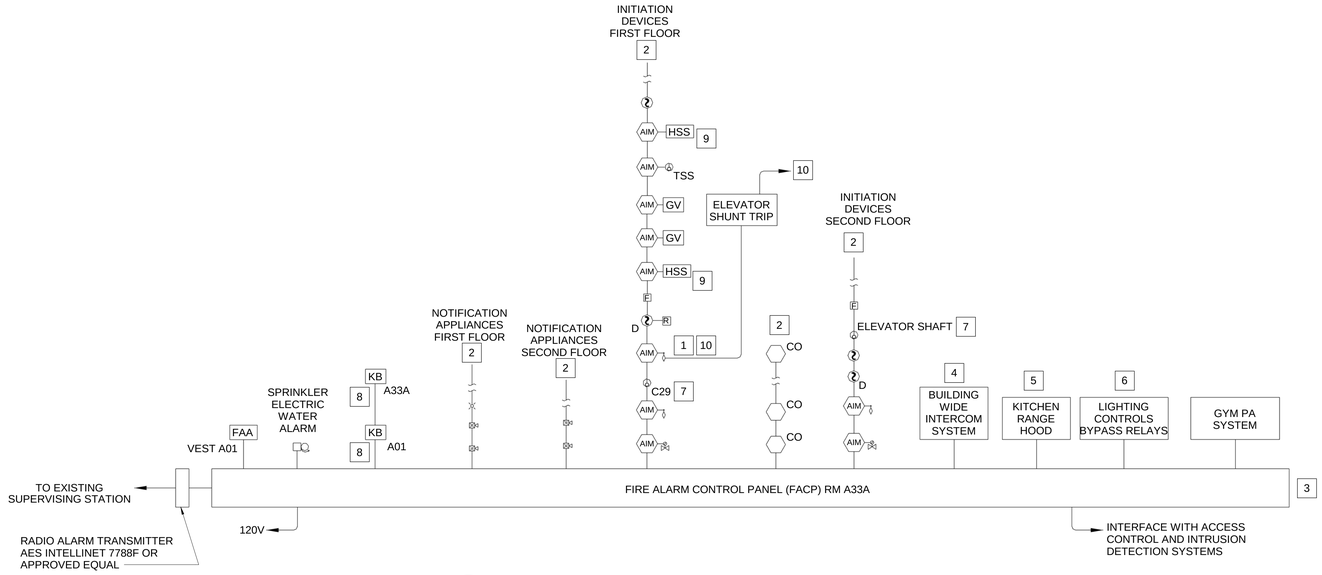

1 CONSOLIDATED FIRE ALARM RISER DIAGRAM
FA501 SCALE: NOT TO SCALE

DRAWING NOTES

1. REFER TO SHEET E-001 FOR SYMBOLS, GENERAL NOTES AND ABBREVIATIONS.
2. INITIATING CIRCUITS AND NOTIFICATION CIRCUITS SHALL NOT BE LOADED MORE THAN 75% OF THEIR RATED CAPACITY. THE FIRE ALARM SYSTEM INSTALLING CONTRACTOR SHALL VERIFY COMPLIANCE WITH THIS REQUIREMENT AND SHALL FURNISH AND INSTALL ADDITIONAL CIRCUITS AND EXTENDER PANELS TO COMPLY. EACH EXTENDER PANEL SHALL HAVE A SMOKE DETECTOR PROVIDED AT THE CEILING ABOVE THE PANEL. EXTENDER PANELS SHALL BE LOCATED IN UTILITY ROOMS.
3. FIRE ALARM RISER DIAGRAM IS SHOWN FOR REFERENCE ONLY. DEVICE LOCATIONS AND QUANTITIES SHALL BE AS SHOWN ON THE SHOP DRAWINGS. ADDITIONAL DEVICES BEYOND THOSE SHOWN SHALL BE PROVIDED AT NO ADDITIONAL COST TO MEET THE REQUIREMENTS OF NFPA 101, NFPA 13, NFPA 72, AND CITY OF PORTLAND FIRE DEPARTMENT RULES AND REGULATIONS.

DRAWING KEYNOTES

1. PROVIDE WATERFLOW SWITCH WITH DUAL CONTACTS. ONE FOR SHUNT TRIPPING OF ELEVATOR AND THE OTHER TO INTERFACE WITH THE FIRE ALARM CONTROL PANEL. THE WATERFLOW SWITCH SHALL BE WITHOUT TIME DELAY.
2. PROVIDE NUMBER OF CIRCUITS REQUIRED FOR THE LOAD.
3. PROVIDE QUANTITY OF DEVICES AND CIRCUITS SHOWN ON SHOP DRAWINGS.
4. PROGRAM ADDRESSABLE INTERFACE DEVICE AND PROGRAMMING FOR CONTROL OF PA SYSTEMS.
5. PROVIDE ADDRESSABLE INTERFACE DEVICE AND PROGRAMMING FOR INTERCONNECTION WITH KITCHEN RANGE HOOD SUPPRESSION SYSTEM.
6. PROVIDE ADDRESSABLE INTERFACE DEVICE AND PROGRAMMING FOR CONTROL OF LIGHTING CONTROLS BYPASS RELAY.
7. FOR ELEVATOR SHUTDOWN PER ASME A17.1-2013.
8. PROVIDE TAMPER ALARM FOR KNOX BOX.
9. CONNECT TO SHUNT TRIP BREAKER IN PANELBOARD K1.
10. MONITOR SHUNT TRIP VOLTAGE SUPPLY.

SYSTEM OUTPUTS

	SYSTEM INPUTS	A: TRANSMIT ALARM SIGNAL TO SUPERVISING STATION	B: TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION	C: TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION	D: ACTUATE ALARM SIGNAL AUDIO & VISUAL INDICATOR ON FACP	E: ACTUATE SUPERVISORY SIGNAL AUDIO & VISUAL INDICATOR ON FACP	F: ACTUATE TROUBLE SIGNAL AUDIO & VISUAL INDICATOR ON FACP	G: ACTUATE SPEAKERS AND STROBES	H: SHUT DOWN MECHANICAL EQUIPMENT	I: PLAY SELECTED PRE-RECORDED MESSAGE	J: OVERRIDE ACTIVE FIRE ALARM OUTPUT	K: RELEASE DOORS HELD OPEN ON MAGNETIC DOOR HOLD OPENS	L: ACTIVATE ELEVATOR RECALL	M: OVERRIDE PA SYSTEM(S)	N: BYPASS OCCUPANCY LIGHTING CONTROLS ALONG PATHS OF EGRESS	O: OPEN POWER SUPPLY TO ELEVATOR SHUNT TRIP	
1	MANUAL PULL STATIONS	●			●			●		●		●		●	●		1
2	AREA SMOKE DETECTORS	●			●			●		●		●		●	●		2
3	DUCT SMOKE DETECTORS		●			●			●								3
4	AIM - SPRINKLER WATERFLOW	●			●			●		●		●		●	●		4
5	AIM - SPRINKLER WATERFLOW ELEVATOR	●			●			●		●		●		●	●	●	5
6	AIM - SPRINKLER CONTROL VALVES		●			●											6
7	AIM - TEMPERATURE SUPERVISORY SWITCH		●			●											7
8	MANUAL ACTIVATION OF EVACUATE MESSAGE		●			●		●	●	●	●						8
9	CARBON MONOXIDE DETECTORS	●			●			●		●				●	●		9
10	LIVE MESSAGE AT FACP PANEL		●			●		●			●						10
11	FIRE ALARM AC POWER FAILURE			●			●										11
12	FIRE ALARM SYSTEM LOW BATTERY			●			●										12
13	FIRE ALARM OPEN CIRCUIT			●			●										13
14	FIRE ALARM GROUND FAULT			●			●										14
15	NOTIFICATION APPLIANCE CIRCUIT SHORT			●			●										15
16	HEAT DETECTOR ELEVATOR MACHINE ROOM AND TOP OF SHAFT	●			●			●		●		●		●	●	●	16
17	AMPLIFIER TROUBLE			●			●										17
18	AIM KITCHEN RANGE HOOD ACTIVATION	●			●			●							●	●	18
19	AIM-VOLTAGE MONITOR RELAY			●			●										19
20	ELEVATOR LOBBY SMOKE DETECTORS	●			●			●		●		●	●	●	●		20
21	AIM DOOR RELEASE SMOKE DETECTORS	●			●			●		●		●		●	●		21
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	

2 INPUT/OUTPUT MATRIX
FA501 SCALE: NOT TO SCALE

NO.	DATE	DESCRIPTION	BY
		REVISIONS	

DRAWN BY: BPD
CHECK BY: DCL
NO.
DATE 03/17/17

DALE C. LINCOLN, II No. 10443 LICENSED PROFESSIONAL ENGINEER STATE OF MAINE
7-17-17

STATE OF MAINE
PUBLIC SCHOOL PROJECT

TITLE: PORTLAND PUBLIC SCHOOLS
NEW FRED P. HALL ELEMENTARY SCHOOL

LOCATION: 23 ORONO ROAD, PORTLAND, ME

TITLE THIS DWG.
FIRE ALARM RISER DIAGRAM AND MATRIX

OAK POINT ASSOCIATES
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DRAWING NO. FA501
SHEET NO. 312 OF 312

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