

# "UNITED HOME CARE SERVICES"

8400 N.W. 33rd STREET, MIAMI, FL. 33122

## SCOPE OF WORK

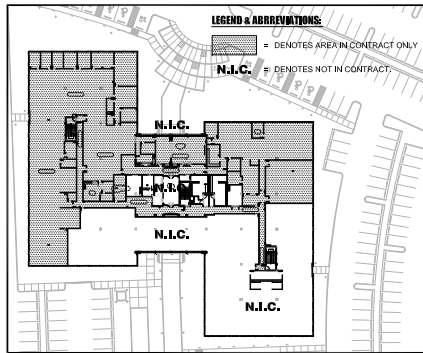
TO PROVIDE THE EXISTING 4th FLOOR A NEW FIRE ALARM SYSTEM TO THE AREA IN CONTRACT AS PER NFPA 72 & 101 STANDARDS TO DETECT EARLY FIRE, ALERT BUILDING OCCUPANTS AND FIRE DEPARTMENT IN THE EVENT OF A FIRE.

## LOCATION MAP



## LEGEND & ABBREVIATIONS:

= DENOTES AREA IN CONTRACT ONLY  
**N.I.C.** = DENOTES NOT IN CONTRACT



**KEY PLAN - 4th FLOOR**  
NOT TO SCALE

## FIRE ALARM SHEET INDEX

FA	COVER AND SYSTEM NOTES
FA1	FOURTH FLOOR PLAN
FA2	FIRE ALARM SYSTEM PNEUMATIC
FA3	BATTERY CALCULATION
FA4	PENETRATION DETAILS & DEVICE MOUNTING DETAILS

## FIRE ALARM SYSTEM NOTES

- THE EXTENT OF THE FIRE ALARM SYSTEM WORK IS INDICATED BY THE DRAWINGS AND SCHEDULES.
- ANY SURFACE MOUNTED FIRE ALARM DEVICES, i.e., PULL STATION, STROBES, HORN/STROBE SHALL BE MOUNTED IN "SYSTEMS" BOXES PROVIDED BY THE MANUFACTURER, DO NOT USE 1900 TYPE ELECTRICAL BOXES PAINTED RED.
- FIRE ALARM SHALL NOT BE INSTALLED UNTIL CLEANUP OF ALL OF ALL TRADES ARE COMPLETE, FAILURE TO COMPLY WITH THIS NOTE WILL VOID ALL WARRANTIES.
- ALL FIRE ALARM SYSTEM DEVICES ARE UL LISTED AND COMPATIBLE WITH FIRE ALARM PANEL AND POWER SUPPLY.
- SMOKING CIRCUITS SHALL BE POWER LIMITED PER NEC 780-11, CABLE PENETRATION INTO OR THROUGH PLENUM AREAS USED FOR TRANSFER OF ENVIRONMENTAL AIR SHALL BE TEFLOM INSULATED TYPE OR OF AN APPROVED TYPE IN ACCORDANCE WITH SECTION 800-3(D) OF THE NATIONAL ELECTRIC CODE.
- FIRE ALARM CONTROL PANEL MUST BE CONNECTED TO BUILDING COLD-WATER GROUND VIA 1 GREEN #10 THIN OR EQUIVALENT.
- ALL WIRING MUST CONFORM WITH NEC ARTICLE 760 AND LOCAL CODES, ALL EQUIPMENT SHALL BE UL LISTED. ALL DEVICES SHALL BE COMPATIBLE WITH THE CONTROL PANEL.
- ALL INSTALLATION MATERIAL, SUCH AS CONDUIT FITTINGS, BOXES, HANGERS, ETC. ARE TO BE PROVIDED AND INCLUDED.
- ALL INITIATING AND INDICATING CIRCUITS MUST BE SUPERVISED.
- CIRCUIT POLARITY MUST BE OBSERVED.
- WIRE RUNS ARE SHOWN DIAGRAMMATICALLY. EXACT LOCATION OF ALL EQUIPMENT TO BE DETERMINED IN THE FIELD, BUT SHALL CONFORM WITH THE BASIC LAYOUT AS SHOWN ON DRAWINGS TO PREVENT CIRCUIT OVERLOAD.
- DETECTORS SHALL NOT BE LOCATED IN DIRECT AIR STREAM FROM SUPPLY AIR OUTLETS. MAINTAIN A MINIMUM CLEAR DISTANCE OF 36" OFFSTRAIGHT LOCATIONS AS REQUIRED.
- MINIMUM CONDUIT SIZE WILL BE 1/2" UNLESS NOTED OTHERWISE, CONDUIT SHALL BE NO MORE THAN 40% FILLED.
- DO NOT MARK ID NUMBERS ON DEVICES. LABEL BASE ONLY.
- POWER UP & POWER DOWN ON PANEL MUST BE DONE IN SEQUENCE:  
POWER DOWN  
A - DISCONNECT BATTERY.  
B - TURN OFF AC POWER PRIMARY & SECONDARY.  
POWER UP  
A - TURN ON AC POWER PRIMARY & SECONDARY.  
B - RECONNECT BATTERIES.
- THE FIRE ALARM CONTROL PANEL SHALL NOT BE USED TO POWER ANY UNAUTHORIZED EXTERNAL DEVICE.
- STROBES ARE TO BE WALL MOUNTED AND SYNCHRONIZED PER ADA REQUIREMENTS. LOCATION OF THESE DEVICES TO BE DETERMINED IN FIELD. MOUNT STROBES 80" AFF TO TOP OF LENS, OR 6" BELOW CEILING TO TOP OF LENS, WHICHEVER IS LOWER.
- ALL HORNS TO BE TAPPED AT STD SETTING EACH PROVIDING 93 DB AT 10 FT (TYPICAL ANECHOIC DBA).
- IDENTIFYING NUMBER ADJACENT TO DEVICE SYMBOL, DENOTE DEVICE ZONE ADDRESS, DETECTOR 2-42 WILL IDENTIFY THE SECOND DEVICE CONNECTED TO LOOP 1 ON R.C. BOARD.
- HVAC SYSTEM SHALL COMPLY WITH NFPA 90A IN SYSTEM OF OVER 2,000 CFM CAPACITY. DUCT DETECTOR INSTALLATION SHALL BE AT A SUITABLE LOCATION.
- BUILDING IS FULLY FIRE SPRINKLED.
- THIS FIRE ALARM SYSTEM WILL BE IN ACCORDANCE WITH CENTRAL STATION REQUIREMENTS (NFPA 72).
- FIRE ALARM SYSTEM IS MONITOR BY A DIALER WITH (2) SUPERVISED TELEPHONE LINES.
- FIRE ALARM IS REQUIRED UNDER SECTION NFPA 101.39.2.4
- THE DESIGN COMPLIES WITH FLORIDA BUILDING CODES 2007 EDITION CHAPTER 9 & UNDER CODE OF ORDINANCES OF MIAMI-DADE COUNTY PART II, CODE OF ORDINANCES, CHAPTER 14 - FIRE PREVENTION.
- INSTALLATION SHALL COMPLY WITH NFPA 1, 2009 EDITION, APPLICABLE CHAPTERS.
- INSTALLATION SHALL COMPLY WITH NFPA 72, 2009 EDITION, APPLICABLE CHAPTERS.
- INSTALLATION SHALL COMPLY WITH NFPA 101, 2009 EDITION, APPLICABLE CHAPTERS.
- INSTALLATION SHALL COMPLY WITH NFPA 70 (NEC 2005 EDITION).
- THE EXISTING BATTERY CALCULATIONS. THE EXISTING WIRE SIZE HAS BEEN ASSUMED FOR A COLLECTION OF DATA & COUNTING OF EXISTING EQUIPMENT / DEVICES, AS-BUILT PERFORMED ON 02/16/2010.
- EXISTING EQUIPMENT / DEVICES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. THE DESIGN ONLY COVERS ALL THE NEW / TO BE REPLACE EQUIPMENT / DEVICES THAT ARE IN CONTRACT. SEE KEY MAP.
- EXISTING BUILDING HAS A 10 FEET CEILING HEIGHT (TYPICAL FOR ALL SPACES) ON THE FOURTH FLOOR.

## SEQUENCE OF OPERATION:

UPON ACTIVATION OF ANY MANUAL STATION THE FOLLOWING SHALL OCCUR:  
1. ALL HORNS WILL SOUND UNTIL SYSTEM IS SILENCED.  
2. ALL STROBES WILL FLASH UNTIL SYSTEM IS RESET.  
3. AN ALARM SIGNAL SHALL BE SENT TO THE FACP & REMOTE ANNUNCIATOR.  
4. A SIGNAL SHALL BE SENT TO THE OWNERS CENTRAL STATION VIA DACT.

UPON ACTIVATION OF ANY AUTOMATIC DEVICE THE FOLLOWING SHALL OCCUR:  
1. ALL HORNS WILL SOUND UNTIL SYSTEM IS SILENCED.  
2. ALL STROBES WILL FLASH UNTIL SYSTEM IS RESET.  
3. AN ALARM SIGNAL SHALL BE SENT TO THE FACP & REMOTE ANNUNCIATOR.  
4. A SIGNAL SHALL BE SENT TO THE OWNERS CENTRAL STATION VIA DACT.

UPON ACTIVATION OF THE ELECTRIC ROOM SMOKE DETECTOR, THE FOLLOWING SHALL OCCUR:  
1. ALL HORNS WILL SOUND UNTIL SYSTEM IS SILENCED.  
2. ALL STROBES WILL FLASH UNTIL SYSTEM IS RESET.  
3. AN ALARM SIGNAL SHALL BE SENT TO THE FACP & REMOTE ANNUNCIATOR.  
4. A SIGNAL SHALL BE SENT TO THE OWNERS CENTRAL STATION VIA DACT.

UPON ANY TROUBLE CONDITION IN THE FIRE ALARM SYSTEM:  
1. THE TROUBLE I.E.D. SHALL ILLUMINATE AND SOUND THE BUZZER AT THE CONTROL PANEL.  
2. IT SHALL DISPLAY DEVICE AND LOCATION.  
3. AN ALARM SIGNAL SHALL BE SENT TO THE FACP & REMOTE ANNUNCIATOR.  
4. A SIGNAL SHALL BE SENT TO THE OWNERS CENTRAL STATION VIA DACT.

## FIRE ALARM WIRE LEGEND

- A- 162 AWG FIRE POWER LIMITED (FPL) FOR INITIATING DEVICES.  
B- 162 AWG FOR HORN/STROBE DEVICES.  
C- 182 AWG FOR DATA COMMUNICATION.

### NOTE:

WIRE TYPES LISTED IN THE WIRE LEGEND ARE THE MANUFACTURER'S MINIMUM WIRING REQUIREMENTS. CONTRACTOR SHALL CHOOSE WIRE TYPES AND RATING TO MEET THESE REQUIREMENTS AND ALL OF THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND NFPA FOR THE APPLICATIONS AND LOCATIONS OF USE.

## SYMBOL LEGEND

SYMBOL	DESCRIPTION	MODEL	MOUNTING
	POWER BOOSTER	SALENTIGHT SR4500	MOUNT 12" AFF. TO TOP.
	PHOTOELECTRIC SMOKE DETECTOR W/ BASE	NOTIFIER FSP-61	CEILING MOUNT ON A 4" 1900 BOX.
	MANUAL PULL STATION	PRILEE RS-12	MOUNT 48" AFF. TO CENTER ON A 3 1/2" DEEP 1 GANG BOX.
	HORN & STROBE MODULE	NOTIFIER FHS-61	MOUNTS DIRECTLY TO A 4" BOX.
	MULTI-CANDELA HORN STROBE	COOPER WHEELOCK AS-3MHC4FR	MOUNT 80" AFF. TO BOTTOM ON A 4" WEATHER PROOF BOX.
	MULTI-CANDELA HORN STROBE	COOPER WHEELOCK AS-3MHC4FR	CEILING MOUNT ON A 4" 1900 BOX.
	MULTI-CANDELA STROBE DEVICE	COOPER WHEELOCK RPS-3MHC4FR	MOUNT 80" AFF. TO BOTTOM ON A 4" 1900 BOX.
	MULTI-CANDELA STROBE DEVICE	COOPER WHEELOCK RPS-3MHC4FR	CEILING MOUNT ON A 4" 1900 BOX.
	END OF LINE RESISTOR	(1) K	INSTALL VALUE AS SHOWN ON RISER

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ETEK Fire Alarm, Inc. is a registered trademark of ETEK Fire Alarm, Inc.

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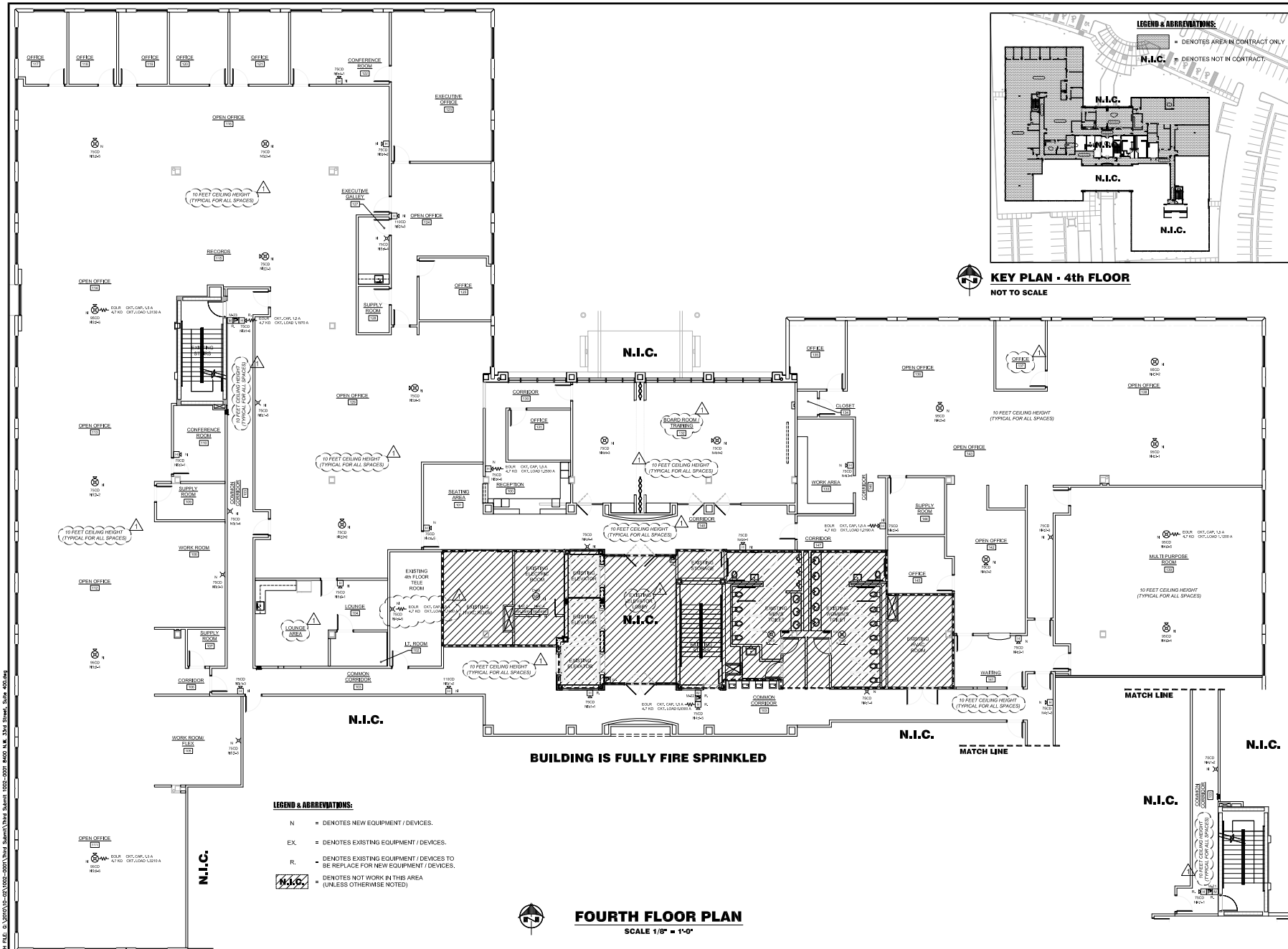
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Checked: INVENTION CORP.

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Sheet: FA-1

2 of 5 Sheets



# BATTERY CALCULATION

(EXISTING) FIRE ALARM PANEL BATTERY CALCULATION NOTIFIER AFP-200													
LOCATED AT FIRST FLOOR METER ROOM													
FIRE ALARM PANEL STANDBY BATTERIES SHALL BE SIZE TO PROVIDE 24 HOURS SUPERVISION (STANDBY)													
PLUS 5 MINUTES OF ALARM FOR ALL DEVICES													
CIRCUIT #	NUMBER/DESCRIPTION	DEVICE COUNT	STANDBY CURRENT (amps)	ALARM CURRENT (amps)	75d STROBE MAX CURRENT (amps)	110d STROBE MAX CURRENT (amps)	HORN ONLY MAX CURRENT (amps)	75d HORNISTS MAX CURRENT (amps)	110d HORNISTS MAX CURRENT (amps)	TOTAL STANDBY (amps)	TOTAL ALARM (amps)	MAX LOAD PER CIRCUIT 2.25 (amps)	
(EXISTING)	METRO/NOTIFIER AFP-200	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
(EXISTING)	LINE MONITOR MODULE PMA-101	33	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
(EXISTING)	RELAY MODULE PMA-1	15	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
(EXISTING)	PULL STATION SIG-12	14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
(EXISTING)	SMOKE DETECTOR PDP-81	42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
(EXPLAINED)	MFR. MONITOR MODULE PMA-101	3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
(EXPLAINED)	MFR. MONITOR MODULE PMA-101	3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
(NEW)	SMOKE DETECTOR PDP-81	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
AV1		0	0	0	0	0	0	0	0	0.0000	0.0000		
AV2		0	0	0	0	0	0	0	0	0.0000	0.0000		
AV3		0	0	0	0	0	0	0	0	0.0000	0.0000		
AV4		0	0	0	0	0	0	0	0	0.0000	0.0000		
TOTAL DRAW (AMPS)										0.338	0.338		
STANDBY 24 HOURS													
ALARM MINUTES X 104 = 0.268 Hours													
REQUIRED STANDBY TIME (HOURS)													
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