



Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
11/19/2019

Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System

22 Bramhall Street
Portland, ME 04102
Project No. USB-017267

Honeywell

BUILDING SOLUTIONS

HONEYWELL OFFICE

Honeywell, Inc.
207 Larrabee Road Westbrook, Maine, 04092-5108
TEL: 207-854-0013 FAX: 207-854-0527

CONTRACT NUMBER: USB-017267
SALES: Robert Pennabere
PROJECT MANAGEMENT: Brice LeBlanc
COMMISSIONING: Eric Schrowang
DESIGN: James Hodson
DRAFTING: James Hodson

SYSTEMS PROVIDED

XLS140-2 Fire Alarm System

PROJECT DESIGN

Perkins + Will
225 Franklin Street, Suite 1100
Boston, ME 02110

TEL: 617-478-0300 FAX: 617-478-0321

DESIGN CONSULTANT

AKF Group LLC
99 Bedford Street, 2nd Floor
Boston, ME 02111

TEL: 617-737-1111 FAX:

CONTRACTOR

ES Boulos Co.
45 Bradley Drive
Westbrook, ME 04092

TEL: 207-464-3706 FAX: 207-464-1833

HONEYWELL DRAWING INDEX

DRAWING NO.	DRAWING TITLE	REVISION	DATE	DRAWING NO.	DRAWING TITLE	REVISION	DATE
USB-017267-FA0.1	Title Sheet & Drawing Index	B	Jun 27/19	USB-017267-FA6.1	Ground Floor Fire Alarm Panel Wiring Diagram	A	Jan 23/19
USB-017267-FA0.2	General Notes	A	Jan 23/19	USB-017267-FA6.2	Graphics Panel Wiring & Fire Alarm Annunciator	A	Jan 23/19
USB-017267-FA0.3	Device Legend & Cable Guide	B	Jun 27/19	USB-017267-FA6.3	6th Floor Fire Alarm Panel Wiring Diagram	B	Jun 27/19
USB-017267-FA0.4	Bill of Material	B	Jun 27/19	USB-017267-FA6.4	7th Floor Fire Alarm Panel Wiring Diagram	B	Jun 27/19
USB-017267-FA1.1	Typical Field Device Installation Guide	A	Jan 23/19	USB-017267-FA6.5	Penthouse Fire Alarm Panel Wiring Diagram	B	Jun 27/19
USB-017267-FA2.1	Field Device Wiring Sheet 1 of 3	A	Jan 23/19	USB-017267-FA6.6	Booster Power Supply Wiring Diagram	A	Jan 23/19
USB-017267-FA2.2	Field Device Wiring Sheet 2 of 3	A	Jan 23/19	USB-017267-FA7.1	Fire Alarm Layout Plan Fifth Floor - Sector 1	B	Jun 27/19
USB-017267-FA2.3	Field Device Wiring Sheet 3 of 3	A	Jan 23/19	USB-017267-FA7.2	Fire Alarm Layout Plan Fifth Floor - Sector 2	B	Jun 27/19
USB-017267-FA3.1	Fire Alarm System High Level Riser	B	Jun 27/19	USB-017267-FA7.3	Fire Alarm Layout Plan Sixth Floor - Sector 1	B	Jun 27/19
USB-017267-FA4.1	SLC Riser Diagram Sheet 1 of 5	B	Jun 27/19	USB-017267-FA7.4	Fire Alarm Layout Plan Sixth Floor - Sector 2	B	Jun 27/19
USB-017267-FA4.2	SLC Riser Diagram Sheet 2 of 5	B	Jun 27/19	USB-017267-FA7.5	Fire Alarm Layout Plan Seventh Floor - Sector 1	B	Jun 27/19
USB-017267-FA4.3	SLC Riser Diagram Sheet 3 of 5	B	Jun 27/19	USB-017267-FA7.6	Fire Alarm Layout Plan Seventh Floor - Sector 2	B	Jun 27/19
USB-017267-FA4.4	SLC Riser Diagram Sheet 4 of 5	B	Jun 27/19	USB-017267-FA7.7	Fire Alarm Layout Plan Roof - Sector 1	B	Jun 27/19
USB-017267-FA4.5	SLC Riser Diagram Sheet 5 of 5	B	Jun 27/19	USB-017267-FA7.8	Fire Alarm Layout Plan Roof - Sector 2	B	Jun 27/19
USB-017267-FA4.6	Strobe Riser Diagram Sheet 1 of 5	B	Jun 27/19	USB-017267-FA7.9	Fire Alarm Layout Plans Penthouse & Fire Command Center	B	Jun 27/19
USB-017267-FA4.7	Strobe Riser Diagram Sheet 2 of 5	B	Jun 27/19	USB-017267-FA8.1	Battery Calculation Sheet 1 of 2	B	Jun 27/19
USB-017267-FA4.8	Strobe Riser Diagram Sheet 3 of 5	B	Jun 27/19	USB-017267-FA8.2	Battery Calculation Sheet 2 of 2	B	Jun 27/19
USB-017267-FA4.9	Strobe Riser Diagram Sheet 4 of 5	B	Jun 27/19	USB-017267-FA8.3	Line loss Calculation Sheet 1 of 5	B	Jun 27/19
USB-017267-FA4.10	Strobe Riser Diagram Sheet 5 of 5	B	Jun 27/19	USB-017267-FA8.4	Line loss Calculation Sheet 2 of 5	B	Jun 27/19
USB-017267-FA4.11	Speaker Riser Diagram Sheet 1 of 3	B	Jun 27/19	USB-017267-FA8.5	Line loss Calculation Sheet 3 of 5	B	Jun 27/19
USB-017267-FA4.12	Speaker Riser Diagram Sheet 2 of 3	B	Jun 27/19	USB-017267-FA8.6	Line loss Calculation Sheet 4 of 5	B	Jun 27/19
USB-017267-FA4.13	Speaker Riser Diagram Sheet 3 of 3	B	Jun 27/19	USB-017267-FA8.7	Line loss Calculation Sheet 5 of 5	B	Jun 27/19
USB-017267-FA5.1	Panel Elevation Ground Floor Panels	A	Jan 23/19	USB-017267-FA9.1	Sequence of Operations	A	Jan 23/19
USB-017267-FA5.2	Panel Elevation 6th Floor Panels	B	Jun 27/19				
USB-017267-FA5.3	Panel Elevation 7th & Penthouse Floor Panels	B	Jun 27/19				

REV F		BY	QC	Title Sheet & Drawing Index
REV E		BY	QC	
REV D		BY	QC	Honeywell ExpertISE ©
REV C		BY	QC	
REV B	Re-issued For Review	BY	QC	207 Larrabee Road Westbrook, Maine, 04092-5108 Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
Jun 27/19		JH	FX	
REV A	Issued For Review	BY	QC	22 Bramhall Street Portland, ME 04102
Jan 23/19		JH	MLD	
				DRAWING NUMBER USB-017267-FA0.1
				REV B



GENERAL NOTES

1. ALL WIRING AND INSTALLATION MUST CONFORM WITH PROJECT SPECIFICATIONS, APPLICABLE CODE SUMMARIES AND REQUIREMENTS ADOPTED BY THE CITY.
2. SMOKE DETECTORS SHOULD NOT BE LOCATED IN DIRECT AIRFLOW, NOR CLOSER THAN 3 FEET (1 m) FROM AN AIR SUPPLY DIFFUSER OR RETURN AIR OPENING PER NFPA 72 (CHAPTER A.5.7.4.1) 2007 EDITION.
3. ALL SMOKE DETECTORS AND INITIATING DEVICES SHALL BE INSTALLED MINIMUM 3 FEET AWAY FROM ELECTRONIC BALLASTS (LIGHTING FIXTURES).
4. WHEN INSTALLING FIRE ALARM DEVICES, TERMINAL POLARITY MUST BE OBSERVED.
5. ALL NOTIFICATION CIRCUIT WIRES MUST BE SUPERVISED. HENCE, NO PARALLEL BRANCHING OF WIRES IS PERMISSIBLE (T-TAPPING). ALL AUDIBLE SIGNALING DEVICES SHALL PRODUCE A DISTINCTIVE THREE-PULSE TEMPORAL PATTERN.
6. DO NOT INSTALL ADDRESSABLE DEVICES PRIOR TO COORDINATION WITH A HONEYWELL INSTALLATION REPRESENTATIVE.
7. ALL 24 VDC WIRE TO BE INSTALLED IN DEDICATED WIRE RUNS SEPARATE FROM 120 VAC WIRING, IN ACCORDANCE WITH THE CURRENT NATIONAL AND STATE ELECTRICAL CODES.
8. CONDUIT (WHERE REQUIRED) SIZING TO BE DETERMINED BY THE ELECTRICAL CONTRACTOR AND SHALL CONFORM TO CONDUIT FILL CAPACITIES AS PER REQUIREMENTS OF CURRENT EDITIONS OF NATIONAL ELECTRICAL CODES.
9. DO NOT APPLY 120 VAC POWER TO CONTROL PANEL UNTIL A HONEYWELL SERVICE TECHNICIAN HAS INSPECTED ALL SYSTEM WIRING CONNECTIONS AND HAS APPROVED THE SYSTEM TO BE TURNED ON.
10. PLUG-IN TYPE DETECTORS REQUIRE A 4" SQUARE X 1-1/2" DEEP ELECTRICAL BOX OR A 3" OR 4" OCTAGONAL X 1-1/2" DEEP ELECTRICAL BOX. REFER TO DETAIL DRAWINGS FOR DEVICE WIRING & MOUNTING CONDITIONS.
11. 120 VAC INPUT CONNECTIONS TO THE FIRE ALARM CONTROL PANEL SHALL BE ON DEDICATED BRANCH CIRCUIT(S). THE CIRCUIT(S) AND CONNECTIONS SHALL BE MECHANICALLY PROTECTED. CIRCUIT DISCONNECTION SHALL HAVE A RED MARKING & SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. LOCATION OF THE CIRCUIT DISCONNECTION BREAKER SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.
12. INSTALLATION MATERIALS SUCH AS CONDUIT, FITTINGS, JUNCTION BOXES, TERMINAL CABINETS, PULL BOXES, HANGERS, ETC. TO BE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL WIRING IS TO BE FROM DEVICE TERMINAL TO DEVICE TERMINAL. SPLICES AND WIRE NUTS ARE NOT ACCEPTABLE.
13. ANY DEVIATION FROM THE DESIGN AND LOCATION OF EQUIPMENT SHOWN MUST FIRST HAVE A WRITTEN APPROVAL FROM HONEYWELL. ANY DEVIATION FROM DESIGN MUST ALSO BE INDICATED ON THE HONEYWELL SHOP DRAWINGS AND RETURNED TO HONEYWELL AT TIME OF JOB COMPLETION.
14. ALL SMOKE DETECTORS SHALL BE PROTECTED FROM DUST AND DEBRIS DURING CONSTRUCTION. SMOKE SENSING DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER THE CONSTRUCTION CLEANUP OF ALL TRADES IS COMPLETE PER NFPA 72 (CHAPTER 5.7.1.11) 2007 EDITION.
EXCEPTION: WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION FOR PROTECTION DURING CONSTRUCTION. DETECTORS THAT HAVE BEEN INSTALLED DURING CONSTRUCTION AND FOUND TO HAVE A SENSITIVITY OUTSIDE THE LISTED AND MARKED SENSITIVITY RANGE SHALL BE CLEANED OR REPLACED AT AN ADDITIONAL COST TO THE CONTRACTOR.
15. ALL FIRE ALARM WIRING SHOULD BE RUN IN CONDUIT.

XLS - F.A. SYSTEM WIRING GUIDELINES

1. ALL WIRING MUST COMPLY WITH LOCAL AND CURRENT EDITION OF THE ELECTRICAL CODE. ALL WIRING MUST BE DONE AS DESCRIBED NOTES 2 & 6 BELOW, TO OBTAIN SAFE AND PROPER SYSTEM OPERATION.
2. CONNECT EARTH GROUND TO THE ENCLOSURES PROPERLY; SEE LATEST EDITION OF NATIONAL ELECTRICAL CODES FOR APPROVED METHODS. CONDUIT GROUND IS NOT ADEQUATE.
3. SEPARATE ALL WIRING FOR INITIATING AND INDICATING DEVICES (SLC & NAC CIRCUITS) FROM ALL OTHER WIRING IN THE ENCLOSURES.
4. (WHERE USED) INSULATE ALL CABLE DRAIN WIRES FROM ANY CONDUIT OR OTHER EARTH GROUNDED ELECTRICAL BOX.
5. (WHERE USED) CONNECT SHIELD CABLE WIRE ONLY AT SPECIFIED LOCATION INSIDE OF ENCLOSURE (IF APPLICABLE).
6. EARTH GROUND ALL CONDUIT RUNS THROUGHOUT THE INSTALLATION.
7. ALL 110/120 VAC CIRCUITS TO BE INSTALLED IN DEDICATED CONDUIT.
8. ALL INITIATING CIRCUITS ARE RATED POWER LIMITED AND SHOULD BE WIRED IN ACCORDANCE WITH APPLICABLE CODES.
9. UNDERGROUND WIRING IS PERMISSIBLE ONLY IF ALL NEC WIRING REQUIREMENTS ARE MET.
10. OVERHEAD OR EXTERIOR WIRING IS NOT RECOMMENDED.

WIRING REQUIREMENTS

WIRING IS TO BE INSTALLED POINT-TO-POINT WITH NO SPLICING.

PLENUM CABLE VS. NON-PLENUM

THE NEC RECOGNIZES 3 TYPES OF POWER LIMITED FIRE ALARM CABLING:

FPL – THIS IS A GENERAL USE POWER LIMITED FIRE ALARM CABLE. IT CANNOT BE USED IN A PLENUM SPACE OR FOR RISERS (CABLING BETWEEN FLOORS). CABLE MUST BE IN CONDUIT.

FPLR – THIS IS A POWER LIMITED RISER RATED CABLE THAT CAN BE USED FOR GENERAL PURPOSES OR BETWEEN FLOORS. IT CANNOT BE USED IN A PLENUM SPACE, CABLE MUST BE IN CONDUIT.

FPLP – THIS IS A POWER LIMITED CABLE THAT CAN BE USED IN A PLENUM, RISER OR FOR GENERAL PURPOSE.

A PLENUM IS ANY AREA USED TO CONDUCT ENVIRONMENTAL AIR. PLENUM SPACES CAN BE DUCTWORK, THE SPACE ABOVE A DROP CEILING OR BELOW A RAISED FLOOR. BECAUSE THESE SPACES ARE BEING USED FOR THE AIR HANDLING SYSTEM, THERE ARE STRICT RULES THAT MUST BE FOLLOWED TO REDUCE THE RISK OF INTRODUCING TOXIC FUMES IN THE EVENT OF A FIRE. SINCE FIRE ALARM CABLING IS OFTEN INSTALLED EXPOSED, WITHOUT CONDUIT, ABOVE DROP CEILINGS, THE CABLING MUST BE RATED FOR USE IN A PLENUM SPACE.

REV F		BY	General Notes
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B		BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
REV A	Issued For Review	BY JH	22 Bramhall Street Portland, ME 04102
			DRAWING NUMBER USB-017267-FA0.2
			REV A

FIRE ALARM SYSTEM SYMBOL LEGEND		
SYMBOL	DESCRIPTION	NOTES
	FIRE ALARM CONTROL PANEL	'X' DENOTES PANEL NUMBER
	FIRE ALARM GRAPHIC ANNUNCIATOR	'X' DENOTES GRAPHIC ANNUNCIATOR NUMBER
	FIRE ALARM REMOTE ANNUNCIATOR	'X' DENOTES ANNUNCIATOR NUMBER
	FIRE ALARM TERMINAL CABINET (BY OTHERS)	'X' DENOTES PANEL NUMBER
	BOOSTER POWER SUPPLY	'X' DENOTES POWER SUPPLY NUMBER
	MANUAL PULL STATION	-
	SMOKE DETECTOR, PHOTOELECTRIC	-
	SMOKE DETECTOR FOR DUCT	-
	REMOTE ALARM INDICATING AND TEST SWITCH	-
	REMOTE ALARM INDICATING LED	-
	MONITOR MODULE	-
	DUAL MONITOR MODULE	-
	TEN-INPUT MONITOR MODULE	-
	RELAY CONTROL MODULE	-
	SUPERVISED CONTROL MODULE	-
	FIREFIGHTER TELEPHONE CONTROL MODULE	-
	FIRE / EMERGENCY TELEPHONE STATION, 'H' FOR HANDSET	-
	FIRE SMOKE DAMPER	(BY OTHERS)
	INTERPOSING RELAY	-
	FLOW SWITCH	(BY OTHERS)
	TAMPER SWITCH	(BY OTHERS)
	PRESSURE SWITCH	(BY OTHERS)
	DOOR HOLDER	(BY OTHERS)
	SPEAKER, WALL MOUNTED	"W" DENOTES WATTAGE TAPPING
	SPEAKER/STROBE, WALL MOUNTED	"CD" DENOTES CANDELA SETTING "W" DENOTES WATTAGE TAPPING
	STROBE, WALL MOUNTED	"CD" DENOTES CANDELA SETTING



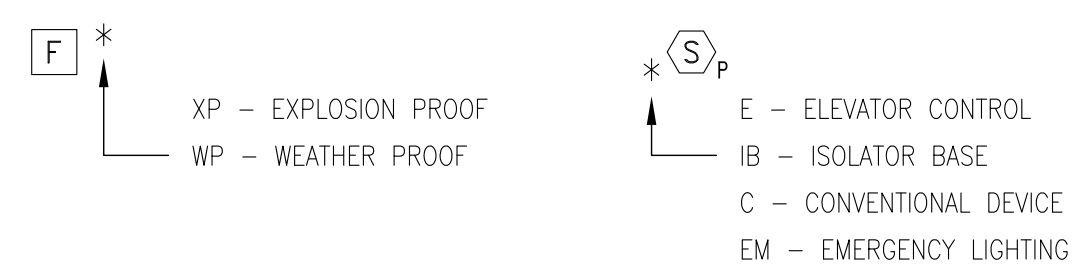
XLS SYSTEM WIRING SCHEDULE		
CABLE DESIGNATION	RECOMMENDED WIRE TYPE	TYPICAL CABLE USAGE
1A1	2-CONDUCTOR, #16 AWG TWISTED CABLE WIRE COLOR TO BE: ORANGE / YELLOW (PAIGE 443712XX COLORS)	FIRE ALARM ADDRESSABLE INITIATING DEVICES (SLC) STANDARD FLOOR CIRCUIT WIRING
1A2	(C) RATED CABLE (RADIC DURALINE)	FIRE ALARM ADDRESSABLE INITIATING DEVICES (SLC) FOR FLOOR CHANGE PENETRATION
1B1	NAC#1 - SOLID THHN 2-CONDUCTOR, #14 AWG WIRE COLOR TO BE: YELLOW / BROWN (PAIGE 443754B COLORS)	NOTIFICATION APPLIANCE CIRCUITS (NAC): - STROBES - SPEAKER STROBES
1B2	NAC#2 - SOLID THHN 2-CONDUCTOR, #14 AWG WIRE COLOR TO BE: YELLOW / RED (PAIGE 443754R COLORS)	NOTIFICATION APPLIANCE CIRCUITS (NAC): - STROBES - SPEAKER STROBES
1B3	NAC#3 - SOLID THHN 2-CONDUCTOR, #14 AWG WIRE COLOR TO BE: YELLOW / ORANGE (PAIGE 443754N COLORS)	NOTIFICATION APPLIANCE CIRCUITS (NAC): - STROBES - SPEAKER STROBES
1B4	NAC#4 - SOLID THHN 2-CONDUCTOR, #14 AWG WIRE COLOR TO BE: YELLOW / PURPLE (PAIGE 443754P COLORS)	NOTIFICATION APPLIANCE CIRCUITS (NAC): - STROBES - SPEAKER STROBES
1H	2-CONDUCTOR, #16 AWG SOLID TWISTED SHIELDED WIRE COLOR TO BE: BLACK / BLUE (PAIGE 443754BB COLORS)	70VAC AUDIO NOTIFICATION APPLIANCE CIRCUIT
C	3-CONDUCTOR, #12 AWG SOLID THHN	120VAC POWER CIRCUIT
D	2-CONDUCTOR, #14 AWG SOLID THHN	24 VDC POWER - FIRE ALARM ANNUNCIATOR - DOOR HOLDERS (BY OTHERS) - FSD CONTROL RELAYS

XLS SYSTEM WIRING SCHEDULE		
CABLE DESIGNATION	RECOMMENDED WIRE TYPE	TYPICAL CABLE USAGE
E	2-CONDUCTOR, #16 AWG SOLID TWISTED CABLE	MISC. PANEL WIRING
G	2-CONDUCTOR, #16 AWG SOLID TWISTED CABLE	CONVENTIONAL INITIATING DEVICES - PREACTION SYSTEM - WATERFLOW SWITCH - TAMPER SWITCH
J	4-CONDUCTOR, #24 AWG 2 PR TWISTED SHIELDED	RS232 DATA COMMUNICATIONS
L	2-CONDUCTOR, #16 AWG SOLID TWISTED SHIELDED	LOW LEVEL AUDIO - REMOTE MICROPHONE - PRE-AMPLIFIER SIGNAL - FIRE PHONE RISER/CIRCUIT
M	2-CONDUCTOR, #18 AWG SOLID TWISTED CABLE	XLS-NET NETWORK COMMUNICATIONS
N	2-CONDUCTOR, #16 AWG SOLID TWISTED CABLE	DAL NETWORK COMMUNICATIONS - DIGITAL AUDIO LOOP
R	2-CONDUCTOR, #18 AWG SOLID TWISTED CABLE	RS-485 DATA COMMUNICATIONS - FIRE ALARM ANNUNCIATOR
X	2-CONDUCTOR, #18 AWG SOLID TWISTED CABLE	"NUP" NETWORK COMMUNICATIONS INTERFACE WIRING: - FIRE NETWORK ADAPTER.
U	2-CONDUCTOR, #14 AWG SOLID THHN	MECHANICAL EQUIPMENT INTERFACE - FAN SHUT DOWN - FIRE CURTAIN - ELEVATOR SHUNT

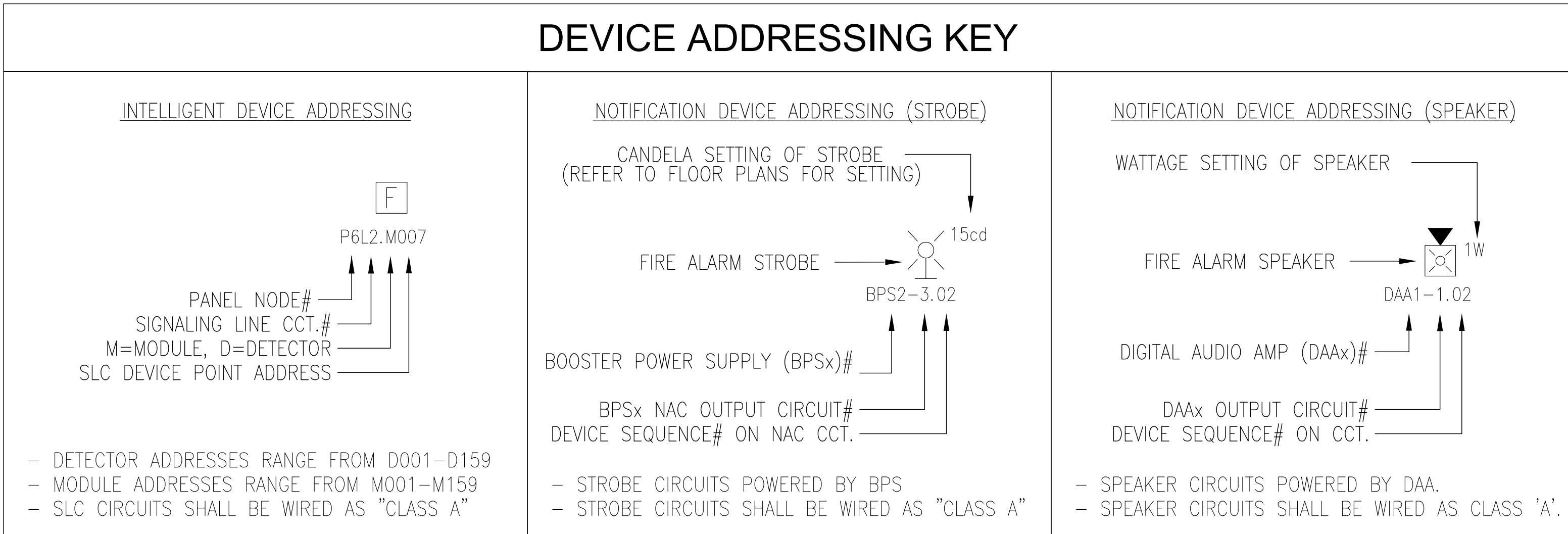
NOTES

- REFER TO THE BILL OF MATERIAL ON DRAWING FA0.4 FOR EXACT PART NUMBERS.
- NOT ALL SYMBOLS MAY BE USED.

FURTHER SYMBOL NOMENCLATURE



NOTES: NOT ALL CABLE TYPES MAY APPLY TO THIS PROJECT.



REV	DATE	BY	DESCRIPTION
REV F		BY	Device Legend & Cable Guide
REV E		BY	
REV D		BY	
REV C		BY	
REV B	Jun 27/19	BY JH	Re-Issued For Review
REV A	Jan 23/19	BY JH	Issued For Review

Honeywell ExpertISE ©
207 Larrabee Road Westbrook, Maine, 04092-5108
Maine Medical Center
East Tower Expansion
XLS140-2 Fire Alarm System
22 Bramhall Street Portland, ME 04102

DRAWING NUMBER: USB-017267-FA0.3 REV B



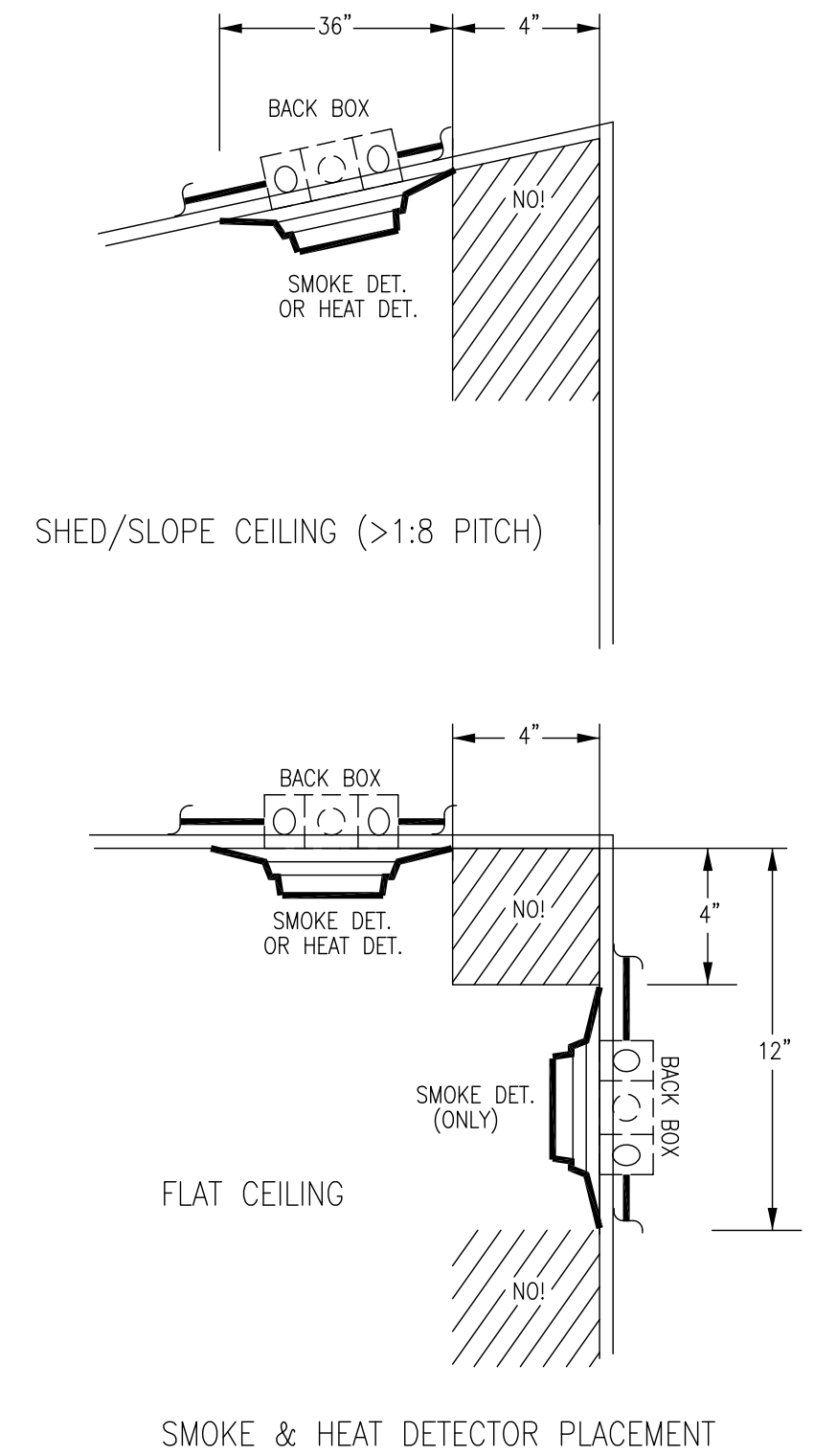
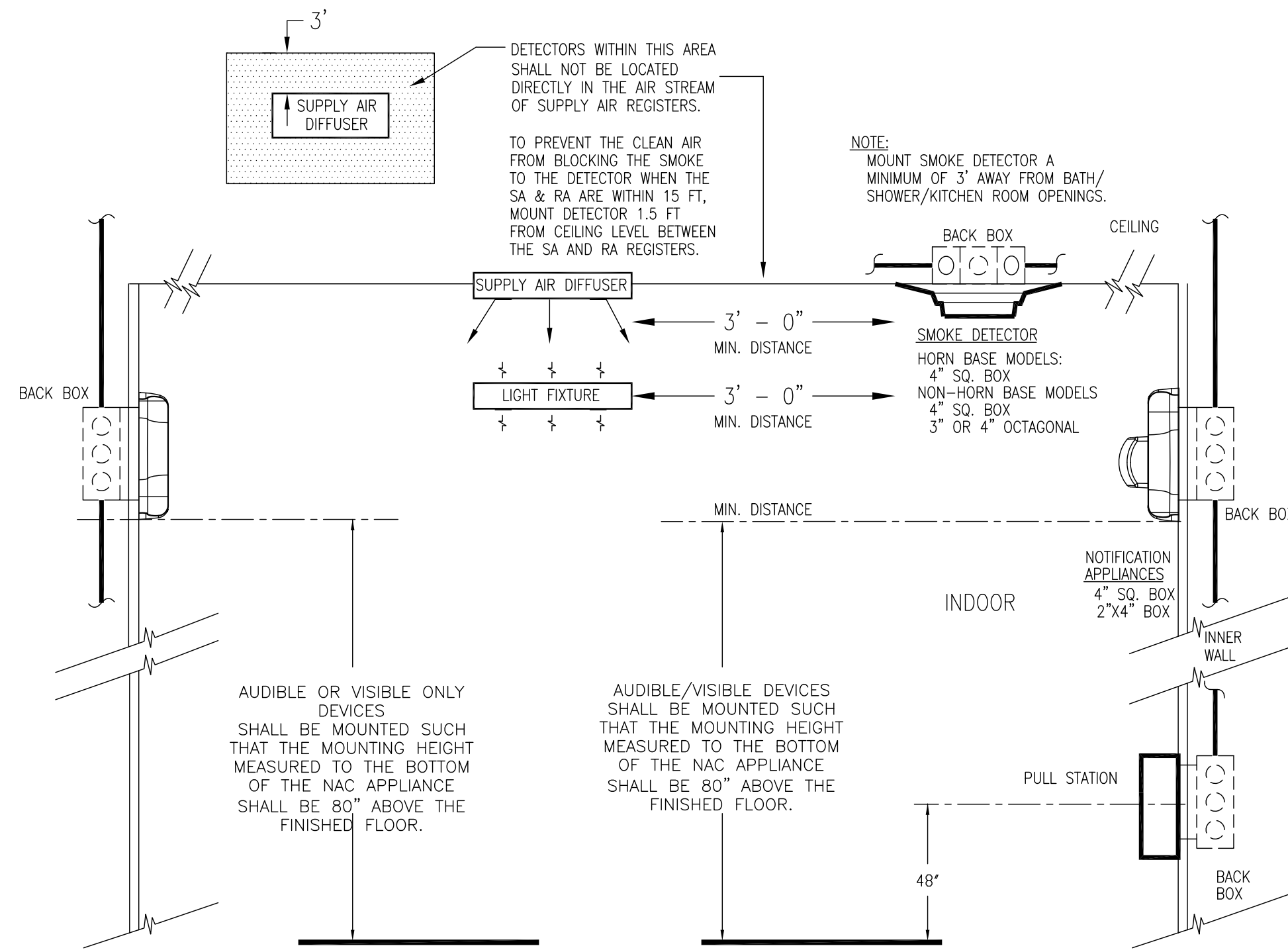
Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
11/19/2019

BILL OF MATERIAL

	QUANTITY	PART NO.	PART DESCRIPTION	MANUFACTURER
FACP-1 PANEL				
	1	SBB-C4	BACKBOX ASSEMBLY, 3 TIERS (C SIZE), BLACK	HONEYWELL
	1	XLS-ADDR-C4	3 TIER SIZED DOOR ASSEMBLY, FOR CA-2 CHASSIS, BLACK W/ WINDOWS	HONEYWELL
	1	DPA-2B	DRESS PANEL, USED WITH THE CA-2 CHASSIS	HONEYWELL
	1	CA-2	2 TIER CHASSIS FOR MOUNTING XLS140-CPU2, XLS-DVC, PHONE, & INCL. CMIC-1	HONEYWELL
	1	XLS140-CPU2	CENTRAL PROCESSOR UNIT (W/ CHS2-M2 CHASSIS)	HONEYWELL
	1	XLS-NCA2	NETWORK CONTROL ANNUNCIATOR	HONEYWELL
	1	XLS-DVC-EM	DIGITAL VOICE COMMAND	HONEYWELL
	1	DVC-KD	KEYPAD FOR LOCAL ANNUNCIATION AND CONTROLS	HONEYWELL
	1	TELH-1	FIREFIGHTER'S TELEPHONE HANDSET	HONEYWELL
	3	NCM-W	NETWORK CONTROL MODULE, WIRE	HONEYWELL
	1	DP-1B	BLANK DRESS PANEL, COVERS ONE CAB-4 TIER	HONEYWELL
	1	BP2-4	BATTERY DRESS PLATE FOR CAB-4 CABINET	HONEYWELL
	2	DTK-120HW	120V TRANSIENT VOLTAGE SURGE PROTECTOR	HONEYWELL
	1	EQBB-C4	BACKBOX ASSEMBLY, 3 TIERS (C SIZE), BLACK	HONEYWELL
	1	EQDR-C4	3 TIER VENTED DOOR ASSEMBLY, BLACK	HONEYWELL
	2	DAA2-5070	DIGITAL AUDIO AMPLIFIER (50 W, 70 VRMS)	HONEYWELL
	2	BDA-70V	BACKUP DIGITAL AUDIO AMPLIFIER, 70.7 VRMS	HONEYWELL
	1	XLS-LBB	BATTERY CABINET HOUSING ASSEMBLY	HONEYWELL
	2	PS-12350	12V 35 AH BATTERY W/ UNIVERSAL TERMINALS	POWER SONIC
	2	PS-12750	12V 75 AH BATTERY W/ UNIVERSAL TERMINALS	POWER SONIC
SPACE AGE GRAPHIC PANEL				
	1	LDM-32	LAMP DRIVER ANNUNCIATOR CONTROL MODULE	HONEYWELL
	1	LDM-CBL48	48" LAMP DRIVER ANNUNCIATOR LED CABLE	HONEYWELL
	1	SCS-8L	SMOKE CONTROL LAMP DRIVER	HONEYWELL
	1	SCE-8L	SMOKE CONTROL LAMP DRIVER EXPANDER	HONEYWELL
	1	SCSBL-CBL48	48" LAMP DRIVER SMOKE CONTROL CABLE ASSEMBLY	HONEYWELL
ANNUNCIATOR (FAA)				
	1	XLS-NCA2	NETWORK CONTROL ANNUNCIATOR	HONEYWELL
	1	CHS-2D	NCA2 CHASSIS FOR USE WITH XLS-ABS-2D	HONEYWELL
	1	XLS-ABS-2D	SURFACE MOUNT ANNUNCIATOR BACKBOX, BLACK	HONEYWELL
	1	NCM-W	NETWORK CONTROL MODULE, WIRE	HONEYWELL
FACP-6 PANEL				
	1	SBB-C4	BACKBOX ASSEMBLY, 4 TIERS (C SIZE), BLACK	HONEYWELL
	1	XLS-DR-C4	3 TIER DOOR ASSEMBLY, BLACK W/ WINDOWS	HONEYWELL
	1	DP-DISP2	DRESS PLATE FOR XLS140-2 FACP	HONEYWELL
	1	XLS140-CPU2	CENTRAL PROCESSOR UNIT (W/ CHS2-M2 CHASSIS)	HONEYWELL
	1	KDM-R2	80 CHARACTER DISPLAY WITH KEYBOARD	HONEYWELL
	1	NCM-W	NETWORK CONTROL MODULE, WIRE	HONEYWELL
	2	BMP-1	BLANK PLATE FOR EMPTY DP-DISP SLOTS	HONEYWELL
	2	DP-1B	BLANK DRESS PANEL, COVERS ONE CAB-4 TIER	HONEYWELL
	1	EQBB-C4	BACKBOX ASSEMBLY, 3 TIERS (C SIZE), BLACK	HONEYWELL
	1	EQDR-C4	3 TIER VENTED DOOR ASSEMBLY, BLACK	HONEYWELL
	2	DAA2-5070	DIGITAL AUDIO AMPLIFIER (50 W, 70 VRMS)	HONEYWELL
	2	BDA-70V	BACKUP DIGITAL AUDIO AMPLIFIER, 70.7 VRMS	HONEYWELL
	1	XLS-LBB	BATTERY CABINET HOUSING ASSEMBLY	HONEYWELL
	2	PS-12350	12V 35 AH BATTERY W/ UNIVERSAL TERMINALS	POWER SONIC
	2	PS-12260	12V 26 AH BATTERY W/ UNIVERSAL TERMINALS	POWER SONIC
FACP-7/8 PANEL				
	2	SBB-C4	BACKBOX ASSEMBLY, 3 TIERS (C SIZE), BLACK	HONEYWELL
	2	XLS-DR-C4	3 TIER DOOR ASSEMBLY, BLACK W/ WINDOWS	HONEYWELL
	2	VP-2B	VENT PLATE FOR COVERING THE SMALL GAP AT THE TOP OF THE CABINET	HONEYWELL
	2	DP-1B	BLANK DRESS PANEL, COVERS ONE CAB-4 TIER	HONEYWELL
	2	DAA2-5070	DIGITAL AUDIO AMPLIFIER (50 W, 70 VRMS)	HONEYWELL
	2	BDA-70V	BACKUP DIGITAL AUDIO AMPLIFIER, 70.7 VRMS	HONEYWELL
	2	ADP2-640	DRESS PANEL USED W/ NCA2/XLS140-CPU2 IN LOWER ROW	HONEYWELL
	2	XLS140-CPU2	CENTRAL PROCESSOR UNIT (W/ CHS2-M2 CHASSIS)	HONEYWELL
	2	KDM-R2	80 CHARACTER DISPLAY WITH KEYBOARD	HONEYWELL
	4	BMP-1	BLANK PLATE FOR EMPTY DP-DISP SLOTS	HONEYWELL
	2	NCM-W	NETWORK CONTROL MODULE, WIRE	HONEYWELL
	2	XLS-LBB	BATTERY CABINET HOUSING ASSEMBLY	HONEYWELL
	4	PS-12180	12V 18 AH BATTERY W/ UNIVERSAL TERMINALS	POWER SONIC
	4	PS-12260	12V 26 AH BATTERY W/ UNIVERSAL TERMINALS	POWER SONIC
NAC POWER SUPPLY				
	5	AL842ULADA	8 AMP REMOTE NAC POWER EXTENDER, 4 CLASS 'A' CIRCUITS	ALTRONIX CORP.
	10	PS-1270	12V 7 AH BATTERY W/ UNIVERSAL TERMINALS	POWER SONIC
	3	DTK-120HW	120V TRANSIENT VOLTAGE SURGE PROTECTOR	DITEK CORP.
SLC Field Devices				
	21	S464G1007	MANUAL PULL STATION, ADDRESSABLE	HONEYWELL
	4	MPSR1-SHTW-GE	SINGLE ACTION, SPST, HEX KEY RESET, WEATHERPROOF	HONEYWELL
	131	TC806B3010	WHITE, INTELLIGENT PHOTOELECTRIC SENSOR, FLASHSCAN ONLY	HONEYWELL
	131	B300-6	WHITE, STANDARD FLANGED LOW-PROFILE MOUNTING BASE	HONEYWELL
	14	RA100Z	REMOTE LED ANNUNCIATOR	HONEYWELL
	44	TC806DNR3000	WHITE, INTELLIGENT PHOTOELECTRIC SENSOR, REMOTE TEST CAPABLE, FLASHSCAN ONLY	HONEYWELL
	44	DNR	INNOVAIRFLEX LOW-FLOW NON-RELAY DUCT-DETECTOR HOUSING	HONEYWELL
	44	DST5 **	SAMPLING TUBE, DUCT WIDTHS 4FT TO 8FT	HONEYWELL
	44	RTS151KEY	REMOTE TEST STATION WITH KEY	HONEYWELL
	65	TC810R1024	FLASHSCAN RELAY MODULE	HONEYWELL
	46	TC809A1059	FLASHSCAN MONITOR MODULE	HONEYWELL
	7	TC809D1004	FLASHSCAN DUAL MONITOR MODULE	HONEYWELL
	3	CB500	MODULE VOLTAGE SAFETY BARRIER	HONEYWELL
	11	AFAWS-TELC	TELEPHONE CABINET ASSEMBLY W/COILED CORD.	HONEYWELL
	11	AFAWS-BX	BACKBOX FOR AFAWS TELEPHONE	HONEYWELL
	11	AFAWS-LS	LATCH DOOR, SURFACE MOUNT, FOR AFAWS TELEPHONE	HONEYWELL
	4	XP10-M	FLASHSCAN TEN-INPUT MONITOR MODULE	HONEYWELL
	1	CHS-6	MOUNTING CHASSIS FOR XP BOARDS	HONEYWELL
	1	BB-25	SMALL CABINET (MOUNTS CHS-6)	HONEYWELL
	76	RIBU1C	ENCLOSED PILOT RELAY 10 AMP SPDT WITH 10-30 VAC/DC/120 VAC COIL	FUNCTIONAL DEVICES
NAC Field Devices				
	87	SPSRL	SPEAKER STROBE, WALL MOUNT, RED, "FIRE" MARKING	SYSTEM SENSOR
	158	SRL	STROBE, WALL MOUNT, RED, "FIRE" MARKING	SYSTEM SENSOR
	9	SPSRK	SPEAKER/STROBE OUTDOOR WALL MOUNT, RED	SYSTEM SENSOR
	6	SPRL	SPEAKER ONLY, RED	SYSTEM SENSOR

** - EXACT SAMPLING TUBE SIZE TO BE VERIFIED BEFORE ORDERING

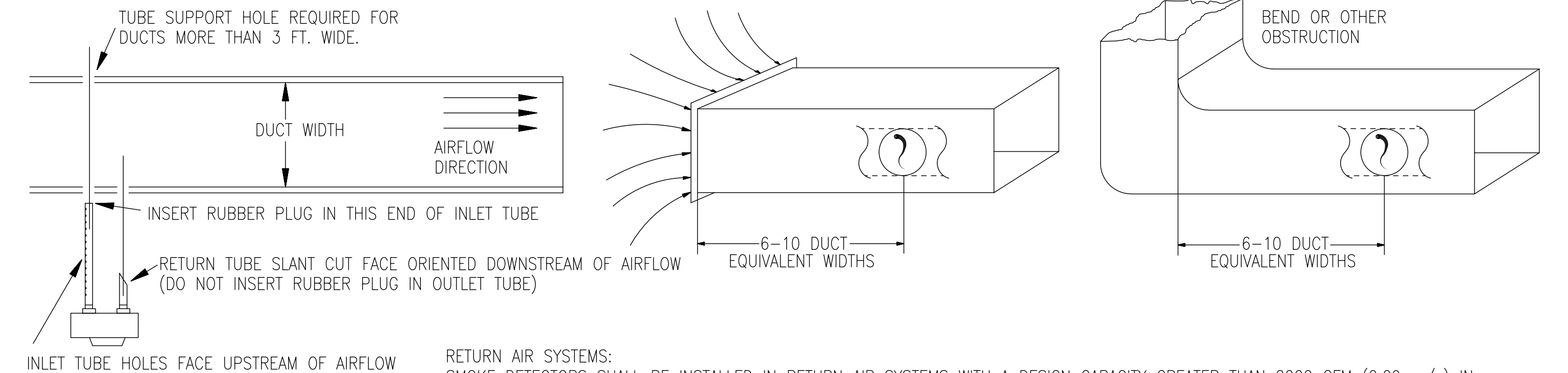
REV F		BY	Bill of Material
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
Jun 27/19		JH	East Tower Expansion
			XLS140-2 Fire Alarm System
REV A	Issued For Review	BY	22 Bramhall Street Portland, ME 04102
Jan 23/19		JH	
		REV	DRAWING NUMBER USB-017267-FA0.4
		B	



GENERAL NOTES:

- A. DO NOT APPLY POWER TO ANY DEVICE UNTIL AUTHORIZED BY A HONEYWELL REPRESENTATIVE.
- B. SEE FLOOR PLANS FOR ALL DEVICE LOCATIONS, DEVICE COUNTS, AND DEVICE ADDRESSES.
- C. FOLLOW DEVICE INSTALLATION INSTRUCTIONS INCLUDED WITH DEVICES.
- D. DETECTOR GUIDELINES:
 - NO SMOKE DETECTORS ALLOWED IN GARAGES.
 - NO SMOKE DETECTORS ALLOWED IN UNFINISHED ATTICS.
 - NO SMOKE DETECTORS ALLOWED IN AREAS WITH >100°F OR <40°F.
 - ION SMOKE DETECTORS MUST BE > 20' FROM COOKING APPLIANCES. (PHOTO SMOKE DETECTORS ALLOWED <20' FROM COOKING APPLIANCE)
 - NO SMOKE DETECTORS WITHIN 3' FROM DOOR TO KITCHEN OR SHOWER/TUB ROOM
 - NO SMOKE DETECTORS WITHIN 3' HORIZONTAL FROM CEILING FAN BLADE TIP.
 - SMOKE DETECTORS ARE REQUIRED IN BASEMENTS ON CEILING ADJACENT TO STAIRWELLS.

1 FIELD DEVICE INSTALLATION GUIDELINES
FA1.1



RETURN AIR SYSTEMS:
SMOKE DETECTORS SHALL BE INSTALLED IN RETURN AIR SYSTEMS WITH A DESIGN CAPACITY GREATER THAN 2000 CFM (0.09 m³/s) IN THE RETURN AIR DUCT OR PLENUM UPSTREAM OF ANY FILTERS, EXHAUST AIR CONNECTIONS, OUTDOOR AIR CONNECTIONS OR DECONTAMINATION EQUIPMENT AND APPLIANCES.

COMMON SUPPLY AND RETURN AIR SYSTEMS:
WHERE MULTIPLE AIR HANDLING SYSTEMS SHARE COMMON SUPPLY OR RETURN AIR DUCTS OR PLENUMS WITH A COMBINED DESIGN CAPACITY GREATER THAN 2000 CFM (0.9m³/s), THE RETURN AIR SYSTEM SHALL BE PROVIDED WITH SMOKE DETECTORS.

RETURN AIR RISERS:
WHERE RETURN AIR RISERS SERVE TWO OR MORE STOREYS AND SERVE ANY PORTION OF A RETURN AIR SYSTEM HAVING A DESIGN CAPACITY GREATER THAN 15000 CFM (7.1m³/s), SMOKE DETECTORS SHALL BE INSTALLED AT EACH STOREY. SUCH SMOKE DETECTORS SHALL BE LOCATED UPSTREAM OF THE CONNECTION BETWEEN THE RETURN AIR RISER AND ANY AIR DUCTS OR PLENUMS

SUPPLY AIR SMOKE DETECTORS:
IF INSTALLED, SUPPLY AIR SMOKE DETECTORS SHALL BE MOUNTED IN THE DUCT DOWNSTREAM OF BOTH THE FAN AND THE FILTERS. ADDITIONAL SMOKE DETECTORS IN THE SUPPLY AIR SYSTEM ARE NOT REQUIRED WHERE THE AIR PASSES THROUGH OTHER SMOKE COMPARTMENTS.

SMOKE DAMPERS THAT ARE PART OF A SMOKE BARRIER SHALL BE INSTALLED IN THE PLANE OF THE FIRE PARTITION AND NOT AFTER THE FIRST AIR DUCT INLET OR OUTLET, WHICHEVER IS CLOSER TO THE SMOKE BARRIER. IF THE SMOKE DAMPER IS CONTROLLED BY AIR SYSTEM SMOKE DETECTOR IT SHALL BE LOCATED UPSTREAM OF THE SMOKE DAMPER BUT AFTER ANY INLET OR OUTLET IN THAT DUCT.

WHERE IN-DUCT SMOKE DETECTORS ARE INSTALLED IN CONCEALED LOCATIONS MORE THAN 10ft ABOVE THE FINISHED FLOOR, OR IN ARRANGEMENTS WHERE THE DETECTOR'S ALARM LIGHT IS NOT READILY VISIBLE TO RESPONDING PERSONNEL, THE DETECTOR SHALL BE PROVIDED WITH REMOTE ALARM INDICATORS TO BE INSTALLED IN A READILY ACCESSIBLE LOCATION AND SHALL BE CLEARLY LABELED TO INDICATE BOTH THEIR FUNCTION AND THE AIR HANDLING UNIT(S) ASSOCIATED WITH EACH DETECTOR. (EXCEPTION: WHERE THE SPECIFIC DETECTOR IN ALARM IS INDICATED AT THE CONTROL UNIT)

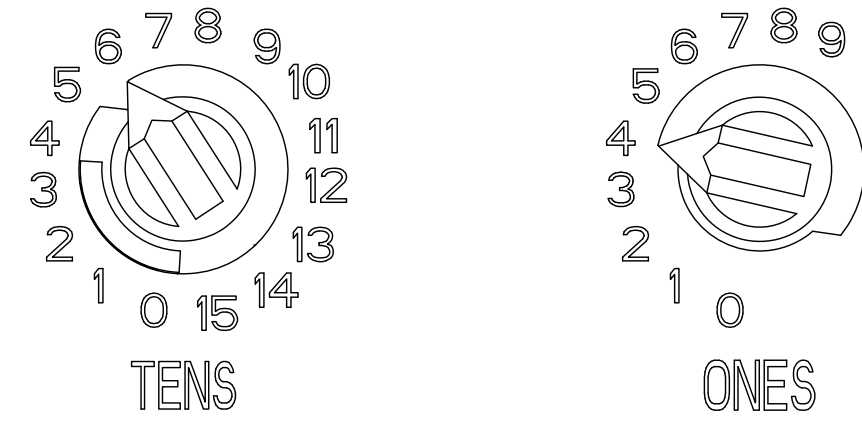
2 DUCT SMOKE DETECTOR INSTALLATION GUIDELINES
FA1.1



Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
11/19/2019

REV F		BY	Typical Field Device Installation Guide
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B		BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
REV A	Issued For Review	BY	22 Bramhall Street Portland, ME 04102
Jan 23/19		JH	DRAWING NUMBER USB-017267-FA1.1
			REV A

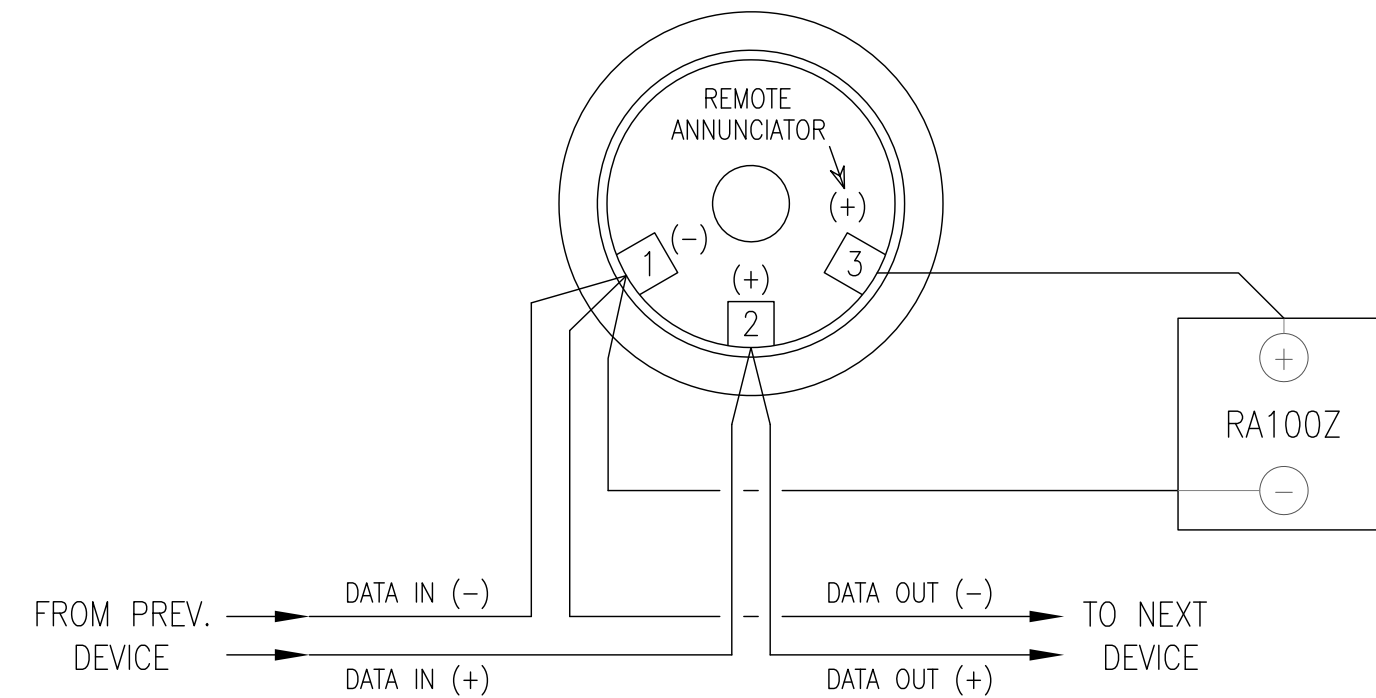
TO SET POINT NUMBER (ADDRESS)



NOTES:

- DO NOT SET MORE THAN ONE MODULE OR ONE SENSOR WITH THE SAME ADDRESS ON THE SAME SLC CIRCUIT.
- ONE SENSOR AND ONE MODULE CAN HAVE THE SAME ADDRESS ON THE SAME SLC CIRCUIT.
- THE ABOVE EXAMPLE SHOWS THE DEVICE POINT ADDRESS (MODULE OR DETECTOR) AS 064.
- SENSOR POINT ADDRESSES RANGE FROM 001 THRU 159 (PREFIXED WITH 'D' ON DRAWINGS).
- MODULE POINT ADDRESSES RANGE FROM 001 THRU 159 (PREFIXED WITH 'M' ON DRAWINGS).

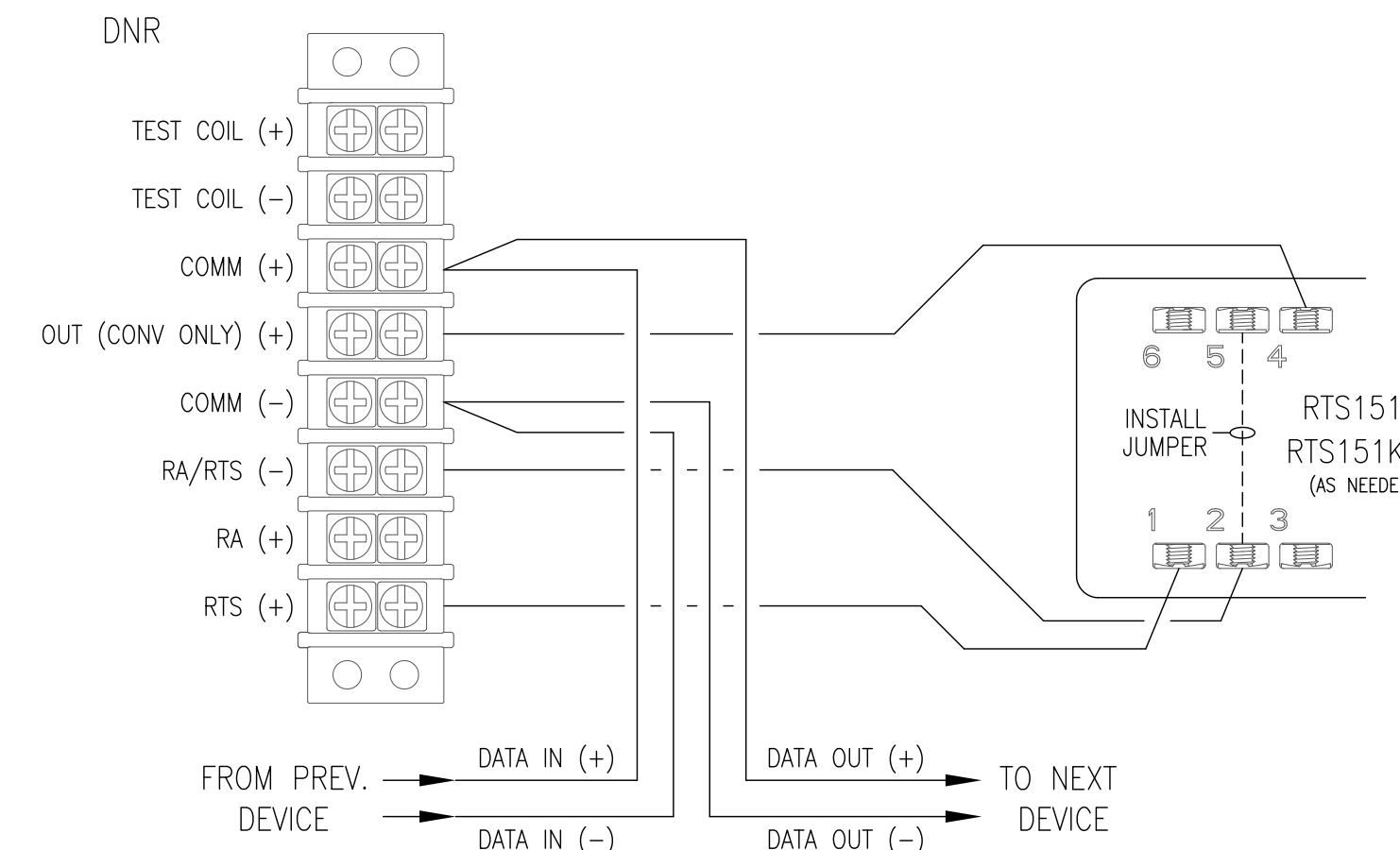
1 SENSOR & MODULE ADDRESS DIAL SETTINGS
FA2.1



MOUNTING:

3-1/2" OR 4" OCTAGON x 1-1/2" DEEP ELECTRICAL BOX
4" SQUARE x 1-1/2" DEEP ELECTRICAL BOX W/ MUD RING
SINGLE GANG ELECTRICAL BOX WITH 1-1/2" MINIMUM DEPTH

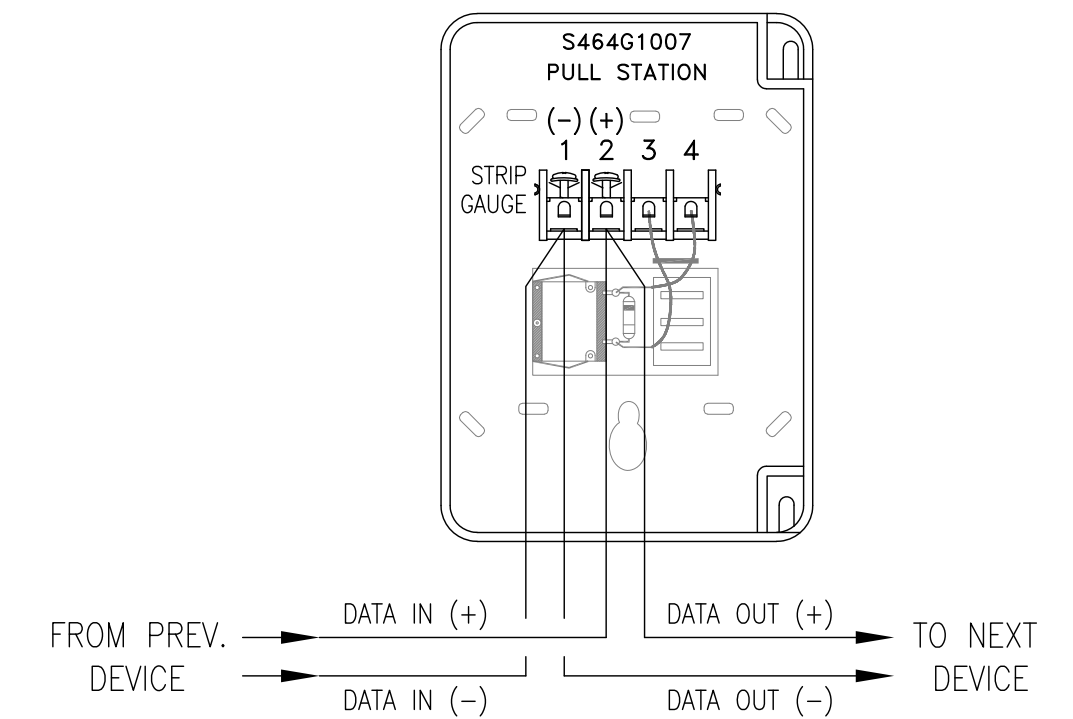
2 B300-6 LOW PROFILE INTELLIGENT BASE
DATA WIRING FOR SMOKE & THERMAL SENSORS
FA2.1



MOUNTING:

SEE INSTALLATION INSTRUCTIONS INCLUDED WITH DEVICES.

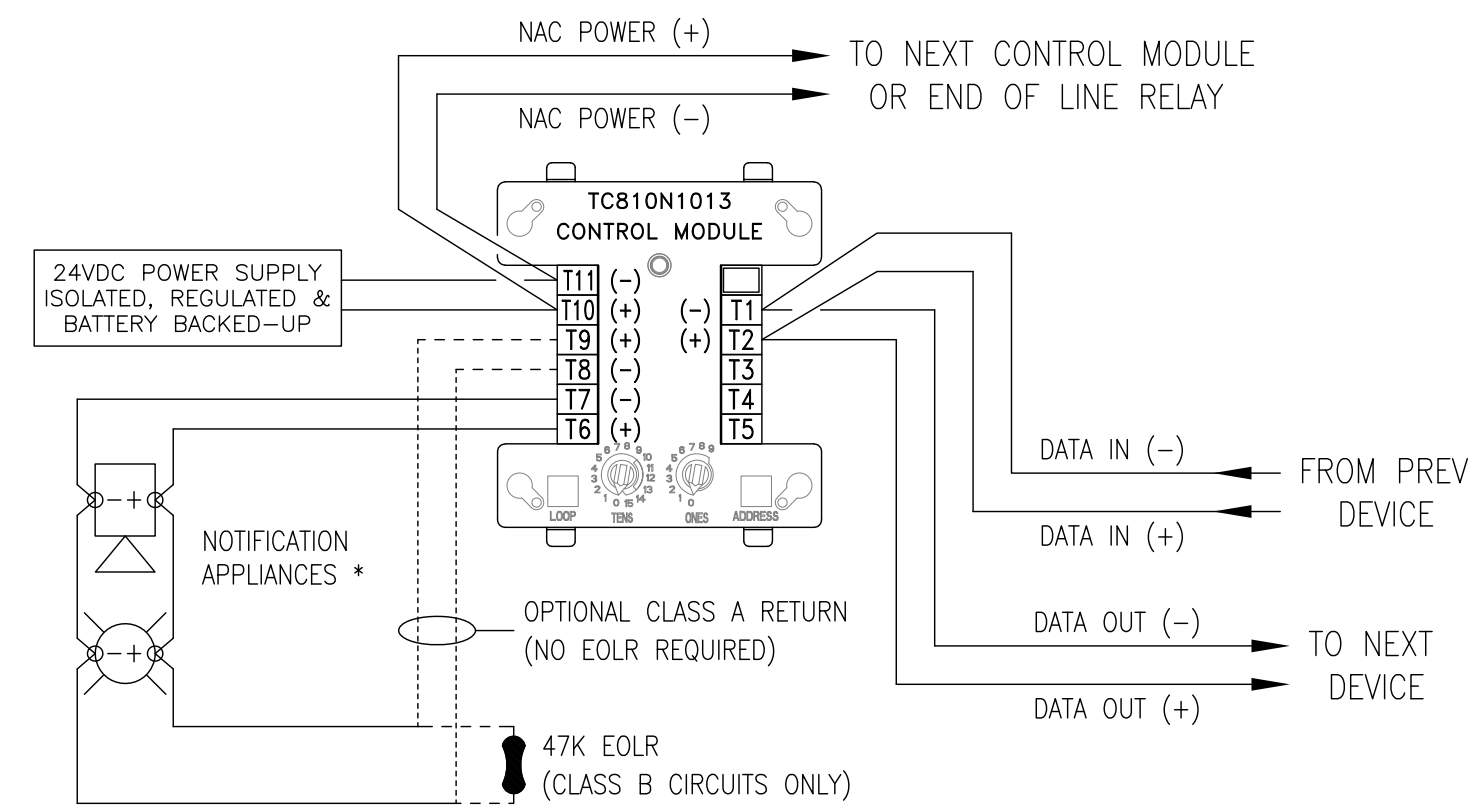
3 DNR DUCT SMOKE DETECTOR DATA WIRING
W/OPTIONAL RTS151(KEY) REMOTE TEST STATION
FA2.1



MOUNTING:

SINGLE GANG OR DOUBLE GANG 2-3/4" DEEP ELECTRICAL BOX
4" SQUARE OR 4-11/16" ELECTRICAL BOX WITH PLASTER RING
SB-10 OR SB-1/O ELECTRICAL BOX FOR SURFACE MOUNTING

4 S464G1007 PULL STATION WIRING
ADDRESSABLE PULL STATION
FA2.1

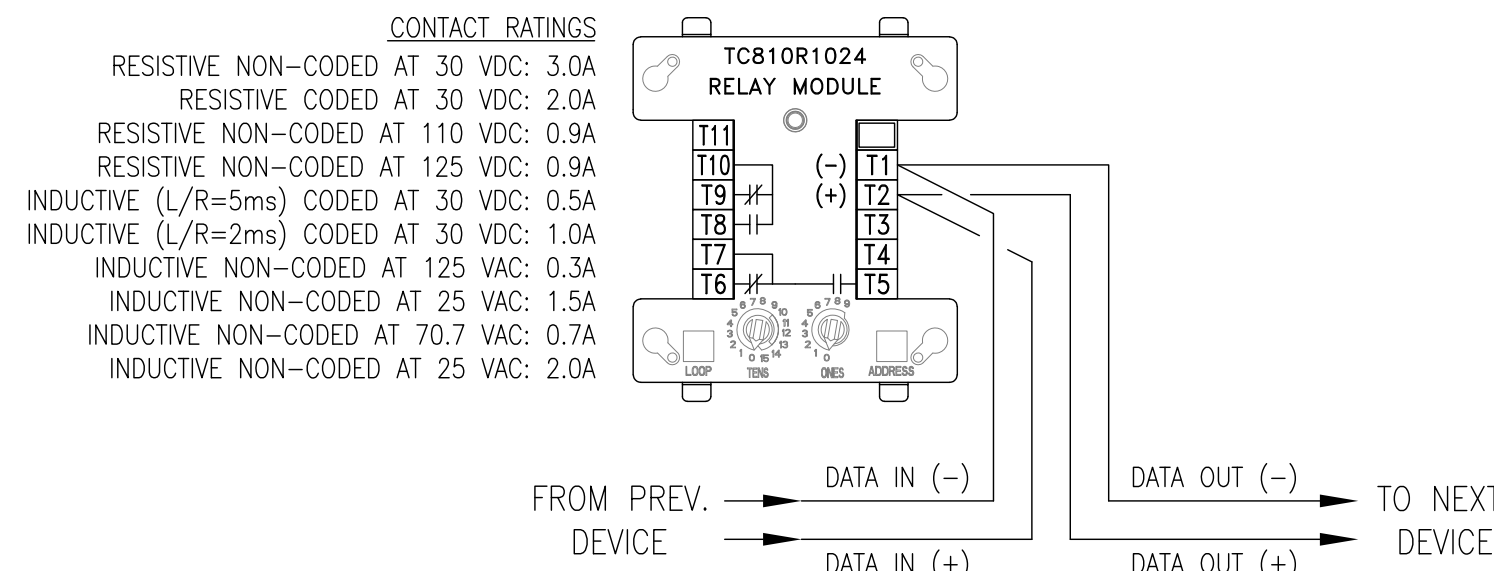


* DEVICE POLARITIES SHOWN IN ALARM CONDITION

MOUNTING:

4" SQUARE x 2-1/8" DEEP ELECTRICAL BOX

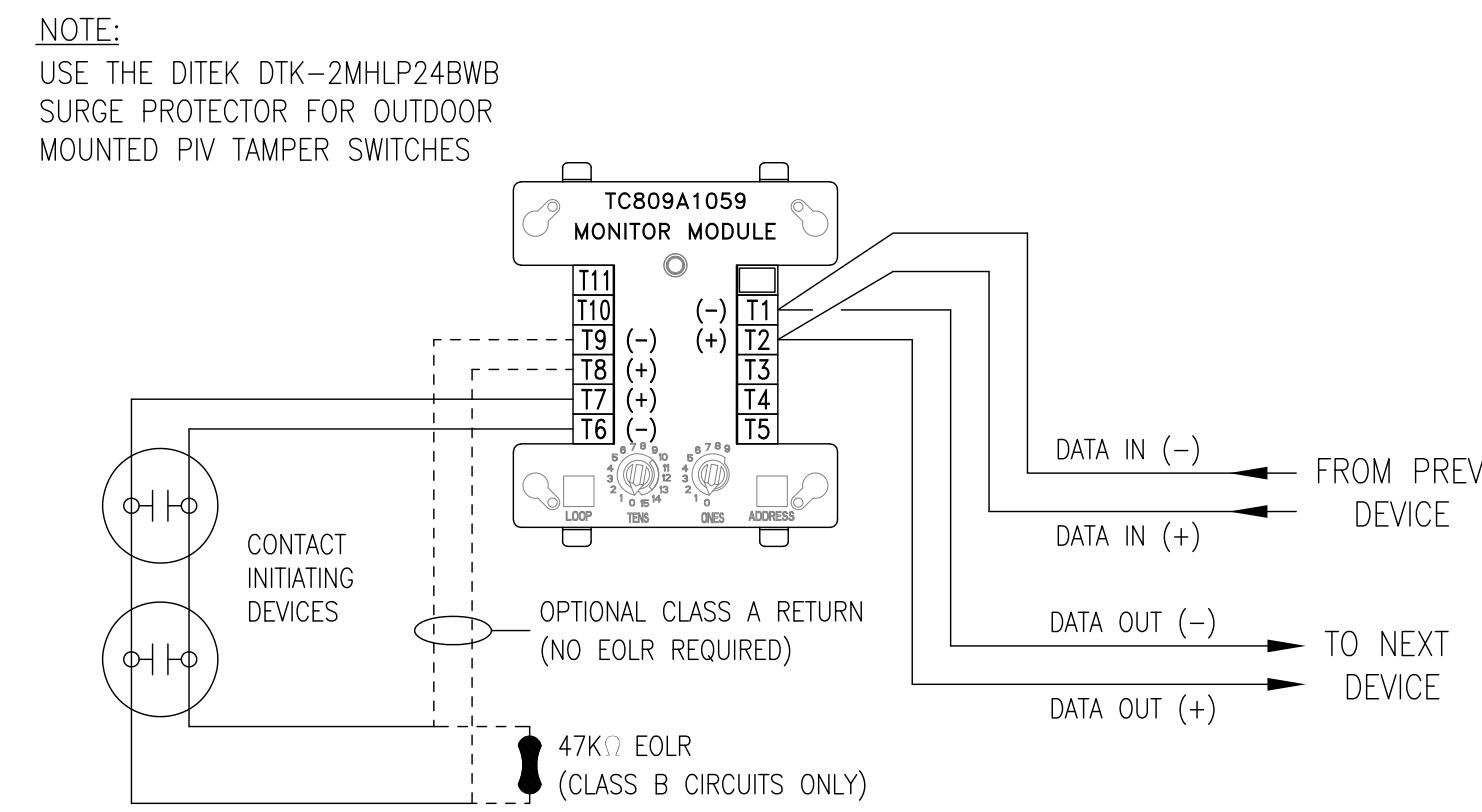
5 TC810N1013 CONTROL MODULE WIRING
SUPERVISED CONTROL MODULE
FA2.1



MOUNTING:

4" SQUARE x 2-1/8" DEEP ELECTRICAL BOX

6 TC810R1024 RELAY MODULE WIRING
RELAY MODULE
FA2.1

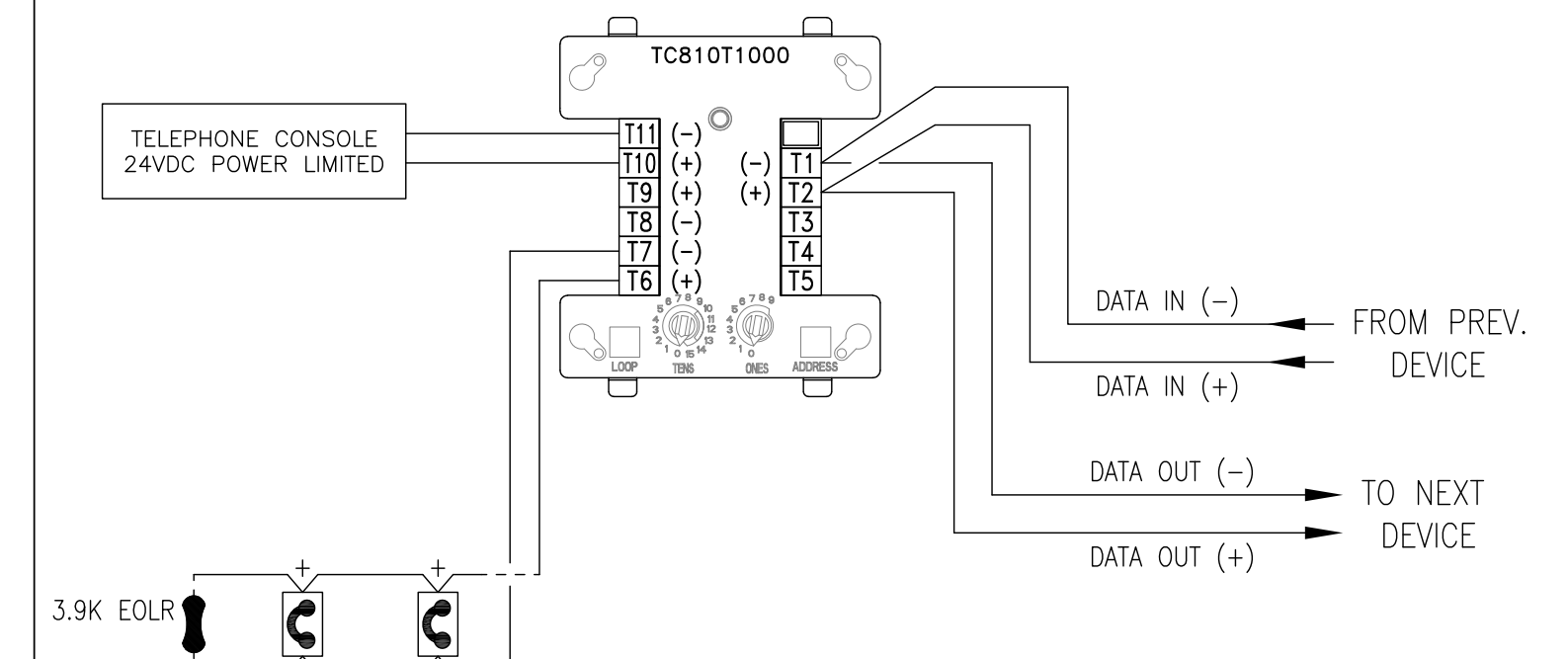


NOTE:
USE THE DITEK DTK-2MHLP24BWB SURGE PROTECTOR FOR OUTDOOR MOUNTED PIV TAMPER SWITCHES

MOUNTING:

4" SQUARE x 2-1/8" DEEP ELECTRICAL BOX

7 TC809A MONITOR MODULE DATA WIRING
MONITOR MODULE
FA2.1

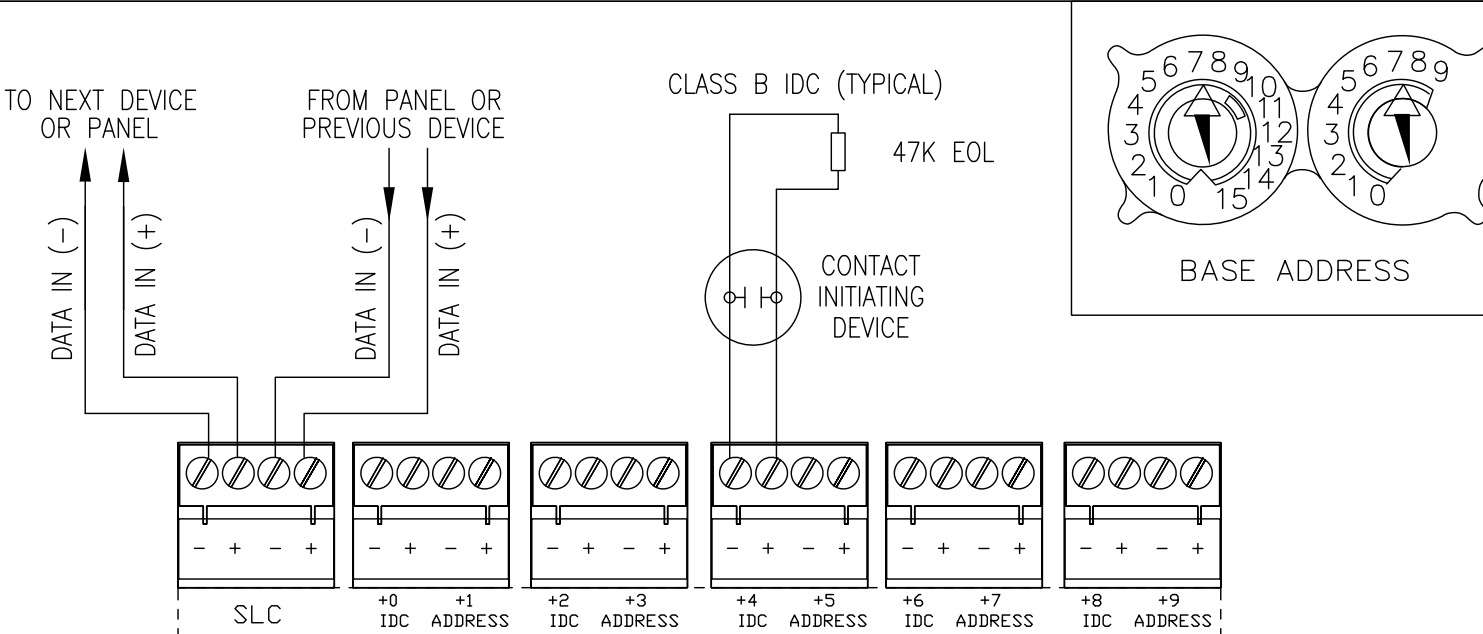


* DEVICE POLARITIES SHOWN IN ALARM CONDITION

MOUNTING:

4" SQUARE x 2-1/8" DEEP ELECTRICAL BOX

8 TC810T1000 FIREPHONE CONTROL MODULE WIRING
FIREPHONE CONTROL MODULE
FA2.1



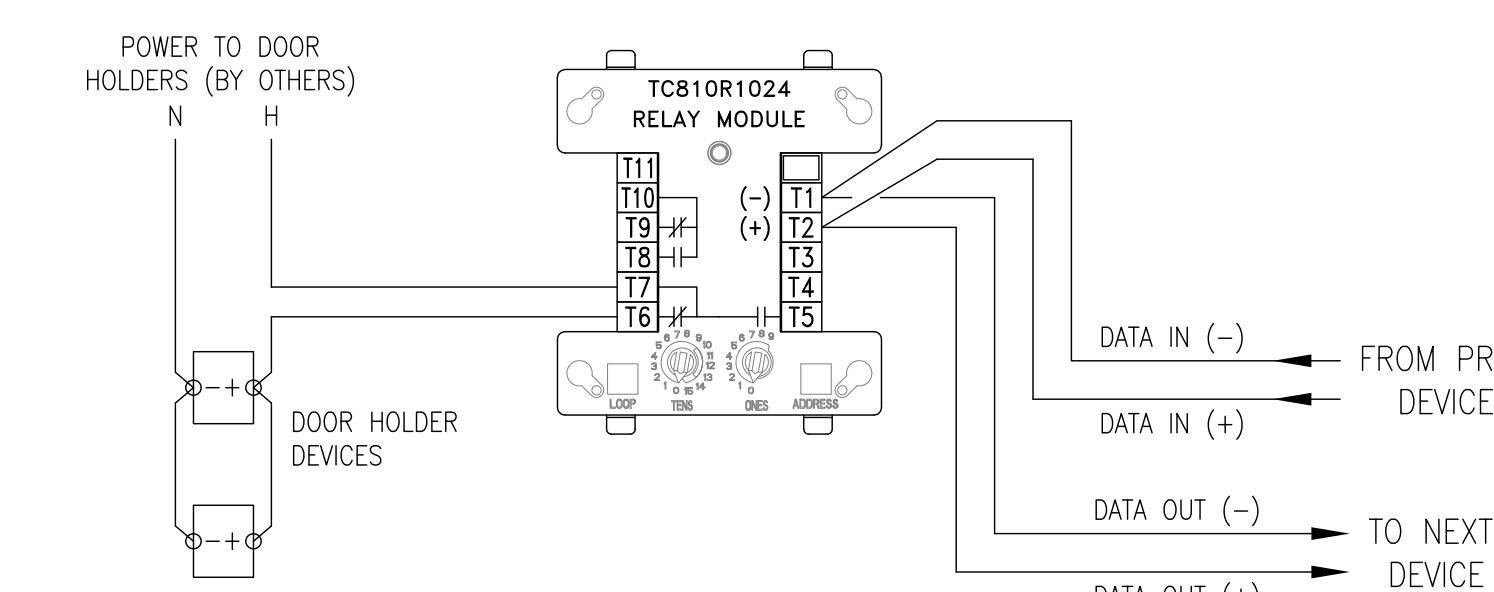
NOTE:

SET THE ADDRESS OF THE FIRST MODULE FROM 01 TO 150. THE REMAINING MODULES ARE AUTOMATICALLY ASSIGNED TO THE NEXT NINE HIGHER ADDRESSES.

MOUNTING:

- BB-XP CABINET FOR UP TO TWO(2) XP10-M MODULES.
- BB-25 CABINET WITH CHS-6 CHASSIS FOR UP TO SIX(6) XP10-M MODULES.

9 XP10-M TEN-INPUT MONITOR MODULE DATA WIRING
TYPICAL CLASS B INITIATING DEVICES CIRCUIT
FA2.1



MOUNTING:

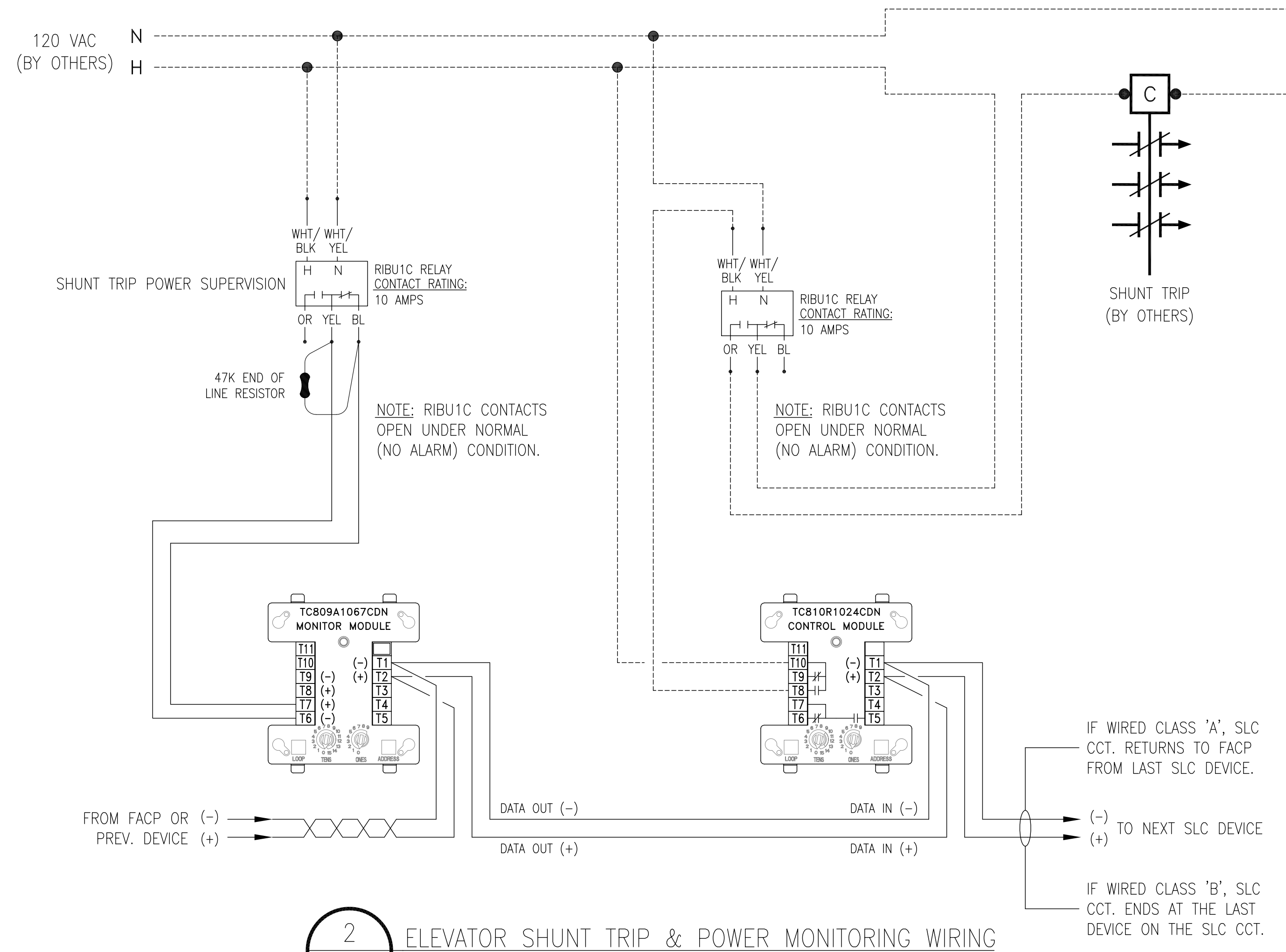
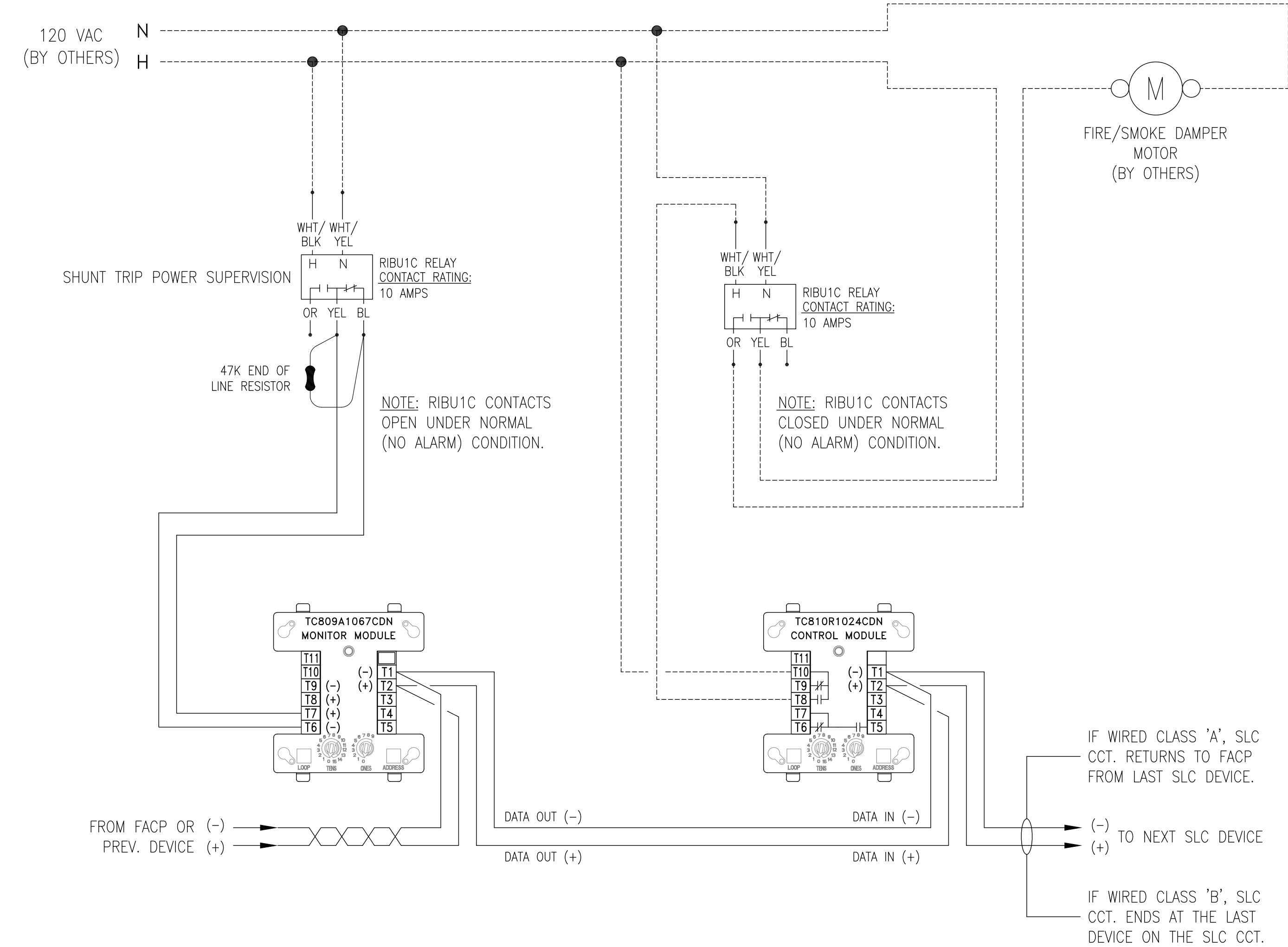
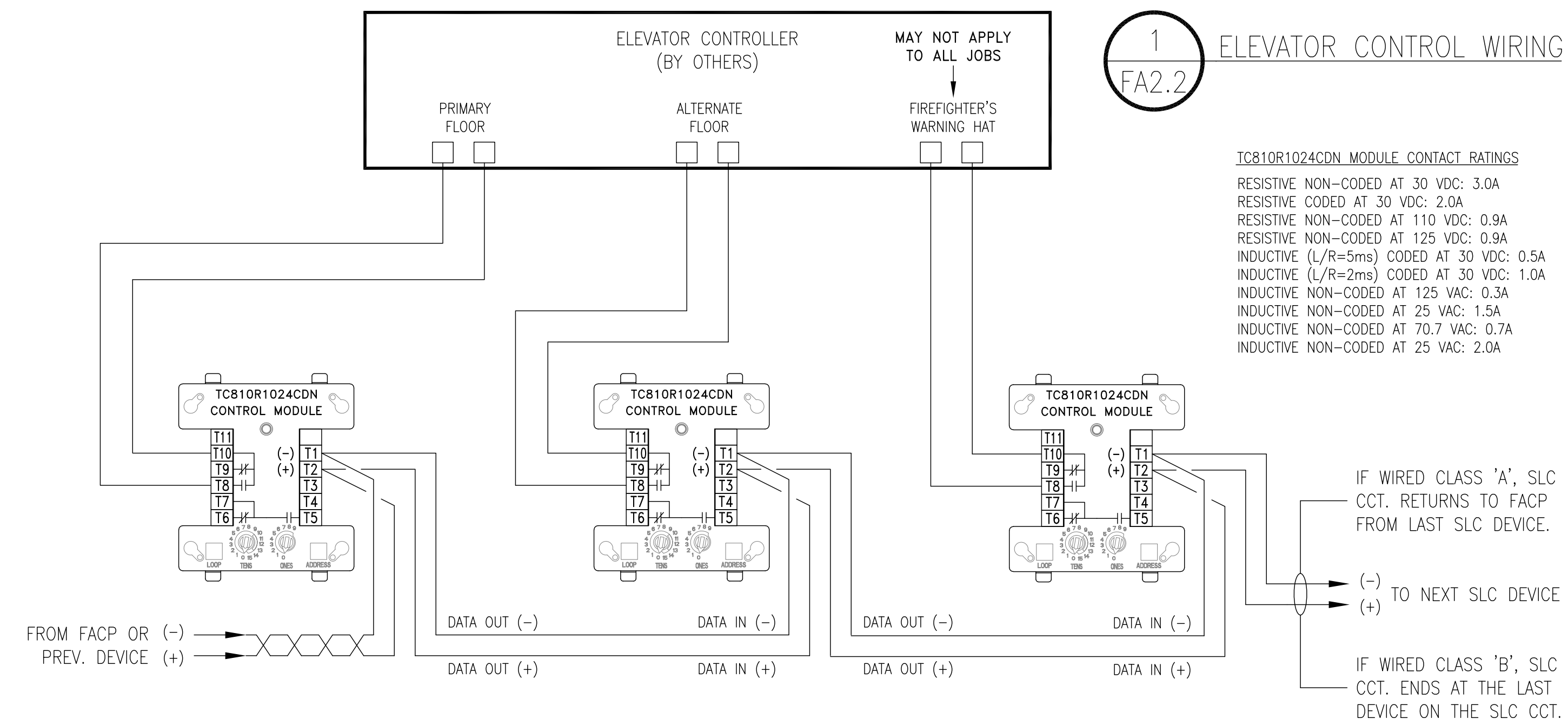
4" SQUARE x 2-1/8" DEEP ELECTRICAL BOX

10 TC810R1024 DOOR HOLDER WIRING
FA2.1

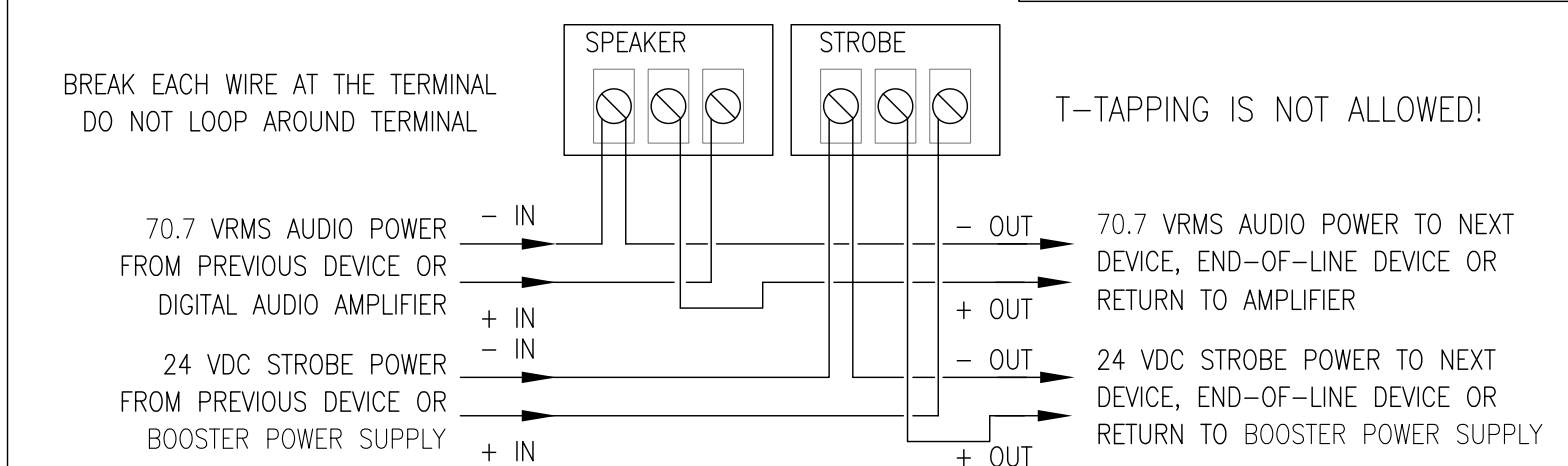
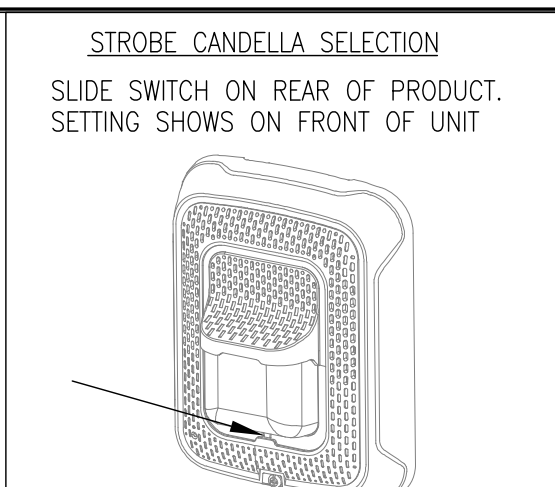
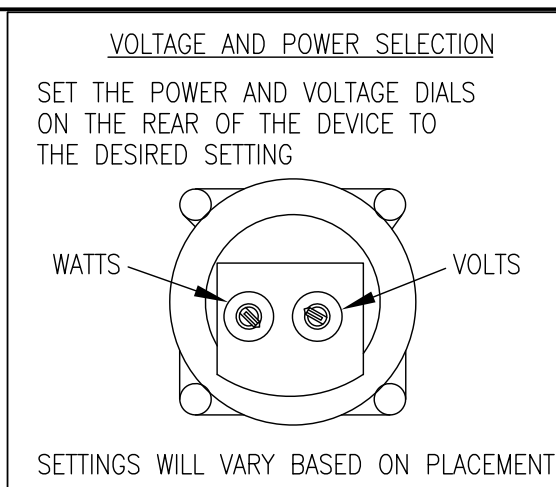


Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
11/19/2019

REV F		BY	Field Device Wiring
REV E		BY	Sheet 1 of 3
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B		BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
REV A Jan 23/19	Issued For Review	BY JH	22 Bramhall Street Portland, ME 04102
DRAWING NUMBER			USB-017267-FA2.1
			REV A

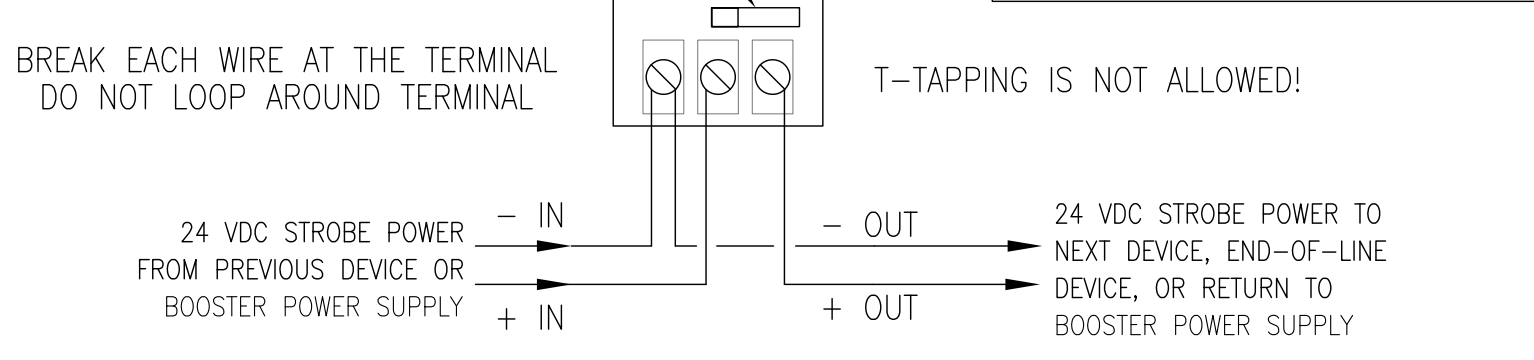


REV F		BY	Field Device Wiring
REV E		BY	Sheet 2 of 3
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B		BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
REV A	Issued For Review	BY	22 Bramhall Street Portland, ME 04102
Jan 23/19		JH	DRAWING NUMBER USB-017267-FA2.2
			REV A



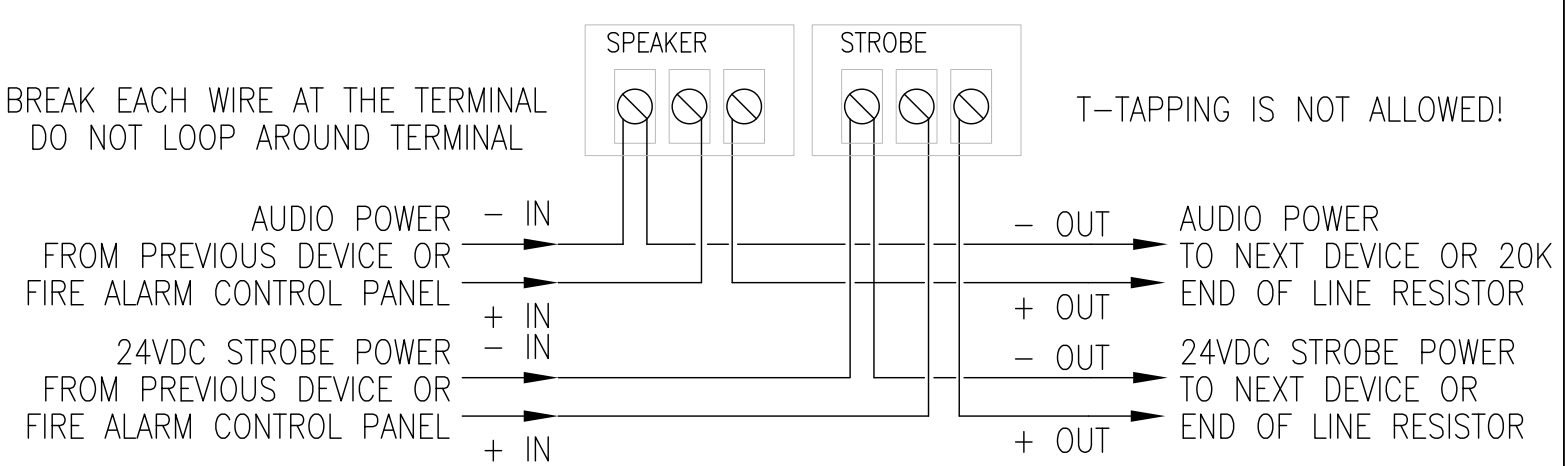
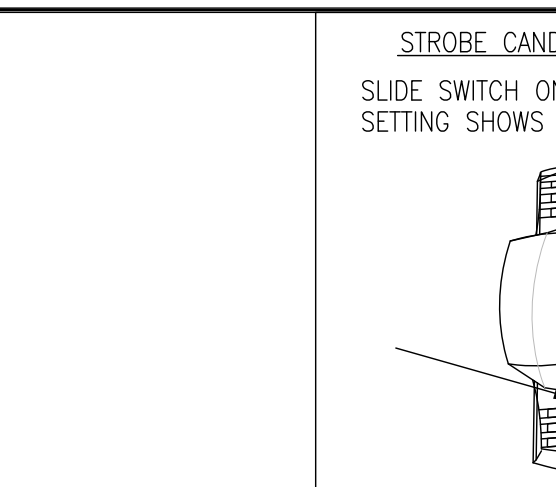
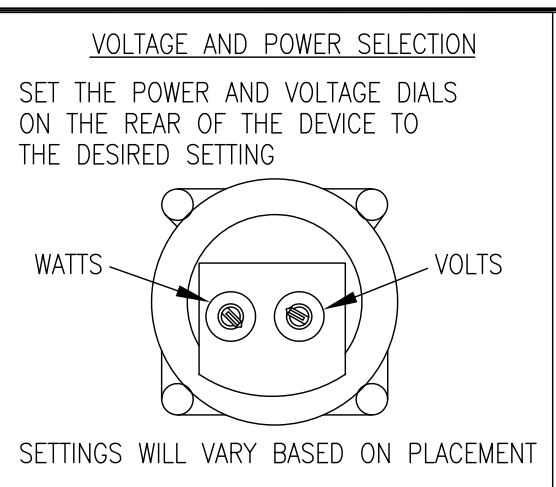
MOUNTING (INDOOR WALL):
4" SQUARE x 2-1/8" DEEP ELECTRICAL BOX
SEE PRODUCT INSTALLATION SHEET FOR MOUNTING INSTRUCTIONS

1 SYSTEM SENSOR SPSRL SPEAKER/STROBES
FA2.3 SELECTABLE OUTPUT WALL MOUNT SPEAKER STROBE



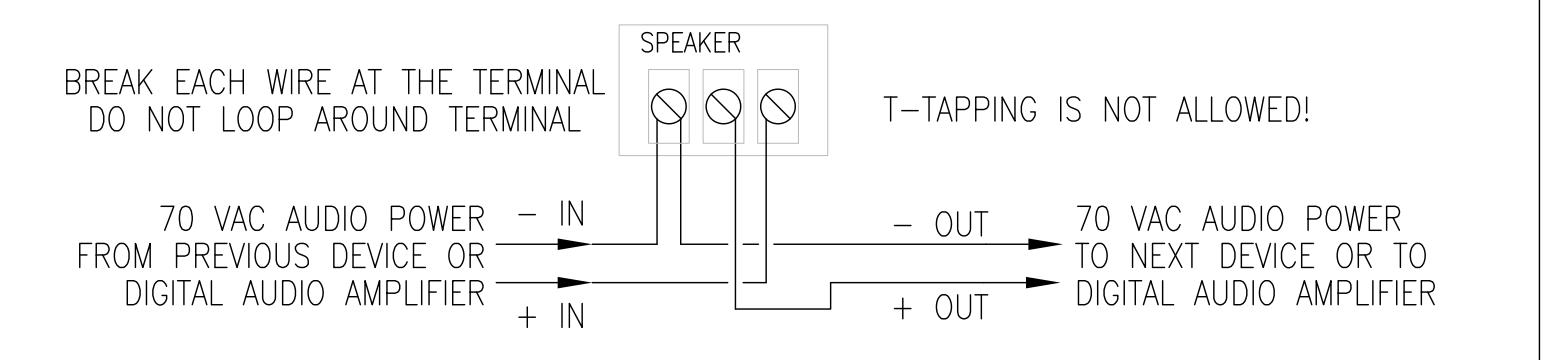
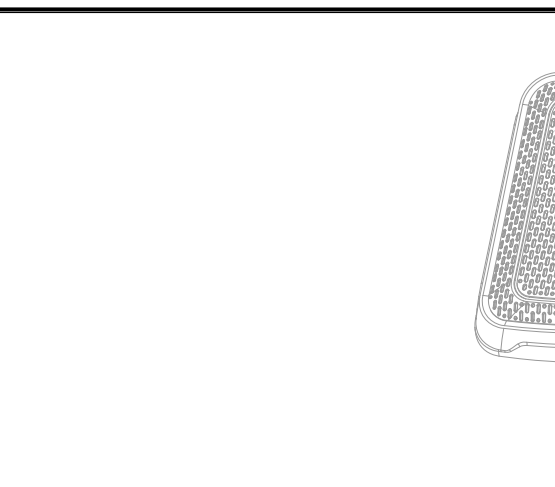
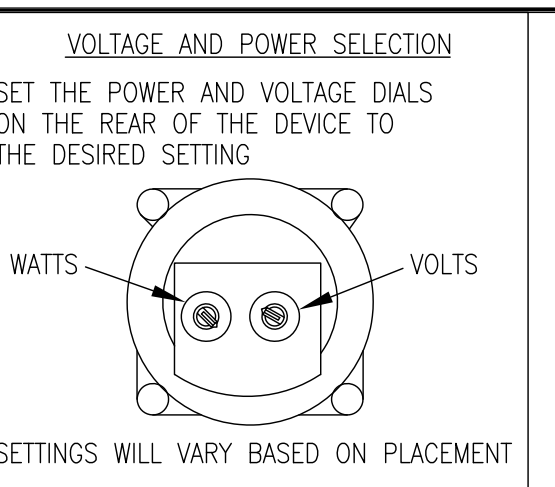
MOUNTING OPTIONS:
MOUNT ON SINGLE OR DOUBLE GANG ELECTRICAL BOX WITH MOUNTING PLATE
SEE PRODUCT INSTALLATION SHEET FOR MOUNTING INSTRUCTIONS

2 SYSTEM SENSOR SRL CLEAR STROBES
FA2.3 SELECTABLE OUTPUT INDOOR WALL MOUNT STROBES



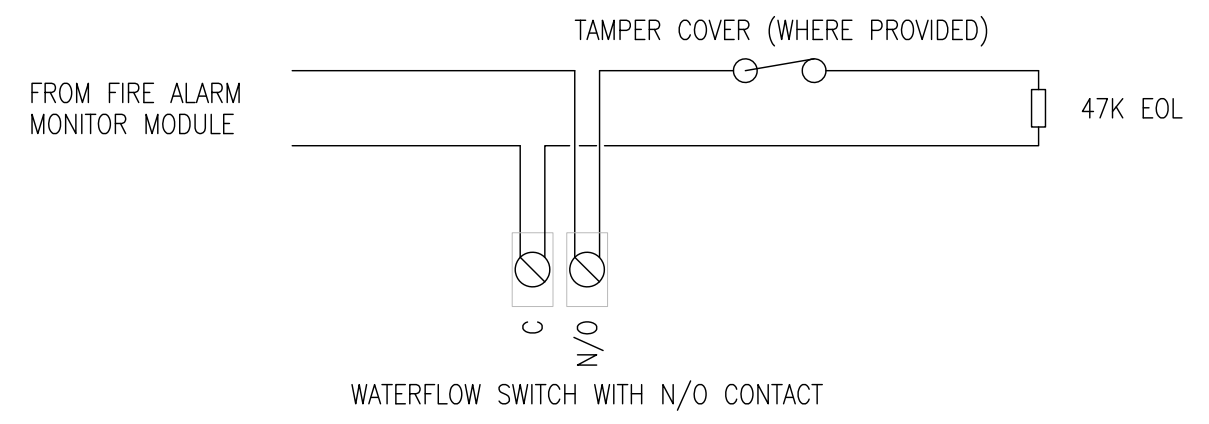
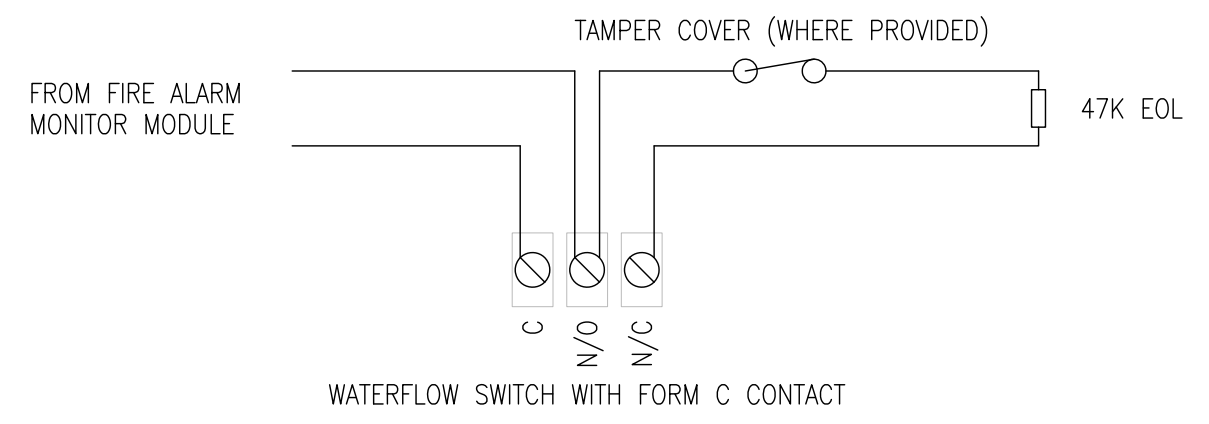
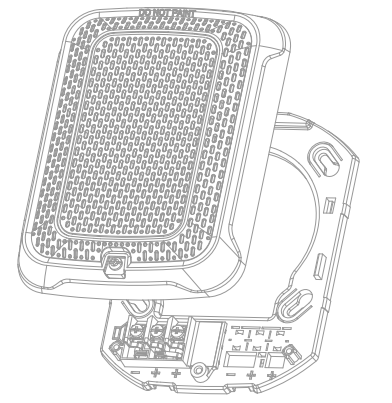
MOUNTING (OUTDOOR WALL):
4" SQUARE x 2-1/8" DEEP ELECTRICAL BOX
SEE PRODUCT INSTALLATION SHEET FOR MOUNTING INSTRUCTION

3 SPECTRALERT SPSRK SPEAKER-STROBES
FA2.3 DUAL VOLTAGE EVACUATION SPEAKERS / SELECTABLE OUTPUT STROBES

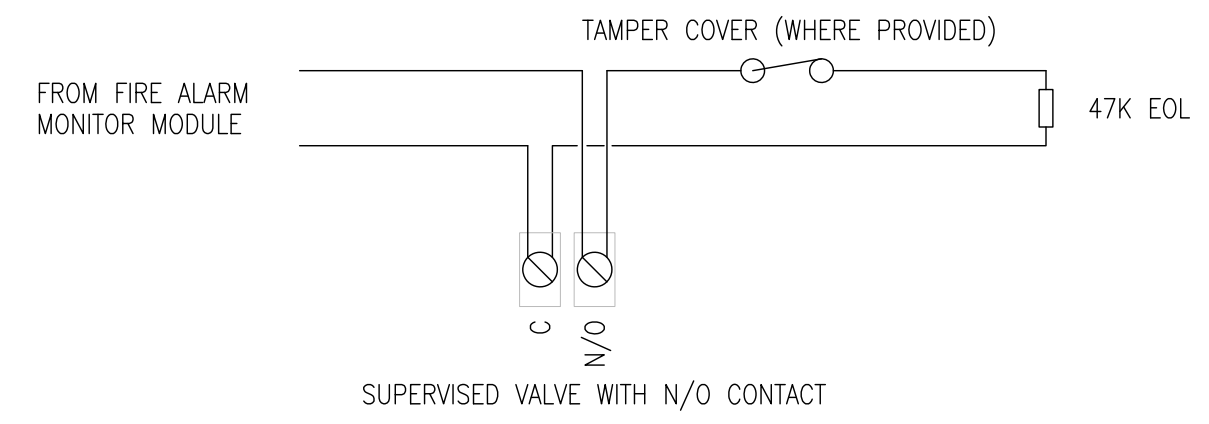
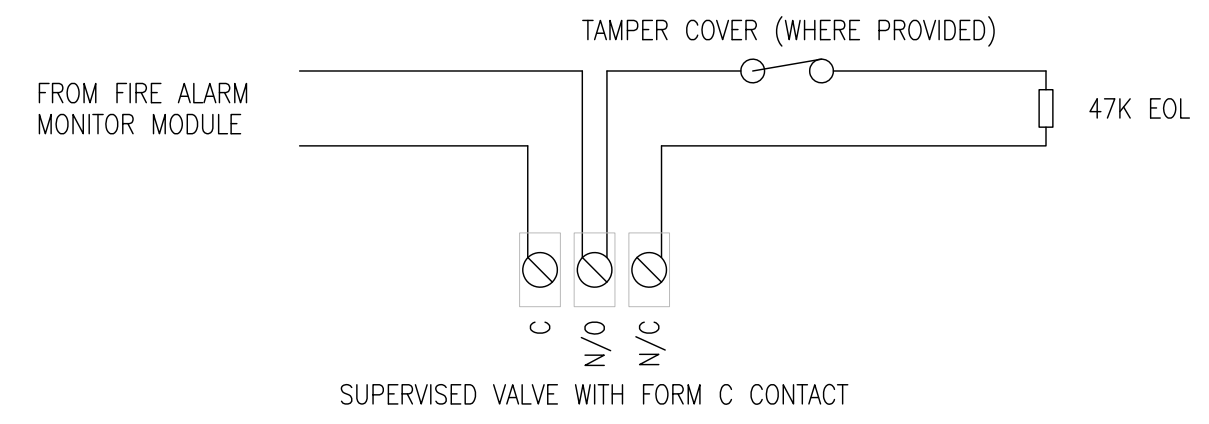


MOUNTING (INDOOR WALL):
SINGLE OR DOUBLE GANG ELECTRICAL BOX WITH MOUNTING PLATE
SEE PRODUCT INSTALLATION SHEET FOR MOUNTING INSTRUCTIONS

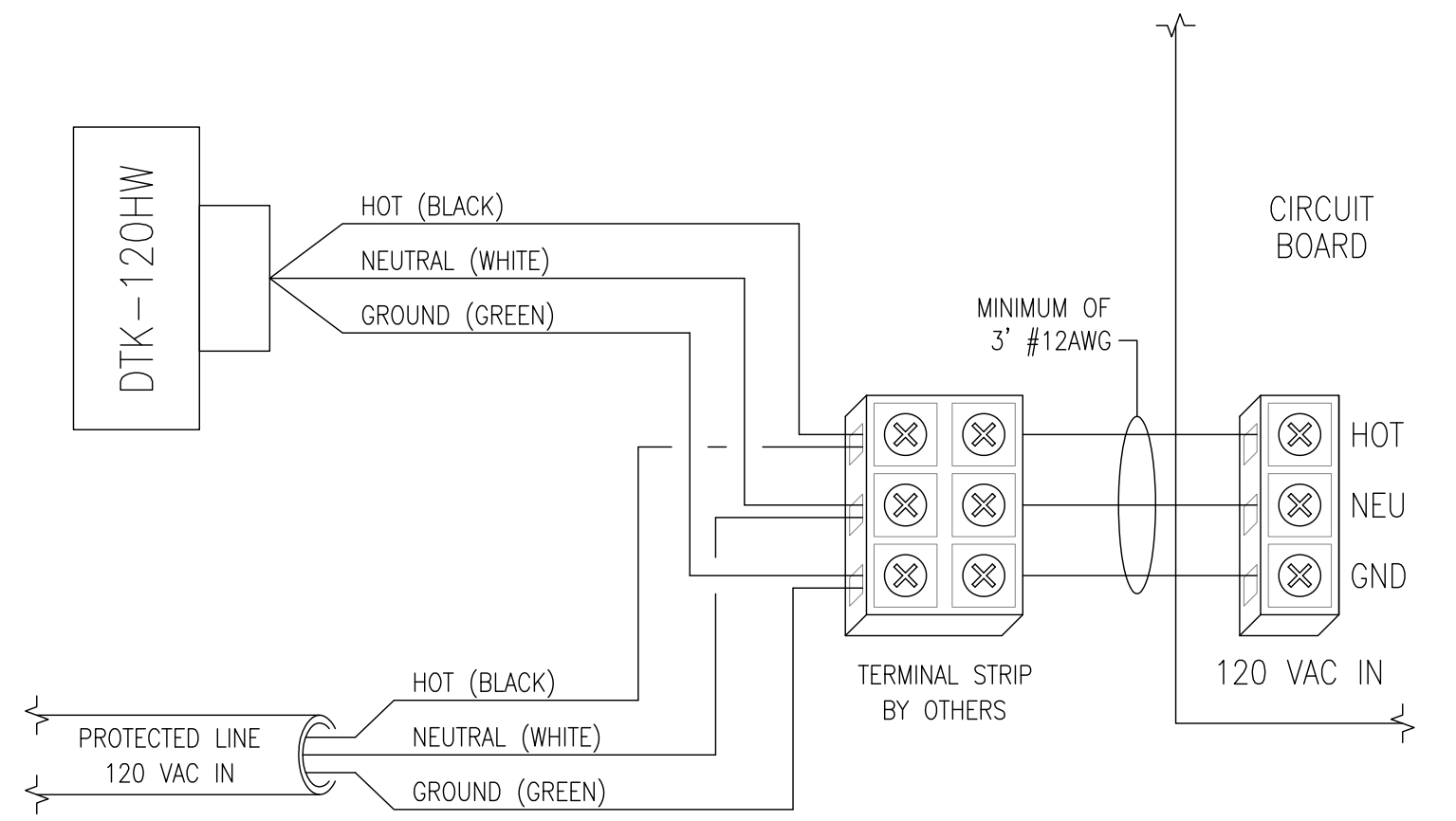
4 SYSTEM SENSOR SPRL SPEAKER
FA2.3 DUAL VOLTAGE EVAC SPEAKERS



5 SPRINKLER FLOW SWITCH WIRING
FA2.3



6 SUPERVISED VALVE WIRING
FA2.3



7 DTK-120HW AC SURGE SUPPRESSOR WIRING
FA2.3 FOR CONNECTION TO CONTROL PANEL AC MAINS

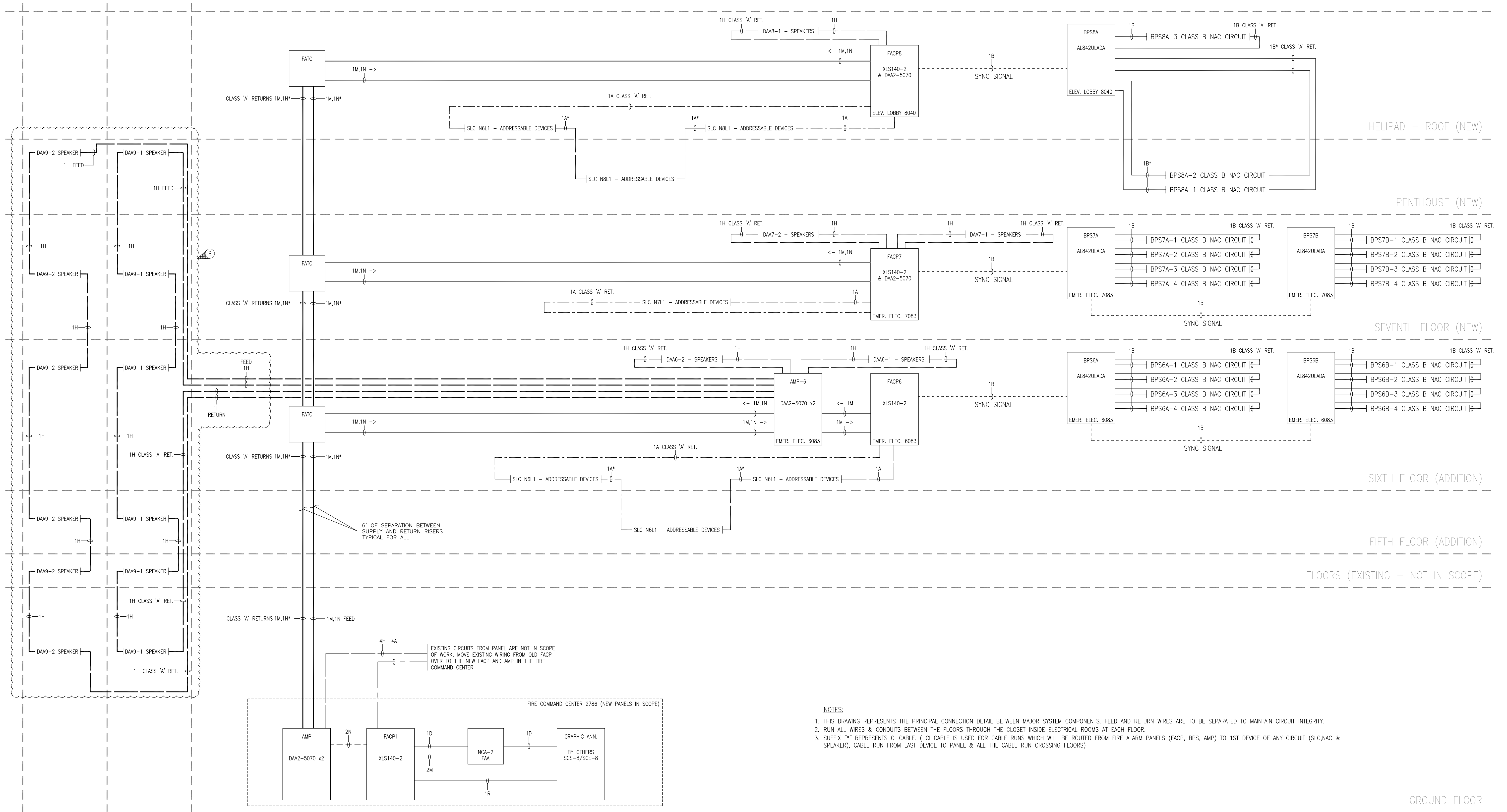


Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
11/19/2019

REV F		BY	Field Device Wiring
REV E		BY	Sheet 3 of 3
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B		BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
REV A	Issued For Review	BY	22 Bramhall Street Portland, ME 04102
Jan 23/19		JH	DRAWING NUMBER USB-017267-FA2.3
			REV A

EAST TOWER BUILDING EXPANSION

STAIR 43 STAIR 42



- NOTES:
1. THIS DRAWING REPRESENTS THE PRINCIPAL CONNECTION DETAIL BETWEEN MAJOR SYSTEM COMPONENTS. FEED AND RETURN WIRES ARE TO BE SEPARATED TO MAINTAIN CIRCUIT INTEGRITY.
 2. RUN ALL WIRES & CONDUITS BETWEEN THE FLOORS THROUGH THE CLOSET INSIDE ELECTRICAL ROOMS AT EACH FLOOR.
 3. SUFFIX "*" REPRESENTS CI CABLE. (CI CABLE IS USED FOR CABLE RUNS WHICH WILL BE ROUTED FROM FIRE ALARM PANELS (FACP, BPS, AMP) TO 1ST DEVICE OF ANY CIRCUIT (SLC,NAC & SPEAKER), CABLE RUN FROM LAST DEVICE TO PANEL & ALL THE CABLE RUN CROSSING FLOORS)

CABLE FUNCTIONS	
--- SLC (SIGNALLING LINE CIRCUITS; ADDRESSABLE SLC LOOP)	----- 24VDC POWER/MISCALENOUSS WIRING
--- STROBES (NOTIFICATION APPLIANCE CIRCUITS)	----- DIGITAL AUDIO LOOP (DAL)
--- SPEAKERS (NOTIFICATION APPLIANCE CIRCUITS)	----- XLS NETWORK (XLS-NET)
--- BPS SYNCHRONIZATION	

REV	DESCRIPTION	BY	DATE
REV F		BY	
REV E		BY	
REV D		BY	
REV C		BY	
REV B	Re-Issued For Review	BY	Jun 27/19
REV A	Issued For Review	BY	Jan 23/19

Fire Alarm System
High Level Riser

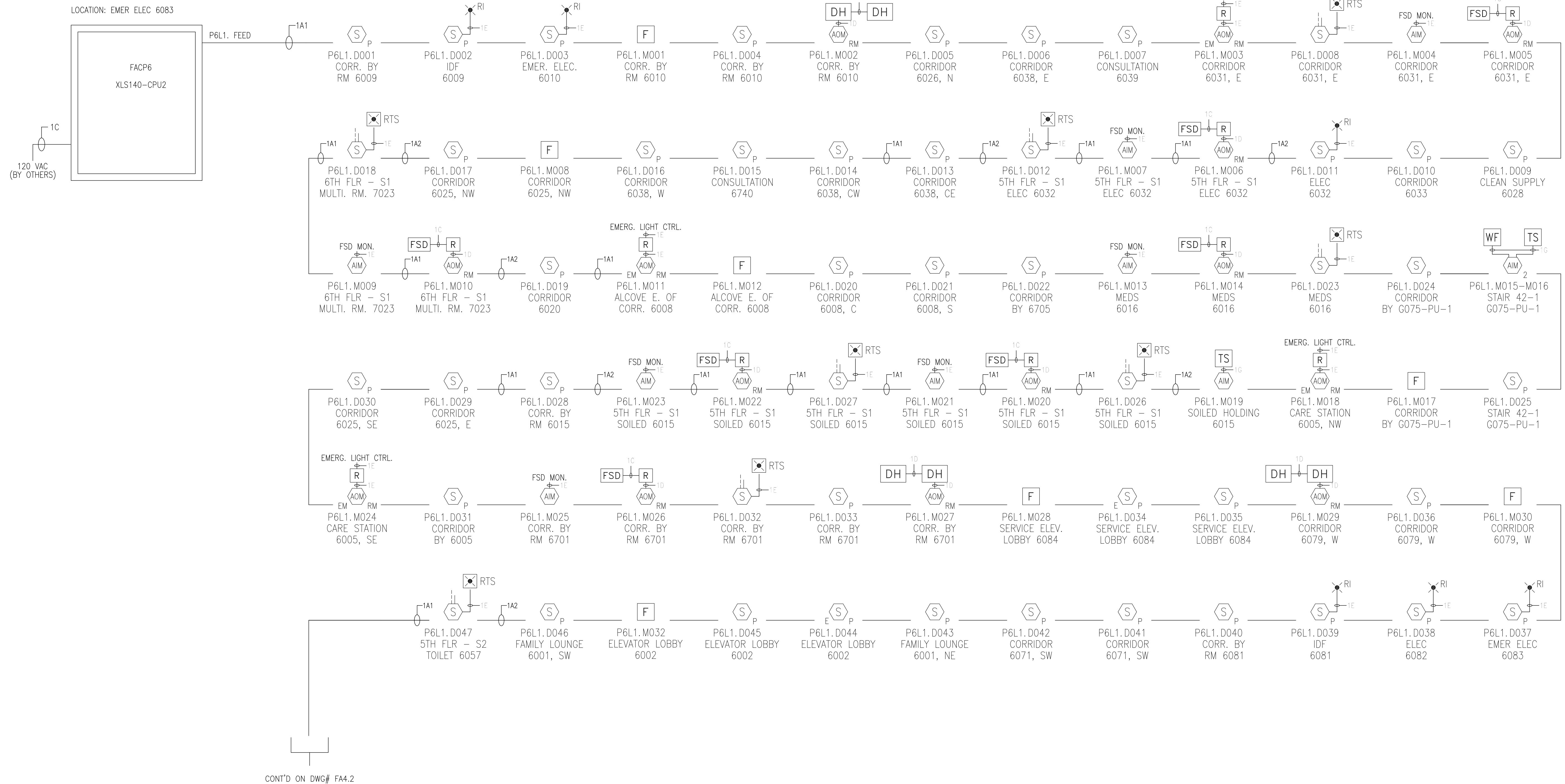
Honeywell *ExpertISE* ©

207 Larrabee Road Westbrook, Maine, 04092-5108

Maine Medical Center
East Tower Expansion
XLS140-2 Fire Alarm System
22 Bramhall Street Portland, ME 04102

DRAWING NUMBER: USB-017267-FA3.1





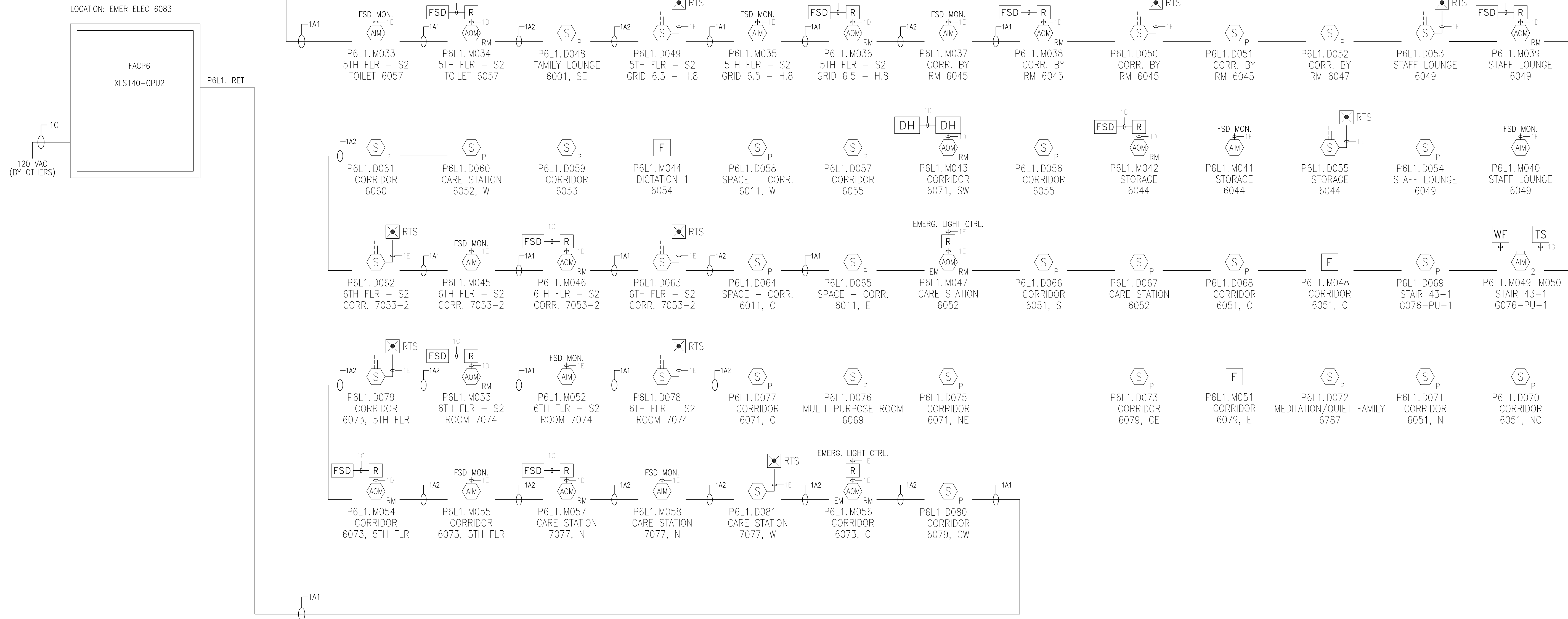
ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	SLC Riser Diagram
REV E		BY	Sheet 1 of 5
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
REV A	Issued For Review	BY	East Tower Expansion
Jan 23/19		JH	XLS140-2 Fire Alarm System
		JH	22 Bramhall Street Portland, ME 04102
			DRAWING NUMBER USB-017267-FA4.1
			REV B



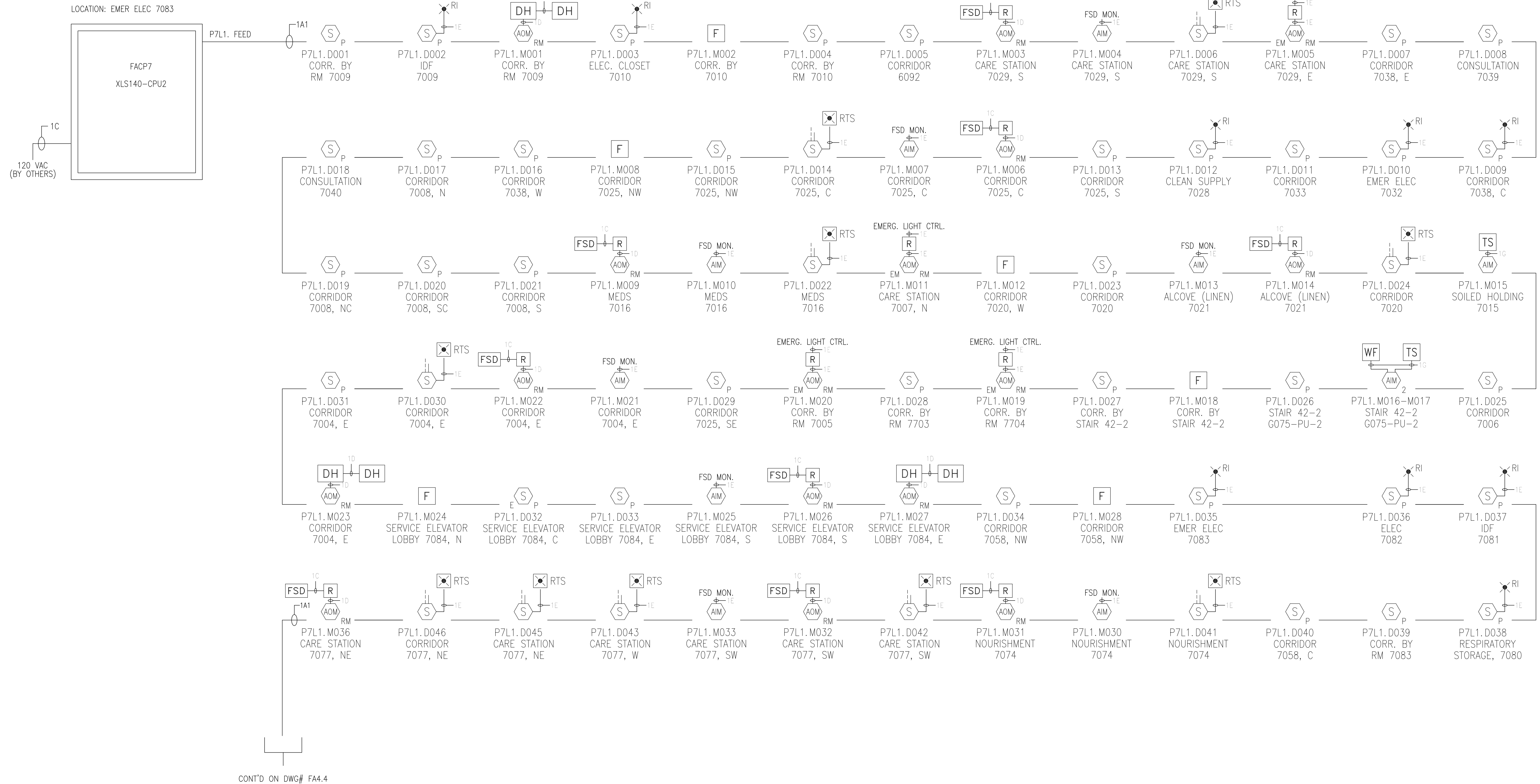
Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
11/19/2019

CONT'D ON DWG# FA4.2



ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	SLC Riser Diagram
REV E		BY	Sheet 2 of 5
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
REV A	Issued For Review	BY	East Tower Expansion
Jan 23/19		JH	XLS140-2 Fire Alarm System
		JH	22 Bramhall Street Portland, ME 04102
			DRAWING NUMBER USB-017267-FA4.2
			REV B



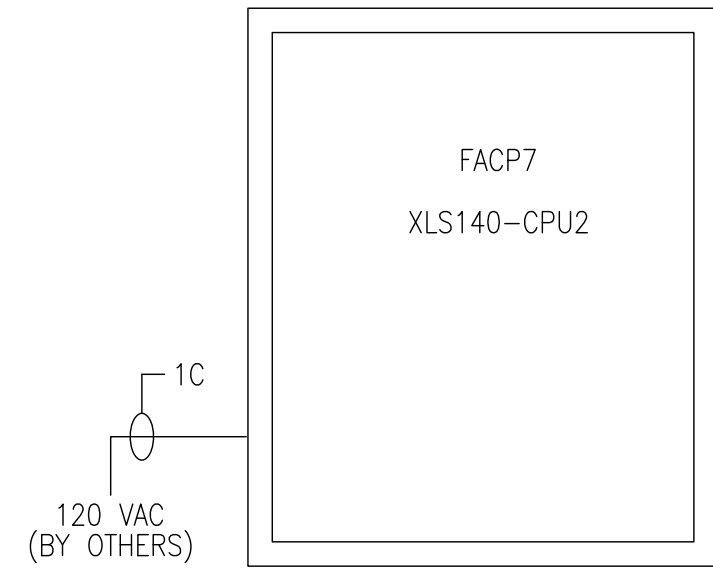
ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	SLC Riser Diagram
REV E		BY	Sheet 3 of 5
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
REV A	Issued For Review	BY	East Tower Expansion
		BY	XLS140-2 Fire Alarm System
		BY	22 Bramhall Street Portland, ME 04102
		BY	DRAWING NUMBER USB-017267-FA4.3
		REV	B

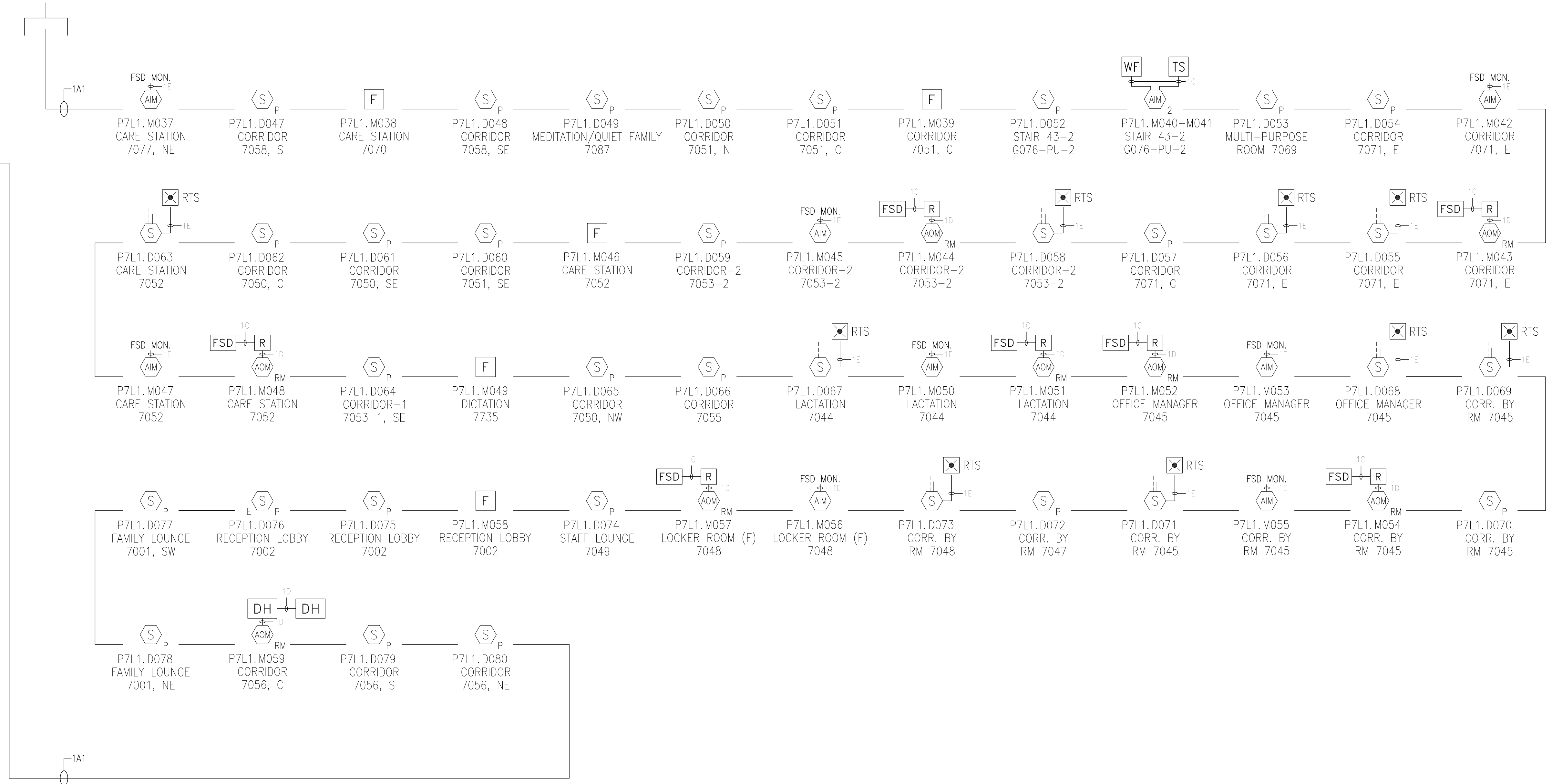


Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
11/19/2019

LOCATION: EMER ELEC 7083



CONT'D ON DWG# FA4.3

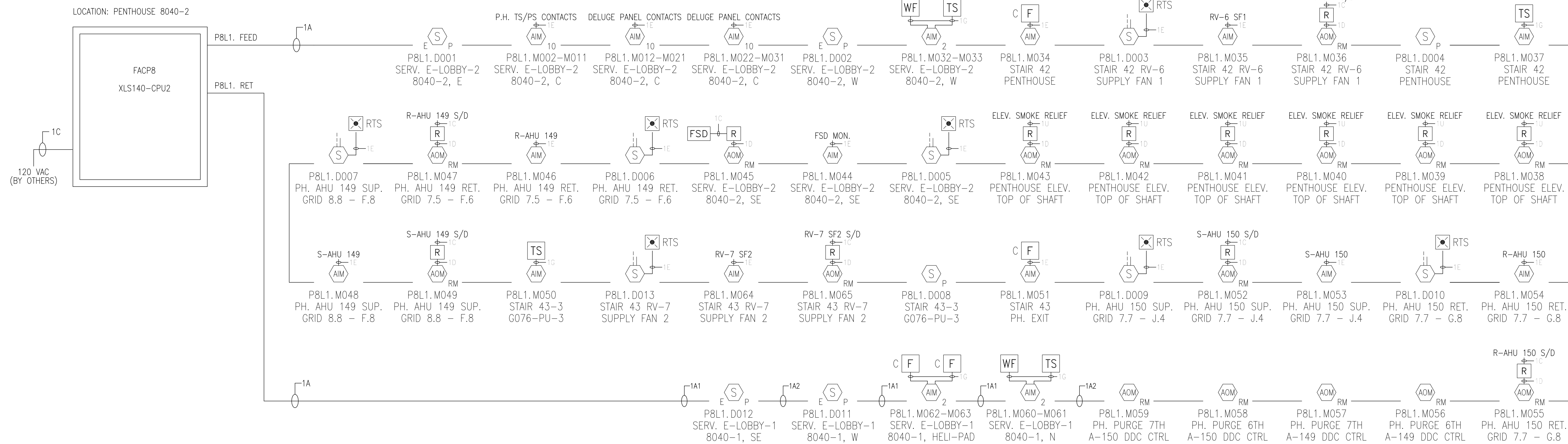


ARCHITECTURAL CHANGES, DEVICE CHANGES
/ RELOCATIONS, CIRCUITS RE-DESIGNED &
RE-ADDRESSED ACCORDINGLY.

REV F		BY	SLC Riser Diagram Sheet 4 of 5
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
REV A	Issued For Review	BY	22 Bramhall Street Portland, ME 04102
REV			DRAWING NUMBER USB-017267-FA4.4
			B



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019

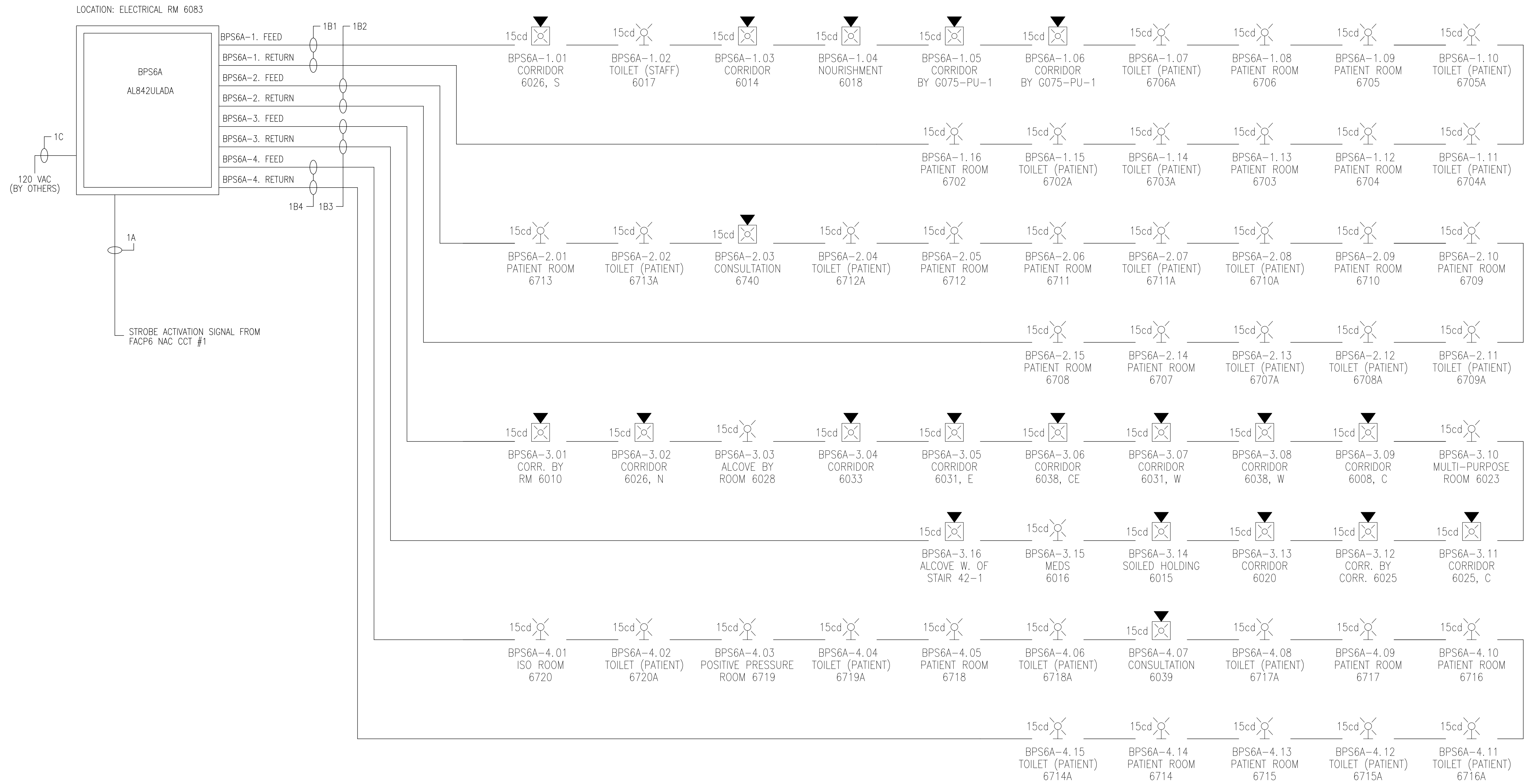


ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	SLC Riser Diagram
REV E		BY	Sheet 5 of 5
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
REV A	Issued For Review	BY	East Tower Expansion
		BY	XLS140-2 Fire Alarm System
		BY	22 Bramhall Street Portland, ME 04102
		BY	DRAWING NUMBER USB-017267-FA4.5
		REV	B

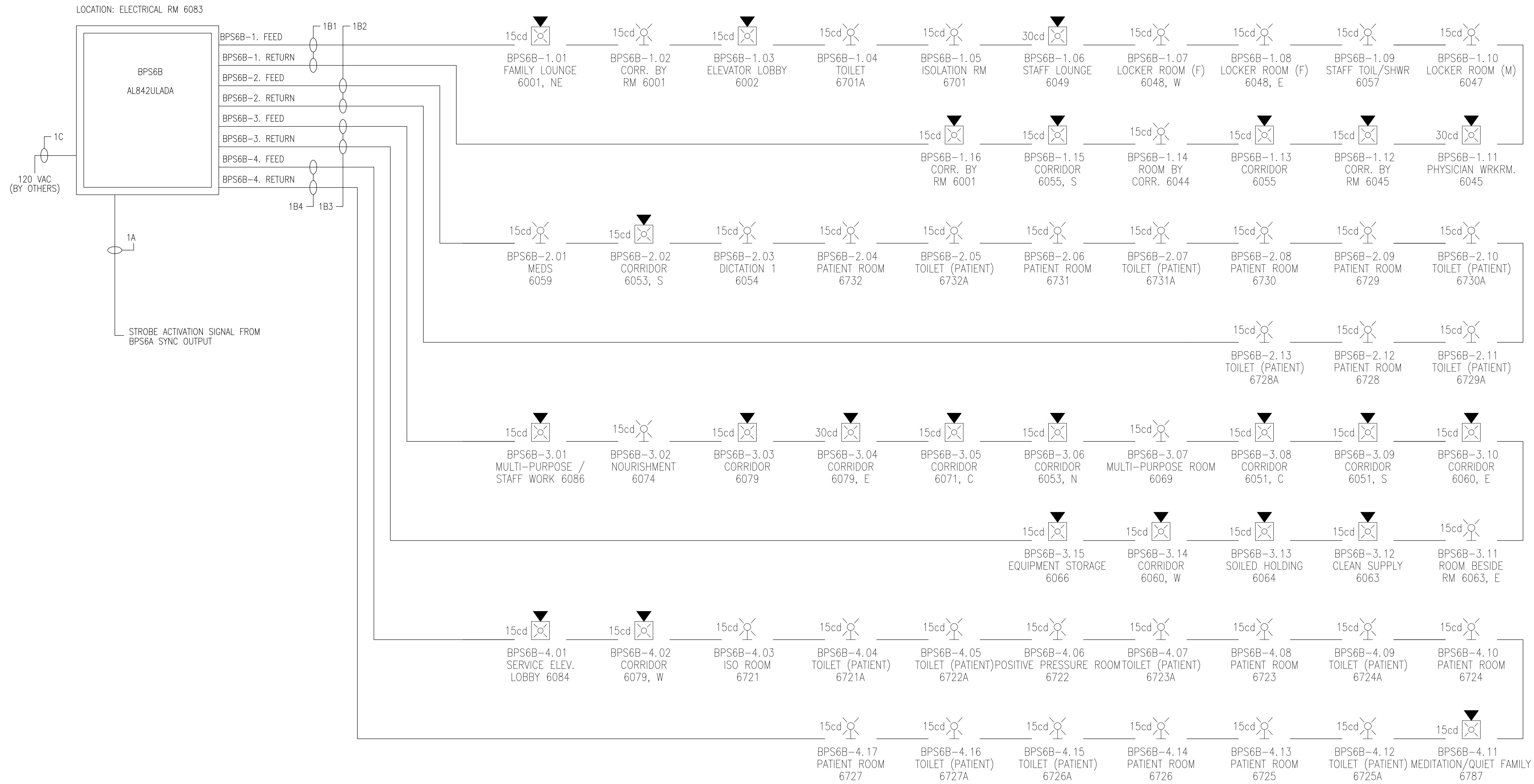


Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019



ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	Strobe Riser Diagram
REV E		BY	Sheet 1 of 5
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
Jun 27/19		JH	East Tower Expansion
REV A	Issued For Review	BY	XLS140-2 Fire Alarm System
Jan 23/19		JH	22 Bramhall Street Portland, ME 04102
			DRAWING NUMBER USB-017267-FA4.6
			REV B

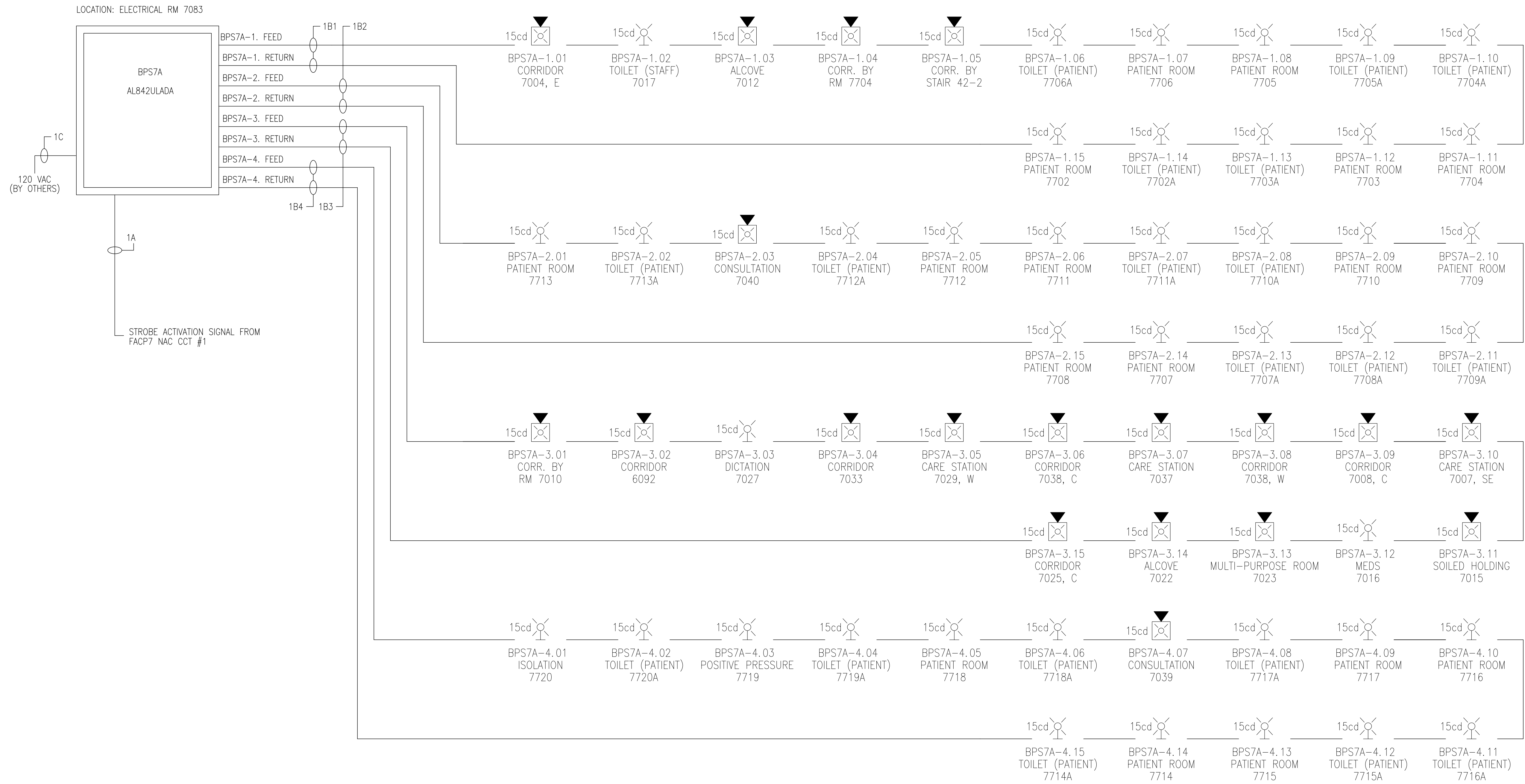


ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	Strobe Riser Diagram
REV E		BY	Sheet 2 of 5
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
Jun 27/19		JH	East Tower Expansion
REV A	Issued For Review	BY	XLS140-2 Fire Alarm System
Jan 23/19		JH	22 Bramhall Street Portland, ME 04102
DRAWING NUMBER			USB-017267-FA4.7
			REV B

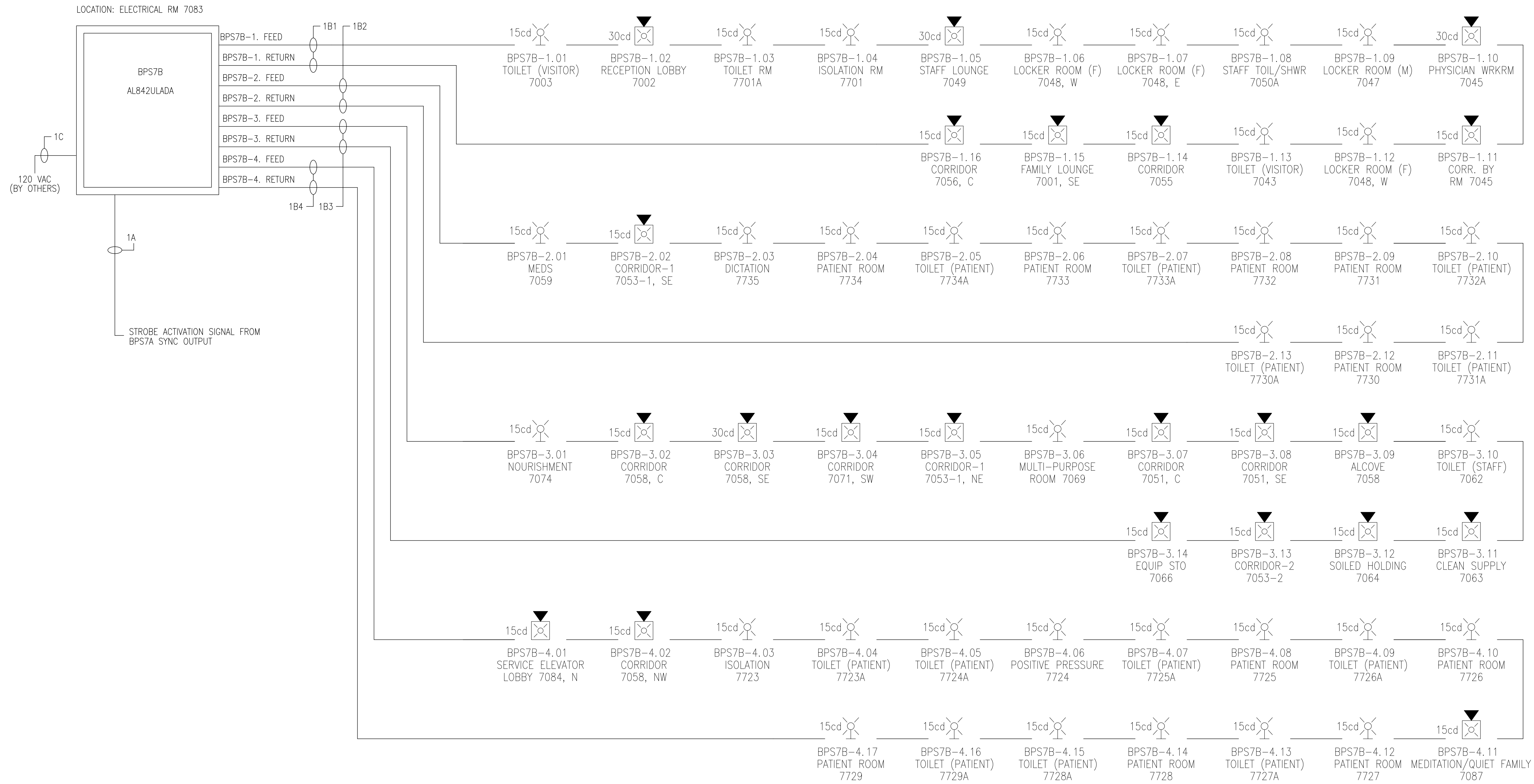


Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019



ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	Strobe Riser Diagram
REV E		BY	Sheet 3 of 5
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
REV A	Issued For Review	JH	East Tower Expansion
Jan 23/19		JH	XLS140-2 Fire Alarm System
			22 Bramhall Street Portland, ME 04102
			DRAWING NUMBER USB-017267-FA4.8
			REV B

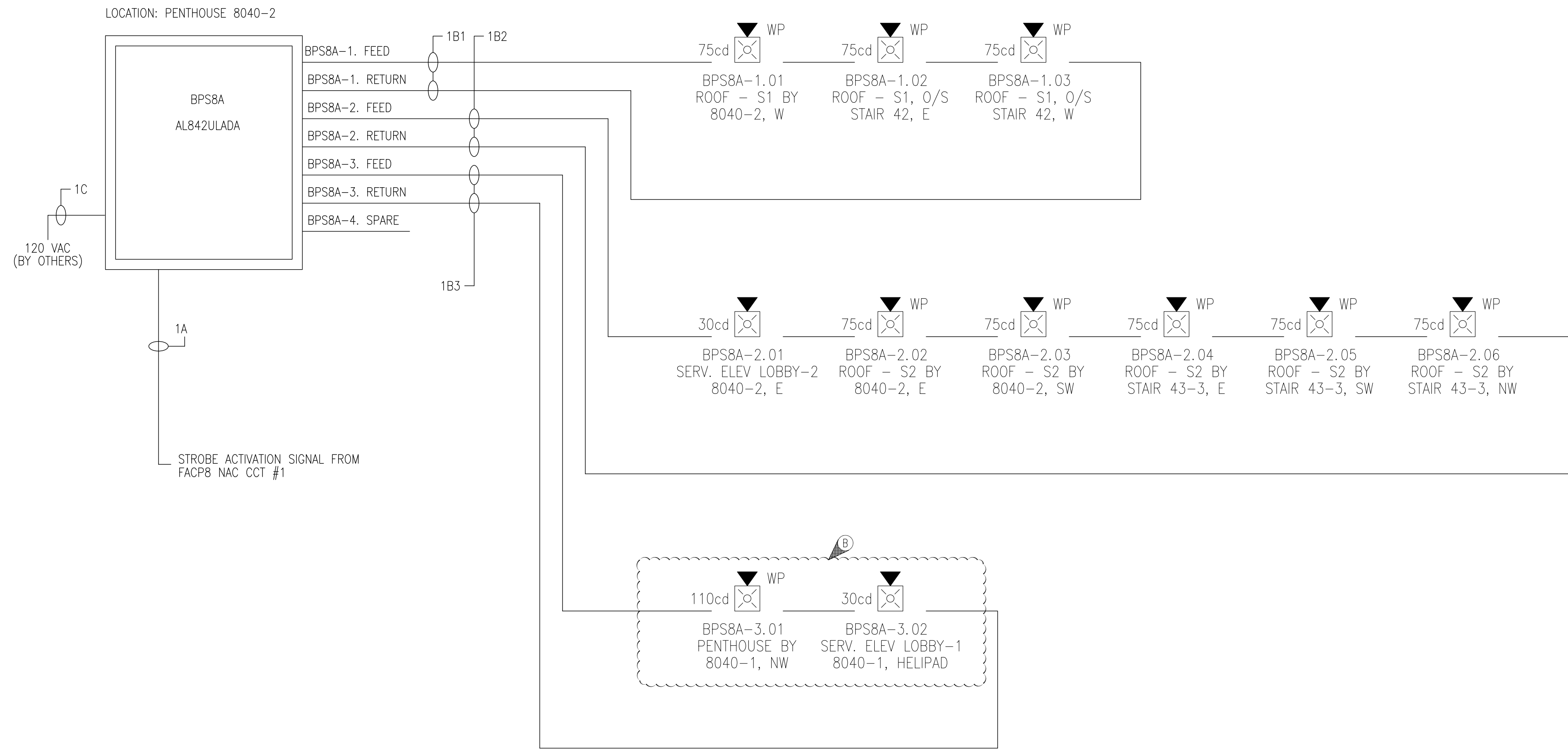


ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	Strobe Riser Diagram
REV E		BY	Sheet 4 of 5
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
Jun 27/19		JH	East Tower Expansion
REV A	Issued For Review	BY	XLS140-2 Fire Alarm System
Jan 23/19		JH	22 Bramhall Street Portland, ME 04102
DRAWING NUMBER			USB-017267-FA4.9
			REV B



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019

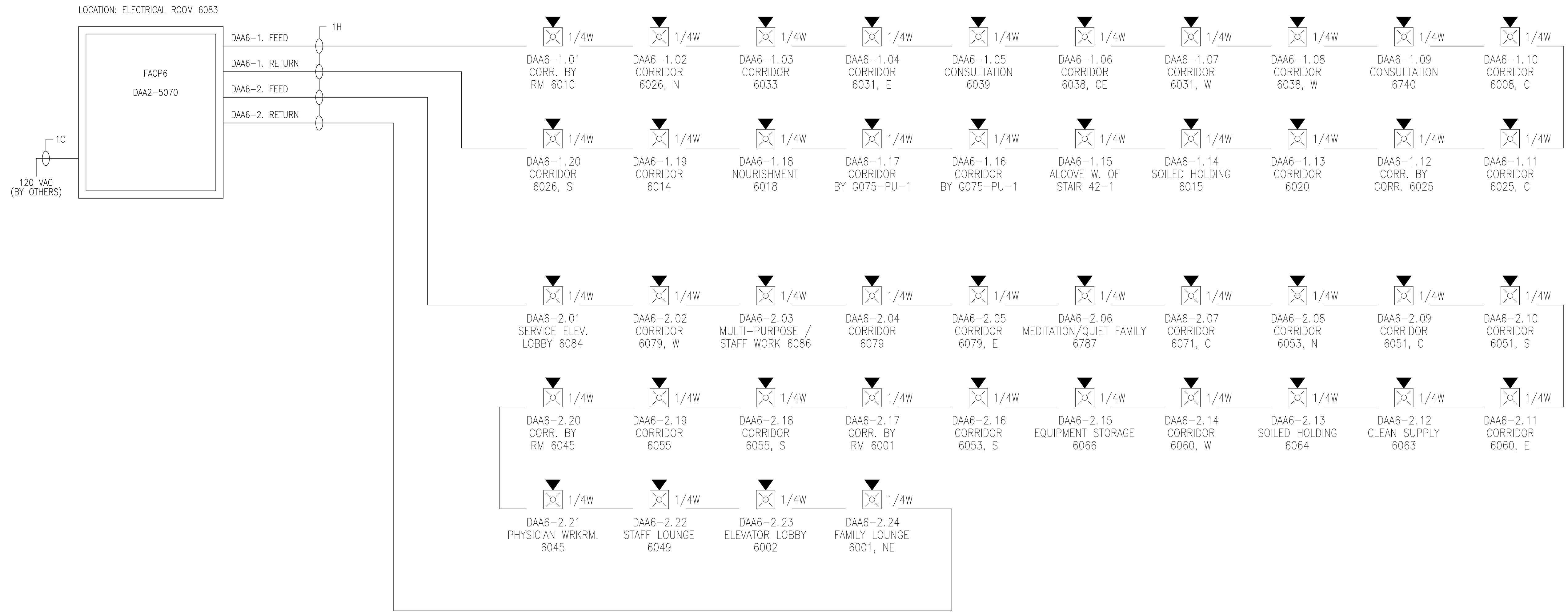


B ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	Strobe Riser Diagram Sheet 5 of 5
REV E		BY	
REV D		BY	Honeywell ExpertISE © 207 Larrabee Road Westbrook, Maine, 04092-5108
REV C		BY	
REV B	Re-Issued For Review	BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System 22 Bramhall Street Portland, ME 04102
REV A	Issued For Review	BY	
Jun 27/19		JH	DRAWING NUMBER USB-017267-FA4.10
Jan 23/19		JH	
			REV B



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019

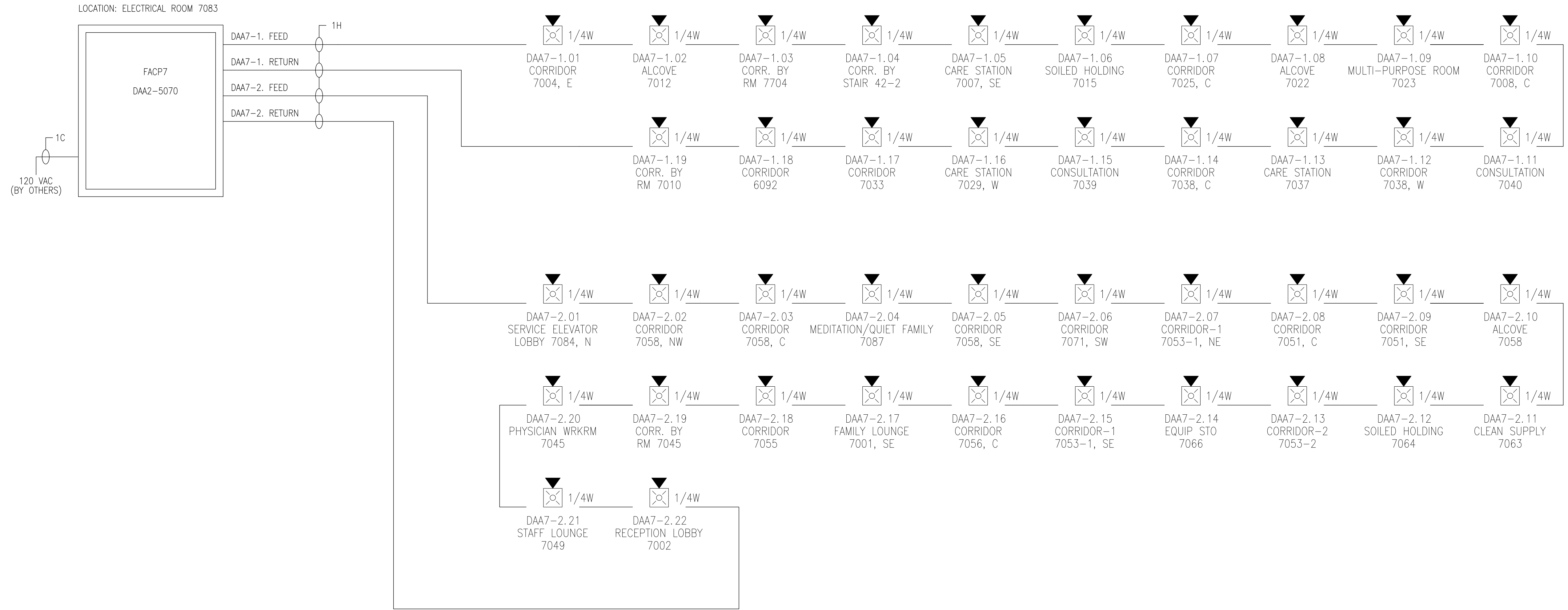


ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	Speaker Riser Diagram Sheet 1 of 3
REV E		BY	
REV D		BY	Honeywell ExpertISE © 207 Larrabee Road Westbrook, Maine, 04092-5108
REV C		BY	
REV B	Re-Issued For Review	BY JH	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System 22 Bramhall Street Portland, ME 04102
REV A	Issued For Review	BY JH	
DRAWING NUMBER USB-017267-FA4.11			REV B



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019

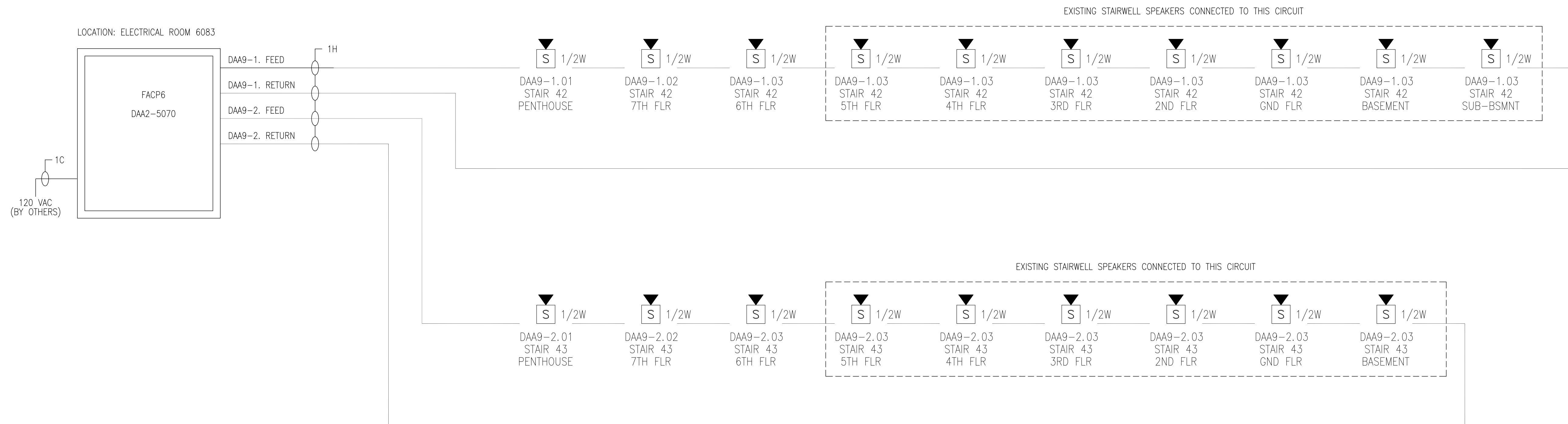
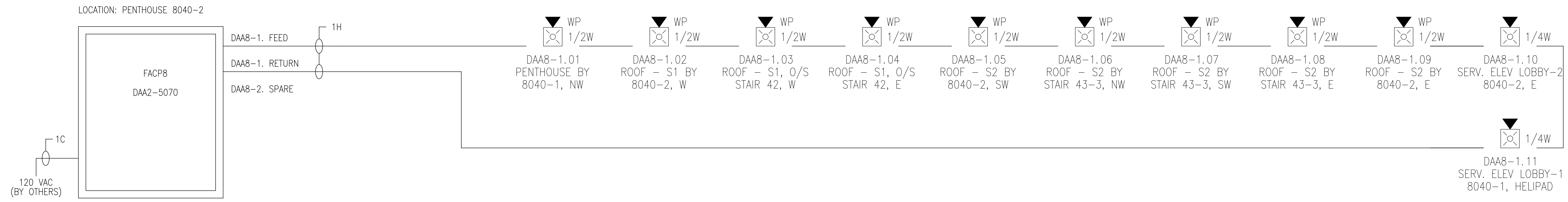


ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	Speaker Riser Diagram Sheet 2 of 3 Honeywell ExpertISE © 207 Larrabee Road Westbrook, Maine, 04092-5108 Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System 22 Bramhall Street Portland, ME 04102 DRAWING NUMBER USB-017267-FA4.12
REV E		BY	
REV D		BY	
REV C		BY	
REV B	Re-Issued For Review	BY JH	
REV A	Issued For Review	BY JH	
			REV B



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019

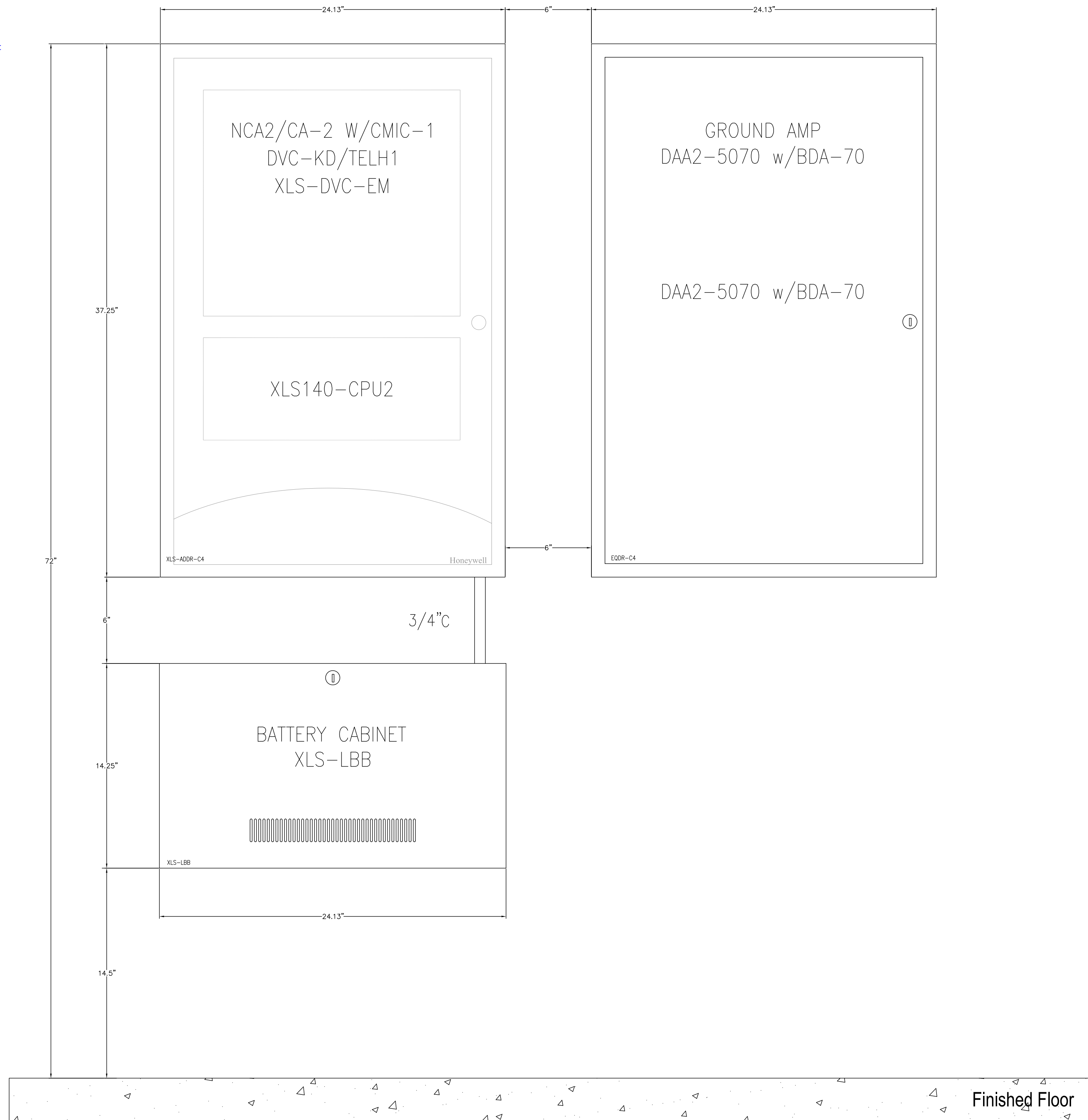


ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

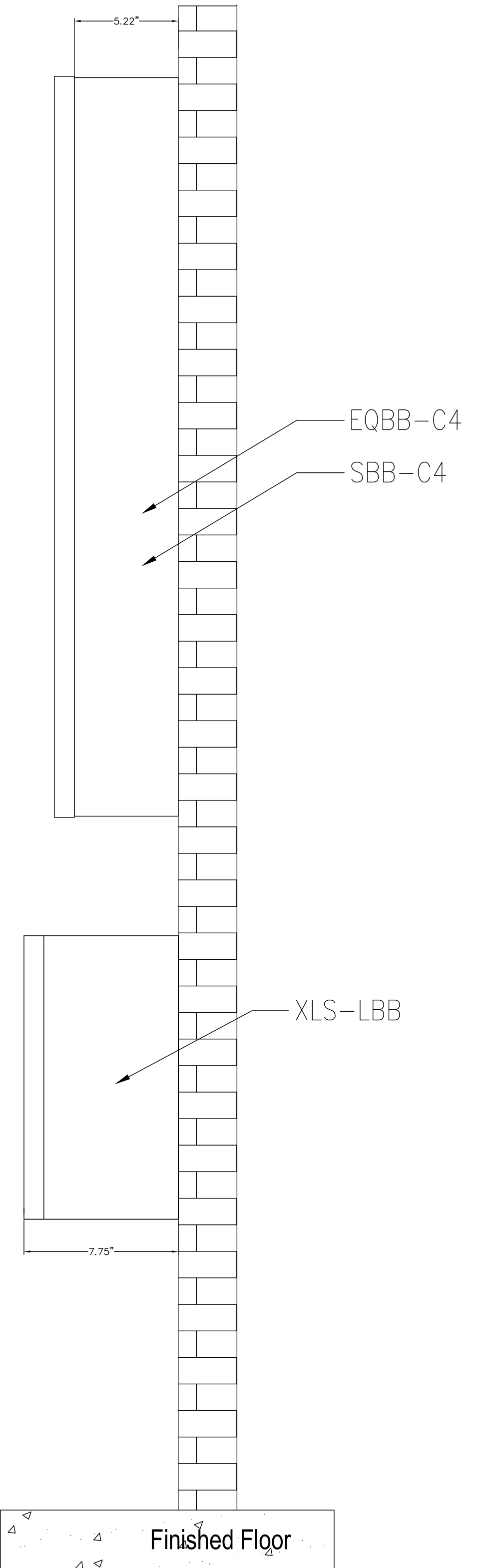
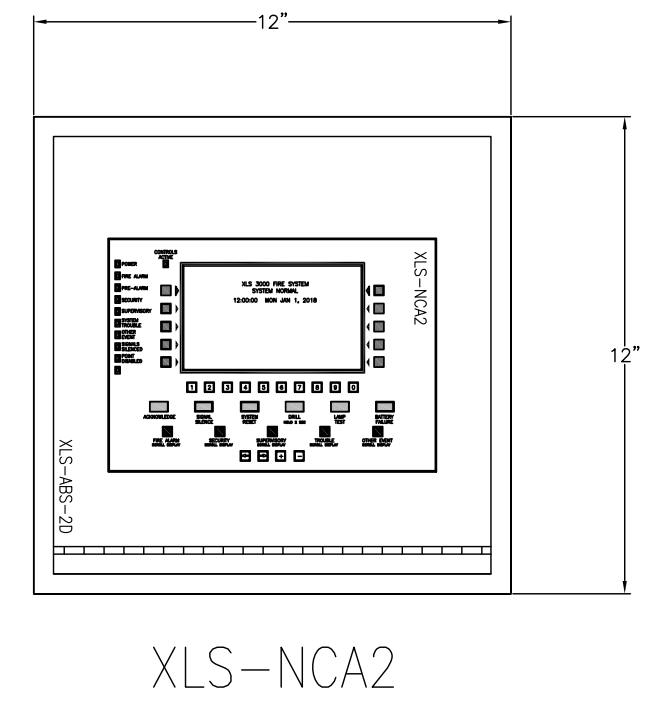
REV F		BY	Speaker Riser Diagram
REV E		BY	Sheet 3 of 3
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
Jun 27/19		JH	East Tower Expansion
REV A	Issued For Review	BY	XLS140-2 Fire Alarm System
Jan 23/19		JH	22 Bramhall Street Portland, ME 04102
DRAWING NUMBER			USB-017267-FA4.13
			REV B



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019



----- FRONT VIEW -----



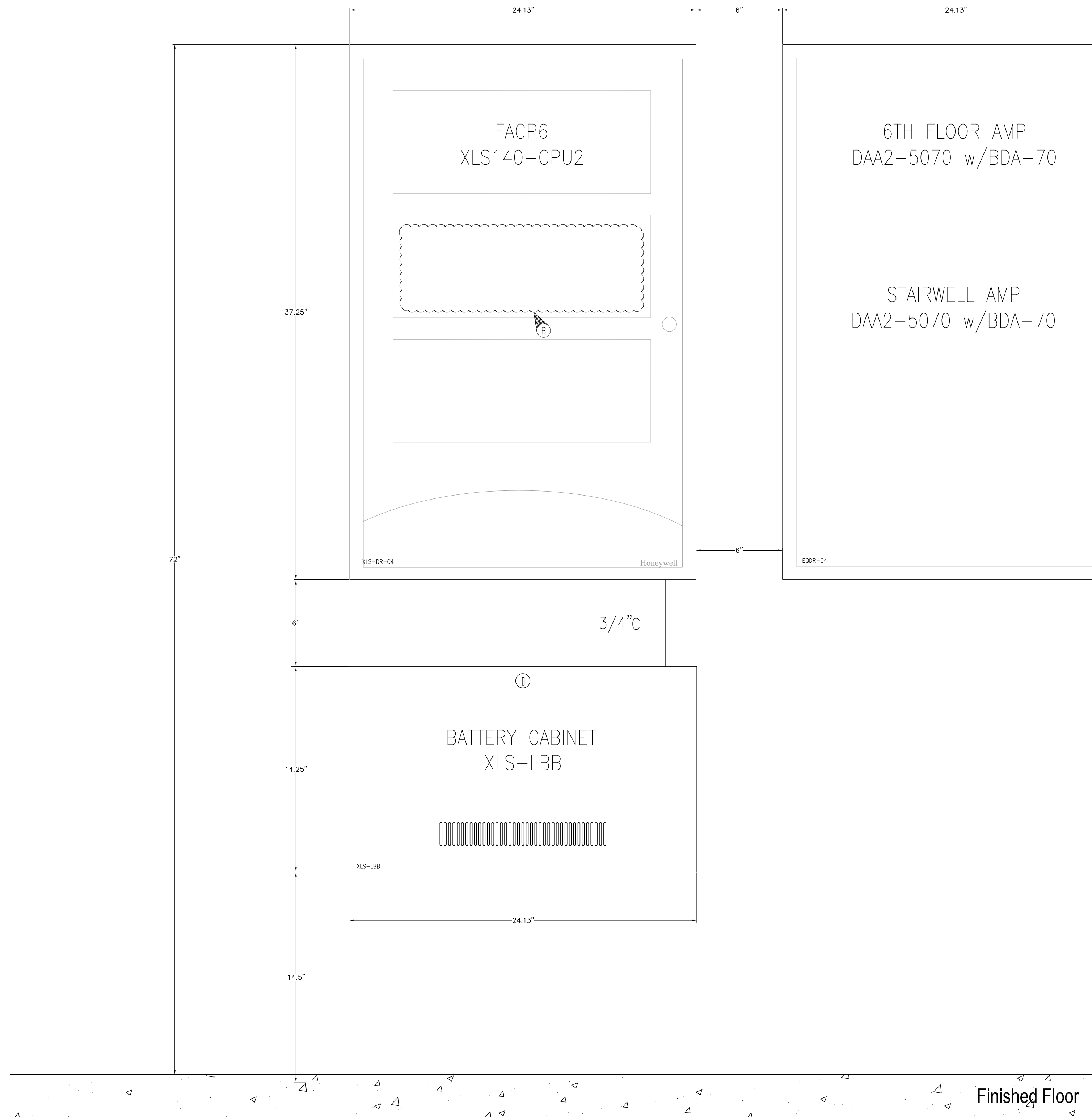
----- SIDE VIEW -----

1 FIRE ALARM EQUIPMENT ELEVATIONS - UPDATE
 FA5.1 LOCATION: 1ST FLOOR (FACP1 FCC 2786)

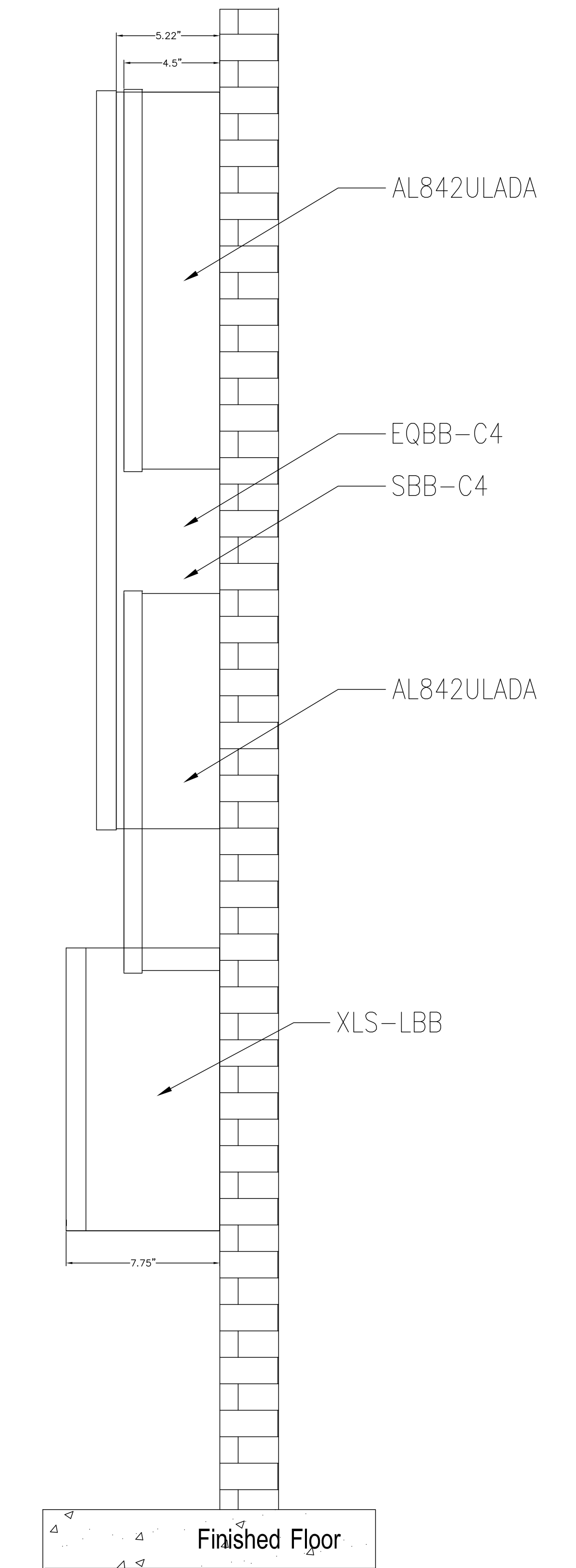
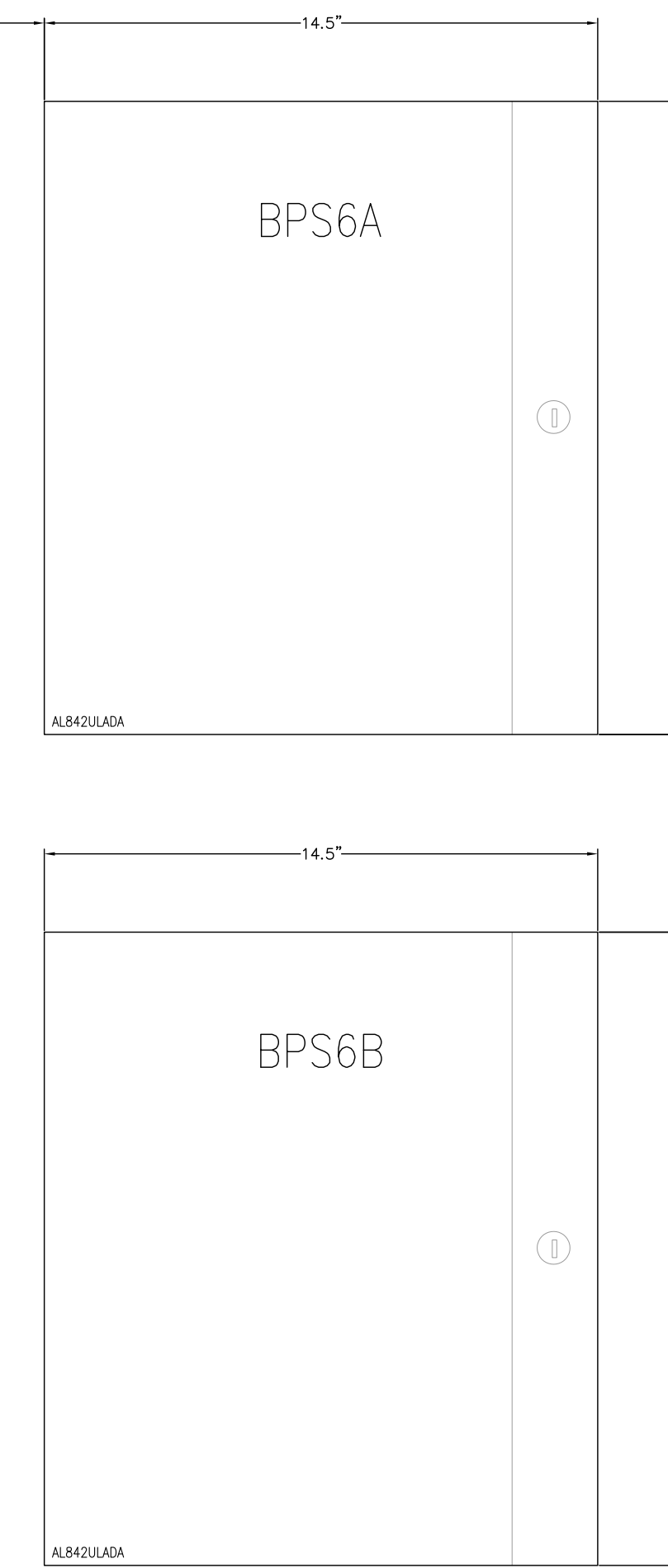
REV F		BY		Panel Elevation Ground Floor Panels
REV E		BY		
REV D		BY		Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108	
REV B		BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System	
REV A	Issued For Review Jan 23/19	BY JH	22 Bramhall Street Portland, ME 04102	DRAWING NUMBER USB-017267-FA5.1
				REV A



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019



----- FRONT VIEW -----



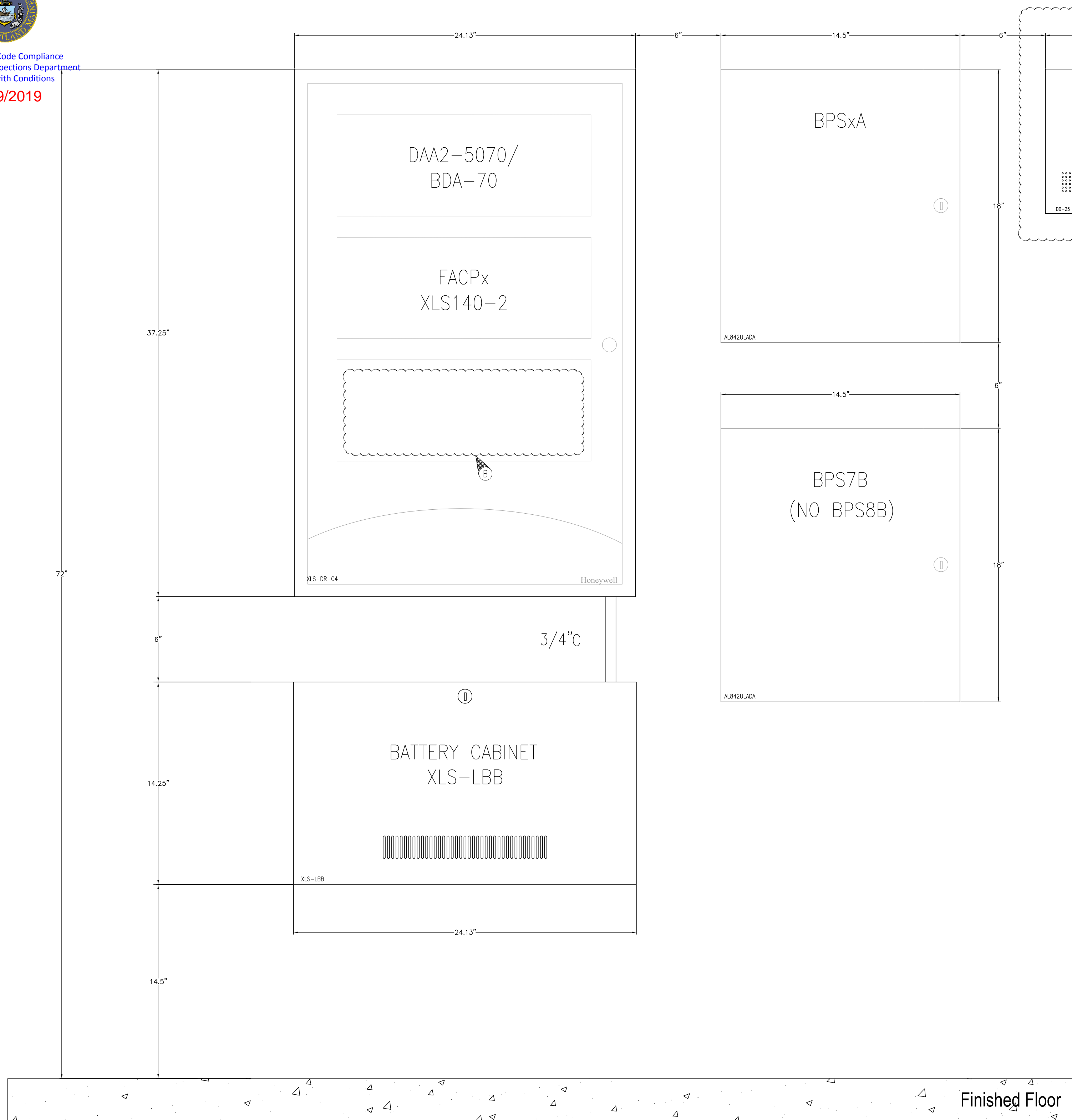
----- SIDE VIEW -----

1 FIRE ALARM EQUIPMENT ELEVATIONS
 FA5.2 LOCATION: 6TH FLOOR (ROOM 6083)

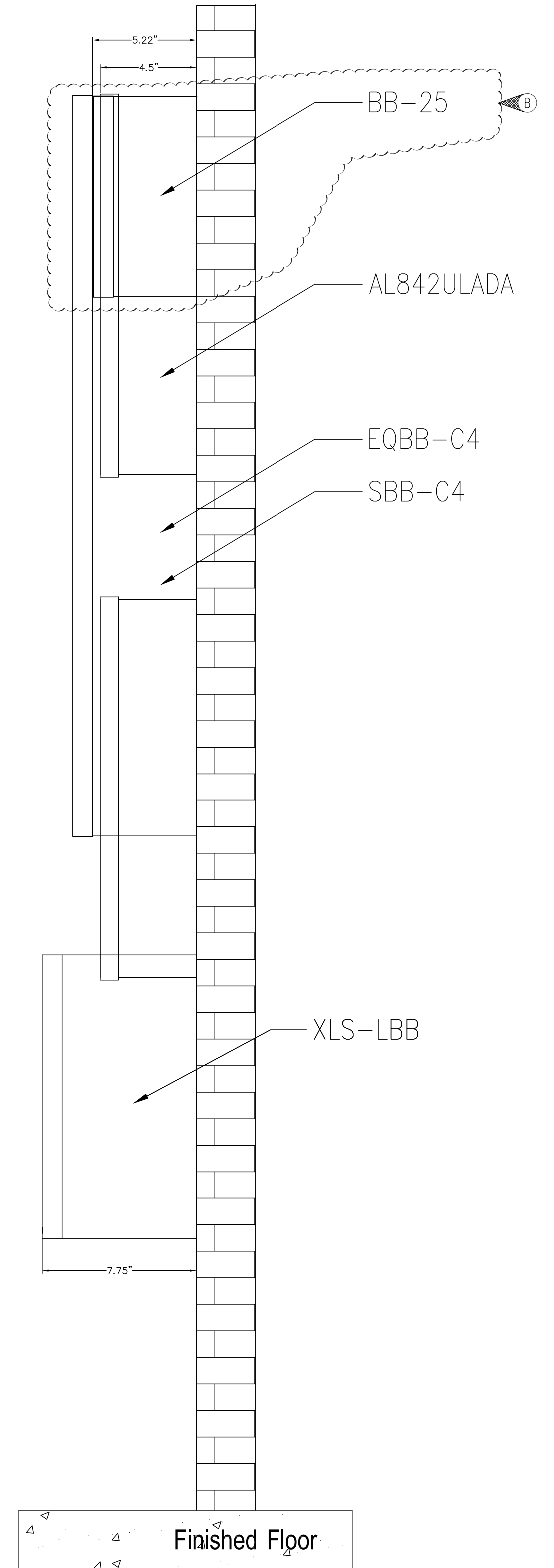
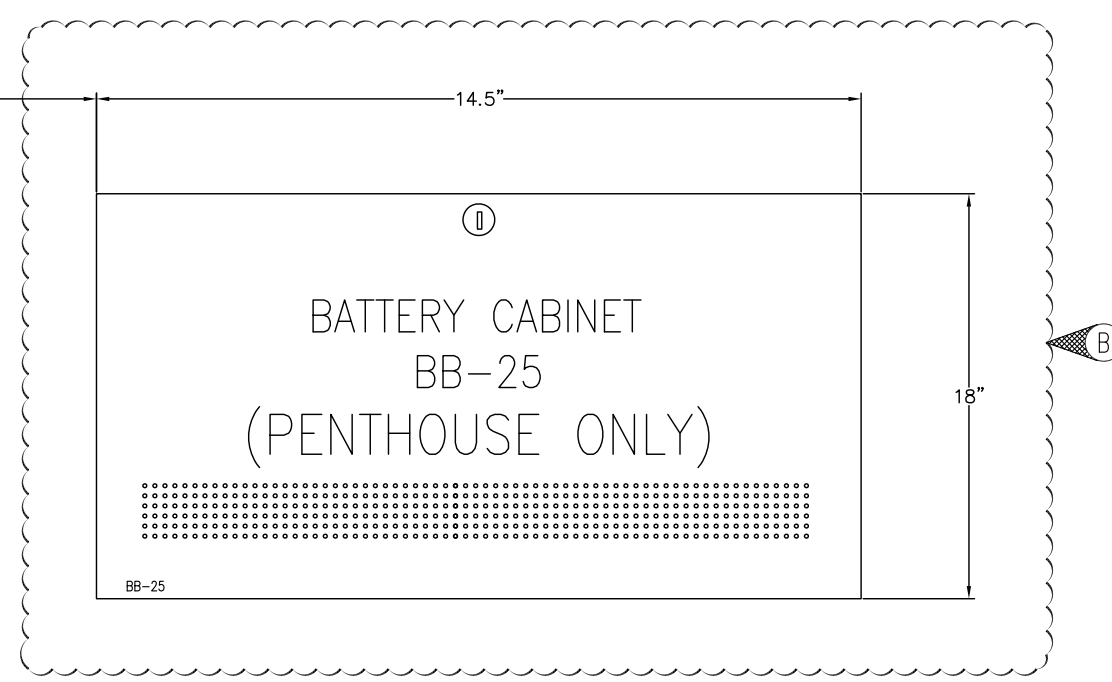
REV F		BY	Panel Elevation
REV E		BY	6th Floor Panels
REV D		BY	Honeywell <i>ExpertISE</i> ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
Jun 27/19		JH	East Tower Expansion
REV A	Issued For Review	BY	XLS140-2 Fire Alarm System
Jan 23/19		JH	22 Bramhall Street Portland, ME 04102
		DRAWING NUMBER	USB-017267-FA5.2
		REV	B



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019



FRONT VIEW



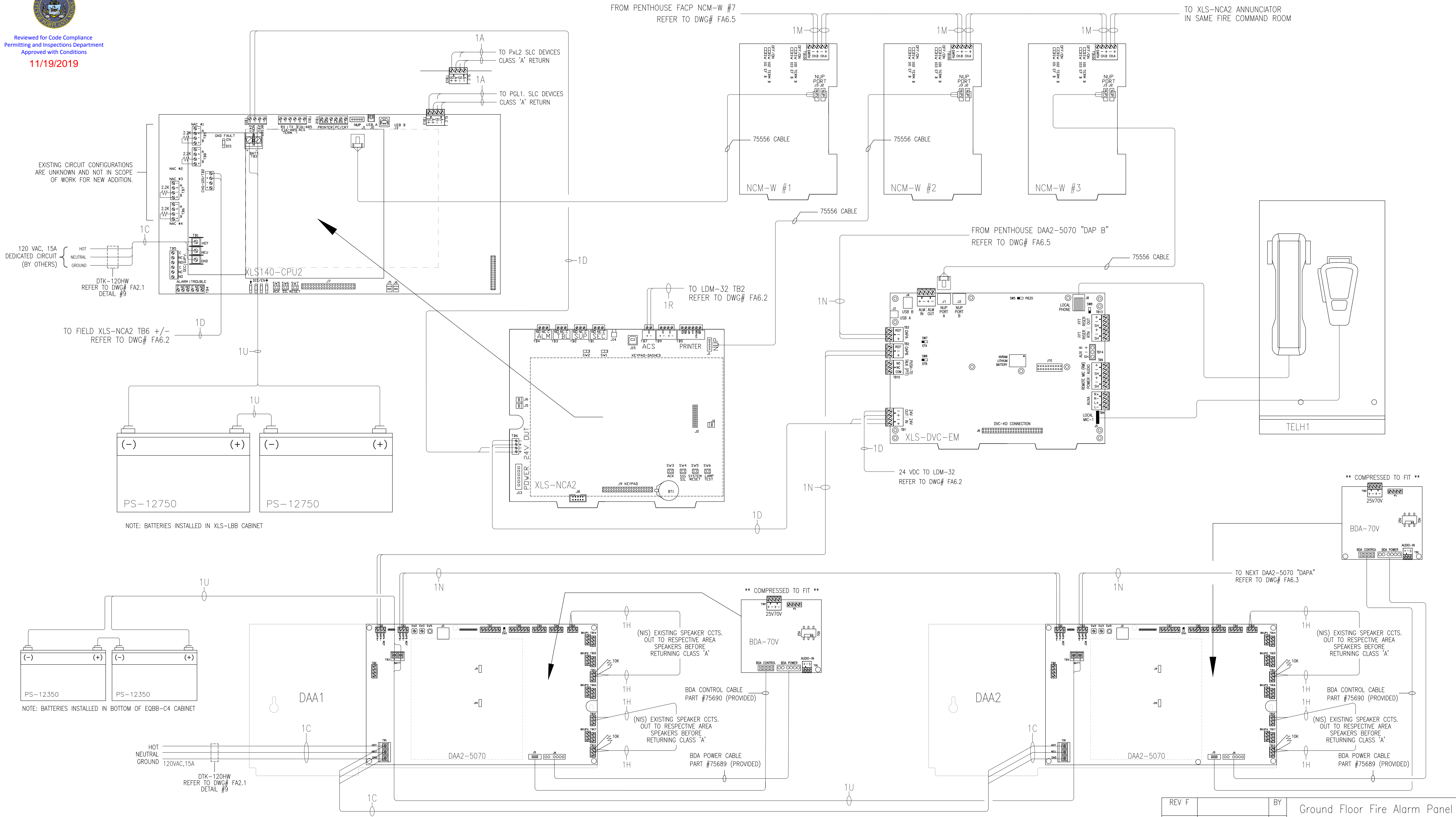
SIDE VIEW

1 FIRE ALARM EQUIPMENT ELEVATIONS
 FA5.3 LOCATION: 7TH FLOOR (ROOM 7083)
 PENTHOUSE (ROOM 8040-2)

REV F		BY	
REV E		BY	Panel Elevation 7th & Penthouse Floor Panels
REV D		BY	Honeywell <i>ExpertISE</i> ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center East Tower Expansion
REV A	Issued For Review	BY	XLS140-2 Fire Alarm System 22 Bramhall Street Portland, ME 04102
REV			DRAWING NUMBER USB-017267-FA5.3
			REV B



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019



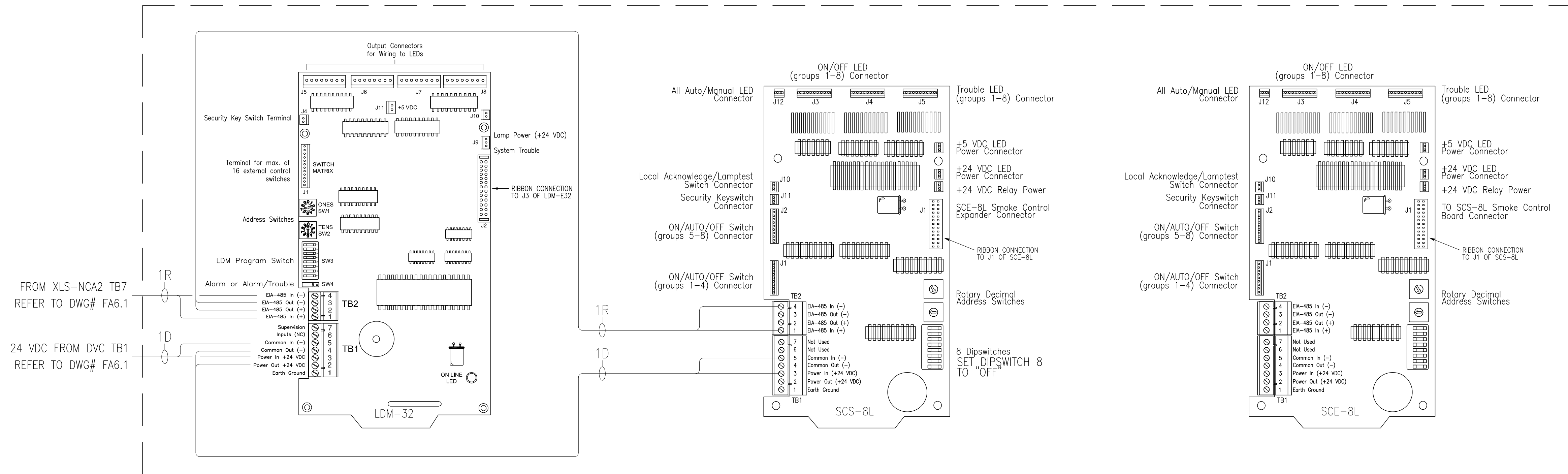
1
 FA6.1 FACP1 FIRE ALARM PANEL INTERNAL WIRING
 LOCATION: GROUND FLOOR FACP RELOCATE
 TO FIRE COMMAND CENTER 2786

REV F		BY	Ground Floor Fire Alarm Panel Wiring Diagram
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B		BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
REV A	Issued For Review	BY	22 Bramhall Street Portland, ME 04102
Jan 23/19		JH	DRAWING NUMBER USB-017267-FA6.1
			REV A

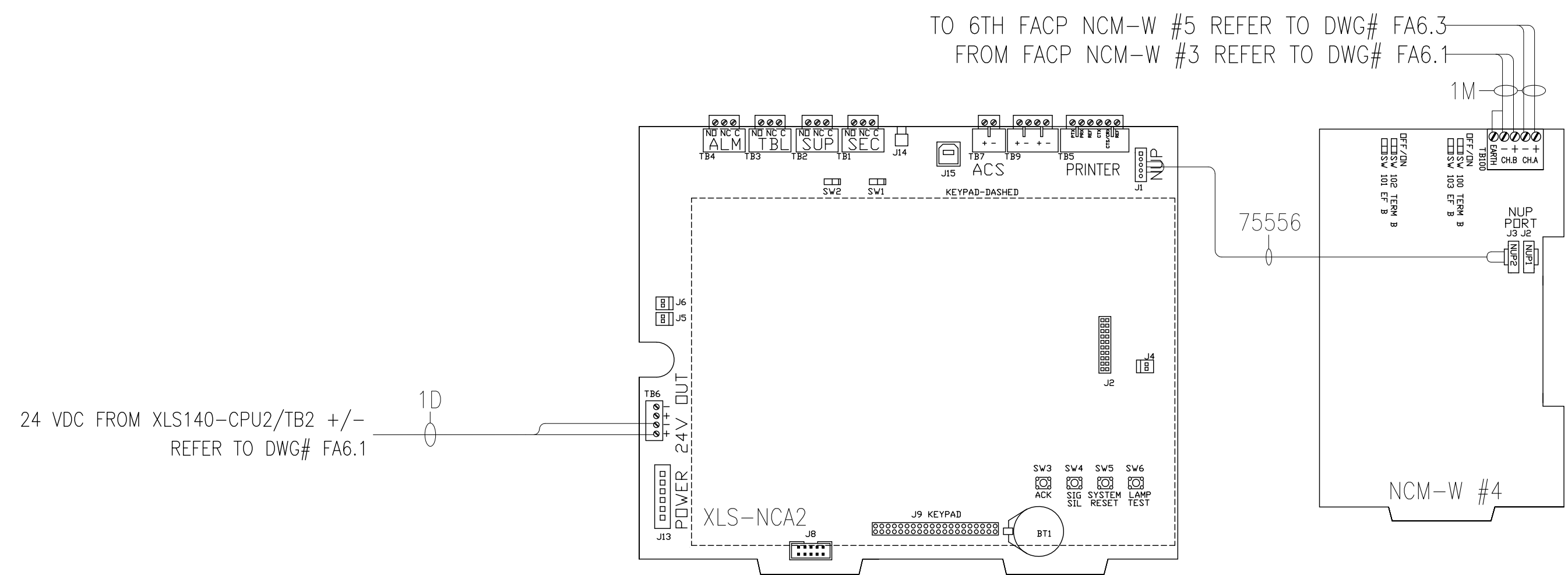


Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019

1 GRAPHIC SMOKE CONTROL PANEL (SCP) WIRING
 FA6.2 LOCATION: GROUND FLOOR NEW FIRE COMMAND 2786



B CORRECTED WIRING ON SCS/SCE BOARDS
 REMOVED DUPLICATE DETAIL OF DIPSWITCH

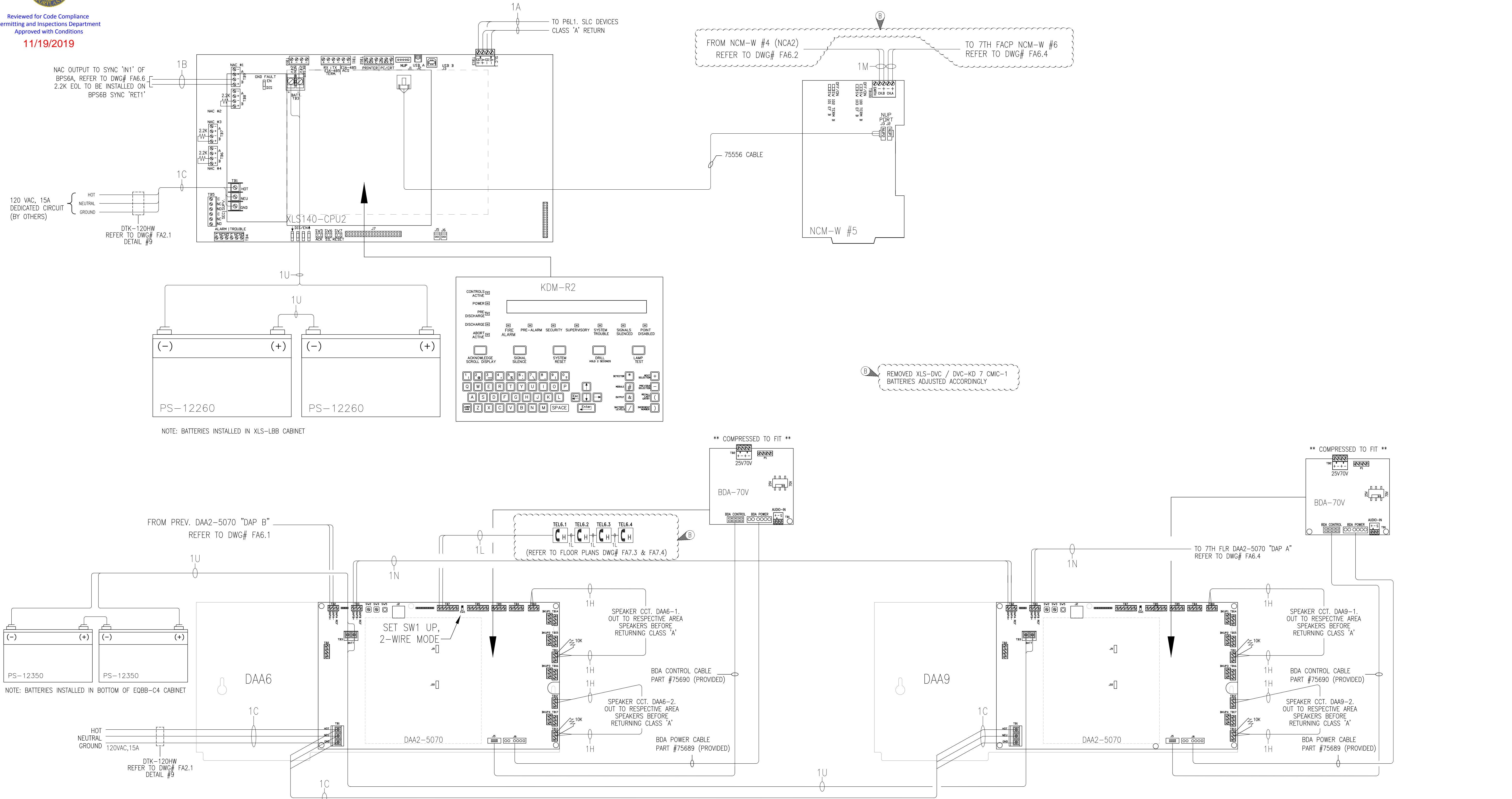


2 GRAPHIC SMOKE CONTROL PANEL (SCP) WIRING
 FA6.2 LOCATION: GROUND FLOOR NEW FIRE COMMAND 2786

REV F		BY	Graphics Panel Wiring & Fire Alarm Annunciator
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center East Tower Expansion
REV A	Issued For Review	BY	XLS140-2 Fire Alarm System 22 Bramhall Street Portland, ME 04102
REV		BY	
DRAWING NUMBER	USB-017267-FA6.2	REV	B



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019



NOTE: BATTERIES INSTALLED IN XLS-LBB CABINET

NOTE: BATTERIES INSTALLED IN BOTTOM OF EQBB-C4 CABINET

REMOVED XLS-DVC / DVC-KD 7 CMIC-1 BATTERIES ADJUSTED ACCORDINGLY

** COMPRESSED TO FIT **

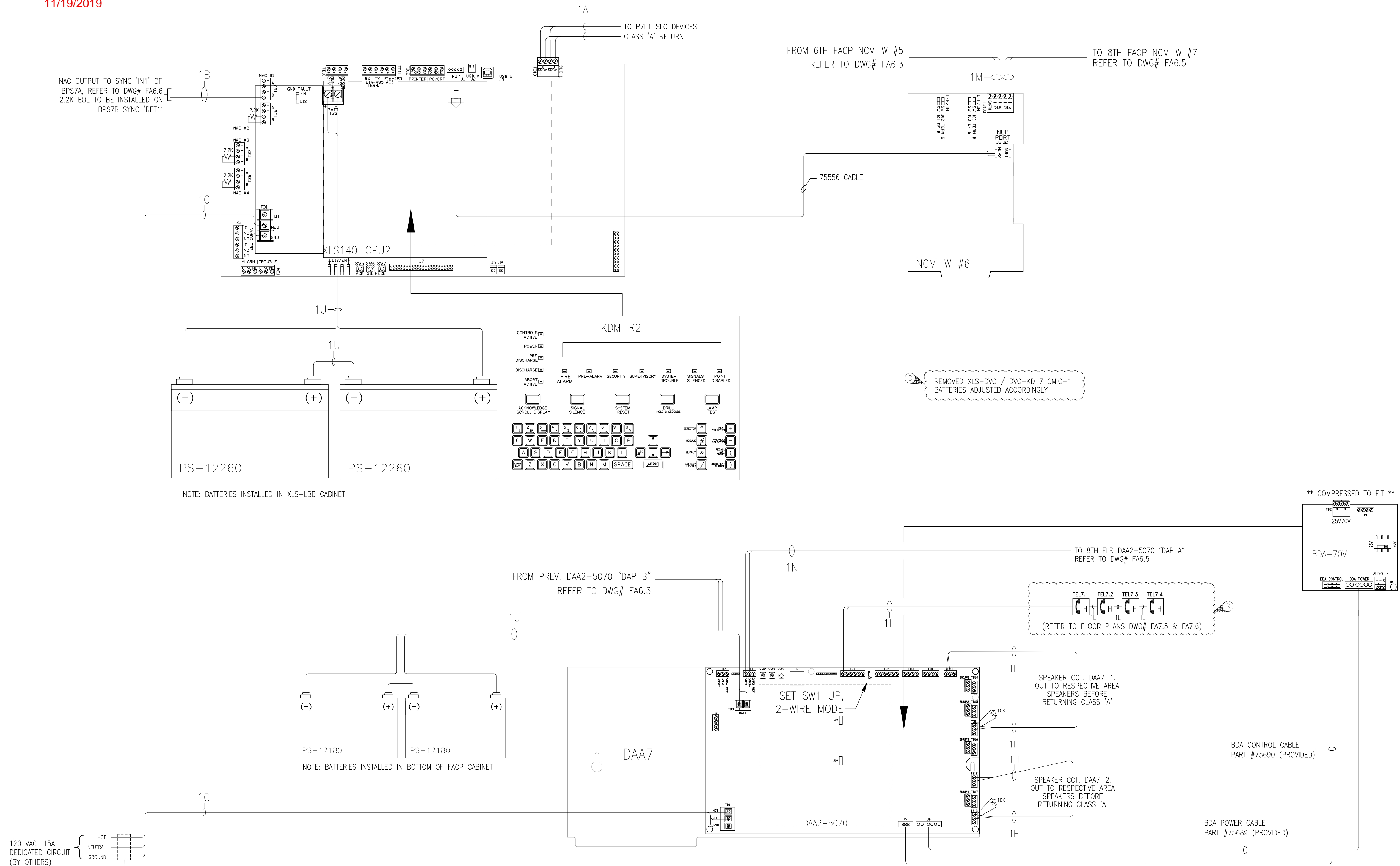
** COMPRESSED TO FIT **

1 FACP6 FIRE ALARM PANEL INTERNAL WIRING
 FA6.3 LOCATION: 6TH FLOOR (ROOM 6083)

REV F		BY	6th Floor Fire Alarm Panel Wiring Diagram
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B		BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
REV A	Issued For Review Jan 23/19	BY JH	22 Bramhall Street Portland, ME 04102
DRAWING NUMBER			USB-017267-FA6.3
			REV A



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019



NOTE: BATTERIES INSTALLED IN XLS-LBB CABINET

NOTE: BATTERIES INSTALLED IN BOTTOM OF FACP CABINET

REMOVED XLS-DVC / DVC-KD 7 CMIC-1 BATTERIES ADJUSTED ACCORDINGLY

** COMPRESSED TO FIT **

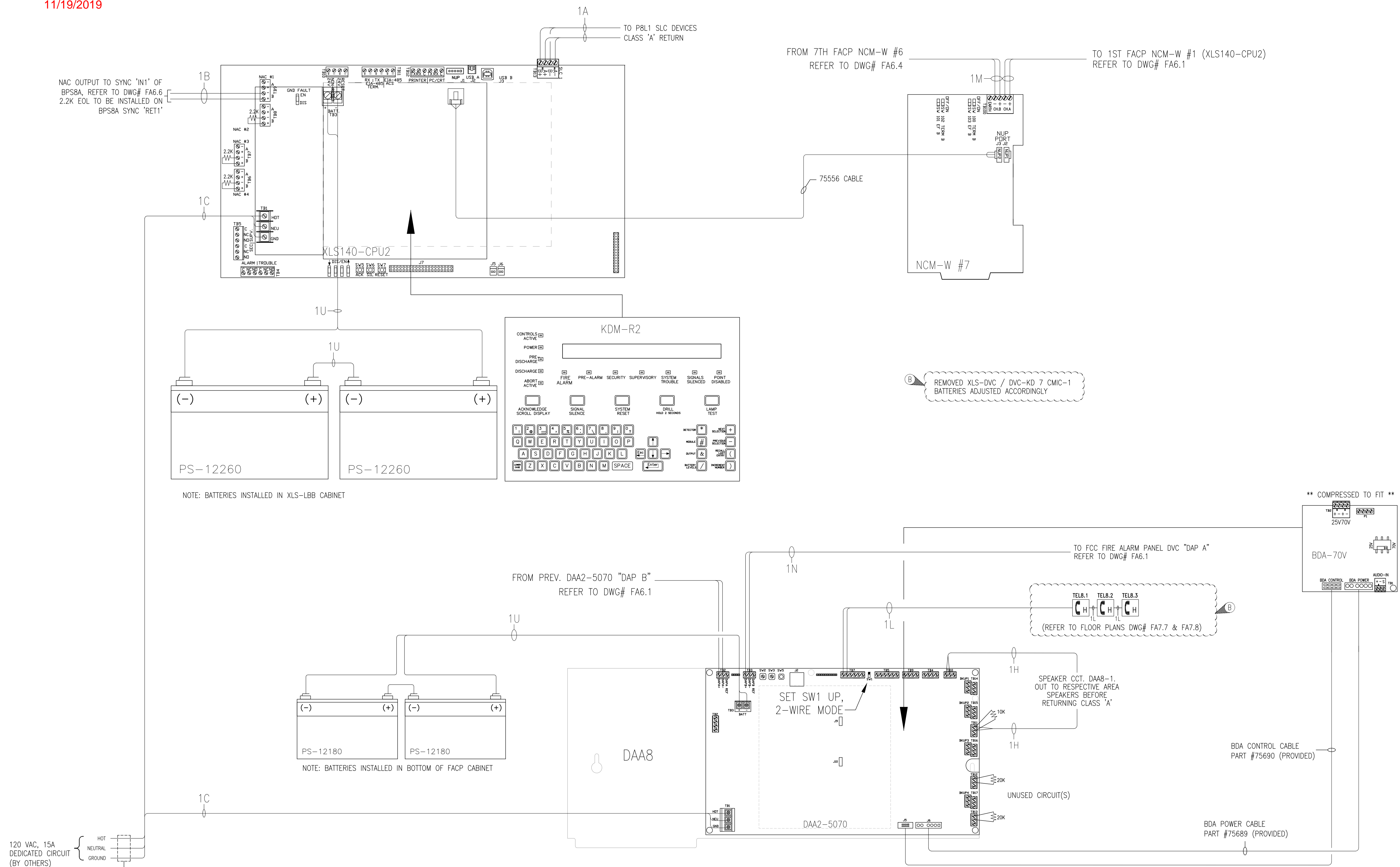
120 VAC, 15A DEDICATED CIRCUIT (BY OTHERS)
 HOT NEUTRAL GROUND
 DTK-120HW REFER TO DWG# FA2.1 DETAIL #9

1 FACP7 FIRE ALARM PANEL INTERNAL WIRING
 FA6.4 LOCATION: 7TH FLOOR (ROOM 7083)

REV F		BY	7th Floor Fire Alarm Panel Wiring Diagram
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B		BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
REV A	Issued For Review	BY	22 Bramhall Street Portland, ME 04102
Jan 23/19		JH	DRAWING NUMBER USB-017267-FA6.4
			REV A



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019



1 FACP8 FIRE ALARM PANEL INTERNAL WIRING
 FA6.5 LOCATION: PENTHOUSE (ROOM 8040-2)

REV F		BY	Penthouse Fire Alarm Panel Wiring Diagram
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
REV A	Issued For Review	BY	22 Bramhall Street Portland, ME 04102
REV		JH	DRAWING NUMBER USB-017267-FA6.5
		JH	REV B

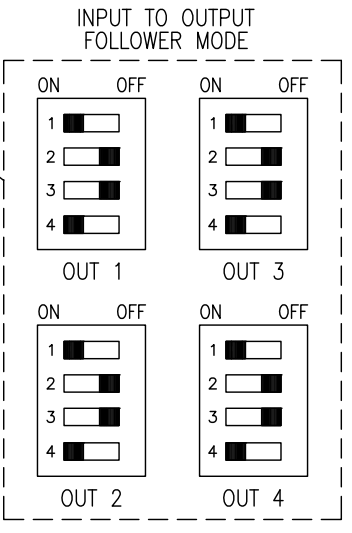
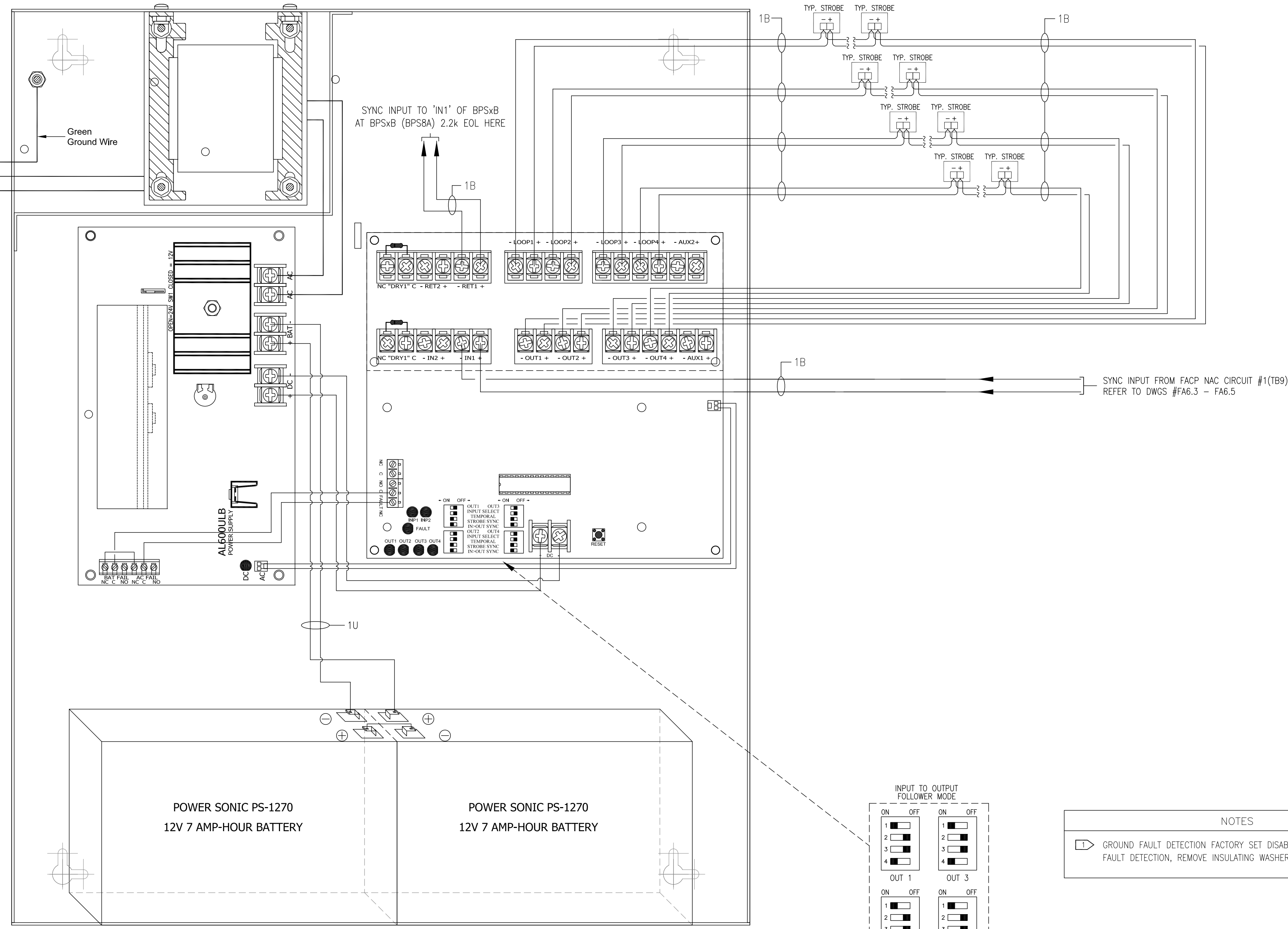
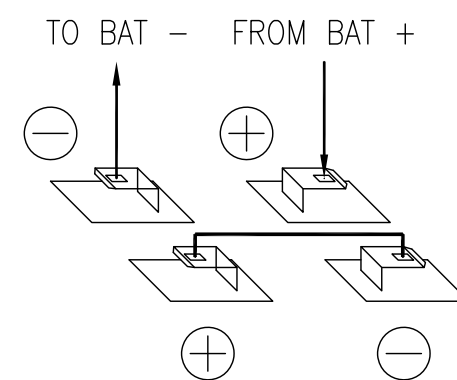
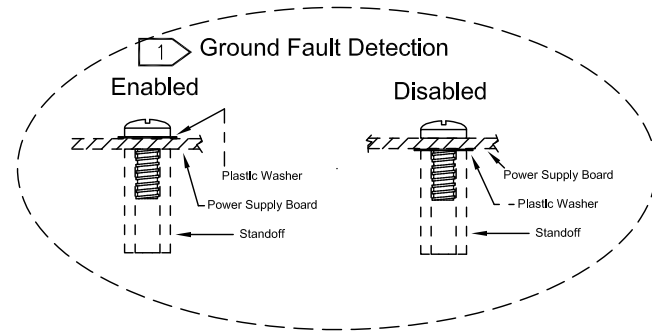


Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019

115 VAC/60 Hz FROM
 15 AMP DEDICATED CCT.
 PANEL DRAWS 4A MAX

REFER TO DTK-120HW
 DETAIL 9 ON DWG# FA2.1

NOTE: BOOSTER POWER SUPPLIES MAY SHARE ONE DTK-120HW
 PER INTENDED CIRCUIT BREAKER AS LONG AS CURRENT DOESNT
 EXCEED THE 80% RATING OF CAPACITY.



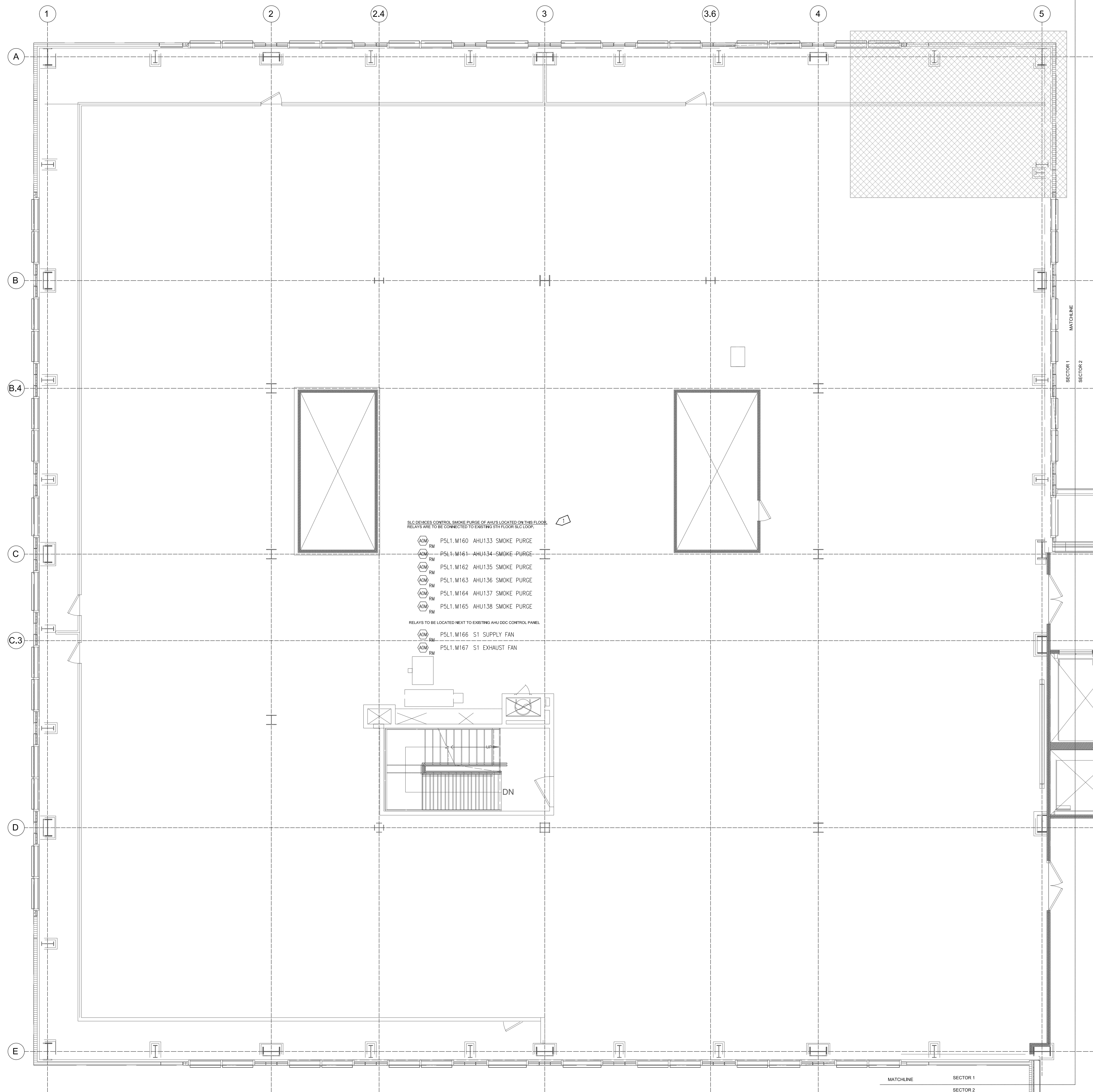
NOTES
 [Symbol] GROUND FAULT DETECTION FACTORY SET DISABLED. TO ENABLE GROUND
 FAULT DETECTION, REMOVE INSULATING WASHER AS SHOWN IN DETAIL.

1 AL842ULADA BOOSTER POWER SUPPLY WIRING
 FA6.6 TYPICAL WIRING FOR FA (BPS6A, BPS6B, BP7A, BPS7B, BPS8A)

REV F		BY	Booster Power Supply Wiring Diagram
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B		BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
REV A	Issued For Review	BY	22 Bramhall Street Portland, ME 04102
Jan 23/19		JH	DRAWING NUMBER USB-017267-FA6.6 REV A



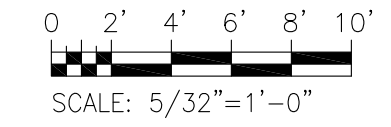
Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019



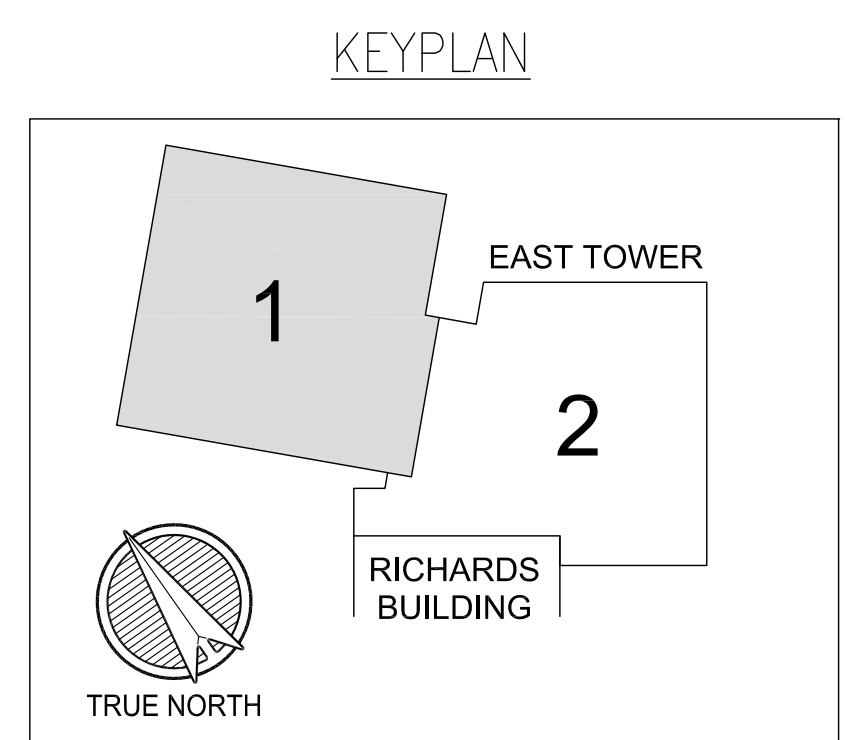
GENERAL NOTES

1 SLC DEVICES ARE NEW ON EXISTING P5L1. LOOP, ADDRESSES ARE TO BE ASSIGNED AS SHOWN WITH FIELD TO VERIFY. LOOP USES CLIP PROTOCOL DET. 1-99 & MOD. 101-199.

FIFTH FLOOR PLAN - SECTOR 1

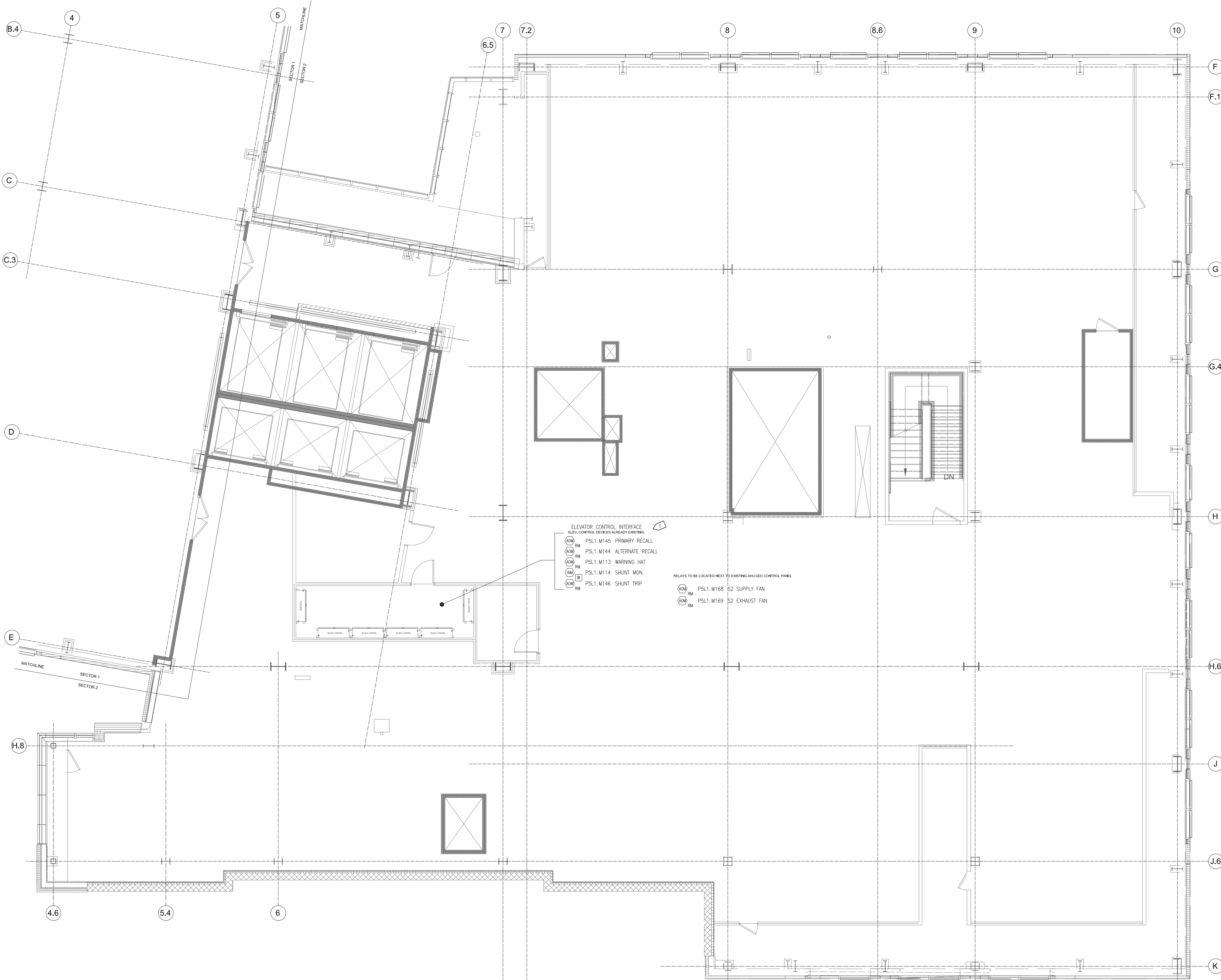


ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.



IMPORTANT:
 IF THIS DRAWING IS NOT PLOTTED ON A 34x22 SHEET
 THEN THE DRAWING IS NOT PLOTTED TO SCALE.

REV F		BY	Fire Alarm Layout Plan
REV E		BY	Fifth Floor - Sector 1
REV D		BY	Honeywell <i>ExpertISE</i> ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
REV A	Issued For Review	BY	East Tower Expansion
Jan 23/19		JH	XLS140-2 Fire Alarm System
		JH	22 Bramhall Street Portland, ME 04102
			DRAWING NUMBER USB-017267-FA7.1
			REV B



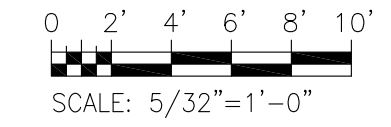
GENERAL NOTES

1 SLC DEVICES ARE NEW ON EXISTING P5L1. LOOP, ADDRESSES ARE TO BE ASSIGNED AS SHOWN WITH FIELD TO VERIFY. LOOP USES CLIP PROTOCOL DET. 1-99 & MOD. 101-199.



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019

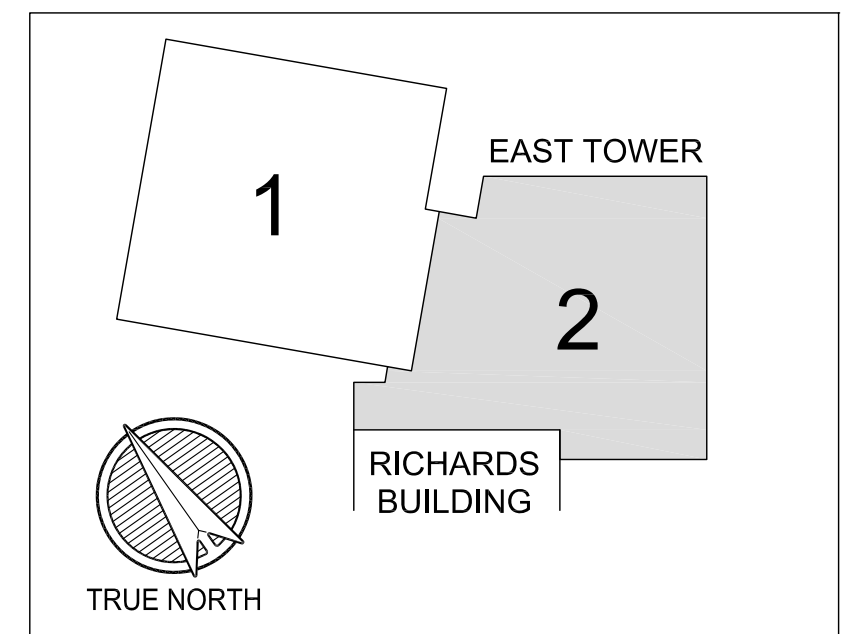
FIFTH FLOOR PLAN - SECTOR 2



ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

- ELEVATOR CONTROL INTERFACE**
 ELEV. CONTROL DEVICES ALREADY EXISTING.
- PSL1.M145 PRIMARY RECALL
 - PSL1.M144 ALTERNATE RECALL
 - PSL1.M113 WARNING HAT
 - PSL1.M114 SHUNT MON.
 - PSL1.M146 SHUNT TRIP
- RELAYS TO BE LOCATED NEXT TO EXISTING AHU/DC CONTROL PANEL.
- PSL1.M168 S2 SUPPLY FAN
 - PSL1.M169 S2 EXHAUST FAN

KEYPLAN

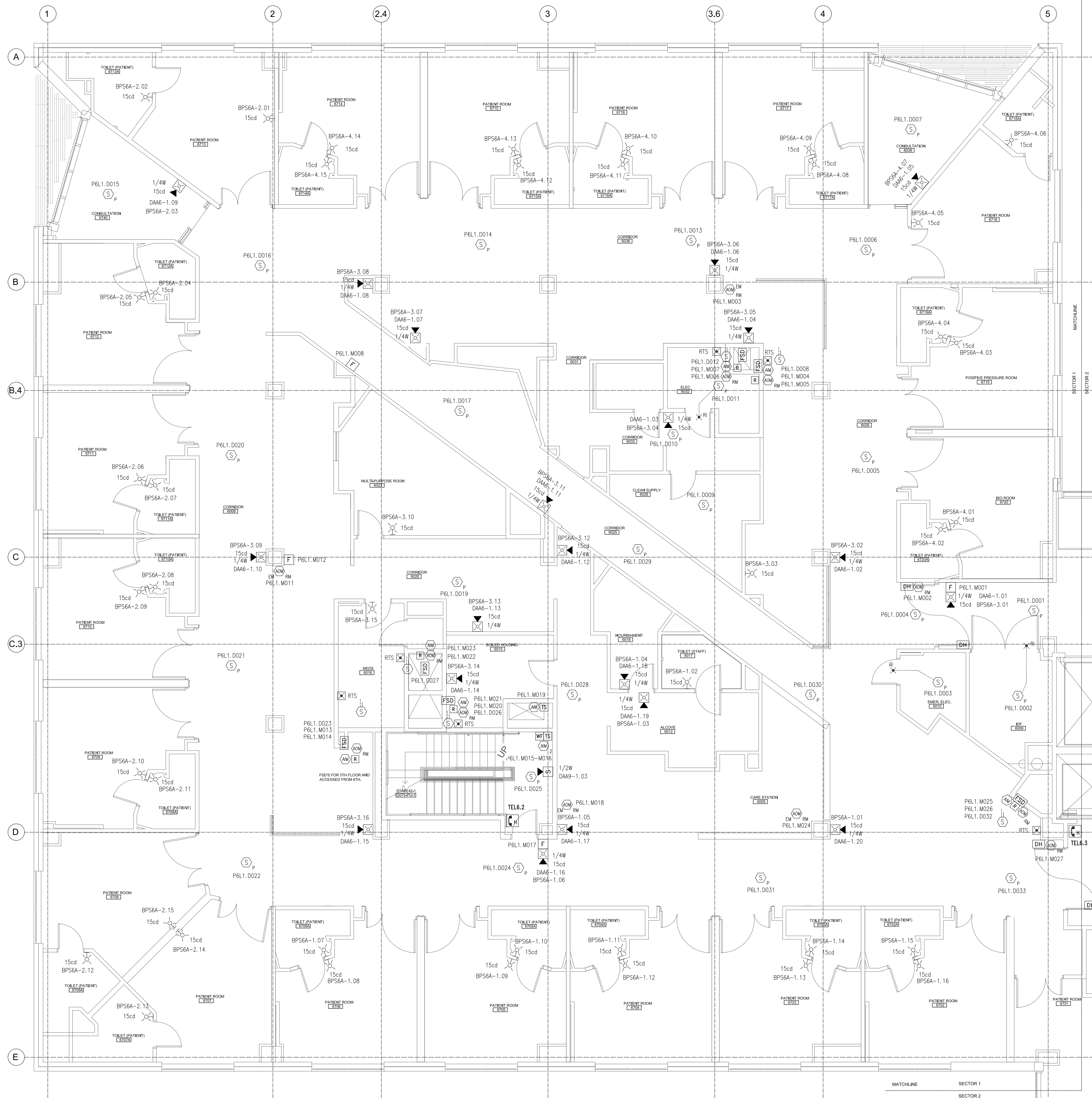


IMPORTANT:
 IF THIS DRAWING IS NOT PLOTTED ON A 34x22 SHEET
 THEN THE DRAWING IS NOT PLOTTED TO SCALE.

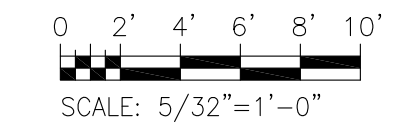
REV F		BY	Fire Alarm Layout Plan
REV E		BY	Fifth Floor - Sector 2
REV D		BY	Honeywell <i>ExpertISE</i> ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
Jun 27/19		JH	East Tower Expansion
REV A	Issued For Review	BY	XLS140-2 Fire Alarm System
Jan 23/19		JH	22 Bramhall Street Portland, ME 04102
			DRAWING NUMBER USB-017267-FA7.2
			REV B



Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
11/19/2019

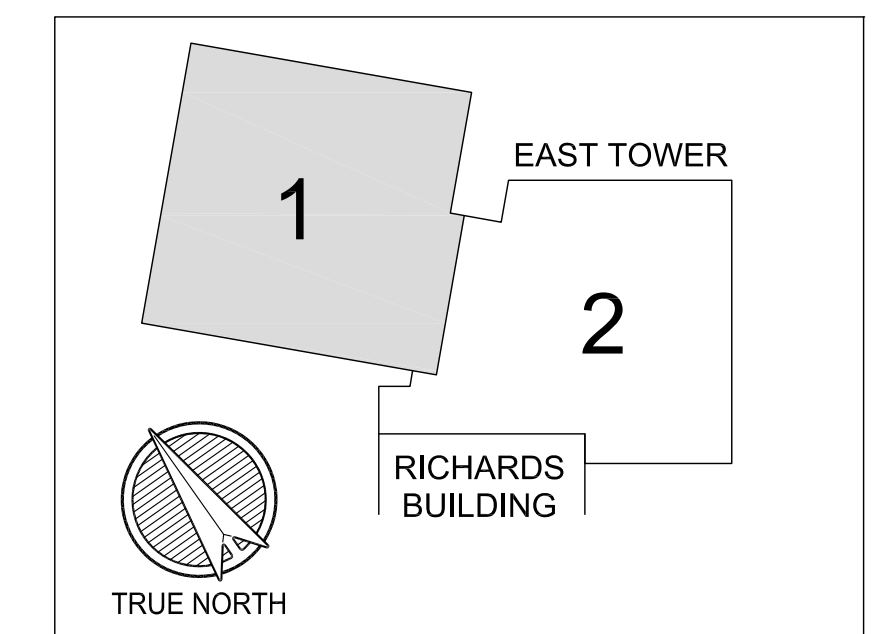


SIXTH FLOOR PLAN - SECTOR 1



ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

KEYPLAN



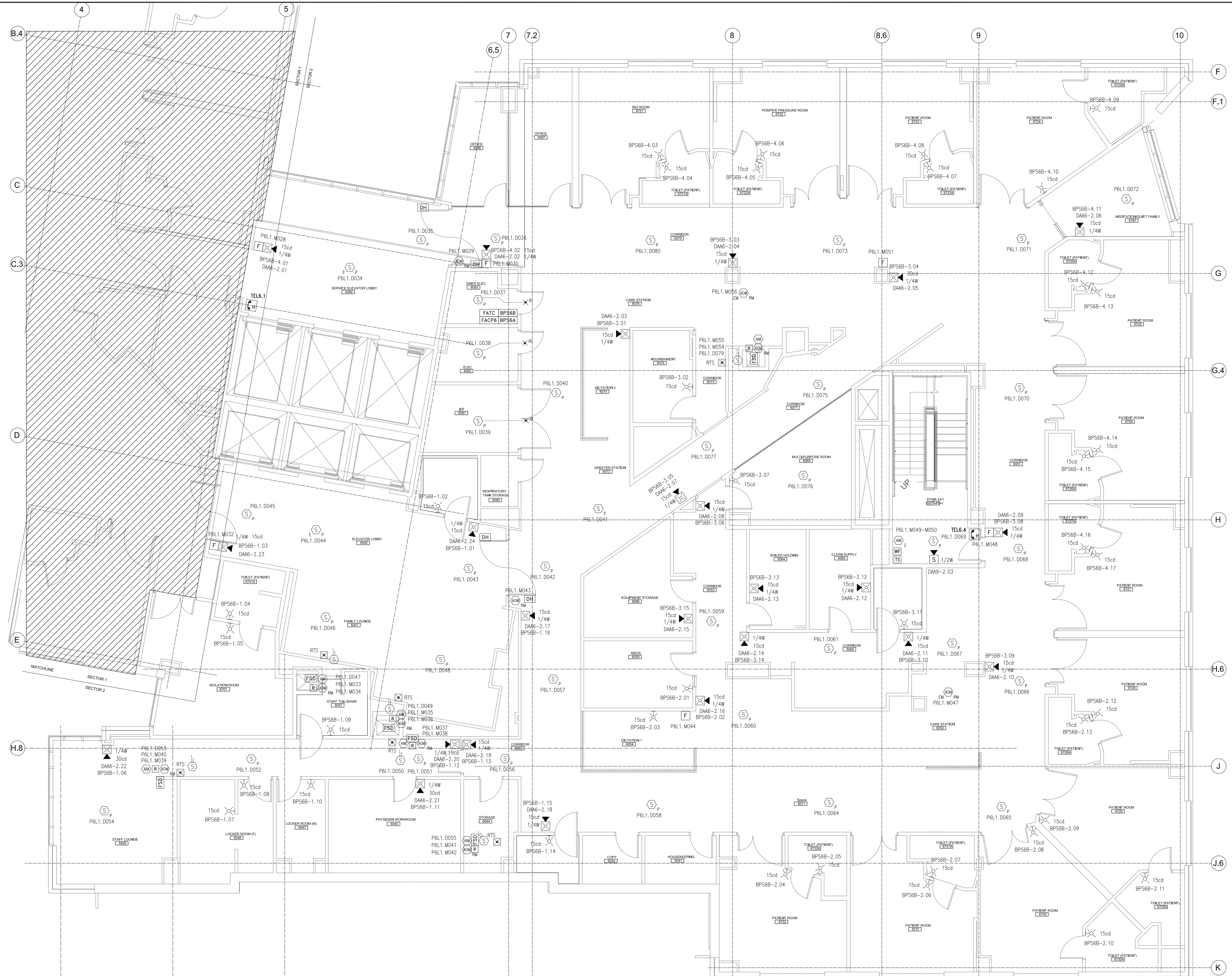
IMPORTANT:
IF THIS DRAWING IS NOT PLOTTED ON A 34x22 SHEET
THEN THE DRAWING IS NOT PLOTTED TO SCALE.

REV F		BY	Fire Alarm Layout Plan
REV E		BY	Sixth Floor - Sector 1
REV D		BY	Honeywell <i>ExpertISE</i> ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
Jun 27/19		JH	East Tower Expansion
REV A	Issued For Review	BY	XLS140-2 Fire Alarm System
Jan 23/19		JH	22 Bramhall Street Portland, ME 04102
DRAWING NUMBER			USB-017267-FA7.3
			REV B

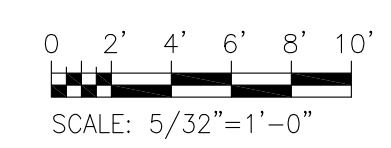


Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions

11/19/2019

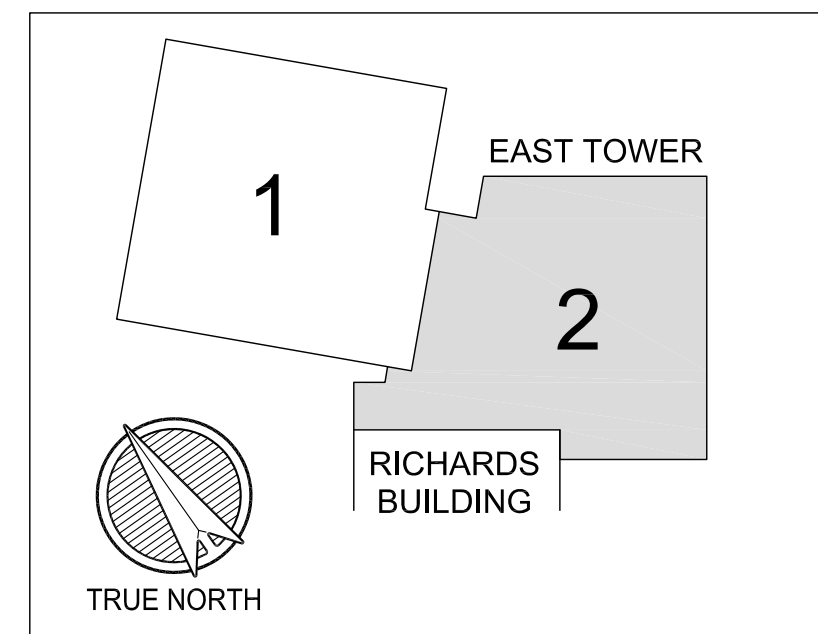


SIXTH FLOOR PLAN - SECTOR 2



ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

KEYPLAN

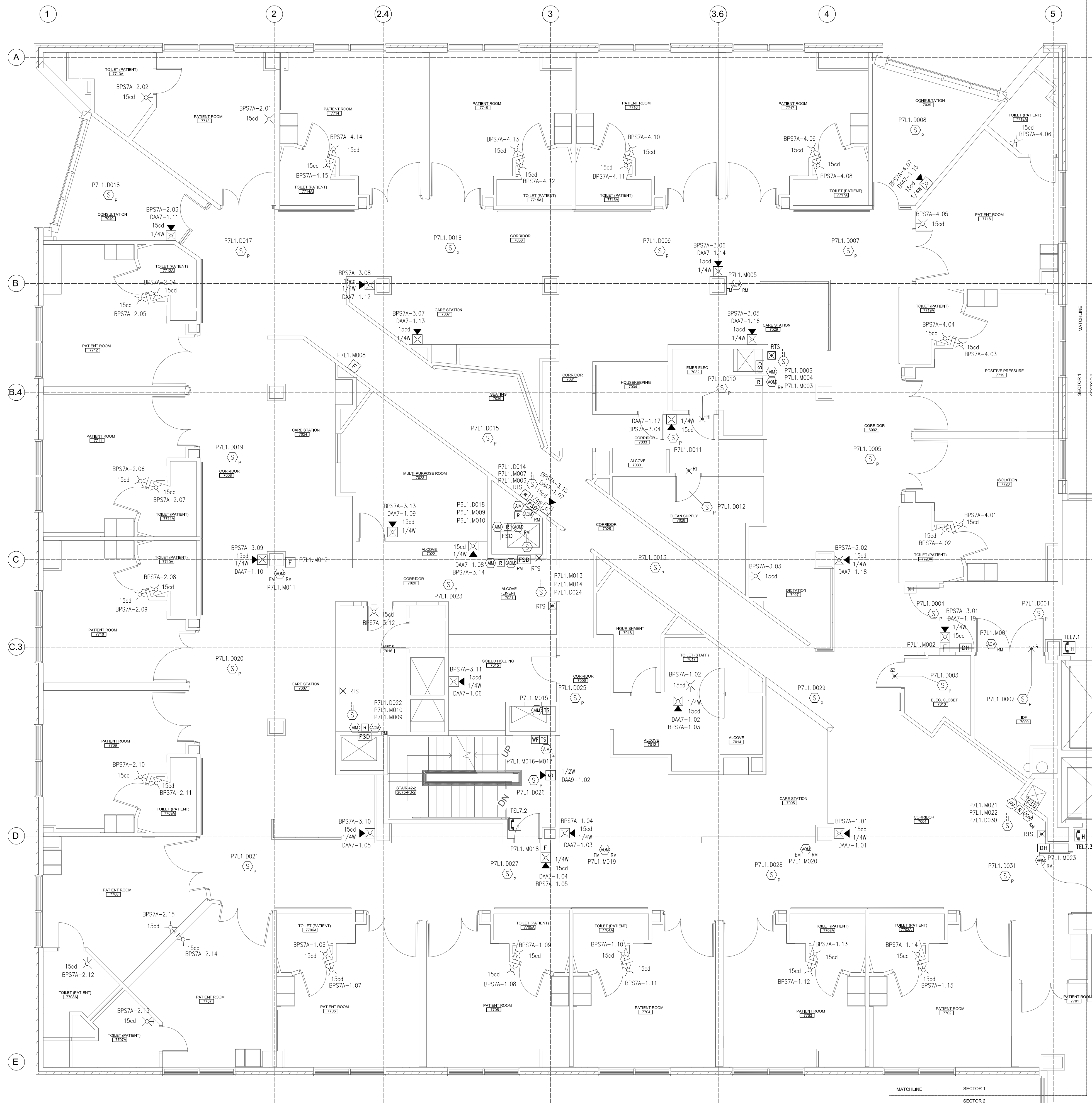


IMPORTANT:
IF THIS DRAWING IS NOT PLOTTED ON A 34x22 SHEET
THEN THE DRAWING IS NOT PLOTTED TO SCALE.

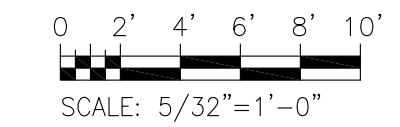
REV F		BY	Fire Alarm Layout Plan
REV E		BY	Sixth Floor - Sector 2
REV D		BY	Honeywell <i>ExpertISE</i> ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
Jun 27/19		JH	East Tower Expansion
REV A	Issued For Review	BY	XLS140-2 Fire Alarm System
Jan 23/19		JH	22 Bramhall Street Portland, ME 04102
DRAWING NUMBER	USB-017267-FA7.4	REV	B



Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
11/19/2019

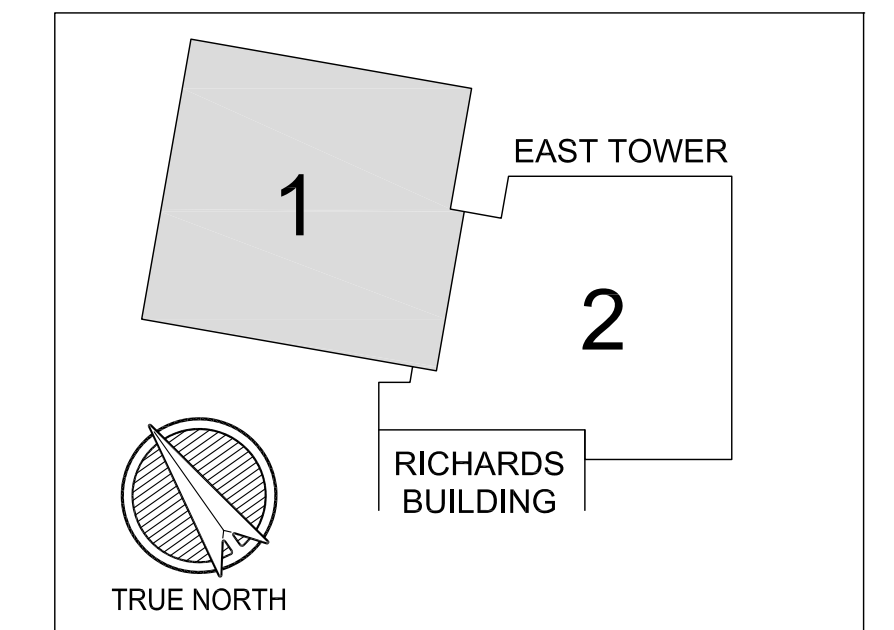


SEVENTH FLOOR PLAN - SECTOR 1



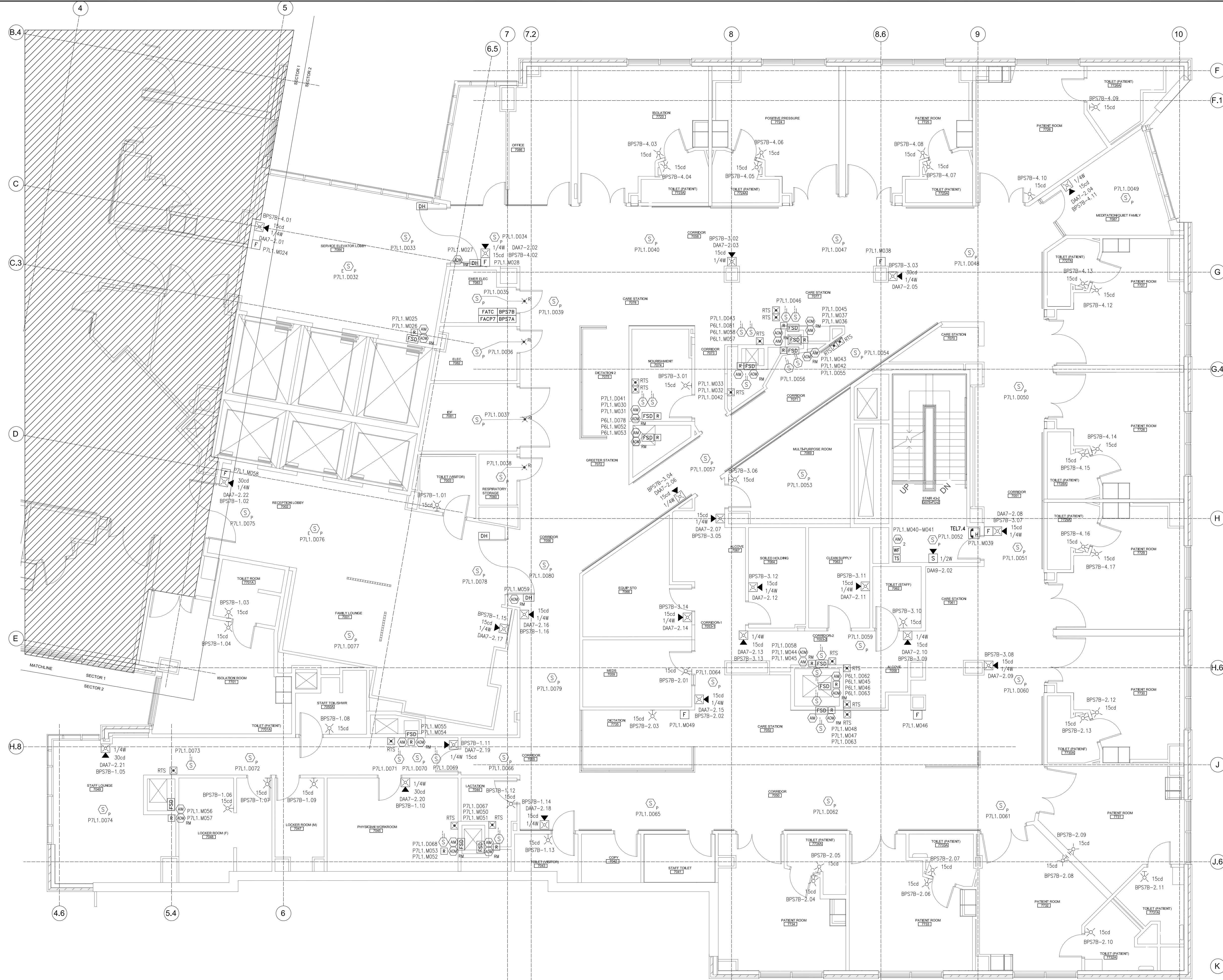
ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

KEYPLAN

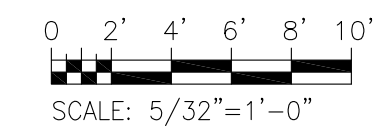


IMPORTANT:
IF THIS DRAWING IS NOT PLOTTED ON A 34x22 SHEET
THEN THE DRAWING IS NOT PLOTTED TO SCALE.

REV F		BY	Fire Alarm Layout Plan Seventh Floor - Sector 1
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
REV A	Issued For Review	BY	22 Bramhall Street Portland, ME 04102
Jan 23/19		JH	DRAWING NUMBER USB-017267-FA7.5
			REV B

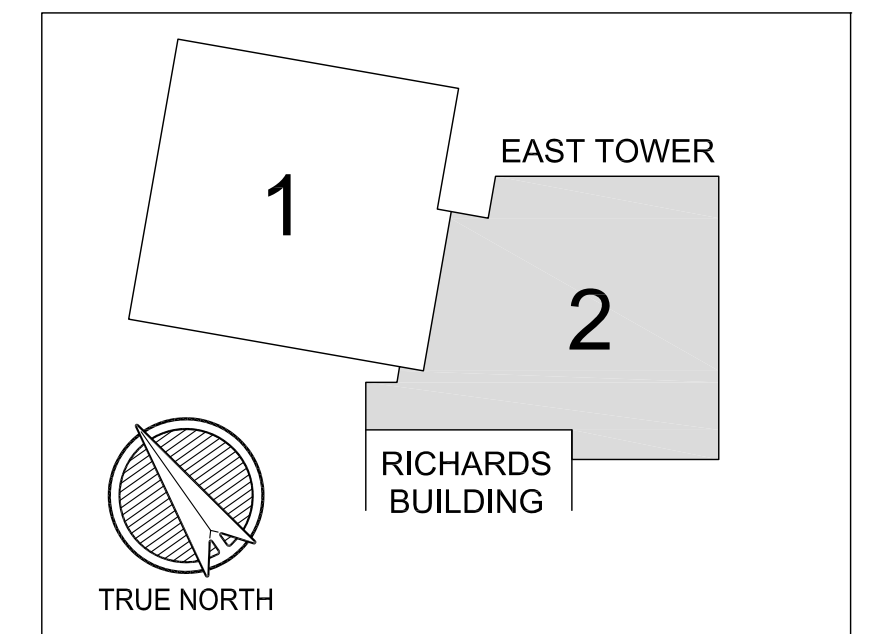


SEVENTH FLOOR PLAN - SECTOR 2



ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

KEYPLAN



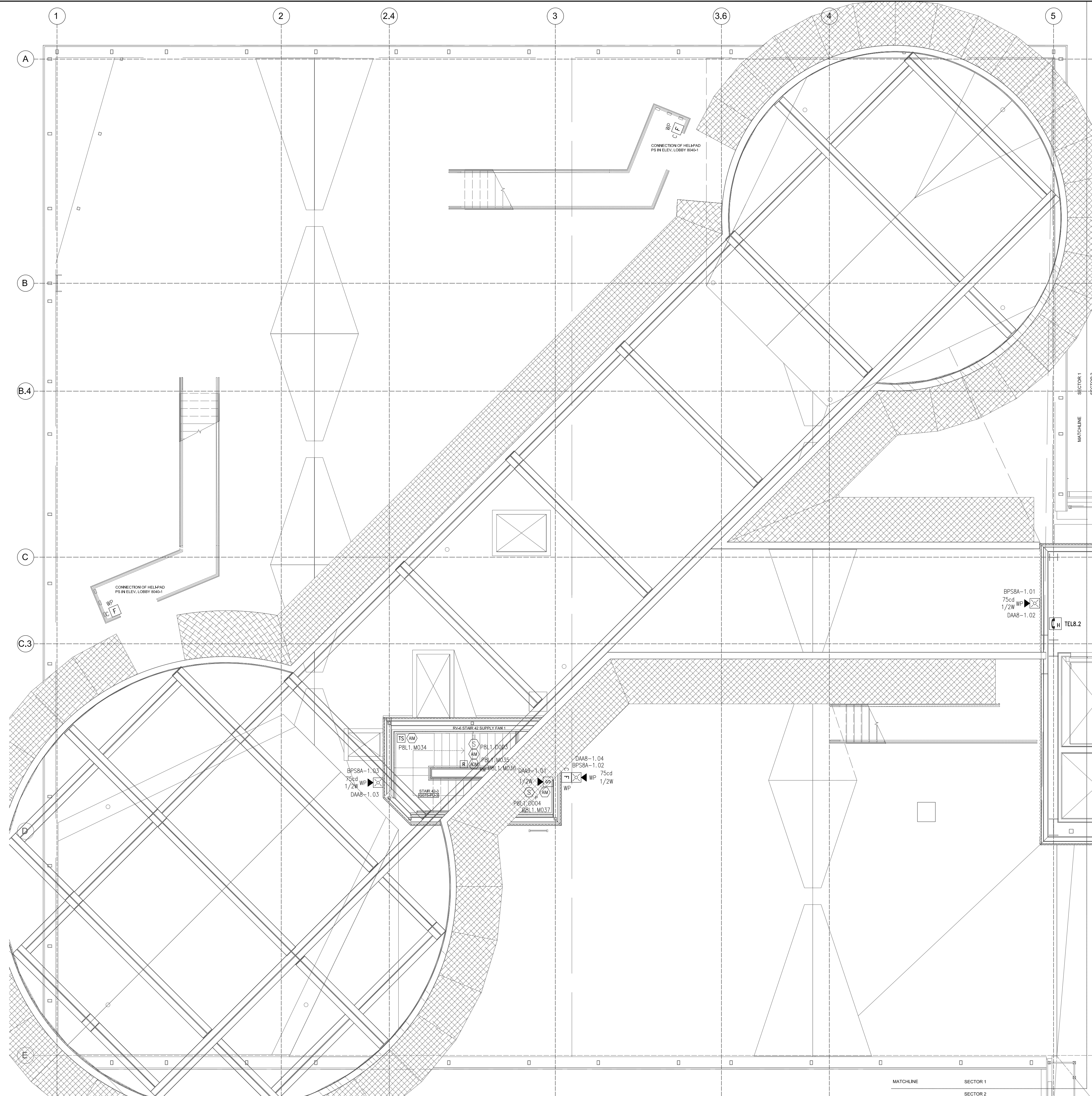
IMPORTANT:
 IF THIS DRAWING IS NOT PLOTTED ON A 34x22 SHEET
 THEN THE DRAWING IS NOT PLOTTED TO SCALE.

REV	DESCRIPTION	BY	DATE
REV F		BY	
REV E		BY	
REV D		BY	
REV C		BY	
REV B	Re-Issued For Review	BY	Jun 27/19
REV A	Issued For Review	BY	Jan 23/19

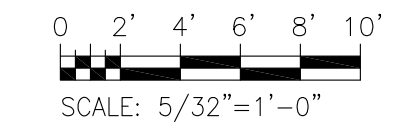
Fire Alarm Layout Plan
 Seventh Floor - Sector 2
Honeywell *ExpertISE* ©
 207 Larrabee Road Westbrook, Maine, 04092-5108
 Maine Medical Center
 East Tower Expansion
 XLS140-2 Fire Alarm System
 22 Bramhall Street Portland, ME 04102
 DRAWING NUMBER USB-017267-FA7.6 | REV B



Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
11/19/2019

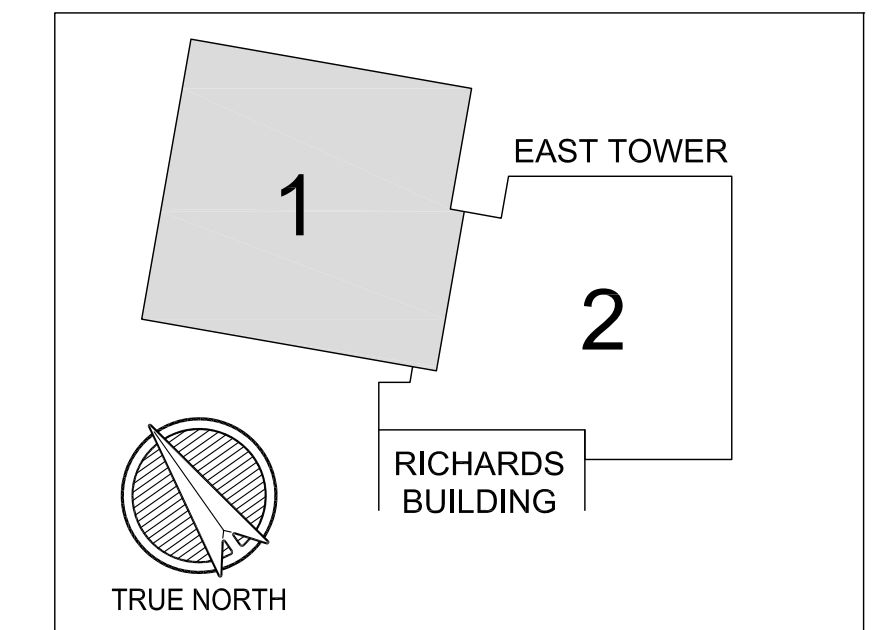


ROOF FLOOR PLAN - SECTOR 1



ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

KEYPLAN



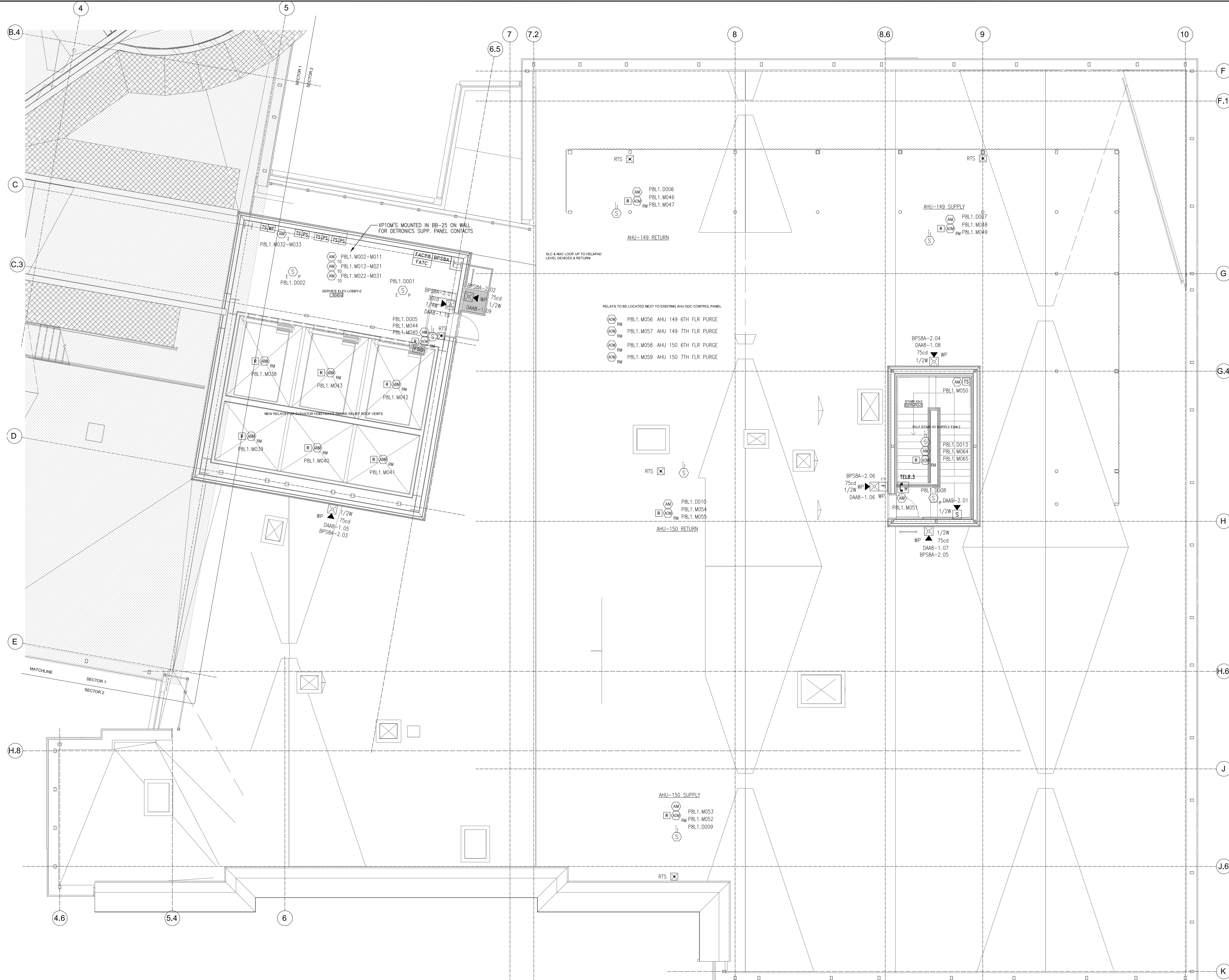
IMPORTANT:
IF THIS DRAWING IS NOT PLOTTED ON A 34x22 SHEET
THEN THE DRAWING IS NOT PLOTTED TO SCALE.

REV F		BY	Fire Alarm Layout Plan
REV E		BY	Roof - Sector 1
REV D		BY	Honeywell <i>ExpertISE</i> ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
Jun 27/19		JH	East Tower Expansion
REV A	Issued For Review	BY	XLS140-2 Fire Alarm System
Jan 23/19		JH	22 Bramhall Street Portland, ME 04102
			DRAWING NUMBER USB-017267-FA7.7
			REV B

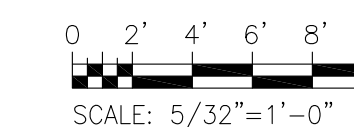


Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions

11/19/2019

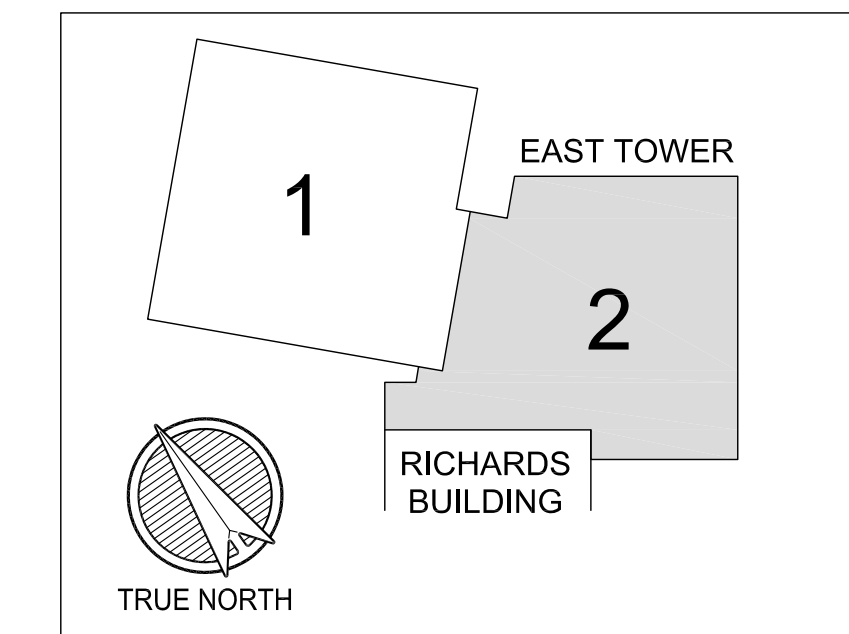


ROOF FLOOR PLAN - SECTOR 2



ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

KEYPLAN

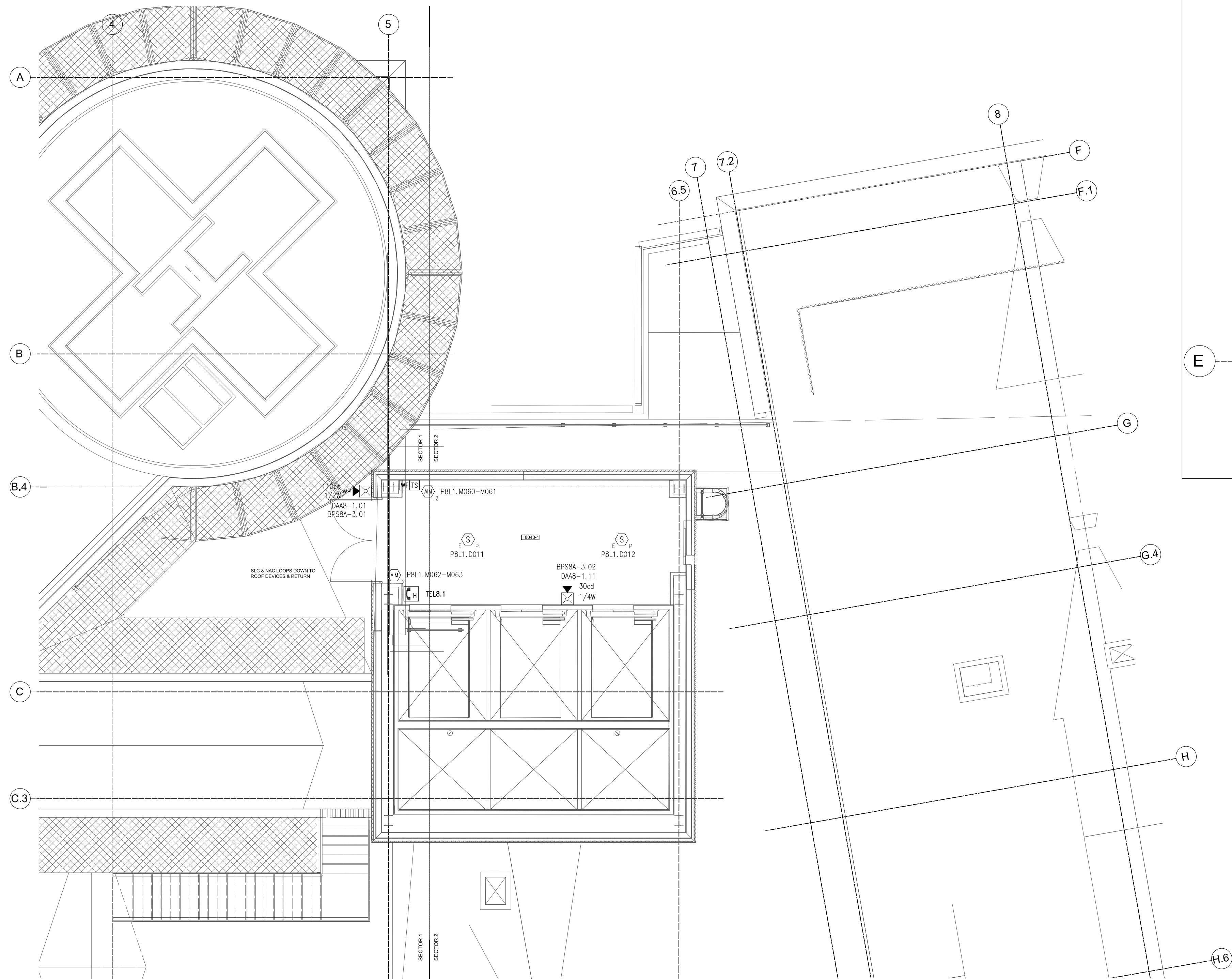


IMPORTANT:
IF THIS DRAWING IS NOT PLOTTED ON A 34x22 SHEET
THEN THE DRAWING IS NOT PLOTTED TO SCALE.

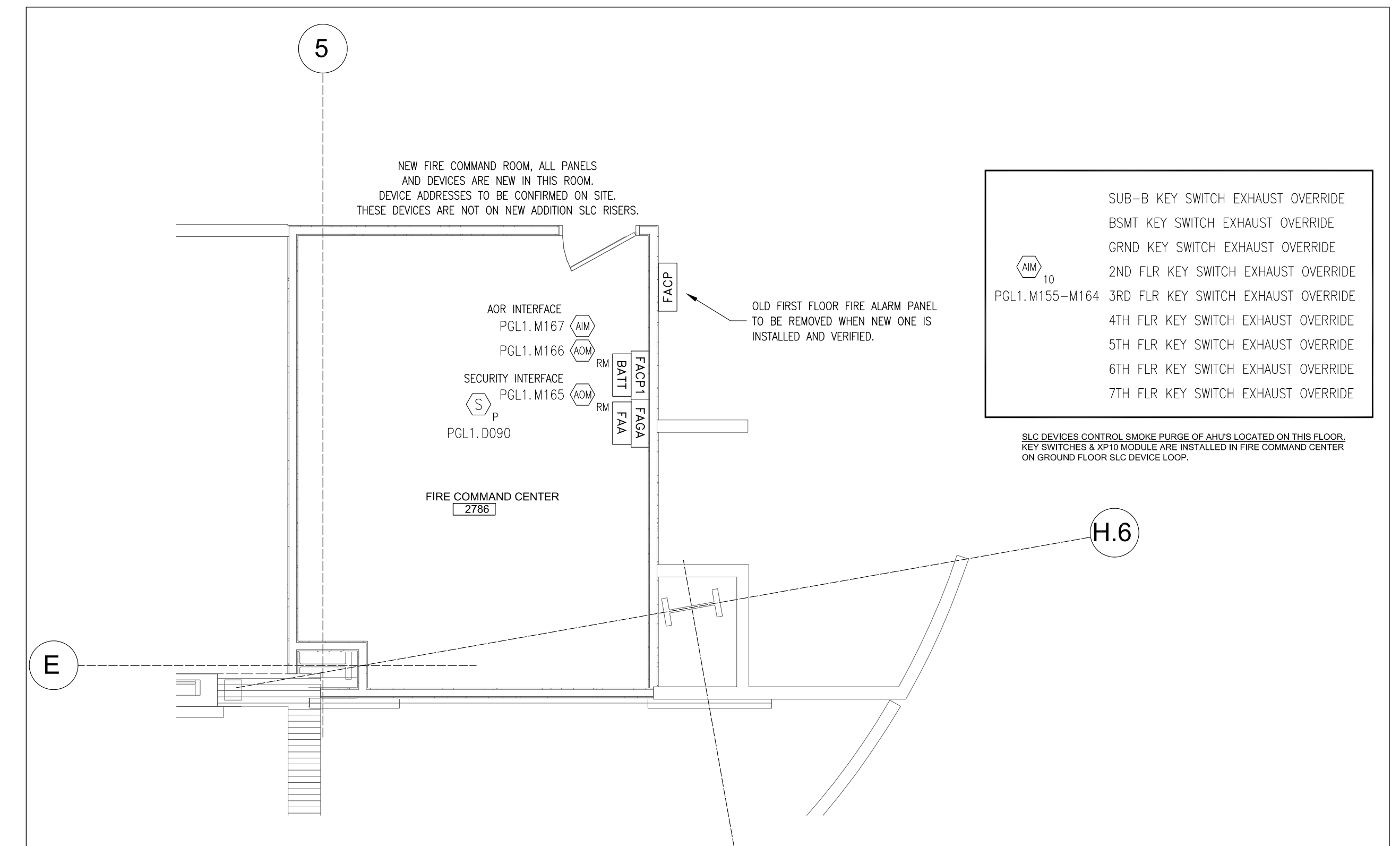
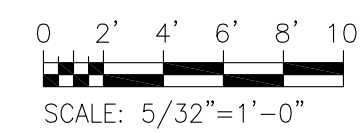
REV	DATE	BY	DESCRIPTION
REV F		BY	Fire Alarm Layout Plan
REV E		BY	Roof - Sector 2
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Jun 27/19	BY	Maine Medical Center
REV A	Jan 23/19	BY	East Tower Expansion
		BY	XLS140-2 Fire Alarm System
		BY	22 Bramhall Street Portland, ME 04102
		BY	DRAWING NUMBER USB-017267-FA7.8
		REV	B



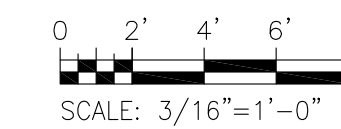
Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019



PENTHOUSE FLOOR PLAN

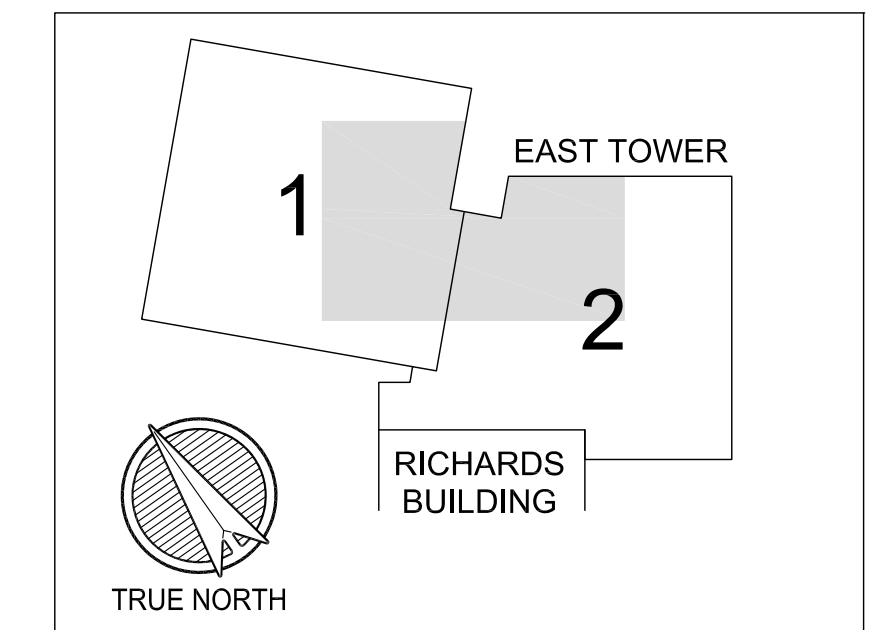


GROUND FLOOR - FIRE COMMAND CENTER 2786



ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

KEYPLAN



IMPORTANT:
 IF THIS DRAWING IS NOT PLOTTED ON A 34x22 SHEET
 THEN THE DRAWING IS NOT PLOTTED TO SCALE.

REV F		BY	Fire Alarm Layout Plans
REV E		BY	Penthouse & Fire Command Center
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
Jun 27/19		JH	East Tower Expansion
REV A	Issued For Review	BY	XLS140-2 Fire Alarm System
Jan 23/19		JH	22 Bramhall Street Portland, ME 04102
		DRAWING NUMBER	USB-017267-FA7.9
		REV	B



Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions

11/19/2019

Equipment: FACP1

Location: 1st Floor (FCC 2786)

Battery Amp-Hours Calculation

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Safety Factor (SF)	1.2 (Multiplier)

Part No. (Setting)	Quantity	Supply Current (mA)	Alarm Current (mA)	Supervisory Current (mA)	Total Alarm (A)	Total Supv. (A)	Amp Hours
XLS140-CPU2 (1 SLC LOADED)	1	6000	450	450	0.450	0.450	10.91
LEM-320 (FULL LOAD)	1	0	300	300	0.300	0.300	7.28
NCM-W	4	0	110	110	0.440	0.440	10.67
XLS-DVC-EM	1	0	440	440	0.440	0.440	10.67
DVC-KD	1	0	60	60	0.060	0.060	1.46
LDM-32	1	0	56	40	0.056	0.040	0.97
XLS-NCA2	2	0	400	200	0.800	0.400	9.80
SCS-8L	1	0	33	33	0.033	0.033	0.80
SCE-8L	1	0	5	5	0.005	0.005	0.12
LDM-32	1	0	56	40	0.056	0.040	0.97
Totals		6000			2.640	2.208	

Total Battery Load (AH)	53.65
Total Battery Required (AH)	64.38

Battery Amp-Hour Calculation Formula:

$$((tAlarm * iAlm) + (tSupv * iSupv)) * SF$$

Supplied Battery Capacity

Equipments: FACP1-AMPS

Locations: 1st Floor (FCC 2786)

Battery Amp-Hours Calculation

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Safety Factor (SF)	1.2 (Multiplier)

Part No. (Setting)	Quantity	Supply Current (mA)	Alarm Current (mA)	Supervisory Current (mA)	Total Alarm (A)	Total Supv. (A)	Amp Hours
DAA2-5070	2	0	3750	400	7.500	0.800	21.08
BDA-70V (DAA2)	2	0	235	100	0.470	0.200	4.92
Totals		0			7.970	1.000	

Total Battery Load (AH)	25.99
Total Battery Required (AH)	31.19

Battery Amp-Hour Calculation Formula:

$$((tAlarm * iAlm) + (tSupv * iSupv)) * SF$$

Supplied Battery Capacity

Equipment: FACP6

Location: 6th Floor (Room - 6083)

Battery Amp-Hours Calculation

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Safety Factor (SF)	1.2 (Multiplier)

Part No. (Setting)	Quantity	Supply Current (mA)	Alarm Current (mA)	Supervisory Current (mA)	Total Alarm (A)	Total Supv. (A)	Amp Hours
XLS140-CPU2 (1 SLC LOADED)	1	6000	450	450	0.450	0.450	10.91
# OF NACS USED ON XLS140-2	1	0	35	35	0.035	0.035	0.85
KDM-R2	1	0	100	100	0.100	0.100	2.43
NCM-W	1	0	110	110	0.110	0.110	2.67
Totals		6000			0.695	0.695	

Total Battery Load (AH)	16.85
Total Battery Required (AH)	20.22

Battery Amp-Hour Calculation Formula:

$$((tAlarm * iAlm) + (tSupv * iSupv)) * SF$$

Supplied Battery Capacity

BATTERY CALCULATIONS

Equipments: FACP6-AMPS

Locations: 6th Floor (Room - 6083)

Battery Amp-Hours Calculation

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Safety Factor (SF)	1.2 (Multiplier)

Part No. (Setting)	Quantity	Supply Current (mA)	Alarm Current (mA)	Supervisory Current (mA)	Total Alarm (A)	Total Supv. (A)	Amp Hours
DAA2-5070	2	0	3750	400	7.500	0.800	21.08
BDA-70V (DAA2)	2	0	235	100	0.470	0.200	4.92
Totals		0			7.970	1.000	

Total Battery Load (AH)	25.99
Total Battery Required (AH)	31.19

Battery Amp-Hour Calculation Formula:

$$((tAlarm * iAlm) + (tSupv * iSupv)) * SF$$

Supplied Battery Capacity

Equipment: FACP7

Location: 7th Floor (Room - 7083)

Battery Amp-Hours Calculation

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Safety Factor (SF)	1.2 (Multiplier)

Part No. (Setting)	Quantity	Supply Current (mA)	Alarm Current (mA)	Supervisory Current (mA)	Total Alarm (A)	Total Supv. (A)	Amp Hours
XLS140-CPU2 (1 SLC LOADED)	1	6000	450	450	0.450	0.450	10.91
# OF NACS USED ON XLS140-2	1	0	35	35	0.035	0.035	0.85
KDM-R2	1	0	100	100	0.100	0.100	2.43
NCM-W	1	0	110	110	0.110	0.110	2.67
Totals		6000			0.695	0.695	

Total Battery Load (AH)	16.85
Total Battery Required (AH)	20.22

Battery Amp-Hour Calculation Formula:

$$((tAlarm * iAlm) + (tSupv * iSupv)) * SF$$

Supplied Battery Capacity

Equipments: FACP7-AMP

Locations: 7th Floor (Room - 7083)

Battery Amp-Hours Calculation

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Safety Factor (SF)	1.2 (Multiplier)

Part No. (Setting)	Quantity	Supply Current (mA)	Alarm Current (mA)	Supervisory Current (mA)	Total Alarm (A)	Total Supv. (A)	Amp Hours
DAA2-5070	1	0	3750	400	3.750	0.400	10.54
BDA-70V (DAA2)	1	0	235	100	0.235	0.100	2.46
Totals		0			3.985	0.500	

Total Battery Load (AH)	13.00
Total Battery Required (AH)	15.60

Battery Amp-Hour Calculation Formula:

$$((tAlarm * iAlm) + (tSupv * iSupv)) * SF$$

Supplied Battery Capacity

Equipment: FACP8

Location: Penthouse (Room - 8040)

Battery Amp-Hours Calculation

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Safety Factor (SF)	1.2 (Multiplier)

Part No. (Setting)	Quantity	Supply Current (mA)	Alarm Current (mA)	Supervisory Current (mA)	Total Alarm (A)	Total Supv. (A)	Amp Hours
XLS140-CPU2 (1 SLC LOADED)	1	6000	450	450	0.450	0.450	10.91
# OF NACS USED ON XLS140-2	1	0	35	35	0.035	0.035	0.85
KDM-R2	1	0	100	100	0.100	0.100	2.43
NCM-W	1	0	110	110	0.110	0.110	2.67
Totals		6000			0.695	0.695	

Total Battery Load (AH)	16.85
Total Battery Required (AH)	20.22

Battery Amp-Hour Calculation Formula:

$$((tAlarm * iAlm) + (tSupv * iSupv)) * SF$$

Supplied Battery Capacity

Equipments: FACP8-AMP

Locations: Penthouse (Room - 8040)

Battery Amp-Hours Calculation

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Safety Factor (SF)	1.2 (Multiplier)

Part No. (Setting)	Quantity	Supply Current (mA)	Alarm Current (mA)	Supervisory Current (mA)	Total Alarm (A)	Total Supv. (A)	Amp Hours
DAA2-5070	1	0	3750	400	3.750	0.400	10.54
BDA-70V (DAA2)	1	0	235	100	0.235	0.100	2.46
Totals		0			3.985	0.500	

Total Battery Load (AH)	13.00
Total Battery Required (AH)	15.60

Battery Amp-Hour Calculation Formula:

$$((tAlarm * iAlm) + (tSupv * iSupv)) * SF$$

Supplied Battery Capacity

ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	Battery Calculation Sheet 1 of 2
REV E		BY	
REV D		BY	Honeywell <i>ExpertISE</i> ©
REV C		BY	
REV B Jun 27/19	Re-Issued For Review	BY JH	207 Larrabee Road Westbrook, Maine, 04092-5108 Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
REV A Jan 23/19	Issued For Review	BY JH	
DRAWING NUMBER			USB-017267-FA8.1
			REV B



Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
11/19/2019

BATTERY CALCULATIONS

Equipment: BPS6A
Location: 6th Floor (Room 6083)

Battery Amp-Hours Calculation

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Derating Factor (DF)	1.2 (Multiplier)

Part No. (Setting)	Quantity	Supply		Alarm		Supervisory		Total		Amp Hours
		Current (mA)	Current (mA)	Current (mA)	Current (mA)	Alarm (A)	Supv. (A)	Alarm (A)	Supv. (A)	
AL842ULADA	1	8000		175	90	0.175	0.090			2.20
SPSRL [15cd]	20	0		4.3	0	0.860	0.000			0.22
SRL [15cd]	42	0		4.3	0	1.806	0.000			0.45
Totals		8000				2.841	0.090			

Battery Amp-Hour Calculation Formula:
((tAlarm * iAlm) + (tSupv * iSupv)) x SF

Total Battery Load (AH)
Total Battery Required (AH)
Supplied Battery Capacity

Equipment: BPS7A
Location: 7th Floor (Room 7083)

Battery Amp-Hours Calculation

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Derating Factor (DF)	1.2 (Multiplier)

Part No. (Setting)	Quantity	Supply		Alarm		Supervisory		Total		Amp Hours
		Current (mA)	Current (mA)	Current (mA)	Current (mA)	Alarm (A)	Supv. (A)	Alarm (A)	Supv. (A)	
AL842ULADA	1	8000		175	90	0.175	0.090			2.20
SPSRL [15cd]	19	0		4.3	0	0.817	0.000			0.20
SRL [15cd]	41	0		4.3	0	1.763	0.000			0.44
Totals		8000				2.755	0.090			

Battery Amp-Hour Calculation Formula:
((tAlarm * iAlm) + (tSupv * iSupv)) x SF

Total Battery Load (AH)
Total Battery Required (AH)
Supplied Battery Capacity

Equipment: BPS8A
Location: Penthouse (Room 8040-1)

Battery Amp-Hours Calculation

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Derating Factor (DF)	1.2 (Multiplier)

Part No. (Setting)	Quantity	Supply		Alarm		Supervisory		Total		Amp Hours
		Current (mA)	Current (mA)	Current (mA)	Current (mA)	Alarm (A)	Supv. (A)	Alarm (A)	Supv. (A)	
AL842ULADA	1	8000		175	90	0.175	0.090			2.20
SPSRK [110cd]	1	0		202	0	0.202	0.000			0.05
SPSRK [75cd]	8	0		158	0	1.264	0.000			0.32
SPSRL [30cd]	2	0		63	0	0.126	0.000			0.03
Totals		8000				1.767	0.090			

Battery Amp-Hour Calculation Formula:
((tAlarm * iAlm) + (tSupv * iSupv)) x SF

Total Battery Load (AH)
Total Battery Required (AH)
Supplied Battery Capacity

Equipment: BPS6B
Location: 6th Floor (Room 6083)

Battery Amp-Hours Calculation

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Derating Factor (DF)	1.2 (Multiplier)

Part No. (Setting)	Quantity	Supply		Alarm		Supervisory		Total		Amp Hours
		Current (mA)	Current (mA)	Current (mA)	Current (mA)	Alarm (A)	Supv. (A)	Alarm (A)	Supv. (A)	
AL842ULADA	1	8000		175	90	0.175	0.090			2.20
SPSRL [15cd]	21	0		4.3	0	0.903	0.000			0.23
SPSRL [30cd]	3	0		63	0	0.189	0.000			0.05
SRL [15cd]	37	0		4.3	0	1.591	0.000			0.40
Totals		8000				2.858	0.090			

Battery Amp-Hour Calculation Formula:
((tAlarm * iAlm) + (tSupv * iSupv)) x SF

Total Battery Load (AH)
Total Battery Required (AH)
Supplied Battery Capacity

Equipment: BPS7B
Location: 7th Floor (Room 7083)

Battery Amp-Hours Calculation

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Derating Factor (DF)	1.2 (Multiplier)

Part No. (Setting)	Quantity	Supply		Alarm		Supervisory		Total		Amp Hours
		Current (mA)	Current (mA)	Current (mA)	Current (mA)	Alarm (A)	Supv. (A)	Alarm (A)	Supv. (A)	
AL842ULADA	1	8000		175	90	0.175	0.090			2.20
SPSRL [15cd]	18	0		4.3	0	0.774	0.000			0.19
SPSRL [30cd]	4	0		63	0	0.252	0.000			0.06
SRL [15cd]	38	0		4.3	0	1.634	0.000			0.41
Totals		8000				2.835	0.090			

Battery Amp-Hour Calculation Formula:
((tAlarm * iAlm) + (tSupv * iSupv)) x SF

Total Battery Load (AH)
Total Battery Required (AH)
Supplied Battery Capacity

ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	Battery Calculation Sheet 2 of 2
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
REV A	Issued For Review	BY	East Tower Expansion
		JH	XLS140-2 Fire Alarm System
		JH	22 Bramhall Street Portland, ME 04102
		JH	DRAWING NUMBER USB-017267-FA8.2
			REV B



Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
11/19/2019

LINE LOSS CALCULATIONS

Source Voltage: 20.40 VDC
Wire Gauge: 14 AWG
Resistance/1000 Feet: 3.07 OHMS
TOTAL CIRCUIT CURRENT: 0.69 A
TOTAL CIRCUIT LENGTH (FEET): 376.02
END OF LINE VOLTAGE: 19.34 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS
Circuit Name: BPS6A-1.
PERCENT DROP: 5.20%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SPSRL	15	0.043	93	0.688	0.392	20.008
2	SRL	15	0.043	41	0.645	0.556	19.844
3	SPSRL	15	0.043	13	0.602	0.603	19.797
4	SPSRL	15	0.043	10	0.559	0.637	19.763
5	SPSRL	15	0.043	31	0.516	0.735	19.665
6	SPSRL	15	0.043	11	0.473	0.768	19.632
7	SRL	15	0.043	44	0.430	0.884	19.516
8	SRL	15	0.043	8	0.387	0.903	19.497
9	SRL	15	0.043	28	0.344	0.962	19.438
10	SRL	15	0.043	8	0.301	0.977	19.423
11	SRL	15	0.043	19	0.258	1.007	19.393
12	SRL	15	0.043	8	0.215	1.017	19.383
13	SRL	15	0.043	28	0.172	1.047	19.353
14	SRL	15	0.043	8	0.129	1.053	19.347
15	SRL	15	0.043	18	0.086	1.063	19.337
16	SRL	15	0.043	8	0.043	1.065	19.335

Source Voltage: 20.40 VDC
Wire Gauge: 14 AWG
Resistance/1000 Feet: 3.07 OHMS
TOTAL CIRCUIT CURRENT: 0.69 A
TOTAL CIRCUIT LENGTH (FEET): 472.25
END OF LINE VOLTAGE: 19.25 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS
Circuit Name: BPS6A-3.
PERCENT DROP: 5.64%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SPSRL	15	0.043	68	0.688	0.287	20.113
2	SPSRL	15	0.043	25	0.645	0.384	20.016
3	SRL	15	0.043	18	0.602	0.451	19.949
4	SPSRL	15	0.043	35	0.559	0.570	19.830
5	SPSRL	15	0.043	25	0.516	0.650	19.750
6	SPSRL	15	0.043	18	0.473	0.703	19.697
7	SPSRL	15	0.043	50	0.430	0.835	19.565
8	SPSRL	15	0.043	18	0.387	0.878	19.522
9	SPSRL	15	0.043	52	0.344	0.988	19.412
10	SRL	15	0.043	25	0.301	1.034	19.366
11	SPSRL	15	0.043	27	0.258	1.077	19.323
12	SPSRL	15	0.043	13	0.215	1.095	19.305
13	SPSRL	15	0.043	25	0.172	1.121	19.279
14	SPSRL	15	0.043	15	0.129	1.133	19.267
15	SRL	15	0.043	24	0.086	1.146	19.254
16	SPSRL	15	0.043	33	0.043	1.155	19.245

Source Voltage: 20.40 VDC
Wire Gauge: 14 AWG
Resistance/1000 Feet: 3.07 OHMS
TOTAL CIRCUIT CURRENT: 0.65 A
TOTAL CIRCUIT LENGTH (FEET): 463.39
END OF LINE VOLTAGE: 19.06 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS
Circuit Name: BPS6A-2.
PERCENT DROP: 6.57%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SRL	15	0.043	207	0.645	0.820	19.580
2	SRL	15	0.043	23	0.602	0.906	19.494
3	SPSRL	15	0.043	21	0.559	0.976	19.424
4	SRL	15	0.043	22	0.516	1.046	19.354
5	SRL	15	0.043	8	0.473	1.069	19.331
6	SRL	15	0.043	28	0.430	1.143	19.257
7	SRL	15	0.043	8	0.387	1.162	19.238
8	SRL	15	0.043	18	0.344	1.201	19.199
9	SRL	15	0.043	8	0.301	1.215	19.185
10	SRL	15	0.043	28	0.258	1.260	19.140
11	SRL	15	0.043	8	0.215	1.270	19.130
12	SRL	15	0.043	35	0.172	1.308	19.092
13	SRL	15	0.043	21	0.129	1.324	19.076
14	SRL	15	0.043	20	0.086	1.335	19.065
15	SRL	15	0.043	8	0.043	1.337	19.063

Source Voltage: 20.40 VDC
Wire Gauge: 14 AWG
Resistance/1000 Feet: 3.07 OHMS
TOTAL CIRCUIT CURRENT: 0.65 A
TOTAL CIRCUIT LENGTH (FEET): 322.27
END OF LINE VOLTAGE: 19.59 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS
Circuit Name: BPS6A-4.
PERCENT DROP: 3.97%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SRL	15	0.043	77	0.645	0.303	20.097
2	SRL	15	0.043	8	0.602	0.333	20.067
3	SRL	15	0.043	30	0.559	0.436	19.964
4	SRL	15	0.043	8	0.516	0.462	19.938
5	SRL	15	0.043	23	0.473	0.528	19.872
6	SRL	15	0.043	27	0.430	0.600	19.800
7	SPSRL	15	0.043	22	0.387	0.651	19.749
8	SRL	15	0.043	21	0.344	0.696	19.704
9	SRL	15	0.043	8	0.301	0.711	19.689
10	SRL	15	0.043	28	0.258	0.755	19.645
11	SRL	15	0.043	8	0.215	0.766	19.634
12	SRL	15	0.043	19	0.172	0.785	19.615
13	SRL	15	0.043	8	0.129	0.792	19.608
14	SRL	15	0.043	28	0.086	0.806	19.594
15	SRL	15	0.043	8	0.043	0.809	19.591

ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	Line loss Calculation
REV E		BY	Sheet 1 of 5
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
Jun 27/19		JH	East Tower Expansion
REV A	Issued For Review	BY	XLS140-2 Fire Alarm System
Jan 23/19		JH	22 Bramhall Street Portland, ME 04102
DRAWING NUMBER	USB-017267-FA8.3	REV	B



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019

LINE LOSS CALCULATIONS

Source Voltage 20.40 VDC
 Wire Gauge 14 AWG
 Resistance/1000 Feet 3.07 OHMS
 TOTAL CIRCUIT CURRENT 0.73 A
 TOTAL CIRCUIT LENGTH (FEET) 363.13
 END OF LINE VOLTAGE 19.47 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS

Circuit Name BPS6B-1.

PERCENT DROP 4.56%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SPSRL	15	0.043	45	0.728	0.201	20.199
2	SRL	15	0.043	13	0.685	0.257	20.143
3	SPSRL	15	0.043	40	0.642	0.415	19.985
4	SRL	15	0.043	16	0.599	0.474	19.926
5	SRL	15	0.043	8	0.556	0.500	19.900
6	SPSRL	30	0.063	39	0.513	0.623	19.777
7	SRL	15	0.043	31	0.450	0.708	19.692
8	SRL	15	0.043	11	0.407	0.737	19.663
9	SRL	15	0.043	25	0.364	0.792	19.608
10	SRL	15	0.043	16	0.321	0.823	19.577
11	SPSRL	30	0.063	21	0.278	0.858	19.542
12	SPSRL	15	0.043	16	0.215	0.879	19.521
13	SPSRL	15	0.043	8	0.172	0.887	19.513
14	SRL	15	0.043	30	0.129	0.911	19.489
15	SPSRL	15	0.043	8	0.086	0.915	19.485
16	SPSRL	15	0.043	37	0.043	0.925	19.475

Source Voltage 20.40 VDC
 Wire Gauge 14 AWG
 Resistance/1000 Feet 3.07 OHMS
 TOTAL CIRCUIT CURRENT 0.67 A
 TOTAL CIRCUIT LENGTH (FEET) 367.33
 END OF LINE VOLTAGE 19.51 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS

Circuit Name BPS6B-3.

PERCENT DROP 4.36%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SPSRL	15	0.043	30	0.665	0.124	20.276
2	SRL	15	0.043	22	0.622	0.206	20.194
3	SPSRL	15	0.043	29	0.579	0.308	20.092
4	SPSRL	30	0.063	30	0.536	0.405	19.995
5	SPSRL	15	0.043	64	0.473	0.591	19.809
6	SPSRL	15	0.043	10	0.430	0.617	19.783
7	SRL	15	0.043	14	0.387	0.650	19.750
8	SPSRL	15	0.043	48	0.344	0.752	19.648
9	SPSRL	15	0.043	25	0.301	0.799	19.601
10	SPSRL	15	0.043	21	0.258	0.832	19.568
11	SRL	15	0.043	8	0.215	0.843	19.557
12	SPSRL	15	0.043	16	0.172	0.860	19.540
13	SPSRL	15	0.043	21	0.129	0.876	19.524
14	SPSRL	15	0.043	14	0.086	0.884	19.516
15	SPSRL	15	0.043	16	0.043	0.888	19.512

Source Voltage 20.40 VDC
 Wire Gauge 14 AWG
 Resistance/1000 Feet 3.07 OHMS
 TOTAL CIRCUIT CURRENT 0.56 A
 TOTAL CIRCUIT LENGTH (FEET) 321.48
 END OF LINE VOLTAGE 19.71 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS

Circuit Name BPS6B-2.

PERCENT DROP 3.38%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SRL	15	0.043	87	0.559	0.297	20.103
2	SPSRL	15	0.043	9	0.516	0.326	20.074
3	SRL	15	0.043	14	0.473	0.368	20.032
4	SRL	15	0.043	45	0.430	0.486	19.914
5	SRL	15	0.043	11	0.387	0.512	19.888
6	SRL	15	0.043	22	0.344	0.560	19.840
7	SRL	15	0.043	8	0.301	0.575	19.825
8	SRL	15	0.043	25	0.258	0.615	19.785
9	SRL	15	0.043	9	0.215	0.626	19.774
10	SRL	15	0.043	27	0.172	0.655	19.745
11	SRL	15	0.043	21	0.129	0.672	19.728
12	SRL	15	0.043	34	0.086	0.690	19.710
13	SRL	15	0.043	8	0.043	0.692	19.708

Source Voltage 20.40 VDC
 Wire Gauge 14 AWG
 Resistance/1000 Feet 3.07 OHMS
 TOTAL CIRCUIT CURRENT 0.73 A
 TOTAL CIRCUIT LENGTH (FEET) 367.4
 END OF LINE VOLTAGE 19.36 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS

Circuit Name BPS6B-4.

PERCENT DROP 5.10%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SPSRL	15	0.043	56	0.731	0.249	20.151
2	SPSRL	15	0.043	36	0.688	0.403	19.997
3	SRL	15	0.043	43	0.645	0.571	19.829
4	SRL	15	0.043	8	0.602	0.602	19.798
5	SRL	15	0.043	18	0.559	0.665	19.735
6	SRL	15	0.043	8	0.516	0.690	19.710
7	SRL	15	0.043	30	0.473	0.777	19.623
8	SRL	15	0.043	8	0.430	0.798	19.602
9	SRL	15	0.043	35	0.387	0.882	19.518
10	SRL	15	0.043	24	0.344	0.933	19.467
11	SPSRL	15	0.043	17	0.301	0.964	19.436
12	SRL	15	0.043	14	0.258	0.986	19.414
13	SRL	15	0.043	8	0.215	0.996	19.404
14	SRL	15	0.043	28	0.172	1.025	19.375
15	SRL	15	0.043	8	0.129	1.032	19.368
16	SRL	15	0.043	18	0.086	1.042	19.358
17	SRL	15	0.043	8	0.043	1.044	19.356

ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	Line loss Calculation Sheet 2 of 5 Honeywell ExpertISE © 207 Larrabee Road Westbrook, Maine, 04092-5108 Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System 22 Bramhall Street Portland, ME 04102
REV E		BY	
REV D		BY	
REV C		BY	
REV B Jun 27/19	Re-Issued For Review	BY JH	
REV A Jan 23/19	Issued For Review	BY JH	
DRAWING NUMBER USB-017267-FA8.4			REV B



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019

LINE LOSS CALCULATIONS

Source Voltage: 20.40 VDC
 Wire Gauge: 14 AWG
 Resistance/1000 Feet: 3.07 OHMS
 TOTAL CIRCUIT CURRENT: 0.65 A
 TOTAL CIRCUIT LENGTH (FEET): 366.93
 END OF LINE VOLTAGE: 19.41 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS
 Circuit Name: BPS7A-1
 PERCENT DROP: 4.85%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SPSRL	15	0.043	93	0.645	0.368	20.032
2	SRL	15	0.043	41	0.602	0.520	19.880
3	SPSRL	15	0.043	9	0.559	0.552	19.848
4	SPSRL	15	0.043	35	0.516	0.664	19.736
5	SPSRL	15	0.043	11	0.473	0.696	19.704
6	SRL	15	0.043	44	0.430	0.813	19.587
7	SRL	15	0.043	8	0.387	0.832	19.568
8	SRL	15	0.043	28	0.344	0.891	19.509
9	SRL	15	0.043	8	0.301	0.905	19.495
10	SRL	15	0.043	19	0.258	0.935	19.465
11	SRL	15	0.043	8	0.215	0.946	19.454
12	SRL	15	0.043	28	0.172	0.975	19.425
13	SRL	15	0.043	8	0.129	0.981	19.419
14	SRL	15	0.043	18	0.086	0.991	19.409
15	SRL	15	0.043	8	0.043	0.993	19.407

Source Voltage: 20.40 VDC
 Wire Gauge: 14 AWG
 Resistance/1000 Feet: 3.07 OHMS
 TOTAL CIRCUIT CURRENT: 0.65 A
 TOTAL CIRCUIT LENGTH (FEET): 472.71
 END OF LINE VOLTAGE: 19.31 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS
 Circuit Name: BPS7A-3
 PERCENT DROP: 5.34%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SPSRL	15	0.043	65	0.645	0.256	20.144
2	SPSRL	15	0.043	28	0.602	0.359	20.041
3	SRL	15	0.043	18	0.559	0.421	19.979
4	SPSRL	15	0.043	35	0.516	0.531	19.869
5	SPSRL	15	0.043	25	0.473	0.604	19.796
6	SPSRL	15	0.043	18	0.430	0.652	19.748
7	SPSRL	15	0.043	50	0.387	0.771	19.629
8	SPSRL	15	0.043	18	0.344	0.810	19.590
9	SPSRL	15	0.043	52	0.301	0.905	19.495
10	SPSRL	15	0.043	52	0.258	0.987	19.413
11	SPSRL	15	0.043	34	0.215	1.032	19.368
12	SRL	15	0.043	24	0.172	1.058	19.342
13	SPSRL	15	0.043	18	0.129	1.072	19.328
14	SPSRL	15	0.043	17	0.086	1.081	19.319
15	SPSRL	15	0.043	19	0.043	1.086	19.314

Source Voltage: 20.40 VDC
 Wire Gauge: 14 AWG
 Resistance/1000 Feet: 3.07 OHMS
 TOTAL CIRCUIT CURRENT: 0.65 A
 TOTAL CIRCUIT LENGTH (FEET): 461.24
 END OF LINE VOLTAGE: 19.07 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS
 Circuit Name: BPS7A-2
 PERCENT DROP: 6.52%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SRL	15	0.043	207	0.645	0.820	19.580
2	SRL	15	0.043	23	0.602	0.906	19.494
3	SPSRL	15	0.043	25	0.559	0.993	19.407
4	SRL	15	0.043	15	0.516	1.040	19.360
5	SRL	15	0.043	8	0.473	1.063	19.337
6	SRL	15	0.043	28	0.430	1.137	19.263
7	SRL	15	0.043	8	0.387	1.156	19.244
8	SRL	15	0.043	18	0.344	1.195	19.205
9	SRL	15	0.043	8	0.301	1.210	19.190
10	SRL	15	0.043	28	0.258	1.254	19.146
11	SRL	15	0.043	8	0.215	1.265	19.135
12	SRL	15	0.043	35	0.172	1.302	19.098
13	SRL	15	0.043	21	0.129	1.319	19.081
14	SRL	15	0.043	20	0.086	1.329	19.071
15	SRL	15	0.043	8	0.043	1.331	19.069

Source Voltage: 20.40 VDC
 Wire Gauge: 14 AWG
 Resistance/1000 Feet: 3.07 OHMS
 TOTAL CIRCUIT CURRENT: 0.65 A
 TOTAL CIRCUIT LENGTH (FEET): 321.84
 END OF LINE VOLTAGE: 19.59 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS
 Circuit Name: BPS7A-4
 PERCENT DROP: 3.97%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SRL	15	0.043	77	0.645	0.303	20.097
2	SRL	15	0.043	8	0.602	0.333	20.067
3	SRL	15	0.043	30	0.559	0.435	19.965
4	SRL	15	0.043	8	0.516	0.460	19.940
5	SRL	15	0.043	23	0.473	0.527	19.873
6	SRL	15	0.043	27	0.430	0.598	19.802
7	SPSRL	15	0.043	22	0.387	0.649	19.751
8	SRL	15	0.043	21	0.344	0.695	19.705
9	SRL	15	0.043	8	0.301	0.709	19.691
10	SRL	15	0.043	28	0.258	0.753	19.647
11	SRL	15	0.043	8	0.215	0.764	19.636
12	SRL	15	0.043	19	0.172	0.784	19.616
13	SRL	15	0.043	8	0.129	0.790	19.610
14	SRL	15	0.043	28	0.086	0.805	19.595
15	SRL	15	0.043	8	0.043	0.807	19.593

ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	Line loss Calculation
REV E		BY	Sheet 3 of 5
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
REV A	Issued For Review	BY	East Tower Expansion
		JH	XLS140-2 Fire Alarm System
		JH	22 Bramhall Street Portland, ME 04102
		JH	DRAWING NUMBER USB-017267-FA8.5
			REV B



Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions
11/19/2019

LINE LOSS CALCULATIONS

Source Voltage 20.40 VDC
Wire Gauge 14 AWG
Resistance/1000 Feet 3.07 OHMS
TOTAL CIRCUIT CURRENT 0.75 A
TOTAL CIRCUIT LENGTH (FEET) 367.33
END OF LINE VOLTAGE 19.40 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS

Circuit Name BPS7B-1.

PERCENT DROP 4.90%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SRL	15	0.043	47	0.748	0.216	20.184
2	SPSRL	30	0.063	38	0.705	0.380	20.020
3	SRL	15	0.043	24	0.642	0.476	19.924
4	SRL	15	0.043	8	0.599	0.504	19.896
5	SPSRL	30	0.063	39	0.556	0.637	19.763
6	SRL	15	0.043	31	0.493	0.730	19.670
7	SRL	15	0.043	15	0.450	0.770	19.630
8	SRL	15	0.043	21	0.407	0.823	19.577
9	SRL	15	0.043	15	0.364	0.857	19.543
10	SPSRL	30	0.063	18	0.321	0.893	19.507
11	SPSRL	15	0.043	18	0.258	0.921	19.479
12	SRL	15	0.043	22	0.215	0.950	19.450
13	SRL	15	0.043	15	0.172	0.966	19.434
14	SPSRL	15	0.043	8	0.129	0.973	19.427
15	SPSRL	15	0.043	38	0.086	0.993	19.407
16	SPSRL	15	0.043	11	0.043	0.995	19.405

Source Voltage 20.40 VDC
Wire Gauge 14 AWG
Resistance/1000 Feet 3.07 OHMS
TOTAL CIRCUIT CURRENT 0.62 A
TOTAL CIRCUIT LENGTH (FEET) 365.07
END OF LINE VOLTAGE 19.53 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS

Circuit Name BPS7B-3.

PERCENT DROP 4.26%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SRL	15	0.043	46	0.622	0.175	20.225
2	SPSRL	15	0.043	29	0.579	0.277	20.123
3	SPSRL	30	0.063	30	0.536	0.374	20.026
4	SPSRL	15	0.043	64	0.473	0.560	19.840
5	SPSRL	15	0.043	14	0.430	0.598	19.802
6	SRL	15	0.043	13	0.387	0.629	19.771
7	SPSRL	15	0.043	48	0.344	0.731	19.669
8	SPSRL	15	0.043	25	0.301	0.778	19.622
9	SPSRL	15	0.043	21	0.258	0.811	19.589
10	SRL	15	0.043	8	0.215	0.822	19.578
11	SPSRL	15	0.043	16	0.172	0.839	19.561
12	SPSRL	15	0.043	21	0.129	0.856	19.544
13	SPSRL	15	0.043	14	0.086	0.863	19.537
14	SPSRL	15	0.043	16	0.043	0.867	19.533

Source Voltage 20.40 VDC
Wire Gauge 14 AWG
Resistance/1000 Feet 3.07 OHMS
TOTAL CIRCUIT CURRENT 0.56 A
TOTAL CIRCUIT LENGTH (FEET) 315.01
END OF LINE VOLTAGE 19.71 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS

Circuit Name BPS7B-2.

PERCENT DROP 3.38%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SRL	15	0.043	84	0.559	0.290	20.110
2	SPSRL	15	0.043	11	0.516	0.326	20.074
3	SRL	15	0.043	14	0.473	0.367	20.033
4	SRL	15	0.043	50	0.430	0.499	19.901
5	SRL	15	0.043	8	0.387	0.518	19.882
6	SRL	15	0.043	22	0.344	0.566	19.834
7	SRL	15	0.043	8	0.301	0.581	19.819
8	SRL	15	0.043	25	0.258	0.621	19.779
9	SRL	15	0.043	8	0.215	0.632	19.768
10	SRL	15	0.043	19	0.172	0.652	19.748
11	SRL	15	0.043	21	0.129	0.669	19.731
12	SRL	15	0.043	34	0.086	0.687	19.713
13	SRL	15	0.043	8	0.043	0.689	19.711

Source Voltage 20.40 VDC
Wire Gauge 14 AWG
Resistance/1000 Feet 3.07 OHMS
TOTAL CIRCUIT CURRENT 0.73 A
TOTAL CIRCUIT LENGTH (FEET) 384.55
END OF LINE VOLTAGE 19.31 VDC

NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS

Circuit Name BPS7B-4.

PERCENT DROP 5.34%

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SPSRL	15	0.043	59	0.731	0.265	20.135
2	SPSRL	15	0.043	40	0.688	0.434	19.966
3	SRL	15	0.043	43	0.645	0.602	19.798
4	SRL	15	0.043	8	0.602	0.632	19.768
5	SRL	15	0.043	18	0.559	0.696	19.704
6	SRL	15	0.043	8	0.516	0.721	19.679
7	SRL	15	0.043	30	0.473	0.808	19.592
8	SRL	15	0.043	8	0.430	0.829	19.571
9	SRL	15	0.043	35	0.387	0.913	19.487
10	SRL	15	0.043	26	0.344	0.969	19.431
11	SPSRL	15	0.043	12	0.301	0.991	19.409
12	SRL	15	0.043	24	0.258	1.029	19.371
13	SRL	15	0.043	8	0.215	1.040	19.360
14	SRL	15	0.043	30	0.172	1.071	19.329
15	SRL	15	0.043	8	0.129	1.078	19.322
16	SRL	15	0.043	18	0.086	1.087	19.313
17	SRL	15	0.043	8	0.043	1.090	19.310

ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	Line loss Calculation Sheet 4 of 5 Honeywell ExpertISE © 207 Larrabee Road Westbrook, Maine, 04092-5108 Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System 22 Bramhall Street Portland, ME 04102
REV E		BY	
REV D		BY	
REV C		BY	
REV B Jun 27/19	Re-Issued For Review	BY JH	
REV A Jan 23/19	Issued For Review	BY JH	DRAWING NUMBER USB-017267-FA8.6



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019

LINE LOSS CALCULATIONS

Source Voltage	20.40 VDC	NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS					
Wire Gauge	14 AWG	Circuit Name	BPS8A-1.				
Resistance/1000 Feet	3.07 OHMS	PERCENT DROP	1.57%				
TOTAL CIRCUIT CURRENT	0.47 A						
TOTAL CIRCUIT LENGTH (FEET)	158.22						
END OF LINE VOLTAGE	20.08 VDC						

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SPSRK	75	0.158	45	0.474	0.132	20.268
2	SPSRK	75	0.158	82	0.316	0.292	20.108
3	SPSRK	75	0.158	31	0.158	0.321	20.079

Source Voltage	20.40 VDC	NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS					
Wire Gauge	14 AWG	Circuit Name	BPS8A-2.				
Resistance/1000 Feet	3.07 OHMS	PERCENT DROP	3.63%				
TOTAL CIRCUIT CURRENT	0.85 A						
TOTAL CIRCUIT LENGTH (FEET)	237.45						
END OF LINE VOLTAGE	19.66 VDC						

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SPSRL	30	0.063	21	0.853	0.109	20.291
2	SPSRK	75	0.158	10	0.790	0.155	20.245
3	SPSRK	75	0.158	53	0.632	0.359	20.041
4	SPSRK	75	0.158	106	0.474	0.668	19.732
5	SPSRK	75	0.158	29	0.316	0.725	19.675
6	SPSRK	75	0.158	19	0.158	0.743	19.657

Source Voltage	20.40 VDC	NOTIFICATION APPLIANCE VOLTAGE DROP CALCULATIONS					
Wire Gauge	14 AWG	Circuit Name	BPS8A-3.				
Resistance/1000 Feet	3.07 OHMS	PERCENT DROP	0.54%				
TOTAL CIRCUIT CURRENT	0.27 A						
TOTAL CIRCUIT LENGTH (FEET)	93.8						
END OF LINE VOLTAGE	20.29 VDC						

Sequence No.	Device Type	Setting	Current	Distance From Prev.	Current at Device	Cum. Voltage Drop	Voltage At Device
1	SPSRK	110	0.202	58	0.265	0.094	20.306
2	SPSRL	30	0.063	36	0.063	0.108	20.292

ARCHITECTURAL CHANGES, DEVICE CHANGES / RELOCATIONS, CIRCUITS RE-DESIGNED & RE-ADDRESSED ACCORDINGLY.

REV F		BY	Line loss Calculation
REV E		BY	Sheet 5 of 5
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B	Re-Issued For Review	BY	Maine Medical Center
Jun 27/19		JH	East Tower Expansion
REV A	Issued For Review	BY	XLS140-2 Fire Alarm System
Jan 23/19		JH	22 Bramhall Street Portland, ME 04102
			DRAWING NUMBER USB-017267-FA8.7
			REV B



Reviewed for Code Compliance
 Permitting and Inspections Department
 Approved with Conditions
 11/19/2019

SEQUENCE OF OPERATIONS

System Inputs	CONTROL UNIT ANNUNCIATION							NOTIFICATION							REQUIRED FIRE SAFETY CONTROL							SUPPLEMENTARY							
	ACTIVATE COMMON ALARM SIGNAL INDICATOR	ACTIVATE AUDIBLE ALARM SIGNAL	ACTIVATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTIVATE AUDIBLE SUPERVISORY SIGNAL	ACTIVATE COMMON TROUBLE SIGNAL INDICATOR	ACTIVATE AUDIBLE TROUBLE SIGNAL		ACTIVATE FLOOR FIRE ALARM STROBES PER ZONE	ACTIVATE SPEAKERS PER ZONE	TRANSMIT FIRE ALARM SIGNAL TO SUPERVISING STATION	TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION	TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION		RELEASE MAGNETICALLY HELD DOORS	RECALL ELEVATORS TO PRIMARY RECALL FLOOR	RECALL ELEVATORS TO ALTERNATE RECALL FLOOR	SHUTDOWN AHU'S SERVING THE AREA IN ALARM	CLOSE ASSOCIATED FSD'S (WITH DELAY)	ACTIVATE ELEVATOR SHUNT	ACTIVATE ELEVATOR FIREFIGHTER HAT		ACTIVATE GRAPHICS ANNUNCIATION	ACTIVATE CORRIDOR SMOKE CONTROL SEQUENCE PER ZONE	PRESSURIZE DESIGNATED STAIRWELLS					
MANUAL FIRE ALARM PULL STATIONS	X	X						X	X	X												X	X						
AREA SMOKE DETECTORS	X	X						X	X	X				X			X					X	X	X					
WATER FLOW SWITCHES	X	X						X	X	X				X			X					X	X	X					
SMOKE DETECTORS – PRIMARY LEVEL ELEVATOR LOBBY	X	X						X	X	X				X	X		X					X	X	X					
SMOKE DETECTORS – ALL LEVELS EXCEPT PRIMARY ELEVATOR LOBBY	X	X						X	X	X				X	X		X					X	X	X					
HVAC UNIT SUPPLY/RETURN AIR DUCT SMOKE DETECTORS	X	X						X	X	X				X		X	X					X							
HVAC RETURN AIR SYSTEM RISER DUCT SMOKE DETECTORS	X	X						X	X	X				X		X						X							
ELEVATOR SHAFT/MACH. ROOM SMOKE DETECTORS	X	X						X	X	X				X		X		X				X	X	X					
ELEVATOR SHUNT POWER LOSS			X	X						X												X							
VALVE SUPERVISORY SWITCHES			X	X						X												X							
FIRE PUMP RUNNING			X	X						X												X							
FIRE PUMP POWER FAILURE/PHASE REVERSAL			X	X						X												X							
SMOKE CONTROL EQUIPMENT LOSS OF POWER			X	X						X												X							
SMOKE CONTROL EQUIPMENT DISCONNECT SWITCHES			X	X						X												X							
EMERGENCY POWER MANUAL START/TRANSFER SWITCH(ES)			X	X						X												X							
HELIPAD PRE-ACTION PANEL 'ALARM'	X	X						X	X	X												X							
HELIPAD PRE-ACTION PANEL 'SUPERVISORY'			X	X						X																			
HELIPAD PRE-ACTION PANEL 'TROUBLE'					X	X						X																	
DEVICE NO RESPONSE					X	X						X																	
FIRE ALARM AC POWER FAILURE					X	X						X																	
FIRE ALARM SYSTEM LOW BATTERY					X	X						X																	
OPEN CIRCUIT					X	X						X																	
GROUND FAULT					X	X						X																	
NOTIFICATION APPLIANCE CIRCUIT SHORT					X	X						X																	
MANUAL CONTROLS AT SMOKE CONTROL STATION																						X	X						

REV F		BY	Sequence of Operations
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	207 Larrabee Road Westbrook, Maine, 04092-5108
REV B		BY	Maine Medical Center East Tower Expansion XLS140-2 Fire Alarm System
REV A	Issued For Review	BY	22 Bramhall Street Portland, ME 04102
Jan 23/19		JH	DRAWING NUMBER USB-017267-FA9.1
			REV A