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UNIVERSITY OF RHODE ISLAND
44 LOWER COLLEGE ROAD
FIRE PROTECTION UPGRADES

44 LOWER COLLEGE ROAD, KINGSTON, RI 02881
PROJECT NO. 1MJB00329.052
JANUARY 19, 2023


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SEAL



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KEY PLAN



NO.	REVISION	DATE

PROJECT

UNIVERSITY OF RHODE ISLAND 44 LOWER COLLEGE ROAD FIRE PROTECTION UPGRADES

ADDRESS

44 LOWER COLLEGE ROAD, KINGSTON, RI 02881

PROJECT NO

1MJB00329.052

DATE

JANUARY 19, 2023

DESIGN

ALT


DRAWN BY

ALT

CHECKED BY

JWS

SCALE



1/8"=1'-0"

TITLE

COVER SHEET & INDEX OF DRAWINGS

NUMBER

CS-0.0

SHEET

1 of 12

GENERAL NOTES

- THE FIRE ALARM SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE RHODE ISLAND STATE FIRE SAFETY CODE, NFPA 72®, NATIONAL FIRE ALARM CODE®, 2019 EDITION, NFPA 70, NATIONAL ELECTRICAL CODE®, 2017 EDITION, THE UNIVERSITY OF RHODE ISLAND STANDARDS, AND THE TECHNICAL SPECIFICATION PREPARED BY JENSEN HUGHES.
- THE SCOPE OF WORK INCLUDES FURNISHING ALL SERVICES, EQUIPMENT, PERMITS, TESTING, ETC. THAT ARE REQUIRED TO INSTALL A COMPLETE AND APPROVED AUTOMATIC FIRE ALARM SYSTEM IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS AND AS INDICATED ON THE DRAWINGS AND IN THE TECHNICAL SPECIFICATIONS.
- THE SCOPE OF WORK INCLUDES COORDINATING THE FIRE ALARM SYSTEM INSTALLATION WITH THE UNIVERSITY AND JENSEN HUGHES.
- THE SCOPE OF WORK INCLUDES THE DEMOLITION OF THE EXISTING FIRE ALARM SYSTEM AS DESCRIBED IN THE PROJECT MANUAL UPON ACCEPTANCE OF THE NEW FIRE ALARM SYSTEM.
- THE SCOPE OF WORK INCLUDES CONNECTING THE NEW FACU TO THE EXISTING LOCAL ENERGY MASTERBOX AT THE EXTERIOR OF THE BUILDING AS INDICATED ON THE DRAWINGS AND IN THE TECHNICAL SPECIFICATIONS. IN ADDITION, THE NEW FACU SHALL BE CAPABLE OF INTERFACING WITH FUTURE RADIO BOX AND IP DATA TRANSMITTERS TO BE INSTALLED UNDER A SEPARATE PROJECT. INSTALLATION OF THESE TRANSMITTERS AND INTERFACE WITH THE FACU IS OUTSIDE THE SCOPE OF WORK OF THIS PROJECT. THE CONTRACTOR SHALL COORDINATE WORK WITH THE ENGINEER AND URI.
- THE SCOPE OF WORK INCLUDES INSTALLING A REMOTE ANNUNCIATOR FOR THE EXISTING EMERGENCY GENERATOR ADJACENT TO THE NEW FIRE ALARM CONTROL UNIT.
- A MINIMUM NOTICE OF 48 HOURS MUST BE PROVIDED TO THE BUILDING OWNER TO ACCOMMODATE IMPAIRMENTS TO THE FIRE ALARM SYSTEM. URI COORDINATOR OF ALARMS IS AVAILABLE FROM 8:30AM TO 4:30PM TO SUPPORT SHUTDOWNS.
- THE FIRE ALARM SYSTEM SHALL BE PROTECTED BY A DTK-120SRD SURGE SUPPRESSOR. THE SURGE SUPPRESSOR SHALL BE MONITORED BY THE FIRE ALARM SYSTEM. THE CONTRACTOR SHALL PROTECT ALL CIRCUITS ENTERING AND EXITING THE BUILDING WITH A TRANSIENT SURGE PROTECTION DEVICE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.
- ALL INITIATING DEVICES AND NOTIFICATION APPLIANCES SHALL BE UL LISTED.
- ALL NEW SIGNALING LINE CIRCUITS (SLC) SHALL BE INSTALLED CLASS A AND ALL NEW NOTIFICATION APPLIANCE CIRCUITS (NAC) SHALL BE INSTALLED CLASS A. EACH SLC AND NAC SHALL NOT BE LOADED TO MORE THAN 75% OF ITS RATED CAPACITY.
- ALL WIRING SHALL BE INSTALLED IN METAL RACEWAY OR APPROVED MC CABLE. MC CABLE SHALL ONLY BE PERMITTED IN AREAS WITH ACT CEILINGS AND WHERE APPROVED BY THE UNIVERSITY.
- ALL AREAS WITH SUSPENDED CEILINGS SHALL BE EQUIPPED WITH CEILING-MOUNTED NOTIFICATION APPLIANCES.
- ALL EXISTING FIRE ALARM SYSTEM EQUIPMENT AND COMPONENTS, WITH THE EXCEPTION OF THE EXISTING MASTERBOX, SHALL BE REMOVED UPON ACCEPTANCE OF THE NEW FIRE ALARM SYSTEM. THE MASTERBOX SHALL BE EXISTING TO REMAIN AND CONNECTED TO THE NEW FIRE ALARM SYSTEM. FIRE ALARM SYSTEM EQUIPMENT AND COMPONENTS INCLUDE RACEWAY, WIRING, DEVICES, APPLIANCES AND CONTROL EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PAINTING AND PATCHING TO THE SATISFACTION OF THE OWNER.
- THE FIRE ALARM SYSTEM CONTRACTOR SHALL DETERMINE THE QUANTITY OF NOTIFICATION APPLIANCE CIRCUITS AND REMOTE POWER SUPPLIES NEEDED TO SUPPORT ALL NOTIFICATIONS APPLIANCES SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL FIELD LOCATE THE REMOTE POWER SUPPLIES. THE LOCATION OF EACH REMOTE POWER SUPPLY SHALL BE APPROVED BY THE UNIVERSITY AND JENSEN HUGHES. VOLTAGE DROP CALCULATIONS SHALL BE PROVIDED TO JENSEN HUGHES FOR APPROVAL PRIOR TO INSTALLATION BY THE INSTALLING CONTRACTOR.
- WIRING COLOR CODE SHALL BE IN ACCORDANCE WITH RHODE ISLAND FIRE SAFETY CODE.
- CAUTION: DO NOT CONNECT POWER (BATTERY OR 120 VAC) TO THE CONTROL UNIT UNTIL ALL FIELD WIRING HAS BEEN CONNECTED AND TESTED.
- DO NOT INSTALL THE FACU OR ANY ELECTRONIC INITIATING DEVICE IN UNHEATED AREAS.
- DO NOT INSTALL ANY AC CURRENT-CARRYING CONDUCTORS IN THE SAME RACEWAY AS LOW VOLTAGE FIRE ALARM CONDUCTORS.
- FIRE ALARM WIRING SHALL BE CONTINUOUS BETWEEN DEVICES AND SHALL BE A MINIMUM #16 GAUGE SOLID COPPER. MUNICIPAL LOOP WIRING SHALL BE SIZED PER THE COORDINATOR OF ALARMS, URI.
- THE FIRE ALARM CONTROL UNIT SHALL BE PROVIDED WITH BYPASS BUTTONS FOR THE FOLLOWING: SPRINKLER SYSTEM DEVICES, MASTER BOX SIGNAL TRANSMISSION AND NOTIFICATION APPLIANCES.
- THE FIRE ALARM SYSTEM CONTRACTOR SHALL BE REQUIRED TO CONDUCT A 100% PRE-ACCEPTANCE TEST OF THE NEW FIRE ALARM SYSTEM. THE CONTRACTOR SHALL CONDUCT A 100% PRE-ACCEPTANCE TEST PRIOR TO SCHEDULING A 100% PRE-ACCEPTANCE TEST TO BE WITNESSED BY JENSEN HUGHES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE PRE-ACCEPTANCE TEST WITH JENSEN HUGHES AND THE OWNER.
- THE FIRE ALARM SYSTEM CONTRACTOR SHALL BE REQUIRED TO SCHEDULE AND CONDUCT AN ACCEPTANCE TEST OF THE NEW FIRE ALARM SYSTEM FOR THE STATE FIRE MARSHAL'S OFFICE AND JENSEN HUGHES APPROVAL.

DEMOLITION NOTES

- THE SCOPE OF WORK INCLUDES THE DEMOLITION OF THE EXISTING FIRE ALARM SYSTEM AS DESCRIBED IN THE MASTER TECHNICAL SPECIFICATION.
- ALL EXISTING FIRE ALARM SYSTEM EQUIPMENT AND COMPONENTS, EXCEPT THE EXISTING MASTERBOX, SHALL BE REMOVED UPON ACCEPTANCE OF THE NEW FIRE ALARM SYSTEM. EXISTING FIRE ALARM SYSTEM EQUIPMENT AND COMPONENTS INCLUDE RACEWAY, WIRING, DEVICES, AND APPLIANCES. ALL EXISTING FIRE ALARM SYSTEM EQUIPMENT AND COMPONENTS SHALL BE RETURNED TO THE UNIVERSITY OF RHODE ISLAND.
- ALL EXISTING DEVICES ARE NOT SHOWN ON THESE DRAWINGS. ALL EXISTING DEVICES AND APPLIANCES SHALL BE REMOVED.

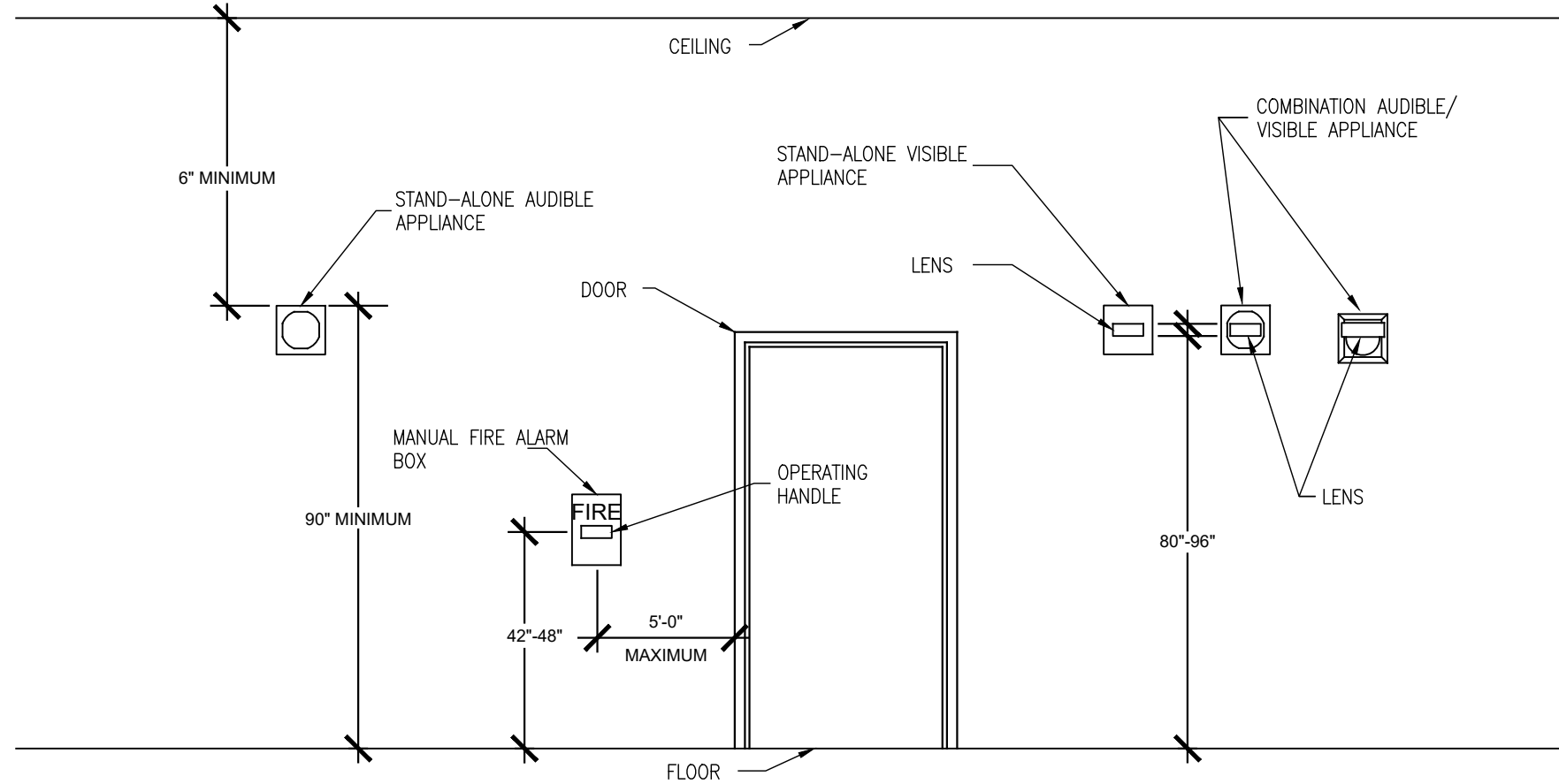
SUBMITTALS

PRE-INSTALLATION DOCUMENTATION: AFTER THE AWARD HAS BEEN MADE, BUT PRIOR TO INSTALLATION, THE CONTRACTOR IS RESPONSIBLE TO SUBMIT THE FOLLOWING INSTALLATION INFORMATION FOR APPROVAL BY JENSEN HUGHES AND THE UNIVERSITY. SEE THE PROJECT MANUAL FOR THE KEY PROJECT DATES.

- PRODUCT DATASHEETS FOR EACH PRODUCT TO BE INSTALLED AS PART OF THE FIRE ALARM SYSTEM UPGRADES, AS INDICATED ON THE DESIGN DRAWINGS. SUBMITTAL SHALL INDICATE LISTING AND APPROVALS, SELECTED OPTIONS AND ELECTRICAL CHARACTERISTICS.
- IDENTIFY TYPE, QUANTITY, MAKE AND MODEL NUMBER OF EACH PIECE OF EQUIPMENT INCLUDED IN THE SUBMITTAL. TYPES AND QUANTITIES OF EQUIPMENT INDICATED SHALL COINCIDE WITH THE TYPES AND QUANTITIES OF EQUIPMENT USED IN THE BATTERY CALCULATIONS AND THOSE SHOWN ON THE SHOP DRAWINGS.
- SHOP DRAWINGS SHALL BE A MINIMUM 1/8" = 1'-0" SCALE FLOOR PLANS AND CORRESPONDING RISER DIAGRAM INCLUSIVE OF INFORMATION REQUIRED BY NFPA 72-2019 REQUIREMENTS.
- A POINT-TO-POINT WIRING DIAGRAM FOR THE FIRE ALARM CONTROL EQUIPMENT INSTALLATION INCLUSIVE OF INFORMATION REQUIRED BY NFPA 72-2019 REQUIREMENTS; TYPICAL WIRING DIAGRAMS ARE NOT ACCEPTABLE.
- BATTERY CALCULATIONS IN ACCORDANCE WITH NFPA 72-2019 REQUIREMENTS AND SHOWING TOTAL STANDBY POWER AND TOTAL ALARM POWER REQUIRED TO MEET THE SPECIFIED SYSTEM REQUIREMENTS. INCLUDE A COMPLETE LIST OF CURRENT REQUIREMENTS DURING NORMAL, SUPERVISORY, TROUBLE, AND ALARM CONDITIONS FOR EACH COMPONENT OF THE SYSTEM.
- VOLTAGE-DROP CALCULATIONS PREPARED IN ACCORDANCE WITH NFPA 72-2019 REQUIREMENTS TO DEMONSTRATE THAT THE SYSTEM WILL OPERATE PER THE PRESCRIBED BACKUP TIME PERIODS AND UNDER ALL VOLTAGE CONDITIONS PER UL AND NFPA STANDARDS.
- MC CABLE PLAN SHOWING THE PROPOSED LOCATIONS OF MC CABLE FOR APPROVAL BY THE UNIVERSITY. INSTALLATION OF MC CABLE SHALL COMPLY WITH URI MC CABLE INSTALLATION REQUIREMENTS.

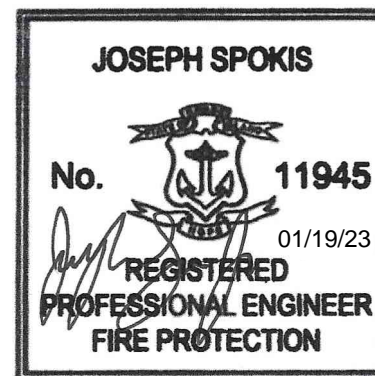
SYSTEM INPUTS	REQUIRED SYSTEM OUTPUTS						
	ANNUNCIATION/ INDICATION		OFF PREMISES SIGNAL TRANSMISSION		ANCILLARY FUNCTIONS		
ALARM SIGNALS							
MANUAL FIRE ALARM BOX	●	●		●	●	●	
SPRINKLER WATERFLOW SWITCH	●	●		●	●	●	
SPRINKLER PRESSURE SWITCH	●	●		●	●	●	
AREA SMOKE DETECTOR	●	●		●	●	●	
SUPERVISORY SIGNALS							
SPRINKLER VALVE SUPERVISORY SWITCH		●		●			
HIGH/LOW AIR SWITCH		●		●			
NITROGEN GENERATOR MODULES		●		●			
MULTI CRITERIA DETECTOR		●		●			
TROUBLE SIGNALS							
OPEN CIRCUIT		●	●				
CIRCUIT GROUND FAULT		●	●				
AC POWER FAILURE		●	●			●	

SEQUENCE OF OPERATIONS MATRIX



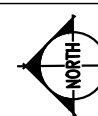
TYPICAL MOUNTING HEIGHT DETAIL FOR WALL-MOUNTED COMPONENTS

SCALE: NOT TO SCALE



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KEY PLAN



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PROJECT
UNIVERSITY OF RHODE ISLAND 44 LOWER COLLEGE ROAD FIRE PROTECTION UPGRADES

ADDRESS
44 LOWER COLLEGE ROAD, KINGSTON, RI 02881

PROJECT NO
1MJB00329.052

DATE
JANUARY 19, 2023

DESIGN
ALT

DRAWN BY
ALT

CHECKED BY
JWS

SCALE
0 4' 8' 16'
1/8" = 1'-0"
















TITLE
FIRE ALARM NOTES & DETAILS

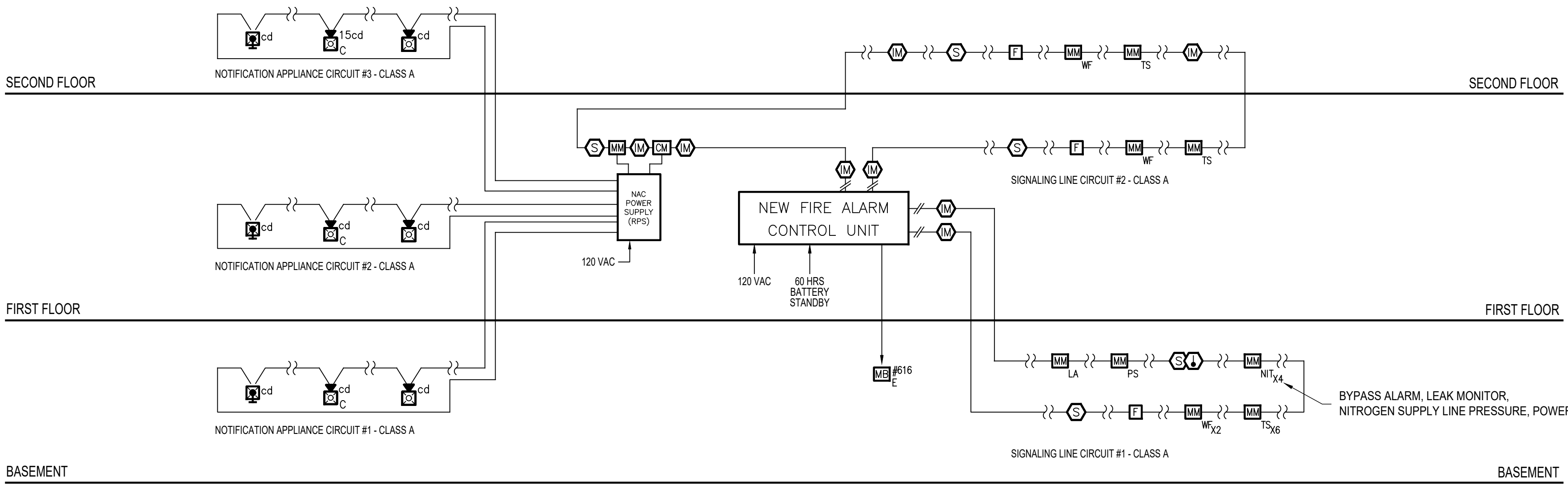
NUMBER
FA-0.01

SHEET
2 of 12

CONCEPTUAL RISER DIAGRAM NOTES

1. THE RISER DIAGRAM IS CONCEPTUAL IN NATURE. IT DOES NOT INTEND TO REPRESENT ACTUAL WIRING AND RACEWAY INSTALLATION. ALL CONDUCTORS AND WIRING SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS, NFPA 72-2013 EDITION AND NFPA 70-2014 EDITION.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL REMOTE NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLIES AS NECESSARY. A SMOKE DETECTOR SHALL BE INSTALLED IN THE VICINITY OF EACH REMOTE POWER SUPPLY. EACH REMOTE POWER SUPPLY SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION APPROVED BY JENSEN HUGHES AND THE UNIVERSITY.
3. THE INSTALLING CONTRACTOR SHALL FIELD LOCATE THE FAULT ISOLATOR MODULES. A MINIMUM OF THREE FAULT ISOLATOR MODULES SHALL BE INSTALLED ON EACH SIGNALING LINE CIRCUIT. IN NO CIRCUMSTANCES SHALL MORE THAN 25 DEVICES BE LOCATED BETWEEN FAULT ISOLATOR MODULES. FAULT ISOLATION MODULES SHALL BE PROVIDED TO ISOLATE EACH FLOOR OF ALL SLCs.
4. THE NUMBER OF CONDUCTORS SHALL BE DETERMINED BY THE FIRE ALARM SYSTEM CONTRACTOR UPON DETERMINING THE REQUIRED QUANTITY AND LOCATIONS OF REMOTE POWER SUPPLIES NECESSARY FOR THE FIRE ALARM SYSTEM TO OPERATE AS DESCRIBED IN THE MASTER TECHNICAL SPECIFICATIONS.
5. THE SEPARATION BETWEEN THE OUTGOING AND RETURN CIRCUITS SHALL BE A MINIMUM OF 1-FOOT VERTICALLY AND 4-FEET HORIZONTALLY, WHERE PRACTICAL.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION AND CONNECTION TO BUILDING POWER FOR ALL FIRE ALARM CONTROL EQUIPMENT.

FIRE ALARM SYMBOL LEGEND			
	ADDRESSABLE RATE OF RISE/FIXED RATE 135 HEAT DETECTOR		
	ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR		
	ADDRESSABLE SMOKE DETECTOR/HEAT DETECTOR COMBO WITH INTEGRAL SOUNDER BASE		
	ADDRESSABLE DOUBLE-ACTION MANUAL FIRE ALARM BOX		
 cd	HORN/STROBE NOTIFICATION APPLIANCE - WALL MOUNTED		
 cd	HORN/STROBE NOTIFICATION APPLIANCE - CEILING MOUNTED		
 cd	STROBE NOTIFICATION APPLIANCE - WALL MOUNTED		
 cd	STROBE NOTIFICATION APPLIANCE - CEILING MOUNTED		
	FIRE ALARM CONTROL UNIT		
	EXISTING LOCAL ENERGY MASTER BOX #516		
	FAULT ISOLATION MODULE		
	ADDRESSABLE MONITOR MODULE		
	ADDRESSABLE CONTROL MODULE		
	FIRE DEPARTMENT ACCESS BOX		
	FIRE ALARM AS-BUILT DOCUMENT CABINET		
SUBSCRIPT LEGEND			
TS	TAMPER SWITCH	E	EXISTING TO REMAIN
WF	WATER FLOW SWITCH	X	EXISTING TO BE DEMOLISHED
PS	PRESSURE SWITCH	NIT	NITROGEN GENERATOR
LA	LOW AIR		



CONCEPTUAL RISER DIAGRAM



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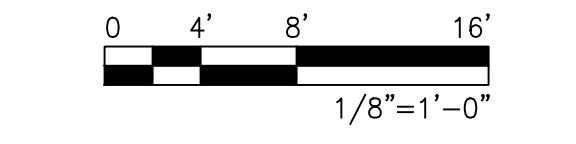
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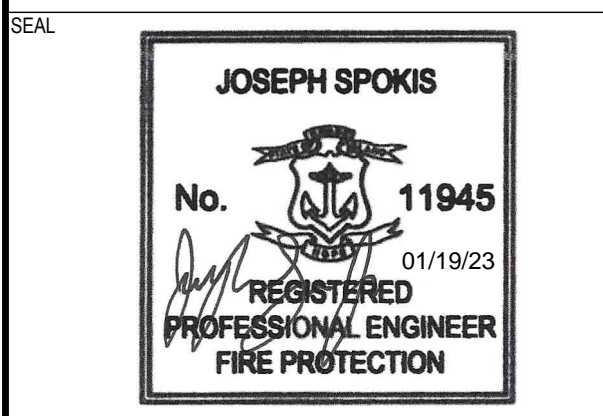
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TITLE
FIRE ALARM RISER

NUMBER
FA-0.02



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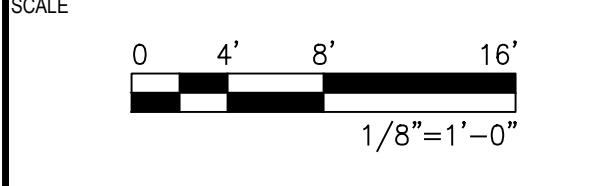
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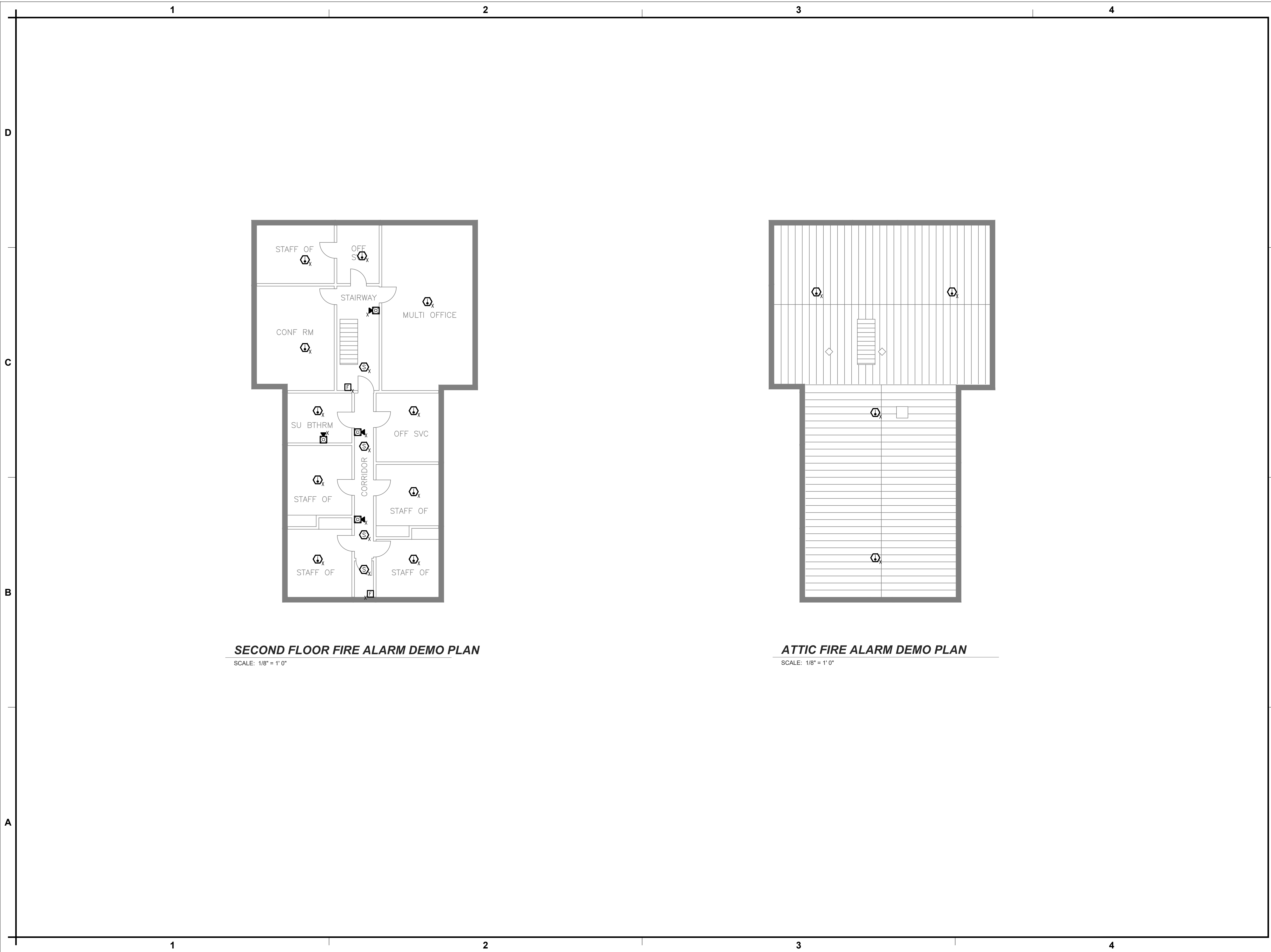


TITLE

BASEMENT & FIRST FLOOR FIRE ALARM DEMOLITION PLAN


NUMBER

FAD-1.0




SECOND FLOOR FIRE ALARM DEMO PLAN
SCALE: 1/8" = 1' 0"

ATTIC FIRE ALARM DEMO PLAN
SCALE: 1/8" = 1' 0"




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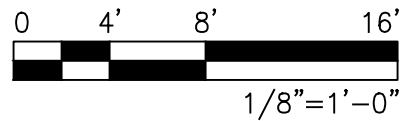
DATE JANUARY 19, 2023

DESIGN ALT

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SCALE



TITLE

SECOND FLOOR & ATTIC FIRE ALARM DEMOLITION PLAN

NUMBER

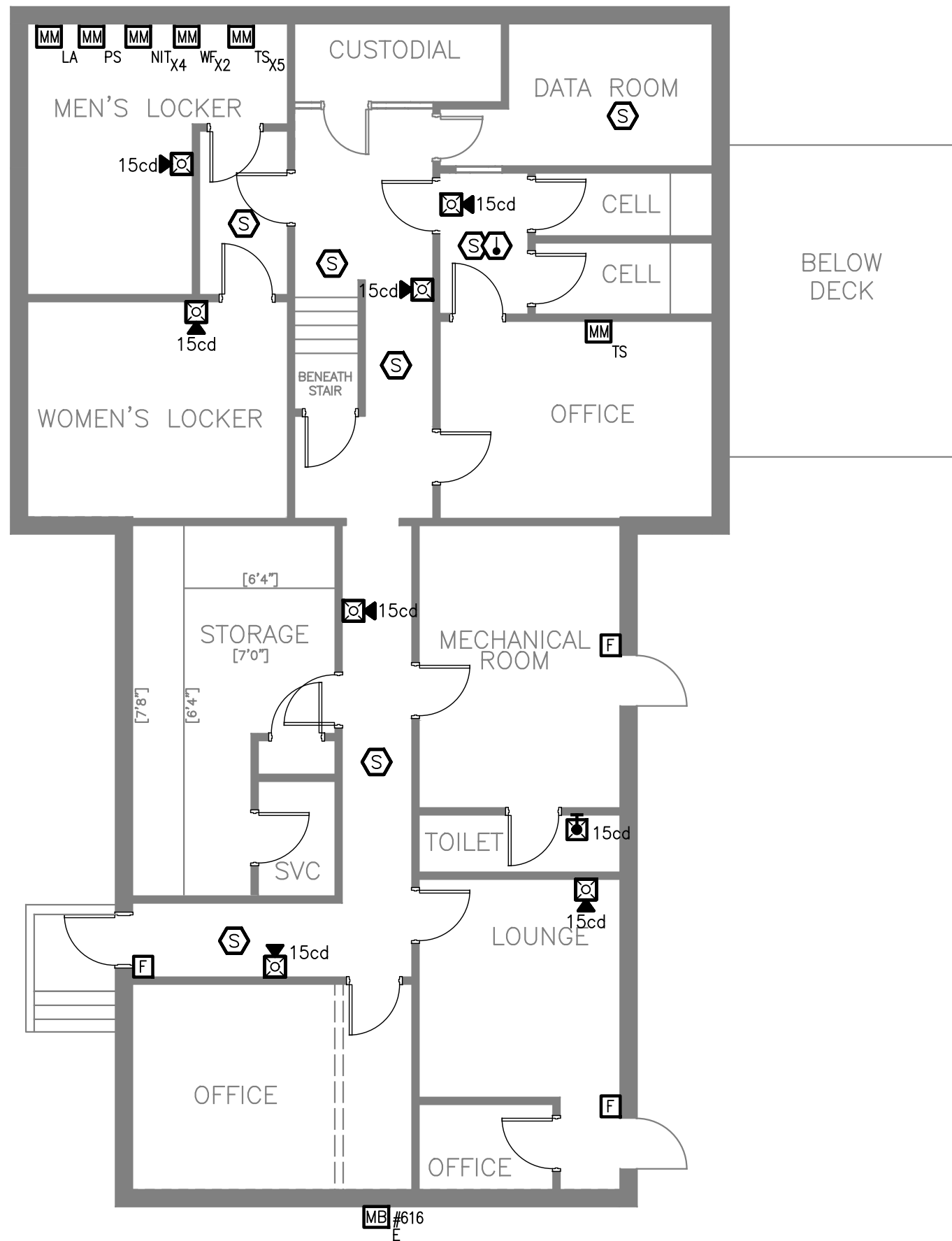
FAD-1.1

SHEET

5 of 12

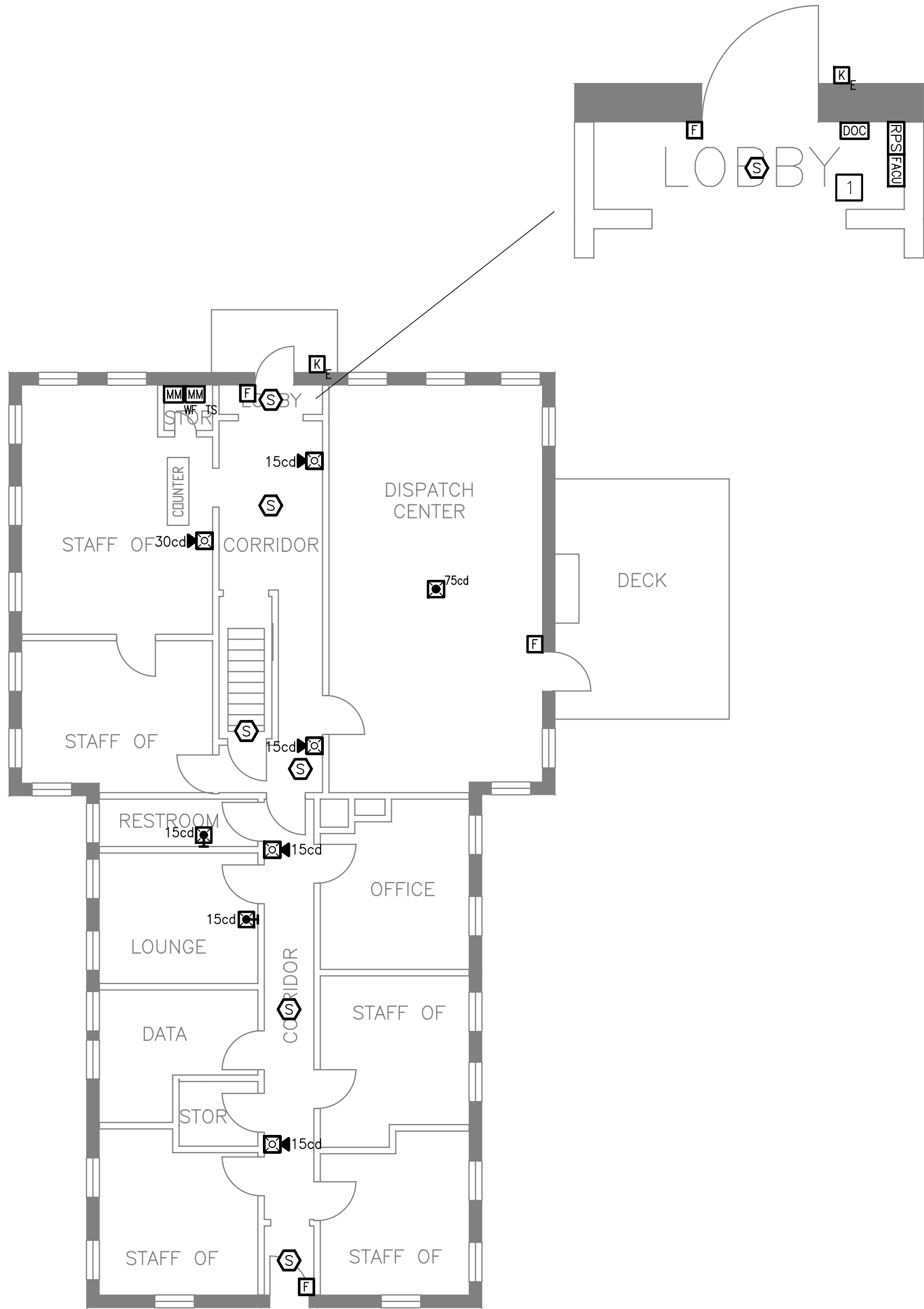
KEYNOTES

- 1 INSTALL A GENERATOR ANNUNCIATOR PANEL ADJACENT TO THE FIRE ALARM CONTROL PANEL TO MONITOR GENERATOR CONDITIONS.



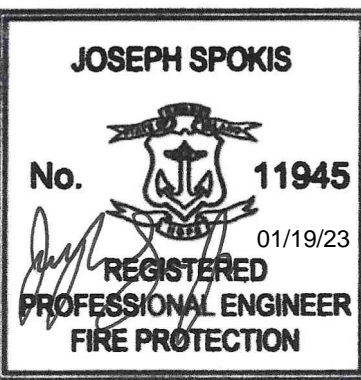
BASEMENT FIRE ALARM PLAN

SCALE: 1/8" = 1' 0"



FIRST FLOOR FIRE ALARM PLAN

SCALE: 1/8" = 1' 0"



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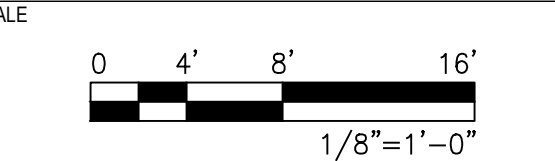
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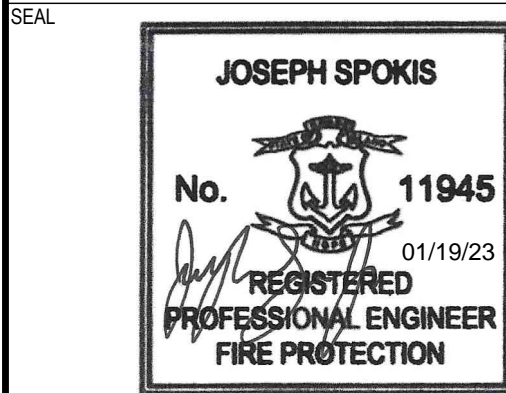
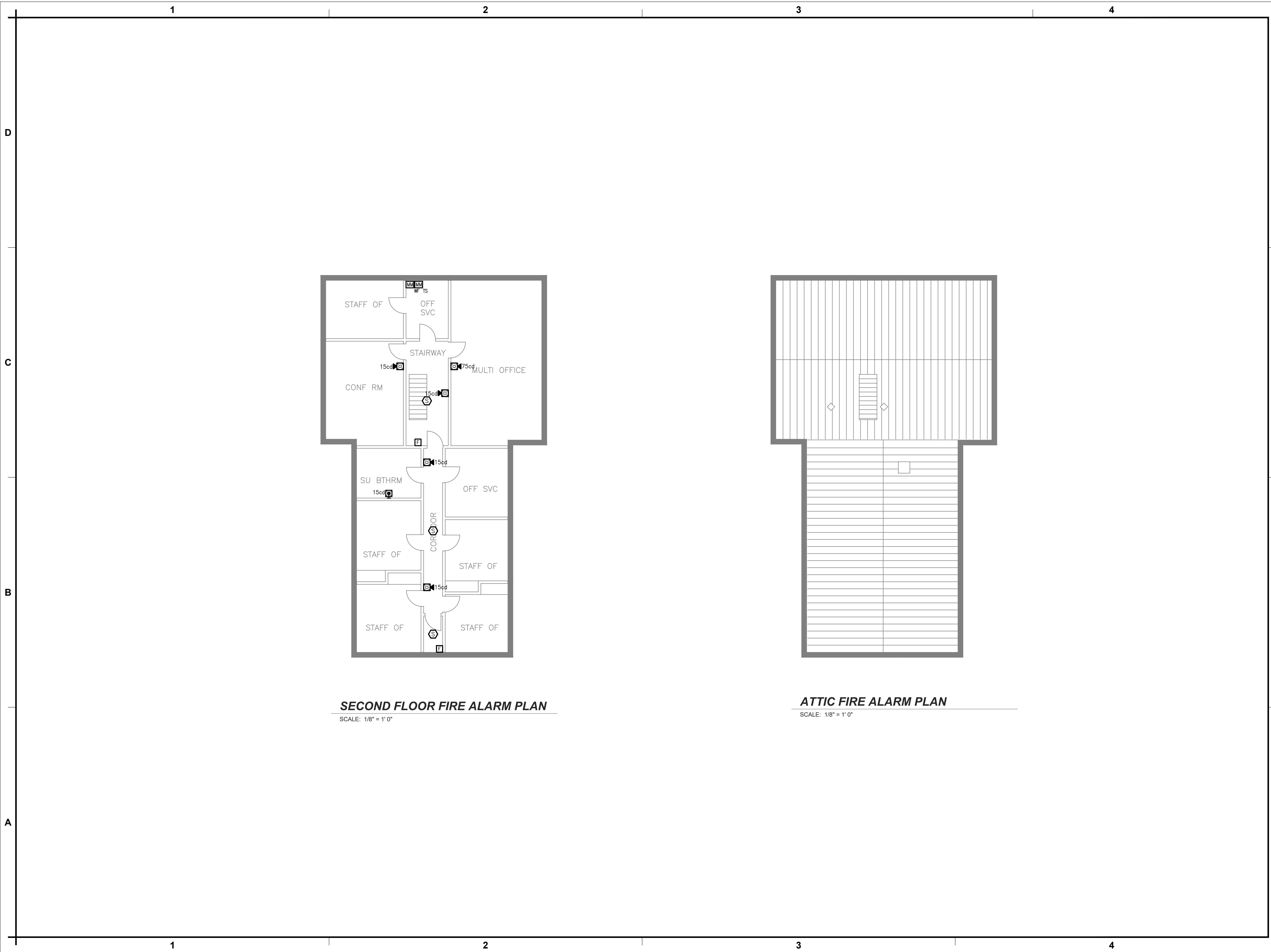
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TITLE
BASEMENT & FIRST FLOOR FIRE ALARM PLAN

NUMBER
FA-1.0

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6 of 12



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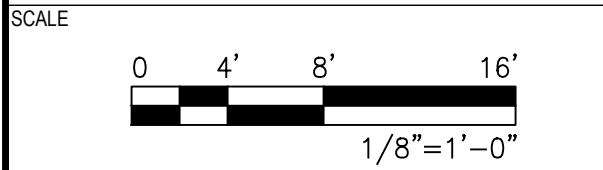
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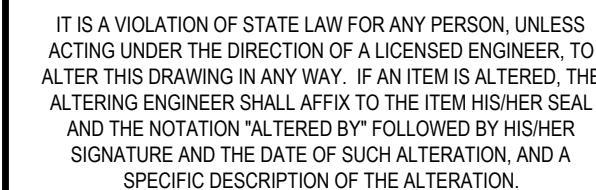


TITLE
SECOND FLOOR & ATTIC FIRE ALARM PLAN

NUMBER
FA-1.1

SHEET
7 of 12

C



KEY PLAN



PROJECT

A

NUMBER

SHEET

8 of 12

DC

B

A

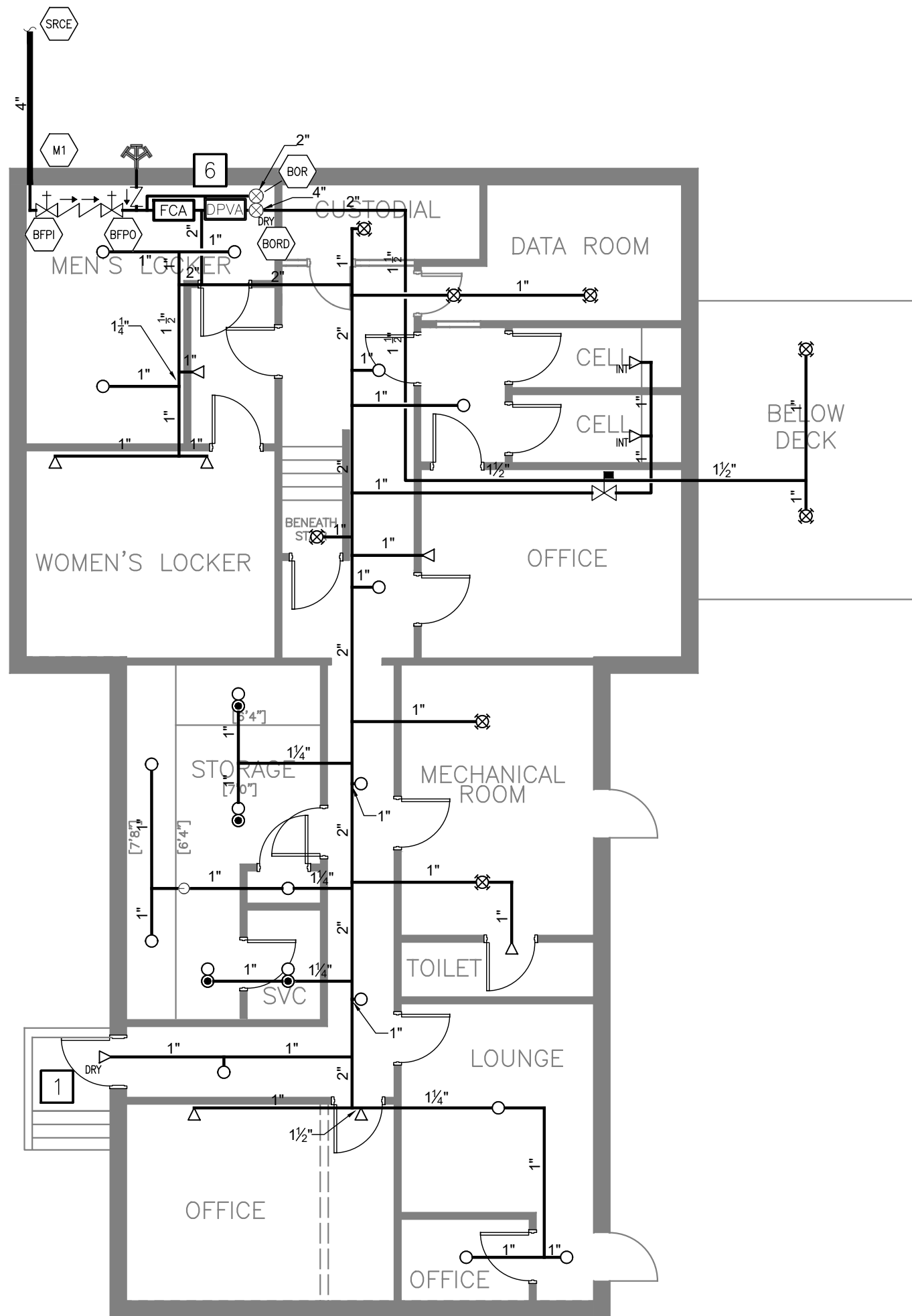
- 1

1. DESIGN AND INSTALL THE SPRINKLER SYSTEMS TO MEET THE REQUIREMENTS OF:
 - A. THE RHODE ISLAND FIRE LAWS AND RULES, WHICH INCLUDES:
 - i. TITLE 23-CHAPTER 28, FIRE SAFETY CODE-2015, AND AS AMENDED UNDER THE TITLE 23-CHAPTER 28, COMPREHENSIVE FIRE SAFETY ACT, WHICH INCLUDES:
 - a. THE RHODE ISLAND FIRE PREVENTION CODE (NFPA 1-2015), AND
 - b. THE RHODE ISLAND LIFE SAFETY CODE (NFPA 101-2015);
 - B. NFPA 13-2013, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS.
2. REFER TO TECHNICAL SPECIFICATIONS FOR MORE DETAILED INFORMATION AND ADDITIONAL REQUIREMENTS.
3. THE SPRINKLER SYSTEM SHALL BE DESIGNED AS LIGHT HAZARD, ORDINARY HAZARD, OR EXTRA HAZARD DEPENDING ON THE USE OF THE SPACE BEING PROTECTED.
4. THE SPRINKLER SYSTEM SHALL BE HYDRAULICALLY CALCULATED BY THE CONTRACTOR USING THE DENSITY/AREA METHOD AS DESCRIBED IN NFPA 13-2013.
5. THE SPRINKLER SYSTEM SHALL BE HYDRAULICALLY CALCULATED AND SIZED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:
 - A. ALL LIGHT HAZARD OCCUPANCY AREAS SHALL MEET THE REQUIREMENTS OF NFPA 13-2013 AS FOLLOWS:
 - i. AREA OF DEMAND: 1500 S.F. (AREA REDUCTION FOR Q.R.R. SPRINKLERS PER NFPA 13-2013, SEC. 11.2.3.2.3.1 IS ONLY ALLOWED IN THE OFFICE SPACE PORTION OF THE BUILDING),
 - ii. DENSITY: 0.10 GPM/S.F.,
 - iii. HOSE STREAM: 100 GPM,
 - iv. SAFETY MARGIN: MINIMUM 5 PSI,
 - B. ALL ORDINARY HAZARD GROUP 1 OCCUPANCY AREAS SHALL MEET THE REQUIREMENTS OF NFPA 13-2013 AS FOLLOWS:
 - i. AREA OF DEMAND: 1500 S.F.,
 - ii. DENSITY: 0.15 GPM/S.F.,
 - iii. HOSE STREAM: 250 GPM,
 - iv. SAFETY MARGIN: MINIMUM 5 PSI,
 - C. ALL ORDINARY HAZARD GROUP 2 OCCUPANCY AREAS SHALL MEET THE REQUIREMENTS OF NFPA 13-2013 AS FOLLOWS:
 - i. AREA OF DEMAND: 1500 S.F.,
 - ii. DENSITY: 0.20 GPM/S.F.,
 - iii. HOSE STREAM: 250 GPM,
 - iv. SAFETY MARGIN: MINIMUM 5 PSI,
 - D. AREA OF OPERATION INCREASES SHALL BE INCLUDED FOR DRY-PIPE SYSTEMS, SLOPE CEILING, ETC.
6. ALL STANDARD SPRAY SPRINKLERS IN LIGHT HAZARD AREAS SHALL HAVE A MAXIMUM COVERAGE AREA OF 225 S.F.

1. THE SCOPE OF WORK INCLUDES THE INSTALLATION OF THE AUTOMATIC SPRINKLER SYSTEM THROUGHOUT THE BUILDING LOCATED AT 44 LOWER COLLEGE ROAD ON THE UNIVERSITY OF RHODE ISLAND CAMPUS IN KINGSTON, RI, AS INDICATED ON THE DRAWINGS AND IN THE TECHNICAL SPECIFICATIONS.
2. THE WORK INCLUDES FURNISHING AND INSTALLING SPRINKLERS INCLUDING PIPING, HANGERS AND OTHER ASSOCIATED COMPONENTS IN AREAS OF THE BUILDING DISCOVERED DURING SURVEY OR INSTALLATION THAT ARE NOT NECESSARILY REPRESENTED ON THE DESIGN DRAWINGS THAT ARE REQUIRED TO BE PROVIDED WITH SPRINKLER PROTECTION AT NO ADDITIONAL COST TO THE OWNER.
3. THE WORK INCLUDES COORDINATION WITH THE ENGINEER FOR THE CONNECTION TO THE NEW FIRE SERVICE.
4. THE WORK INCLUDES WORK CONNECTION OF NEW WATER FLOW VANE AND PRESSURE SWITCHES, SUPERVISORY PRESSURE SWITCHES AND VALVE SUPERVISORY SWITCHES TO THE NEW FIRE ALARM SYSTEM TO BE INSTALLED AS PART OF THIS CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THESE WIRING CONNECTIONS WITH A LICENSED FIRE ALARM TECHNICIAN/ELECTRICIAN.
5. THE WORK INCLUDES INSTALLATION OF NEW DOUBLE-CHECK VALVE BACKFLOW PREVENTION DEVICE AS SHOWN ON THE DRAWINGS. THE BACKFLOW PREVENTION ASSEMBLY SHALL BE AS APPROVED BY URI UTILITIES AND THE LOCAL WATER DISTRICT.
6. THE WORK INCLUDES INSTALLATION OF DRAIN PIPING. THE DRAINS SHALL BE PIPED DIRECTLY TO THE OUTSIDE TO AN APPROVED LOCATION BY THE OWNER.
7. THE WORK INCLUDES RELOCATION OF ALL OBSTRUCTIONS TO NEW SPRINKLER PIPING. OBSTRUCTION INCLUDE BUT ARE NOT LIMITED TO EMERGENCY LIGHTING, BATTERY BOXES, TELCOM EQUIPMENT AND WIRING.
8. THE WORK INCLUDES PAINTING ALL EXPOSED PIPING. THE PAINT COLOR SHALL BE REVIEWED AND CONFIRMED WITH THE UNIVERSITY AND JENSEN HUGHES PRIOR TO APPLICATION. SEE THE TECHNICAL SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
9. THE WORK INCLUDES A COMPLETE AND OPERATIONAL FM APPROVED AND UL508A LISTED NITROGEN GENERATION SYSTEM, ECS PGEN-MODEL OR EQUIVALENT. THE NITROGEN GENERATOR SHALL BE WIRED INTO THE EMERGENCY POWER CIRCUIT. THE MANUFACTURERS INSTALLATION GUIDELINES SHALL BE FOLLOWED. THE NITROGEN GENERATOR SHALL BE MONITORED BY THE FIRE ALARM SYSTEM. A SPARE CYLINDER THAT IS PROPERLY SIZED TO SUPPORT THE SYSTEM SHALL BE PROVIDED ON SITE.
10. THE WORK INCLUDES ALL CUTTING, DRILLING, CORE DRILLING, ETC. TO INSTALL THE FIRE SPRINKLER SYSTEM THROUGH THE EXISTING WALLS.
11. THE WORK INCLUDES FIRESTOPPING, PATCHING AND PAINTING OF ALL PENETRATIONS THAT WERE MADE FOR INSTALLATION OF NEW SPRINKLER PIPING THROUGH EXISTING INTERIOR AND EXTERIOR BUILDING WALLS. SEE THE TECHNICAL SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
12. THE WORK INCLUDES ALL FEES AND ACTIVITIES REQUIRED TO SECURE APPROVALS FOR NECESSARY STATE AND LOCAL PERMITS.
13. THE WORK INCLUDES SUBMITTING DETAILED WORKING PLANS, HYDRAULIC CALCULATIONS AND PRODUCT DATA TO THE ENGINEER FOR REVIEW PRIOR TO SUBMITTING SAME TO LOCAL OFFICIALS FOR PERMIT. CONTRACTOR SHALL NOT FABRICATE PIPING, ASSEMBLE COMPONENTS OR BEGIN INSTALLATION UNTIL JENSEN HUGHES HAS APPROVED THE SUBMITTAL DOCUMENTS.
14. THE WORK INCLUDES PERFORMING FIELD QUALITY CONTROL AND COMMISSIONING ACTIVITIES.
15. THE WORK INCLUDES DOCUMENTING AND SUBMITTING THE RESULTS OF INTEGRITY AND FUNCTIONAL TESTING.
16. THE WORK INCLUDES SUBMITTING AS-BUILT PLANS AND CLOSEOUT DOCUMENTATION TO JENSEN HUGHES FOR REVIEW PRIOR TO SCHEDULING OWNER DEMONSTRATION TRAINING.
17. THE WORK INCLUDES TRAINING OWNER'S PERSONNEL ON THE OPERATION OF THE SYSTEM, REQUIRED MAINTENANCE TASKS AND FREQUENCIES, AND THE LOCATIONS OF ALL SPARE TOOLS AND EQUIPMENT, VALVES, FLOW SWITCHES, RISERS AND EQUIPMENT NECESSARY TO MAINTAIN AND OPERATE THE SPRINKLER SYSTEM.

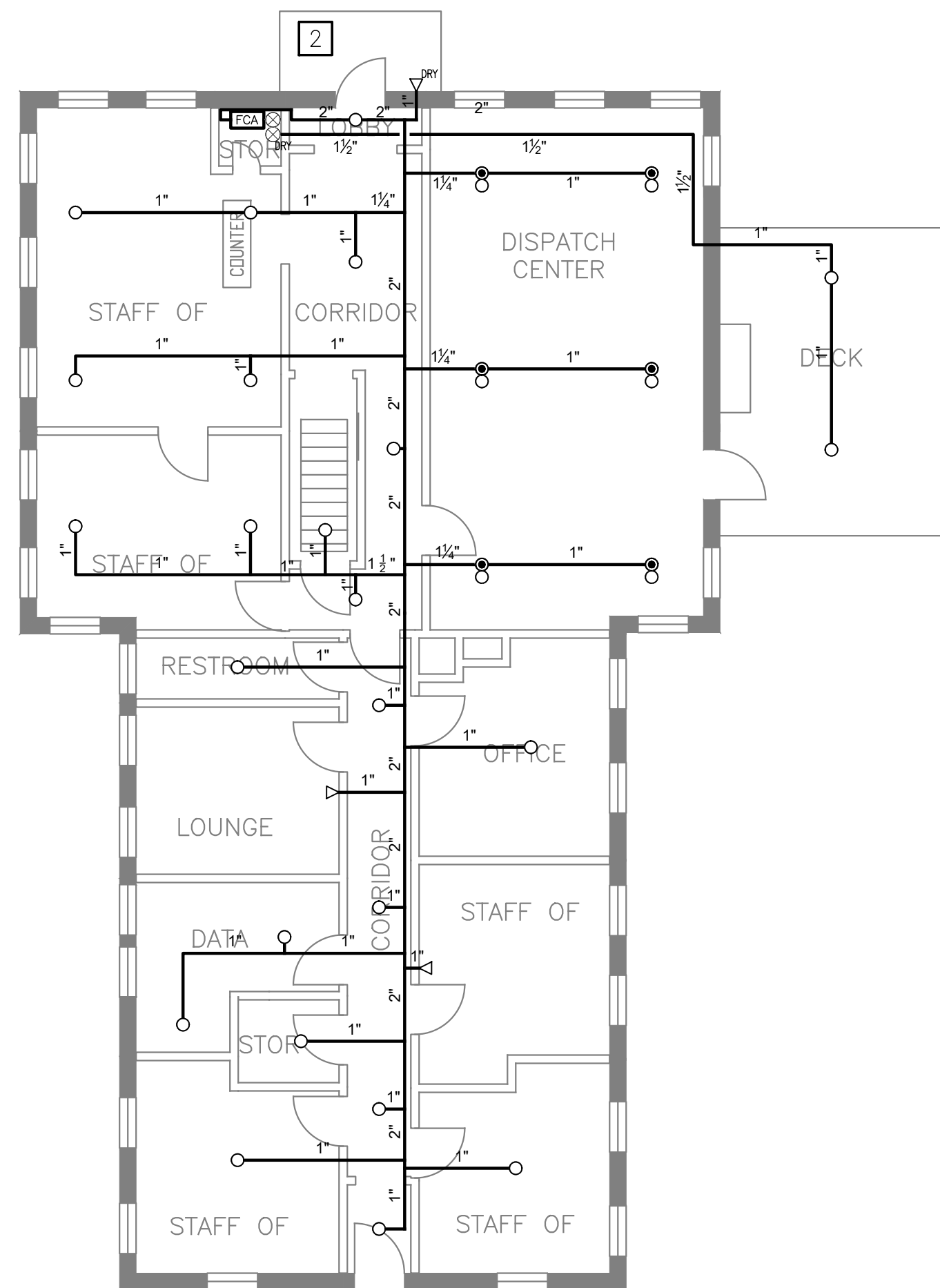
KEYNOTES

- 1 FILL VOID SPACE ABOVE VESTIBULE WITH NONCOMBUSTIBLE INSULATION PER NFPA 13, SECTION 8.15.1.2.7. PRIOR TO FILLING, REVIEW VOID SPACE CONDITION WITH JENSEN HUGHES AND URI COORDINATOR OF ALARMS.
- 2 FILL VOID SPACE WITHIN THE PORCH OVERHANG WITH NONCOMBUSTIBLE INSULATION PER NFPA 13, SECTION 8.15.1.2.7. PRIOR TO FILLING, REVIEW VOID SPACE CONDITION WITH JENSEN HUGHES AND URI COORDINATOR OF ALARMS.
- 3 SPRINKLERS TO BE INSTALLED UNDER ROOF IN ACCORDANCE WITH NFPA 13, SECTION 8.6.4.1.4.
- 4 SPRINKLER TO BE INSTALLED WITHIN 12 INCHES OF CEILING PEAK PER NFPA 13, SECTION 8.6.4.1.4.2.
- 5 HYDRAULIC DESIGN AREA IN ACCORDANCE WITH NFPA 13, SECTION 11.2.3.2.5.
- 6 DRY SYSTEM SHALL HAVE ANY AND ALL DRUM DRIPS AND/OR LOW POINTS IN HEATED SPACES ONLY.



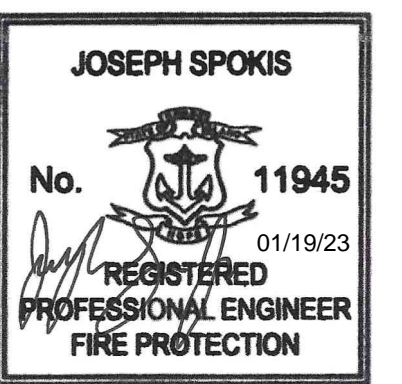
BASEMENT FIRE PROTECTION PLAN

SCALE: 1/8" = 1' 0"

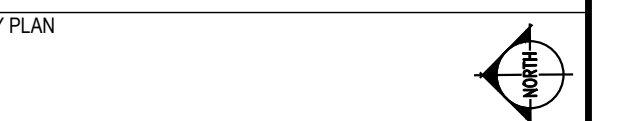


FIRST FLOOR FIRE PROTECTION PLAN

SCALE: 1/8" = 1' 0"



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NO.	REVISION	DATE

PROJECT
UNIVERSITY OF RHODE ISLAND 44 LOWER COLLEGE ROAD FIRE PROTECTION UPGRADES

ADDRESS
44 LOWER COLLEGE ROAD,
KINGSTON, RI 02881

PROJECT NO
1MJB00329.052

DATE
JANUARY 19, 2023

DESIGN
ALT

DRAWN BY
ALT

CHECKED BY
JWS

SCALE
0 4' 8' 16'
1/8" = 1' - 0"

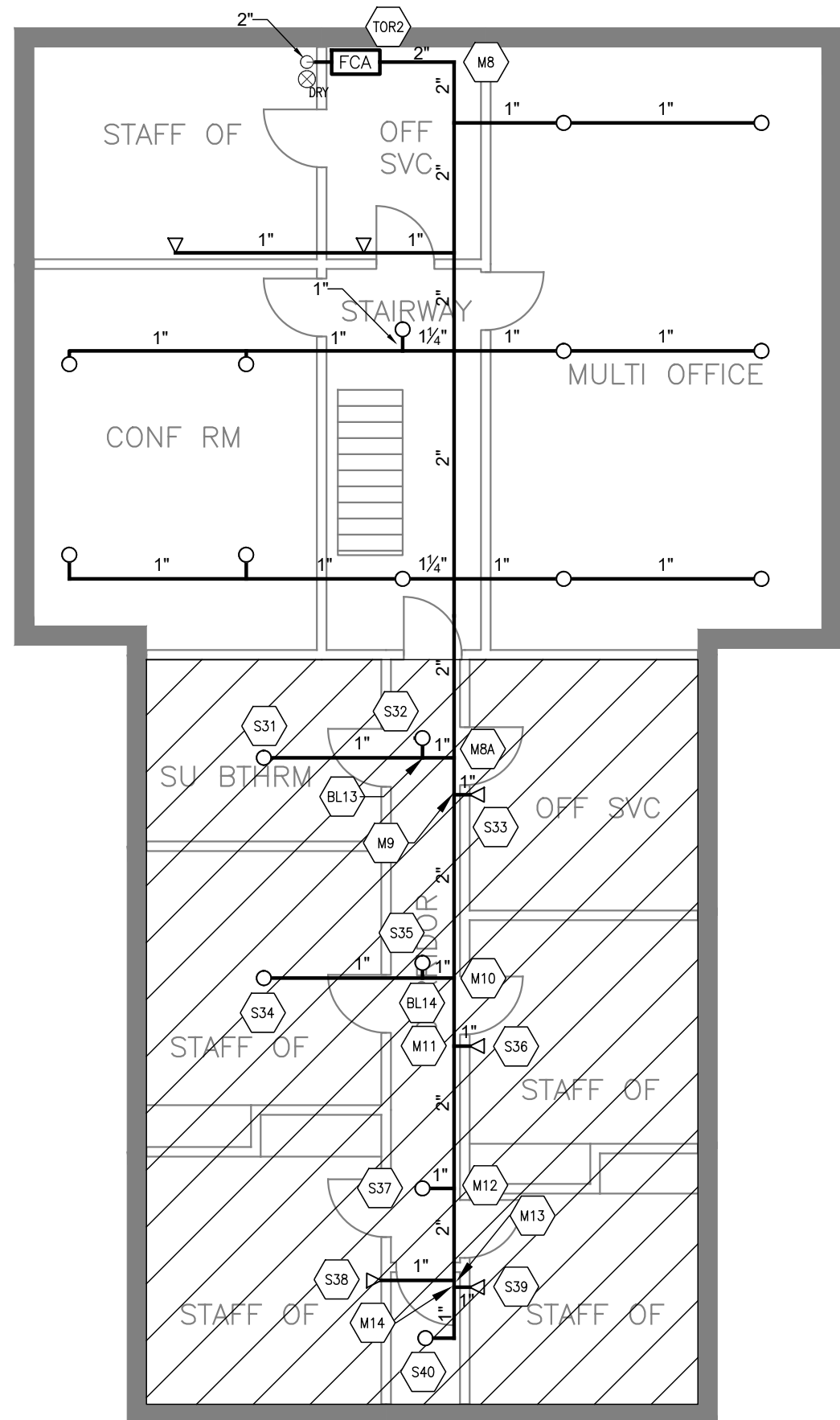
TITLE
BASEMENT & FIRST FLOOR FIRE PROTECTION PLAN

NUMBER
FP-1.0

SHEET
9 of 12

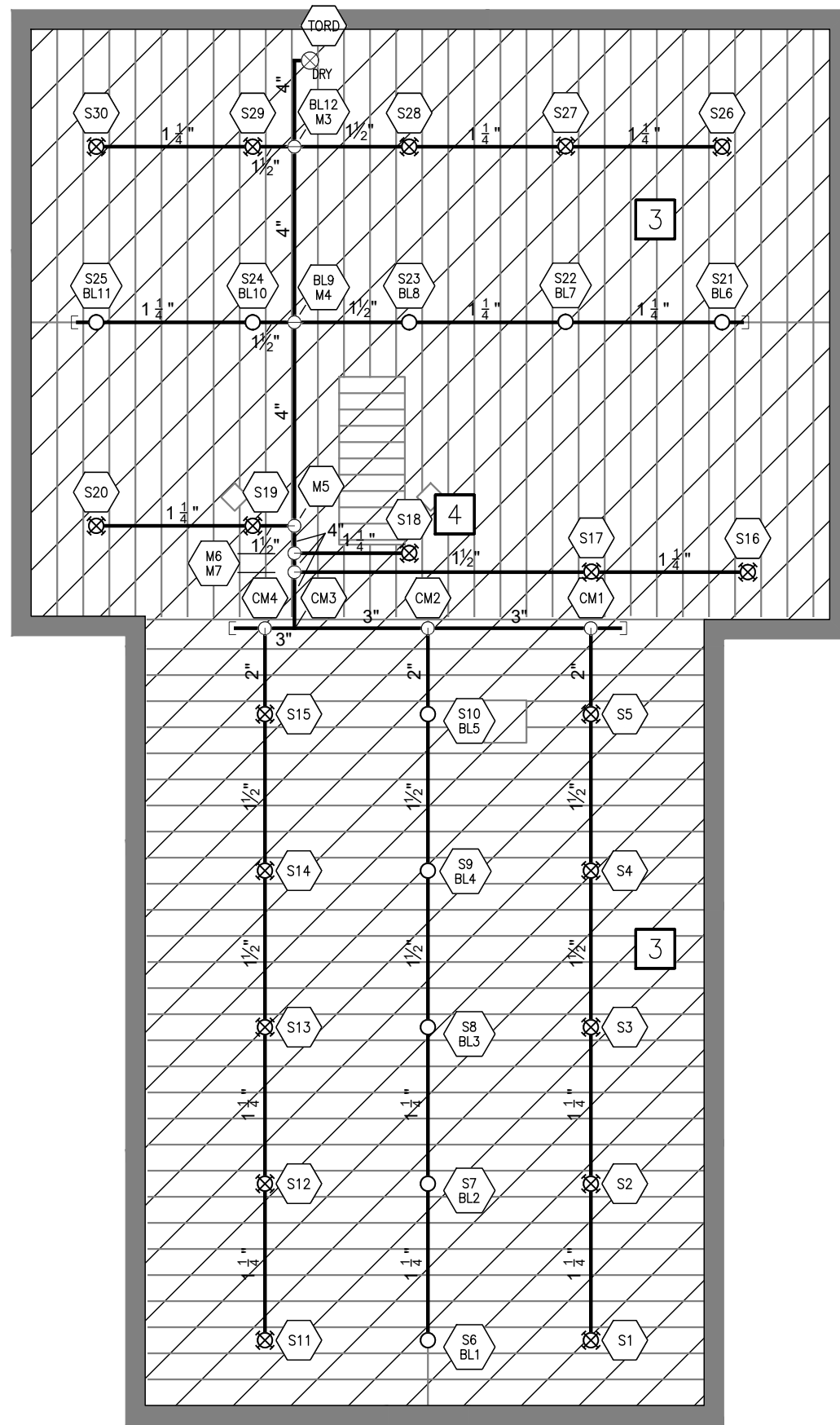
KEYNOTES

- 1 FILL VOID SPACE ABOVE VESTIBULE WITH NONCOMBUSTIBLE INSULATION PER NFPA 13, SECTION 8.15.1.2.7. PRIOR TO FILLING, REVIEW VOID SPACE CONDITION WITH JENSEN HUGHES AND URI COORDINATOR OF ALARMS.
- 2 FILL VOID SPACE WITHIN THE PORCH OVERHANG WITH NONCOMBUSTIBLE INSULATION PER NFPA 13, SECTION 8.15.1.2.7. PRIOR TO FILLING, REVIEW VOID SPACE CONDITION WITH JENSEN HUGHES AND URI COORDINATOR OF ALARMS.
- 3 SPRINKLERS TO BE INSTALLED UNDER ROOF IN ACCORDANCE WITH NFPA 13, SECTION 8.6.4.1.4.
- 4 SPRINKLER TO BE INSTALLED WITHIN 12 INCHES OF CEILING PEAK PER NFPA 13, SECTION 8.6.4.1.4.2.
- 5 HYDRAULIC DESIGN AREA IN ACCORDANCE WITH NFPA 13, SECTION 11.2.3.2.5.
- 6 DRY SYSTEM SHALL HAVE ANY AND ALL DRUM DRIPS AND/OR LOW POINTS IN HEATED SPACES ONLY.



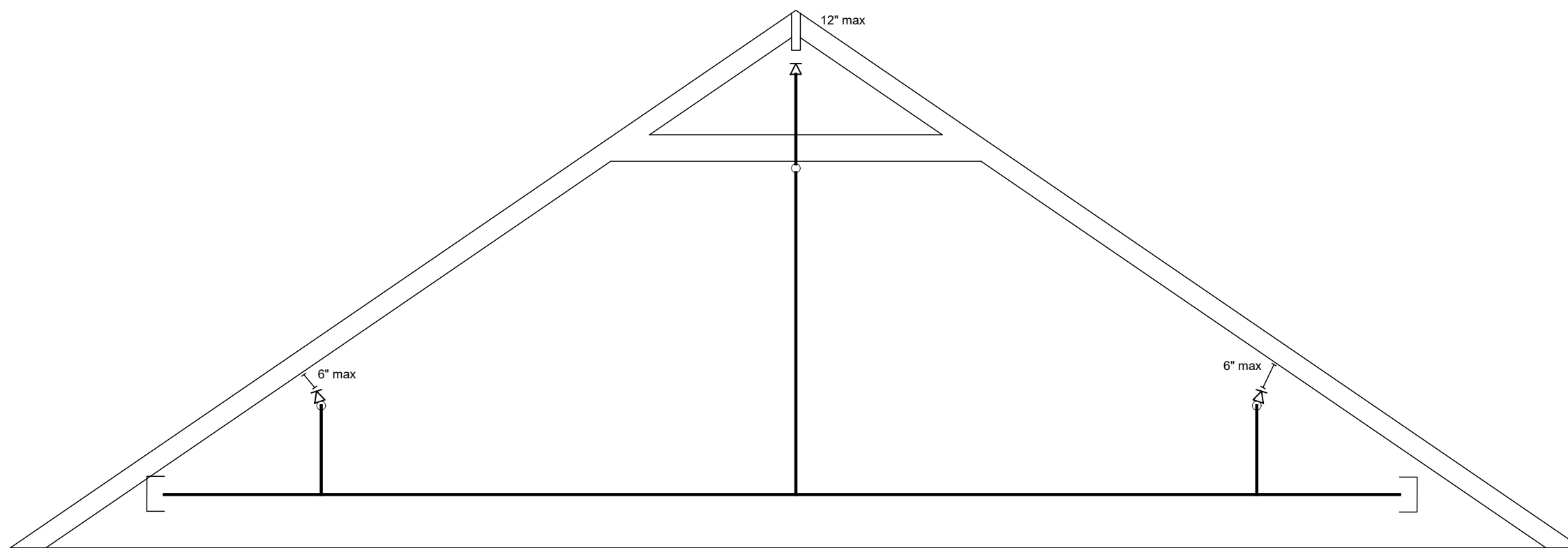
SECOND FLOOR FIRE PROTECTION PLAN

SCALE: 1/8" = 1' 0"



ATTIC FIRE PROTECTION PLAN

SCALE: 1/8" = 1' 0"



SPRINKLER PIPING DETAIL - ATTIC

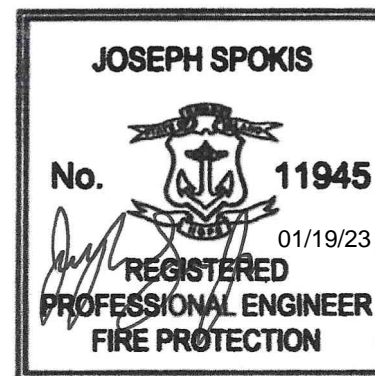
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REMOTE AREA #1 - 2ND FLOOR

HYDRAULIC CALCULATION	
OCCUPANCY:	LIGHT HAZARD
DENSITY:	0.10 gpm/sq. ft.
AREA OF OPERATION:	1,103 SQ. FT.
SPRINKLER DEMAND:	154 gpm
HOSE STREAM ALLOWANCE:	100 gpm
AVAIL. PRESSURE (@ SOURCE):	63.7 psi
TOTAL DEMAND (@ SOURCE):	254 gpm @ 49.4 psi

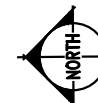
REMOTE AREA #2 - ATTIC

HYDRAULIC CALCULATION	
OCCUPANCY:	LIGHT HAZARD
DENSITY:	0.10 gpm/sq. ft.
AREA OF OPERATION:	2380 SQ. FT.
SPRINKLER DEMAND:	582 gpm
HOSE STREAM ALLOWANCE:	100 gpm
AVAIL. PRESSURE (@ SOURCE):	62.0 psi
TOTAL DEMAND (@ SOURCE):	666 gpm @ 56.0 psi



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KEY PLAN



NO.	REVISION	DATE

PROJECT

UNIVERSITY OF RHODE ISLAND 44 LOWER COLLEGE ROAD FIRE PROTECTION UPGRADES

ADDRESS 44 LOWER COLLEGE ROAD, KINGSTON, RI 02881

PROJECT NO 1MJB00329.052

DATE JANUARY 19, 2023

DESIGN ALT

DRAWN BY ALT

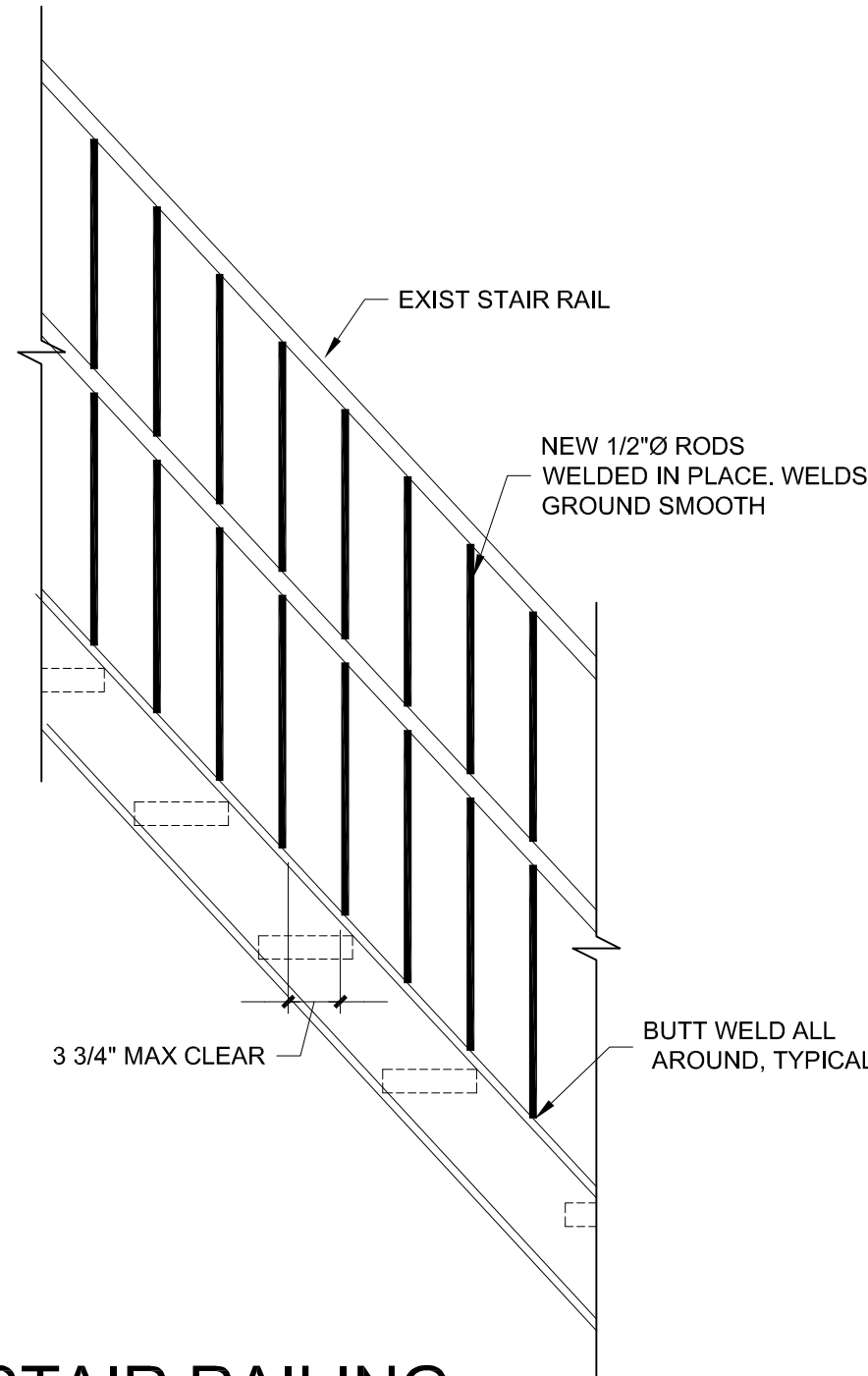
CHECKED BY JWS

SCALE
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1/8" = 1' - 0"

TITLE
SECOND FLOOR & ATTIC FIRE PROTECTION PLAN

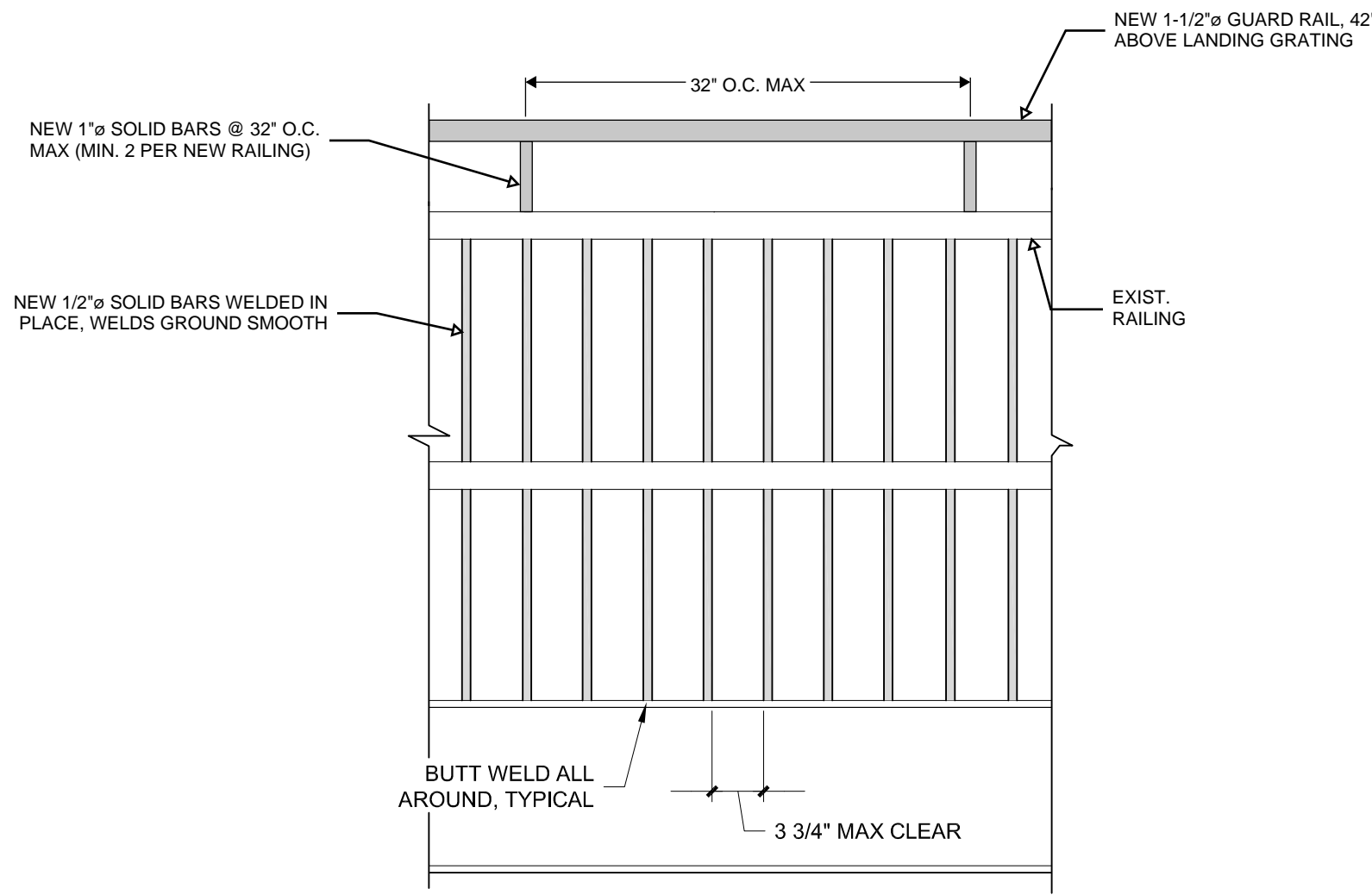
NUMBER
FP-1.1

SHEET 10 of 12



**STAIR RAILING
UPGRADE DETAIL**

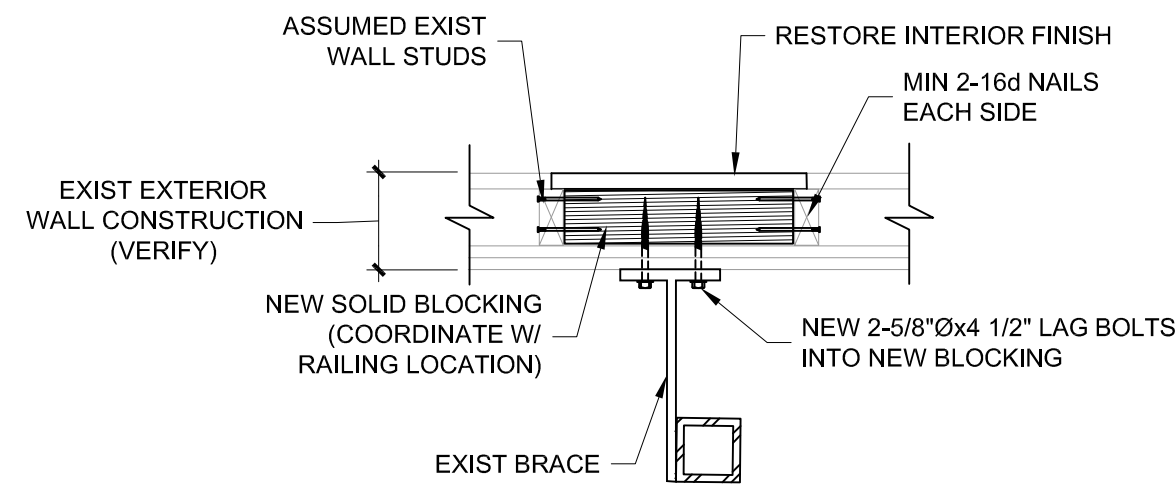
1
1"=1'-0"



TYPICAL DETAIL @ ALL SIDES OF LANDINGS

**NEW GUARD RAILS AND
RAILING UPGRADE AT LANDINGS**

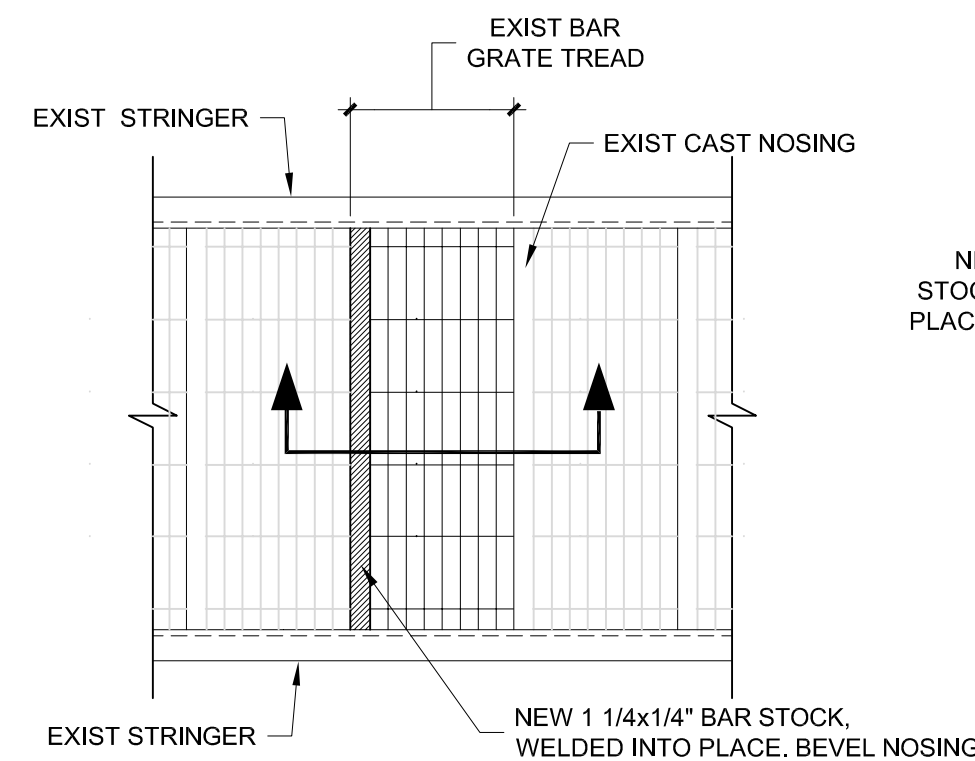
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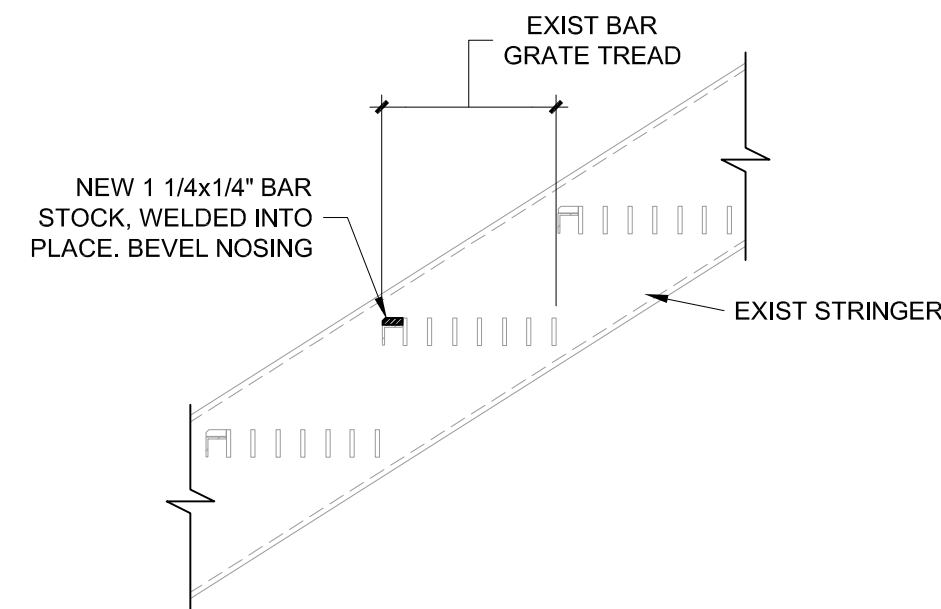
PLAN VIEW

**CONNECTION TO
BUILDING DETAIL**

4
1"=1'-0"



PLAN VIEW



SECTION

TREAD NOSING REPAIR DETAIL

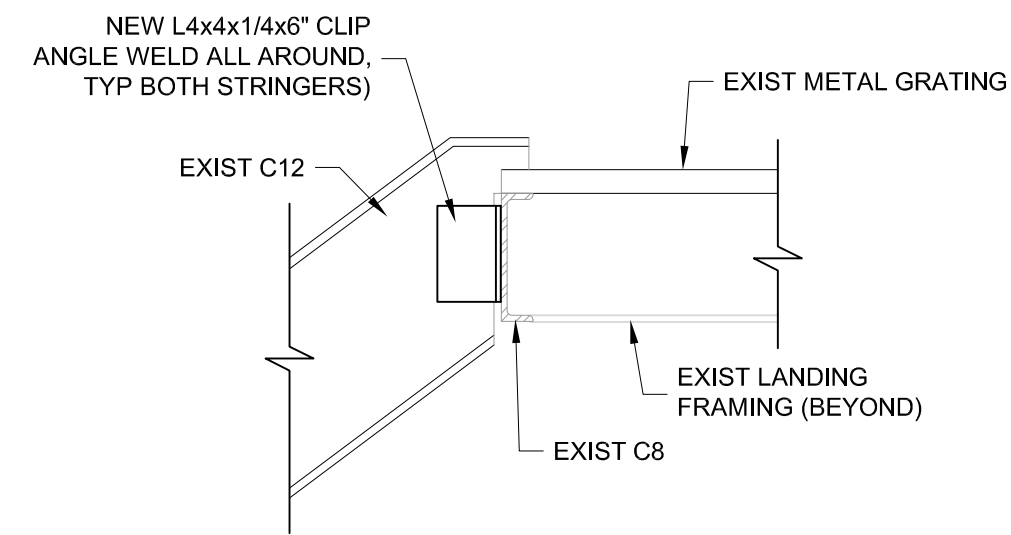
5
1"=1'-0"

DESIGN LIMITATIONS NOTE

THIS WORK NOTED ON THESE DRAWINGS WILL ENHANCE THE SAFETY OF THE EXISTING CONDITIONS BUT WILL NOT BE IN CONFORMANCE WITH ANY CURRENT BUILDING STANDARD. IT IS THE INTENT OF THESE DRAWINGS TO ONLY IMPROVE THE SAFETY OF THE EXISTING CONDITIONS OF THE FIRE ESCAPES.

PAINTING NOTE

THE EXISTING FIRE ESCAPE SHALL BE ABRASIVELY CLEANED AND PAINTED WITH A RUST RESISTANT PAINT SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ABATEMENT AND THE SUBMISSION OF AN ABATEMENT PLAN TO THE OWNER, BEFORE THE NEW PAINT IS APPLIED, A FOLLOW UP INSPECTION OF THE FIRE ESCAPE SHALL BE MADE, AND ADDITIONAL REPAIRS, IF REQUIRED, SHALL BE SPECIFIED. THE CONTRACTOR SHALL USE A RUST RESISTING PAINT. COORDINATE COLOR WITH THE OWNER

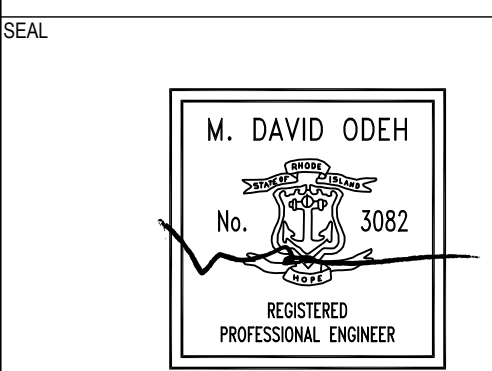


**STAIR STRINGER
CONNECTION DETAIL**

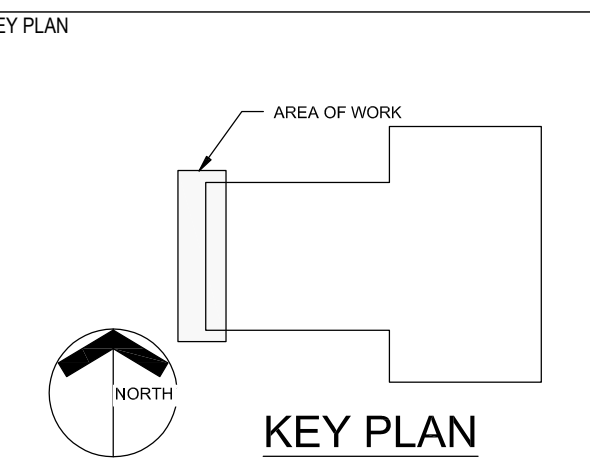
3
1"=1'-0"

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structural engineers
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Fax: 401.724.1981
www.odehengineers.com



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NO.	REVISION	DATE

PROJECT
**UNIVERSITY OF RHODE
ISLAND 44 LOWER COLLEGE
ROAD FIRE PROTECTION
UPGRADES**

ADDRESS 44 LOWER COLLEGE ROAD,
KINGSTON, RI 02881

PROJECT NO 1MJB00329.052

DATE AUGUST 10, 2022

DESIGN MDO

DRAWN BY ACR

CHECKED BY MDO

SCALE

AS NOTED

TITLE
REPAIR DETAILS

NUMBER
S2.0

SHEET 12 of 12