

- THE INTENT OF THIS FIRE ALARM PLAN IS TO SHOW GENERAL SYSTEM DEVICE AND EQUIPMENT LOCATIONS. SEE SPECIFICATION 28.3111 FOR ADDITIONAL REQUIREMENTS.
- RACEWAYS AND DEVICE BOX ROUGH-INS SHALL BE PERFORMED IN ACCORDANCE WITH DIVISION 26 SPECIFICATIONS.
- DEVICE BACK BOXES SHALL BE COMPATIBLE WITH DEVICES TO BE INSTALLED AND SHALL COMPLY WITH THE MANUFACTURER'S PUBLISHED REQUIREMENTS. DEVICES IN NEW CONSTRUCTION SHALL BE FLUSH MOUNTED. FOR EXISTING CONSTRUCTION, BOXES AND TRIM FOR SURFACE MOUNTED PULL STATIONS AND NOTIFICATION APPLIANCES SHALL BE SURFACE STYLE FROM THE MANUFACTURER.
- ADJUST FINAL LOCATIONS OF NOTIFICATION APPLIANCES AS REQUIRED TO AVOID CONFLICTS WITH WINDOWS, PROJECTOR SCREENS, MARKER BOARDS, CASEWORK, ECT.
- LABEL HVAC UNITS IN TEXT MESSAGE DISPLAYS PER ACTUAL UNIT LABELS (FIELD VERIFY).
- FIRE ALARM CONDUITS IN EXPOSED CEILING AREAS LOCATED IN FINISHED SPACES SHALL BE PAINTED TO MATCH SURFACE CONDUIT IS ATTACHED TO.
- INDIVIDUAL FPE AND EVS PANEL SYMBOLS SHOWN ON THE PLANS REPRESENT AS MANY FPE PANELS AS ARE NECESSARY AT EACH PANEL LOCATION FOR SYSTEM AVV DEVICES.
- LOCATE SMOKE DETECTORS AT FIRE ALARM PANELS WITHIN 5'-0" OF PANEL.
- EXCEPT FOR CORRIDORS WHERE COMMON AREA DETECTION IS PROVIDED (SEE PLAN KEYNOTES), ALL SMOKE DETECTORS AT SMOKE DOORS SHALL BE LOCATED IN STRICT ACCORDANCE WITH NFPA 72, FIGURE 17.5.6.5 (A) RETAIL. F. CONNECT ALL DOOR HOLDERS THROUGH LOCAL CONTROL MODULE. PROGRAM DOOR RELEASE BASED ON ALARM BY THE SMOKE DETECTORS ON EITHER SIDE OF THE DOORWAY.
- SMOKE DETECTOR LOCATIONS SHALL BE ADJUSTED AS REQUIRED SUCH THAT THEY ARE NOT LOCATED WITHIN 3'-0" OF ANY HVAC SUPPLY OR RETURN AIR GRILLE.
- MOUNT MANUAL PULL STATIONS WITHIN 5'-0" OF EXIT DOORWAYS.
- MOUNT DUCT SMOKE DETECTORS IN RETURN AIR DUCTS. PROVIDE A REMOTE ALARM INDICATOR WITH TEST SWITCH FOR DUCT DETECTORS THAT ARE CONCEALED ABOVE FINISHED CEILINGS. CEILING MOUNT ALARM INDICATORS DIRECTLY BELOW CONCEALED DETECTOR LOCATIONS. EXCEPT IN AREAS WITH CEILING HEIGHTS ABOVE 12', WALL MOUNT TEST STATIONS 5'4" AFF TO TOP OF BOX. PROVIDE STICK-ON LABELS ON ALARM INDICATORS WITH HVAC UNIT DESIGNATIONS. PROVIDE A CONTROL MODULE WITHIN 18" OF EACH HVAC UNITS CONTROLLER, UNLESS OTHERWISE NOTED ON THE PLANS, PROGRAM AIR HANDLER SHUTDOWN FUNCTIONS FOR EACH AIR HANDLER BASED ON ALARM BY ITS RESPECTIVE DUCT DETECTOR(S).
- OUTDOOR NOTIFICATION APPLIANCES UNITS SHALL BE U.L. LISTED AND INSTALLED FOR WEATHERPROOF APPLICATION.
- LOCATE C-MODULES AND M-MODULES WITHIN 18" OF THE EQUIPMENT BEING CONTROLLED OR MONITORED.
- IN AREAS WITH EXPOSED CEILINGS, SMOKE DETECTORS (WHERE SHOWN) SHALL BE MOUNTED ON THE STRUCTURAL CEILING OR JOISTS THAT ARE <10" DEEP. SMOKE DETECTORS SHALL BE MOUNTED ON THE STRUCTURAL CEILING WHERE JOISTS OR BEAMS ARE >10" DEEP.

**FIRE ALARM GENERAL NOTES**

**GENERAL NOTES - ELEVATOR LOBBY COMMUNICATIONS SYSTEM:**

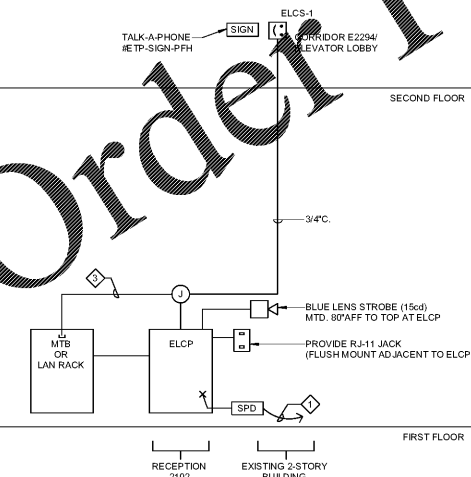
- FURNISH AND INSTALL COMPLETE A 2-WAY ELEVATOR LOBBY COMMUNICATIONS SYSTEM AS NOTED HEREIN. ALL INSTALLATION LABOR, MATERIAL, SOFTWARE AND PROGRAMMING REQUIRED TO PROVIDE A COMPLETE, FULLY FUNCTIONAL SYSTEM INCLUDING OFF-SITE TELEPHONE COMMUNICATIONS FREE FROM INSTALLATION AND OPERATIONAL DEFICIENCIES SHALL BE PROVIDED.
- PROVIDE MAXIMUM PROTECTION WARRANTY AVAILABLE, ON-SITE SYSTEM CHECK-OUT, TESTING, START-UP, AND TRAINING (2-DAY MINIMUM SITE VISIT) BY A FACTORY-TRAINED AND AUTHORIZED REPRESENTATIVE (4 HOURS MINIMUM TRAINING).
- FURNISH, INSTALL, AND WIRE AN ELEVATOR LOBBY COMMUNICATIONS SYSTEM COMMAND CENTER CONTROL PANEL (ELCP) WHERE SHOWN ON THE DRAWINGS. MODEL: TALK-A-PHONE #MOR-8.
- PROVIDE MONITORING/DIAGNOSTIC SOFTWARE PACKAGE. MODEL: TALK-A-PHONE #ETP-TAL.
- FURNISH, INSTALL AND WIRE FLUSH MOUNTED ELCS PHONES WHERE SHOWN ON PLANS. EACH PHONE SHALL INCLUDE AUTO-RECORDING OF MESSAGE FEATURE IDENTIFYING LOCATION OF CALL AND HANDS-FREE ONE-TOUCH CONTROL. PROVIDE FLUSH BACKBOX FROM THE MANUFACTURER. MODEL: TALK-A-PHONE #ETP-110.

**ELEVATOR COMMUNICATIONS RISER GENERAL NOTES:**

- MINIMUM CONDUIT SIZE SHALL BE 3/4".

**ELEVATOR COMMUNICATIONS RISER KEYNOTES:**

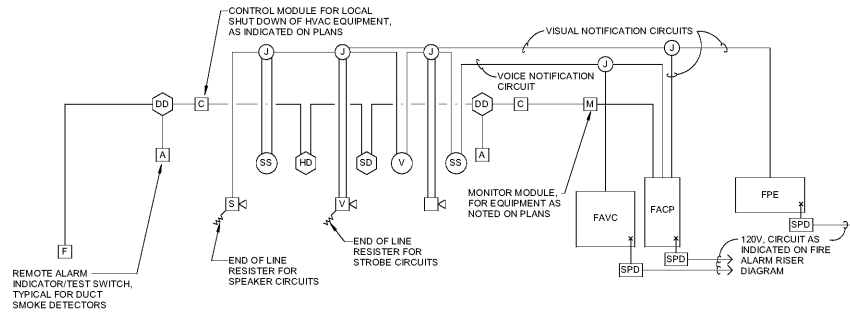
- PROVIDE (1) DEDICATED 20A, 120V CIRCUIT(S) FROM LIFE SAFETY PANELBOARD. SEE POWER DRAWINGS FOR CIRCUIT NO.
- PROVIDE DEDICATED TWISTED/SHIELDED PAIR CABLE PER STATION PER MANUFACTURER'S SPECIFICATIONS. CABLE SHALL BE 2-HOUR FIRE RATED CIRCUIT INTEGRITY (CI) CABLE.
- PROVIDE CAT-6 CABLE IN 3/4" TO OWNER'S MDF (COORDINATE TERMINATION POINT WITH OWNER PRIOR TO ROUGH-IN).



**ELEVATOR LOBBY COMMUNICATIONS RISER DIAGRAM**

**FIELD DEVICE RISER DIAGRAM NOTES:**

- CONDUITS SHALL BE 3/4" MINIMUM OR LARGER AS REQUIRED FOR CABLING OF SYSTEM.
- DUCT DETECTORS SHALL BE FURNISHED AND CONNECTED TO FIRE ALARM SYSTEM BY DIVISION 28. INSTALLATION INTO DUCT WORK SHALL BE BY DIVISION 23.



**FIRE ALARM FIELD DEVICE RISER DIAGRAM**

**ELEVATOR LOBBY COMMUNICATIONS SYMBOL SCHEDULE**

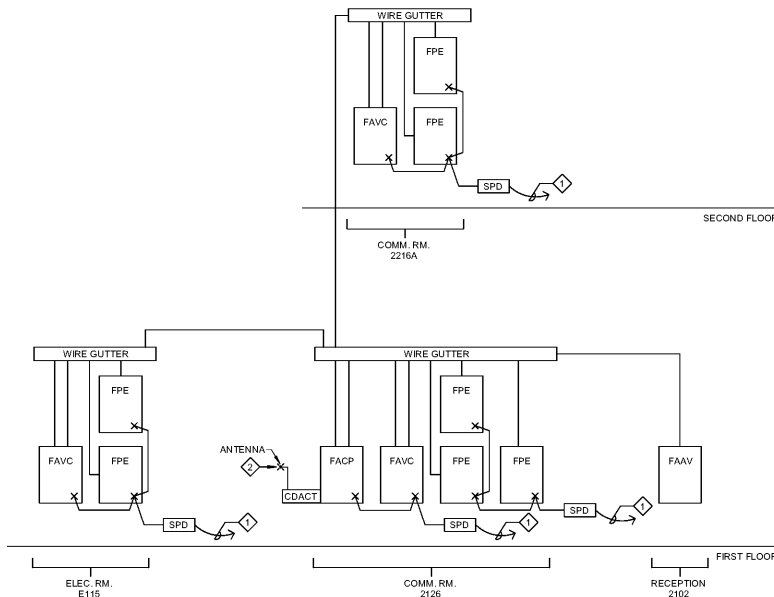
SYMBOL	DESCRIPTION
ELCP	ELEVATOR LOBBY COMMUNICATIONS SYSTEM CONTROL PANEL, 48" AFF TO BOTTOM
ELCS	ELEVATOR LOBBY CALL STATION (VOICE), 48" AFF TO TOP OF BOX

**FIRE ALARM RISER GENERAL NOTES:**

- RISER CONDUIT SHALL BE 1" MINIMUM, LARGER AS INDICATED.
- DEVICE CIRCUIT CONDUIT RUNS SHALL BE 3/4" MINIMUM, LARGER AS REQUIRED.
- PROVIDE QUANTITY AND FACTOR LOADS REQUIRED FOR ACTUAL LOADS.
- FIRE ALARM RISER DIAGRAM IS DIAGRAMMATIC LAYOUT PURPOSES. PROVIDE ALL NECESSARY HARDWARE, CONDUIT, CONDUCTORS, ETC. FOR COMPLETE FIRE ALARM SYSTEM.
- PROVIDE ENGRAVED LABELS AT FIRE ALARM PANELS SERVED WITH 120V POWER WITH THE 120V PANEL CIRCUIT NUMBER, AND THE PANEL ROOM CONTAINING THE 120V PANEL.
- PROVIDE TRANSIENT VOLTAGE SURGE SUPPRESSORS (SPD) PER SPECIFICATIONS.
- FIRE SHALL BE INDIVIDUALLY SUPERVISED FOR TROUBLE CONDITION WITH ADDRESSABLE M-MODULES.
- UNLESS OTHERWISE NOTED, EQUIPMENT AND CONNECTIONS SHOWN ARE AS NOTED.

**FIRE ALARM RISER KEYNOTES:**

- PROVIDE (1) DEDICATED 20A, 120V CIRCUIT FROM LIFE SAFETY PANELBOARD. SEE POWER DRAWINGS FOR CIRCUIT NO.
- REMOTE MOUNT WITH VENDOR-FURNISHED COAX CABLE IN 3/4" AS REQUIRED IF CELLULAR SIGNAL IS INADEQUATE IN COMM. ROOM.



**FIRE ALARM RISER DIAGRAM**

**FIRE ALARM SYMBOL SCHEDULE**

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
FAVC	FIRE ALARM VOICE COMMUNICATIONS PANEL. NOTE 6.
FPE	FIRE ALARM POWER EXTENDER PANEL
FAAV	FIRE ALARM ANNUNCIATOR PANEL (60" AFF TO TOP), FLUSH MOUNTED
RDACT	RADIO DIGITAL ALARM COMMUNICATOR
MS	FIRE ALARM MANUAL PULL STATION, 48" AFF TO TOP OF BOX.
MS100	WALL MOUNTED FIRE ALARM SPEAKER/STROBE, 96" AFF TO TOP OF BOX. SUBSCRIPT INDICATES STROBE CANDELA RATING. NOTES 1 & 2.
MS100	WALL MOUNTED FIRE ALARM STROBE, 96" AFF TO TOP OF BOX. SUBSCRIPT INDICATES CANDELA RATING. NOTE 1.
MS100	WALL MOUNTED FIRE ALARM SPEAKER, 96" AFF TO TOP OF BOX. NOTE 2.
MS100	WALL MOUNTED HIGH OUTPUT FIRE ALARM SPEAKER, 96" AFF TO TOP OF BOX. NOTE 2.
MS100	WALL MOUNTED FIRE ALARM HORN/STROBE, 96" AFF TO TOP OF BOX. SUBSCRIPT INDICATES CANDELA RATING. NOTE 7.
MS100	CEILING MOUNTED SPEAKER. NOTE 2.
MS100	CEILING MOUNTED SPEAKER/STROBE. SUBSCRIPT INDICATES STROBE CANDELA RATING. NOTES 1 & 2.
MS100	CEILING MOUNTED STROBE. SUBSCRIPT INDICATES STROBE RATING. NOTE 1.
MS100	SMOKE DETECTOR. NOTE 4.
MS100	HEAT DETECTOR.
MS100	DUCT DETECTOR.
MS100	SMOKE DETECTOR REMOTE TEST SWITCH/ALARM INDICATOR.
MS100	MAGNETIC SMOKE DETECTOR HOLD OPEN DEVICE
MS100	ADDRESSABLE CONTROL MODULE
MS100	ADDRESSABLE MONITORING MODULE
MS100	AMPLIFIER SWITCH. PROVIDE (1) MONITORING MODULE PER SWITCH
MS100	FLOW SWITCH. PROVIDE (1) MONITORING MODULE PER SWITCH
MS100	PRESSURE SWITCH. PROVIDE (1) MONITORING MODULE PER SWITCH
MS100	PIV
MS100	POST INDICATOR VALVE
MS100	SPD
MS100	SURGE PROTECTIVE DEVICE
MS100	FPC
MS100	FIRE PUMP CONTROLLER
MS100	UON
MS100	UNLESS OTHERWISE NOTED
MS100	AFF
MS100	ABOVE FINISHED FLOOR
MS100	BFC
MS100	BELOW FINISHED FLOOR
MS100	WP
MS100	WEATHERPROOF DEVICE (PER U.L.)
MS100	KEYNOTE LABEL
MS100	JUNCTION BOX
MS100	METAL RACEWAY. CONDUIT OR WIREMOLD AS REQUIRED PER PLANS AND SPECIFICATIONS
MS100	RACEWAY TURN UP
MS100	RACEWAY TURN DOWN
MS100	120V BRANCH CIRCUIT HOME RUN. TIC MARKS INDICATE NUMBER OF CONDUCTORS.

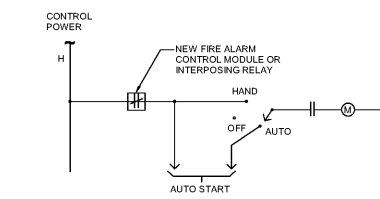
**SYMBOL SCHEDULE NOTES:**

- ALL STROBES SHALL BE 15cd WHERE NO CANDELA RATING SUBSCRIPT IS SHOWN.
- REFER TO ACOUSTICALLY DISTINGUISHABLE SPACES TABLE FOR SPEAKER TAP SETTINGS.
- LOCATE SMOKE DETECTOR AT FACP PANEL, FPE PANELS, AND FAVC PANELS WITHIN 5'-0" OF EQUIPMENT.
- PROVIDE REMOTE ALARM INDICATOR ONLY (NO TEST SWITCH) FOR ALL CONCEALED SPOT TYPE SMOKE DETECTORS.
- PROVIDE VANDAL GAUDES, OVER ALL PULL STATIONS.
- REMOTE AMPLIFIER PANEL WITH 8-BUS AUDIO CONTROLS.
- DEDICATED HORN/STROBE FOR SPRINKLER SYSTEM (CONTINUOUS TONE - NOT TEMPORAL).

**ACOUSTICALLY DISTINGUISHABLE SPACES**

AREA	VOICE INTELLIGIBILITY REQUIRED	SPEAKER TAPS (W)
SPACES WITH NO SPEAKER	NO	N/A
MULTI-OCCUPANCY ADMINISTRATION AREAS	YES	1/2
INDIVIDUAL OFFICES	YES	1/4
SINGLE OCCUPANCY TOILETS	YES	1/4
MULTI-USE TOILETS	YES	1
INSTRUCTIONAL ROOMS, MEDIA CENTER	YES	1
COMMON AREAS, CORRIDORS, LOBBIES	YES	1
ELECTRICAL ROOMS	YES	1/2W UNLESS OTHERWISE NOTED ON PLANS
MUSIC ROOMS, GYM, CAFETERIA, & MULTI-PURPOSE ROOMS	YES	2
KITCHEN	YES	1
STORAGE ROOMS & JANITOR CLOSETS	YES	1/4
MEDIA CENTER	YES	1
MECHANICAL ROOMS	YES	2
EXTERIOR LOCATIONS	YES	2

NOTES:  
\* YES ONLY WHEN OCCUPANTS HAVE CEASED FROM NORMAL ACTIVITIES TO GIVE ATTENTION TO VOICE EVACUATION MESSAGE.



**TYPICAL AIR HANDLER SHUT DOWN CONTROL SCHEMATIC**



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FIRE ALARM SCHEDULE AND DETAILS  
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