

edm

architecture
•
engineering
•
management

WEST TATNUCK SCHOOL FIRE ALARM



300 MOWER STREET
WORCESTER, MA
01609

issued for: bid set
date: 03.11.22
project no. : cow-4832

electrical engineer:

edm
1801 6th Avenue
Suite 200
troy, ny 12180

contact: Jeremy Barnes
(518) 272-0274
(413) 443-6057 fax
jbarnes@edm-ae.com

fire alarm legend:

<div>F</div>	MANUAL PULL STATION
<div>SD</div>	SMOKE DETECTOR
<div>PS</div>	PRESSURE SWITCH
<div>DD</div>	DUCT SMOKE DETECTOR
<div>FS</div>	FLOW SWITCH
<div>MM</div>	MONITOR MODULE
<div>TS</div>	SPRINKLER TAMPER SWITCH
<div>T</div>	OPTICAL BEAM SMOKE DETECTOR - TRANSMITTER
<div>R</div>	OPTICAL BEAM SMOKE DETECTOR - RECEIVER
<div><div>Xcd</div><div>S</div></div>	FIRE ALARM NOTIFICATION STROBE WALL MOUNTED AT 80-90" AFF, WHERE "Xcd" IS INDICATED REPRESENTS CANDELA RATING
<div><div>Xcd</div><div>S</div></div>	FIRE ALARM NOTIFICATION SPEAKER/STROBE WALL MOUNTED AT 80-90" AFF, WHERE "Xcd" IS INDICATED REPRESENTS CANDELA RATING
<div>RTS</div>	REMOTE TEST SWITCH
<div>RM</div>	RELAY MODULE
<div>EOLR</div>	END OF LINE RESISTOR
<div>FACP</div>	FIRE ALARM CONTROL PANEL
<div>ANN</div>	FIRE ALARM ANNUNCIATOR PANEL
<div><div>X</div><div>S</div></div>	FIRE ALARM NOTIFICATION STROBE - CEILING MOUNTED
<div><div>X</div><div>S</div></div>	FIRE ALARM NOTIFICATION SPEAKER/STROBE - CEILING MOUNTED
<div><div>●</div></div>	FIRE DETECTOR - CEILING MOUNTED (EXISTING SYSTEM)
<div>F</div>	FIRE ALARM BELL (EXISTING)
<div><div>▽</div></div>	FIRE ALARM HORN (EXISTING)
<div>KB</div>	KNOX BOX

fire alarm abbreviations

AFF	ABOVE FINISHED FLOOR	HP	HORSEPOWER
AV	AUDIO/VISUAL	KEC	KITCHEN EQUIPMENT CONTRACTOR
C/B	CIRCUIT BREAKER	MC	MECHANICAL CONTRACTOR
X CD	CANDELA, "X" INDICATES INTENSITY	MH	MOUNTING HEIGHT
CKT	CIRCUIT	NTS	NOT TO SCALE
CLG	CEILING	TYP	TYPICAL
DWG	DRAWING	UON	UNLESS OTHERWISE NOTED
EC	ELECTRICAL CONTRACTOR	WP	WEATHER PROOF
EM	EMERGENCY		
FAC	FIRE ALARM CONTRACTOR		
FLR	FLOOR		

demolition notes

- DEMOLITION WORK SHALL BE DONE BY THE FIRE ALARM CONTRACTOR. THE FIRE ALARM CONTRACTOR SHALL COORDINATE ALL WORK CONCERNING EXISTING EQUIPMENT AND SERVICES REMAINING IN THE BUILDING.
- THE FIRE ALARM DEMOLITION PLANS INDICATE GENERAL INTENT AND ARE NOT INTENDED TO SHOW ALL COMPONENTS AND ITEMS TO BE REMOVED OR RETAINED. THE FIRE ALARM CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMISSION OF THEIR BID TO BECOME FAMILIAR WITH THE ACTUAL WORKING CONDITIONS AND EXTENT OF WORK. DEVICES AND EQUIPMENT LOCATED ON WALLS AND/OR CEILINGS DESIGNATED TO BE REMOVED SHALL BE DISCONNECTED AND MADE SAFE. THE FIRE ALARM CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNERS REPRESENTATIVE AND ENGINEER OF ANY UNANTICIPATED OR HIDDEN CONDITIONS ENCOUNTERED DURING DEMOLITION.
- THE FIRE ALARM CONTRACTOR SHALL IDENTIFY ALL DEVICES AND ASSOCIATED WIRING WHICH ARE TO REMAIN WITHIN THE AREA OF DEMOLITION SCOPE. THERE SHALL BE NO INTERRUPTION OF SERVICE TO ANY AREA OUTSIDE THE SCOPE LIMITS WITHOUT WRITTEN APPROVAL FROM THE OWNERS REPRESENTATIVE. EXISTING EQUIPMENT TO REMAIN SHALL BE LEFT IN A CODE COMPLIANT CONDITION.
- THE FIRE ALARM CONTRACTOR SHALL DE-ENERGIZE AND REMOVE ALL CONDUCTORS AND RACEWAYS WITHIN THE AREA OF DEMOLITION SCOPE TO THEIR POINT OF ORIGIN. ANY CONDUIT RECESSED IN WALLS SHALL BE MADE SAFE AND ABANDONED. PROVIDE BLANK FACEPLATE WHERE CONDUIT TERMINATED AT DEVICE IN THESE LOCATIONS, PAINTED PER OWNER'S REQUEST. RACEWAYS THAT ENTER MASONRY WALLS AND FLOORS SHALL BE CUT FLUSH AT THE SURFACE AND PATCHED. CONDUIT THAT IS SURFACE MOUNTED OR INSTALLED ABOVE DROP CEILINGS SHALL BE REMOVED AND DISPOSED OF. ALL CONDUCTORS SHALL BE REMOVED BACK TO THEIR SOURCE.
- THE FIRE ALARM CONTRACTOR SHALL TEMPORARILY SUPPORT ALL ITEMS TO REMAIN THAT ARE AFFECTED BY THE DEMOLITION OF BUILDING STRUCTURAL COMPONENTS (WALLS, CEILINGS, PARTITIONS, ETC.). CONTRACTOR SHALL TEMPORARILY SUPPORT ITEMS AND SHALL PROVIDE PERMANENT SUPPORTS WHEN FINALIZED STRUCTURES ARE IN PLACE.
- THIS DEMOLITION DRAWINGS SHOW THE EXISTING FIRE ALARM DEVICE (DENOTED WITH AN "X") THAT ARE TO BE REMOVED. THE EXISTING FIRE ALARM IS OBSOLETE AND IS TO BE REMOVED IN ITS ENTIRETY. THIS INCLUDES, BUT NOT LIMITED TO, ANCILLARY DEVICES SUCH AS REMOTE TEST SWITCHES AND MONITOR MODULES.
- THE EXISTING FIRE ALARM SYSTEM SHALL REMAIN IN SERVICE UNTIL THE NEW FIRE ALARM SYSTEM HAVE BEEN INSTALLED, TESTED, AND ACCEPTED BY OWNER AND AUTHORITY HAVING JURISDICTION. THIS INCLUDES, BUT NOT LIMITED TO, HEAD END EQUIPMENT, DEVICES, WIRING, AND OUTBOARD COMMUNICATIONS.

demolition legend

- SD

 ○ LIGHT SOLID LINE DENOTES EXISTING EQUIPMENT.
- - -

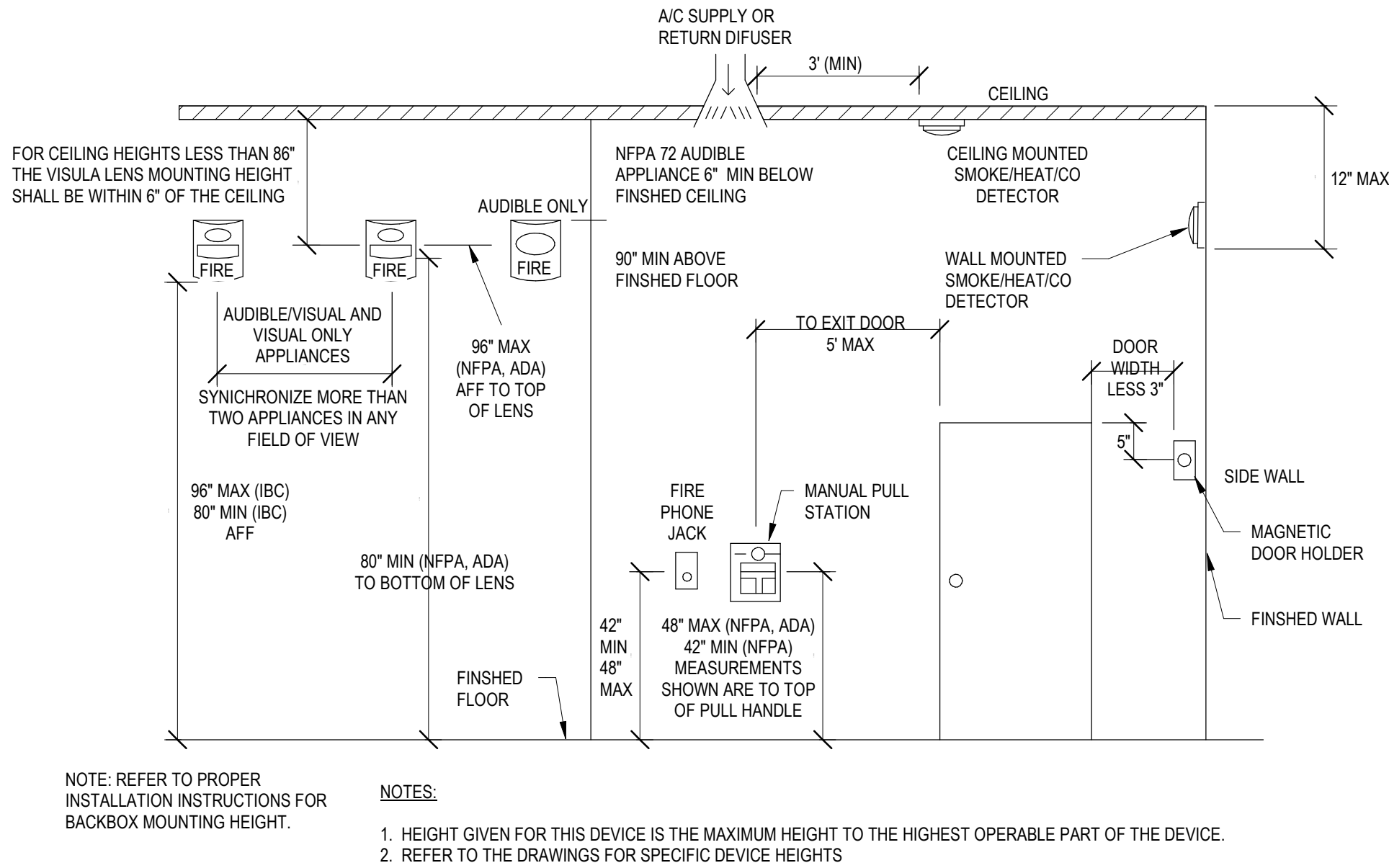
SD

 ○ DARK DASHED LINE DENOTES DEMOLITION EQUIPMENT.

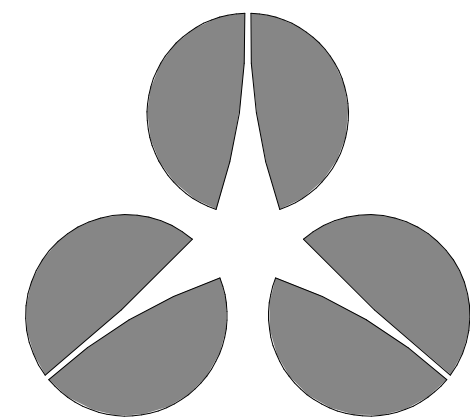
- X EXISTING EQUIPMENT TO BE REMOVED AND DELIVERED TO OWNER. CIRCUIT SHALL BE PULLED BACK FROM NEXT ACTIVE OUTLET/BACK TO PANEL. REMOVE JUNCTION BOXES, AND PATCH WALL. BLANK PLATES NOT PERMITTED.
- XM EXISTING EQUIPMENT TO REMAIN.
- XN EXISTING EQUIPMENT TO BE REMOVED AND NEW EQUIPMENT AS SPECIFIED INSTALLED ON EXISTING CIRCUIT IN ORIGINAL LOCATION.
- XE EXISTING DEVICE TO BE REMOVED, OUTLET BLANKED AND CIRCUIT EXTENDED TO NEW EQUIPMENT AS SHOWN.
- XR EXISTING EQUIPMENT TO BE REMOVED AND RELOCATED. REMOVE JUNCTION BOXES, AND PATCH WALL. BLANK PLATES NOT PERMITTED.
- XL NEW LOCATION OF RELOCATED EXISTING EQUIPMENT.

fire alarm general notes

- FIRE ALARM CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, PROGRAMMING, AND WIRING REQUIRED FOR A COMPLETE CODE COMPLIANT SYSTEM.
- COORDINATE WITH THE LOCAL AUTHORITY HAVING JURISDICTION FOR THE EXACT SEQUENCE OF OPERATIONS.
- THE EXISTING FIRE ALARM SYSTEM INITIATING AND NOTIFICATION APPLIANCE DEVICES SHALL REMAIN IN SERVICE. THE NEW DEVICES WILL REMAIN OUT OF SERVICE UNTIL SAID DEVICES HAVE BEEN INSTALLED, TESTED, AND ACCEPTED BY OWNER AND AUTHORITY HAVING JURISDICTION.
- FIRE ALARM CONDUIT COLOR MUST BE RED.
- PROVIDE SYNCHRONIZATION FOR AUDIO (SPEAKER) AND VISIBLE (STROBE) NOTIFICATION APPLIANCE DEVICES WHERE THERE ARE MORE THAN TWO DEVICES WITHIN A FIELD OF VIEW TO COMPLY WITH THE REQUIREMENTS OF NFPA 72.
- CONDUCTORS FOR THE FIRE ALARM SYSTEM DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 70. THE CONDUCTORS SHALL NOT BE INSTALLED IN CONDUIT, JUNCTION BOXES OR OUTLET BOX WITH CONDUCTORS OF LIGHTING OR POWER SYSTEMS. THE SUM OF THE CROSS-AREAS OF INDIVIDUAL CONDUCTORS SHALL NOT EXCEED 40 PERCENT OF THE INTERIOR CROSS-SECTIONAL AREA OF THE CONDUIT.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ALL FIRE ALARM CABLING IN CONDUIT AND CONNECT NEW DEVICES TO EXPANSION PANELS CLOSEST TO NEW DEVICE LOCATION.
- FIRE ALARM SIGNALING SYSTEM NOTIFYING SPEAKERS SHALL BE WIRED TO THE LOWEST WATTAGE TAP WHILE MAINTAINING REQUIRED AUDIBILITY AND INTELLIGIBILITY LEVELS.
- AUDIBLE NOTIFICATION SHALL UTILIZE EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM PER NFPA 101 14.3.4.3.1.2.
- ALL NEW DEVICES SHALL BE INSTALLED AS CLASS A TYPE, WIRED BACK TO THE EXPANSION PANELS OR FACP CLOSEST TO THE WORK AREA.
- THE FIRE ALARM LAYOUT SHOWN ON THE CONTRACT DOCUMENTS ARE TO DEFINE THE DESIGN INTENT FOR COMPETITIVE BIDDING & FOR PRELIMINARY SUBMISSION TO THE AUTHORITIES HAVING JURISDICTION. SHOP DRAWINGS FOR THE ACTUAL INSTALLATION CONDITIONS SHALL BE SUBMITTED TO THE PROJECT MANAGER AND ENGINEER.
- THE FIRE ALARM/ELECTRICAL CONTRACTOR TO NOTIFY THE PROJECT MANAGER OF ANY STATUS CHANGE OR GROUND FAULT CONDITION ON THE EXISTING SYSTEM PRIOR TO CONSTRUCTION AND UP TO FINAL ACCEPTANCE OF THE NEW SYSTEM. THE FIRE ALARM/ELECTRICAL CONTRACTOR SHALL PROVIDE A DAILY WRITTEN 'TROUBLE LOG' TO THE OWNER THROUGHOUT CONSTRUCTION.
- CHECK, COORDINATE AND FIELD VERIFY ALL DIMENSIONS, ELEVATIONS AND CONSTRUCTION DETAILS BEFORE STARTING WORK. REPORT ANY DISCREPANCIES OR OMISSIONS TO THE PROJECT MANAGER TO COORDINATE CORRECTION PRIOR TO FABRICATION OR CONSTRUCTION.
- VERIFY DIMENSIONS IN THE FIELD. DO NOT SCALE DRAWINGS, WRITTEN DIMENSIONS SHALL GOVERN. IN GENERAL, LARGE DRAWINGS GOVERN OVER SMALL SCALE DRAWINGS. WRITTEN NOTES GOVERN OVER GRAPHIC REPRESENTATION AND SPECIFICATIONS GOVERN OVER DRAWINGS. ANY DISCREPANCIES SHALL BE REPORTED TO THE PROJECT MANAGER AND ENGINEER FOR CLARIFICATION.
- EXISTING CONDITIONS MATERIALS AND/OR DIMENSIONS WHERE SHOWN OR DESCRIBED ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETE REMOVAL OF THE EXISTING WORK TO THE EXTENT INDICATED OR REQUIRED WHETHER OR NOT THE EXISTING MATERIAL DESIGNATIONS, CONFIGURATION AND/OR DIMENSIONS ARE INCORRECTLY SHOWN.
- WORKMANSHIP TO COMPLY WITH INDUSTRY STANDARDS AND APPROVED METHODOLOGIES SET DOWN IN APPLICABLE TRADE HANDBOOKS AND MANUALS, CONTRACT DOCUMENTS AND DIRECTIONS OF THE ENGINEER.
- ALL MATERIALS TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S AND FABRICATOR'S SPECIFICATIONS, RECOMMENDATIONS AND PRINTED WARNINGS FOR THE HANDLING AND INSTALLATION OF ALL PRE-MANUFACTURED PRODUCTS, THE CONTRACT DOCUMENTS AND DIRECTIONS OF THE PROJECT MANAGER.
- CONTRACTOR SHALL MAINTAIN A NEAT AND DEBRIS FREE SITE. UPON COMPLETION OF ANY CONSTRUCTION OPERATION (INCLUDING END OF SHIFT OR END OF TEMPORARY ACTIVITY), THE WORK AREA SHALL BE POLICED AND DEBRIS SHALL BE REMOVED AT THE END OF EACH WORK DAY. THE TOTAL SITE SHALL BE BROUGHT TO A BROOM-CLEANED CONDITION.
- THE CONTRACTOR SHALL LOCATE ALL EQUIPMENT WHICH MUST BE SERVICED, OPERATED OR MAINTAINED IN FULLY ACCESSIBLE POSITION. MINOR DEVIATIONS FROM THE DRAWINGS MAY BE MADE TO ALL FOR BETTER ACCESSIBILITY WHEN ACCEPTED BY THE ENGINEER AND PROJECT MANAGER.
- MAINTAIN ALL EXISTING ELECTRICAL, MECHANICAL, FIRE PROTECTION, PLUMBING AND LIFE SAFETY SYSTEMS IN WORKING ORDER AT ALL TIMES.
- THE CONTRACTOR SHALL PROVIDE SUFFICIENTLY STRONG AND SAFE RAMPS LADDERS, SCAFFOLDS AND TEMPORARY HOISTS AND GUARD RAILS REQUIRED TO ACCOMPLISH WORK.
- CONTRACTOR SHALL PATCH AND REPAIR, TO MATCH EXISTING, ALL ITEMS DAMAGED DUE TO DEMOLITION AND NEW CONSTRUCTION.
- THE FIRE ALARM/ELECTRICAL CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF CEILING MOUNTED FIRE ALARM SYSTEM DEVICES INCLUDING THE ROUTING OF CONDUIT ABOVE CEILINGS WITH LIGHT FIXTURES, CONDUITS, DUCTWORK, DIFFUSERS, PIPING AND ANY OTHER OBSTRUCTIONS.
- THE FIRE ALARM/ELECTRICAL CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING ITEM DAMAGED IN CONJUNCTION WITH ALL WORK. THE FIRE ALARM/ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CORE DRILLING, CUTTING, PATCHING, AND REFINISHING OF EXISTING WALLS, CEILINGS OR FLOORS AS REQUIRED IN THE CONTRACT SPECIFICATIONS. THE FIRE ALARM/ELECTRICAL CONTRACTOR SHALL REPLACE ALL CEILING TILES DAMAGED IN CONJUNCTION WITH ALL WORK. ASSUME AT LEAST 25 PERCENT OF THE EXISTING CEILING TILES HANDLED SHALL NEED TO BE REPLACED DUE TO DAMAGE FROM ALL NEW WORK.
- THE GENERAL NOTES APPLY TO ALL DRAWINGS AND TRADES ASSOCIATED WITH THOSE DRAWINGS.
- THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE ENGINEER.
- ALL WORK SHALL COMPLY WITH NFPA 70-2016, IBC 18 WITH MASSACHUSETTS ADMMENDMENTS, UL, SMACNA, OSHA, AND NEC (NFPA 70-2020).
- CONTRACTOR AND ALL SUBCONTRACTORS SHALL PROTECT THE WORK SITE, SURROUNDING AREAS AND OCCUPANTS FROM DAMAGE AND INJURY.



1 typical fire alarm device location
3/4" = 1'-0"



architecture
engineering
management

pittsfield, ma
unionville, ct
troy, ny

(888) 336-6500
team@edm-ae.com

consultants:



design by: TST
checked by: JB
approved by:

CITY OF
WORCESTER
WEST TATNUCK
SCHOOL



300 MOWER STREET
WORCESTER, MA
01609


keyplan:

issue / rev.	date	issued for	by

general fire alarm notes and
legend

date:
03.11.22
project number:
cow-4832
scale:
As indicated
drawing number:

FAN-001



architecture

•

engineering

•

management

pittsfield, ma


unionville, ct

troy, ny

(888) 336-6500

team@edm-ae.com

consultants:



design by:

TST

checked by:


JB

approved by:

drawn by:

TST

CITY OF
WORCESTER
WEST TATNUCK
SCHOOL



300 MOWER STREET
WORCESTER, MA
01609

keyplan:

issue / rev.:	date:	issued for:	by:

fire alarm specifications

date:

03.11.22

project number:

cow-4832

scale:

12" = 1'-0"

drawing number:

FAN-002

DIVISION 28 - GENERAL PROVISIONS FOR FIRE ALARM WORK

CONTINUED FROM SHEET FAN-002

3. WIRING
- PROVIDE WIRING TO ALL OUTLETS, EQUIPMENT, APPARATUS AND OTHER SPECIALTIES UNDER THIS DIVISION THAT WHICH FURNISHED OR PROVIDED UNDER OTHER DIVISIONS OR BY THE OWNER.

•

CONDUCTOR WITHIN JUNCTION BOXES, TROUGHS AND OTHER EQUIPMENT WHERE CONCENTRATIONS OF CONDUCTORS ARE ENCLOSED, SHALL BE NEATLY ARRANGED AND TIED WITH CABLE TIES.

•

WIRING IN OUTLET BOXES, JUNCTION BOXES, OR EQUIPMENT SHALL HAVE A MINIMUM OF EIGHT (8") INCHES LENGTH LEADS FOR CONNECTING WIRING DEVICES TO MAKE UP CIRCUIT SPLICES.

•

INSTALL COPPER GREEN INSULATED GROUNDING CONDUCTOR IN ALL CONDUITS AND RACEWAYS.
4. SPLICING
- SPLICING SHALL BE DONE WITH INSULATED OR NON-INSULATED CONNECTORS OF APPROPRIATE TYPES AND CURRENT-CARRYING CAPACITY. NON-INSULATED CONNECTORS SHALL BE WRAPPED WITH INSULATING TAPE TO THE THICKNESS OF THE INSULATION OF THE CONDUCTORS BEING SPLICED. ELECTRICAL TAPE SHALL BE 3M OR SUPER 88 SCOTCH VINYL FLAME-RETARDANT , COLD AND WEATHER RESISTANT.

•

SPLICES FOR CONDUCTORS, SIZES #10 AWG OR SMALLER SHALL BE MADE WITH U.L. LISTED SPRING-TYPE CONNECTORS OR APPROPRIATE CURRENT CARRYING CAPACITY.

•

SPLICES, TAPS AND TERMINALS FOR CONDUCTORS #8 AWG OR LARGER SHALL BE MADE WITH U.L. LISTED BOLTED PRESSURE CONNECTORS OF BRONZE OR COPPER CONSTRUCTION, OF APPROPRIATE CURRENT CARRYING CAPACITY. EQUAL TO OIZ GEDENY, BURNDY OR BLACKBURN.
5. CONDUCTOR IDENTIFICATION
- CONDUCTORS SHALL HAVE A COLOR-CODED INSULATION.
6. IDENTIFICATION
- FURNISH AND INSTALL NAMEPLATES FOR ALL FIRE ALARM CONTROL PANELS AND DEVICES, IDENTIFYING ITEMS BY NAME, FUNCTION AND/OR CONTROL, AND DEVICE ADDRESS.

•

USE PLASTIC-COATED WIRE MARKERS OF THE SELF-ADHESIVE. WRAPAROUND TYPE WITH PERMANENT FACTORY-PRINTED NUMBER, LETTERS AND SYMBOLS.

•

WIRE MARKERS SHALL BE SECURELY ATTACHED AT BOTH ENDS.

•

ALL CONDUCTORS SHALL BE PERMANENTLY TAGGED AT TIME OF INSTALLATION. LABELS SHALL BE EQUAL TO T&B, PANDUIT OR IDEAL.
7. GROUNDING
- ALL WORK SHALL BE GROUNDED AND BONDED IN FULL CONFORMANCE WITH THE LATEST APPROVED EDITION OF THE NATIONAL ELECTRICAL CODE AND LOCAL REQUIREMENTS.

PART 4 - SUBMITTALS

1. FIRE ALARM CONTRACTOR SHALL PROVIDE PRODUCT SUBMITTALS FORE REVIEW AND APPROVAL PRIOR TO SYSTEM INSTALLATION. PRODUCT SUBMITTALS SHALL INCLUDE MANUFACTURERS, MODEL NUMBERS AND LISTING INFORMATION FOR EQUIPMENT DEVICES AND MATERIALS.
2. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND CALCULATIONS FOR REVIEW AND APPROVAL IN ACCORDNACE WITH THE CODES LISTED IN SCOPE OF WORK PRIOR TO SYSTEM INSTALLATION. THE SHOP DRAWINGS AND CALCULATIONS SHALL, AT A MINIMUM, INCLUDE:

1. FLOOR PLAN WHICH INCLUDES THE FOLLOWING:

1. INDICATES THE USE OF ALL ROOMS.

2. LOCATIONS OF ALARM-INITIATING AND NOTIFICATION APPLIANCES.

3. ALARM CONTROL ND TROUBLE SIGNALING EQUIPMENT.

4. POWER CONNECTION.

5. CONDUCTOR TYPES AND SIZES.

6. DETAILS OF CEILING HEIGHT AND CONSTRUCTION.

2. THE INTERFACE OF SAFETY FIRE CONTROL FUNCTIONS, SUCH AS HVAC SHUTDOWN AND/OR CLOSING OF DAMPERS.

3. A DETAILED ONE-LINE DIAGRAM OF THE FIRE ALARM SYSTEM COMPONENTS AND WIRING.

4. BATTERY CALCULATIONS.

5. VOLTAGE DROP CALCULATIONS.
3. CONTRACTOR SHALL PROVIDE CONTRACT CLOSEOUT DOCUMENTS FOR APPROVAL. THE CONTRACT CLOSEOUT DOCUMENTS SHALL INCLUDE, BUT ARE NOT LIMITED TO:

A. SYSTEM RECORD OF COMPLETION IN ACCORDANCE WITH NFPA 72.

B. AN OWNER'S MANUAL AND MANUFACTURERS PUBLISHED INSTRUCTIONS IN ACCORDANCE WITH NFPA 72.

C. RECORD (AS-BUILT) DRAWINGS IN ACCORDANCE WITH NFPA 72.
4. CONTRACTOR SHALL PROVIDE ADDITIONAL INFORMATION AND/OR CALCULATIONS AS REQUESTED DURING THE SUBMITTAL REVIEW AND APPROVAL PROCESS.

PART 5 - FIELD QUALITY CONTROL

1. FIELD TESTS MUST BE WITNESSED BY ENGINEER, CONTRACTOR AND AUTHORITIES HAVING JURISDICTION
2. ADMINISTRANT FOR TESTS AND INSPECTIONS:

A. ADMINISTER AND PERFORM TESTS AND INSPECTIONS
3. TESTS AND INSPECTIONS:

A. VISUAL INSPECTION: CONDUCT VISUAL INSPECTION PRIOR TO TESTING.

B. INSPECTION MUST BE BASED ON COMPLETED RECORD DRAWINGS AND SYSTEM DOCUMENTATION THAT IS REQUIRED BY "COMPLETION DOCUMENTS, PREPARATION" TABLE IN "DOCUMENTATION" SECTION OF "FUNDAMENTALS" CHAPTER IN NFPA 72.

C. COMPLY WITH "VISUAL INSPECTION FREQUENCIES" TABLE IN "INSPECTION" SECTION OF "INSPECTION, TESTING AND MAINTENANCE" CHAPTER IN NFPA 72; RETAIN "INITIAL/REACCEPTANCE" COLUMN AND LIST ONLY INSTALLED COMPONENTS.

D. SYSTEM TESTING: COMPLY WITH "TEST METHODS" TABLE IN "TESTING" SECTION OF "INSPECTION, TESTING AND MAINTENANCE" CHAPTER IN NFPA 72

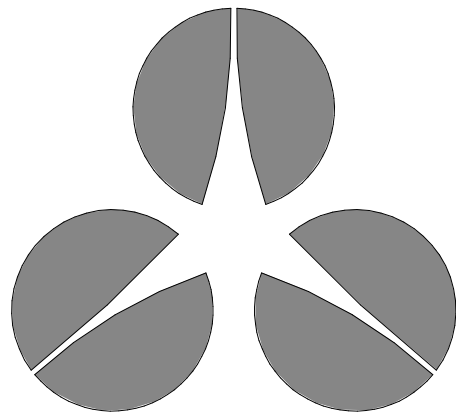
E. TEST AUDIBLE APPLIANCES FOR PUBLIC OPERATING MODE IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. PERFORM TEST USING PORTABLE SOUND-LEVEL METER COMPLYING WITH TYPE 2 REQUIREMENTS IN ASA S1.4 PART 1/IEC 61672-1.

F. FACTORY-AUTHORIZED SERVICE REPRESENTATIVE MUST PREPARE "FIRE ALARM SYSTEM RECORD OF COMPLETION" IN "DOCUMENTATION" SECTION OF "FUNDAMENTALS" CHAPTER IN NFPA 72 AND "INSPECTION AND TESTING FORM" IN "RECORDS" SECTION OF "INSPECTION, TESTING AND MAINTENANCE" CHAPTER IN NFPA 72.
4. REACCEPTANCE TESTING: PERFORM REACCEPTANCE TESTING TO VERIFY PROPER OPERATION OF ADDED OR REPLACED DEVICES AND APPLIANCES.
5. FIRE-ALARM SYSTEM WILL BE CONSIDERED DEFECTIVE IF IT DOES NOT PASS TESTS AND INSPECTIONS. PREPARE TEST AND INSPECTION REPORTS.
6. ANNUAL TEST AND INSPECTION: ONE YEAR AFTER DATE OF SUBSTANTIAL COMPLETION, TEST FIRE-ALARM SYSTEM COMPLYING WITH VISUAL AND TESTING INSPECTION REQUIREMENTS IN NFPA 72. USE FORMS DEVELOPED FOR INITIAL TESTS AND INSPECTIONS.

PART 6 - DEMONSTRATION

1. TRAIN OWNER'S MAINTENANCE PERSONNEL TO ADJUST, OPERATE, AND MAINTAIN FIRE-ALARM SYSTEM. ALLOW OWNER TO RECORD TRAINING.

END OF FIRE ALARM SPECIFICATIONS



edm

architecture
•
engineering
•
management

pittsfield, ma
unionville, ct
troy, ny

(888) 336-6500
team@edm-ae.com

consultants:



design by: TST	drawn by: TST
checked by: JB	
approved by:	

CITY OF
WORCESTER
WEST TATNUCK
SCHOOL



300 MOWER STREET
WORCESTER, MA
01609

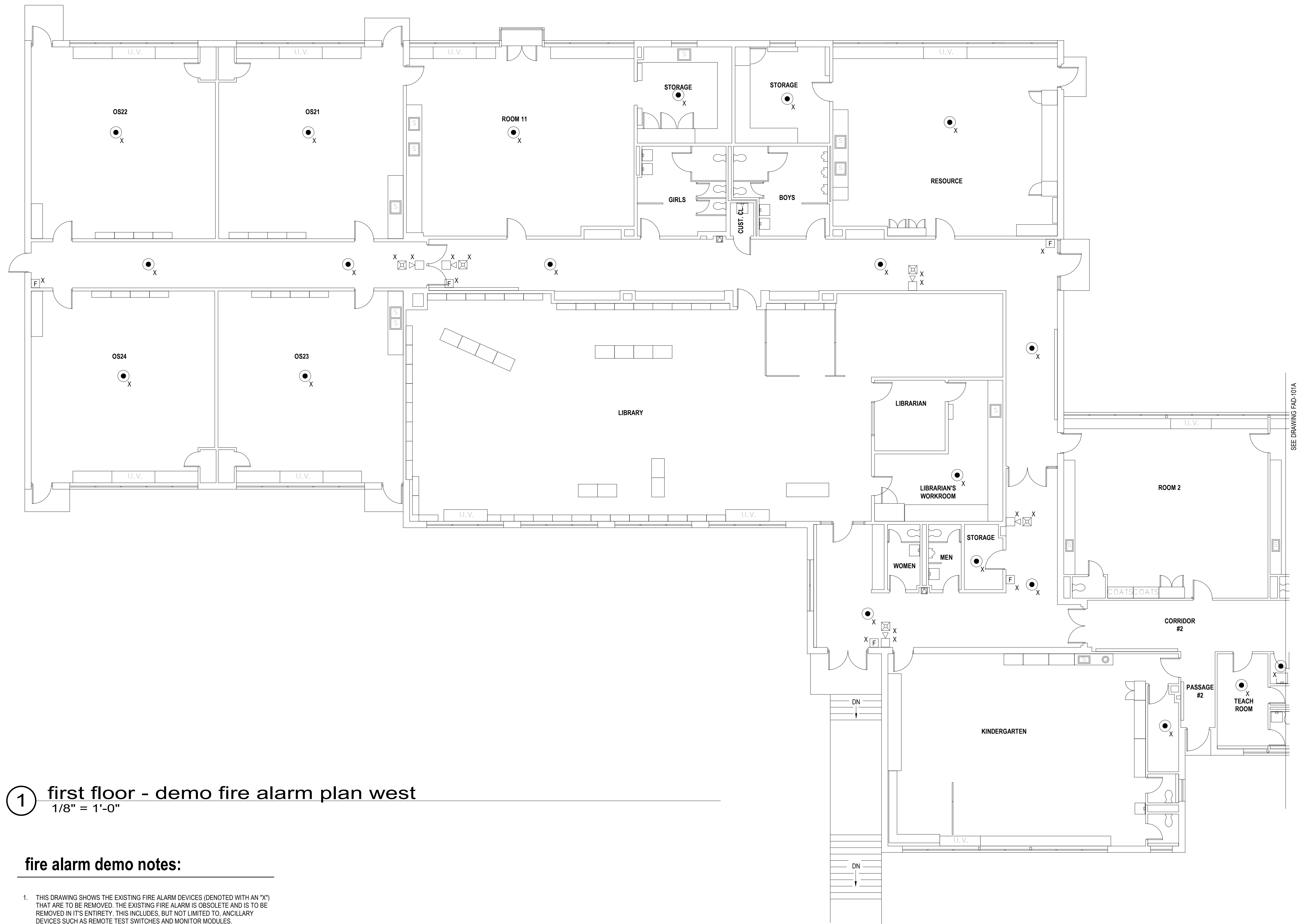
keyplan:

issue / rev.:	date:	issued for:	by:

fire alarm specifications

date:
03.11.22
project number:
cow-4832
scale:
12" = 1'-0"
drawing number:

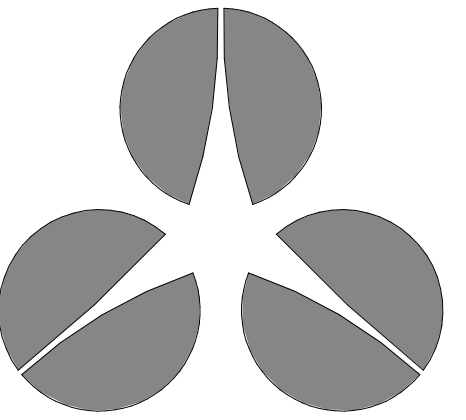
FAN-003



1 first floor - demo fire alarm plan west
1/8" = 1'-0"

fire alarm demo notes:

1. THIS DRAWING SHOWS THE EXISTING FIRE ALARM DEVICES (DENOTED WITH AN "X") THAT ARE TO BE REMOVED. THE EXISTING FIRE ALARM IS OBSOLETE AND IS TO BE REMOVED IN ITS ENTIRETY. THIS INCLUDES, BUT NOT LIMITED TO, ANCILLARY DEVICES SUCH AS REMOTE TEST SWITCHES AND MONITOR MODULES.
2. THE EXISTING FIRE ALARM SYSTEM, INITIATING AND NOTIFICATION APPLIANCE DEVICES SHALL REMAIN IN SERVICE UNTIL THE NEW FIRE ALARM SYSTEM, INITIATING AND NOTIFICATION APPLIANCE DEVICES HAVE BEEN INSTALLED, TESTED, AND ACCEPTED BY OWNER AND AUTHORITY HAVING JURISDICTION.



edm

architecture
engineering
management

pittsfield, ma
unionville, ct
troy, ny

(888) 336-6500
team@edm-ae.com

consultants:



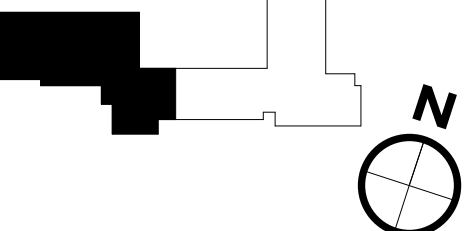
design by: TST
checked by: JB
approved by:

CITY OF
WORCESTER
WEST TATNUCK
SCHOOL



300 MOWER STREET
WORCESTER, MA
01609

keyplan:

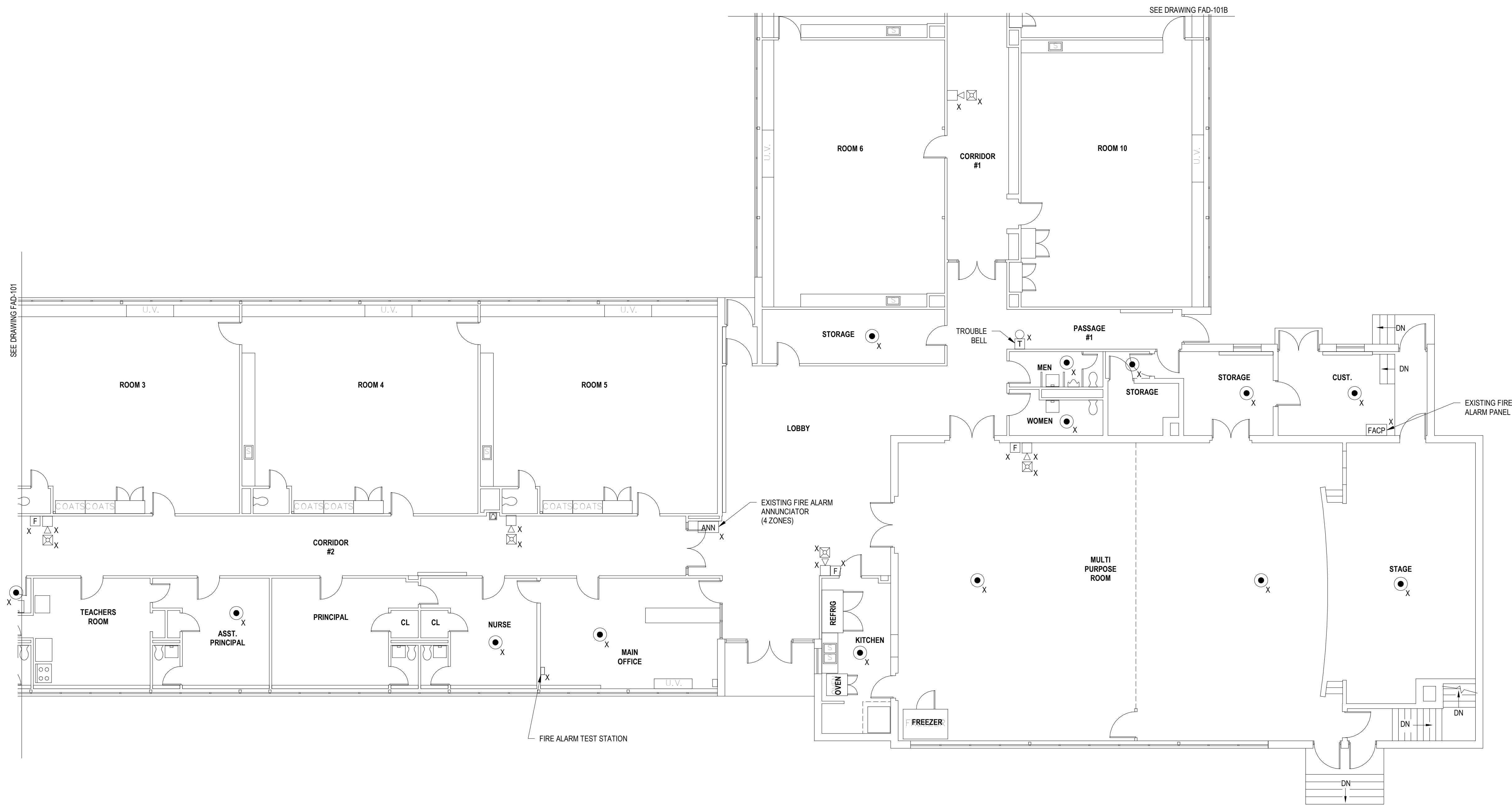


issue / rev. : date: issued for: by:

first floor fire alarm demo plan

date: 03.11.22
project number: cow-4832
scale: 1/8" = 1'-0"
drawing number:

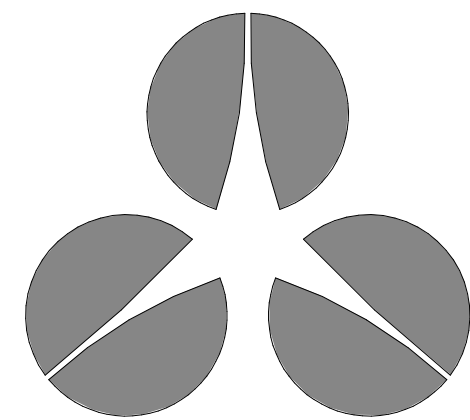
FAD-101



1 first floor - demo fire alarm plan east
1/8" = 1'-0"

fire alarm demo notes:

1. THIS DRAWING SHOWS THE EXISTING FIRE ALARM DEVICES (DENOTED WITH AN "X") THAT ARE TO BE REMOVED. THE EXISTING FIRE ALARM IS OBSOLETE AND IS TO BE REMOVED IN ITS ENTIRETY. THIS INCLUDES, BUT NOT LIMITED TO, ANCILLARY DEVICES SUCH AS REMOTE TEST SWITCHES AND MONITOR MODULES.
2. THE EXISTING FIRE ALARM SYSTEM, INITIATING AND NOTIFICATION APPLIANCE DEVICES SHALL REMAIN IN SERVICE UNTIL THE NEW FIRE ALARM SYSTEM, INITIATING AND NOTIFICATION APPLIANCE DEVICES HAVE BEEN INSTALLED, TESTED, AND ACCEPTED BY OWNER AND AUTHORITY HAVING JURISDICTION.



architecture
engineering
management

pittsfield, ma
unionville, ct
troy, ny

(888) 336-6500
team@edm-ae.com

consultants:

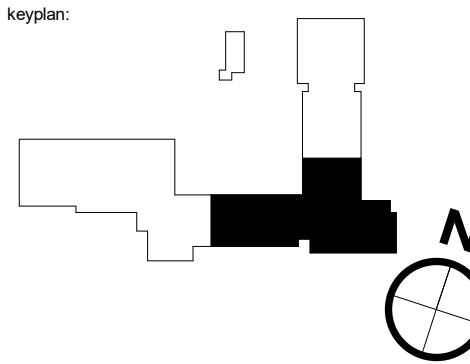


design by: TST
checked by: JB
approved by:

CITY OF
WORCESTER
WEST TATNUCK
SCHOOL



300 MOWER STREET
WORCESTER, MA
01609

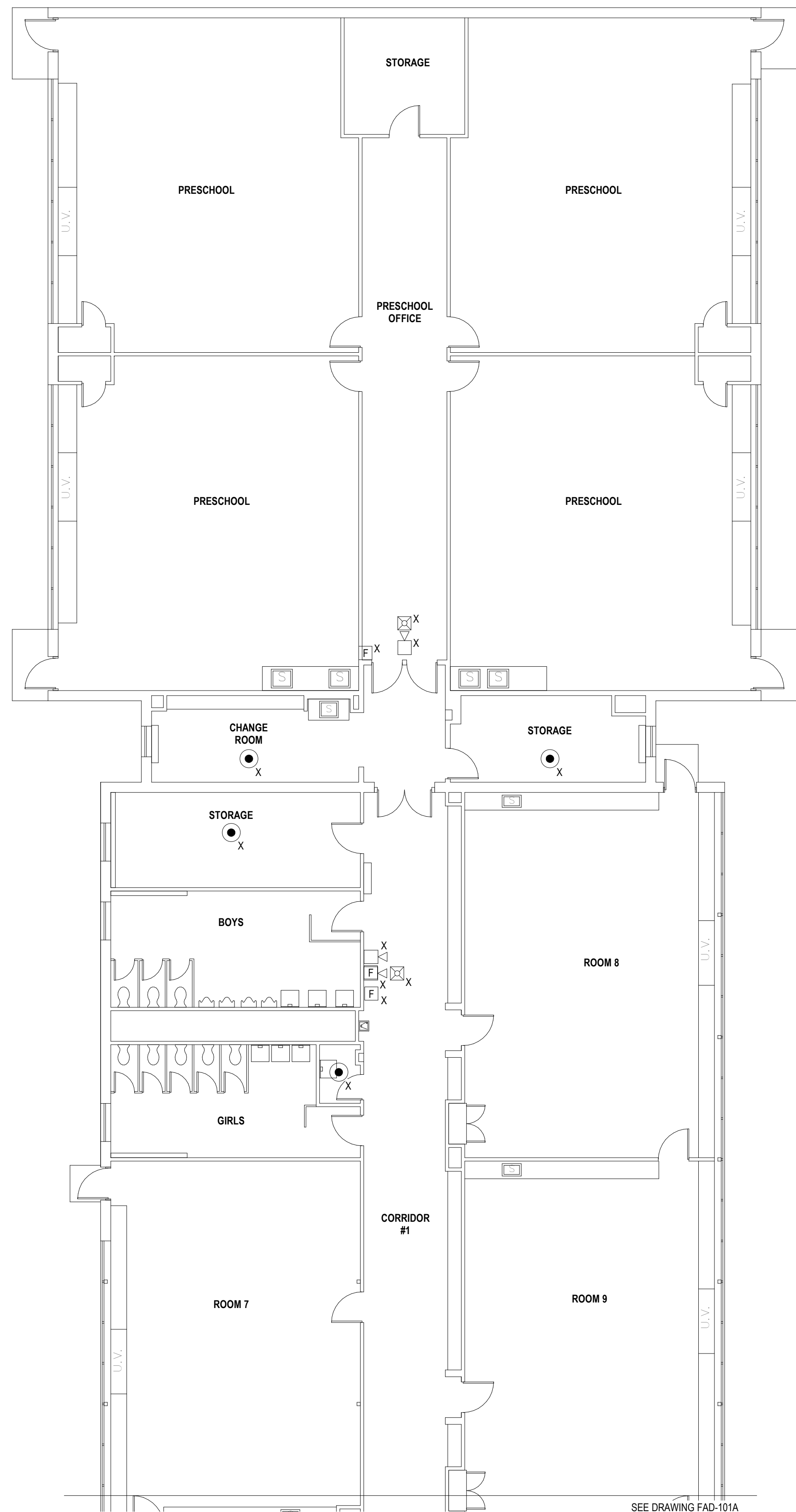


issue / rev.	date	issued for	by

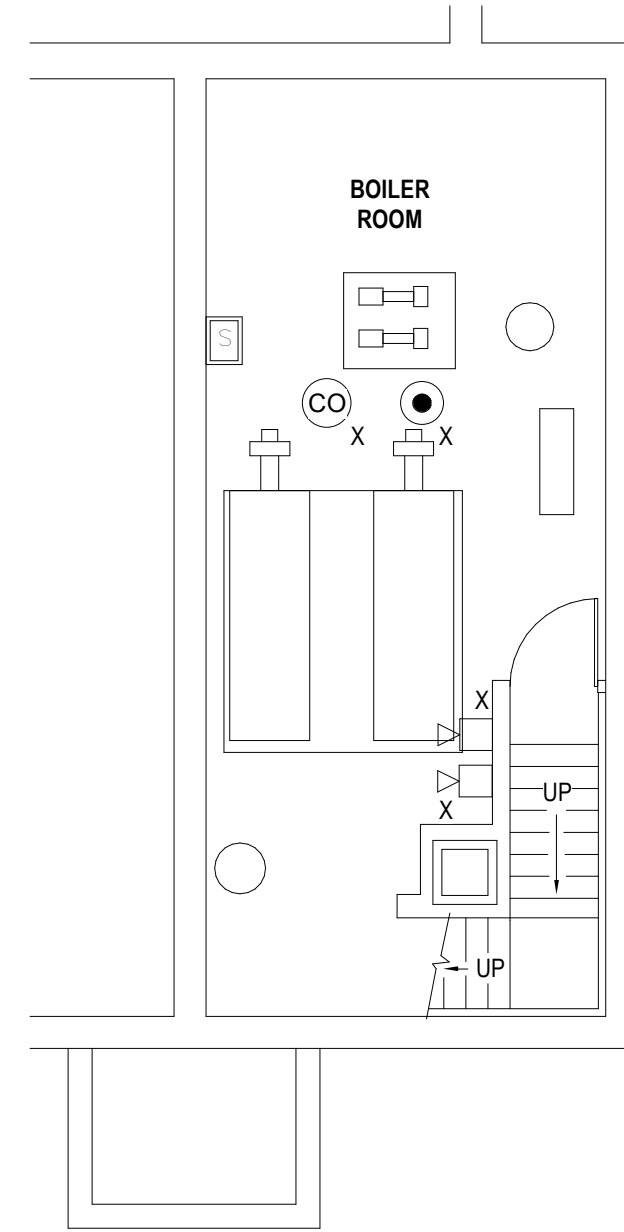
first floor fire alarm demo plan

date: 03.11.22
project number: cow-4832
scale: 1/8" = 1'-0"
drawing number:

FAD-101A



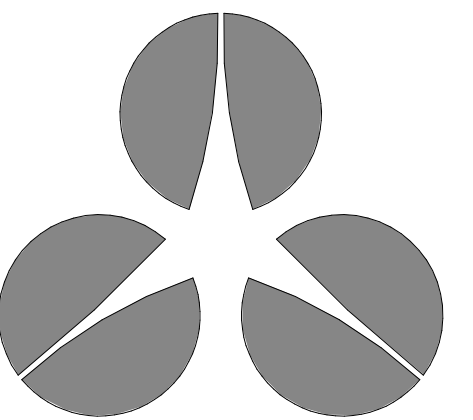
1 first floor - demo fire alarm plan northeast
1/8" = 1'-0"



2 boiler room - demo fire alarm - below stage
1/8" = 1'-0"

fire alarm demo notes:

1. THIS DRAWING SHOWS THE EXISTING FIRE ALARM DEVICES (DENOTED WITH AN "X") THAT ARE TO BE REMOVED. THE EXISTING FIRE ALARM IS OBSOLETE AND IS TO BE REMOVED IN ITS ENTIRETY. THIS INCLUDES, BUT NOT LIMITED TO, ANCILLARY DEVICES SUCH AS REMOTE TEST SWITCHES AND MONITOR MODULES.
2. THE EXISTING FIRE ALARM SYSTEM, INITIATING AND NOTIFICATION APPLIANCE DEVICES SHALL REMAIN IN SERVICE UNTIL THE NEW FIRE ALARM SYSTEM, INITIATING AND NOTIFICATION APPLIANCE DEVICES HAVE BEEN INSTALLED, TESTED, AND ACCEPTED BY OWNER AND AUTHORITY HAVING JURISDICTION.



edm

architecture
engineering
management

pittsfield, ma
unionville, ct
troy, ny

(888) 336-6500
team@edm-ae.com

consultants:



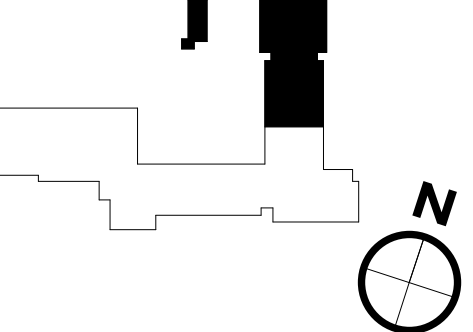
design by: TST
checked by: JB
approved by:

CITY OF
WORCESTER
WEST TATNUCK
SCHOOL



300 MOWER STREET
WORCESTER, MA
01609

keyplan:

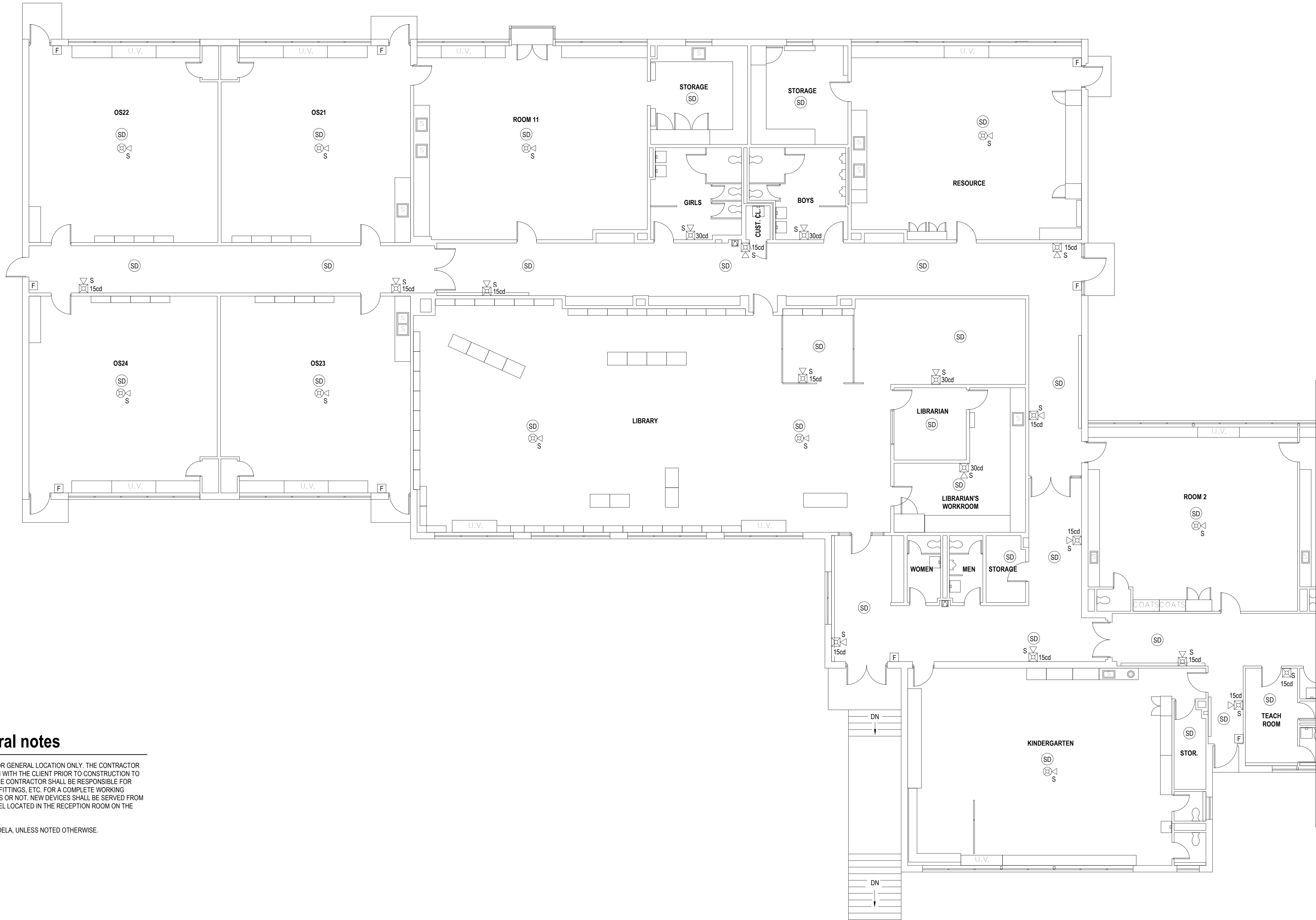


issue / rev.	date	issued for	by

first floor fire alarm demo plan

date:
03.11.22
project number:
cow-4832
scale:
1/8" = 1'-0"
drawing number:

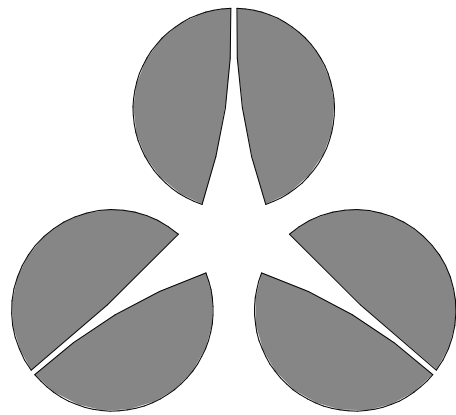
FAD-101B



fire alarm general notes

1. FIRE ALARM DEVICES ARE SHOWN FOR GENERAL LOCATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH THE CLIENT PRIOR TO CONSTRUCTION TO VERIFY FINAL DEVICE LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED DEVICES, FITTINGS, ETC. FOR A COMPLETE WORKING SYSTEM, WHETHER SHOWN ON PLANS OR NOT. NEW DEVICES SHALL BE SERVED FROM THE NEW FIRE ALARM CONTROL PANEL LOCATED IN THE RECEPTION ROOM ON THE FIRST FLOOR.
2. ALL STROBES ARE RATED AT 75 CANDELA, UNLESS NOTED OTHERWISE.

1 first floor - fire alarm plan west
1/8" = 1'-0"



architecture
engineering
management

pittsfield, ma
unionville, ct
troy, ny

(888) 336-6500
team@edm-ae.com

consultants:



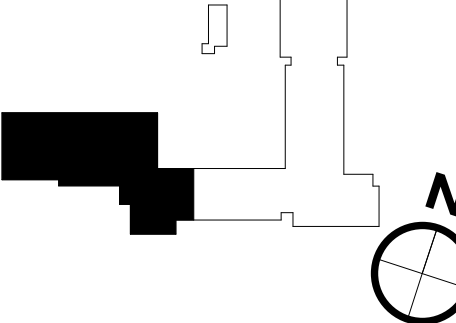
design by: TST
checked by: JB
approved by:

CITY OF
WORCESTER
WEST TATNUCK
SCHOOL



300 MOWER STREET
WORCESTER, MA
01609

keyplan:

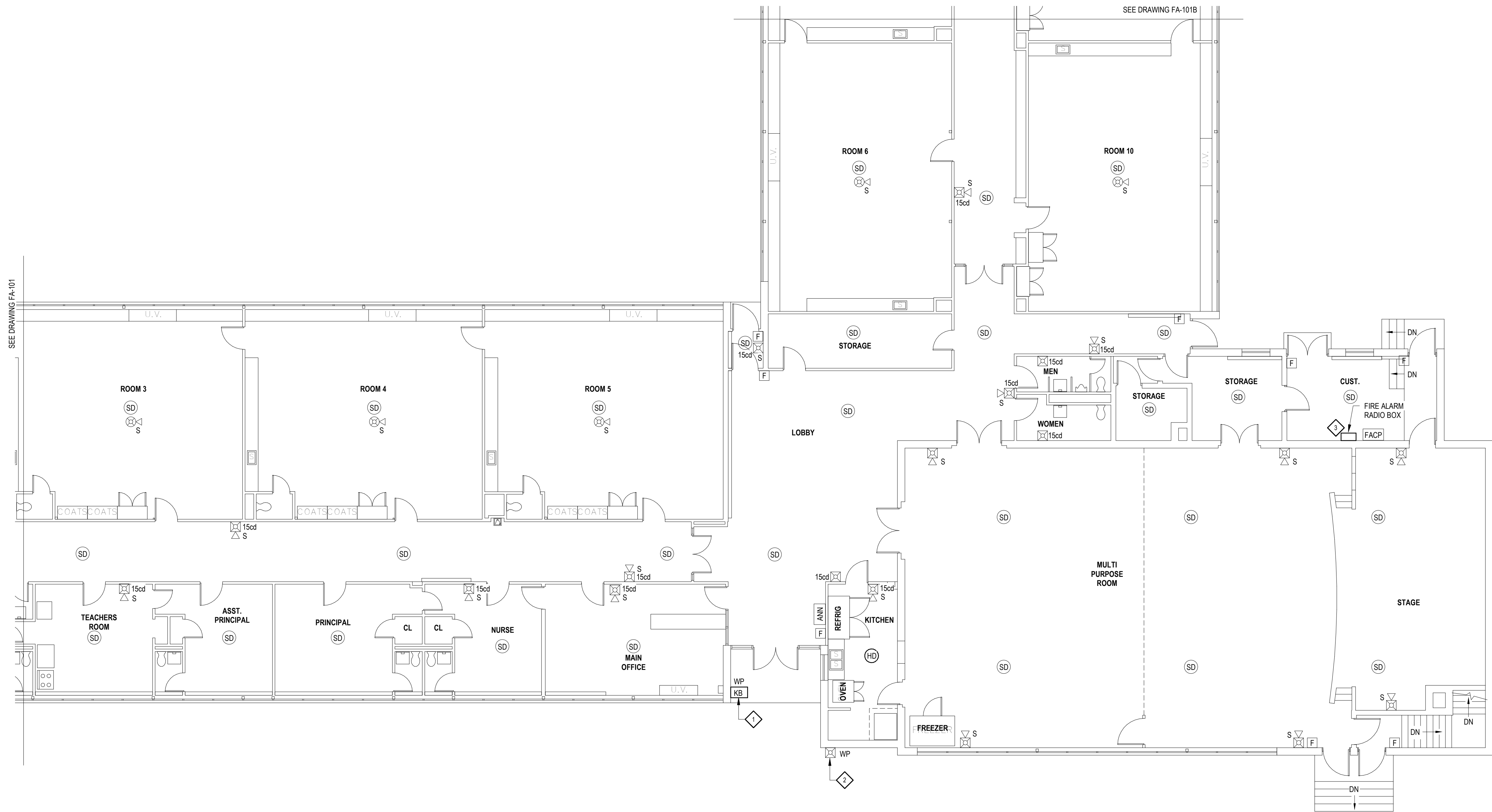


issue / rev.: date: issued for: by:

first floor fire alarm plan

date:
03.11.22
project number:
cow-4832
scale:
1/8" = 1'-0"
drawing number:

FA-101



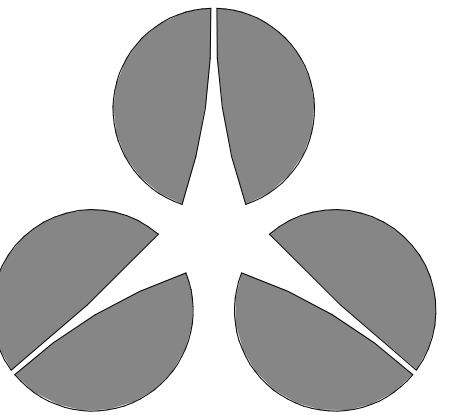
1 first floor - fire alarm plan east
1/8" = 1'-0"

fire alarm general notes

1. FIRE ALARM DEVICES ARE SHOWN FOR GENERAL LOCATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH THE CLIENT PRIOR TO CONSTRUCTION TO VERIFY FINAL DEVICE LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED DEVICES, FITTINGS, ETC. FOR A COMPLETE WORKING SYSTEM, WHETHER SHOWN ON PLANS OR NOT. NEW DEVICES SHALL BE SERVED FROM THE NEW FIRE ALARM CONTROL PANEL LOCATED IN THE RECEPTION ROOM ON THE FIRST FLOOR.
2. ALL STROBES ARE RATED AT 75 CANDELA, UNLESS NOTED OTHERWISE.

fire alarm keyed notes

1. FIRE ALARM KNOX BOX. MOUNT ON EITHER SIDE OF THE FRONT DOOR, APPROXIMATELY 56" ABOVE FINISHED GRADE.
2. FIRE ALARM EXTERIOR BEACON. SHALL BE LOCATED IN CLOSE PROXIMITY OF THE EXTERIOR DOOR LEADING TO THE FIRE ALARM ANNUNCIATOR AND SUCH THAT IT IS VISIBLE FROM THE PUBLIC WAY IN BOTH DIRECTIONS.
3. PROVIDE 120V, 20A, 1-PHASE BRANCH CIRCUIT FOR NEW RADIO BOX. BRANCH CIRCUIT TO BE SERVED BY EXISTING PANELBOARD SERVING RADIO BOX IDENTIFIED AS BEING DEMOLISHED. CONTRACTOR TO FIELD VERIFY.



edm

architecture
engineering
management

pittsfield, ma
unionville, ct
troy, ny

(888) 336-6500
team@edm-ae.com

consultants:



design by: TST
drawn by: TST

checked by: JB

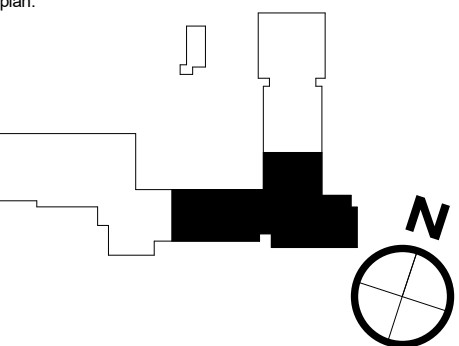
approved by:

CITY OF
WORCESTER
WEST TATNUCK
SCHOOL



300 MOWER STREET
WORCESTER, MA
01609

keyplan:



issue / rev. : date: issued for: by:

--	--	--	--

first floor fire alarm plan

date:

03.11.22

project number:

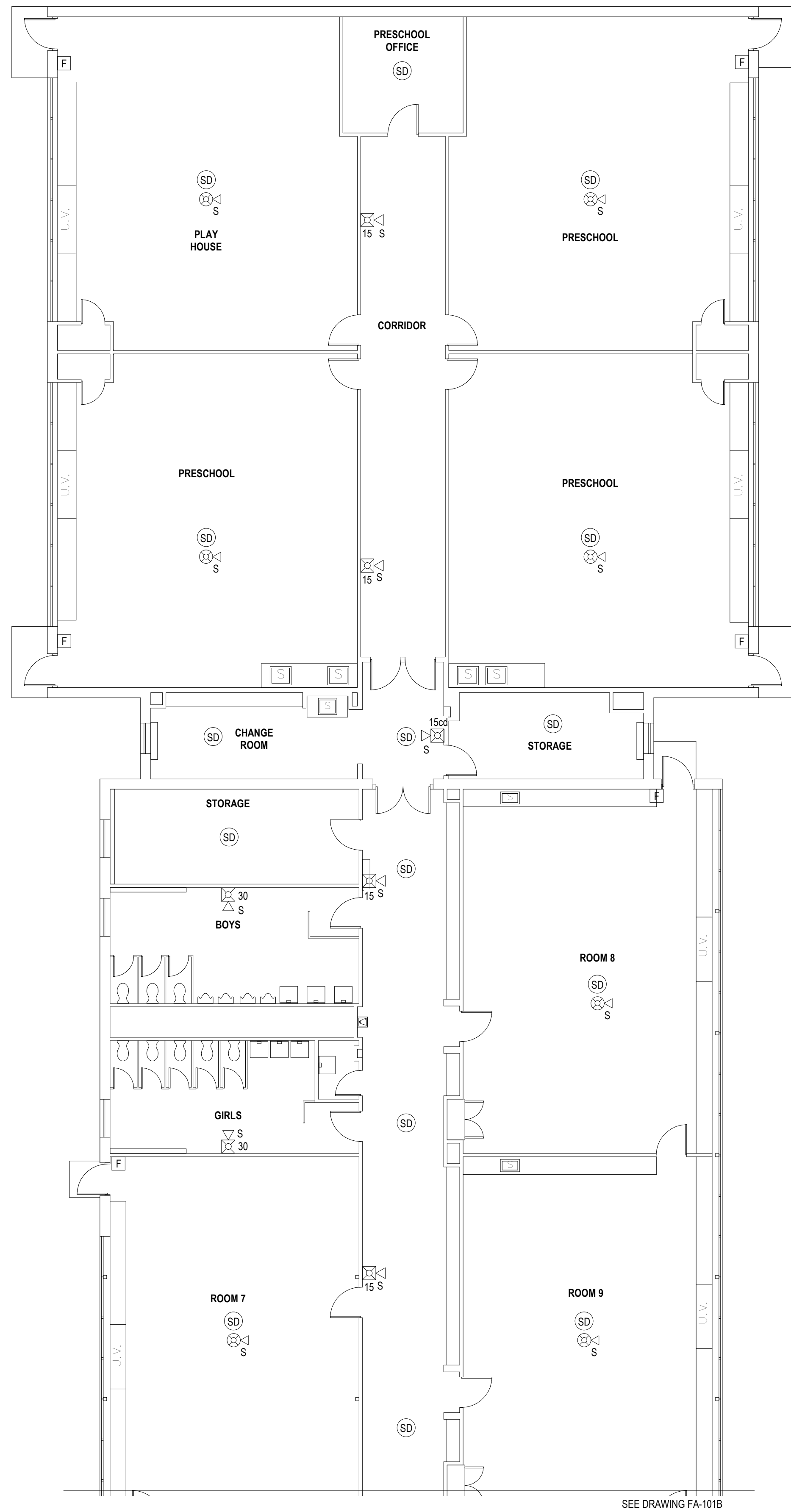
cow-4832

scale:

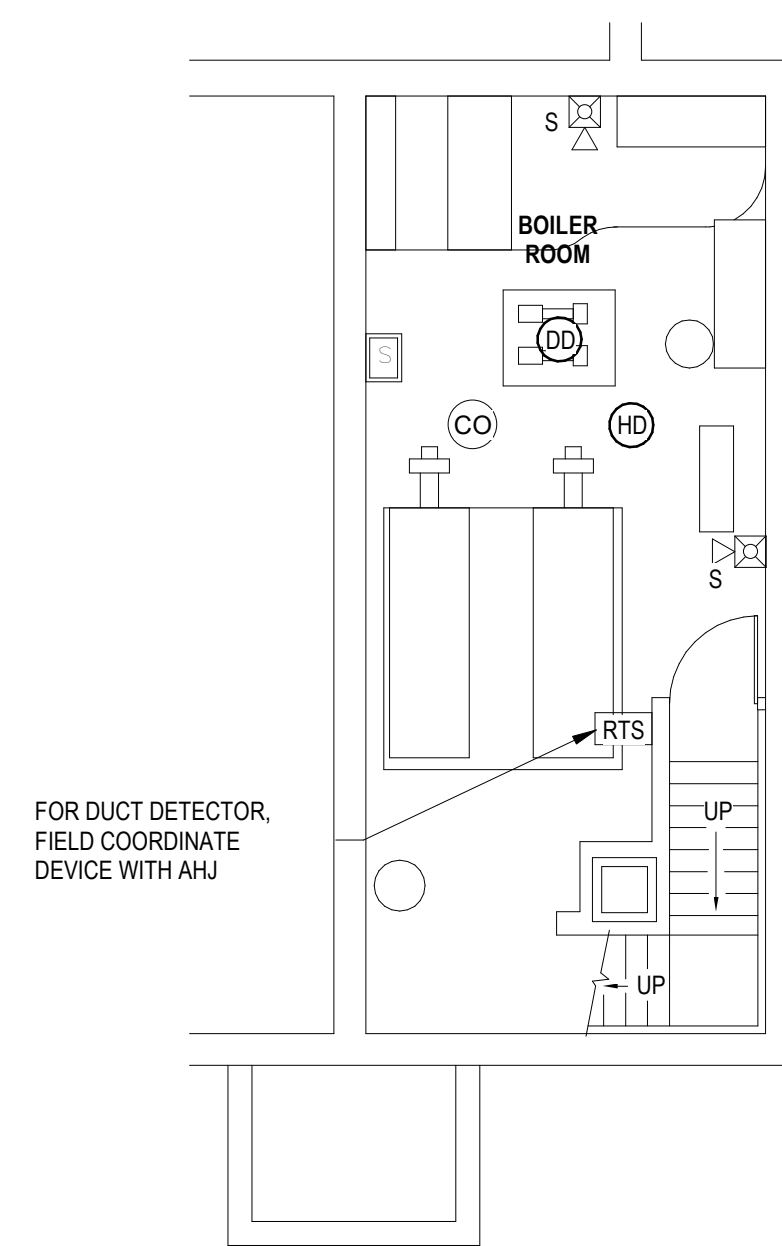
1/8" = 1'-0"

drawing number:

FA-101A



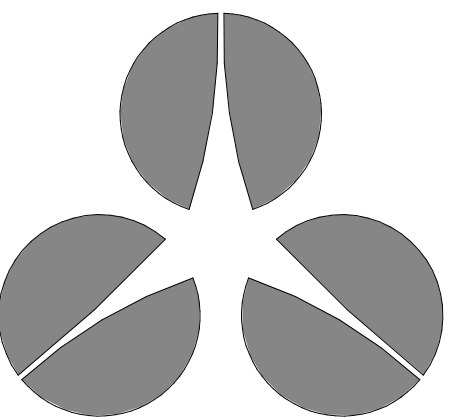
1 first floor - fire alarm plan northeast
1/8" = 1'-0"



2 boiler room - fire alarm plan
1/8" = 1'-0"

fire alarm general notes

1. FIRE ALARM DEVICES ARE SHOWN FOR GENERAL LOCATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH THE CLIENT PRIOR TO CONSTRUCTION TO VERIFY FINAL DEVICE LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED DEVICES, FITTINGS, ETC. FOR A COMPLETE WORKING SYSTEM, WHETHER SHOWN ON PLANS OR NOT. NEW DEVICES SHALL BE SERVED FROM THE NEW FIRE ALARM CONTROL PANEL LOCATED IN THE RECEPTION ROOM ON THE FIRST FLOOR. THIS INCLUDES, BUT NOT LIMITED TO, ANCILLARY DEVICES SUCH AS REMOTE TEST SWITCHES AND MONITOR MODULES.
2. ALL STROBES ARE RATED AT 75 CANDELA, UNLESS NOTED OTHERWISE.



edm

architecture
engineering
management

pittsfield, ma
unionville, ct
troy, ny

(888) 336-6500
team@edm-ae.com

consultants:



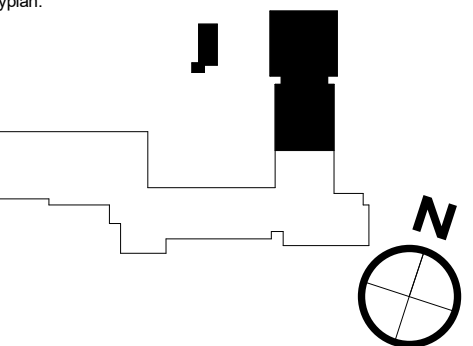
design by: TST
drawn by: TST
checked by: JB
approved by:

CITY OF
WORCESTER
WEST TATNUCK
SCHOOL



300 MOWER STREET
WORCESTER, MA
01609

keyplan:

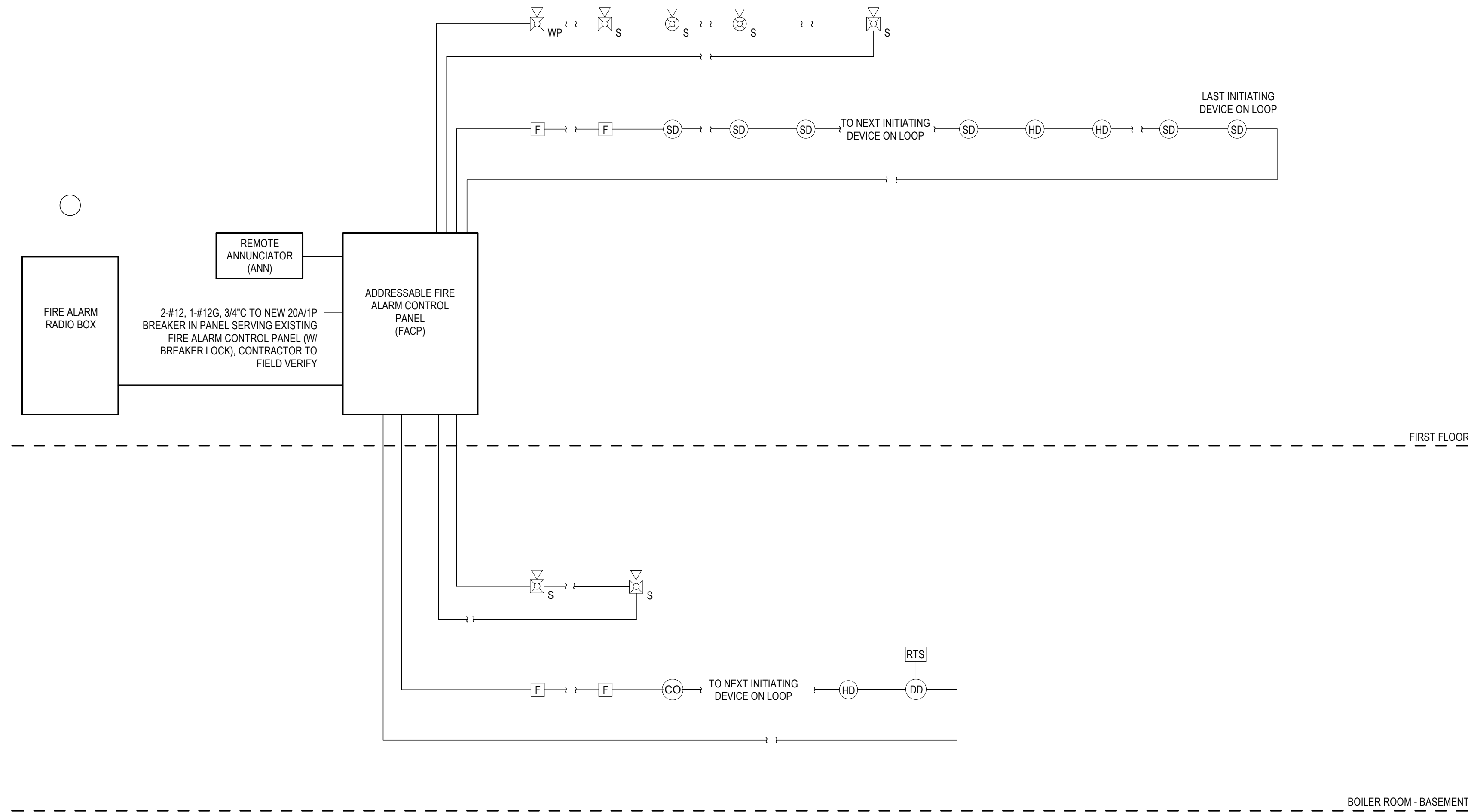


issue / rev.	date	issued for	by

first floor fire alarm plan

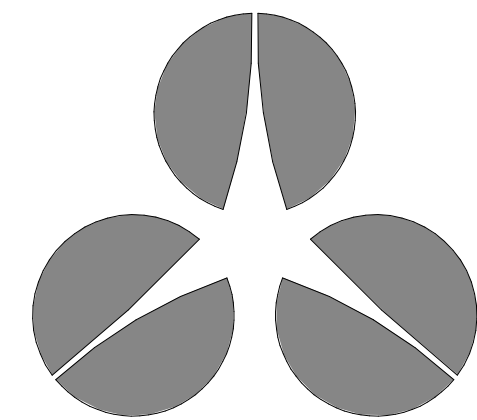
date:
03.11.22
project number:
cow-4832
scale:
1/8" = 1'-0"
drawing number:

FA-101B



fire alarm riser notes

1. FIRE ALARM PARTIAL RISER DIAGRAM IS DIAGRAMMATIC - THE FIRE ALARM CONTRACTOR SHALL REFER TO PROJECT DRAWINGS FOR QUANTITY AND LOCATION OF DEVICES.
2. REFER TO SYMBOL LEGEND FOR FIRE ALARM DEVICE INFORMATION.
3. SECONDARY POWER SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 72 TO PROVIDE POWER FOR A MINIMUM OF 24 HOURS STAND-BY AND 5 MINUTES ALARM.
4. ALL INSTALLATION WORK SHALL CONFORM WITH THE REQUIREMENTS OF THE NATIONAL FIRE PROTECTION ASSOCIATION, NFPA 72 (NATIONAL FIRE ALARM CODE) AND THE 2018 INTERNATIONAL BUILDING CODE.
5. ALL INITIATING DEVICES, CONTROL MODULES, MONITOR MODULES, NOTIFICATION APPLIANCES AND ALL OTHER EQUIPMENT SHALL BE INSTALLED ON STANDARD ELECTRICAL BACK BOXES THAT ARE SECURED TO THE BUILDING STRUCTURE.
6. AUDIBLE AND/OR VISUAL NOTIFICATION APPLIANCES SHALL HAVE THE SAME STYLE BACKBOX AND BE INTERCHANGEABLE.
7. FIRE ALARM LAYOUT SHOWN ON CONTRACT DOCUMENTS IS TO SHOW DESIGN INTENT ONLY.
8. ALL INITIATING DEVICES AND NOTIFICATION APPLIANCES SHALL BE UL/FM LISTED FOR THEIR INTENDED USE AND SHALL BE COMAPATIBLE WITH THE FIRE ALARM CONTROL PANEL.
9. FIRE ALARM SIGNALING SYSTEM NOTIFYING AUDIO STROBE COVERAGE IS PER NFPA-72 PUBLIC MODE, THE AMERICANS WITH DISABILITIES ACT(ADA) AND FIRE CODE FOR SPACING , CANDELA AND AUDIO ALARM AMPLITUDE.
10. WHEN FIRE ALARM SYSTEM IS ACTIVATED, ALL AUDIO STROBES SHALL COOPERATE IN A SYNCHRONIZED MANNER. ALARM FOR BUILDING EVACUATION AS DESCRIBED PER MASSACHUSSETTS BUILDING AND FIRE CODES, AND NFPA-72. ALL AUDIO/STROBES SHALL BE ADA APPROVED AND SYNCHRONIZED.
11. CLASS A WIRING IS REQUIRED FOR ALL DETECTION DEVICES AND NOTIFICATION APPLIANCES.
12. SYSTEM SHALL BE INSTALLED AND PROGRAMMED SO THAT UPON ACTIVATIONOF AN ALARM, TROUBLE OR SUPERVISORY SIGNAL AT THE FIRE ALARM CONTROL PANEL, A CORRESPONDING SIGNAL SHALL BE REPORTED TO A LISTED CENTRAL STATION MONITORING SERVICE OR THE MUNICIPLE FIRE DEPARTMENT.
13. REMOTE ANNUNCIATOR FUNCTIONS SHALL MATCH THOSE OF FIRE-ALARM CONTROL UNIT FOR ALARM, SUPERVISORY, AND TROUBLE INDICATIONS. MANUAL SWITCHING FUNCTIONS SHALL MATCH THOSE OF FIRE-ALARM CONTROL UNIT, INCLUDING ACKNOWLEDGING, SILENCING, RESETTNG, AND TESTING. DISPLAY TYPE AND FUNCTIONAL PERFORMANCE: ALPHANUMERIC DISPLAY AND LED INDICATING LIGHTS SHALL MATCH THOSE OF FIRE-ALARM CONTROL UNIT. PROVIDE CONTROLS TO ACKNOWLEDGE, SILENCE, RESET, AND TEST FUNCTIONS FOR ALARM, SUPERVISORY, AND TROUBLE SIGNALS.
14. PROVIDE A VOICE EVACUATION SYSTEM IN ACCORDANCE WITH NFPA 72.



architecture
•
engineering
•
management

pittsfield, ma
unionville, ct
troy, ny

(888) 336-6500
team@edm-ae.com

consultants:



design by: TST drawn by: TST
checked by: JB
approved by:

CITY OF
WORCESTER
WEST TATNUCK
SCHOOL



300 MOWER STREET
WORCESTER, MA
01609

keyplan:



issue / rev. :	date:	issued for:	by:

fire alarm riser diagram

date:
03.11.22
project number:
cow-4832
scale:
3/4" = 1'-0"
drawing number:

FA-401