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one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot

FLOW TEST DATA:  
STATIC: 56PSI  
RESID: 48PSI  
FLOW: 2,161 GPM



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EXISTING FIRE DEPARTMENT CONNECTION WITH NEW 24 VOLT WEATHERPROOF OUTSIDE ALARM. ALARM SHALL BE SUPPLIED BY FIRE SPRINKLER CONTRACTOR & INSTALL BY DIVISION 28.

INSTALL NEW VALVE ASSEMBLY (SEE SHEET F001 DETAILS 2 & 3) TO FEED NEW MAIN FOR NEW BUILDING.

SLEEVE HOLE WHEN POURING CONCRETE

UP TO FIRST LEVEL

IF NECESSARY, PATCHING WORK SHALL BE COMPLETED BY THE FIRE SPRINKLER CONTRACTOR, UNLESS DIRECTED OTHERWISE.

SPRINKLERS & PIPING SHALL BE INSTALLED AS CLOSE TO THE CEILING AS POSSIBLE TO AVOID CONFLICTS WITH LIGHTING. THE FIRE SPRINKLER CONTRACTOR SHALL COORDINATE WITH ELECTRICAL & MECHANICAL PRIOR TO FABRICATION &/OR INSTALLATION. IF NECESSARY ADDITIONAL SPRINKLERS SHALL BE ADDED TO COMPLY WITH NFPA 13 OBSTRUCTION REQUIREMENTS.

1 BASEMENT FIRE PROTECTION PLAN  
SCALE: 3/16" = 1'-0"

SI DEWALL SPRINKLER PROTECTION SHALL BE INSTALLED PER SECTION 8.7.4.1.1.1 OF NFPA 13 AND MANUFACTURERS DATA SHEET. THE LOCATION AND PENETRATION OF SPRINKLER PIPING SHALL BE COORDINATED AND APPROVED PRIOR TO INSTALLATION.

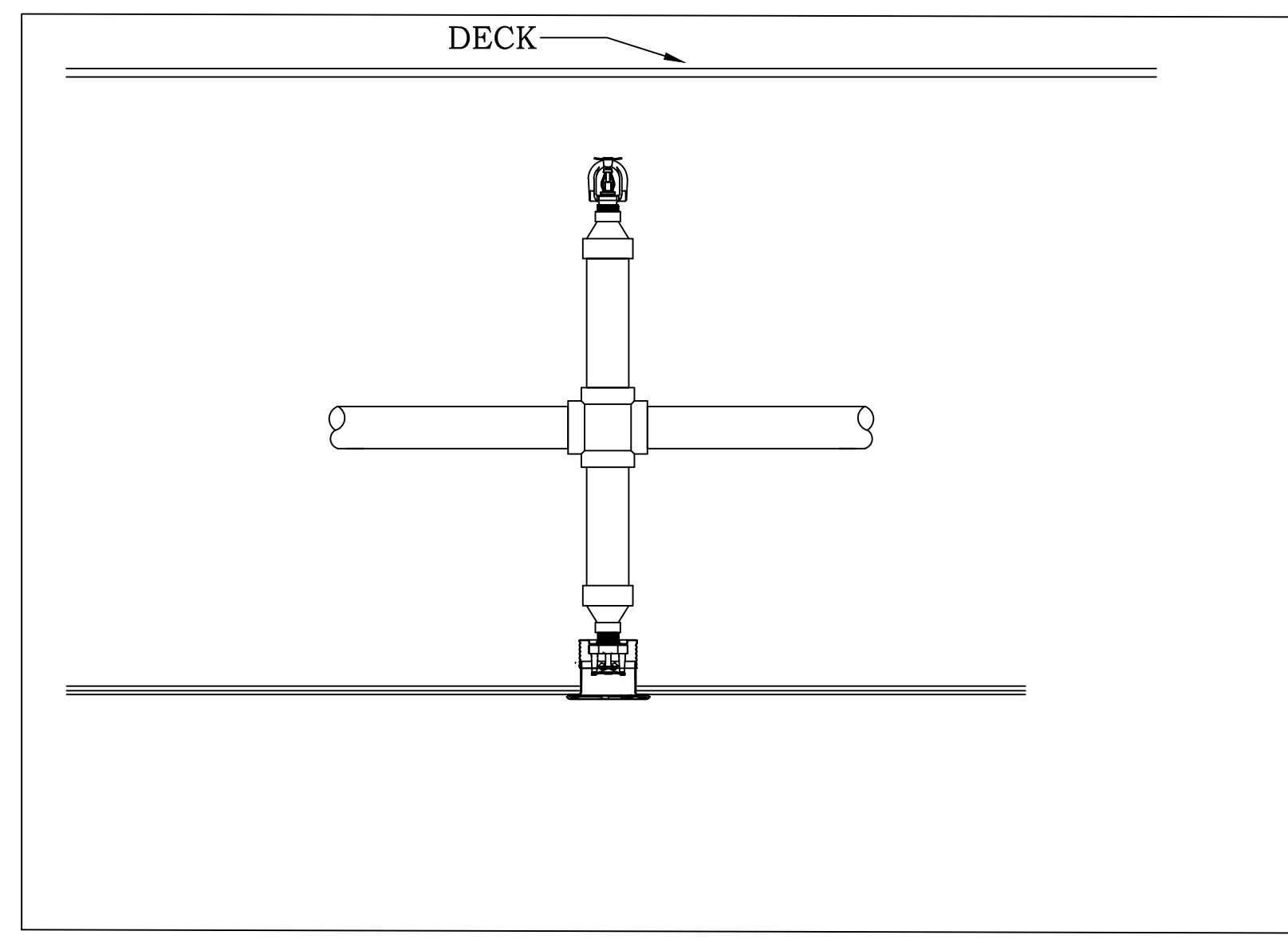
DOWN TO BASEMENT

SPRINKLER SYMBOL INDICATES THAT AN UPRIGHT AND CONCEALED PENDENT SPRINKLER ARE TO BE INSTALLED AT THE SAME LOCATION, BUT AT DIFFERENT ELEVATIONS. (SEE DETAIL 3). THE FIRE SPRINKLER CONTRACTOR SHALL INSTALL A CONCEALED SPRINKLER AT CENTER OF TILE, AND AN UPRIGHT SPRINKLER AT THE DECK. THE INSTALLATION AND SPACING SHALL BE IN ACCORDANCE WITH NFPA 13.

2 FIRST FLOOR FIRE PROTECTION PLAN  
SCALE: 3/16" = 1'-0"

SPRINKLER LEGEND	
	UPRIGHT
	CONCEALED PENDENT
	UPRIGHT & CONCEALED PENDENT HEAD
	NEW PIPE MAIN
	NEW BRANCH LINE PIPE

HAZARD SYMBOLS	
	LIGHT HAZARD *Rooms Without Designation shall be Considered Light Hazard
	ORDINARY HAZARD GROUP 1
	ORDINARY HAZARD GROUP 2



3 ARM OVER ASSEMBLY - MULTIPLE SPRINKLERS  
SCALE: NOT TO SCALE



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CHRISTOPHER LEAVER  
DATE: 04.01.15  
REG. NO. 46011

DRAWING TITLE

BASEMENT & FIRST FLOOR  
FIRE PROTECTION PLAN

PROJECT TITLE

CONSTRUCT NEW IT CENTER  
FOR HEALTH CARE  
TECHNOLOGY MANAGEMENT  
EXPANSION

BUILDING No  
108

CHECKED BY  
CL

DRAWN  
RV

DATE  
04.01.15

REG. NO.  
46011

DATE  
04.01.15

PLOT SCALE  
AS NOTED

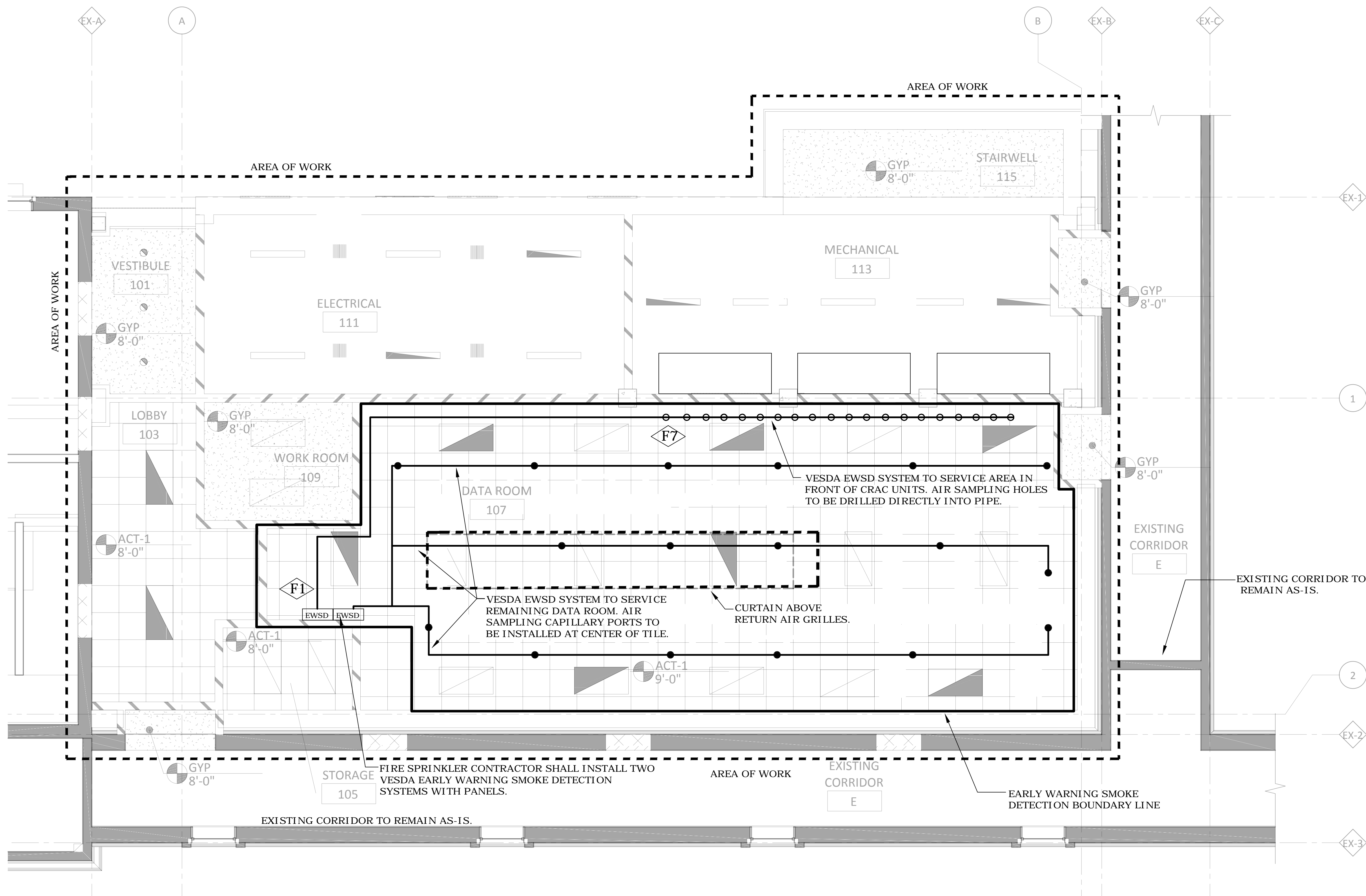
PROJECT NO.  
656-14-246

CAD FILE

DRAWING NO.  
F100

CONSTRUCTION DOCUMENTS 100%

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one eighth inch = one foot  
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1 FIRST FLOOR EARLY WARNING SMOKE DETECTION PLAN  
SCALE: 1/4" = 1'-0"

FIRE PROTECTION KEY NOTES

- F1 PROVIDE VESDA EARLY WARNING SMOKE DETECTION CONTROL PANEL (LASERPLUS). THIS DETECTOR MONITORS THE CEILING EARLY WARNING SAMPLING PORTS. PANEL MOUNTED ON WALL WITH TOP OF PANEL AT 6'-0" A.F.F.
- F2 PROVIDE NEW ADDRESSABLE CLEAN AGENT CONTROL PANEL. TO BE UL CROSS-LISTED WITH CYLINDER SOLENOIDS. TOP OF CONTROL PANEL TO BE LOCATED AT 6'-0" A.F.F.
- F3 PROVIDE SMOKE DETECTORS AT CEILING AND BELOW RAISED FLOOR FOR CLEAN AGENT SUPPRESSION SYSTEM. SMOKE DETECTORS TO BE SPACED AT A MAXIMUM OF 250 SQUARE FEET.
- F4 PROVIDE CLEAN AGENT NOTIFICATION DEVICES.
- F5 PROVIDE CLEAN AGENT MANUAL RELEASE STATION, ABORT STATION AND MAINTENANCE BY-PASS KEY SWITCH MOUNTED BELOW CONTROL PANEL.
- F6 PROVIDE A DETAILED, DIMENSIONED AND SCALED ELEVATION DRAWING IN SHOP DRAWINGS INDICATING CONTROL PANEL, SWITCHES, DEVICES, EARLY WARNING SMOKE DETECTOR, BATTERY CABINETS AND ALARM ANNUNCIATION DEVICES AT THIS LOCATION FOR REVIEW.
- F7 PROVIDE AIR SAMPLING HOLES DRILLED DIRECTLY INTO VESDA EARLY WARNING SMOKE DETECTION PIPE. SPACING AND NUMBER OF AIR SAMPLING HOLES SHALL BE DETERMINED BY THE CONTRACTOR AND AS REQUIRED BY MANUFACTURER.
- F8 CLEAN AGENT REMOTE DISPLAY/CONTROL PANEL.
- F9 WIRE SPOT DETECTORS BACK TO FIRE SUPPRESSION CONTROL PANEL AS A SUB-SYSTEM TO THE BUILDING FIRE ALARM SYSTEM.

FIRE PROTECTION NOTES

- A. PROVIDE SIGNAGE AT CONTROL PANELS, EACH ALARM ANNUNCIATION DEVICE, MANUAL RELEASE STATIONS, ABORT SWITCHES AND MAINTENANCE BY-PASS SWITCHES. SEE SPECIFICATIONS.
- B. PROVIDE ALARM MONITORING CONTACTS FOR EACH DETECTOR FOR INTERFACE BUILDING AUTOMATION SYSTEM (BAS) AND BUILDING FIRE ALARM (BFA).
- C. CONTRACTOR TO PROVIDE TRAINING SESSION (MINIMUM 4 HOURS THAT INCLUDES VIDEO/AUDIO).

FIRE PROTECTION LEGEND

- EWSD VESDA EARLY WARNING SMOKE DETECTOR (EWSD) PANEL
- VESDA EWSD NOZZLE PORT (CAPILLARY)
- AIR SAMPLING HOLE
- AIR SAMPLING PIPE

CONSTRUCTION DOCUMENTS 100%

No	REVISION	DATE



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CHRISTOPHER LEAVER  
DATE: 04.01.15  
REG. NO. 4011

DRAWING TITLE  
FIRST FLOOR EARLY WARNING SMOKE DETECTION PLAN

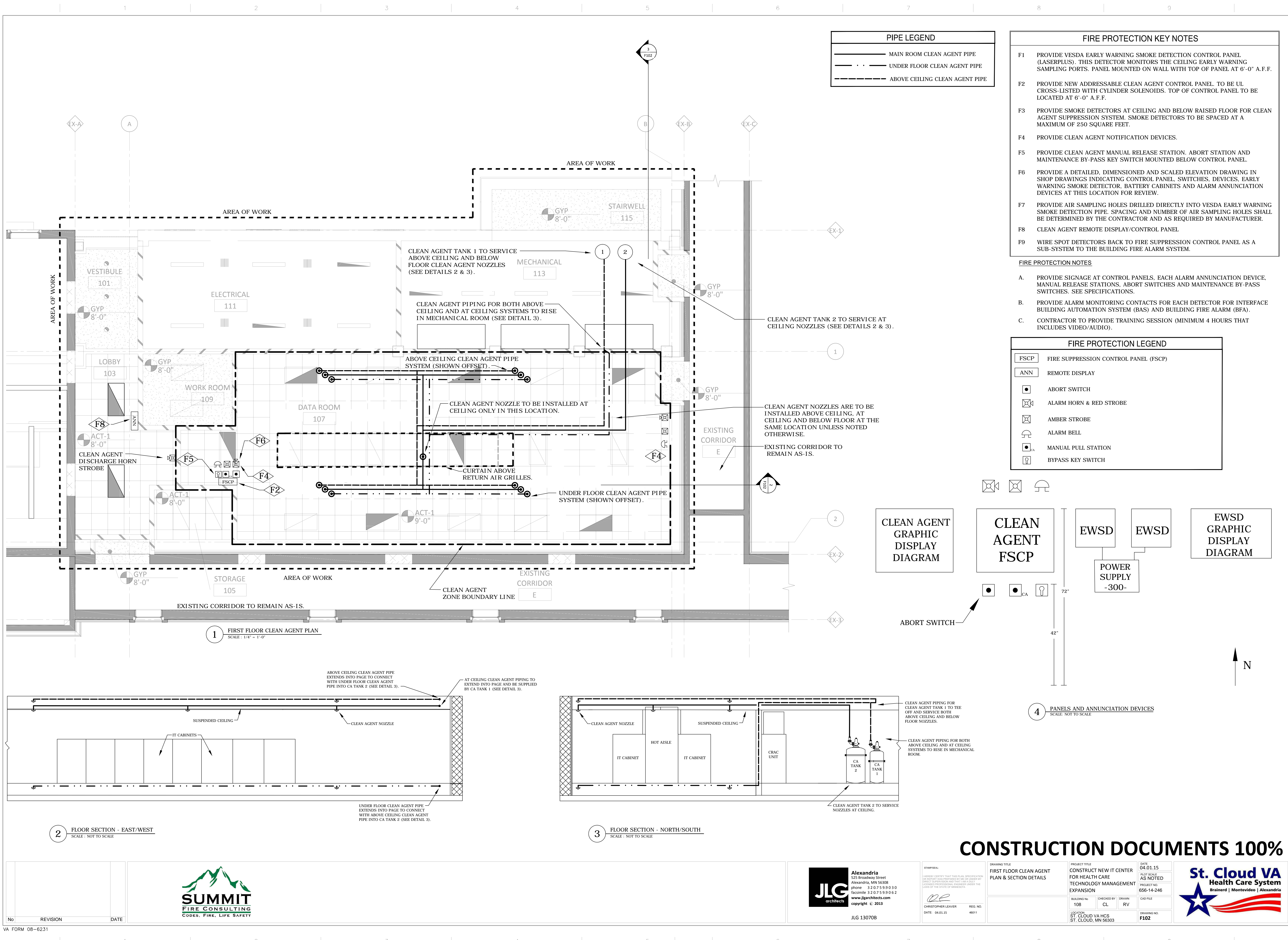
PROJECT TITLE  
CONSTRUCT NEW IT CENTER FOR HEALTH CARE TECHNOLOGY MANAGEMENT EXPANSION

BUILDING No 108  
LOCATION ST. CLOUD VA MCS ST. CLOUD, MN 56303

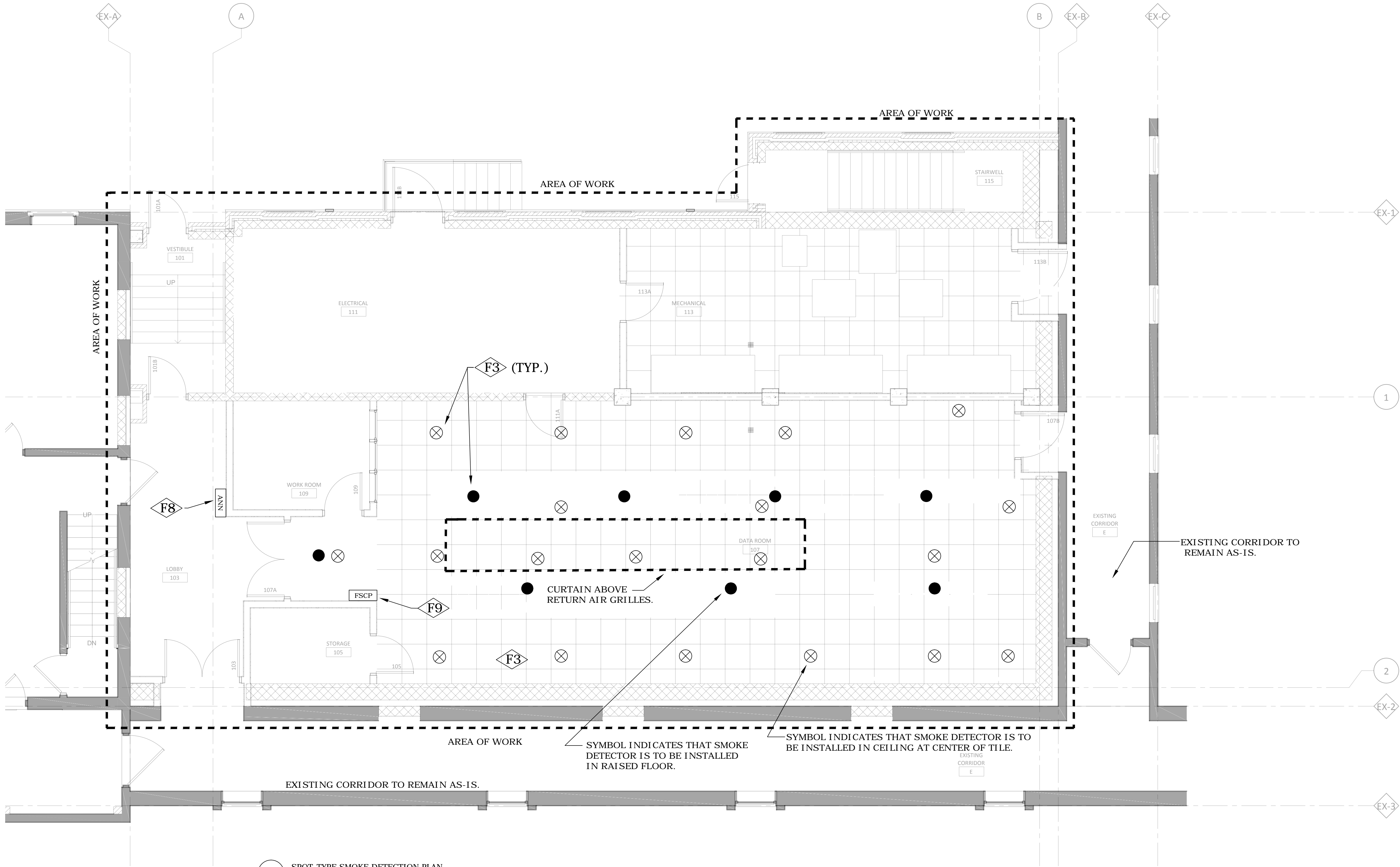
DATE 04.01.15  
PROJECT SCALE AS NOTED  
PROJECT NO. 656-14-246  
CADD FILE  
DRAWING NO. F101



JLG 130708



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1 SPOT-TYPE SMOKE DETECTION PLAN  
SCALE : 1/4" = 1'-0"

#### FIRE PROTECTION KEY NOTES

- F1 PROVIDE VESDA EARLY WARNING SMOKE DETECTION CONTROL PANEL (LASERPLUS). THIS DETECTOR MONITORS THE CEILING EARLY WARNING SAMPLING PORTS. PANEL MOUNTED ON WALL WITH TOP OF PANEL AT 6'-0" A.F.F.
- F2 PROVIDE NEW ADDRESSABLE CLEAN AGENT CONTROL PANEL. TO BE UL CROSS-LISTED WITH CYLINDER SOLENOIDS. TOP OF CONTROL PANEL TO BE LOCATED AT 6'-0" A.F.F.
- F3 PROVIDE SMOKE DETECTORS AT CEILING AND BELOW RAISED FLOOR FOR CLEAN AGENT SUPPRESSION SYSTEM. SMOKE DETECTORS TO BE SPACED AT A MAXIMUM OF 250 SQUARE FEET.
- F4 PROVIDE CLEAN AGENT NOTIFICATION DEVICES.
- F5 PROVIDE CLEAN AGENT MANUAL RELEASE STATION. ABORT STATION AND MAINTENANCE BY-PASS KEY SWITCH MOUNTED BELOW CONTROL PANEL.
- F6 PROVIDE A DETAILED, DIMENSIONED AND SCALED ELEVATION DRAWING IN SHOP DRAWINGS INDICATING CONTROL PANEL, SWITCHES, DEVICES, EARLY WARNING SMOKE DETECTOR, BATTERY CABINETS AND ALARM ANNUNCIATION DEVICES AT THIS LOCATION FOR REVIEW.
- F7 PROVIDE AIR SAMPLING HOLES DRILLED DIRECTLY INTO VESDA EARLY WARNING SMOKE DETECTION PIPE. SPACING AND NUMBER OF AIR SAMPLING HOLES SHALL BE DETERMINED BY THE CONTRACTOR AND AS REQUIRED BY MANUFACTURER.
- F8 CLEAN AGENT REMOTE DISPLAY/CONTROL PANEL.
- F9 WIRE SPOT DETECTORS BACK TO FIRE SUPPRESSION CONTROL PANEL AS A SUB-SYSTEM TO THE BUILDING FIRE ALARM SYSTEM.

#### FIRE PROTECTION NOTES

- A. PROVIDE SIGNAGE AT CONTROL PANELS, EACH ALARM ANNUNCIATION DEVICE, MANUAL RELEASE STATIONS, ABORT SWITCHES AND MAINTENANCE BY-PASS SWITCHES. SEE SPECIFICATIONS.
- B. PROVIDE ALARM MONITORING CONTACTS FOR EACH DETECTOR FOR INTERFACE BUILDING AUTOMATION SYSTEM (BAS) AND BUILDING FIRE ALARM (BFA).

#### FIRE PROTECTION LEGEND

- ⊗ SMOKE DETECTOR AT CEILING
- SMOKE DETECTOR IN RAISED FLOOR
- FSCP FIRE SUPPRESSION CONTROL PANEL (FSCP)
- ANN REMOTE DISPLAY

CONSTRUCTION DOCUMENTS 100%

No	REVISION	DATE



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DRAWING TITLE  
SPOT-TYPE SMOKE DETECTION PLAN

PROJECT TITLE  
CONSTRUCT NEW IT CENTER FOR HEALTH CARE TECHNOLOGY MANAGEMENT EXPANSION

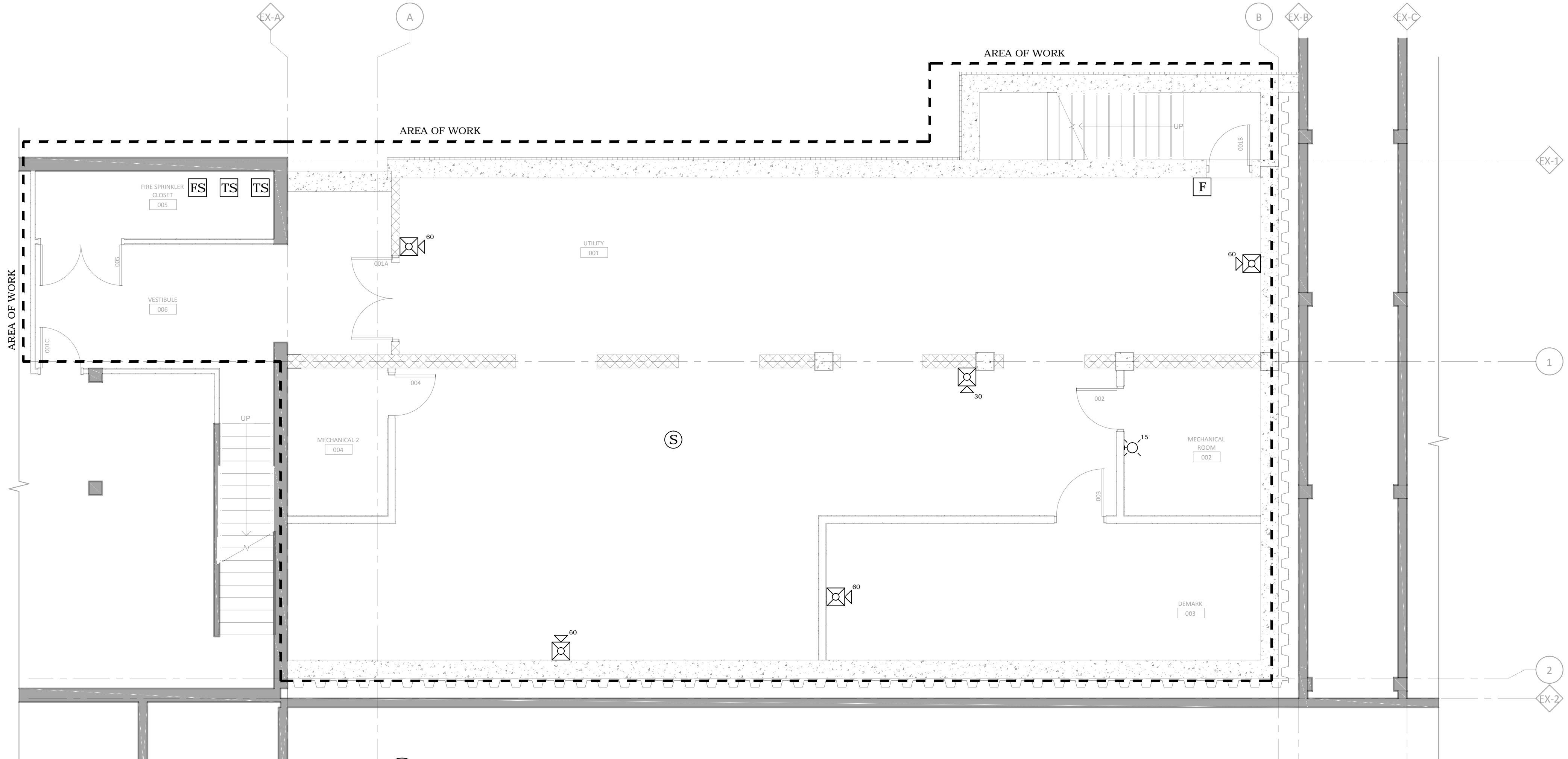
BUILDING No 108  
CHECKED BY CL  
DRAWN BY RV  
LOCATION ST. CLOUD VA HCS, ST. CLOUD, MN 56303

DATE 04.01.15  
PLOT SCALE AS NOTED  
PROJECT NO. 656-14-246  
CADD FILE  
DRAWING NO. F103

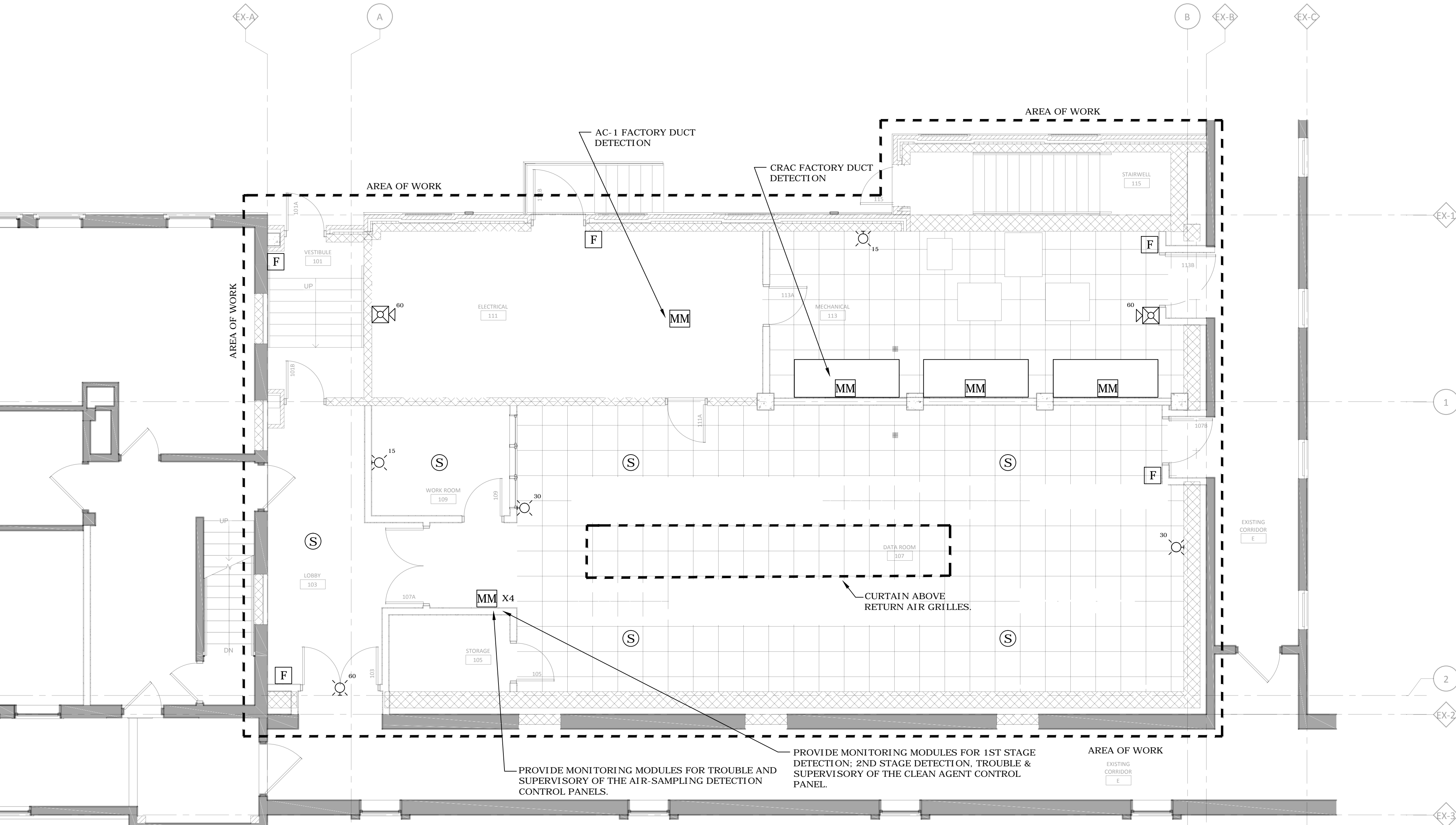


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1 BASEMENT FIRE ALARM PLAN  
SCALE: 3/16" = 1'-0"



2 FIRST LEVEL FIRE ALARM PLAN  
SCALE: 3/16" = 1'-0"

- ### SHEET NOTES
- ALL DEVICES SHOWN ON THIS SHEET ARE NEW EQUIPMENT TO BE CONNECTED TO THE EXISTING BUILDING FIRE ALARM SYSTEM.
  - ALL NEW FIRE ALARM DEVICES MUST BE COMPATIBLE AND THE SAME MANUFACTURER AS THE EXISTING BUILDING FIRE ALARM SYSTEM.
  - CONTRACTOR REQUIRED TO PROVIDE ALL NECESSARY EQUIPMENT TO PROVIDE A FULLY FUNCTIONAL SYSTEM EVEN IF NOT SHOWN ON DRAWINGS, INCLUDING BUT NOT LIMITED TO EXPANSION MODULES, POWER SUPPLIES, RELAYS, ETC.

### FIRE ALARM INDICATING DEVICE LEGEND

	WALL MOUNTED STROBE LIGHT - SUPERScript INDICATES DESIGN INTENSITY
	COMBINATION SPEAKER & STROBE - SUPERScript INDICATES DESIGN INTENSITY
	SPEAKER - CEILING MOUNTED
	FIRE ALARM MANUAL PULL STATION
	TAMPER SWITCH
	FLOW SWITCH
	ADDRESSABLE MONITORING MODULE

### BUILDING 4 FIRE ALARM CONTROL PANEL

EVENT	ACTION AT BUILDING 4 FIRE ALARM CONTROL PANEL										ACTION AT BUILDING 7 MAIN FIRE ALARM CONTROL PANEL									
	ANNUNCIATE ON BUILDING 4 FIRE ALARM PANEL	ANNUNCIATE ON BUILDING 4 REMOTE ANNUNCIATOR PANEL	BROADCAST GENERAL EVACUATION TONE - BUILDING 4 SPEAKERS	ACTIVATE BUILDING 4 STROBES	CLOSE BUILDING 4 SMOKE DOORS ON ALL LEVELS	RECALL ELEVATOR - DESIGNATED LEVEL	RECALL ELEVATOR - ALTERNATE LEVEL	START ELEVATOR TRAVEL TIMER (WHERE APPLICABLE)	SHUTDOWN ELEVATOR POWER	ACTIVATE ELEVATOR IN - CAR NOTIFICATION	SHUTDOWN ASSOCIATED AIR HANDLER	ANNUNCIATE ON BUILDING 7 MAIN FIRE ALARM CONTROL PANEL ANNUNCIATOR	ANNUNCIATE ON BUILDING 7 NETWORK PRINTER	ANNUNCIATE ON BUILDING 7 NETWORK GRAPHIC CONTROL STATION	ANNUNCIATOR and BUILDING 1/1A MAIN FIRE ALARM CONTROL PANEL	ANNUNCIATOR and BUILDING 1/1A REMOTE ANNUNCIATOR PANEL	ACTIVATE PAGER SYSTEM OUTPUT	ACTIVATE BUILDING 7 NETWORK ALARM NOTIFICATION APPLIANCE	ACTIVATE BUILDING 7 DACT ALARM DACT OUTPUT	ACTIVATE BUILDING 7 DACT SUPERVISORY OUTPUT
BUILDING 4 WATERFLOW SWITCH ACTIVATION	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 MANUAL PULL STATION ACTIVATION	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 SMOKE DETECTOR ACTIVATION	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 HEAT DETECTOR ACTIVATION	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 KITCHEN HOOD EXTINGUISHING SYSTEM ACTIVATION	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 ELEVATOR E03 BASEMENT LOBBY SMOKE DETECTOR ACTIVATION	•	•	•	•	•		•					•	•	•	•	•	•	•	•	•
BUILDING 4 ELEVATOR E03 FIRST FLOOR LOBBY SMOKE DETECTOR ACTIVATION	•	•	•	•	•		•					•	•	•	•	•	•	•	•	•
BUILDING 4 ELEVATOR E03 SECOND FLOOR LOBBY SMOKE DETECTOR ACTIVATION	•	•	•	•	•		•					•	•	•	•	•	•	•	•	•
BUILDING 4 ELEVATOR MACHINE ROOM SMOKE DETECTOR ACTIVATION	•	•	•	•	•				•			•	•	•	•	•	•	•	•	•
BUILDING 4 ELEVATOR MACHINE ROOM HEAT DETECTOR ACTIVATION	•	•	•	•	•				•			•	•	•	•	•	•	•	•	•
BUILDING 4 DUCT SMOKE DETECTOR ACTIVATION	•	•	•	•	•					•	•	•	•	•	•	•	•	•	•	•
BUILDING 4 VALVE TAMPER SWITCH ACTIVATION	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 SUPERVISORY AIR PRESSURE SWITCH ACTIVATION	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 ELEVATOR SHUNT POWER SUPERVISION	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 PANEL OR CIRCUIT TROUBLE CONDITION	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 CLEAN AGENT 1ST STAGE SMOKE DETECTOR (SUPERVISORY)	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 CLEAN AGENT 2ND STAGE SMOKE DETECTOR (ALARM)	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 CLEAN AGENT DISCHARGE ALARM	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 CLEAN AGENT CONTROL PANEL TROUBLE	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 CLEAN AGENT CONTROL PANEL SUPERVISORY	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 AIR SAMPLING CONTROL PANEL TROUBLE	•	•	•	•	•							•	•	•	•	•	•	•	•	•
BUILDING 4 AIR SAMPLING CONTROL PANEL SUPERVISORY	•	•	•	•	•							•	•	•	•	•	•	•	•	•

No	REVISION	DATE



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CHRISTOPHER LEAVER  
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DRAWING TITLE  
BASEMENT & FIRST LEVEL  
FIRE ALARM PLAN

PROJECT TITLE  
CONSTRUCT NEW IT CENTER  
FOR HEALTH CARE  
TECHNOLOGY MANAGEMENT  
EXPANSION  
BUILDING No. 108  
LOCATION: ST. CLOUD VA HCS  
ST. CLOUD, MN 56303

DATE: 04.01.15  
PROJECT NO.: 656-14-246  
CADD FILE  
DRAWING NO. F104



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