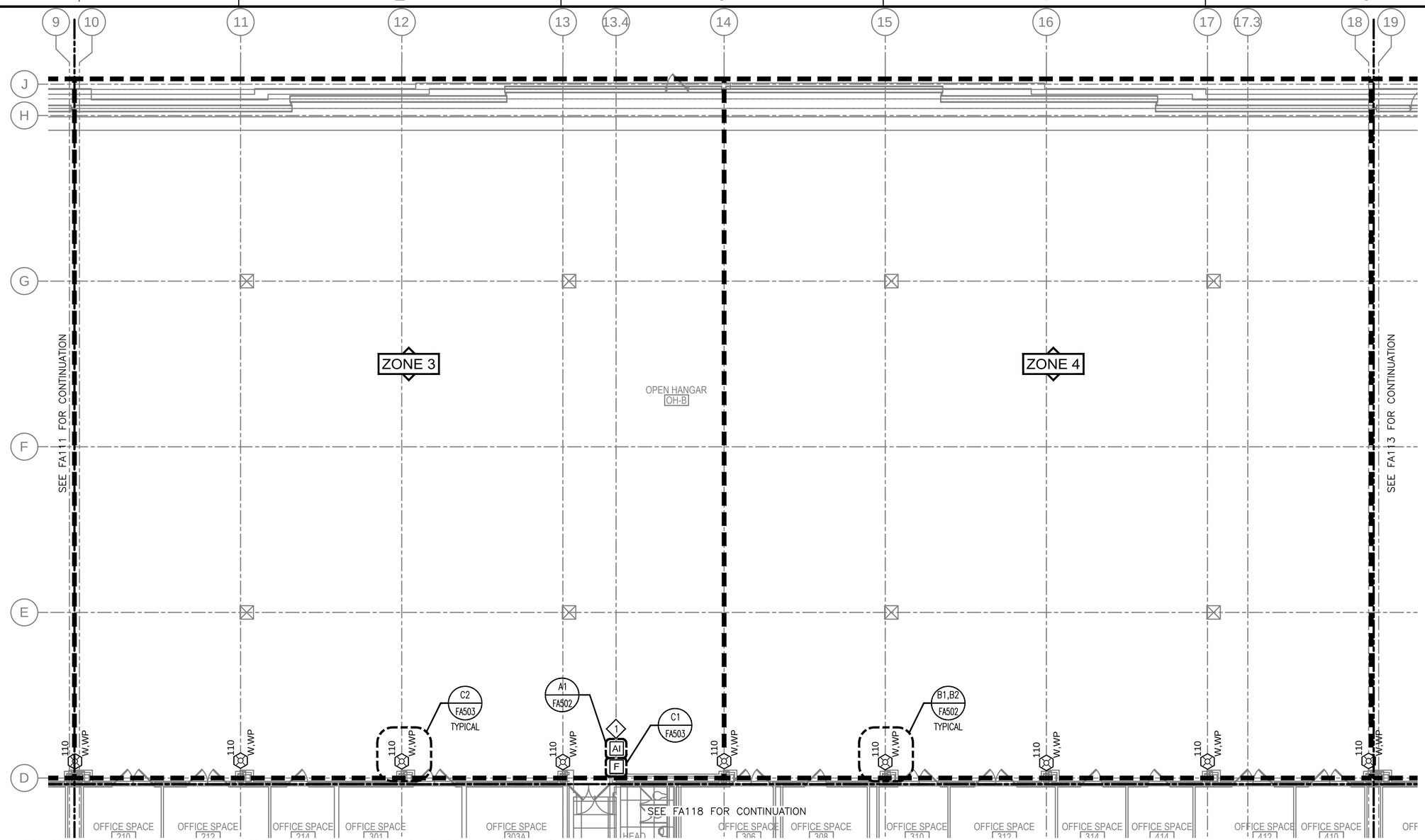
1st FLOOR NEW WORK PLAN - FIRE ALARM - AREA A

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716315
SHEET 93 OF 170

FA111

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA111.dwg LAYOUT NAME: Area A PLOTTED: Friday, April 22, 2016 - 11:33am USER: acjones



A1 FIRST FLOOR NEW WORK PLAN - FIRE ALARM - AREA B

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

PROJECT NORTH

SHEET NOTES

1. CONDUIT MUST ENTER THE BOTTOM OF EACH FIRE ALARM APPLIANCE. CONDUIT MUST NOT ENTER FROM THE SIDES OR TOP OF THE APPLIANCE.
2. PROVIDE MANUAL PULL STATION AND NOTIFICATION APPLIANCES IN HANGAR BAY MINIMUM NEMA 4.
3. PROVIDE MASS NOTIFICATION/FIRE ALARM NOTIFICATION APPLIANCES, MANUAL PULL STATIONS AND ASSOCIATED MODULES AS INDICATED ON THE DRAWING AND ALL ASSOCIATED FIRE ALARM CONDUIT/CIRCUITS.

KEY NOTES

1. PROVIDE ADDRESSABLE MONITOR MODULE FOR MANUAL PULL STATION. PROVIDE PULL STATION A MINIMUM NEMA 4 WITH MINI MODULE.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO

DES	MCP	DRW	LDB	CHK	MJB

PM/DM KPL/IAS

BRANCH MANAGER DPS

CHIEF ENG/ARCH Mark J. Airaghi, PE

FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAS OCEANA - VIRGINIA BEACH, VIRGINIA
HAMPTON ROADS IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

1st FLOOR NEW WORK PLAN - FIRE ALARM - AREA B

SCALE: AS SHOWN

EPROJECT NO.: 1372146

CONSTR. CONTR. NO.

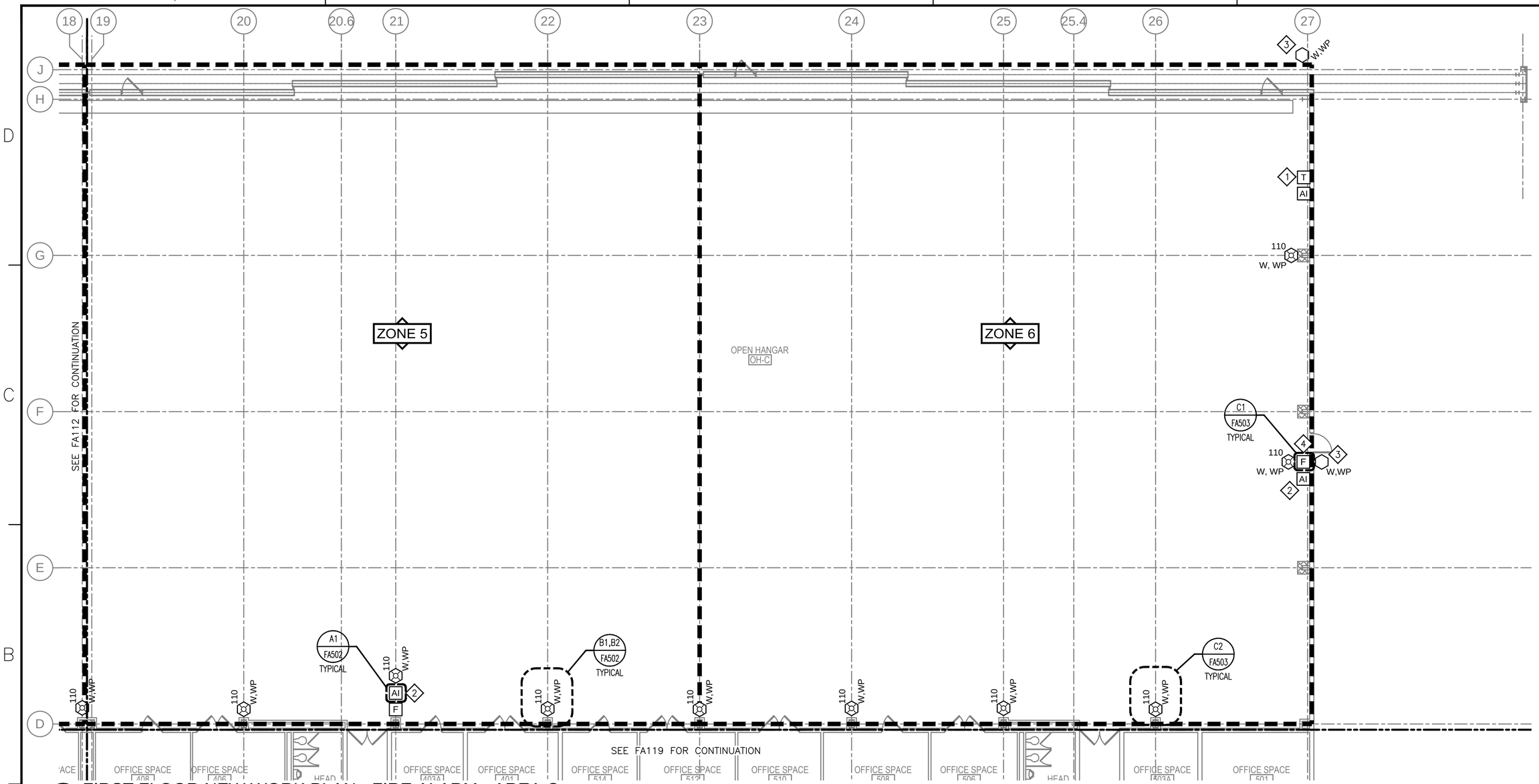
NAVFAC DRAWING NO. 12716316

SHEET 94 OF 170

FA112

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA112.dwg LAYOUT NAME: Area B PLOTTED: Friday, April 22, 2016 - 11:33am USER: acjones



A1 FIRST FLOOR NEW WORK PLAN - FIRE ALARM - AREA C

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

PROJECT NORTH

SHEET NOTES

1. CONDUIT MUST ENTER THE BOTTOM OF EACH FIRE ALARM APPLIANCE. CONDUIT MUST NOT ENTER FROM THE SIDES OR TOP OF THE APPLIANCE.
2. PROVIDE EACH ADDRESSABLE MODULE WITHIN HANGAR BAY IN MINIMUM NEMA 4 ENCLOSURE WITH CLEAR FRONT.
3. PROVIDE MANUAL PULL STATION, NOTIFICATION APPLIANCES IN HANGAR BAY AND EXTERIOR NOTIFICATION APPLIANCES MINIMUM NEMA 4.
4. PROVIDE MASS NOTIFICATION/FIRE ALARM NOTIFICATION APPLIANCES, MANUAL PULL STATIONS, TEMPERATURE SENSORS AND ASSOCIATED MODULES AS INDICATED ON THE DRAWING AND ALL ASSOCIATED FIRE ALARM CONDUIT/CIRCUITS.

KEY NOTES

1. PROVIDE LOW TEMPERATURE SENSOR APPROXIMATELY 8 FEET ABOVE THE FINISHED FLOOR. MONITOR MODULE MUST SUPERVISE TEMPERATURE SENSOR. PROVIDE LOW TEMPERATURE SENSOR AND MONITOR MODULE WITHIN A MINIMUM NEMA 4 ENCLOSURE.
2. PROVIDE ADDRESSABLE MONITOR MODULE FOR MANUAL PULL STATION. PROVIDE PULL STATION WITHIN NEMA 4 ENCLOSURE WITH MINI MODULE.
3. PROVIDE SPEAKER AT 8-WATT TAP AT APPROXIMATELY 30 FEET ABOVE FINISHED FLOOR.
4. MAINTAIN A MINIMUM 5 FOOT SEPARATION BETWEEN MANUAL PULL STATION AND AFFF MANUAL RELEASE STATION.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

1/8" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

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A/E INFO

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ACTIVITY

SATISFACTORY TO

DES	MCP	DRW	LDB	CHK	MJB

PM/DM KPL/IAS
BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HAMPTON ROADS IPT

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

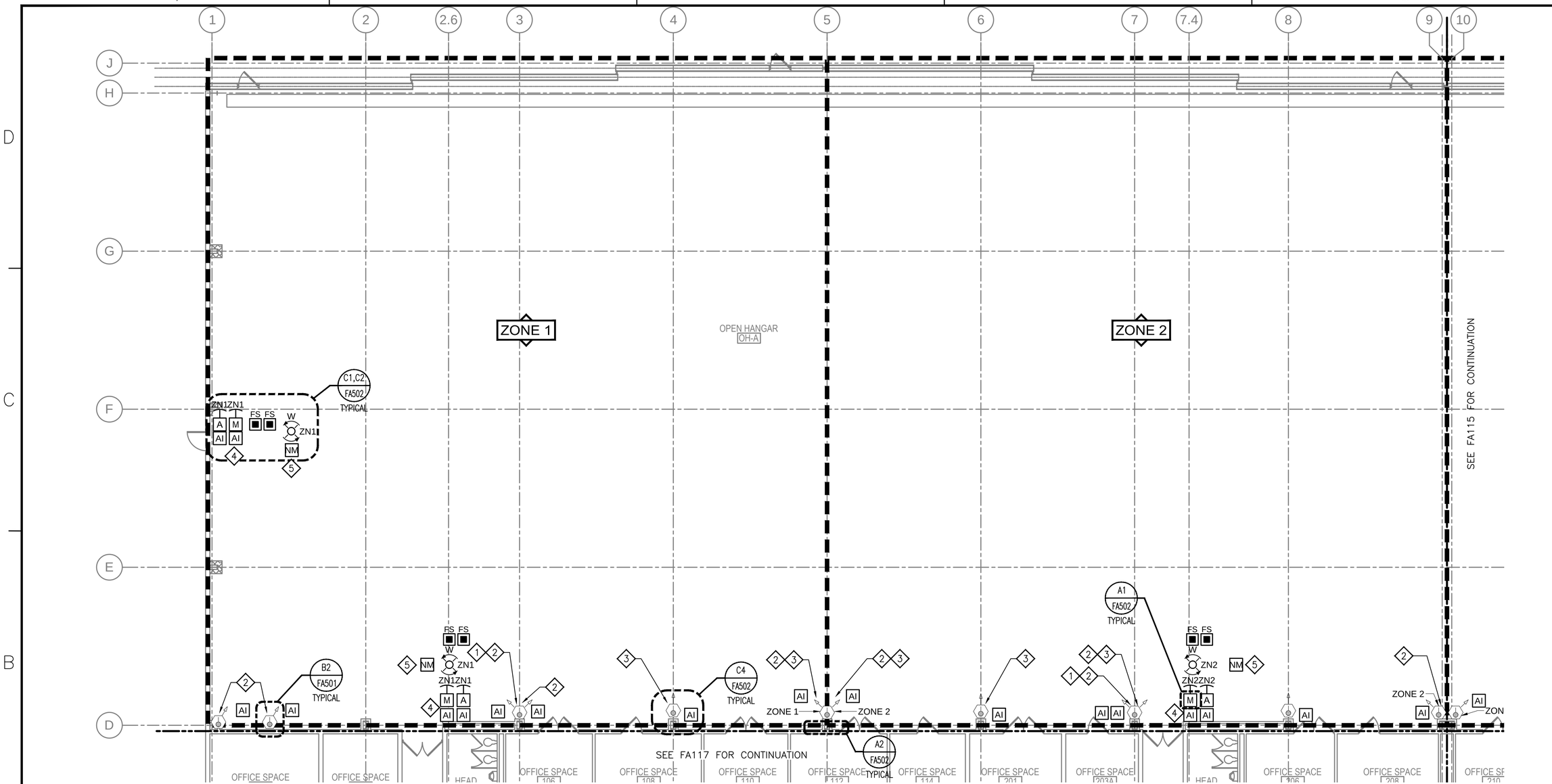
1st FLOOR NEW WORK PLAN - FIRE ALARM - AREA C

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716317
SHEET 95 OF 170

FA113

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA113.dwg LAYOUT NAME: Area C PLOTTED: Friday, April 22, 2016 - 11:33am USER: acjones



A1 FIRST FLOOR NEW WORK PLAN - FOAM RELEASING CONTROL PANEL - AREA A

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

SHEET NOTES

1. CONDUIT MUST ENTER THE BOTTOM OF EACH FIRE ALARM APPLIANCE. CONDUIT MUST NOT ENTER FROM THE SIDES OR TOP OF THE APPLIANCE.
2. PROVIDE EACH ADDRESSABLE MODULE WITHIN HANGAR BAY IN MINIMUM NEMA 4 ENCLOSURE WITH CLEAR FRONT.
3. PROVIDE NOTIFICATION BEACONS IN HANGAR BAY MINIMUM NEMA 4.
4. DURING EACH PHASE OF CONSTRUCTION, IR DETECTORS IN ADJACENT PHASES AND ASSOCIATED ZONES MUST REMAIN OPERATIONAL BUT NOT INTERFACED WITH THE AFFF SYSTEM. INTERFACE WITH AFFF SYSTEM MUST OCCUR DURING THE FINAL PHASE OF CONSTRUCTION.
5. EXISTING IR DETECTORS ARE EXISTING TO REMAIN.
6. PROVIDE AFFF MANUAL RELEASING STATIONS, AFFF ABORT STATIONS, AFFF SIGNAGE, AFFF NOTIFICATION BEACONS AND ASSOCIATED MODULES AS INDICATED ON THE DRAWING AND ALL ASSOCIATED AFFF CONDUIT/CIRCUITS.

KEY NOTES

1. REALIGN EXISTING SITE LIMITER ON IR DETECTOR.
2. PROVIDE COLLAR ON IR DETECTOR.
3. PROVIDE SITE LIMITER ON IR DETECTOR.
4. PROVIDE ADDRESSABLE MONITOR MODULE FOR AFFF RELEASING STATION. PROVIDE RELEASING STATION A MINIMUM NEMA 4 WITH MINI MODULE.
5. PROVIDE NOTIFICATION APPLIANCE CONTROL MODULE FOR INTERFACE WITH NOTIFICATION BEACON.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

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A/E INFO

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ACTIVITY

SATISFACTORY TO

DES	MCP	DRW	LDB	CHK	MJB

PM/DM KPL/IAS
BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

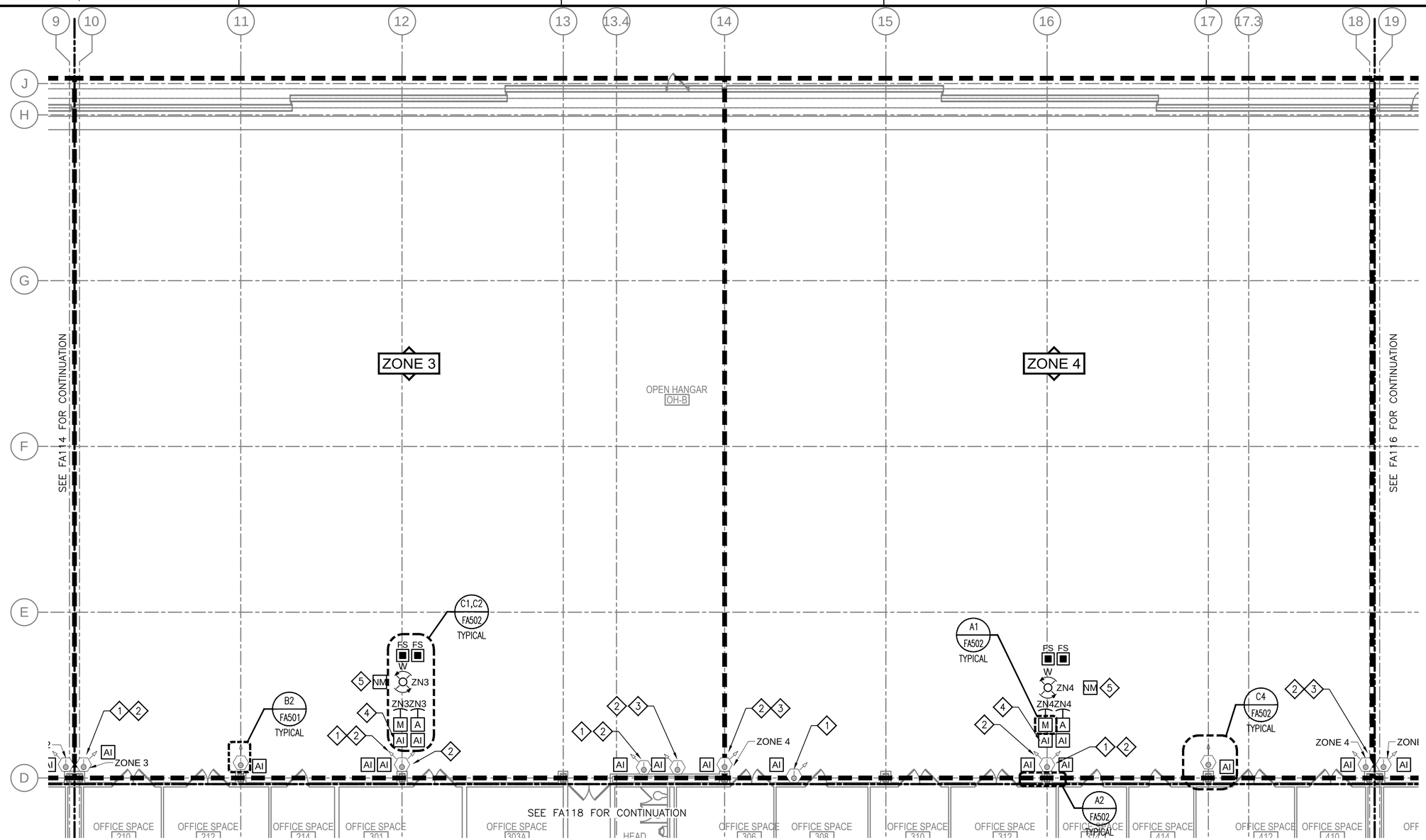
1st FLOOR NEW WORK PLAN - FRCP - AREA A

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716318
SHEET 96 OF 170

FA114

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA114.dwg LAYOUT NAME: Area A PLOTTED: Friday, April 22, 2016 - 11:33am USER: acjones



A1 FIRST FLOOR NEW WORK PLAN - FOAM RELEASING CONTROL PANEL - AREA B

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

PROJECT NORTH

SHEET NOTES

1. CONDUIT MUST ENTER THE BOTTOM OF EACH FIRE ALARM APPLIANCE. CONDUIT MUST NOT ENTER FROM THE SIDES OR TOP OF THE APPLIANCE.
2. PROVIDE EACH ADDRESSABLE MODULE WITHIN HANGAR BAY IN MINIMUM NEMA 4 ENCLOSURE WITH CLEAR FRONT.
3. PROVIDE NOTIFICATION BEACONS IN HANGAR BAY MINIMUM NEMA 4.
4. DURING EACH PHASE OF CONSTRUCTION, IR DETECTORS IN ADJACENT PHASES AND ASSOCIATED ZONES MUST REMAIN OPERATIONAL BUT NOT INTERFACED WITH THE AFFF SYSTEM. INTERFACE WITH AFFF SYSTEM MUST OCCUR DURING THE FINAL PHASE OF CONSTRUCTION.
5. EXISTING IR DETECTORS ARE EXISTING TO REMAIN.
6. PROVIDE AFFF MANUAL RELEASING STATIONS, AFFF ABORT STATIONS, AFFF SIGNAGE, AFFF NOTIFICATION BEACONS AND ASSOCIATED MODULES AS INDICATED ON THE DRAWING AND ALL ASSOCIATED AFFF CONDUIT/CIRCUITS.

KEY NOTES

1. PROVIDE SITE LIMITER ON IR DETECTOR.
2. PROVIDE COLLAR ON IR DETECTOR.
3. REALIGN EXISTING SITE LIMITER ON IR DETECTOR.
4. PROVIDE ADDRESSABLE MONITOR MODULE FOR AFFF RELEASING STATION. PROVIDE RELEASING STATION A MINIMUM NEMA 4 WITH MINI MODULE.
5. PROVIDE NOTIFICATION APPLIANCE CONTROL MODULE FOR INTERFACE WITH NOTIFICATION BEACON.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

COMMONWEALTH OF VIRGINIA
MATTHEW J. BATBOUTA
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DES	MCP	DRW	LDB	CHK	MJB

PM/DM KPL/IAS
BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAS OCEANA - VIRGINIA BEACH, VIRGINIA
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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

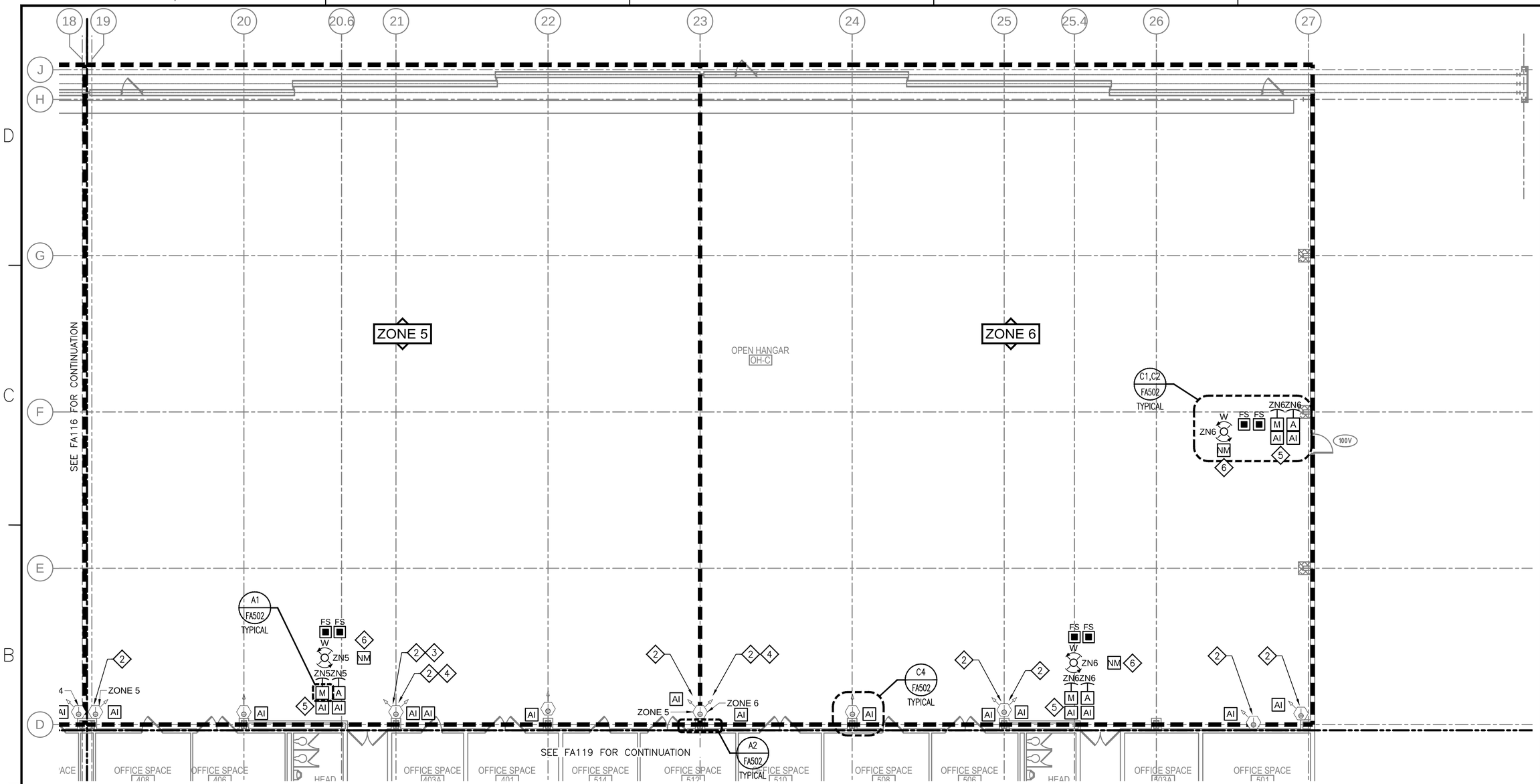
1st FLOOR NEW WORK PLAN - FRCP - AREA B

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716319
SHEET 97 OF 170

FA115

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA115.dwg LAYOUT NAME: Area B PLOTTED: Friday, April 22, 2016 - 11:33am USER: acjones



A1 FIRST FLOOR NEW WORK PLAN - FOAM RELEASING CONTROL PANEL - AREA C

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

PROJECT NORTH

SHEET NOTES

1. CONDUIT MUST ENTER THE BOTTOM OF EACH FIRE ALARM APPLIANCE. CONDUIT MUST NOT ENTER FROM THE SIDES OR TOP OF THE APPLIANCE.
2. PROVIDE EACH ADDRESSABLE MODULE WITHIN HANGAR BAY IN MINIMUM NEMA 4 ENCLOSURE WITH CLEAR FRONT.
3. PROVIDE NOTIFICATION BEACONS IN HANGAR BAY MINIMUM NEMA 4.
4. DURING EACH PHASE OF CONSTRUCTION, IR DETECTORS IN ADJACENT PHASES AND ASSOCIATED ZONES MUST REMAIN OPERATIONAL BUT NOT INTERFACED WITH THE AFFF SYSTEM. INTERFACE WITH AFFF SYSTEM MUST OCCUR DURING THE FINAL PHASE OF CONSTRUCTION.
5. EXISTING IR DETECTORS ARE EXISTING TO REMAIN.
6. PROVIDE AFFF MANUAL RELEASING STATIONS, AFFF ABORT STATIONS, AFFF SIGNAGE, AFFF NOTIFICATION BEACONS AND ASSOCIATED MODULES AS INDICATED ON THE DRAWING AND ALL ASSOCIATED AFFF CONDUIT/CIRCUITS.

KEY NOTES

1. REALIGN EXISTING SITE LIMITER ON IR DETECTOR.
2. PROVIDE COLLAR ON IR DETECTOR.
3. PROVIDE SITE LIMITER ON IR DETECTOR.
4. RELOCATE IR DETECTOR SO VIEW IS NOT OBSTRUCTED.
5. PROVIDE ADDRESSABLE MONITOR MODULE FOR AFFF RELEASING STATION. PROVIDE RELEASING STATION A MINIMUM NEMA 4 WITH MINI MODULE.
6. PROVIDE NOTIFICATION APPLIANCE CONTROL MODULE FOR INTERFACE WITH NOTIFICATION BEACON.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

1/8" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

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VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

1st FLOOR NEW WORK PLAN - FRCP - AREA C

SCALE: AS SHOWN

EPROJECT NO.: 1372146

CONSTR. CONTR. NO.

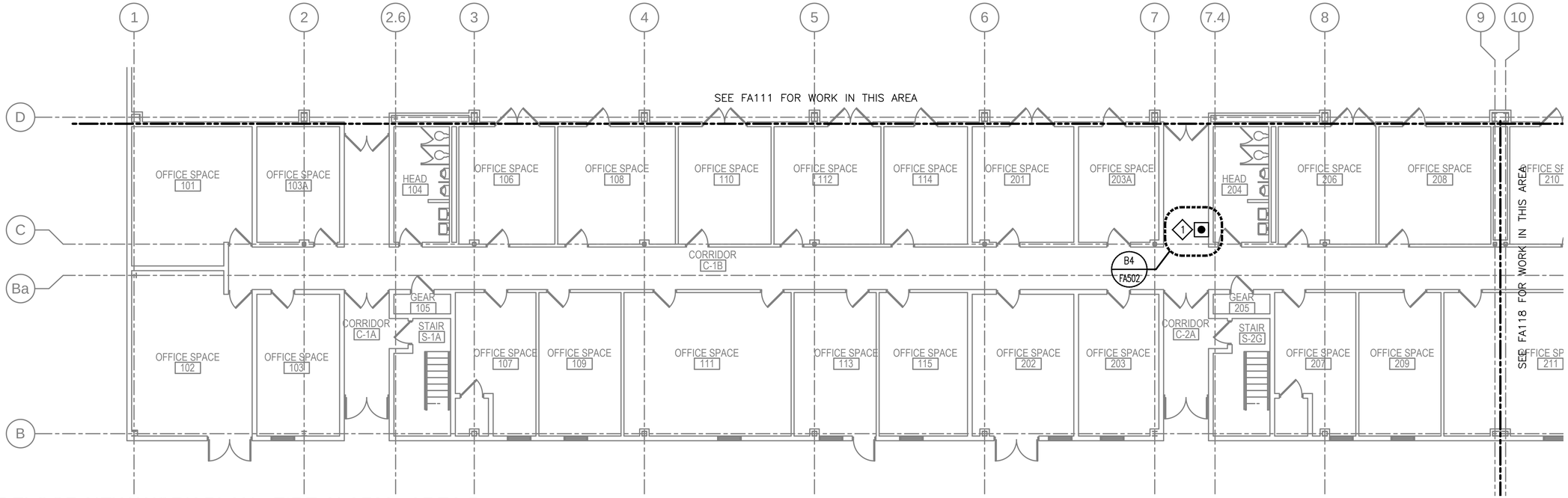
NAVFAC DRAWING NO. 12716320

SHEET 98 OF 170

FA116

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CAD\2.1 Cadd Files\1372146_FA116.dwg LAYOUT NAME: Area C PLOTTED: Friday, April 22, 2016 - 11:34am USER: ocjones



C1 FIRST FLOOR NEW WORK PLAN - FIRE ALARM - AREA D

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

PROJECT NORTH

KEY NOTES

1. PROVIDE EMERGENCY HVAC POWER OFF BUTTON 42-INCHES ABOVE FINISHED FLOOR AND FLUSH MOUNTED IN DRYWALL. CONNECT BUTTON ON THE SIGNALING LINE CIRCUIT FROM THE HANGAR BAY. DO NOT ROUTE CONDUIT DOWN OFFICE CORRIDOR. PROVIDE SIGNAGE INDICATING "EMERGENCY HVAC SHUTDOWN".

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

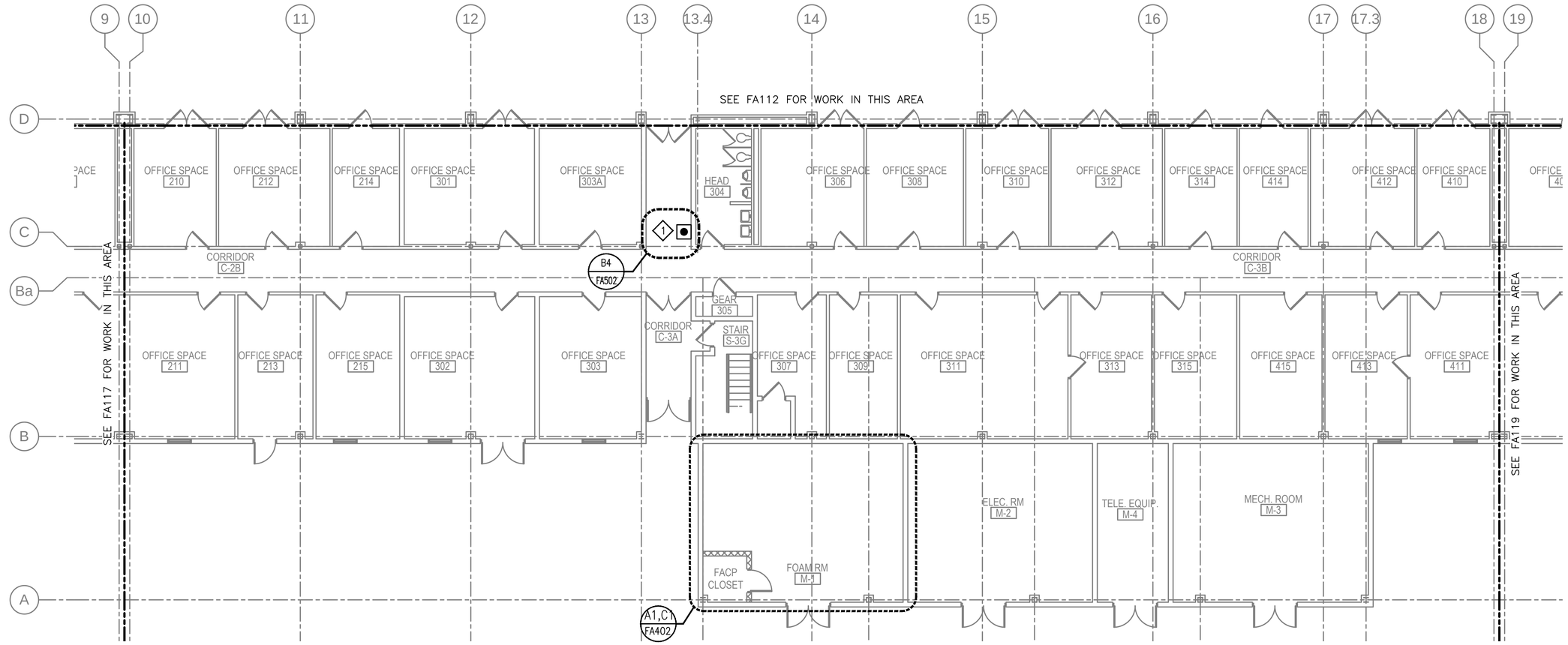
1st FLOOR NEW WORK PLAN - FIRE ALARM - AREA D

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716321
SHEET 99 OF 170

FA117

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA117.dwg LAYOUT NAME: Area D PLOTTED: Friday, April 22, 2016 - 11:34am USER: acjones



B1 FIRST FLOOR NEW WORK PLAN - FIRE ALARM - AREA E

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

PROJECT NORTH

KEY NOTES

1. PROVIDE EMERGENCY HVAC POWER OFF BUTTON 42-INCHES ABOVE FINISHED FLOOR AND FLUSH MOUNTED IN DRYWALL. CONNECT BUTTON ON THE SIGNALING LINE CIRCUIT FROM THE HANGAR BAY. DO NOT ROUTE CONDUIT DOWN OFFICE CORRIDOR. PROVIDE SIGNAGE INDICATING "EMERGENCY HVAC SHUTDOWN".

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

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ACTIVITY
SATISFACTORY TO

DES	MCP	DRW	LDB	CHK	MJB

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FIRE PROTECTION DPS

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VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

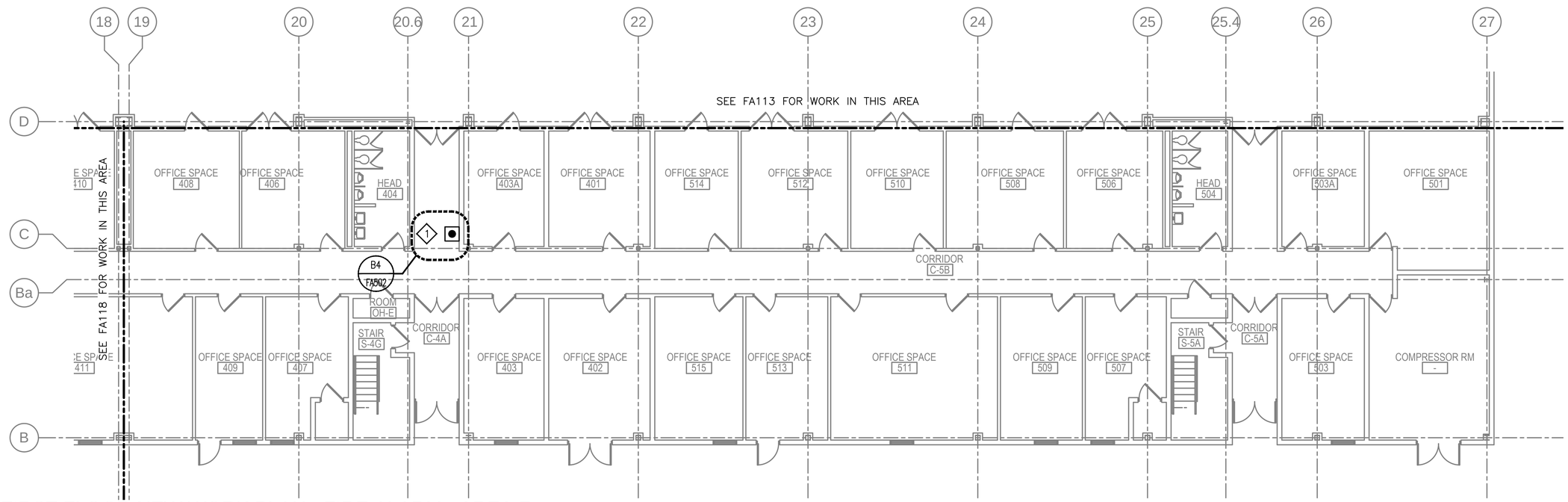
1st FLOOR NEW WORK PLAN - FIRE ALARM - AREA E

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716322
SHEET 100 OF 170

FA118

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\861\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA118.dwg LAYOUT NAME: Area E PLOTTED: Friday, April 22, 2016 - 11:34am USER: ocjones



C1 FIRST FLOOR NEW WORK PLAN - FIRE ALARM - AREA F

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

PROJECT NORTH

KEY NOTES

1. PROVIDE EMERGENCY HVAC POWER OFF BUTTON 42-INCHES ABOVE FINISHED FLOOR AND FLUSH MOUNTED IN DRYWALL. CONNECT BUTTON ON THE SIGNALING LINE CIRCUIT FROM THE HANGAR BAY. DO NOT ROUTE CONDUIT DOWN OFFICE CORRIDOR. PROVIDE SIGNAGE INDICATING "EMERGENCY HVAC SHUTDOWN".

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

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DES	MCP	DRW	LDB	CHK	MJB

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CHIEF ENG/ARCH Mark J. Airaghi, PE
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HAMPTON ROADS IPT NAS OCEANA - VIRGINIA BEACH, VIRGINIA

NAVAL AIR STATION OCEANA VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

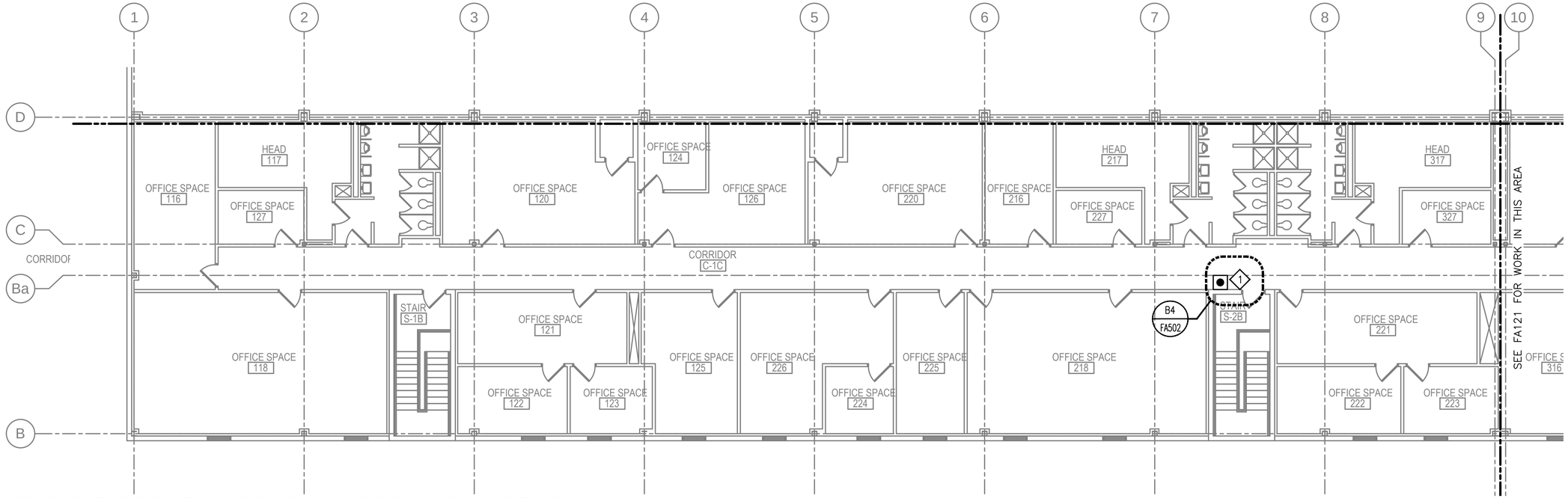
1st FLOOR NEW WORK PLAN - FIRE ALARM - AREA F

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716323
SHEET 101 OF 170

FA119

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA119.dwg LAYOUT NAME: Area F PLOTTED: Friday, April 22, 2016 - 11:34am USER: acjones



C1 SECOND FLOOR NEW WORK PLAN - FIRE ALARM - AREA D

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

PROJECT NORTH

KEY NOTES

1. PROVIDE EMERGENCY HVAC POWER OFF BUTTON 42-INCHES ABOVE FINISHED FLOOR. CONNECT BUTTON ON THE SIGNALING LINE CIRCUIT FROM THE MECHANICAL ROOM LOCATED ABOVE BUTTON. PROVIDE SIGNAGE INDICATING "EMERGENCY HVAC SHUTDOWN".

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

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FIRE PROTECTION DPS

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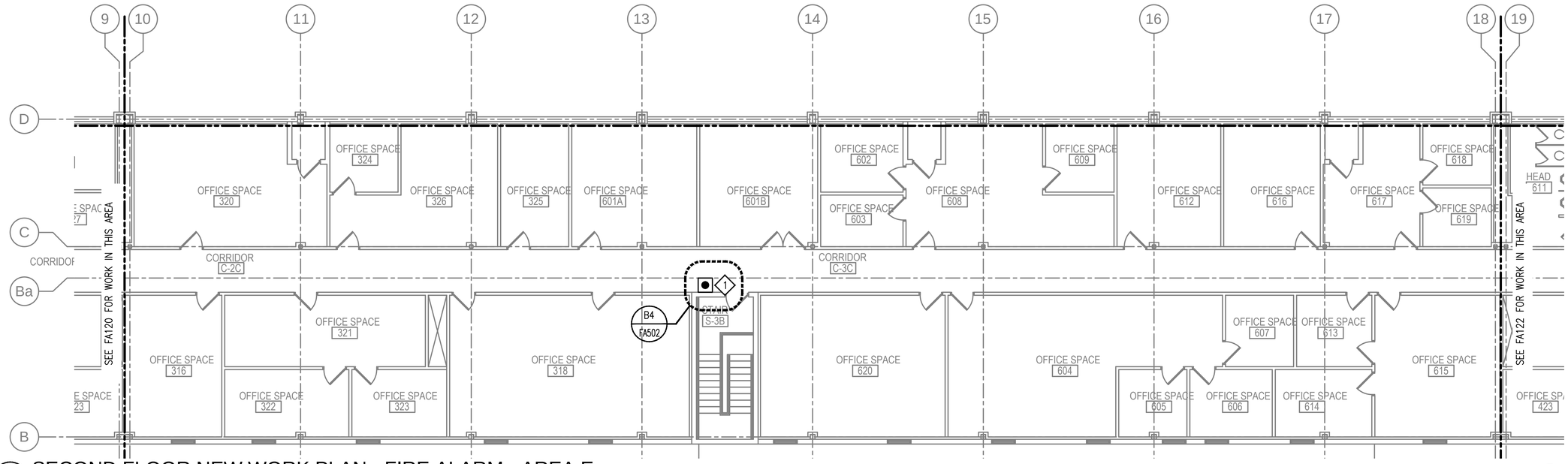
HAMPTON ROADS IPT
INAS OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS
2nd FLOOR NEW WORK PLAN - FIRE ALARM - AREA D

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716324
SHEET 102 OF 170
FA120

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BM-CADD\2.1 Cadd Files\1372146_FA120.dwg LAYOUT NAME: Area D PLOTTED: Friday, April 22, 2016 - 11:34am USER: acjones



C1 SECOND FLOOR NEW WORK PLAN - FIRE ALARM - AREA E

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

PROJECT NORTH

KEY NOTES

1. PROVIDE EMERGENCY HVAC POWER OFF BUTTON 42-INCHES ABOVE FINISHED FLOOR. CONNECT BUTTON ON THE SIGNALING LINE CIRCUIT FROM THE MECHANICAL ROOM LOCATED ABOVE BUTTON. PROVIDE SIGNAGE INDICATING "EMERGENCY HVAC SHUTDOWN".

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

1/8" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

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ACTIVITY

SATISFACTORY TO

DES	MCP	DRW	LDB	CHK	MJB

PM/DM KPL/IAS

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CHIEF ENG/ARCH Mark J. Airaghi, PE

FIRE PROTECTION DPS

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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

2nd FLOOR NEW WORK PLAN - FIRE ALARM - AREA E

SCALE: AS SHOWN

EPROJECT NO.: 1372146

CONSTR. CONTR. NO.

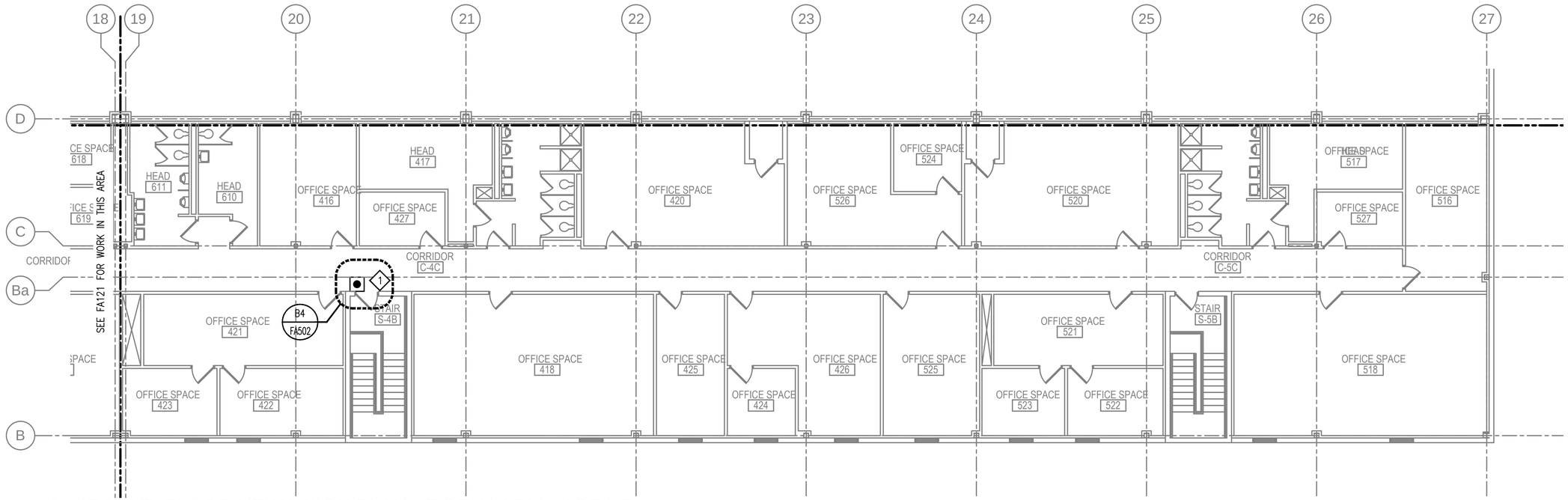
NAVFAC DRAWING NO. 12716325

SHEET 103 OF 170

FA121

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA121.dwg LAYOUT NAME: Area E PLOTTED: Friday, April 22, 2016 - 11:35am USER: acjones



C1 SECOND FLOOR NEW WORK PLAN - FIRE ALARM - AREA F

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

PROJECT NORTH

KEY NOTES

1. PROVIDE EMERGENCY HVAC POWER OFF BUTTON 42-INCHES ABOVE FINISHED FLOOR. CONNECT BUTTON ON THE SIGNALING LINE CIRCUIT FROM THE MECHANICAL ROOM LOCATED ABOVE BUTTON. PROVIDE SIGNAGE INDICATING "EMERGENCY HVAC SHUTDOWN".

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

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PM/DM KPL/IAS
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CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

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NAVAL FACILITIES ENGINEERING COMMAND
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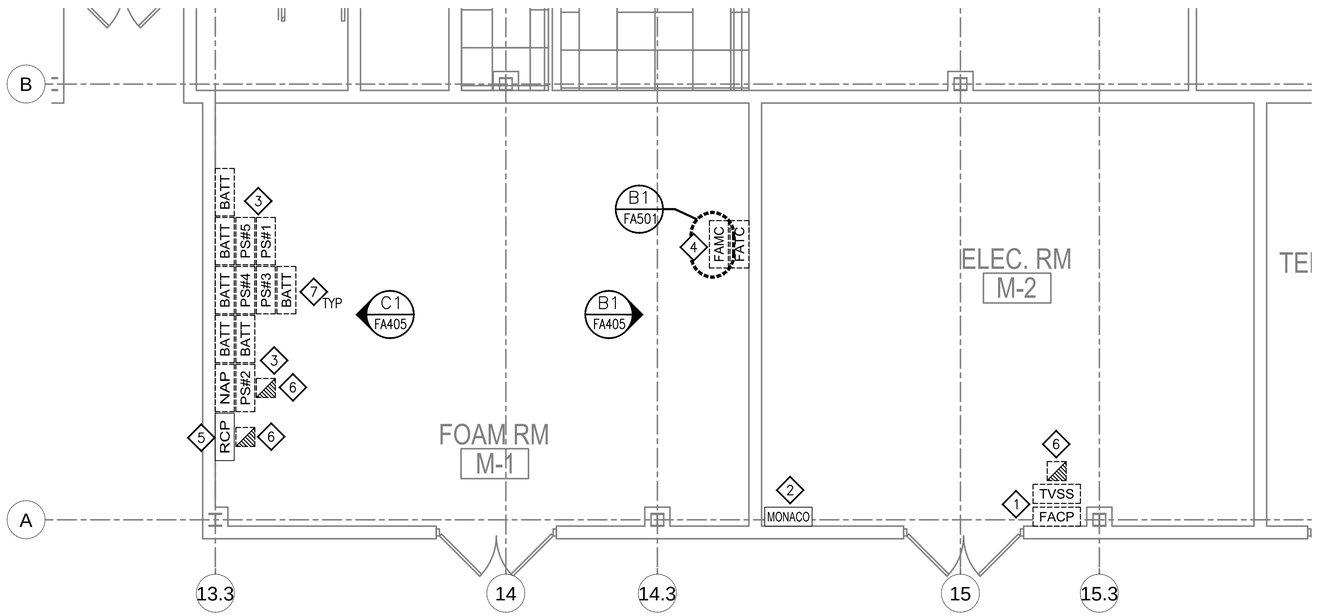
HAMPTON ROADS IPT
INAS OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS
2nd FLOOR NEW WORK PLAN - FIRE ALARM - AREA F

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716326
SHEET 104 OF 170
FA122

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\861\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA122.dwg LAYOUT NAME: Area F PLOTTED: Friday, April 22, 2016 - 11:35am USER: ocjones



B1 ENLARGED PLAN - FIRST FLOOR FOAM ROOM DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

PROJECT NORTH

KEY NOTES

1. REMOVE MAIN BUILDING CONVENTIONAL FIRE ALARM CONTROL PANEL (SIEMENS SYSTEM 3). EXISTING DOCUMENTATION INDICATES THE FOLLOWING ZONES. REFER TO FA402 FOR THE SELECTED ZONES THAT MUST RECONNECT TO THE FIRE ALARM/MASS NOTIFICATION PANEL:
   - ZONE 1 – HANGAR BAY MANUAL PULL STATIONS
   - ZONE 2 – FLOOR 1 MANUAL PULL STATIONS
   - ZONE 3 – FLOOR 2 MANUAL PULL STATIONS
   - ZONE 4 – FLOOR 1 SMOKE DETECTORS
   - ZONE 5 – FLOOR 2 SMOKE DETECTORS
   - ZONE 6 – FLOOR 1 SPRINKLER
   - ZONE 7 – FLOOR 2 SPRINKLER
   - ZONE 8 – SPRINKLER PRESSURE
   - ZONE 9 – HANGAR FOAM
   - ZONE 10 – AHU DUCT DETECTOR
   - ZONE 11 – AFFF
   - ZONE 12 – FREEZE PROTECTION
2. RELOCATE MONACO FIRE ALARM REPORTING PANEL TO FIRE ALARM CLOSET. REFER TO FA405 FOR ADDITIONAL INFORMATION. REMOVE CABLE BETWEEN ANTENNA AND MONACO PANEL.
3. REMOVE ALTRONIX POWER SUPPLY PANELS (AL1024ULX) SERVING IR DETECTORS.
4. REMOVE MODULE AND TERMINAL CABINET. REFER TO FA405 FOR ADDITIONAL INFORMATION ON MODULES.
5. RELOCATE GAMEWELL FCI E3 SERIES RELEASING FIRE ALARM CONTROL PANEL TO FIRE ALARM CLOSET. REFER TO FA405 FOR ADDITIONAL INFORMATION.
6. REMOVE EXISTING POWER CIRCUIT FROM THE EXISTING FIRE ALARM EQUIPMENT TO SOURCE. RE-LABEL APPLICABLE CIRCUIT BREAKER AS SPARE. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
7. COORDINATE REMOVAL OF LEAD ACID BATTERIES WITH NAVFAC EV SERVICES. SET UP AN UNIVERSAL WASTE ACCUMULATION AREA. NAVFAC EV SERVICES MUST PRE-APPROVE THE DISPOSAL FACILITY AND SIGN MANIFEST FOR THIS PRIOR TO OFF-SITE DISPOSAL. IN ADDITION, PROVIDE A COPY OF THE SIGNED MANIFEST FROM THE DISPOSAL FACILITY. REFER TO ENVIRONMENTAL DOCUMENTS FOR ADDITIONAL INFORMATION.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED
0 2' 4' 6' 8'
1/4" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

COMMONWEALTH OF VIRGINIA
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A/E INFO

APPROVED 5/2/16
FOR COMMANDER NAVFAC

ACTIVITY
SATISFACTORY TO

DES	MCP	DRW	LDB	CHK	MJB

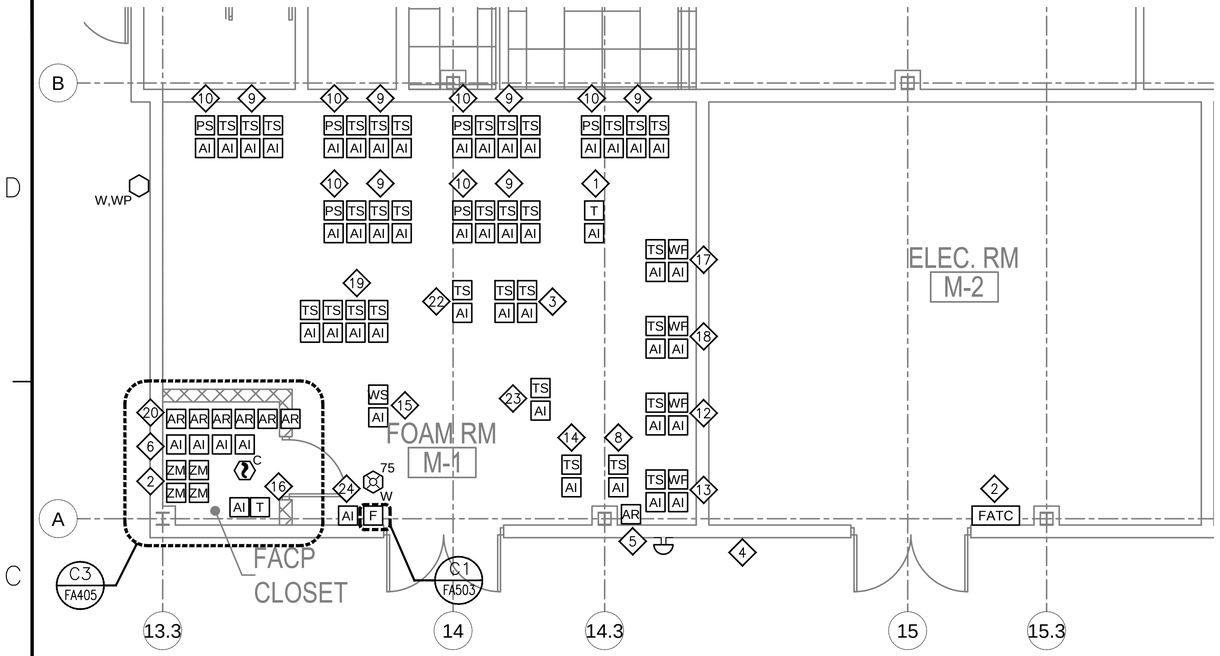
PM/DM KPL/IAS
BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NAS OCEANA – VIRGINIA BEACH, VIRGINIA
HAMPTON ROADS IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS
FOAM ROOM DEMOLITION PLAN - FIRE ALARM

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716327
SHEET 105 OF 170
FA401

DRAWFORM REVISION: 10 MAY 2014

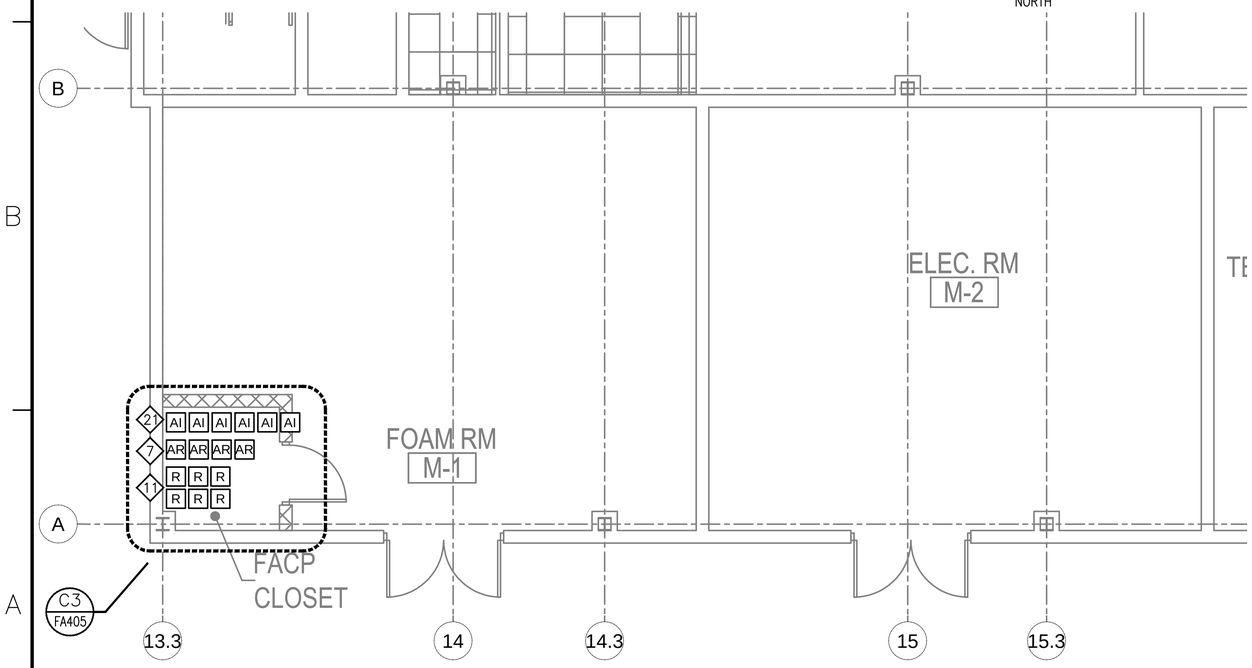
FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA401.dwg LAYOUT NAME: Area A PLOTTED: Friday, April 22, 2016 - 11:35am USER: acipines



ENLARGED PLAN - FOAM ROOM - NEW WORK PLAN - FIRE ALARM CONTROL PANEL

C1 SCALE: 1/4" = 1'-0"

PROJECT NORTH



ENLARGED PLAN - FOAM ROOM - NEW WORK PLAN - FOAM RELEASING CONTROL PANEL

A1 SCALE: 1/4" = 1'-0"

PROJECT NORTH

SHEET NOTES

1. PROVIDE FIRE ALARM CONTROL PANELS IN NEW FIRE ALARM CLOSET. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION ON FIRE ALARM CLOSET.

KEY NOTES

1. PROVIDE LOW TEMPERATURE SENSOR WITH MONITOR MODULE SET AT 40° FAHRENHEIT.
2. EXTEND AND RECONNECT THE FOLLOWING EXISTING CIRCUITS (ZONES) TO ZONE MODULES LOCATED IN FIRE ALARM CLOSET AND CONNECT TO THE BUILDING FIRE ALARM/MASS NOTIFICATION CONTROL PANEL. PROVIDE MODULES IN FIRE ALARM MODULE CABINET. PROVIDE FIRE ALARM TERMINAL CABINET AT CONNECTION TO EXISTING CIRCUITS.
   - ZONE 2 – FLOOR 1 MANUAL PULL STATIONS
   - ZONE 3 – FLOOR 2 MANUAL PULL STATIONS
   - ZONE 4 – FLOOR 1 SMOKE DETECTORS
   - ZONE 5 – FLOOR 2 SMOKE DETECTORS
3. PROVIDE ADDRESSABLE MONITOR MODULES FOR VALVE SUPERVISORY SWITCH OF CONCENTRATE LINE TO PROPORTIONER AND RETURN LINE.
4. PROVIDE CABLE FROM EXISTING ANTENNAE TO RELOCATED MONACO PANEL. EXISTING ANTENNAE LOCATED OUTSIDE OF ELECTRICAL ROOM.
5. PROVIDE ELECTRIC BELL. ELECTRIC BELL MUST ACTIVATE UPON WATER FLOW DETECTION.
6. PROVIDE ADDRESSABLE MONITOR MODULES FOR THE BUILDING FIRE ALARM/MASS NOTIFICATION CONTROL PANEL TO MONITOR AFFF RELEASE, ALARM, SUPERVISORY AND TROUBLE CONDITIONS ON THE RELEASING CONTROL PANEL. PROVIDE MODULES IN FIRE ALARM MODULE CABINET.
7. PROVIDE ADDRESSABLE RELAY MODULES COMPATIBLE WITH THE E3 SERIES RELEASING CONTROL PANEL FOR THE PURPOSES OF PROVIDING A SIGNAL TO THE FIRE ALARM/MASS NOTIFICATION CONTROL PANEL OF AFFF RELEASE, ALARM, SUPERVISORY AND TROUBLE CONDITIONS. PROVIDE MODULES IN FIRE ALARM MODULE CABINET.
8. PROVIDE ADDRESSABLE MONITOR MODULE FOR VALVE SUPERVISION OF SPRINKLER SYSTEM TEST HEADER CONTROL VALVE. REFER TO SPRINKLER DRAWINGS FOR ADDITIONAL INFORMATION.
9. PROVIDE ADDRESSABLE MONITOR MODULES FOR THE FOLLOWING CONDITIONS ON THE AFFF DELUGE VALVE ASSEMBLY. REFER TO SPRINKLER DRAWINGS FOR ADDITIONAL INFORMATION.
   - SUCTION CONTROL VALVE
   - DISCHARGE CONTROL VALVE
   - TEST HEADER CONTROL VALVE
10. PROVIDE ADDRESSABLE MONITOR MODULE FOR THE ALARM PRESSURE SWITCH.
11. PROVIDE A RELEASING MODULE FOR EACH DELUGE VALVE LOCATED IN THE FOAM ROOM. PROVIDE RELEASING MODULES WITHIN FIRE ALARM CLOSET AND ENERGIZE MODULES FROM RELEASING CONTROL PANEL 24 VOLT CIRCUIT.
12. PROVIDE ADDRESSABLE MONITOR MODULES FOR VALVE SUPERVISION AND WATER FLOW DETECTION ON THE FIRST FLOOR OFFICE CONTROL VALVE ASSEMBLY. REFER TO SPRINKLER DRAWINGS FOR ADDITIONAL INFORMATION.
13. PROVIDE ADDRESSABLE MONITOR MODULES FOR VALVE SUPERVISION AND WATER FLOW DETECTION ON THE SECOND FLOOR OFFICE CONTROL VALVE ASSEMBLY. REFER TO SPRINKLER DRAWINGS FOR ADDITIONAL INFORMATION.
14. PROVIDE ADDRESSABLE MONITOR MODULE FOR VALVE SUPERVISION OF THE ISOLATION VALVE FOR THE AFFF SYSTEM. REFER TO SPRINKLER DRAWINGS FOR ADDITIONAL INFORMATION.
15. PROVIDE WATER SENSOR WITH MONITOR MODULE.
16. PROVIDE LOW TEMPERATURE SENSOR WITH MONITOR MODULE IN FIRE ALARM CLOSET SET AT 60° FAHRENHEIT.
17. PROVIDE ADDRESSABLE MONITOR MODULES FOR VALVE SUPERVISION AND WATER FLOW DETECTION ON CEILING ZONE 1 OF THE HANGAR BAY CONTROL VALVE ASSEMBLY. REFER TO SPRINKLER DRAWINGS FOR ADDITIONAL INFORMATION.
18. PROVIDE ADDRESSABLE MONITOR MODULES FOR VALVE SUPERVISION AND WATER FLOW DETECTION ON CEILING ZONE 2 OF THE HANGAR BAY CONTROL VALVE ASSEMBLY. REFER TO SPRINKLER DRAWINGS FOR ADDITIONAL INFORMATION.
19. PROVIDE ADDRESSABLE MONITOR MODULES FOR VALVE SUPERVISION OF THE FOLLOWING FOAM CONCENTRATE LINE CONTROL VALVES. REFER TO SPRINKLER DRAWINGS FOR ADDITIONAL INFORMATION.
   - SURROGATE TANK
   - AFFF TANK 1
   - AFFF TANK 2
   - TANK TO TANK
20. PROVIDE ADDRESSABLE RELAY MODULES FOR THE PURPOSES OF PROVIDING A SIGNAL TO THE RELEASING CONTROL PANEL OF ACTIVATION OF EACH OF THE PRESSURE ALARM SWITCHES. TOTAL OF SIX.
21. PROVIDE ADDRESSABLE MONITOR MODULES COMPATIBLE WITH THE E3 SERIES RELEASING CONTROL PANEL FOR THE PURPOSE OF MONITORING EACH OF THE PRESSURE ALARM SWITCHES. TOTAL OF SIX.
22. PROVIDE ADDRESSABLE MONITOR MODULE FOR VALVE SUPERVISION OF CONCENTRATE CONNECTION VALVE BETWEEN TANKS. REFER TO SPRINKLER DRAWINGS FOR ADDITIONAL INFORMATION.
23. PROVIDE ADDRESSABLE MONITOR MODULE FOR VALVE SUPERVISION OF STRAINER ISOLATION VALVE. REFER TO SPRINKLER DRAWINGS FOR ADDITIONAL INFORMATION.
24. PROVIDE ADDRESSABLE MONITOR MODULE FOR MANUAL PULL STATION. PROVIDE PULL STATION A MINIMUM NEMA 4 WITH MINI MODULE.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 2' 4' 6' 8'

¼" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

COMMONWEALTH OF VIRGINIA
MATTHEW J. BATBOUTA
LIC. NO. 0402020
PROFESSIONAL ENGINEER
5/2/16
SEAL

the PROTECTION ENGINEERING GROUP
14585 Avion Parkway, Suite 150 703-488-9990
Chantilly, Virginia 20151 fax: 703-488-9994
www.PEGroup-Inc.com

A/E INFO

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ACTIVITY

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DES	MGP	DRW	LDB	CHK	MJB

PM/DM KPL/IAS
BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HAMPTON ROADS IPT

NAVAL FACILITIES ENGINEERING COMMAND MID-ATLANTIC
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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

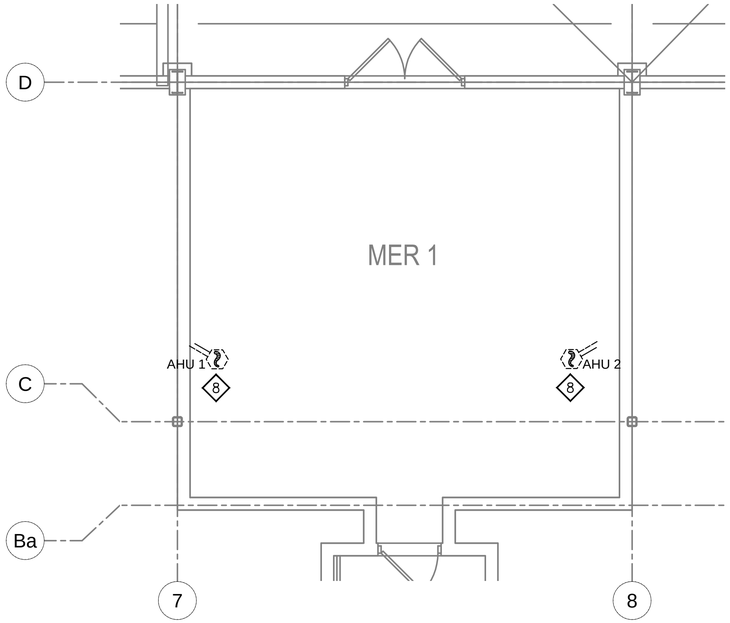
FOAM ROOM NEW WORK PLAN - FIRE ALARM

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716328
SHEET 106 OF 170

FA402

DRAWFORM REVISION: 10 MAY 2014

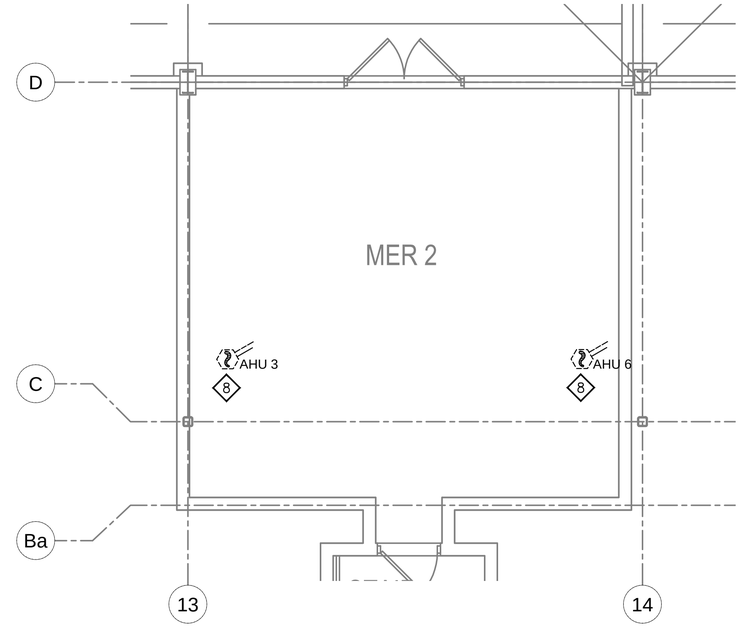
FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA402.dwg LAYOUT NAME: Area A PLOTTED: Friday, April 22, 2016 - 11:36am USER: acjones



C1 ENLARGED PLAN - THIRD FLOOR MECH ROOM DEMOLITION PLAN

SCALE: 1/4" = 1'-0"

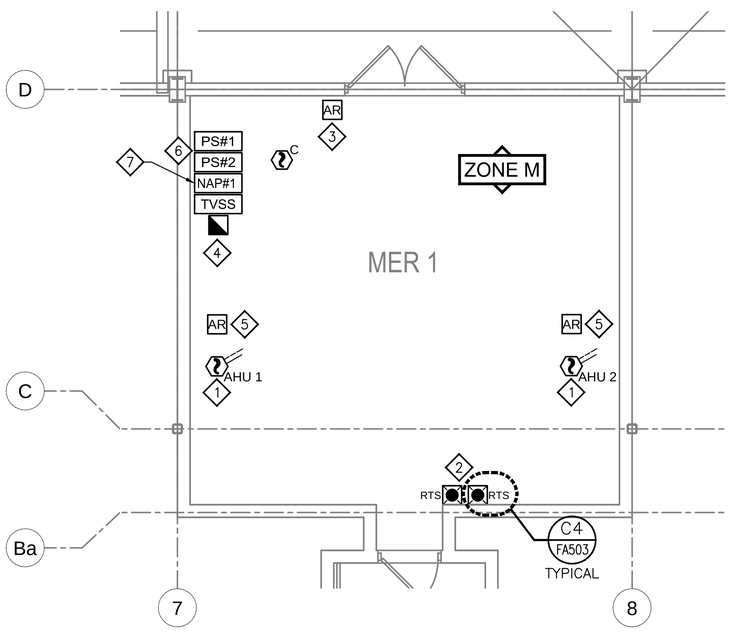
PROJECT NORTH



C3 ENLARGED PLAN - THIRD FLOOR MECH ROOM DEMOLITION PLAN

SCALE: 1/4" = 1'-0"

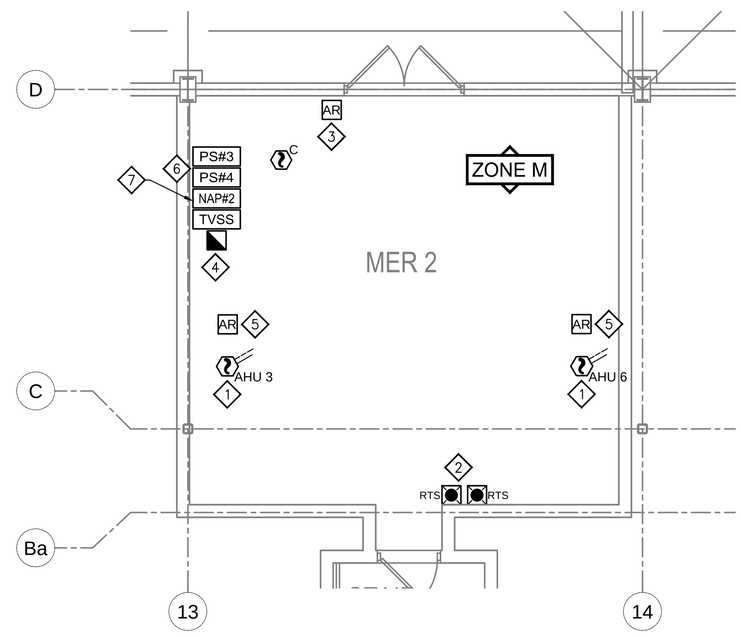
PROJECT NORTH



A1 ENLARGED PLAN - THIRD FLOOR MECH ROOM NEW WORK PLAN

SCALE: 1/4" = 1'-0"

PROJECT NORTH



A3 ENLARGED PLAN - THIRD FLOOR MECH ROOM NEW WORK PLAN

SCALE: 1/4" = 1'-0"

PROJECT NORTH

SHEET NOTES

1. FIRE ALARM CIRCUITS MUST ENTER MECHANICAL ROOM FROM HANGAR BAY AREA. PROTECT PENETRATIONS USING A LISTED THROUGH PENETRATION FIRESTOP SYSTEM TO AFFORD A MINIMUM 1 HOUR FIRE RESISTANCE RATING.
2. STACK POWER BOOSTER PANELS VERTICALLY.

KEY NOTES

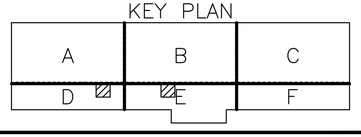
1. PROVIDE DUCT DETECTOR AT THE SUPPLY SIDE OF THE AIR HANDLING UNIT. REFER TO MECHANICAL DRAWINGS FOR LOCATION OF DUCTWORK.
2. PROVIDE TEST STATION FOR EACH DUCT SMOKE DETECTOR ON WALL MOUNTED BETWEEN 4–6 FEET ABOVE THE FINISHED FLOOR.
3. PROVIDE ADDRESSABLE RELAY MODULE WITHIN 3 FEET OF 120 VAC POWER ORIGINATION CIRCUIT LOCATED AT PANEL "P" FOR THE LOW LEAKAGE AIR DAMPERS. THERE IS ONE 120 VAC CIRCUIT SERVING FOUR DAMPERS ASSOCIATED WITH EACH MECHANICAL ROOM. REFER TO MECHANICAL DRAWINGS FOR LOCATION OF DAMPERS AND ELECTRICAL DRAWINGS FOR LOCATION OF APPLICABLE POWER CIRCUIT.
4. PROVIDE ONE DEDICATED 120VAC, 20 AMP FOR THE INDICATED FIRE ALARM PANELS. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. PROVIDE TWO #12 AND ONE #12G IN ¾–INCH CONDUIT TO PANELS. RE–LABEL CIRCUIT BREAKER SCHEDULE INDICATING CIRCUIT AS "FIRE ALARM CIRCUIT". PROVIDE CIRCUIT BREAKER WITH RED MARKING AND ABILITY TO BE MANUALLY LOCKED. AT APPLICABLE CONTROL PANELS, AFFIX A LABEL INDICATING POWER CIRCUIT NUMBER AND PANEL LOCATION.
5. PROVIDE RELAY MODULE WITHIN 3 FEET OF CONTROL EQUIPMENT FOR AIR HANDLING UNIT SHUTDOWN.
6. PROVIDE A POWER SUPPLY PANEL FOR EACH ZONE OF IR DETECTORS.
7. PROVIDE NOTIFICATION APPLIANCE BOOSTER PANEL FOR FIRE ALARM NOTIFICATION APPLIANCES AND AFFF BEACONS IN THE HANGAR BAY.
8. REMOVE DUCT SMOKE DETECTOR AND ASSOCIATED HOUSING FROM DUCTWORK. PATCH AND REPAIR DUCTWORK ASSOCIATED WITH REMOVAL OF DUCT DETECTOR. REMOVE ASSOCIATED FIRE ALARM CIRCUIT BACK TO SOURCE. REMOVE ASSOCIATED FIRE ALARM CONDUIT IN MECHANICAL ROOM.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 2' 4' 6' 8'

¼" = 1'-0

KEY PLAN



SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

COMMONWEALTH OF VIRGINIA
MATTHEW J. BATBOUTA
LIC. NO. 0402020
PROFESSIONAL ENGINEER
5/2/16
SEAL

the PROTECTION ENGINEERING GROUP
14585 Avion Parkway, Suite 150 Chantilly, Virginia 20151
703-488-9990 fax: 703-488-9994
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A/E INFO

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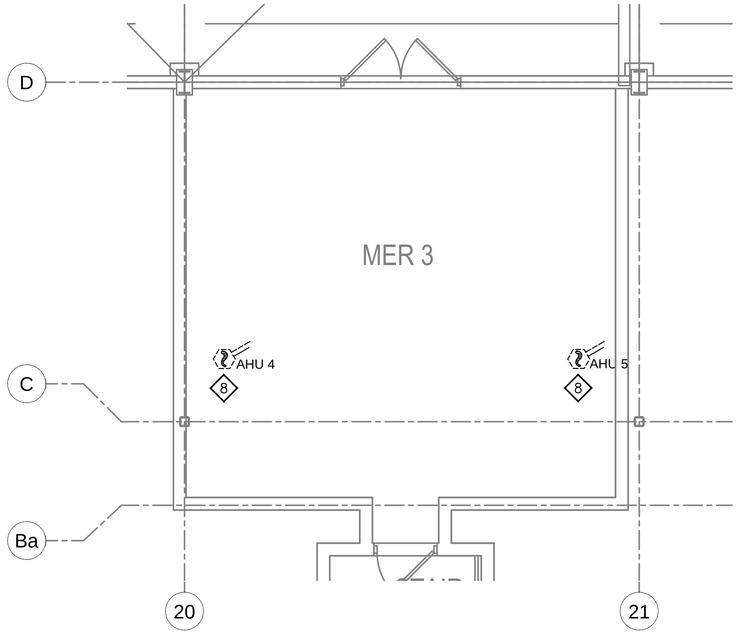
PM/DM KPL/IAS
BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAS OCEANA – VIRGINIA BEACH, VIRGINIA
HAMPTON ROADS IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS
ENLARGED PLAN - MECH RMS - FIRE ALARM

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716329
SHEET 107 OF 170
FA403

DRAWFORM REVISION: 10 MAY 2014

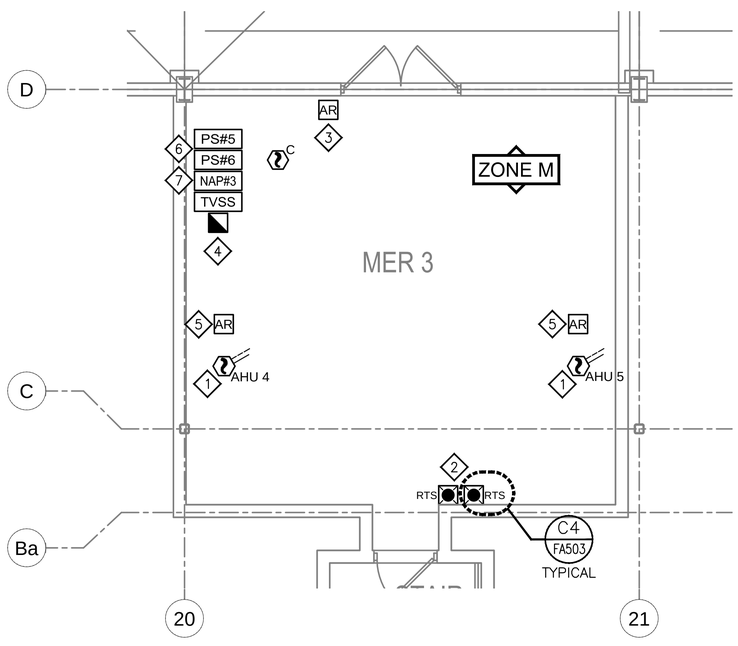
FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA403.dwg LAYOUT NAME: Area B PLOTTED: Friday, April 22, 2016 - 11:36am USER: ocjones



ENLARGED PLAN - THIRD FLOOR MECH ROOM DEMOLITION PLAN

C1 SCALE: 1/4" = 1'-0"

PROJECT NORTH



ENLARGED PLAN - THIRD FLOOR MECH ROOM NEW WORK PLAN

A1 SCALE: 1/4" = 1'-0"

PROJECT NORTH

SHEET NOTES

1. FIRE ALARM CIRCUITS MUST ENTER MECHANICAL ROOM FROM HANGAR BAY AREA. PROTECT PENETRATIONS USING A LISTED THROUGH PENETRATION FIRESTOP SYSTEM TO AFFORD A MINIMUM 1 HOUR FIRE RESISTANCE RATING.

2. STACK POWER BOOSTER PANELS VERTICALLY.

KEY NOTES

1. PROVIDE DUCT DETECTOR AT THE SUPPLY SIDE OF THE AIR HANDLING UNIT. REFER TO MECHANICAL DRAWINGS FOR LOCATION IN DUCTWORK.

2. PROVIDE TEST STATION FOR EACH DUCT SMOKE DETECTOR ON WALL MOUNTED BETWEEN 4–6 FEET ABOVE THE FINISHED FLOOR.

3. PROVIDE ADDRESSABLE RELAY MODULE WITHIN 3 FEET OF 120 VAC POWER ORIGINATION CIRCUIT FOR LOW LEAKAGE AIR DAMPERS FOR EACH AIR HANDLING UNIT. EACH CIRCUIT POWERS FOUR LOW LEAKAGE AIR DAMPERS. EACH AIR HANDLING UNIT CONTAINS TWO DAMPERS. REFER TO MECHANICAL DRAWINGS FOR LOCATION OF DAMPERS AND ELECTRICAL DRAWINGS FOR LOCATION OF APPLICABLE POWER CIRCUIT.

4. PROVIDE ONE DEDICATED 120VAC, 20 AMP FOR THE INDICATED FIRE ALARM PANELS. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. PROVIDE TWO #12 AND ONE #12G IN ¾–INCH CONDUIT TO PANELS. RE–LABEL CIRCUIT BREAKER SCHEDULE INDICATING CIRCUIT AS "FIRE ALARM CIRCUIT". PROVIDE CIRCUIT BREAKER WITH RED MARKING AND ABILITY TO BE MANUALLY LOCKED. AT APPLICABLE CONTROL PANELS AFFIX A LABEL INDICATING POWER CIRCUIT NUMBER AND PANEL LOCATION.

5. PROVIDE RELAY MODULE WITHIN 3 FEET OF CONTROL EQUIPMENT FOR AIR HANDLING UNIT SHUTDOWN.

6. PROVIDE A POWER SUPPLY PANEL FOR EACH ZONE OF IR DETECTORS.

7. PROVIDE NOTIFICATION APPLIANCE BOOSTER PANEL FOR FIRE ALARM NOTIFICATION APPLIANCES AND AFFF BEACONS IN THE HANGAR BAY.

8. REMOVE DUCT SMOKE DETECTOR AND ASSOCIATED HOUSING FROM DUCTWORK. PATCH AND REPAIR DUCTWORK ASSOCIATED WITH REMOVAL OF DUCT DETECTOR. REMOVE ASSOCIATED FIRE ALARM CIRCUIT BACK TO SOURCE. REMOVE ASSOCIATED FIRE ALARM CONDUIT IN MECHANICAL ROOM.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 2' 4' 6' 8'

¼" = 1'-0

KEY PLAN

A	B	C
D	E	F

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

COMMONWEALTH OF VIRGINIA
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A/E INFO

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BRANCH MANAGER DPS
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FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
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NAS OCEANA – VIRGINIA BEACH, VIRGINIA
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VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

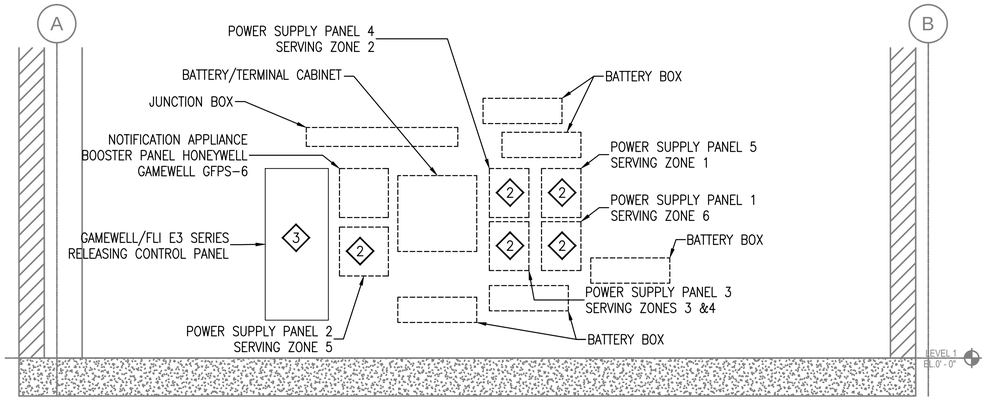
ENLARGED PLAN - MECH RM - FIRE ALARM

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716330
SHEET 108 OF 170

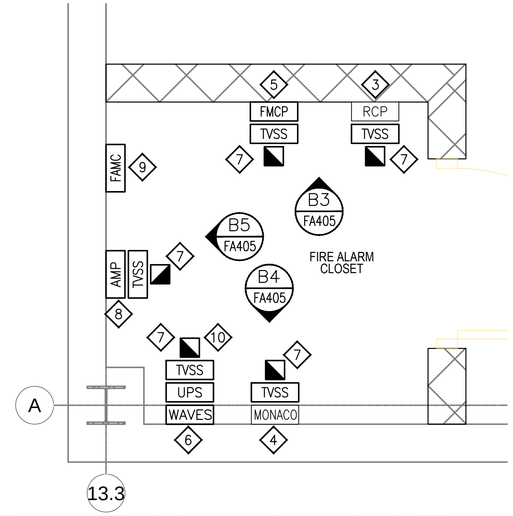
FA404

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\861\187931\02 BIM-CADD\2.1 Cadd Files\1372146_FA404.dwg LAYOUT NAME: Area C PLOTTED: Friday, April 22, 2016 - 11:36am USER: ocjones



C1 ELEVATION PLAN - FIRST FLOOR FOAM ROOM WEST WALL - DEMOLITION PLAN
SCALE: 1/2" = 1'-0"
FA401



C3 ENLARGED PLAN - FIRE ALARM CLOSET
SCALE: 3/4" = 1'-0"
FA402

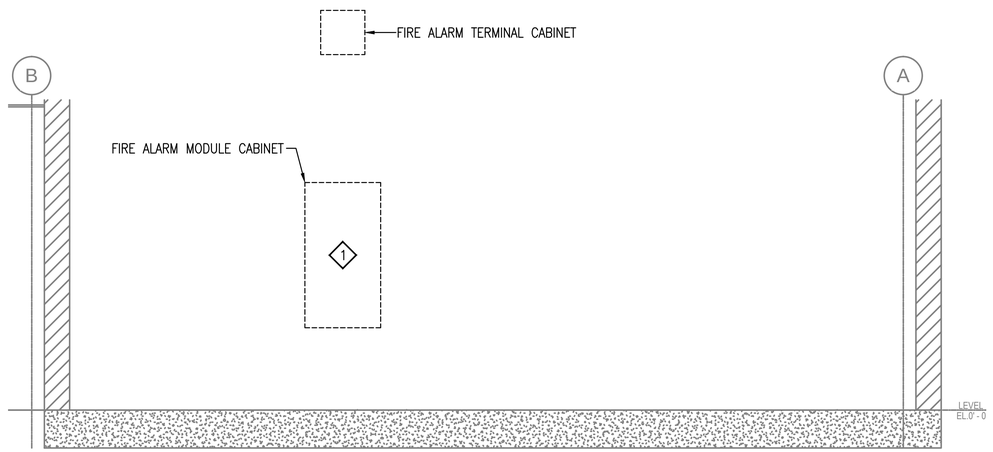
PROJECT NORTH

KEY NOTES (DEMOLITION PLAN)

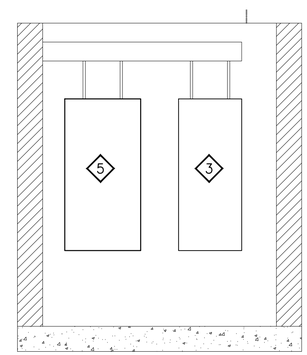
1. FIRE ALARM CABINET CONTAINING 20 MONITOR MODULES AS INDICATED IN THE FIRE ALARM MODULE CABINET TABLE BELOW. REMOVE CABINET AND ASSOCIATED MODULES.
2. REMOVE POWER SUPPLY PANELS SERVING IR DETECTORS AND COORDINATE DURING CONSTRUCTION TO KEEP IR DETECTION ACTIVE IN THE PORTIONS OF THE HANGAR BAY NOT UNDER CONSTRUCTION. DURING EACH PHASE OF CONSTRUCTION, IR DETECTORS IN ADJACENT PHASES AND ASSOCIATED ZONES MUST REMAIN OPERATIONAL BUT NOT INTERFACED WITH THE AFFF SYSTEM. INTERFACE WITH AFFF SYSTEM MUST OCCUR DURING THE FINAL PHASE OF CONSTRUCTION.

KEY NOTES (NEW WORK PLAN)

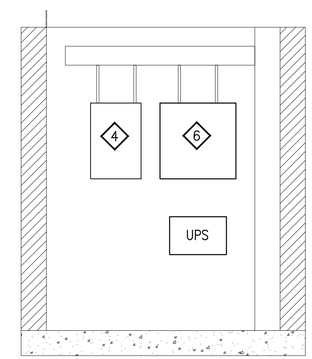
3. RELOCATE RELEASING CONTROL PANEL TO FIRE ALARM CLOSET. PROVIDE ADDITIONAL CIRCUIT/EXPANSION CARDS FOR CIRCUIT QUANTITIES INDICATED ON CIRCUIT SCHEDULE ON FA701. PROVIDE BATTERIES BASED ON BATTERY CALCULATIONS.
4. RELOCATE MONACO CONTROL PANEL TO THE FIRE ALARM CLOSET. TRANSMIT ALARM, AFFF DISCHARGE, SUPERVISORY AND TROUBLE CONDITIONS FROM THIS PANEL.
5. PROVIDE FIRE ALARM/MASS NOTIFICATION CONTROL PANEL.
6. PROVIDE WAVES BASEWIDE NOTIFICATION CONTROL PANEL AND UPS FOR CONNECTION TO THE EXISTING BASEWIDE NOTIFICATION SYSTEM. MOUNT ANTENNA ON ROOF ABOVE FOAM ROOM.
7. PROVIDE DEDICATED 120VAC, 20 AMP FOR EACH INDICATED FIRE ALARM PANEL. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. PROVIDE TWO #12 AND ONE #12G IN ¾ INCH CONDUIT TO PANELS. RE-LABEL CIRCUIT BREAKER SCHEDULE INDICATING CIRCUIT AS "FIRE ALARM CIRCUIT". PROVIDE CIRCUIT BREAKER WITH RED MARKING AND ABILITY TO BE MANUALLY LOCKED. AT APPLICABLE CONTROL PANELS, AFFIX A LABEL INDICATING POWER CIRCUIT NUMBER AND PANEL LOCATION.
8. PROVIDE AMPLIFIERS.
9. PROVIDE FIRE ALARM MODULE CABINET TO CONTAIN ADDRESSABLE MONITOR MODULES, ADDRESSABLE RELAY MODULES AND ADDRESSABLE ZONE MODULES.
10. PROVIDE HARDWIRED POWER CONNECTION (NOT PLUG-IN).



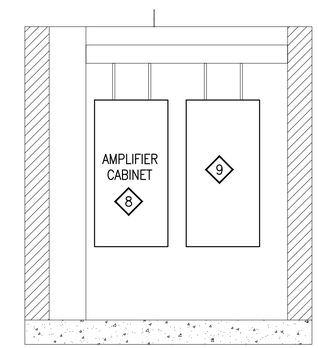
B1 ELEVATION PLAN - FIRST FLOOR FOAM ROOM EAST WALL - DEMOLITION PLAN
SCALE: 1/2" = 1'-0"
FA401



B3 ELEVATION - FIRE ALARM CLOSET - NORTH WALL
SCALE: 1/2" = 1'-0"



B4 ELEVATION - FIRE ALARM CLOSET - SOUTH WALL
SCALE: 1/2" = 1'-0"



B5 ELEVATION - FIRE ALARM CLOSET - WEST WALL
SCALE: 1/2" = 1'-0"

EXISTING FIRE ALARM MODULE CABINET

1. ZONE 1 TURRET	2. ZONE 1 PRE-ACTION	3. ZONE 2 TURRET	4. ZONE 2 PRE-ACTION
5. ZONE 3 TURRET	6. ZONE 3 PRE-ACTION	7. ZONE 4 TURRET	8. ZONE 4 PRE-ACTION
9. ZONE 5 TURRET	10. ZONE 5 PRE-ACTION	11. ZONE 6 TURRET	12. ZONE 6 PRE-ACTION
13. MIXER	14. ZONE 5 HIGH/LOW AIR	15. ZONE 2 HIGH/LOW AIR	16. ZONE 3 HIGH/LOW
17. ZONE 4 HIGH/LOW AIR	18. ZONE 5 HIGH/LOW AIR	19. ZONE 6 HIGH/LOW AIR	20. PRESSURE ALARM

FOR INFORMATIONAL ONLY

EXISTING IR DETECTOR POWER SUPPLY

POWER SUPPLY	ZONE	ADDRESS
5	1	13/14 16/17 37/38
4	2	8/9 11/12 39/40
3	3 3 3 4 4 4	3/4 6/7 41/42 1/2 28/29 43/44
2	5	23/24 26/27 45/46
1	6	18/19 21/22 47/48

FOR INFORMATIONAL ONLY

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 6" 1' 2' 3'
¾" = 1'-0

0 1' 2' 3' 4'
½" = 1'-0

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

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PM/DM KPL/IAS
BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HAMPTON ROADS IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
IMS: OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

ELEVATION PLAN - FOAM RM - FIRE ALARM

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716331
SHEET 109 OF 170

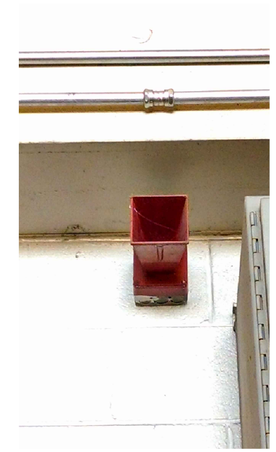
FA405

DRAWFORM REVISION: 10 MAY 2014

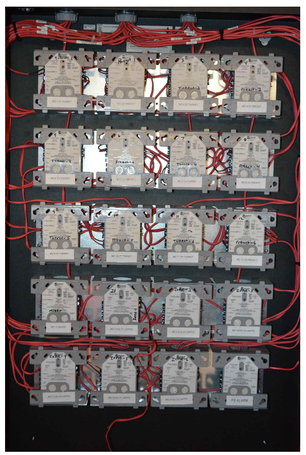
FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA405.dwg LAYOUT NAME: . PLOTTED: Friday, April 22, 2016 - 11:36am USER: ocjones

C1 EXISTING AFFF SIGNAGE
SCALE: NOT TO SCALE FA501

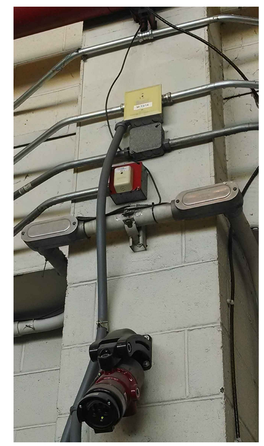
C2 EXISTING AFFF SIGNAGE
SCALE: NOT TO SCALE FA501



C4 EXISTING FIRE ALARM HORN APPLIANCE
SCALE: NOT TO SCALE FA501



B1 EXISTING MONITOR MODULE CABINET
SCALE: NOT TO SCALE FA501



B2 EXISTING IR DETECTOR
SCALE: NOT TO SCALE FA501

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

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PM/DM KPL/IAS
BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
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NAVAL AIR STATION OCEANA VIRGINIA BEACH, VIRGINIA

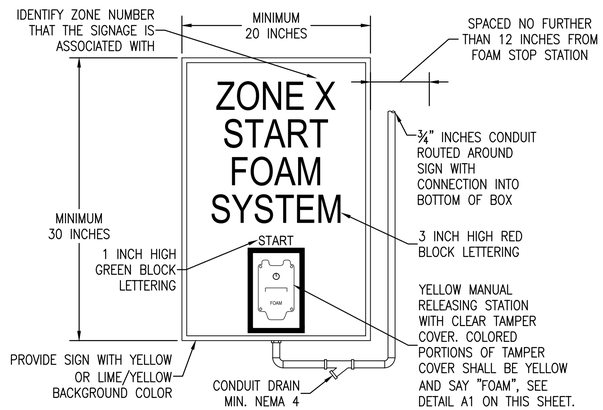
HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

DETAILS - FIRE ALARM

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716332
SHEET 110 OF 170
FA501

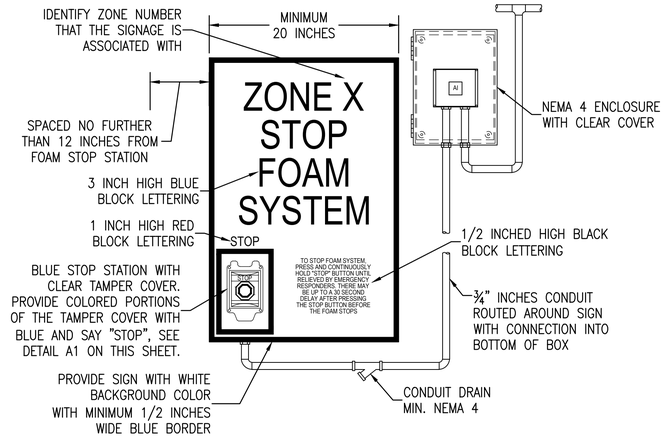
DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA501.dwg LAYOUT NAME: Area A PLOTTED: Friday, April 22, 2016 – 11:37am USER: acjones



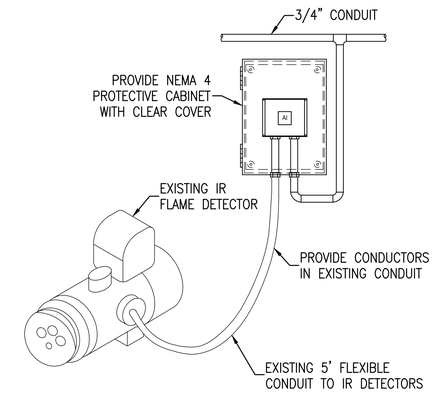
C1 START FOAM SYSTEM SIGNAGE

SCALE: NOT TO SCALE FA502



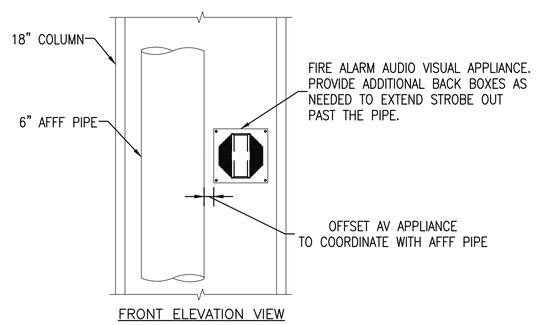
C2 STOP FOAM SYSTEM SIGNAGE

SCALE: NOT TO SCALE FA502



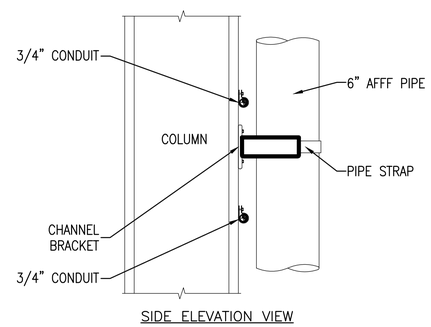
C4 ADDRESSABLE MONITOR MODULE MOUNTING FOR EXISTING IR DETECTOR

SCALE: NOT TO SCALE FA502



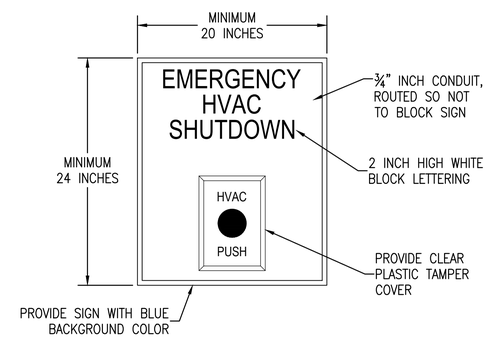
B1 FIRE ALARM APPLIANCE COORDINATED WITH AFFF PIPE

SCALE: 1 1/2" = 1'-0" FA502



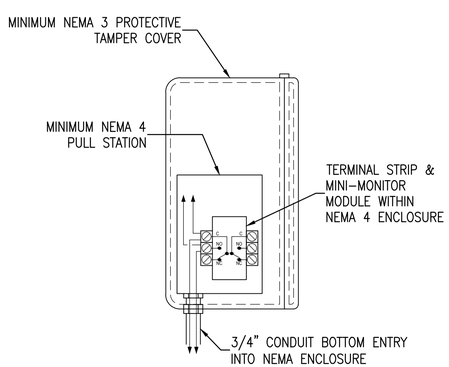
B2 FIRE ALARM CONDUIT ROUTING COORDINATED WITH AFFF PIPE

SCALE: 1 1/2" = 1'-0" FA502



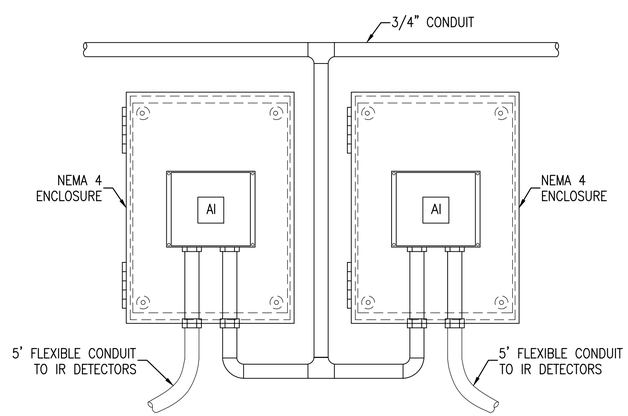
B4 EMERGENCY HVAC SHUTDOWN SIGNAGE

SCALE: NOT TO SCALE FA502



A1 HANGAR BAY PULL/RELEASING STATIONS

SCALE: NOT TO SCALE FA502



A2 ADDRESSABLE MONITOR MODULE MOUNTING WITHIN ENCLOSURES

SCALE: NOT TO SCALE FA502

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 3" 6" 1' 18"

1½" = 1'-0

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

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A/E INFO

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BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
HAMPTON ROADS IPT
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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

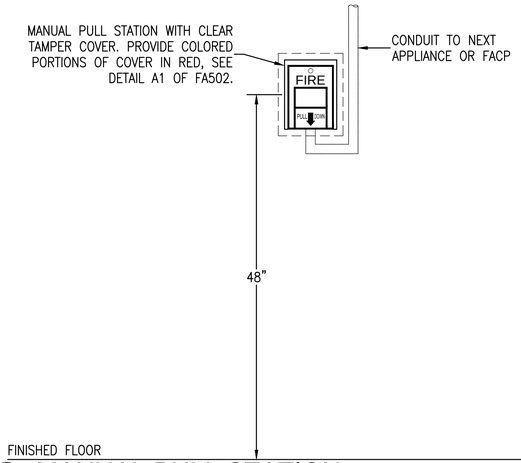
DETAILS - FIRE ALARM

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716333
SHEET 111 OF 170

FA502

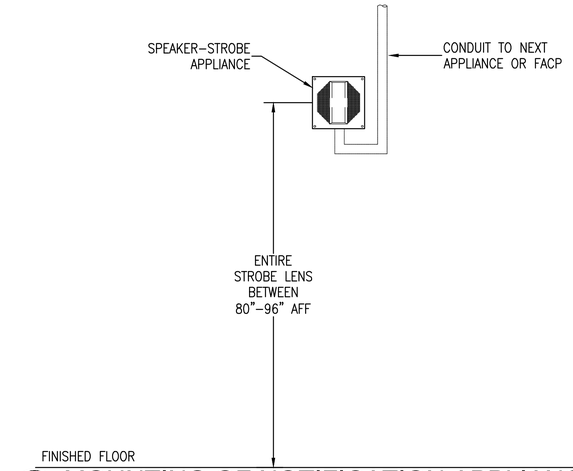
DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\861\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA502.dwg LAYOUT NAME: Area A PLOTTED: Friday, April 22, 2016 - 11:37am USER: ocjones



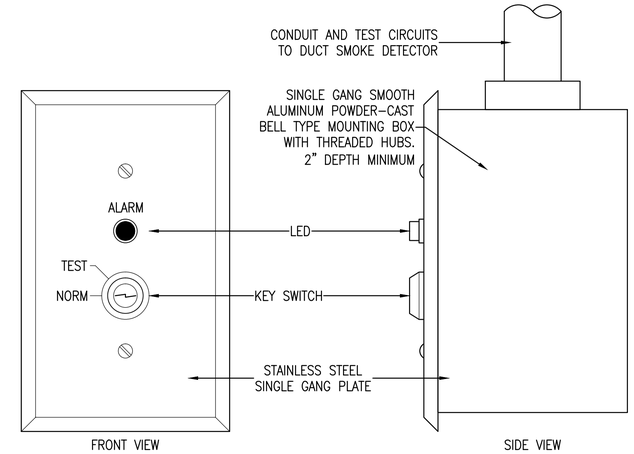
C1 MANUAL PULL STATION

SCALE: NOT TO SCALE FA503



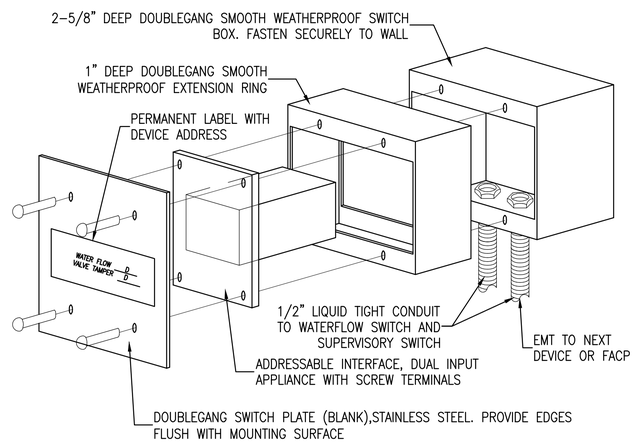
C2 MOUNTING OF NOTIFICATION APPLIANCE

SCALE: NOT TO SCALE FA503



C4 DUCT SMOKE DETECTOR TEST STATION

SCALE: NOT TO SCALE FA503



B1 MONITOR MODULE MOUNTING

SCALE: NOT TO SCALE FA503

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

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BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
HAMPTON ROADS IPT
NAVAL FACILITIES ENGINEERING COMMAND
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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

DETAILS - FIRE ALARM

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716334
SHEET 112 OF 170

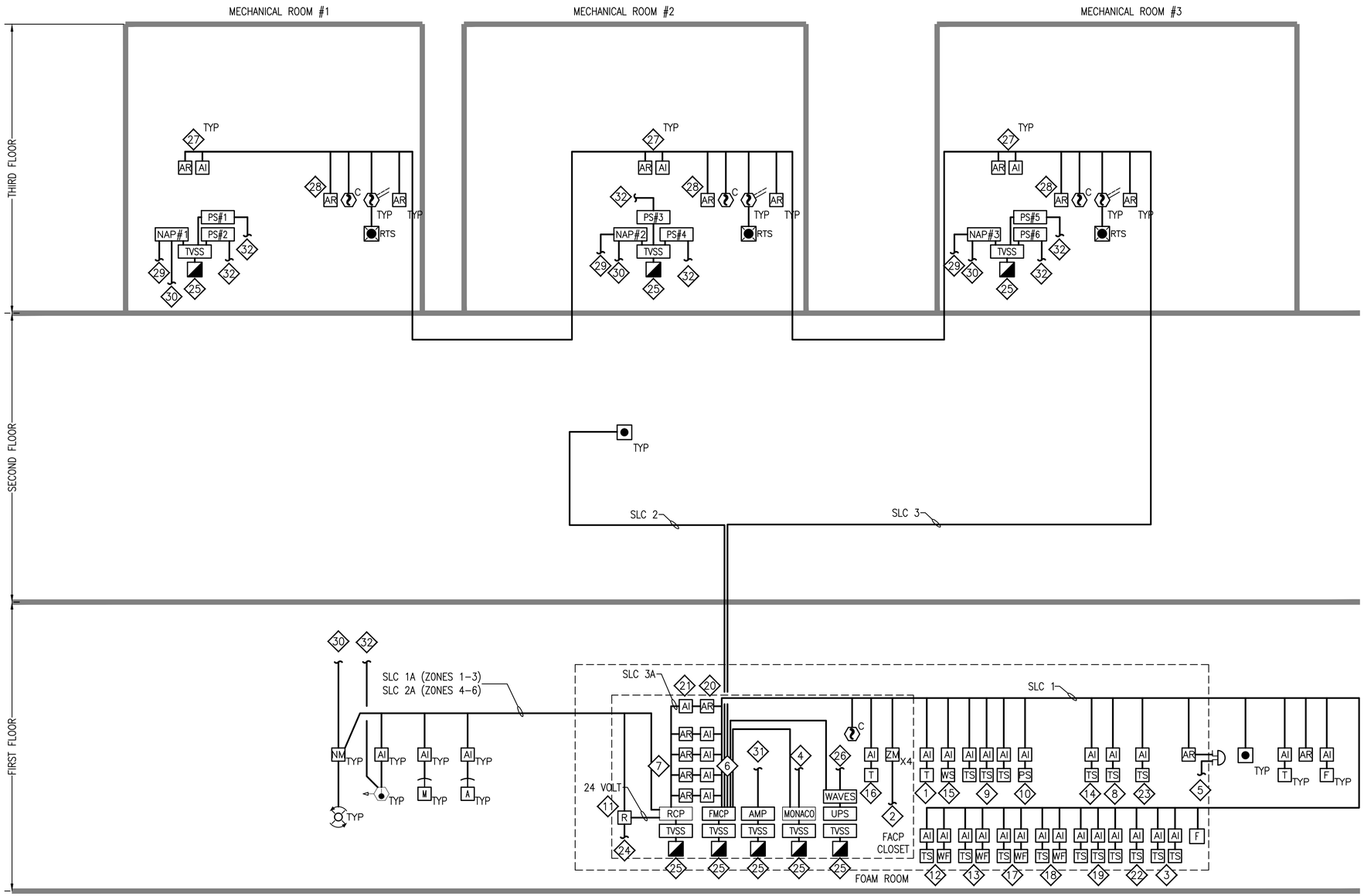
FA503

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA503.dwg LAYOUT NAME: Area A PLOTTED: Friday, April 22, 2016 - 11:37am USER: acjones

SHEET NOTES

1. REFER TO INDIVIDUAL FLOOR PLANS FOR EXACT APPLIANCE LOCATIONS AND QUANTITIES OF EQUIPMENT. NOT ALL EQUIPMENT IS SHOWN ON FIRE ALARM RISER DIAGRAM.
2. REFER TO PANEL/CKT SCHEDULE ON FA701 FOR CIRCUIT QUANTITY, ORIGINATION AND ASSOCIATED ZONE.



A1 RISER DIAGRAM
SCALE: NOT TO SCALE

KEY NOTES

1. LOW TEMPERATURE SENSOR WITH MONITOR MODULE SET AT 40° FAHRENHEIT.
2. TO EXISTING CONVENTIONAL CIRCUITS WITH CONNECTION PROVIDED BETWEEN EACH ADDRESSABLE ZONE MODULE AND EACH EXISTING CONVENTIONAL CIRCUIT.
3. ADDRESSABLE MONITOR MODULES FOR VALVE SUPERVISORY SWITCH OF CONCENTRATE LINE TO PROPORTIONER AND RETURN LINE.
4. TO EXISTING ANTENNAE WITH CONNECTION PROVIDED BETWEEN ANTENNA AND MONACO PANEL.
5. 24 VOLT POWER CIRCUIT FOR BELL FROM THE FIRE ALARM/MASS NOTIFICATION CONTROL PANEL.
6. ADDRESSABLE MONITOR MODULES FOR THE BUILDING FIRE ALARM/MASS NOTIFICATION CONTROL PANEL TO MONITOR AFFF RELEASE, ALARM, SUPERVISORY AND TROUBLE CONDITIONS ON THE RELEASING CONTROL PANEL.
7. ADDRESSABLE RELAY MODULES COMPATIBLE WITH THE E3 SERIES RELEASING CONTROL PANEL FOR THE PURPOSES OF PROVIDING A SIGNAL TO THE FACP OF AFFF RELEASE, ALARM, SUPERVISORY AND TROUBLE CONDITIONS.
8. ADDRESSABLE MONITOR MODULE FOR VALVE SUPERVISION OF SPRINKLER SYSTEM TEST HEADER CONTROL VALVE.
9. ADDRESSABLE MONITOR MODULES FOR THE AFFF DELUGE VALVE ASSEMBLY INCLUDING SUCTION CONTROL VALVE, DISCHARGE CONTROL VALVE AND TEST HEADER CONTROL VALVE. TOTAL OF 6.
10. ADDRESSABLE MONITOR MODULE FOR THE ALARM PRESSURE SWITCH. TOTAL OF 6.
11. RELEASING MODULE FOR EACH DELUGE VALVE. TOTAL OF 6.
12. ADDRESSABLE MONITOR MODULES FOR VALVE SUPERVISION AND WATER FLOW DETECTION OF THE FIRST FLOOR SPRINKLER SYSTEM.
13. ADDRESSABLE MONITOR MODULES FOR VALVE SUPERVISION AND WATER FLOW DETECTION OF THE SECOND FLOOR SPRINKLER SYSTEM.
14. ADDRESSABLE MONITOR MODULE FOR VALVE SUPERVISION OF THE ISOLATION VALVE FOR THE AFFF SYSTEM.
15. WATER SENSOR WITH MONITOR MODULE.
16. LOW TEMPERATURE SENSOR WITH MONITOR MODULE SET AT 60° FAHRENHEIT.
17. ADDRESSABLE MONITOR MODULES FOR VALVE SUPERVISION AND WATER FLOW DETECTION ON CEILING ZONE 1 OF THE HANGAR BAY.
18. ADDRESSABLE MONITOR MODULES FOR VALVE SUPERVISION AND WATER FLOW DETECTION ON CEILING ZONE 2 OF THE HANGAR BAY.
19. ADDRESSABLE MONITOR MODULES FOR VALVE SUPERVISION OF THE FOAM CONCENTRATE LINE CONTROL VALVES INCLUDING SURROGATE TANK, AFFF TANK 1 AND AFFF TANK 2.
20. ADDRESSABLE RELAY MODULE FOR THE PURPOSES OF PROVIDING A SIGNAL TO THE RELEASING CONTROL PANEL OF ACTIVATION OF A PRESSURE ALARM SWITCH. TOTAL OF SIX.
21. ADDRESSABLE MONITOR MODULES FOR THE PURPOSE OF MONITORING THE PRESSURE ALARM SWITCH. TOTAL OF SIX.
22. ADDRESSABLE MONITOR MODULE FOR VALVE SUPERVISION OF CONCENTRATE CONNECTION VALVE BETWEEN TANKS.
23. ADDRESSABLE MONITOR MODULE FOR VALVE SUPERVISION OF STRAINER ISOLATION VALVE.
24. TO SOLENOID. TOTAL OF 6.
25. DEDICATED FIRE ALARM POWER CIRCUITS.
26. TO ANTI-109-OM 9DBI OMNI-DIRECTIONAL ANTENNA.
27. RELAY AND MONITOR MODULES FOR CONTROL AND SUPERVISION FUNCTIONS OF POWER SUPPLY PANELS.
28. RELAY MODULE FOR INTERFACE WITH LOW LEAKAGE AIR DAMPERS.
29. REFER TO PANEL/CKT SCHEDULE ON FA701 FOR CIRCUIT QUANTITY, ORIGINATION AND ASSOCIATED ZONE.
30. REFER TO CIRCUIT SCHEDULE FOR ADDITIONAL INFORMATION ON FIRE ALARM VISUAL NOTIFICATION APPLIANCE (STROBES) CIRCUIT(S).
31. REFER TO CIRCUIT SCHEDULE FOR ADDITIONAL INFORMATION ON AUDIO CIRCUITS.
32. REFER TO CIRCUIT SCHEDULE FOR ADDITIONAL INFORMATION ON IR DETECTOR POWER CIRCUITS.

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

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FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HAMPTON ROADS IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAS OCEANA - VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS
RISER DIAGRAMS AND SCHEDULES - FIRE ALARM

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716335
SHEET 113 OF 170
FA601

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA601.dwg LAYOUT NAME: Area A PLOTTED: Friday, April 22, 2016 - 11:37am USER: acjones

RELEASING CONTROL PANEL OPERATION MATRIX

HANGAR 111 RELEASING CONTROL PANEL MATRIX	ANNUNCIATION				NOTIFICATION						CONTROL						
INITIATING DEVICES	Alarm Annunciation RCP and send status to FMCP	Alarm AFFF Discharge Annunciation RCP and send status to FMCP	Supervisory Annunciation RCP and send status to FMCP	Trouble Annunciation RCP and send status to FACP	Activate Rotating Blue Beacon in Zone 1	Activate Rotating Blue Beacon in Zone 2	Activate Rotating Blue Beacon in Zone 3	Activate Rotating Blue Beacon in Zone 4	Activate Rotating Blue Beacon in Zone 5	Activate Rotating Blue Beacon in Zone 6	Activate AFFF control Valve for Zone 1 See Notes 1 & 2	Activate AFFF control Valve for Zone 2 See Notes 1 & 2	Activate AFFF control Valve for Zone 3 See Notes 1 & 2	Activate AFFF control Valve for Zone 4 See Notes 1 & 2	Activate AFFF control Valve for Zone 5 See Notes 1 & 2	Activate AFFF control Valve for Zone 6 See Notes 1 & 2	De-Activate Flow Control Valves (all zones) See Note 3
Hangar Bay Zone 1 (First IR Detector)	X				X												
Hangar Bay Zone 1 (Second IR Detector)		X			X						X						
Hangar Bay Zone 2 (First IR Detector)	X					X											
Hangar Bay Zone 2 (Second IR Detector)		X				X						X					
Hangar Bay Zone 3 (First IR Detector)	X						X										
Hangar Bay Zone 3 (Second IR Detector)		X					X						X				
Hangar Bay Zone 4 (First IR Detector)	X							X									
Hangar Bay Zone 4 (Second IR Detector)		X						X						X			
Hangar Bay Zone 5 (First IR Detector)	X								X								
Hangar Bay Zone 5 (Second IR Detector)		X							X						X		
Hangar Bay Zone 6 (First IR Detector)	X									X							
Hangar Bay Zone 6 (Second IR Detector)		X								X						X	
AFFF Manual Pull Station Zone 1		X			X						X						
AFFF Manual Pull Station Zone 2		X				X						X					
AFFF Manual Pull Station Zone 3		X					X						X				
AFFF Manual Pull Station Zone 4		X						X						X			
AFFF Manual Pull Station Zone 5		X							X						X		
AFFF Manual Pull Station Zone 6		X								X						X	
AFFF Pressure Switch Flow - Zone 1 (Signal Received from Fire Alarm/Mass Notification Panel)					X												
AFFF Pressure Switch Flow - Zone 2 (Signal Received from Fire Alarm/Mass Notification Panel)						X											
AFFF Pressure Switch Flow - Zone 3 (Signal Received from Fire Alarm/Mass Notification Panel)							X										
AFFF Pressure Switch Flow - Zone 4 (Signal Received from Fire Alarm/Mass Notification Panel)								X									
AFFF Pressure Switch Flow - Zone 5 (Signal Received from Fire Alarm/Mass Notification Panel)									X								
AFFF Pressure Switch Flow - Zone 6 (Signal Received from Fire Alarm/Mass Notification Panel)										X							
Any Abort Station			X														X
Releasing Panel Disable AFFF Switch			X														X
Releasing Panel AC Power Fail				X													
Releasing Panel Low Battery				X													
Releasing Panel open circuit				X													
Releasing Panel ground fault				X													
SLC/Initiating Device Circuit Short				X													
Notification Appliance Circuit Short				X													

Notes:
1. ACTIVATION OF TWO (2) IR FLAME DETECTORS WITHIN THE SAME AFFF ZONE WILL INITIATE THE ACTIVATION OF THE APPLICABLE AFFF ZONE.
2. PROGRAM A TWO (2) SECOND TIME DELAY BETWEEN ACTIVATION OF MULTIPLE AFFF ZONES.
3. PROGRAM A TWO (2) SECOND TIME DELAY ON CLOSING FLOW CONTROL VALVES. SIMULTANEOUS CLOSURE OF MULTIPLE FLOW CONTROL VALVES IS PROHIBITED.
4. A MAXIMUM OF THREE AFFF ZONES CAN OPERATE. AFTER THE ACTIVATION OF THE 3RD ZONE, THE AFFF ZONES ARE LOCKED OUT. THE IR DETECTION MUST CONTINUE TO OPERATE AND REPORT TO THE RELEASING CONTROL PANEL, BUT THE IR DETECTORS MUST NOT CAUSE OPERATION OF FURTHER AFFF ZONES.

FIRE ALARM OPERATION MATRIX

HANGAR 111 FIRE ALARM/MASS NOTIFICATION PANEL MATRIX	ANNUNCIATION				SIGNAL TO RELEASING CONTROL PANEL						MONACO TRANSMISSION TO DISPATCH				NOTIFICATION		CONTROL			
INITIATING DEVICES	Alarm Annunciation FACP	Alarm AFFF Discharge Annunciation FACP	Supervisory Annunciation FACP	Trouble Annunciation FACP	AFFF Pressure Switch Flow - Zone 1	AFFF Pressure Switch Flow - Zone 2	AFFF Pressure Switch Flow - Zone 3	AFFF Pressure Switch Flow - Zone 4	AFFF Pressure Switch Flow - Zone 5	AFFF Pressure Switch Flow - Zone 6	Alarm Signal	AFFF Discharge Signal	Supervisory Signal	Trouble Signal	Sound General Evacuation Speakers and Strobes Throughout Building	Sound Mass Notification Message on Speakers and activate strobes. Temporarily overide Fire Alarm # in Alarm.	Activate Exterior Electric Bell	Shut Down Associated HVAC Unit	Shut Down All HVAC Units and Close all Low Leakage Air Dampers	Close Diverter Valve
Alarm Signal from Releasing Panel	X										X				X					
Alarm AFFF Discharge Signal from Releasing Panel		X										X			X		X			X
Supervisory Signal from Releasing Panel			X										X							
Trouble Signal from Releasing Panel				X										X						
Floor 1 Manual Pull Stations (Existing Zone 2)	X										X				X					
Floor 2 Manual Pull Stations (Existing Zone 3)	X										X				X					
Floor 1 Smoke Detectors (Existing Zone 4)	X										X				X					
Floor 2 Smoke Detectors (Existing Zone 5)	X										X				X					
Wet Pipe Sprinkler Flow Switch	X										X				X		X			
AFFF Pressure Switch - Zone 1		X			X							X			X		X			X
AFFF Pressure Switch - Zone 2		X				X						X			X		X			X
AFFF Pressure Switch - Zone 3		X					X					X			X		X			X
AFFF Pressure Switch - Zone 4		X						X				X			X		X			X
AFFF Pressure Switch - Zone 5		X							X			X			X		X			X
AFFF Pressure Switch - Zone 6		X								X		X			X		X			X
Smoke Detector	X										X				X					
Valve Tamper Switch			X										X							
Temperature Sensor			X										X							
Water Sensor			X										X							
Duct Detector			X										X					X		
HVAC Shut Down Button			X										X						X	
Activation of Mass Notification Microphone			X										X			X				
Activation of Mass Notification from Waves/Base Wide System			X										X			X				
Fire Alarm AC Power Fail				X										X						
Fire Alarm System Low Battery				X										X						
Fire alarm panel open circuit				X										X						
Fire alarm panel ground fault				X										X						
SLC/Initiating Device Circuit Short				X										X						
Notification Appliance Circuit Short				X										X						

FIRE ALARM AND MASS NOTIFICATION SYSTEM CIRCUIT SCHEDULE

FLOOR	ZONE	CONTROL EQUIPMENT LOCATION	FIRE ALARM SLC NO.	RELEASING SLC NO.	AMPLIFIER AUDIO CIRCUIT NO.[1]	IR DETECTOR POWER SUPPLY PS PANEL NO.	IR DETECTOR POWER SUPPLY CIRCUIT NO.	FIRE ALARM STROBES POWER SUPPLY NAP PANEL NO.	FIRE ALARM STROBES POWER SUPPLY CIRCUIT NO.	BEACON POWER SUPPLY NAP PANEL NO.	BEACON POWER SUPPLY CIRCUIT NO.	BELL POWER SUPPLY CIRCUIT NO.
First	1	FACP Closet	1	1A	1	1 1 1 1	1-1 1-2(SPARE) 1-3 1-4(SPARE)	1	1-1	1	1-3 1-4	NA
First	2	FACP Closet	1	1A	1	2 2 2 2	2-1 2-2(SPARE) 2-3 2-4(SPARE)	1	1-2			NA
First	3	FACP Closet	1	1A	1	3 3 3 3	3-1 3-2(SPARE) 3-3 3-4(SPARE)	2	2-1	2	2-3 2-4	NA
First	4	FACP Closet	1	2A	2	4 4 4 4	4-1 4-2(SPARE) 4-3 4-4(SPARE)	2	2-2			NA
First	5	FACP Closet	1	2A	2	5 5 5 5	5-1 5-2(SPARE) 5-3 5-4(SPARE)	3	3-1	3	3-3 3-4	NA
First	6	FACP Closet	1	2A	2	6 6 6 6	6-1 6-2(SPARE) 6-3 6-4(SPARE)	3	3-2			NA
First		FACP Closet	1	3A	NA	NA	NA	NA	NA	NA	NA	NA
Second		FACP Closet	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Third	M	FACP Closet	3	NA	NA	NA	NA	NA	NA	NA	NA	NA
Exteror	NA	FACP Closet	NA	NA	3	NA	NA	NA	NA	NA	NA	NA

Notes:
1. Each amplifier cabinet shall contain a backup amplifier of equal size to the primary amplifier.

SYM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	

NAVFAC

COMMONWEALTH OF VIRGINIA
MATTHEW J. BATBOUTA
LIC. NO. 0402020
PROFESSIONAL ENGINEER
5/2/16
SEAL

the PROTECTION ENGINEERING GROUP
14585 Avion Parkway, Suite 150 703-488-9990
Chantilly, Virginia 20151 fax: 703-488-9994
www.PEGroup-Inc.com

A/E INFO

APPROVED 5/2/16
FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO

DES MGP | DRW LDB | CHK MJB
PM/DM KPL/IAS
BRANCH MANAGER DPS
CHIEF ENG/ARCH Mark J. Airaghi, PE
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAS OCEANA - VIRGINIA BEACH, VIRGINIA
HAMPTON ROADS PIT
NAVAL AIR STATION OCEANA VIRGINIA BEACH, VIRGINIA
HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS
FIRE ALARM MATRICES AND SCHEDULES

SCALE: AS SHOWN
EPROJECT NO.: 1372146
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12716336
SHEET 114 OF 170
FA701

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_FA701.dwg LAYOUT NAME: Area A PLOTTED: Friday, April 22, 2016 - 11:37am USER: ocjones