Approved for Historic Preservation Certificate of Appropriateness
Date: 06/23/14

FIRE ALARM WIRING DETAIL

SCALE: N.T.S.

FC 922 BATTERY CALCULATIONS

DESCRIPTION	STANDBY CURRENT (A)	ALARM CURRENT (A)
STANDARD OPERATING UNIT	.125	.125
252 POINT PERIPHERY BOARD	.115	.115
NAC EXPANDER	.025	.025
NAC LOAD (4 CKTS)	.000	3.198
RS-485 MODULE	.055	.055
REMOTE ANNUNCIATOR (2)	.068	.068
DACT	.025	.025
OH921 SMOKE DETECTOR (9)	.00252	.00252
FDCIO422 I/0 MODULE	.00100	.00100
MSM-KD/HTRI-M MANUAL STATION (13)	.01820	.01820
HTRI-S SINGLE INPUT MODULE	.00140	.00140
HTRI-D DUAL INPUT MODULE	.00140	.00140
TOTAL CURRENT	.438	3.636
STANDBY TIME (24 HOURS)	10.50 A/hr	
ALARM TIME (5 MINS)		.030 A/hr
A/hr REQUIRED (NO RESERVE)	10.80	
BATTERY RESERVE	125%	
A/hr REQUIRED WITH RESERVE	13.50	
BATTERY SIZE PROVIDED	18 A/hr	

DEVICE ELEVATION DETAIL

NOT TO SCALE

31 EXCHANGE/46 MARKET ST FIRE ALARM INPUT/OUTPUT MATRIX

System Inputs	Activate Alarm LED on FACP & Remote Annunciator	Activate Local & Remote Alarm Audible Signal	Activate Supervisory LED on FACP & Remote Annunciator	Activate Trouble LED on FACP & Remote Annunciator	Activate Local & Remote Supervisory Audible Signal	Activate Local & Remote Trouble Audible Signal	Indicate System Status & Location on FACP & Remote Display	Activate Audible/Visual Evacuation Signals	Transmit Alarm Signal to Central Station Indicating Exchange St Response	Transmit Alarm Signal to Central Station Indicating Market St Response	Transmit Trouble Signal to Central Station	Transmit Supervisory Signal to Central Station	Transmit Alarm Signal Through Radio Master Box (Zone 1)	Transmit Supervisory Signal Through Radio Master Box (Zone 1)
Manual Pull Station (Exchange St & Market 3rd & 4th Floor)	X	X				X	X	X						X
Manual Pull Station (Market St. Basement & First Floor)	X	X				X	X		X					
Smoke Detector	X	X				X	X	X						X
Low Battery					X	X	X				X			
Loss of AC Power					X	X	X				X			
Open Circuit					X	X	X				X			
Short Circuit					X	X	X				X			
Ground Fault					X	X	X				X			
Sprinkler Flow	X	X				X	X	X					X	
Sprinkler Tamper			X	X			X					X		
Hood Suppression	X	X				X	X	X						X

SYMBOL LEGEND				
QTY	SYMBOL	DESCRIPTION	MODEL	BACK BOX
1	FACP	FIRE ALARM CONTROL PANEL	FC-922	ENCLOSURE
1	MST	RADIO MASTER BOX	AES	ENCLOSURE
2	ANN	REMOTE ANNUNCIATOR	FT2015-R3	ENCLOSURE
9	P KK	SMOKE DETECTOR/BASE	OH921/ DB-11	SINGLE GANG OR OCTOGON BOX
13	F KK	MANUAL PULL STATION	MSM-KD/ HTRI-M	3.5" DEEP SINGLE GANG
1	T_M	SINGLE INPUT MINI MONITOR MODULE	HTRI-M	-
1	T_D	DUAL INPUT MONITOR MODULE	HTRI-D	4" SQUARE
2	T_4	4 INPUT/OUTPUT MODULE	FDCIO422	4 11/16" SQUARE
7	cd	MULTI-CANDELA STROBE	ZR-MC-R	4" SQUARE
3	cd	MULTI-CANDELA STROBE (CEILING)	MODEL	4" SQUARE
12	cd	MULTI-CANDELA HORN/STROBE	ZH-MC-R	4" SQUARE
7	C_C	MULTI-CANDELA HORN/STROBE (CEILING)	ZH-MC-CR	4" SQUARE
9	M	MINI HORN	MH-R	4" SQUARE
1	KB	KNOX BOX	MODEL	3.5" DEEP SINGLE GANG

GENERAL NOTES

OCCUPANCY CLASSIFICATION

31 EXCHANGE/46 MARKET ST IS CLASSIFIED AS A MIXED OCCUPANCY. THE BASEMENT & PARTIAL 1ST FLOOR OF 31 EXCHANGE (FUJI RESTAURANT) IS CLASSIFIED AS ASSEMBLY. THE RETAIL SPACE ON THE 1ST FLOOR OF 31 EXCHANGE (10000 VILLAGES) MERCANTILE, AND THE UNOCCUPIED SPACE (BASEMENT & 1ST FLOOR) OF 46 MARKET SHALL BE CONSIDERED ASSEMBLY FOR ANTICIPATION OF FUTURE USE. THE SECOND & 3RD FLOORS OF BOTH BUILDINGS ARE CLASSIFIED AS BUSINESS & RESIDENTIAL. DUE TO THE FACT THAT THERE IS ONLY ONE MEANS OF EGRESS ALL OCCUPIED SPACE OF THE SECOND & 3RD FLOORS ARE CONSIDERED 31 EXCHANGE ST.

FIRE DEPARTMENT NOTIFICATION

MASTER BOX
- MASTER BOX SHALL ACTIVATE ON ANY ALARM THROUGHOUT BOTH 31 EXCHANGE & 46 MARKET. ALARM WILL RING INTO PORTLAND FIRE DEPARTMENT AS 31 EXCHANGE ONLY

CENTRAL STATION
- CENTRAL STATION SHALL RECEIVE POINT BY POINT SIGNALS DISTINGUISHING A CONDITION IN 31 EXCHANGE VS 46 MARKET. COORDINATE FINAL ZONE LIST WITH PORTLAND FIRE DEPARTMENT TO ENSURE PROPER DIRECTION IN THE CASE OF A FIRE.

1. ALL WIRING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NFPA 70) ARTICLE 760. ALL SUPERVISED CKTS ARE CLASSIFIED AS POWER LIMITED
2. EFS TO MAKE ALL FINAL CONNECTIONS IN THE FACP. DO NOT APPLY POWER TO ANY EQUIPMENT UNTIL AN EFS TECHNICIAN IS ON SITE AND HAS AUTHORIZED
3. AVOID SPLICING WHERE UNNECESSARY. SYSTEM SHALL BE WIRED DEVICE TO DEVICE AS SHOWN ON FIELD PLANS.
4. NO PARALLEL BRANCHING OF WIRING ON SUPERVISED CKTS IS PERMISSIBLE AND POLARITY MUST BE OBSERVED.
5. ALL FIELD WIRING MUST BE CHECKED FOR SHORTS AND GROUNDS BEFORE CONNECTIONS TO THE CONTROL PANEL ARE MADE
6. RESIDENTIAL UNITS SHALL BE EQUIPPED WITH AUDIBLE HORNS TO ACHIEVE THE NFPA 72 REQUIREMENT OF 75 DB AT THE PILLOW
7. WHERE EACH BUSINESS TENANT OCCUPIES SEPARATE LEASED SPACE AUDIBLE/VISUAL NOTIFICATION IS PROVIDED.
8. FIRE ALARM SYSTEM IS DESIGNED PER NFPA 101 AND REQUIREMENTS DERIVED FROM INDEPENDENT CODE REVIEW AND LIFE SAFETY EVALUATION DATED 12/11/2013.

FIRE ALARM RISER DETAIL

SCALE: 1/8"=1'

MASTER BOX INTERFACE DETAIL

SCALE: NTS

1/8"=1'-0" GRAPHIC SCALE

GENERAL NOTES	DATE	REVISIONS	REQUIRED APPROVALS
			OWNER
			STATE FIRE MARSHAL
			LOCAL FIRE DEPARTMENT
			DRAWN BY CRM
			CHECKED BY BWB
			CONTRACTOR LICENSE #

31 Exchange/46 Market

PORTLAND, ME

CONTRACT WITH: OWNER

EASTERN FIRE SERVICES, INC.
AUBURN/LEWISTON INDUSTRIAL AIRPARK, AUBURN, MAINE 04210

FIRE ALARM SYSTEM
PLANS & DETAILS
DWG. NO. 2 OF 2
JOB NUMBER
SCALE AS SHOWN
DATE 5/8/2014