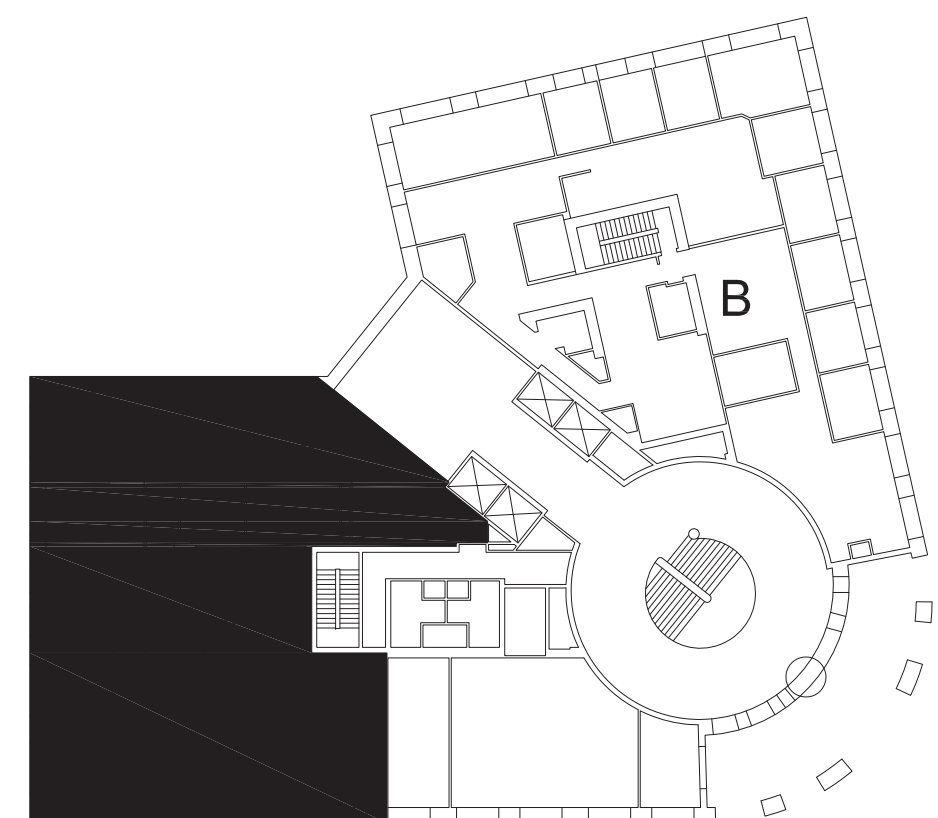
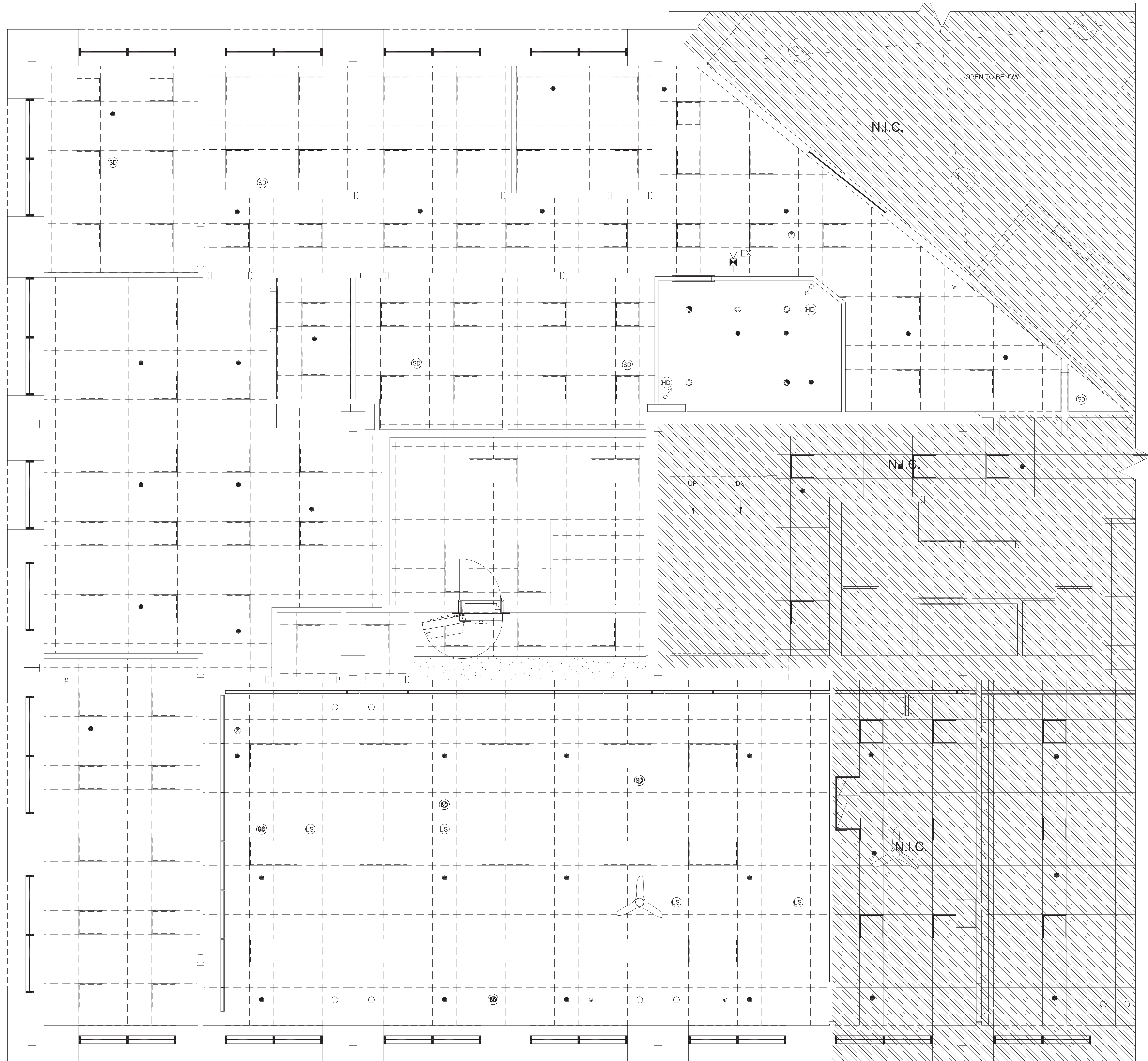


**FIRE ALARM DEMOLITION NOTES**

- (F1) CONTRACTOR SHALL MAINTAIN EXISTING FIRE ALARM SYSTEM DURING CONSTRUCTION.
- (F2) CONTRACTOR SHALL REPLACE ALL EXISTING SMOKE DETECTORS WITH SYSTEM HEAT DETECTORS DURING THE ENTIRE COURSE OF CONSTRUCTION.
- (F3) CONTRACTOR SHALL PERFORM A DETAILED FIELD INVESTIGATION FOR EXACT WORK SCOPE PRIOR TO SUBMITTING BID.
- (F4) ALL FIRE ALARM DEVICES AND COMPONENTS ARE NEW, UNLESS NOTED OTHERWISE.

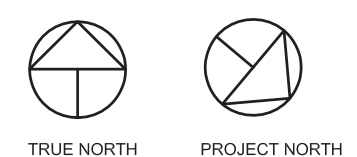


**KEY PLAN**



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3	NEE	02/10/20	REVISION 3
2	NEE	01/13/20	REVISION 2 - PERMIT COMMENTS
1	NEE	11/27/19	REVISION 1
B	NEE	11/12/19	ISSUE FOR BID
A	NEE	11/01/19	ISSUED FOR PERMIT
NO	BY	DATE	DESCRIPTION



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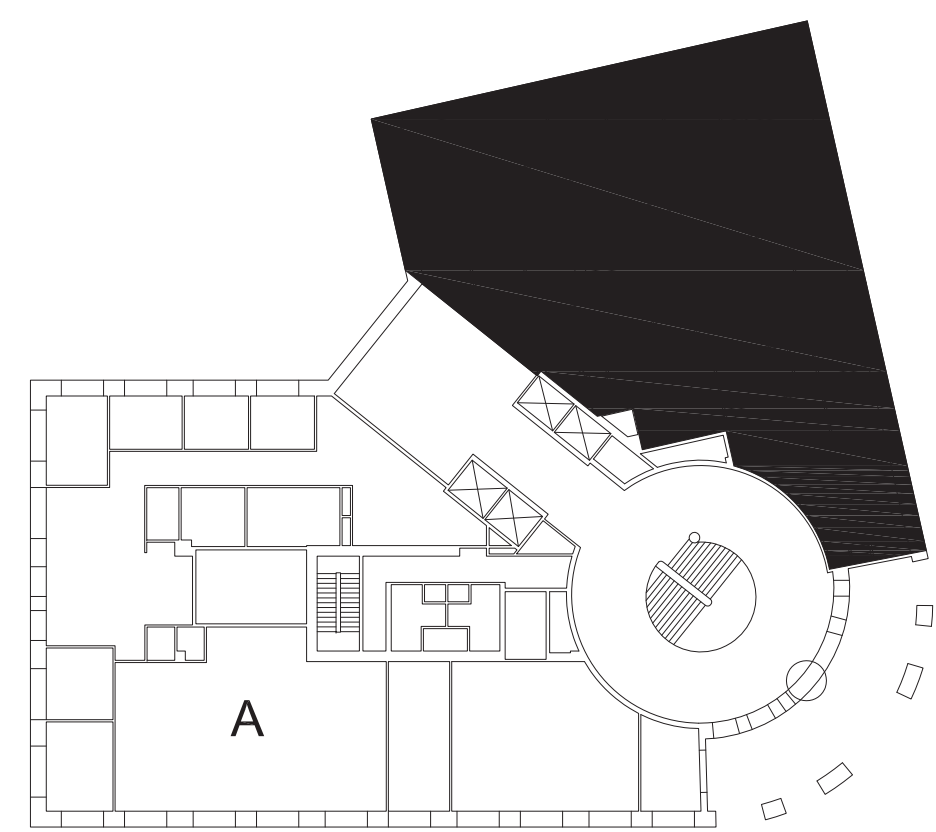
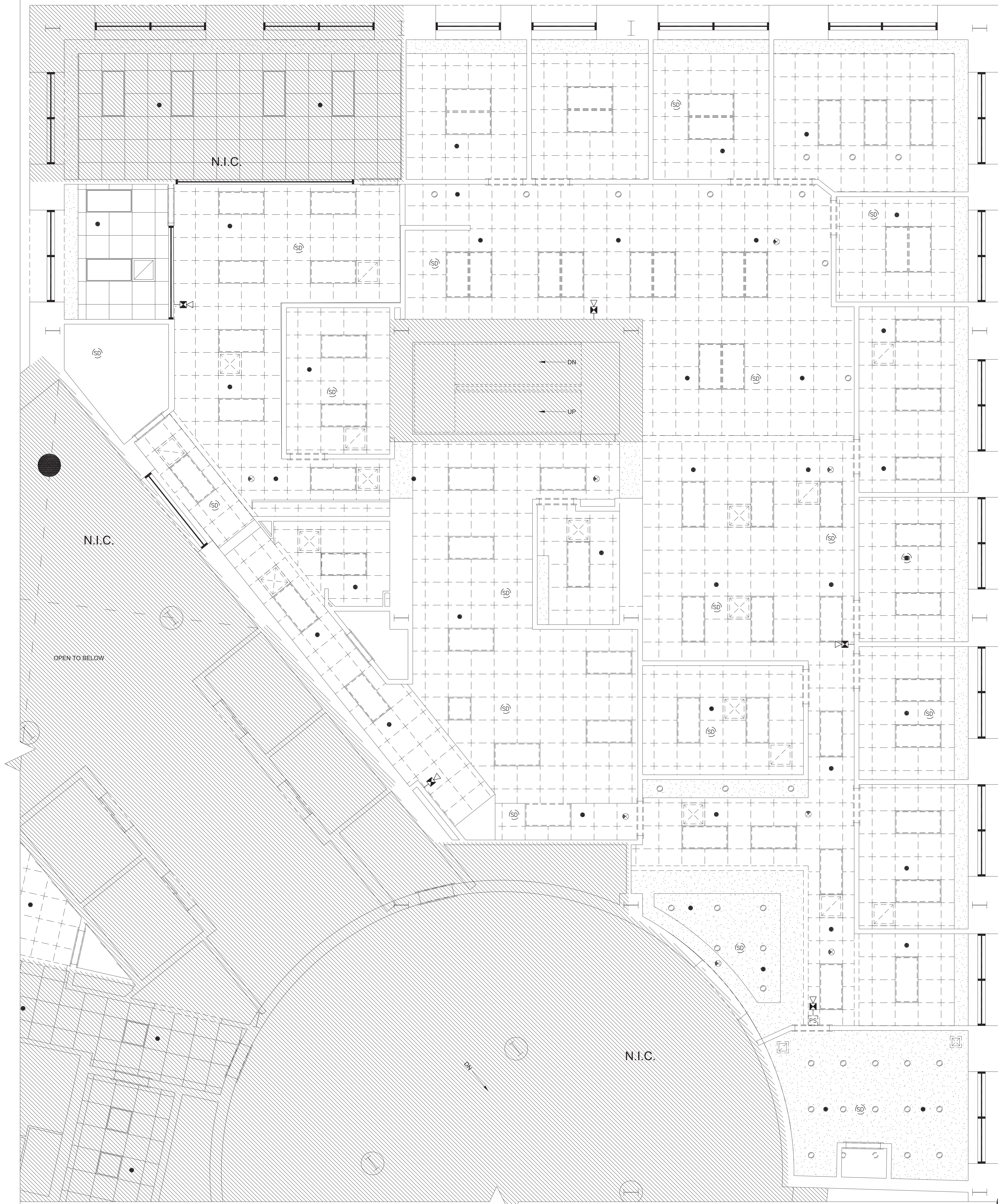
**FIRE ALARM - EXISTING FIRE ALARM PLAN 1**

REVIEWED BY: JPK  
JOB NO: 1903280

**FA0.1**

**FIRE ALARM DEMOLITION NOTES**

- (F1) CONTRACTOR SHALL MAINTAIN EXISTING FIRE ALARM SYSTEM DURING CONSTRUCTION.
- (F2) CONTRACTOR SHALL REPLACE ALL EXISTING SMOKE DETECTORS WITH SYSTEM HEAT DETECTORS DURING THE ENTIRE COURSE OF CONSTRUCTION.
- (F3) CONTRACTOR SHALL PERFORM A DETAILED FIELD INVESTIGATION FOR EXACT WORK SCOPE PRIOR TO SUBMITTING BID.
- (F4) ALL FIRE ALARM DEVICES AND COMPONENTS ARE NEW, UNLESS NOTED OTHERWISE.



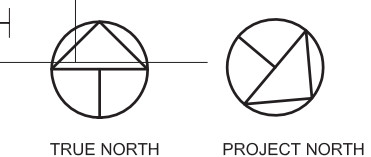
**KEY PLAN**



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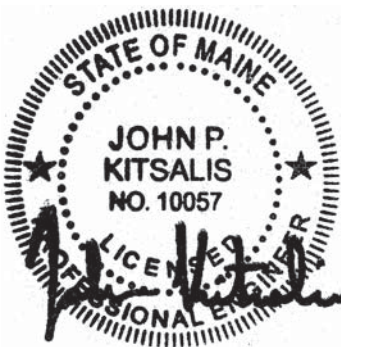
**1 FIRE ALARM - EXISTING FIRE ALARM PLAN 2**  
SCALE: 1/4"=1'-0"



3	NEE	02/10/20	REVISION 3
2	NEE	01/13/20	REVISION 2 - PERMIT COMMENTS
1	NEE	11/27/19	REVISION 1
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**FIRE ALARM - EXISTING FIRE ALARM PLAN 2**

REVIEWED BY: JPK  
JOB NO: 1903280

**FA0.2**

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**FIRE ALARM NOTES**

- (F1) NEW VOICE/STROBES SHALL BE ADA APPROVED.
- (F2) VOICE/STROBES SHALL BE MTD. 80" A.F.F. OR 6" BELOW CEILING HEIGHT WHICHEVER IS LESS.
- (F3) WHERE SHOWN ON PLANS, SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE.
- (F4) THE TESTING OF THE FIRE ALARM SYSTEM SHALL BE INCLUDED IN THE CONTRACT OF THE EC.
- (F5) EC SHALL CONFIRM THAT THE CURRENT DRAW ON THE VOICE RISER IS NOT EXCEEDED DUE TO THE CURRENT DRAW OF EACH NEW VOICE/STROBE. EC SHALL CONFIRM BASE BUILDING AMPLIFIER LOADING; CONTRACTOR SHALL PRICE A SIGNAL POWER EXTENDER AS AN ADD-ALTERNATE.
- (F6) NEW VOICE/STROBES SHALL HAVE A 1 WATT VOICE OUTPUT.
- (F7) EC SHALL FURNISH, INSTALL, AND WIRE REMOTE ALARM INDICATORS (RA) AND REMOTE ALARM INDICATORS WITH TEST SWITCHES (RAITS) AS INDICATED ON THE PLANS. EC SHALL FURNISH AND INSTALL ENGRAVED NAMEPLATES FOR EACH RA AND RAITS. EACH ENGRAVED NAMEPLATE SHALL HAVE THE UNIQUE NAME FOR EACH ROOM OR DEVICE IT IS MONITORING.
- (F8) EC SHALL CONFIRM THAT THERE ARE NO OPEN OR SHORTED FIRE ALARM CIRCUITS PRIOR TO FACP TIE IN AND TEST.
- (F9) ALL WIRING FOR FIRE ALARM DEVICES SHALL BE TWISTED SHIELDED TYPE, AWG SIZED FOR VOLTAGE DROP BY FACP SYSTEM PROVIDER. USE SOLID COPPER IN 1/2" RMC OR METAL CLAD CABLE OR ARMORED CLAD CABLE PAINTED RED.
- (F10) EC SHALL FOLLOW ALL BUILDING GUIDELINES. GUIDELINES SHALL BE OBTAINED FROM BUILDING MANAGEMENT.
- (F11) ALL VOICE/STROBES SHALL BE SYNCHRONIZED.
- (F12) CONTRACTOR SHALL PERFORM ALL BATTERY CALCULATIONS FOR THE FIRE ALARM SYSTEM TO MEET ALL NFPA 72 REQUIREMENTS. ANY BATTERY UPGRADES, ADDITIONS OR MODIFICATIONS TO MEET ALL STATE AND LOCAL REQUIREMENTS.
- (F13) CONTRACTOR SHALL PERFORM A SITE SURVEY BEFORE SUBMITTING BID.
- (F14) EC SHALL EXTEND FACP POWER CIRCUIT TO NEW SIGNAL LINE EXPANDER AS PART OF THE ADD-ALTERNATE.
- (F15) THE CONTRACTOR SHALL PREPARE A CERTIFICATION OF COMPLETION PRIOR TO FIRE DEPARTMENT ACCEPTANCE TEST.
- (F16) CONTRACTOR SHALL WIRE AND INSTALL ALL NEW DEVICES INTO EXISTING BASE BUILDING FIRE ALARM SYSTEM AND REPROGRAM EXISTING FIRE ALARM CONTROL PANEL AS REQUIRED FOR A COMPLETE AND FUNCTIONAL FIRE ALARM SYSTEM.
- (F17) FIRESTOP ALL FIRE RATED ASSEMBLY PENETRATIONS AS REQUIRED BY STATE FIRE AND BUILDING CODES.
- (F18) ALL EXISTING FIRE ALARM DEVICES, SUCH AS STROBES, VOICE/STROBES, PULL STATIONS, SMOKE DETECTORS, RA's, HEAT DETECTORS, ETC., SHALL BE REPLACED WITH NEW DEVICES AND WIRING.
- (F19) FIRE ALARM CONTRACTOR SHALL PROVIDE AND INSTALL DUCT SMOKE DETECTORS (DSD) FOR ALL HVAC FAN POWERED TERMINALS (FPT). THE FPT DSD SHALL REPORT BACK TO ADDRESSABLE FACP AND SHUT DOWN THE FPT RETURN AIR ITS IS MONITORING.

**FIRE ALARM METHODOLOGY, SEQUENCE OF OPERATION & TESTING**

THE FIRE ALARM SYSTEM IS DESIGNED TO MEET THE FIRE ALARM SYSTEM REQUIREMENTS OF THE STATE BUILDING CODE. NOTIFICATION APPLIANCE (VOICE/STROBE) AND SMOKE DETECTOR ADDITIONS TO THE AUTOMATIC FIRE ALARM AND SUPERVISION REQUIREMENTS PERFORMED BY THE CONSTRUCTION WORK ARE AS FOLLOWS:

1. FIRE ALARM SYSTEM INITIATING EXISTING MANUAL PULL STATIONS ARE PROVIDED NOT MORE THAN FIVE FEET AWAY FROM AT ALL FLOOR EXITS AND MOUNTED 48" ABOVE THE FINISHED FLOOR.
2. FIRE ALARM SYSTEM NOTIFYING VOICE STROBE AND STROBE COVERAGE HAS BEEN ADDED PER 2010 NFPA 72 PUBLIC MODE, THE AMERICAN WITH DISABILITIES ACT (ADA), AND STATE BUILDING CODE REQUIREMENTS FOR SPACING, CANDELA AND VOICE ALARM AMPLITUDE.
3. WHEN THE FIRE ALARM SYSTEM IS ACTIVATED, ALL VOICE STROBES SHALL IN SYNCHRONIZED MANNER ALARM FOR BUILDING EVACUATION AS DESCRIBED PER THE NFPA 72.
4. TESTING OF ALL FIRE ALARM SYSTEM FUNCTIONS THAT CONSTITUTE THE WORK UNDER THIS PROJECT SHALL BE COORDINATED WITH THE FIRE DEPARTMENT. ALL NFPA 72 REQUIREMENTS, ALONG WITH THOSE OF THE AUTHORITY HAVING JURISDICTION SHALL BE MET. CONTRACTOR SHALL COORDINATE FIRE ALARM TESTING WITH ALL OTHER PROJECT CONTRACTORS TO CONFIRM ALL FIRE ALARM FUNCTIONS AS DEFINED IN THIS NARRATIVE REPORT FOR THE AFFECTED SPACE.

**FIRE ALARM SEQUENCE (SEQ) OF OPERATION:**

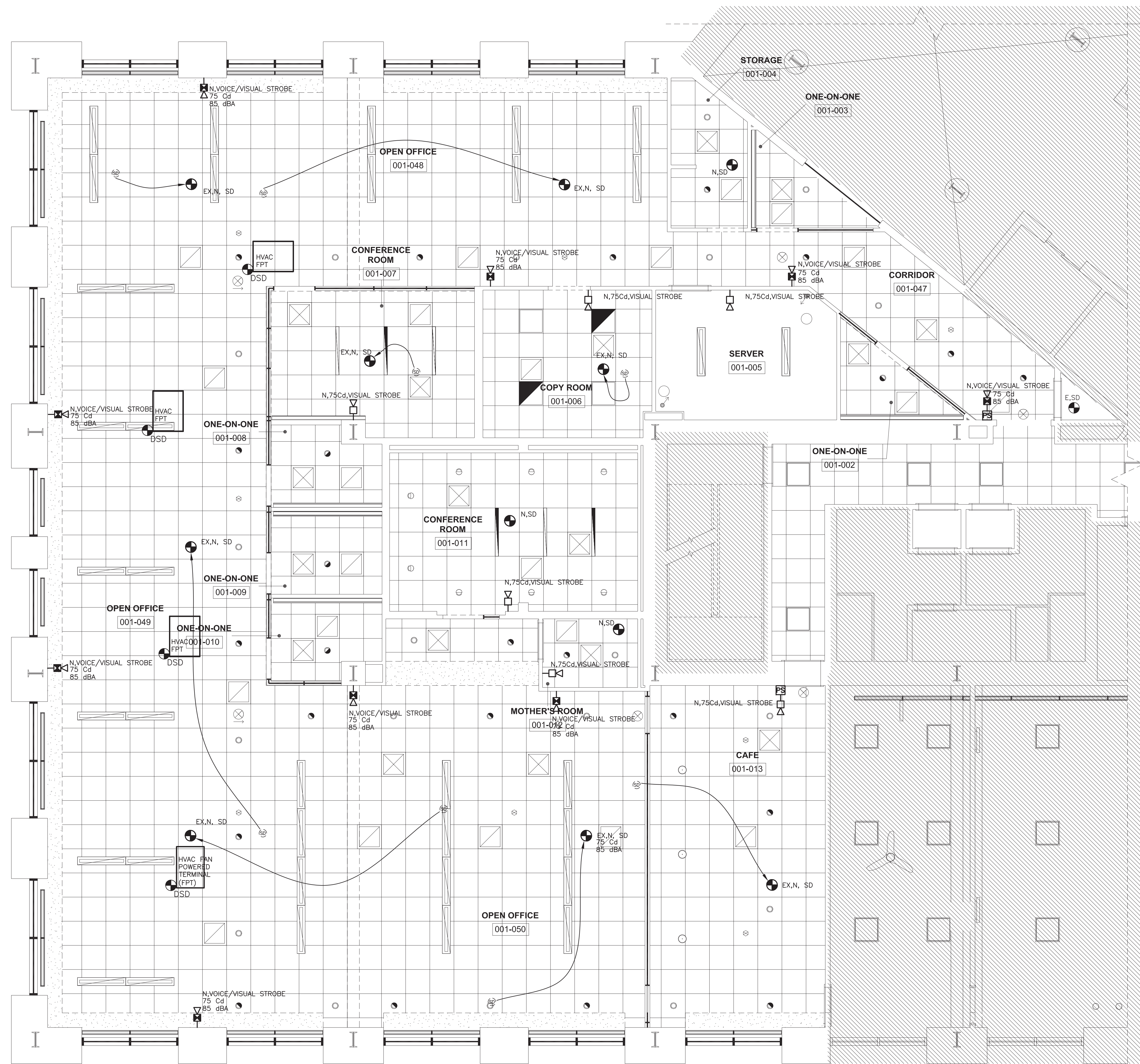
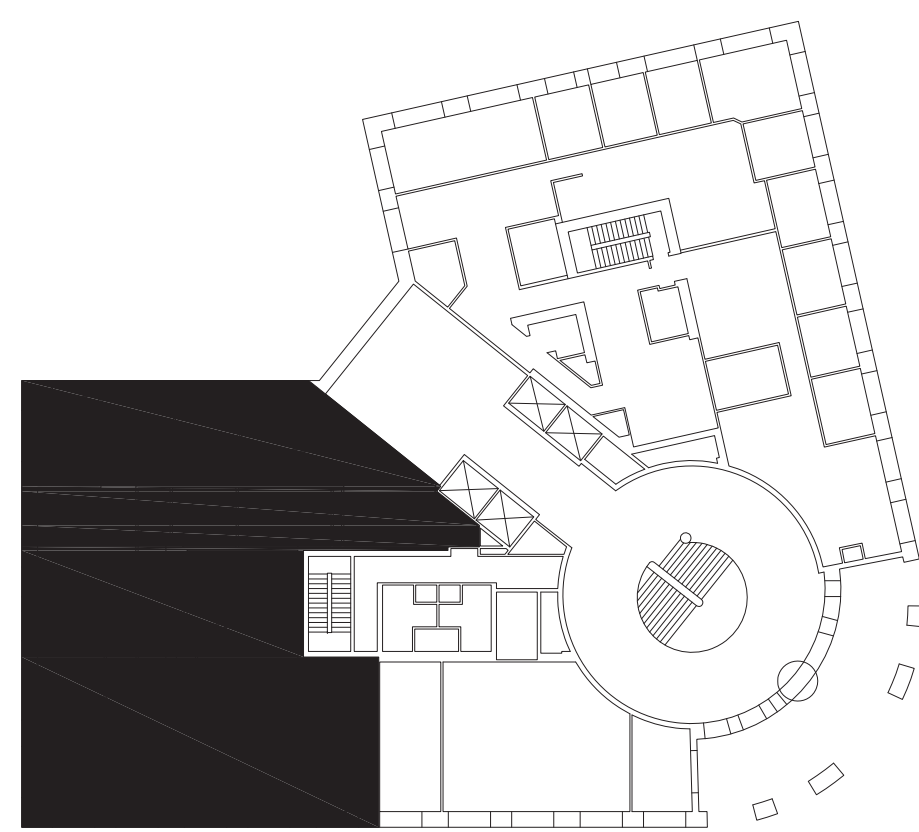
UPON ACTIVATION OF ANY DOUBLE ACTION PULL STATION, SMOKE DETECTOR, OR HEAT DETECTOR:

- SEQ1- UPON ACTIVATION OF FIRE ALARM THE FACP SHALL NOTIFY THE MUNICIPAL FIRE DEPARTMENT THROUGH THE MASTERBOX OR CENTRAL STATION THRU DACT.
- SEQ2- ACTIVATE THE VOICE/STROBE AND STROBE EVACUATION SYSTEM.
- SEQ3- INDICATE THE ZONE OR DEVICE OF ACTIVATION ON THE FACP AND REMOTE ANNUICIATOR(S).
- SEQ4- RELEASE ALL FIRE DOORS (MAGNETIC HOLD) CONNECTED TO THE FIRE ALARM SYSTEM.
- SEQ5- RELEASE ALL PATH OF EGRESS ELECTRIC/MAGNETIC SECURITY LOCKS CONNECTED TO THE FIRE ALARM SYSTEM.

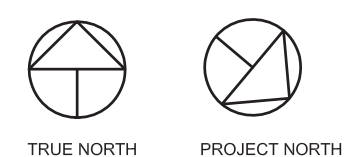


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1 FIRE ALARM - NEW PLAN  
SCALE: 1/8"=1'-0"



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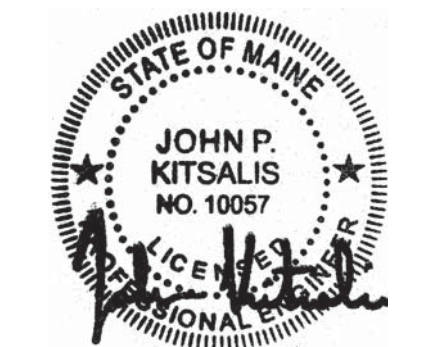
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NO.	BY	DATE	DESCRIPTION
3	NEE	02/10/20	REVISION 3
2	NEE	01/13/20	REVISION 2 - PERMIT COMMENTS
1	NEE	11/27/19	REVISION 1
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FIRE ALARM -  
NEW PLAN

REVIEWED BY: JPK  
JOB NO: 1903280

FA1.1

**FIRE ALARM NOTES**

- (F1) NEW VOICE/STROBES SHALL BE ADA APPROVED.
- (F2) VOICE/STROBES SHALL BE MTD. 80" A.F.F. OR 6" BELOW CEILING HEIGHT WHICHEVER IS LESS.
- (F3) WHERE SHOWN ON PLANS, SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE.
- (F4) THE TESTING OF THE FIRE ALARM SYSTEM SHALL BE INCLUDED IN THE CONTRACT OF THE EC.
- (F5) EC SHALL CONFIRM THAT THE CURRENT DRAW ON THE VOICE RISER IS NOT EXCEEDED DUE TO THE CURRENT DRAW OF EACH NEW VOICE/STROBE. EC SHALL CONFIRM BASE BUILDING AMPLIFIER LOADING; CONTRACTOR SHALL PRICE A SIGNAL POWER EXTENDER AS AN ADD-ALTERNATE.
- (F6) NEW VOICE/STROBES SHALL HAVE A 1 WATT VOICE OUTPUT.
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- (F9) ALL WIRING FOR FIRE ALARM DEVICES SHALL BE TWISTED SHIELDED TYPE, AWG SIZED FOR VOLTAGE DROP BY FACP SYSTEM PROVIDER. USE SOLID COPPER IN 1/2" RMC OR METAL CLAD CABLE OR ARMORED CLAD CABLE PAINTED RED.
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- (F11) ALL VOICE/STROBES SHALL BE SYNCHRONIZED.
- (F12) CONTRACTOR SHALL PERFORM ALL BATTERY CALCULATIONS FOR THE FIRE ALARM SYSTEM TO MEET ALL NFPA 72 REQUIREMENTS. ANY BATTERY UPGRADES, ADDITIONS OR MODIFICATIONS TO MEET ALL STATE AND LOCAL REQUIREMENTS.
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- (F14) EC SHALL EXTEND FACP POWER CIRCUIT TO NEW SIGNAL LINE EXPANDER AS PART OF THE ADD-ALTERNATE.
- (F15) THE CONTRACTOR SHALL PREPARE A CERTIFICATION OF COMPLETION PRIOR TO FIRE DEPARTMENT ACCEPTANCE TEST.
- (F16) CONTRACTOR SHALL WIRE AND INSTALL ALL NEW DEVICES INTO EXISTING BASE BUILDING FIRE ALARM SYSTEM AND REPROGRAM EXISTING FIRE ALARM CONTROL PANEL AS REQUIRED FOR A COMPLETE AND FUNCTIONAL FIRE ALARM SYSTEM.
- (F17) FIRESTOP ALL FIRE RATED ASSEMBLY PENETRATIONS AS REQUIRED BY STATE FIRE AND BUILDING CODES.
- (F18) ALL EXISTING FIRE ALARM DEVICES, SUCH AS STROBES, VOICE/STROBES, PULL STATIONS, SMOKE DETECTORS, RA's, HEAT DETECTORS, ETC., SHALL BE REPLACED WITH NEW DEVICES AND WIRING.
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**FIRE ALARM METHODOLOGY, SEQUENCE OF OPERATION & TESTING**

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**FIRE ALARM SEQUENCE (SEQ) OF OPERATION:**

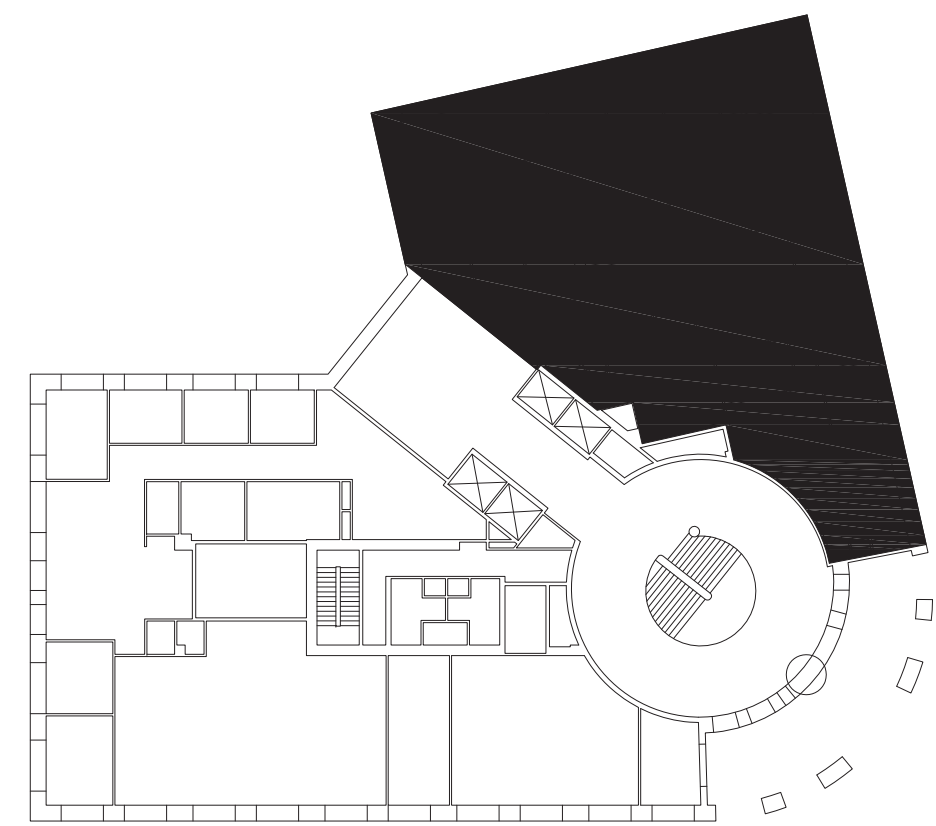
UPON ACTIVATION OF ANY DOUBLE ACTION PULL STATION, SMOKE DETECTOR, OR HEAT DETECTOR:

- SEQ01- UPON ACTIVATION OF FIRE ALARM THE FACP SHALL NOTIFY THE MUNICIPAL FIRE DEPARTMENT THROUGH THE MASTERBOX OR CENTRAL STATION THRU DACT.
- SEQ02- ACTIVATE THE VOICE/STROBE AND STROBE EVACUATION SYSTEM.
- SEQ03- INDICATE THE ZONE OR DEVICE OF ACTIVATION ON THE FACP AND REMOTE ANNUNCIATOR(S).
- SEQ04- RELEASE ALL FIRE DOORS (MAGNETIC HOLD) CONNECTED TO THE FIRE ALARM SYSTEM.
- SEQ05- RELEASE ALL PATH OF EGRESS ELECTRIC/MAGNETIC SECURITY LOCKS CONNECTED TO THE FIRE ALARM SYSTEM.

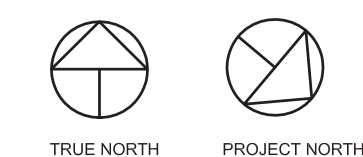


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1 FIRE ALARM - NEW PLAN 2  
SCALE: 1/4"=1'-0"



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FIRE ALARM -  
NEW PLAN 2

REVIEWED BY: JPK  
JOB NO: 1903280

FA1.2