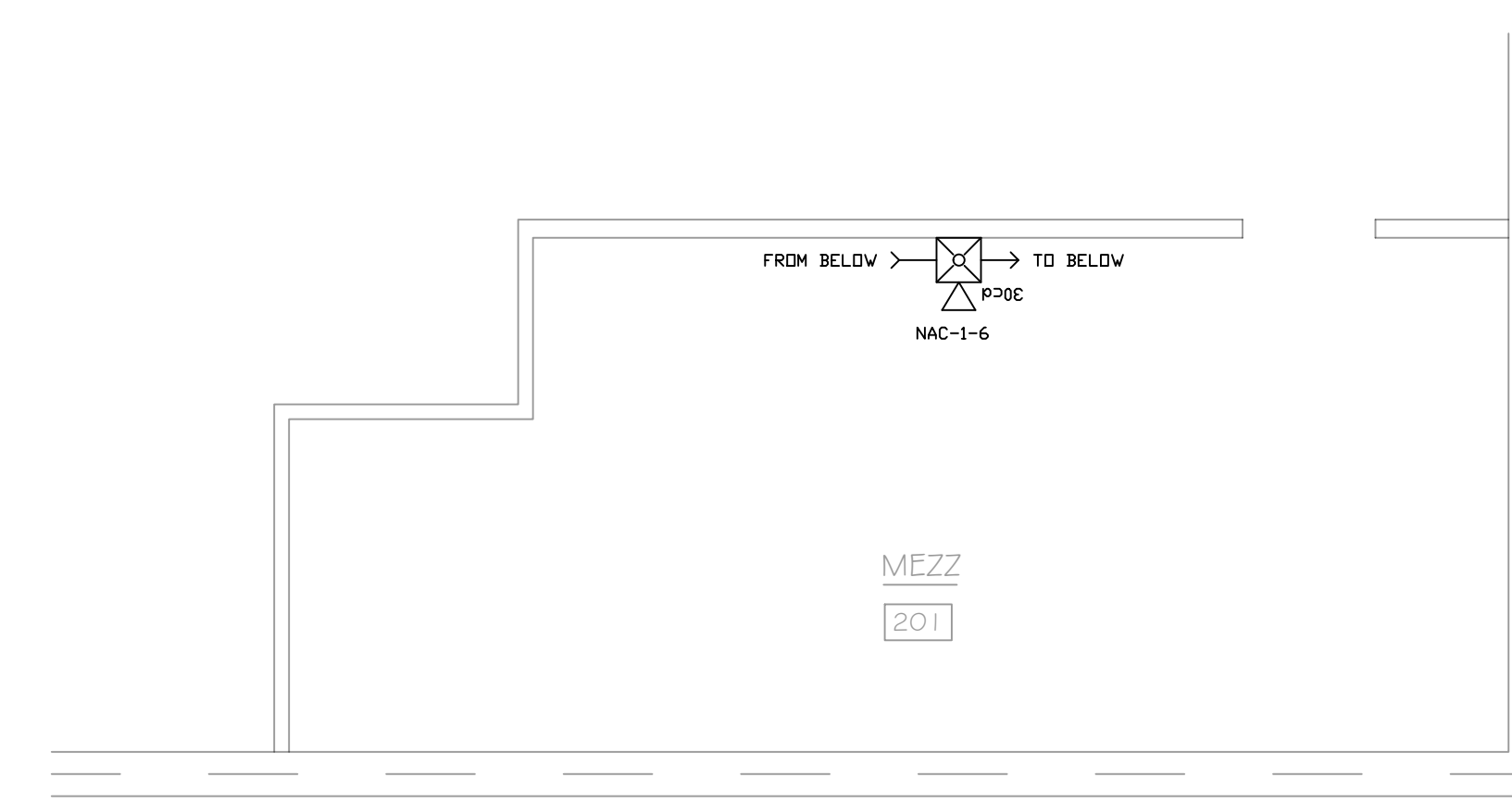
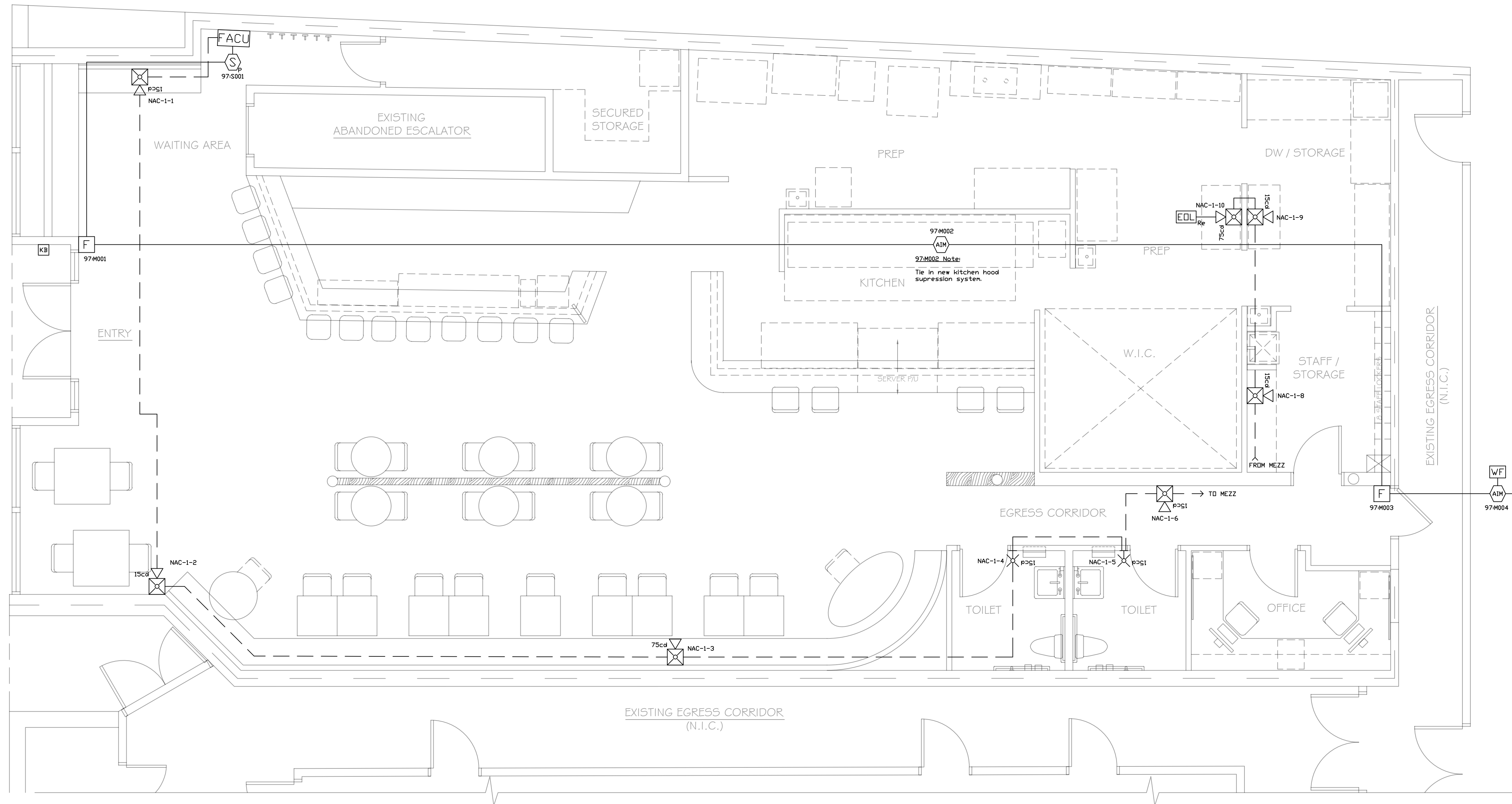




Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions

12/17/2019

FREE STREET



Narrative:

Installation of an addressable fire alarm system in 85 Free Street. The system will only serve the restaurant shown above. Other parts of the building will continue to function on the existing multiple fire alarm systems. There is no proposed cross tie between systems. The fire alarm control panel will be close to the main entrance into the restaurant.

CITY/TOWN APPROVAL

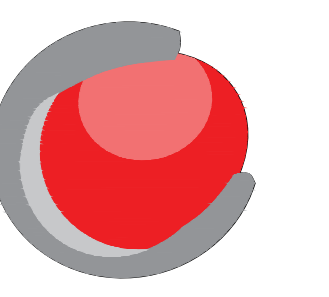
John Mocker, SET
John Mocker
NICET Level IV - Fire Alarm
Technician ID: 137219
Expires: 11/1/2022

NICET APPROVAL

0	Issued for review
1	
2	
3	

Revisions

FIRE ALARM	DATE	AUTHOR	SCALE	
	11-05-2019	[GH] + ZS	1/4" = 1'-0"	85 FREE STREET PORTLAND, ME



CUNNINGHAM
SECURITY SYSTEMS

FLOOR PLAN

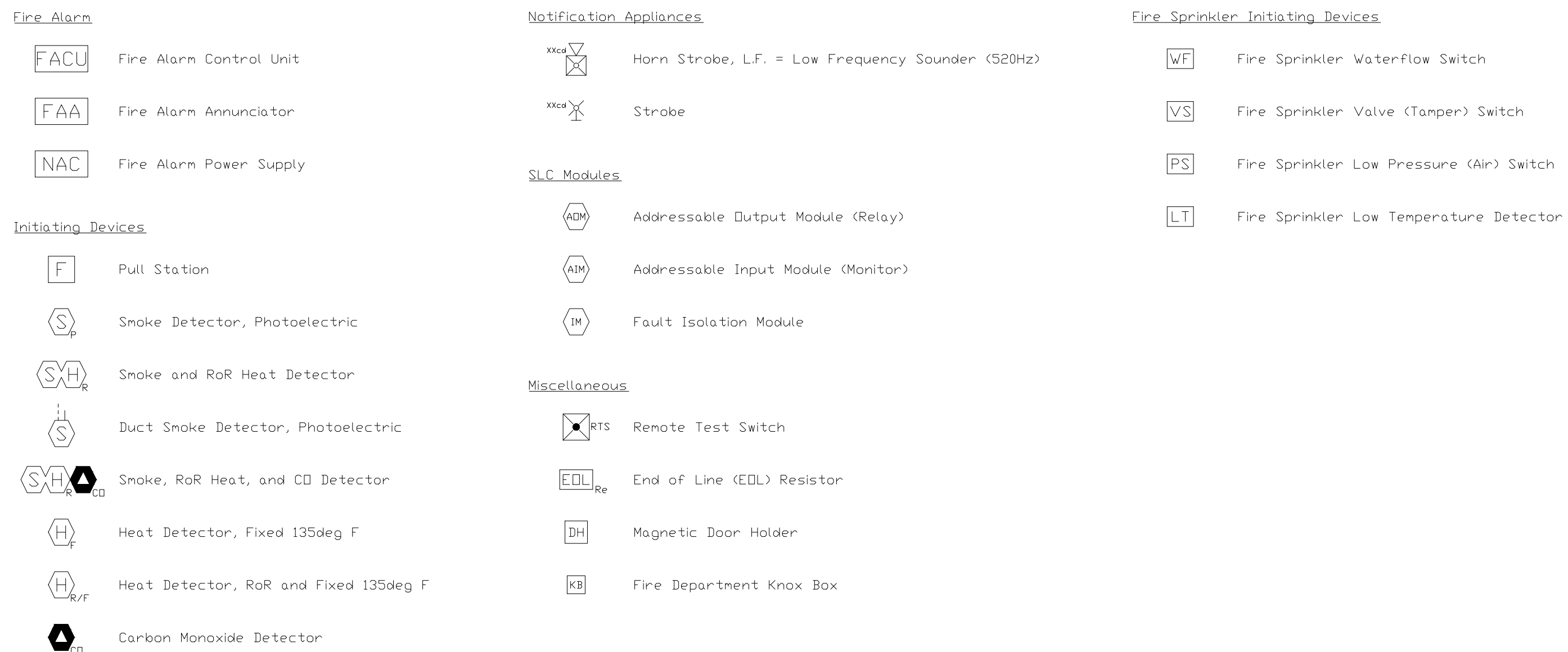
FA-1

Honeywell SILENT KNIGHT		IntelliKnight 6700 Battery Calculation					
		Standby Current (amps)			Secondary Alarm Current (amps)		
Device Type	Qty	Current Draw	Total	Qty	Current Draw	Total	
1. Control Panel							
6700 Control Panel	1	x 0.165000	= 0.165000	1	x 0.310000	= 0.310000	
2. Addressable SLC Devices							
SK-PHOTO		x 0.000300	=		x 0.000300	=	
SK-PHOTO-T		x 0.000300	=		x 0.000300	=	
SK-HEAT		x 0.000300	=		x 0.000300	=	
SK-HEAT-HT		x 0.000300	=		x 0.000300	=	
SK-HEAT-ROR		x 0.000300	=		x 0.000300	=	
SK-BEAM		x 0.002000	=		x 0.002000	=	
SK-BEAM-T		x 0.002000	=		x 0.002000	=	
SK-DUCT		x 0.000300	=		x 0.000300	=	
SK-ACCLIMATE		x 0.000300	=		x 0.000300	=	
SK-CONTROL		x 0.000375	=		x 0.000375	=	
SK-MONITOR	3	x 0.000375	= 0.001125	3	x 0.000375	= 0.001125	
SK-MINIMON		x 0.000375	=		x 0.000375	=	
SK-PULL-SA		x 0.000375	=		x 0.000375	=	
SK-PULL-DA	2	x 0.000375	= 0.000750	2	x 0.000375	= 0.000750	
SK-MONITOR-2		x 0.000750	=		x 0.000750	=	
SK-MON-10		x 0.003500	=		x 0.003500	=	
SK-RELAY-6		x 0.001450	=		x 0.001450	=	
SK-CONTROL-6		x 0.002250	=		x 0.002250	=	
SK-RELAY		x 0.000255	=		x 0.000255	=	
SK-RELAYMON-2		x 0.001300	=		x 0.001300	=	
SK-ZONE		x 0.000270	=		x 0.000270	=	
SK-ZONE-6		x 0.002000	=		x 0.002000	=	
SK-FIRE-CO		x 0.000300	=		x 0.000300	=	
3. SLC Accessory Bases							
B200S		x 0.000300	=		x 0.000300	=	
B200S-LF		x 0.000300	=		x 0.000300	=	
B200SR		x 0.000300	=		x 0.000300	=	
B200SR-LF		x 0.000300	=		x 0.000300	=	
B224RB		x 0.000500	=		x 0.000500	=	
RTS151		x 0.000000	=		x 0.007500	=	
RTS151KEY		x 0.000000	=		x 0.007500	=	
RA100Z		x 0.000000	=		x 0.010000	=	
4. SLC Isolator Devices							
SK-ISO		x 0.000450	=		x 0.000450	=	
ISO-6		x 0.002700	=		x 0.102000	=	
B224BI		x 0.000500	=		x 0.000500	=	
5. Auxiliary Power Draw - SLC Devices							
SK-CONTROL (Aux. Power)		x 0.001700	=		x 0.007000	=	
SK-CONTROL-6 (Aux. Power)		x 0.008000	=		x 0.020000	=	
SK-ZONE (Aux. Power)		x 0.012000	=		x 0.090000	=	
SK-ZONE-6 (Aux. Power)		x 0.050000	=		x 0.270000	=	
B200S (Aux. Power)		x 0.000500	=		x 0.035000	=	
B200S-LF (Aux. Power)		x 0.000500	=		x 0.140000	=	
B200SR (Aux. Power)		x 0.000500	=		x 0.035000	=	
B200SR-LF (Aux. Power)		x 0.001000	=		x 0.125000	=	
6. Accessory Modules							
5860		x 0.020000	=		x 0.025000	=	
5860R		x 0.020000	=		x 0.025000	=	
5824		x 0.045000	=		x 0.045000	=	
5496		x 0.010000	=		x 0.010000	=	
5865-4		x 0.035000	=		x 0.145000	=	
5865-3		x 0.035000	=		x 0.145000	=	
5880		x 0.035000	=		x 0.200000	=	
5883		x 0.000000	=		x 0.220000	=	
SK-IP-2		x 0.093000	=		x 0.136000	=	
SK-IP-2UID		x 0.098000	=		x 0.155000	=	
CELL-MOD		x 0.055000	=		x 0.100000	=	
CELL-CAB-SK		x 0.055000	=		x 0.100000	=	
SK-NIC		x 0.021000	=		x 0.021000	=	
SK-NIC-KIT		x 0.021000	=		x 0.021000	=	
SK-FSL		x 0.079000	=		x 0.079000	=	
SK-FML		x 0.053000	=		x 0.053000	=	
SK-FFT		x 0.120000	=		x 0.230000	=	
7. Miscellaneous Devices							
Conventional Detectors							
SK-PHOTO-W	1	x 0.000000	=	1	x 0.000000	= 0.000000	
Miscellaneous Device 2							
		x 0.000000	=		x 0.000000	=	
Miscellaneous Device 3							
		x 0.000000	=		x 0.000000	=	
Miscellaneous Device 4							
		x 0.000000	=		x 0.000000	=	
Miscellaneous Device 5							
		x 0.000000	=		x 0.000000	=	
8. Notification Appliance Circuits							
NAC 1		0.000000	=		0.823000	= 0.823000	
NAC 2		0.000000	=		0.000000	=	
Total Standby Load		0.167175		Total Alarm Load		1.134875	

Honeywell SILENT KNIGHT		IntelliKnight 6700 Battery Calculation					
Calculation in Total Sheet							
		Required Standby Time in Hours		24 Hours			
Standby Load Current	0.16718 Amps	x	24	=	4.012 AH		
		Required Alarm Time in Minutes		5 Minutes			
Alarm Load Current (Amps)	1.13488 Amps	x	0.084	=	0.095 AH		
		Total Current Load		4.108 AH			
Multiply by the Derating Factor		1.2	=	x 1.20			
Total Ampere Hours Required		4.93 AH					
Batteries to be used		7Ah					

Honeywell SILENT KNIGHT		IntelliKnight 6700 Circuit Detail					
NAC 1							
Device	Qty	Non-Alarm Draw	Total	Qty	Alarm Draw	Total	
SRL @ 15 Candela	2	x 0.000000	= 0.000000	2	x 0.043000	= 0.086000	
P2RL @ 15 Candela	5	x 0.000000	= 0.000000	5	x 0.073000	= 0.365000	
P2RL @ 75 Candela	2	x 0.000000	= 0.000000	2	x 0.139000	= 0.278000	
P2RL @ 30 Candela	1	x 0.000000	= 0.000000	1	x 0.094000	= 0.094000	
Total Standby Load		0.000000		Total Alarm Load		0.823000	

Honeywell SILENT KNIGHT		IntelliKnight 6700 EOL Voltage Drop					
Starting Voltage	24 Volts						
Minimum Voltage @ EOL	16 Volts						
Voltage Drop Warning %	10.00%						
	Current Draw	Wire Type	Resistance	Length	Actual Resistance	Voltage @ EOL	
Circuit Name	Amps	AWG	Ohms/1000 ft.	Feet (One Way)	Ohms	Volts	
NAC 1	0.823	#14 Solid	3.07	250	1.54	22.74	
						Percent Drop	
						5.26%	



	ACTUATE COMMON ALARM INDICATOR	ACTUATE AUDIBLE ALARM SIGNAL	ACTUATE COMMON TROUBLE INDICATOR	ACTUATE AUDIBLE TROUBLE SIGNAL	ACTUATE NOTIFICATION APPLIANCES	DROP POWER TO AES RADIO, MAKE RADIO USE DOWN BATTERY	TRANSMIT ALARM SIGNAL TO CENTRAL STATION	TRANSMIT TROUBLE SIGNAL TO CENTRAL STATION
PULL STATION ACTIVATION	●	●			●	●	●	
WATER FLOW ACTIVATION	●	●			●	●	●	
SMOKE DETECTOR ACTIVATION	●	●			●	●	●	
VALVE SWITCH ACTIVATION		●	●				●	
FACU AC POWER FAILURE			●	●	●		●	
FACU LOW BATTERY			●	●			●	
OPEN CIRCUIT			●	●			●	
SHORT CIRCUIT			●	●			●	



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CITY/TOWN APPROVAL

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NICET Level IV - Fire Alarm
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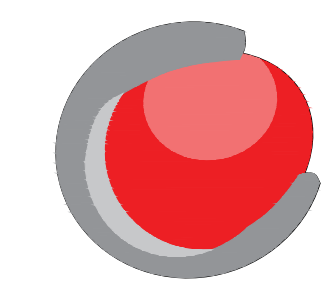
NICET APPROVAL

0	Issued for review
1	
2	
3	

Revisions

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1	
2	
3	

FIRE ALARM
DATE 11-05-2019
AUTHOR [GH] + ZS
SCALE N/A
85 FREE STREET
PORTLAND, ME



CUNNINGHAM SECURITY SYSTEMS

RISER AND CALCS

FA-2