

3 FIRE ALARM RISER
NONE FIRE ALARM

NAC CIRCUIT VOLTAGE DROP			
SECTION A - NAC Ckt #3			
APPLIANCE	QTY	AMPS EACH	TOTAL AMPS
HORN/STROBE - 110	1	0.2	0.2
STROBE - 15/75		0.077	0
TOTAL			
0.2			
LOOP LENGTH	10	WIRE SIZE	#14
NOM. VOLTS	LOSS	FINAL VOLTS	MIN. VOLTS
24	0.01	23.99	16

NAC CIRCUIT VOLTAGE DROP			
SECTION A - NAC Ckt #1			
APPLIANCE	QTY	AMPS EACH	TOTAL AMPS
HORN/STROBE - 15/75		0.08	0
STROBE - 15/75	3	0.077	0.231
HORN/STROBE - 110	4	0.02	0.1
TOTAL			
0.331			
LOOP LENGTH	180	WIRE SIZE	#14
NOM. VOLTS	LOSS	FINAL VOLTS	MIN. VOLTS
24	0.30	23.70	16

NAC CIRCUIT VOLTAGE DROP			
SECTION A - NAC Ckt #2			
APPLIANCE	QTY	AMPS EACH	TOTAL AMPS
HORN/STROBE - 75	5	0.08	0.4
STROBE - 15/75	2	0.077	0.154
TOTAL			
0.554			
LOOP LENGTH	280	WIRE SIZE	#14
NOM. VOLTS	LOSS	FINAL VOLTS	MIN. VOLTS
24	0.79	23.21	16

- NOTES:
- ALL FIRE ALARM WIRING MUST BE IN STRICT COMPLIANCE WITH APPLICABLE SECTIONS OF THE NATIONAL ELECTRICAL CODE (ARTICLE 760) AND ALL APPLICABLE NFPA STANDARDS, INCLUDING CHAPTER 72.
 - INSTALLATION MUST COMPLY WITH ALL APPLICABLE FEDERAL, STATE, OR LOCAL LAWS, REGULATIONS, CODES, AND SPECIFICATIONS.
 - ALL INSTALLATIONS MUST BE APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
 - WHERE CONDUCTORS ARE RUN IN CONDUIT USE ONLY APPROVED CABLE WITHIN RACEWAYS, PIPES, OR CONDUITS. ALL SHIELDS SHALL TERMINATE AT THE FIRE ALARM CONTROL PANEL (FACP) ONLY.
 - TO AVOID CONTAMINATION AND DUST ACCUMULATION IN THE SMOKE DETECTORS, IT IS RECOMMENDED THAT THE SMOKE DETECTORS BE COVERED UNTIL AFTER CONSTRUCTION IS COMPLETED AND THE SUBJECT AREA HAS BEEN CLEANED. WHEN PROJECT IS CLEAN PROTECTIVE COVERS SHALL BE REMOVED BY AUTHORIZED SERVICE PERSONNEL.
 - ALL FIRE ALARM SYSTEM WIRING SHALL BE CLEAR FROM SHORTS, OPENS, AND GROUNDS. A SMOKE DETECTOR MUST BE LOCATED WITHIN FIVE FEET HORIZONTALLY OF THE FIRE ALARM CONTROL PANEL.
 - SYSTEMS SHALL BE TESTED AND CERTIFIED IN PRESENCE OF CITY INSPECTOR PRIOR TO OCCUPANCY.
 - SYSTEM IS AN ADDRESSABLE SUPERVISED PROTECTED PREMISES SYSTEM.
 - ALL HORN/STROBES ARE 75 CANDELA UNLESS NOTED OTHERWISE.

NFPA SYMBOLS LEGEND	
[RELAY]	RELAY
[FCP]	FIRE ALARM CONTROL PANEL
[FAL]	REMOTE FIRE ALARM ANNUNCIATOR
[H]	HEAT DETECTOR
[D]	DUCT DETECTOR
[DH]	DOOR HOLDER
[MPS]	MANUAL PULL STATION AT 48"
[SMO]	SMOKE DETECTOR WITH CARBON MONOXIDE SENSOR
[SD]	SMOKE DETECTOR
[H80]	HORN AT 80" - LOW FREQUENCY
[AV15]	AUDIO VISUAL, 15 CANDELA UNLESS NOTED OTHERWISE
[AV110]	AUDIO VISUAL, 110 CANDELA AT 80" WALL MOUNTED
[CMCS]	CEILING MOUNTED CARBON MONOXIDE SENSOR
[S80]	STROBE AT 80" 15 CANDELA UNLESS NOTED OTHERWISE
[FDS]	FLOW DETECTOR/SWITCH
[TD]	TAMPER DETECTOR
[WP]	WEATHER PROOF
[18/2]	18/2 CABLE SLC LOOP
[14/2]	14/2 OR 16/2 AS REQUIRED, CABLE NAC LOOP
[EOL]	END-OF-LINE RESISTOR
[APD]	AIR PRESSURE DETECTOR
* ALL SYMBOLS SHOWN ABOVE MAY NOT APPEAR ON PLANS	

Jobsite Information: Main Street Landlord Improvements

FCPS-24FS6 / 8 Battery Calculation

Entries only to be made in the Yellow cell locations

Regulated Load in Standby

Device Type	Number of Devices	Current (Amps)	Total Current (Amps)
Main PC Board	1	X	0.065
Power Supervision Relays		X	0.025
Auxiliary Current Draw from TB4 Terminals 9 & 10		X	
STANDBY LOAD			0.065

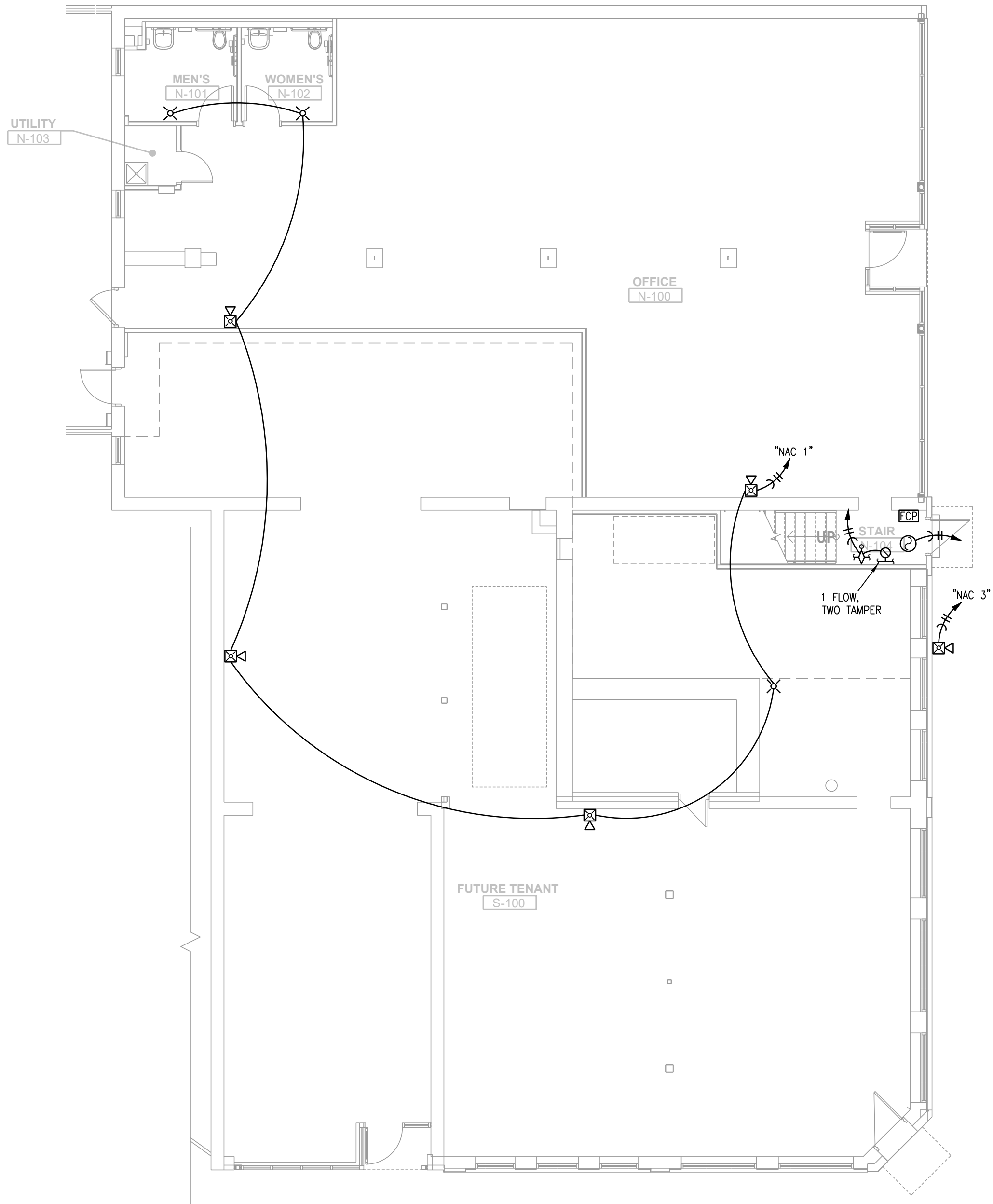
Regulated Load in ALARM

Device Type	Number of Devices	Current (Amps)	Total Current (Amps)
Main PC Board without AC	1	X	0.145
Power Supervision Relays		X	0.025
Auxiliary Current Draw from TB4 Terminals 9 & 10		X	
NAC / Output # 1 Strobes	5	X	0.066
NAC / Output # 2 Horn/Strobes	9	X	0.08
NAC / Output # 3 Spare		X	
NAC / Output # 4 Spare		X	
ALARM LOAD			1.195

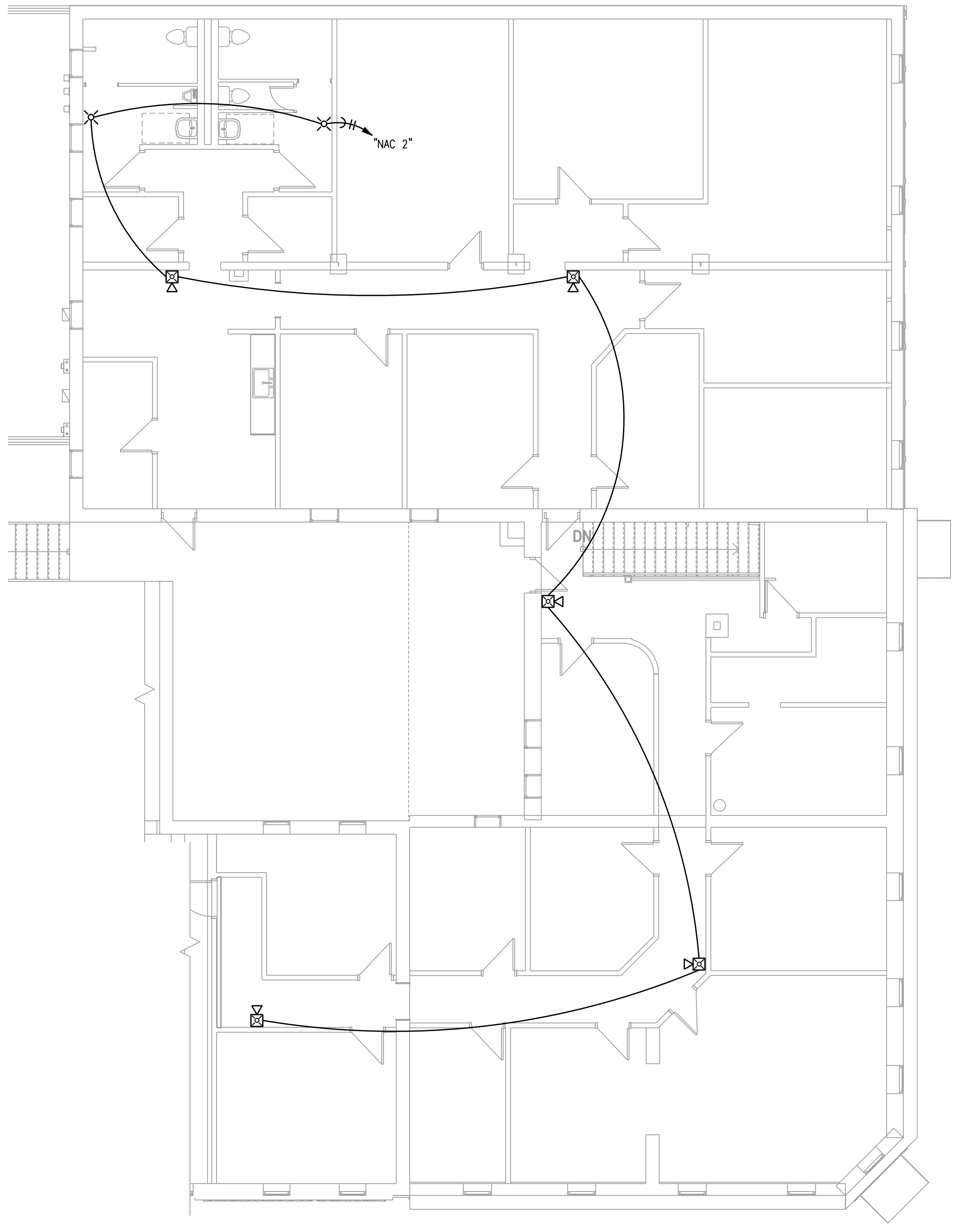
Battery Amp Hour Calculation

Standby Load Current (Amps)	0.065	X	Required Standby Time (Typically 24 or 60 Hours)	24	=	1.56 AH
Alarm Load Current (Amps)	1.195	X	Required Alarm Time (Typically 5 or 10 Minutes)	10	=	0.20 AH
Sub Total Standby / Alarm Amp Hours						1.76 AH
Multiply by the Derating Factor				X	1.2 *	
Total Ampere Hours Required					=	3 AH

* Derating Factor required to compensate for the non-linear discharge characteristic of a battery.



1 FIRST FLOOR PLAN
1/8" = 1'-0" FIRE ALARM



2 SECOND FLOOR PLAN
1/8" = 1'-0" FIRE ALARM



1/31/2023

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FIRE ALARM MAIN STREET LANDLORD IMPROVEMENTS 230 SW MAIN ST., LEE'S SUMMIT, MO 64063

REVISIONS

NO.	DESCRIPTION	DATE

DATE:

01/31/2023

LSA PROJECT NO.:

2304007

SHEET DESCRIPTION:

FLOOR PLANS - FIRE ALARM

SHEET NO.:

FA1