FIRE ALARM SYMBOL LIST

CONTROL UNITS (PANELS) SYMBOLS

FACP — FIRE ALARM CONTROL PANEL

DGP — FIRE ALARM DATA GATHERING PANEL

NOTIFICATION APPLIANCES SYMBOLS

XX — NOTIFICATION APPLIANCE SUBSCRIPTS ('XX')
- WP = WEATHERPROOF
- WG = WIRE GUARD
- H = HIGH AUDIBLE SETTING
- L = LOW AUDIBLE SETTING
- C = CEILING MOUNT
- nW = WATTAGE SETTING (n = SPEAKER TAP)
- P = PENDENT
- SL = SIGNAL LIGHT
- RI = REMOTE INDICATOR

C H — HORN ONLY
- C = CEILING MOUNT

C S — SPEAKER ONLY
- C = CEILING MOUNT

SS — BELL - SINGLE STROKE

T — BELL - TROUBLE

G — GONG

CD — VISIBLE ONLY (STROBE) - WALL MOUNT
- CD = CANDELA RATING/SETTING

CD — VISIBLE ONLY (STROBE) - CEILING MOUNT
- CD = CANDELA RATING/SETTING

CD C — COMBINATION HORN/VISIBLE
- CD = CANDELA RATING/SETTING
- C = CEILING MOUNT

RELATED EQUIPMENT

DH — DOOR HOLDER

DCL — DOOR CLOSER

S DCL — INTEGRATED SMOKE SENSOR AND DOOR CLOSER

END OF LINE RESISTOR

X — FIRE SERVICE OR EMERGENCY PHONE STATION STATION, 'X' DENOTES TYPE:
- J = JACK
- H = HANDSET
- A = ACCESSIBLE

PROVIDE ADDITIONAL BOOSTER PANELS AS REQUIRED. PROVIDE ALL REQUIRED STROBE CIRCUIT LOOPS.

Fire Alarm Audibility – Design Criteria		
Location	Average Ambient Sound Level [dBA]	Design Goal [dBA]
Business Occupancies	55	MIN. 70
Educational Occupancies	45	MIN. 60
Industrial Occupancies	80	MIN. 95
Institutional Occupancies	50	MIN. 65
Mercantile Occupancies	40	MIN. 55
Mechanical Rooms	85	MIN. 100
Places of Assembly	55	MIN. 70
Residential Occupancies	35	MIN. 75
Storage Occupancies	30	MIN. 45
The maximum sound pressure level for audible alarm notification appliances shall be 110dBA max at minimum hearing distance from the audible appliance.		

SIGNAL INITIATING DEVICES & ACTIVATION SWITCHES SYMBOLS

XX — MANUAL STATION - PULL STATION/FIRE ALARM BOX, 'XX' DENOTES TYPE:
- F = FIRE ALARM

H — HEAT DETECTOR/SENSOR (THERMAL DETECTION) ORIENTATION NOT TO BE CHANGED

H XX — HEAT DETECTOR/SENSOR, 'XX' DENOTES TYPE:
- R/F = COMBINATION RATE OF RISE/FIXED TEMPERATURE
- R/C = RATE COMPENSATION
- F = FIXED TEMPERATURE
- R = RATE OF RISE ONLY

H — HEAT DETECTOR - LINE TYPE

S XX — SMOKE DETECTOR/SENSOR, 'XX' DENOTES TYPE:
- AS = AIR SAMPLING
- P = PHOTOELECTRIC
- I = IONIZATION

S H XX — SMOKE/HEAT DETECTOR/SENSOR COMBINATION

S BT — SMOKE DETECTOR/SENSOR - BEAM TRANSMITTER

S BR — SMOKE DETECTOR/SENSOR - BEAM RECEIVER

S — SMOKE DETECTION/SENSOR FOR DUCT

XX — GAS DETECTOR/SENSOR, 'XX' DENOTES TYPE:
- CO = CARBON MONOXIDE
- CO2 = CARBON DIOXIDE

WF — FLOW DETECTOR/SWITCH

PS — PRESSURE DETECTOR/SWITCH

VS — VALVE SUPERVISORY SWITCH

LS XX — LEVEL DETECTOR/SWITCH, 'XX' DENOTES TYPE:
- HI = HIGH
- LO = LOW

HT — HIGH TEMPERATURE SWITCH

LT — LOW TEMPERATURE SWITCH

AIM — ADDRESSABLE INPUT MODULE

AOM — ADDRESSABLE OUTPUT MODULE

AIO # — ADDRESSABLE INPUT/OUTPUT MODULE
- # DENOTES NUMBER OF INPUTS AND OUTPUTS

R — NON-ADDRESSABLE OUTPUT RELAY

NEW YORK CITY BUILDING DEPARTMENT NOTES

1. THE FIRE ALARM SYSTEM AND ALL ASSOCIATED EQUIPMENT SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE FULL REQUIREMENTS OF THE 2020 BUILDING CODE OF NEW YORK STATE.
2. NO WORK SHALL BE STARTED UNTIL PLANS ARE APPROVED OR PERMITTED BY THE LOCAL TOWNSHIP FIRE DEPARTMENT. BEC FORM ED-16A SHALL BE FILED BY THE LICENSED ELECTRICAL CONTRACTOR WITH THE BUREAU OF ELECTRICAL CONTROL PRIOR TO ANY WORK.
3. STROBE LIGHT SHALL BE APPROVED TO MEET CURRENT AMERICANS WITH DISABILITIES ACT (A.D.A.) AND APPENDIX "Q" OF 2008 NYC BUILDING CODE.
4. NO CHANGES AND/OR MODIFICATIONS OF THE SYSTEM ARE ALLOWED WITHOUT THE ENGINEER'S WRITTEN APPROVAL. CONTRACTOR SHALL KEEP RECORDS OF ALL SUCH CHANGES. IF ANY SUBSTANTIAL CHANGES TO THE APPROVED PLANS WERE MADE PREVIOUS TO, OR DURING THE INSTALLATION, AS-BUILT PLANS SHALL BE PREPARED BY THE ENGINEER AND FILED WITH NEW YORK CITY AGENCIES FOR FINAL ACCEPTANCE.
5. ALL FIRE ALARM CONTROL PANELS SHALL BE MOUNTED WITH 3 FEET CLEARANCE FOR TESTING AND OBSERVATION. TOP OF THE PANEL SHALL BE AT 5' -6". ALL EXISTING FIRE ALARM EQUIPMENT NO LONGER USED SHALL BE REMOVED UPON APPROVAL OF THE NEW SYSTEM.
6. NO CONDUITS OR WIRES SHALL ENTER THE TOP OF THE FIRE ALARM PANEL. ANY PRE-MADE OPENINGS IN THE TOP OF THE PANEL SHALL BE BLANKED AND SEALED. ALL CONTROLS, FUNCTION SWITCHES, ETC., SHALL BE CLEARLY LABELED ON ALL FIRE ALARM EQUIPMENT PANELS.

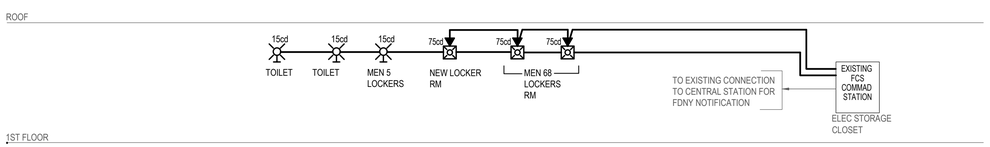
SYSTEM INPUT / SYSTEM OUTPUT	ACTIVATE ALARM HORNS THROUGHOUT THE SPACE	ACTIVATE STROBES THROUGHOUT THE SPACE	ACTIVATE DISPLAY AND AUDIBLE SIGNAL AT FCS	ACTIVATE WATERFLOW ALARM NOTIFICATION	ACTIVATE ALARM SIGNAL NOTIFICATION	ACTIVATE TROUBLE AT FCS AND CENTRAL OFFICE	ALARM SIGNAL TO CENTRAL OFFICE	ACTIVATE HVAC FAN SHUTDOWN SERVING THE ALARM AREA	RECALL ELEVATOR TO DESIGNATED LEVEL	ACTIVATE DOOR RELEASE	ACTIVATE SUPERVISORY AT FCS AND CENTRAL OFFICE	LED DISPLAY ON FIRE ALARM PANEL & AUDIBLE ALART
MANUAL STATION	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓
SMOKE DETECTOR	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
DUCT DETECTOR	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓
FAILURE OF SYSTEM AND COMPONENTS			✓			✓						

SEQUENCE OF OPERATION FOR INDIVIDUALLY CODED FIRE ALARM SYSTEM

FUNCTION MATRIX

FIRE ALARM GENERAL NOTES:

1. PRIOR TO BID, CONTRACTOR SHALL CONTACT THE BUILDING FIRE ALARM MAINTENANCE VENDOR AND OBTAIN PRICING FOR THE EQUIPMENT AND SERVICES LISTED BELOW WHICH MUST BE PROVIDED BY THAT CONTRACTOR.
2. ALL EQUIPMENT FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR AND SHALL BE PURCHASED FROM THE BUILDING FIRE ALARM MAINTENANCE CONTRACTOR TO ASSURE COMPATIBILITY WITH FIRE ALARM SYSTEM.
3. REPROGRAMMING OF FIRE COMMAND STATION AND FINAL CONNECTIONS AT THE FIRE COMMAND STATION OR DATA GATHERING PANELS ARE BY BUILDING'S FIRE ALARM MAINTENANCE CONTRACTOR. INCLUDE VENDOR COST IN BID PRICE.
4. INSTALL FIRE ALARM EQUIPMENT, FIRE ALARM SPEAKERS AND STROBE LIGHTS (ADA TYPE, 75 CANDELA) UNITS AT LOCATION INDICATED ON THE PLAN.
5. FIRE ALARM RECESSED CEILING MOUNTED HORNS AND WALL MOUNTED STROBE LIGHT UNITS OR COMBINATION SPEAKER/STROBE UNITS SHALL BE BASE BUILDING TYPE.
6. ALL CABLING SHALL BE TEFLON INSULATED AND JACKETED, FIRE PROTECTION SERVICE APPROVED, (1) PAIR # 14 AWG FOR STROBES AND "POINTS" WIRING AND # 16 AWG FOR HORN. PROVIDE SHIELD WIRING WHERE REQUIRED. FIRE ALARM WIRING SHALL BE LABELED "ALSO CLASSIFIED NYC CERTIFIED FIRE ALARM CABLE."
7. EXISTING BUILDING SYSTEMS ARE NOT SHOWN (UNLESS THEY ARE PART OF NEW INSTALLATIONS) AND SHALL REMAIN INTACT.
8. OBTAIN PERMISSION FROM BUILDING MANAGER PRIOR TO RUNNING WIRE FROM NEW FIRE ALARM DEVICES TO EXISTING FIRE COMMAND STATION OR DATA GATHERING PANELS.
9. ALL ROUTING OF CABLES TO FIRE COMMAND STATION OR DATA GATHERING PANELS (DGP) SHALL BE DIRECTED AND APPROVED BY BUILDING MANAGER.
10. THE PARTIAL FIRE ALARM RISER DIAGRAM SHOWN IS AN INDICATION OF THE WORK REQUIRED AND SHALL BE USED FOR ESTIMATING PURPOSES ONLY. THE SUCCESSFUL CONTRACTOR SHALL OBTAIN A POINT-TO-POINT WIRING DIAGRAM FROM THE BUILDING FIRE ALARM MAINTENANCE CONTRACTOR AND PERFORM ALL WORK IN ACCORDANCE WITH THAT DIAGRAM. SUBMIT THIS WIRING DIAGRAM TO ENGINEER FOR REVIEW. ALSO IN ADDITION, A FIRE ALARM AS-BUILT SHALL BE PROVIDED TO THE ENGINEER. DUPLICATION OF ENGINEER'S DRAWING WILL NOT BE APPROVED.
11. THE OPERATION OF THE FIRE ALARM INSTALLATION DOES NOT CONSTITUTE AN ACCEPTANCE OF THE WORK BY THE OWNER. FINAL ACCEPTANCE IS TO BE MADE AFTER THE CONTRACTOR HAS DEMONSTRATED THAT THE WORK FULFILLS THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS AND HAS FURNISHED ALL REQUIRED CERTIFICATES OF APPROVAL FROM THE STATE AUTHORITIES, MUNICIPAL AUTHORITIES AND UNDERWRITERS.
12. ELECTRICAL CONTRACTOR SHALL INCLUDE ALL FEES, COSTS, ETC. FOR FILING ALL REQUIRED FORMS AND DRAWINGS FOR THE NEW YORK FIRE DEPARTMENT, APPROVALS, FINAL CONNECTIONS, SYSTEM PROGRAMMING, PRE-TESTING AND FIRE DEPARTMENT TESTING AND SIGNOFF.
13. SPEAKER AND STROBES SHALL BE WIRED ON ALTERNATING CIRCUITS IN ALL AREAS.
14. ALL SMOKE AND COMBINATION FIRE/SMOKE DAMPERS SHALL BE PROVIDED WITH A REMOTE LAMP INDICATOR. PROVIDE ALL NECESSARY CONTROL & MONITOR MODULES, AND RELAYS TO PROVIDE PROPER OPERATION OF FIRE SMOKE DAMPERS.
15. WHERE (2) STROBES ARE VISIBLE TO A SPECIFIC LOCATION, THEY MUST BE SYNCHRONIZED. PROVIDE SYNCHRONIZATION MODULES AS REQUIRED.
16. ELECTRICAL CONTRACTOR SHALL INCLUDE IN THEIR BID ALL DEVICES REQUIRED BY THE LOCAL FIRE ALARM INSPECTIONS INCLUDING ,BUT NOT LIMITED TO SMOKE DETECTORS, PULL STATIONS. INTERFACE RELAYS, CONTROL PANELS, POWER BOOSTER PANELS, STROBE PANELS, ADDITIONAL AMPLIFIERS, SOFTWARE ETC.
17. ALL WORK SHALL BE DONE IN ACCORDANCE WITH CODE ARTICLE 760 (NEC) SECTION 606 OF THE LATEST VERSION OF NEW NEW YORK MECHANICAL CODE AND ALL OTHER APPLICABLE CODES AND REGULATIONS.
18. AFTER COMPLETION OF ALL FIRE ALARM SCOPE AND FULL PRE-TEST WITNESSED BY THE INSTALLING LICENSED ELECTRICAL CONTRACTOR AND FIRE ALARM VENDOR. THE ELECTRICAL CONTRACTOR SHALL FILE FORM A-433 "APPLICATION FOR ELECTRICAL INSPECTION " WITH LOCAL NEWARK BUREAU OF FIRE PREVENTION. ELECTRICAL CONTRACTOR SHALL THEN ACCOMPANY THE FIRE DEPARTMENT INSPECTOR DURING HIS INSPECTION OF THE SYSTEM. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH AHJ FOR PROPER PROCEDURES OF THE INSPECTION PROCESS.
19. ALL WIRING INCLUDING THE GROUNDING TO BE INSTALLED ACCORDANCE WITH THE LATEST VERSION OF THE NEW CITY ELECTRICAL CODE.
20. DO NOT RUN FIRE ALARM CABLE IN THE SAME RACEWAY WITH NON FIRE ALARM CABLE.
21. ALL FIRE ALARM DEVICES SHALL BE FLUSH MOUNTED, UNLESS OTHERWISE NOTED.
22. SPEAKER /STROBE DEVICES SHALL NOT HAVE ANY OTHER DEVICES OR APPARATUS WITHIN FIVE (5) FEET OF DEVICE.
23. AT THE COMPLETION OF WORK, CONTRACTOR SHALL DELIVER A LETTER OF APPROVAL TO OWNER. CONTRACTOR SHALL ALSO PROVIDE COPIES OF APPROVED FIRE ALARM PLANS AND ALL APPLICABLE FORMS TO OWNER.
24. AVOID INSTALLING FIRE ALARM CABLES NEAR SOURCES OF ALTERNATING CURRENT. (LIGHTING, POWER) .ETC.
25. ALL NEW EXPOSED TEFLON WIRING SHALL BE SLEEVED AND SEALED AT ALL FIRE RATED WALL AND FLOOR PASSAGES. SEALANT SHALL BE 3M FIRE BARRIER CP-25.
26. OBSERVE ALL POLARITY ON ALL FIRE ALARM CIRCUITS. NO TEE TAPPING IS PERMITTED ON ALARM INDICATING CIRCUITS.(STROBES, HORNS, ETC)
27. FIRE ALARM RISER DIAGRAM SHOWN IS FOR GENERAL ARRANGEMENT AND SHALL BE USED FOR ESTIMATING ONLY. ELECTRICAL CONTRACTOR SHALL VERIFY EXISTING FIELD CONDITIONS AND OBTAIN POINT TO POINT WIRING DIAGRAM FROM FIRE ALARM VENDOR PRIOR TO INSTALLATION THAT IS CONSISTENCE WITH FDNY REQUIREMENTS.
28. ALL EQUIPMENT SHALL BE UL LISTED,AND SHALL MEET REQUIREMENTS OF NFPA 72 AND 90A, ALL APPLICABLE CODES AND LOCAL LAWS AND BE INSTALLED AND CONNECTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS. ALL FINAL CONNECTIONS TO BE MADE BY THIS CONTRACTOR.
29. FIRE ALARM CABLES SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
    - a. A MINIMUM TEMPERATURE RATING OF 200 DEGREE CELSIUS.
    - b. A MINIMUM AVERAGE INSULATION THICKNESS OF 15 MILS.
    - c. A MINIMUM AVERAGE JACKET THICKNESS OF 25 MILS.
    - d. THE COLOR OF THE CABLE SHALL BE RED.
    - e. THE CABLE SHALL BE TYPE FPLP (PLENUM TYPE)
    - f. THE CABLE SHALL BE VISIBLY MARKED EXTERNALLY "THE ALARM".
    - g. THE CABLE SHALL MEET THE ABOVE REQUIREMENTS AND HAVE UL 1424 AND UL 910 LISTING.
    - h. CABLES SHALL BE APPROVED FOR LOCAL AHJ.
    - i. CABLES SHALL BE INSTALLED IN ACCORDANCE WITH (NEC) NFPA STANDARDS AND ALL OTHER APPLICABLE CODES AND REGULATIONS.
30. THE SYSTEM SHALL BE PRE-TESTED IN THE PRESENCE OF THE OWNER DURING NON BUSINESS HOURS AS PART OF THE CONTRACT. INSTALLER SHALL BE RESPONSIBLE FOR PROVIDING A SYSTEM ACCEPTABLE TO THE OWNER, AND SHALL PROVIDE ANY ADDITIONAL TESTING AND ADJUSTING AT NO ADDITIONAL COST TO THE SATISFACTION TO THE OWNER AFTER SUCCESSFUL COMPLETION OF PRE-TEST, CONTRACTOR SHALL SCHEDULE A FIRE DEPARTMENT INSPECTION.
31. THE OPERATION OF THE FIRE ALARM INSTALLATION DOES NOT CONSTITUTE AN ACCEPTABLE OF THE WORK BY THE OWNER . FINAL ACCEPTANCE IS TO BE MADE AFTER THE CONTRACTOR HAS DEMONSTRATED THAT THE WORK FULFILS THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS AND HAS FURNISHED ALL REQUIRED CERTIFICATES OF APPROVAL FROM THE STATE AUTHORITIES, MUNICIPAL AUTHORITIES AND UNDERWRITERS.
32. HORN/STROBE DEVICES SHALL BE INSTALLED IN ALL COMMON AREAS SO THAT NO SPACE IS MORE THAN 50'-0" FROM A HORN/ STROBE. ADD ADDITIONAL DEVICE IN ORDER TO COMPLY.
33. END OF LINE RESISTOR LOCATIONS SHALL BE PERMANENTLY LABELED ON INSTALLED DEVICE IN FIELD RESISTORS TO BE SHOWN ON AS-BUILT PLANS THROUGHOUT THE FLOORS.
34. AFTER THE SYSTEM MODIFICATIONS ARE COMPLETE, TEST ALL COMPONENTS IN ACCORDANCE WITH SEQUENCE OF OPERATIONS.
35. AFTER ALARM INDICATION ALL FANS SHALL BE MANUALLY RESET INDEPENDENT OF FCS RESET.
36. ALL FIRE ALARM CONTROL PANELS SHALL BE MOUNTED WITHIN 3' FEET CLEARANCE FOR TESTING AND OBSERVATION. TOP OF PANEL SHALL BE AT 6'-6" , ALL EXISTING FIRE ALARM EQUIPMENT NO LONGER USED SHALL BE REMOVED UPON APPROVAL OF THE NEW SYSTEM.
37. ALL FIRE ALARM WORK SHALL BE COORDINATED WITH THE BUILDING FIRE ALARM VENDOR "SAFENET SECURITY" @ 845-501-2323



PARTIAL1ST FLOOR-FIRE ALARM RISER DIAGRAM

NTS

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No.	Description	Date
1	ISSUED FOR BID	11/03/23

SPRING VALLEY VILLAGE

SPRING VALLEY POLICE LOCKER UPGRADES

DRAWING TITLE
FIRE ALARM COVER SHEET

DRAWING NO.
FA-000.00

SEAL & SIGNATURE

ISSUE DATE: 9-27-23
SCALE: NTS
DWG BY: DWN
CHK BY: CHECK

JOB NUMBER
23025-00