


FIRE ALARM RISER DIAGRAM  
N.T.S.

SYSTEM INPUTS	SYSTEM OUTPUTS																
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1 MANUAL FIRE ALARM BOXES	•	•															
2 SMOKE DETECTORS	•	•															
3 ELEVATOR LOBBY SMOKE DETECTORS	•	•															
4 DUCT SMOKE DETECTORS	•	•															
5 HEAT DETECTORS	•	•															
6 WATERFLOW	•	•															
7 SPRINKLER CONTROL VALVE	•	•															
8 GENERATOR RUNNING																	
9 FIRE ALARM AC POWER FAILURE																	
10 FIRE ALARM SYSTEM LOW BATTERY																	
11 OPEN CIRCUIT																	
12 GROUND FAULT																	
13 NOTIFICATION APPLIANCE CIRCUIT SHORT																	
14 SUPERVISORY																	
15 TROUBLE																	

- NOTES:
- ALL EVENTS SHALL BE RECORDED AT THE FIRE ALARM CONTROL PANEL AND SHALL INDICATE TIME AND DATE OF OCCURRENCE AND LIST DEVICE INITIATED.
  - TROUBLE AND SUPERVISORY SIGNALS SHALL BE MONITORED IN ACCORDANCE WITH 780 CMR 903.4.1.

- NOTES:
- PROVIDE RECESSED KEY BOX. ELECTRICAL CONTRACTOR SHALL PURCHASE THROUGH LOCAL FIRE DEPARTMENT.
  - ELECTRICAL CONTRACTOR SHALL PROVIDE CIRCUIT BREAKER HANDLE-LOCK ON POWER CIRCUITS. HANDLE LOCK SHALL ALLOW THE CIRCUIT BREAKER TO TRIP, BUT PREVENT SWITCHING OF THE CIRCUIT BREAKER TO THE "OFF" POSITION.
  - PROVIDE SMOKE DETECTOR IN VICINITY OF FIRE ALARM CONTROL PANEL, REMOTE ANNUNCIATOR, AND ALL FIRE ALARM TERMINAL BOXES. SMOKE DETECTORS IN ELEVATOR LOBBY SHALL BE PROGRAMMED AND/OR PROVIDED WITH ELEVATOR RECALL CAPABILITY.
  - MINIMUM SIZE CONDUIT SHALL BE 3/4" UNLESS NOTED OTHERWISE.
  - ALL SYSTEM WIRING SHALL BE INSTALLED IN CONDUIT OR (FIRE ALARM RATED FPLR FLEXIBLE METALLIC CABLE TYPE MC CABLE WHERE CONCEALED) AND IN ACCORDANCE WITH EQUIPMENT SUPPLIER'S APPROVED SHOP DRAWINGS AND WIRING DIAGRAMS.
  - RISER DIAGRAM DOES NOT SHOW ENTIRE SYSTEM. REFER TO FLOOR PLANS FOR EXACT QUANTITIES AND LOCATIONS OF ALL SYSTEM DEVICES.
  - TO AUXILIARY CONTACTS IN RESPECTIVE AIR-HANDLING UNIT STARTER FOR UNIT SHUTDOWN ON ALARM.
  - PROVIDE SURFACE 24 VOLT DC CARBON MONOXIDE ALARM DETECTOR.
  - PROVIDE 120VOLT POWER AND CONTROL MODULE FOR CONTROL OF SMOKE DAMPER AT TOP OF ELEVATOR SHAFT. DAMPER SHALL BE PROGRAMMED TO OPEN UPON ACTIVATION OF SMOKE DETECTOR AT ELEVATOR MACHINE ROOM, OR AS DIRECTED. PROVIDE CONTROL WIRING FROM DAMPER MOTOR TO FATB.
  - PROVIDE REMOTE ALARM INDICATOR OVER DOOR OF EACH LOCKED ROOM THAT CONTAINS A SMOKE OR HEAT DETECTOR WHETHER OR NOT SHOWN ON THE FLOOR PLANS: SUCH AS, ELEVATOR MACHINE ROOMS, ELECTRIC ROOMS, MECHANICAL ROOMS, IT ROOMS, ETC.
  - ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUCTORS FOR THE FOLLOWING FIRE ALARM CONTROL PANEL CONTACTS: PUMP RUNNING, PHASE REVERSAL, PHASE FAILURE, ALARM SIGNAL AND TROUBLE SIGNAL.
  - ELECTRICAL CONTRACTOR SHALL PROVIDE 120VOLT POWER AND CONTROL WIRING TO ALL SMOKE/FIRE DAMPERS. REFER TO ELECTRICAL DRAWINGS FOR POWER WIRING REQUIREMENTS. "1" NEXT TO SMOKE/FIRE DAMPER INDICATES SMOKE ZONE. PROVIDE A MONITOR MODULE, CONTROL MODULE AND RELAY MODULE FOR EACH GROUP OF SMOKE/FIRE DAMPERS. FACP SHALL BE PROVIDED WITH FIRE DEPARTMENT CONTROLS TO ACTIVATE SMOKE DAMPERS BY ZONE. REFER TO ELECTRICAL DRAWINGS FOR QUANTITY OF SMOKE DAMPERS, AND SMOKE ZONES.
  - PROVIDE A 20AMP, 120VOLT, 1 PHASE SURGE PROTECTOR EQUAL TO MCG SURGE PROTECTION MODEL NO. 415. SURGE PROTECTOR SHALL BE INSTALLED BETWEEN THE CIRCUIT BREAKER IN THE PANEL AND THE FIRE ALARM PANEL, AND IN ACCORDANCE WITH MANUFACTURER'S WIRING RECOMMENDATIONS.



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**Mixed Use Development**

York & High Street  
Portland, Maine

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REVISION:

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ISSUED:  
11.23.16 - Issue for Permit

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project architect: ---  
drawn by: CMF

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**ELECTRICAL  
FIRE ALARM  
RISER DIAGRAM**

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sheet number:  
**E0.03**