

FIRE ALARM GENERAL NOTES

NOTE#	NOTE TEXT
1.	ALL CIRCUIT POLARITY SHALL BE MAINTAINED.
2.	SHIELD CONTINUITY SHALL BE MAINTAINED THROUGH OUT ALL SHIELDED CIRCUITS. SHIELDS SHALL BE GROUNDED AT ONLY ONE POINT (THE EQUIPMENT HEAD END UNLESS NOTED OTHERWISE).
3.	ALL CIRCUITS SHALL BE FREE OF GROUNDS, WIRE TO WIRE SHORTS, AND OPENS.
4.	NOTIFICATION APPLIANCE CIRCUITS (NAC) & INITIATING DEVICE CIRCUITS (IDC) ARE SUPERVISED. NO PARALLEL BRANCHING (TEE-TAPPING) SHALL BE PERMITTED. NON-STYLE 6 & 7 SIGNALING LINE CIRCUITS (SLC) ALLOW PARALLEL BRANCHING (TEE-TAPPING) AT DEVICES AND RISER BOXES ONLY.
5.	ALL FIRE ALARM CONDUIT SHALL BE SIZED TO MEET OR EXCEED THE NEC MINIMUM REQUIREMENTS. ALL FIRE ALARM CONDUIT SIZE SHALL BE 3/4" MINIMUM UNLESS SHOWN OTHERWISE. STUB-UPS TO INDIVIDUAL DEVICES ALLOWED TO BE IN 1/2".
6.	INSTALLATION MATERIALS (I.E. CONDUIT, FITTINGS, HANGERS, STANDARD BOXES, ETC.) ARE NOT PROVIDED BY MIDWEST ALARM SERVICES.
7.	ON OPEN WIRE INSTALLATIONS CONDUIT SHALL BE PROVIDED BY OTHERS THROUGH ALL INACCESSIBLE AREAS (I.E. ABOVE HARD CEILINGS, STUB-UPS THROUGH ENCLOSED WALLS, ECT.) AND IN ALL EXPOSED AREAS (I.E. MECHANICAL ROOMS, ELECTRICAL ROOMS, ETC.).
8.	MANUAL PULL BOXES SHALL BE MOUNTED 48" AFF TO THE ACTUATING HANDLE.
9.	WALL MOUNTED AUDIBLE/VISUAL & VISUAL ONLY DEVICES SHALL BE MOUNTED 80" AFF TO THE BOTTOM OF THE DEVICE OR 6" FROM THE CEILING TO THE TOP OF THE DEVICE WHICHEVER IS LOWER.
10.	INSTALLATION SHALL BE IN STRICT CONFORMANCE WITH THE NATIONAL ELECTRIC CODE, NFPA CODES, LOCAL CODES, AUTHORITIES HAVING JURISDICTION AND ALL OF THE MANUFACTURERS REQUIREMENTS.
11.	ALL FIRE ALARM CONTROL RELAYS SHALL BE MOUNTED WITHIN 3' OF THE DEVICES THEY CONTROL. ALL RELAY CONTROL CIRCUITS SHALL BE SUPERVISED.
12.	ALL FIRE ALARM JUNCTION BOX COVERS SHALL BE PAINTED RED OR LABELED FOR DISTINCT IDENTIFICATION.
13.	ALL FIRE ALARM PANELS & EQUIPMENT CABINETS REQUIRE A DEDICATED 120VAC CIRCUIT FOR PRIMARY POWER. FIRE ALARM AC POWER CIRCUITS SHALL BE PERMANENTLY IDENTIFIED AT THE DISTRIBUTION PANEL AND INSIDE THE FIRE EQUIPMENT CABINETS SERVED.

GENERAL NOTE - EXISTING FIRE ALARM SYSTEM

This project involves modifications and/or additions to an existing fire alarm system. Certain conditions may be unknown, including existing device locations, addresses or designations, and circuit routing. Existing fire alarm devices not relevant to the scope of work may not be shown. SLC addresses and circuit designations shown are representative and will be determined on site following a panel program download. The record drawings will be updated to show actual addresses and circuits used.

CODE REFERENCES

#	REFERENCED CODE	YEAR
1	International Building Code (IBC)	2018
2	International Fire Code (IFC)	2018
3	International Mechanical Code (IMC)	2018
4	NFPA 70 National Electrical Code	2017
5	NFPA 72 National Fire Alarm Code	2016

PROJECT NARRATIVE

This project consists of two existing remote buildings at a high school complex that are being added to and/or partially renovated in certain areas. CO detection is being added to both, and smoke, duct smoke and horn/strobe notification are being modified or added in strict accordance with the contract documents. Both buildings are primary use group E and not sprinklered. Building D has small areas of B and S-2 use group designations.

KEYED NOTES

KEY #	NOTE TEXT
1	CO DETECTOR SHALL HAVE A SOUNDER BASE FOR LOCAL AUDIBLE ALARM. BASE SHALL SOUND TEMP-4 ON ALARM. LOCATE DETECTOR NEAR FIRST SUPPLY AIR DIFFUSER FROM GAS-FIRED AIR HANDLING UNIT. OBTAIN AUX. POWER FOR SOUNDER BASE FROM LOCAL NAC PANEL.
2	CONNECT TO EXISTING SLC. CONNECTION POINT SHOWN IS FOR EXAMPLE. SUBJECT TO CHANGE DEPENDING ON EXISTING WIRING PATHWAYS. ACTUAL WIRING PATHWAYS SHALL BE RECORDED DURING INSTALLATION FOR INCLUSION ON RECORD DRAWINGS.
3	CONNECT TO EXISTING NAC. CONNECTION POINT SHOWN IS FOR EXAMPLE. SUBJECT TO CHANGE DEPENDING ON EXISTING WIRING PATHWAYS. ACTUAL WIRING PATHWAYS SHALL BE RECORDED DURING INSTALLATION FOR INCLUSION ON RECORD DRAWINGS.
4	PROGRAM FRM RELAY MODULE TO SHUT DOWN AHU FANS ON AHU UPON ALARM. CONNECTIONS TO AHU BY OTHERS.

DWG SHEET # ALL

WIRE TAG AND PATHWAY COLOR LEGEND

A	SIGNALING LINE CIRCUITS
B,S	NOTIFICATION APPLIANCE CIRCUITS
P,R	POWER & ANNUNCIATOR DATA CIRCUITS
2A,2B	COMBINED WIRE PATHWAY
	CABLE IDENTITY - LETTER
	QUANTITY OF CABLE - NUMBER (NO NUMBER INDICATES QTY OF ONE)

DEVICE NUMBERING DETAILS

N1-01	DEVICE NUMBER
30	CANDELA RATING
	END OF LINE RESISTOR (LAST DEVICE ON CIRCUIT)

NOTIFICATION APPLIANCES

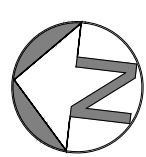
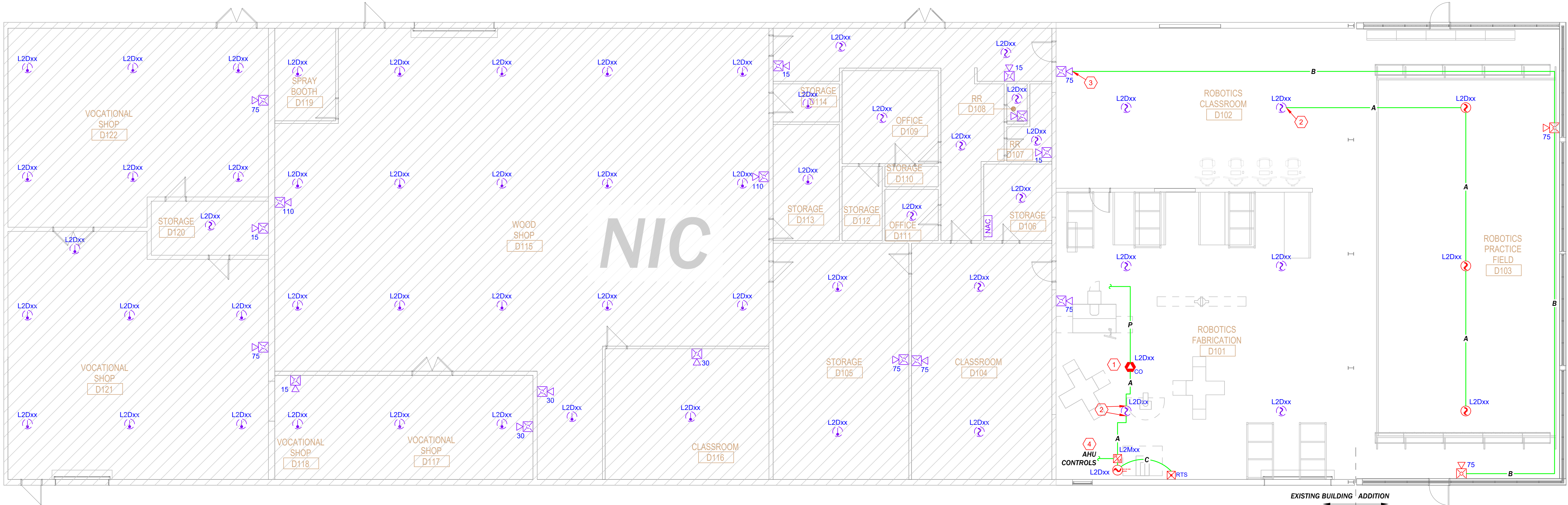
L1D01	ADDRESSABLE DEVICES
	SLC or LOOP NUMBER
	DENOTES DEVICE TYPE "M"=MODULE, "D"=DETECTOR "1"-159 DET, "1"-159 MOD)

FIRE ALARM SYMBOLS LEGEND

SYMBOL	DESCRIPTION
NAC	REMOTE NAC/POWER SUPPLY PANEL EXISTING DEVICE BACK BOX: INCLUDED
2	NOTIFIER FSP-951 ADDRESSABLE SMOKE DETECTOR (PHOTO) MOUNT AS INDICATED ON PRINT BACK BOX: 4" SQUARE OR 3.5" OCTAGONAL x 1-1/2" DEEP
2	NOTIFIER FSP-951 ADDRESSABLE SMOKE DETECTOR (PHOTO) EXISTING DEVICE NOT MODIFIED IN PROJECT BACK BOX: 4" SQUARE OR 3.5" OCTAGONAL x 1-1/2" DEEP
2	NOTIFIER FST-951 ADDRESSABLE HEAT DETECTOR, 135°F EXISTING DEVICE NOT MODIFIED IN PROJECT BACK BOX: 4" SQUARE OR 3.5" OCTAGONAL x 1-1/2" DEEP
2	NOTIFIER DNR DUCT SMOKE DETECTOR w/FSP-951R HEAD BACK BOX: N/A
2	NOTIFIER FSCO-951 CO DETECTOR w/B200S SOUNDER BASE MOUNT AT CEILING NEAR FIRST SUPPLY AIR DIFFUSER BACK BOX: 4" SQUARE OR 3.5" OCTAGONAL x 1-1/2" DEEP
2	NOTIFIER FRM-1 ADDRESSABLE RELAY MODULE MOUNT WITHIN 3' OF DEVICE CONTROLLED OR INSIDE DNR BACK BOX: 4" SQUARE x 2-1/8" DEEP
2	NOTIFIER RTS-151KEY REMOTE ALARM/TEST STATION MOUNT ON WALL AT 48" AFF BACK BOX: SINGLE GANG
2	SYSTEM SENSOR P2WL HORN/STROBE, WALL MOUNT, WHITE FOR MOUNTING HEIGHT SEE FA GENERAL NOTE 9. BACK BOX: SINGLE GANG x 1.875" DEEP MIN.
2	SYSTEM SENSOR SWL STROBE, WALL MOUNT, WHITE FOR MOUNTING HEIGHT SEE FA GENERAL NOTE 9. BACK BOX: SINGLE GANG x 1.875" DEEP MIN.

FIRE ALARM WIRE LEGEND

TAG	DESCRIPTION
A	SIGNALING LINE CIRCUIT (SLC) (2C) 18AWG SOLID, TWISTED, JACKETED CABLE, FPLP
B	NOTIFICATION APPLIANCE CIRCUIT (NAC) (2C) 14AWG SOLID, TWISTED, JACKETED CABLE, FPLP
C	REMOTE TEST INDICATOR CIRCUIT (4C) 18AWG SOLID, TWISTED, JACKETED CABLE, FPLP
P	AUX. POWER FOR SOUNDER BASES (2C) 14AWG SOLID, TWISTED, JACKETED CABLE, FPLP



1

BUILDING D - FIRE ALARM PLAN

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

2' 0' 4' 8'
SCALE: 1/8" = 1'-0"Lee's Summit High School - Bldg D & E Expansion
400 SE Blue Parkway, Lee's Summit, MO 64063prepared for: Arrowhead Electric
Blue Springs, MO 64015

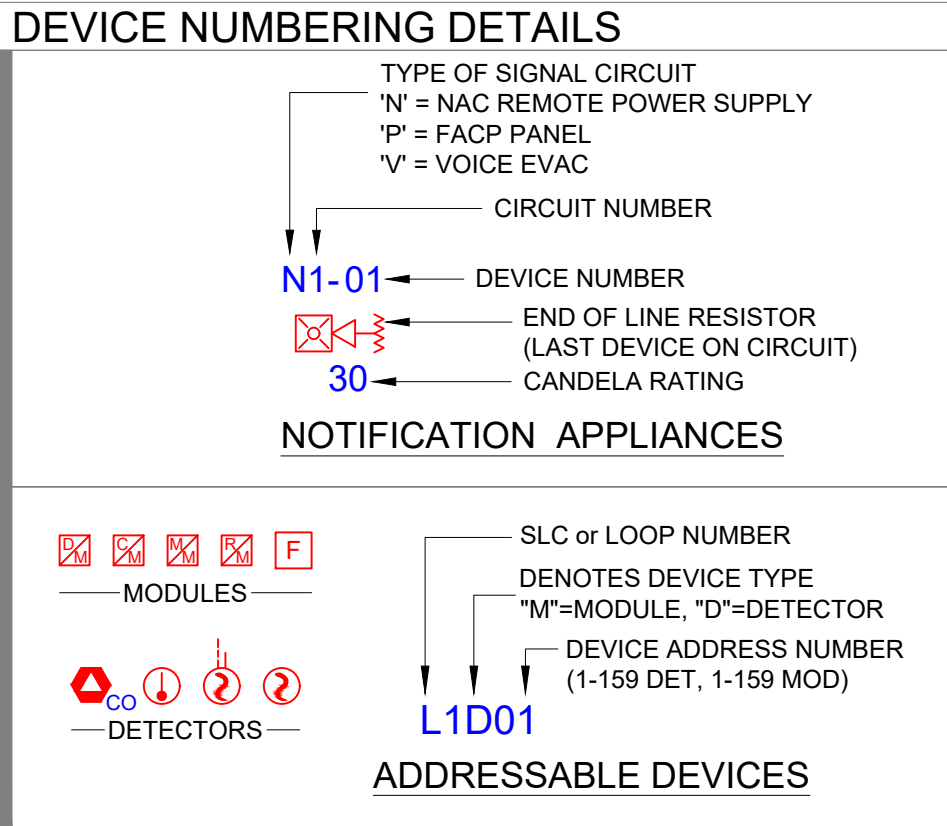
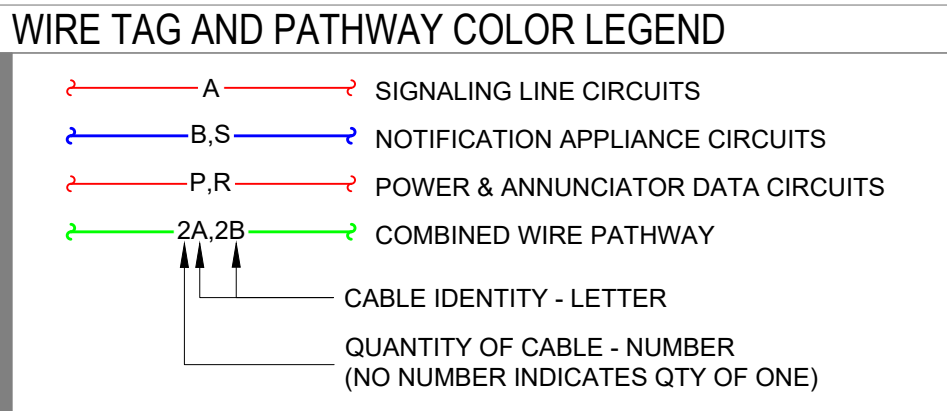
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D. LANE	04.12.2023
DESIGNED BY:	DATE:
JM	03.22.2023
APPROVED BY:	DATE:
PROJECT NUMBER:	
330323030927	
SHEET TITLE:	
FIRE ALARM SYSTEM	
Building "D" Floor Plan	
SHEET NUMBER:	
FA-1	
2 of 3	

REVISION DESCRIPTION

DATE

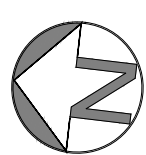
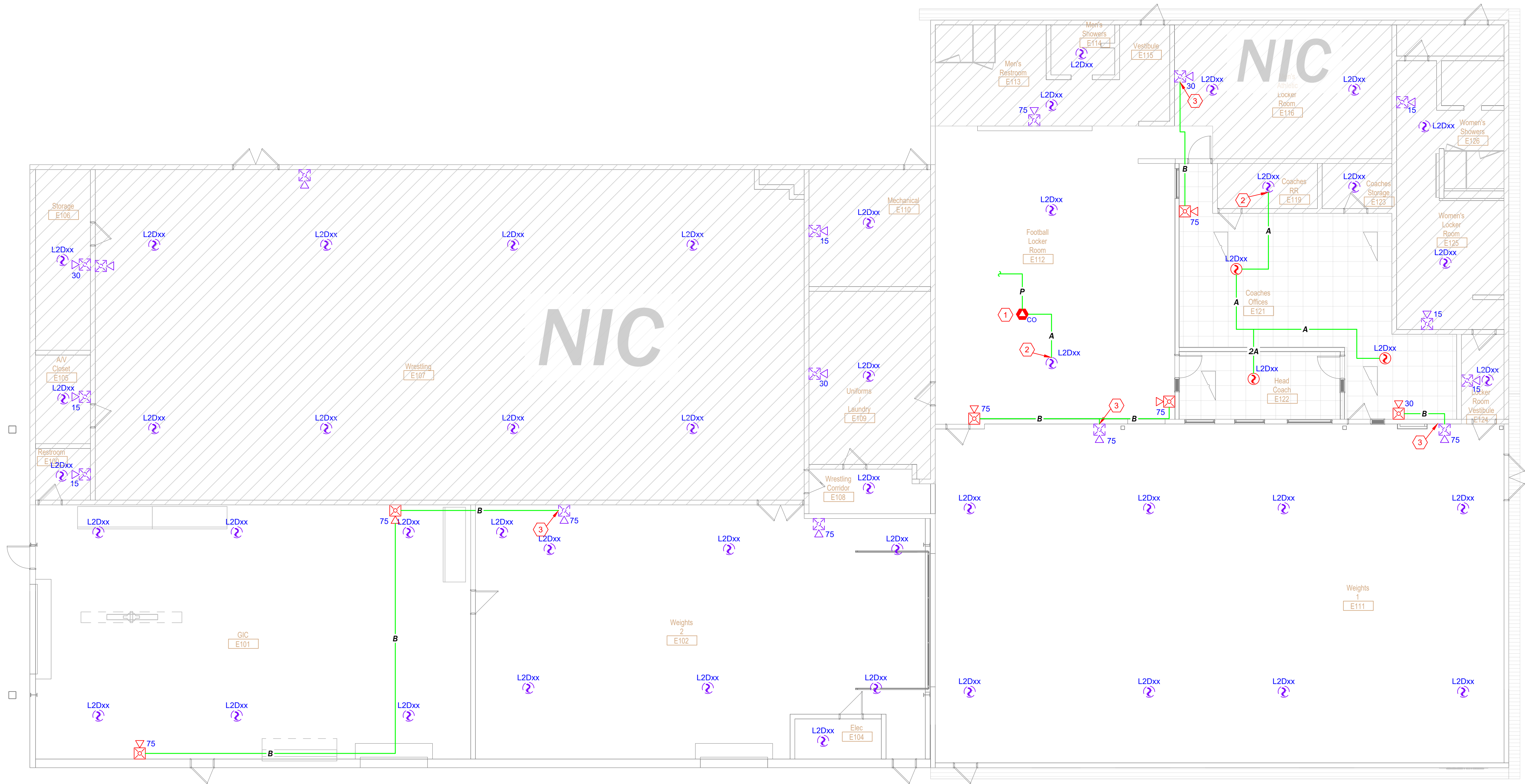
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1

BUILDING E - FIRE ALARM PLAN

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

2 0 4 8'
SCALE: 1/8" = 1'-0"



Lee's Summit High School - Bldg D & E Expansion
400 SE Blue Parkway, Lee's Summit, MO 64063

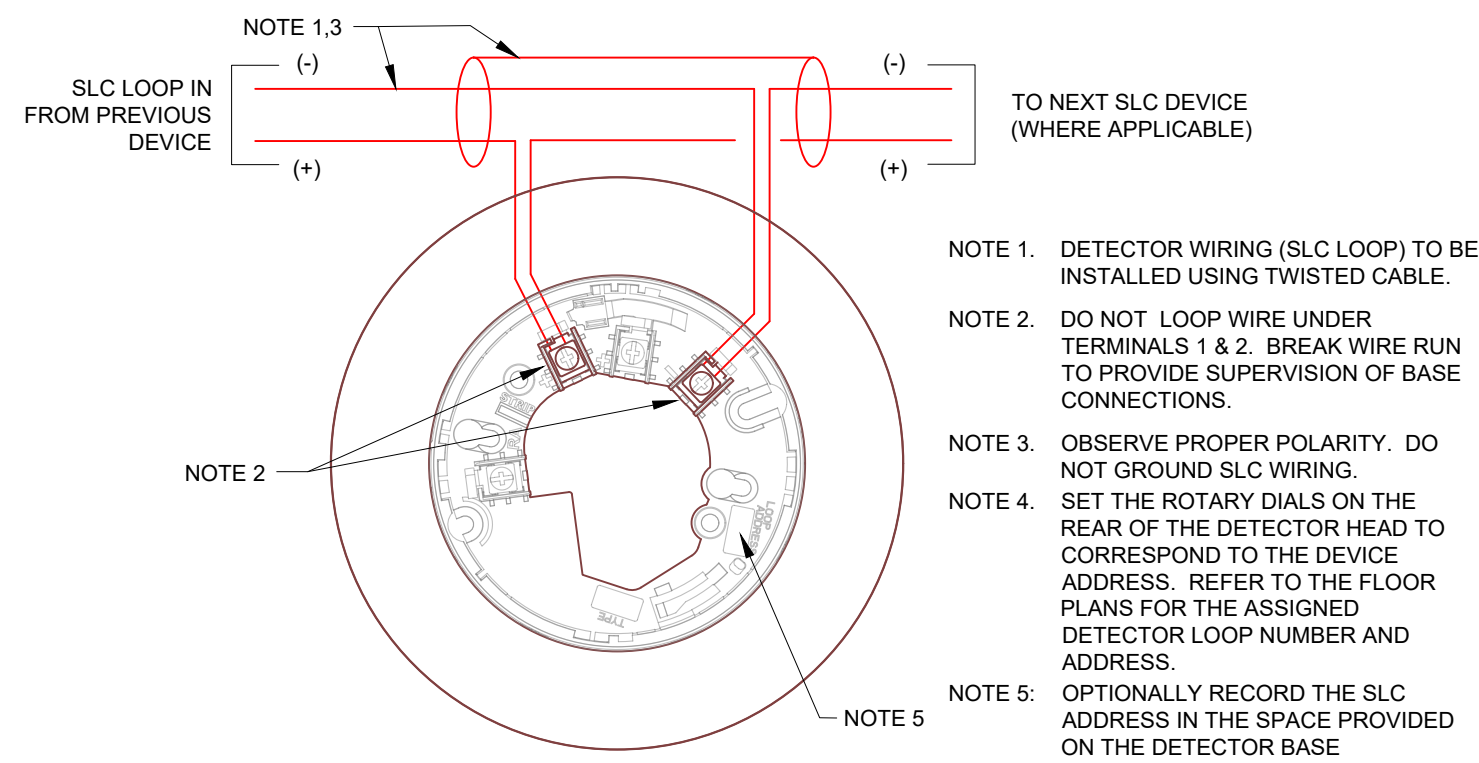
prepared for: Arrowhead Electric
Blue Springs, MO 64015

DRAWN BY:	DATE:
D. LANE	04.12.2023
DESIGNED BY:	DATE:
JM	03.22.2023
APPROVED BY:	DATE:
PROJECT NUMBER:	
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SHEET TITLE:	
FIRE ALARM SYSTEM	
Building "E" Floor Plan	
SHEET NUMBER:	
FA-2	

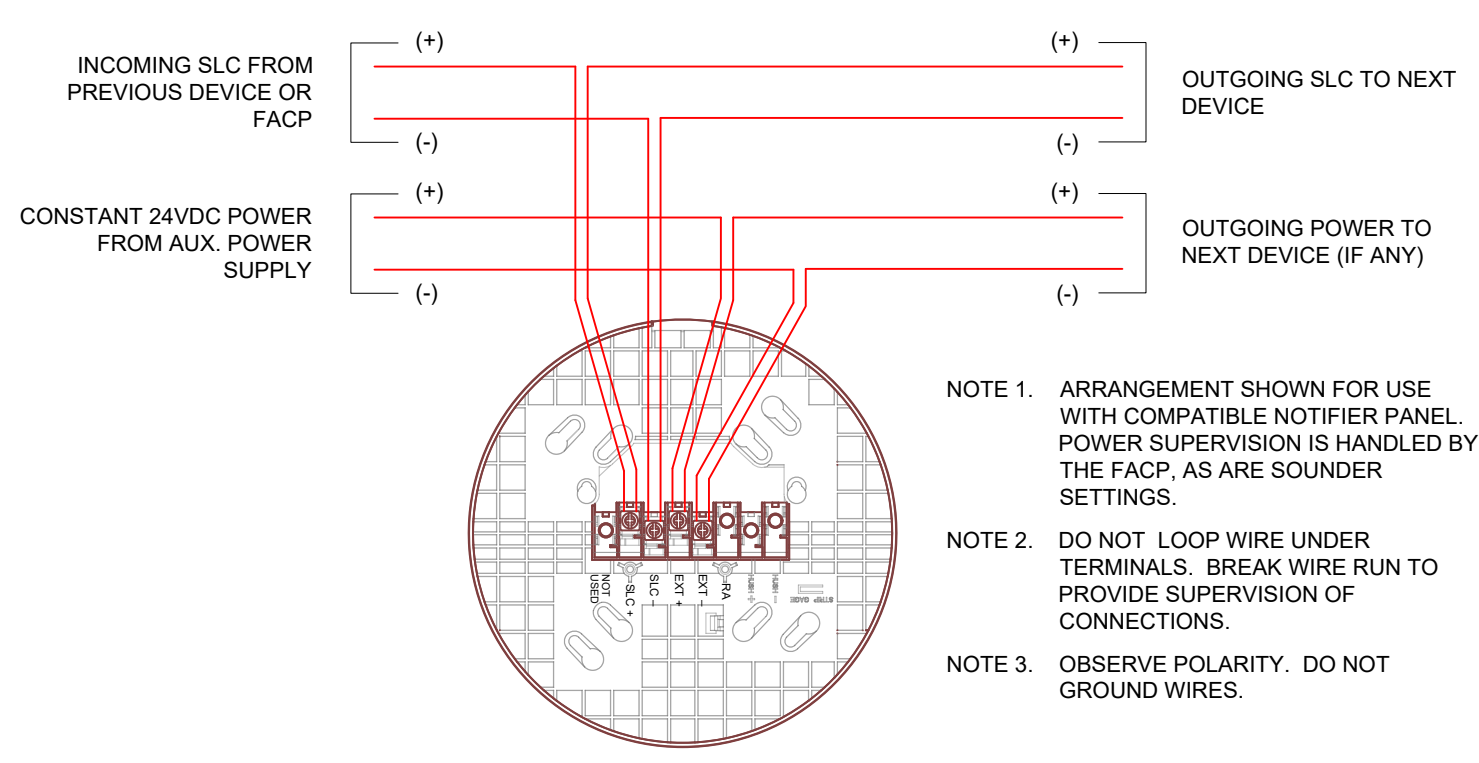
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NO.	DATE	REVISION DESCRIPTION

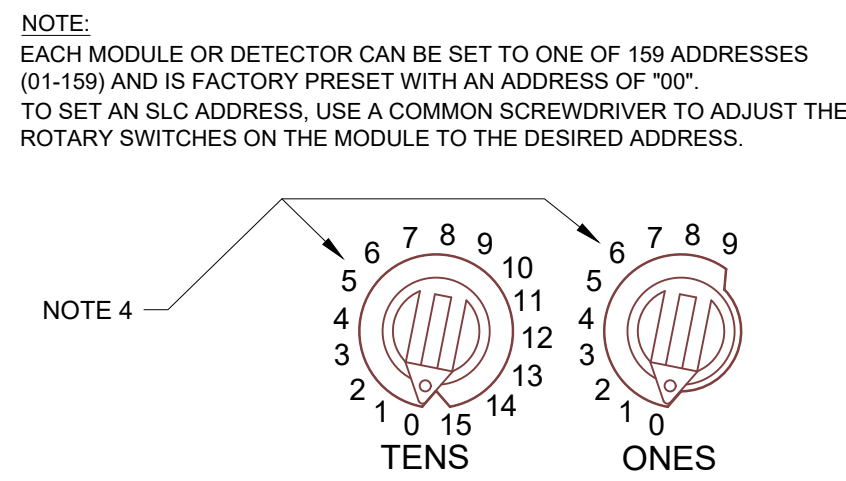
MIDWEST
ALARM
SERVICES
9745 Widmer, Lenexa, KS 66215
(913) 677-3711 FAX (913) 677-3712
COPYRIGHT 2023 MIDWEST ALARM SERVICES - ALL RIGHTS RESERVED



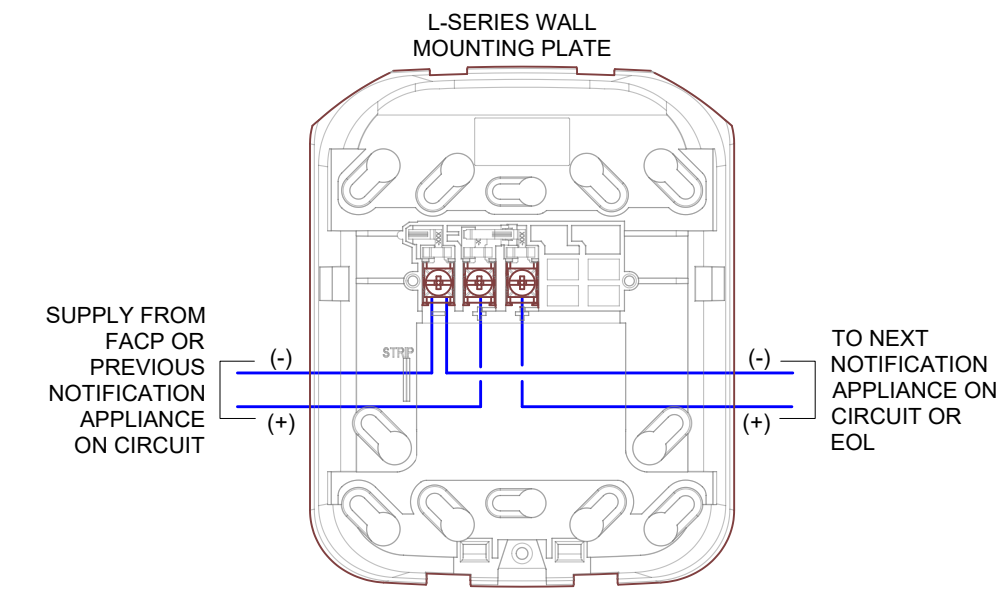
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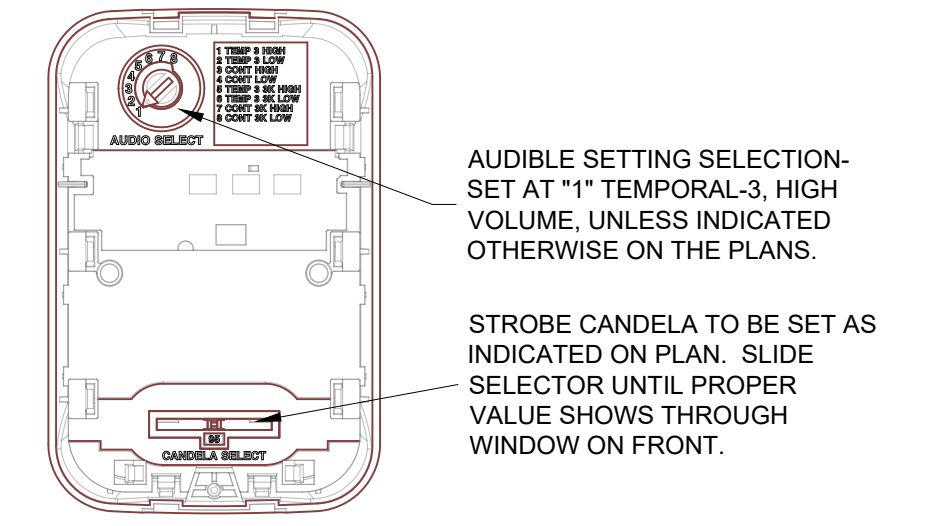
B200S SOUNDER BASE WIRING DETAIL



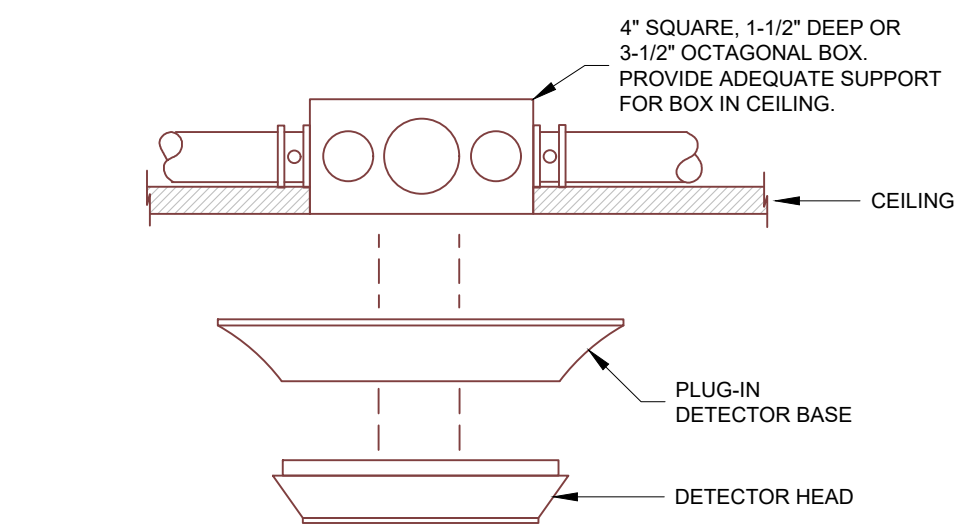
SETTING SLC ADDRESS (ROTARY DIALS)



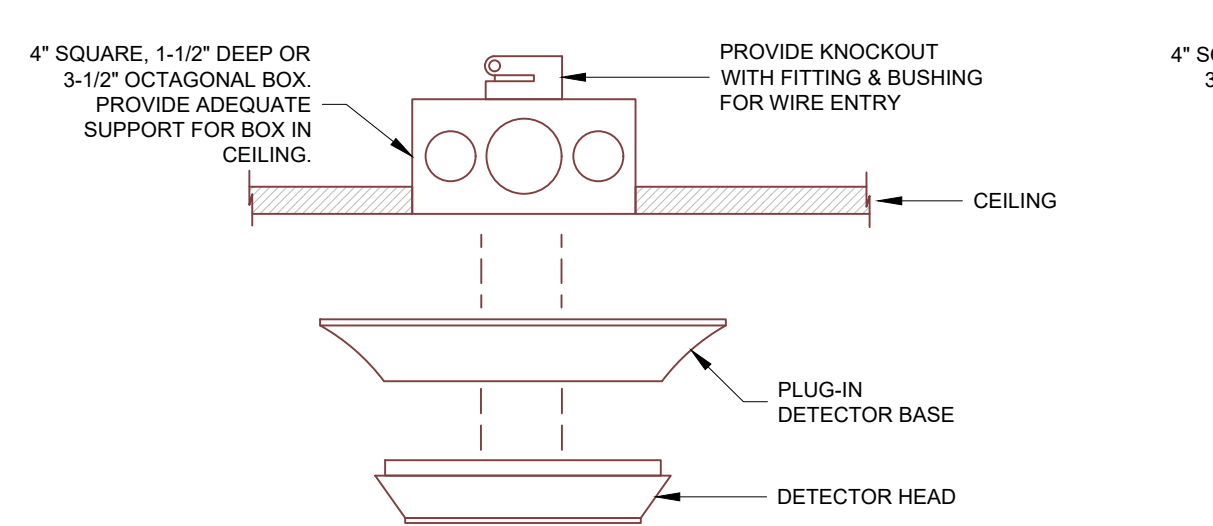
SYSTEM SENSOR L-SERIES HORN / STROBE & STROBE



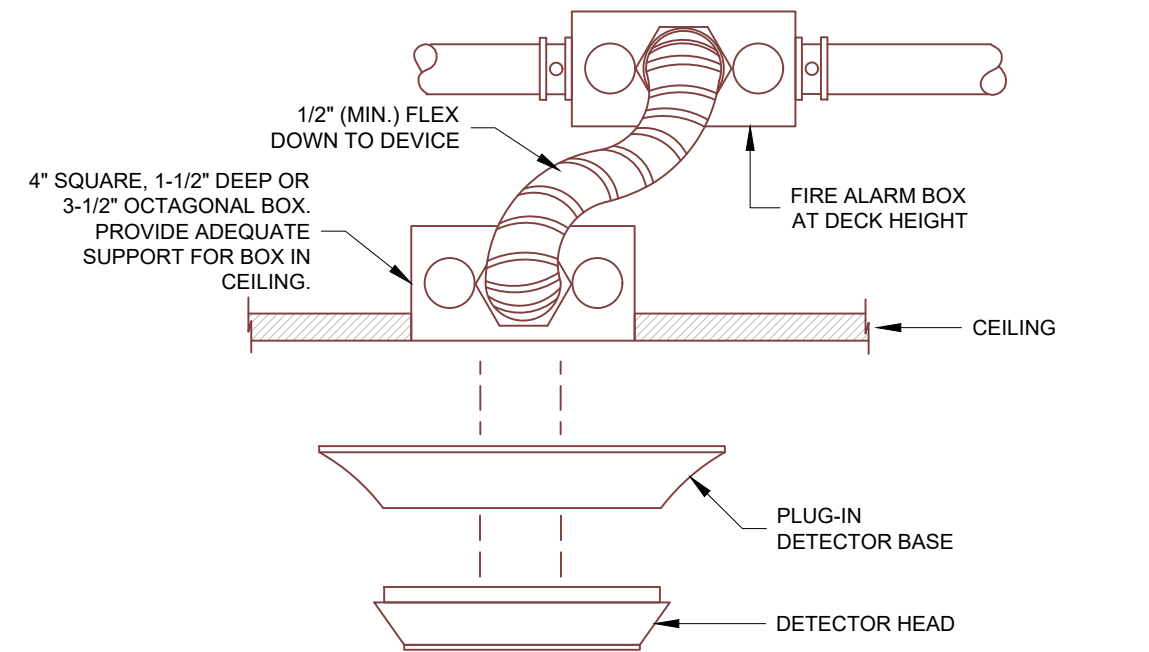
L-SERIES HORN / STROBE CANDELA & AUDIBLE SETTINGS



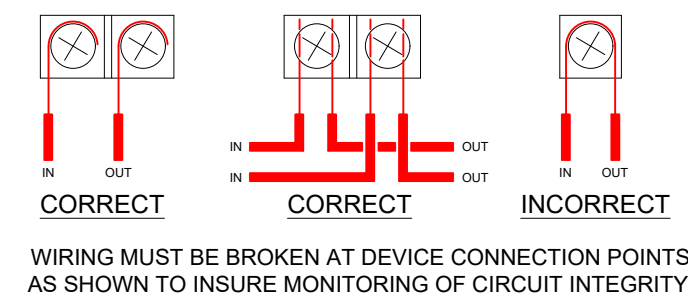
BOX MOUNTING IN SHEETROCK OR PLASTER TYPE CEILINGS (MUST BE INSTALLED WITH CONDUIT)



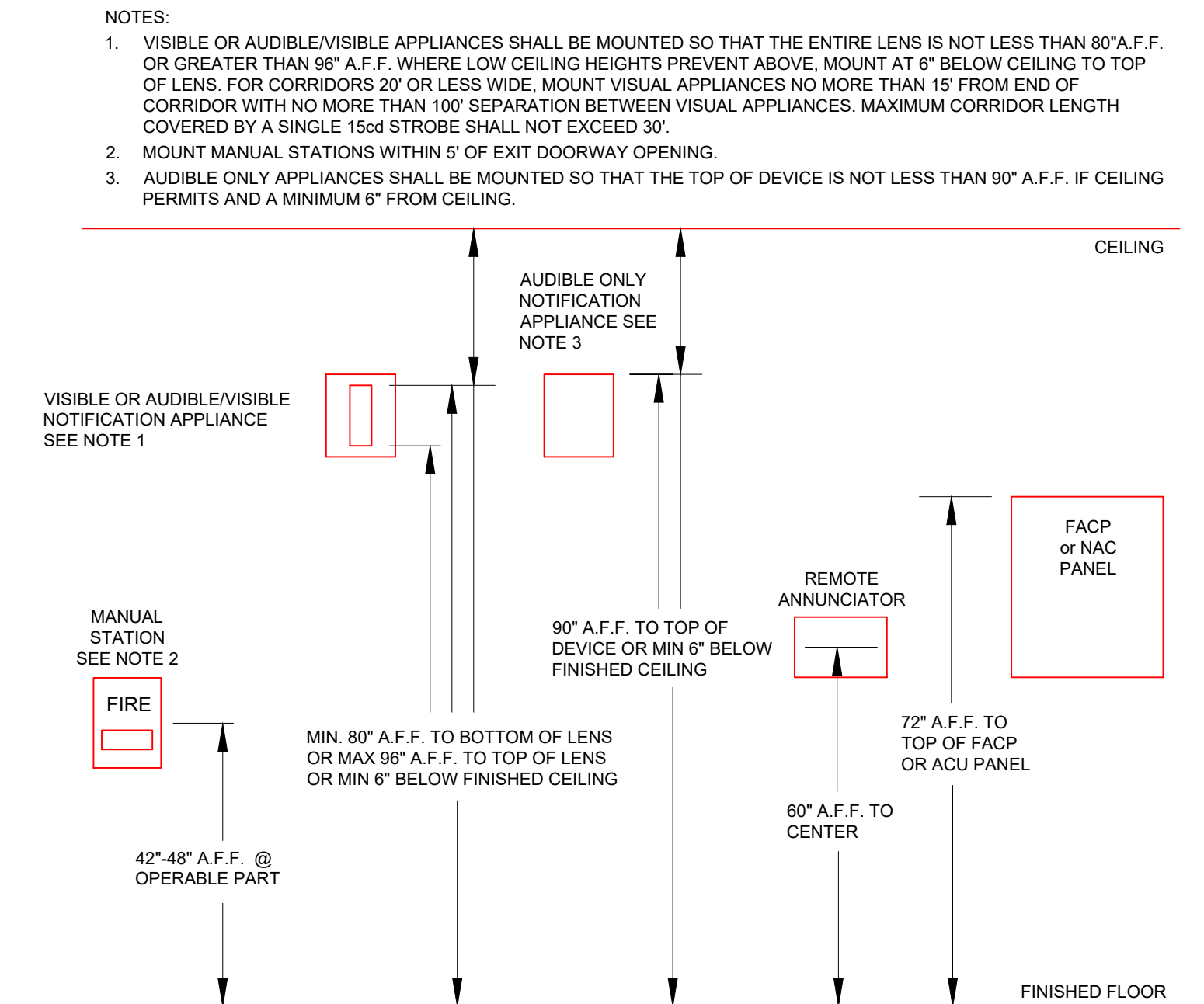
BOX MOUNTING IN LIFT OUT OR INTERLOCKING TYPE CEILINGS FOR SYSTEMS WITH CABLE INSTALLED IN PLENUM



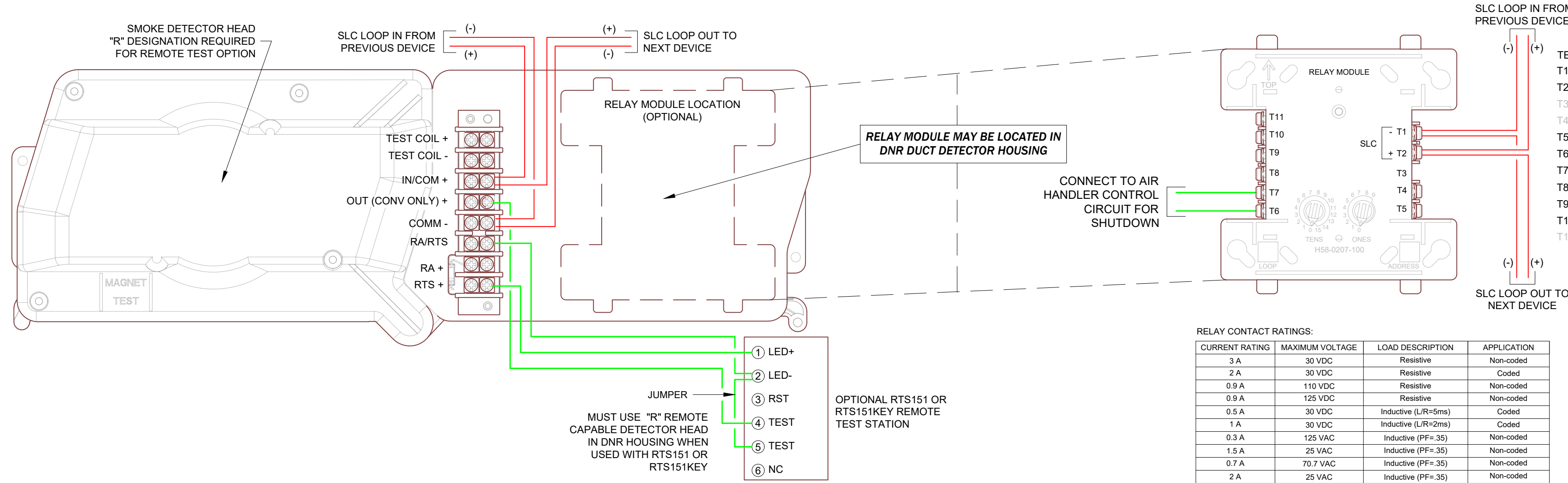
BOX MOUNTING IN LIFT OUT OR INTERLOCKING TYPE CEILINGS WITH SYSTEMS INSTALLED IN CONDUIT



WIRING METHODS

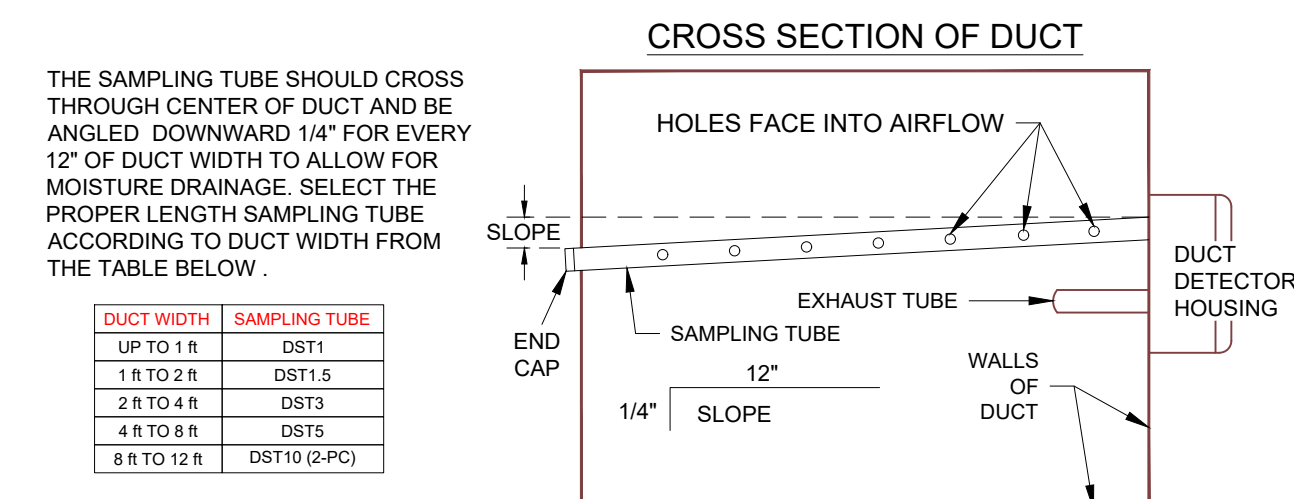


INSTALLATION HEIGHTS FOR WALL MOUNTED DEVICES



DNR DUCT DETECTOR HOUSING WITH REMOTE TEST STATION

FRM-1 RELAY MODULE/AHU SHUTDOWN



DUCT DETECTOR MOUNTING DETAILS