SYMBOL LEGEND

SYMBOL	DESCRIPTION	MODEL #	QTY.	BACKBOX
FACP	FIRE ALARM CONTROL PANEL W/DACT & BATTERIES	ES-50X, IM-12120 (2)	1	PROVIDED
FAA	LCD REMOTE ANNUNCIATOR	ANN-80	1	4" SQUARE, 1-3/4" DEEP
FAC	FIRE ALARM CELLULAR COMMUNICATOR	SLE-MAX2-FIRE	1	PROVIDED
?	PHOTOELECTRIC SMOKE SENSOR W/BASE	SD365	1	4" OCTAGON, 1-1/2" DEEP
F	MANUAL PULL STATION	BG-12LX	3	SINGLE GANG, 1-1/2" DEEP
AIM	MONITOR MODULE	MMF-300	1	4" SQUARE, 1-1/2" DEEP
CRM	RELAY MODULE	CRF-300	3	4" SQUARE, 1-1/2" DEEP
	LED HORN STROBE, WALL MOUNT, WHITE	P2WLED	7	4" SQUARE, 1-1/2" DEEP
	LED STROBE, WALL MOUNT, WHITE	SWLED	18	4" SQUARE, 1-1/2" DEEP
TVSS	120V PANEL SURGE PROTECTOR W/BREAKER LOCK	DTK-120HWLOK	1	N/A
FS	SPRINKLER SYSTEM FLOW SWITCH	BY OTHERS	N/A	N/A
	DENOTES NAC END-OF-LINE RESISTOR	N/A	N/A	N/A

FIRE ALARM SYSTEM NOTES

1. THE FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND INCLUDING THE 2018 NC STATE BUILDING CODE AND THE 2013 EDITION OF NFPA 72.
2. REFER TO FLOOR PLANS FOR DEVICE TYPE AND LOCATION.
3. LABEL ALL DEVICES WITH ADDRESSES.
4. ALL CABLE TO BE FREE OF SHORTS, GROUNDS, AND OPENS.
5. ALL FIRE ALARM WIRING SHALL BE CLASS 'B' AS PER 2013 EDITION OF NFPA 72.
6. SMOKE DETECTORS SHOULD NOT BE LOCATED IN A DIRECT AIR FLOW NOR CLOSER THAN 3 FEET FROM AN AIR DIFFUSER.
7. THE OPERABLE PART OF A MANUAL PULL STATION SHALL NOT BE LESS THAN 42 INCHES AND NOT MORE THAN 48 INCHES FROM THE FINISHED FLOOR.
8. WALL MOUNTED VISIBLE APPLIANCES SHALL BE MOUNTED SUCH THAT THE ENTIRE LENS IS NOT LESS THAN 80 INCHES AND GREATER THAN 96 INCHES ABOVE THE FINISHED FLOOR.
9. ALL OPENINGS IN RATED ASSEMBLIES SHALL BE REPAIRED AS PER LOCAL BUILDING CODES.

WIRE LEGEND

SYMBOL	DESCRIPTION	WIRE TYPE/SIZE	COLOR
SLC	SIGNALING LINE CIRCUIT (SLC)	18/2 FPLP SOLID TWISTED PAIR, NO SHIELD	RED JACKET RED, BLACK
NACX	NOTIFICATION APPLIANCE CIRCUIT (NAC)	14/2 FPLP STRANDED	RED JACKET RED, BLACK
E	INITIATING DEVICE CIRCUIT (IDC)	14/2 FPLP STRANDED	RED JACKET RED, BLACK
H	ANNUNICATOR ANN-BUS CIRCUIT	16/2 FPLP SOLID TWISTED PAIR, NO SHIELD	RED JACKET RED, BLACK
J	ANNUNICATOR POWER CIRCUIT	14/2 FPLP STRANDED	RED JACKET RED, BLACK

KEYED NOTES: #

1. VERIFY THE QUANTITY AND LOCATION OF SPRINKLER SWITCHES TO MONITOR WITH THE SPRINKLER CONTRACTOR PRIOR TO ROUGH-IN.
2. CANDELA SETTING CHANGED FROM CONTRACT DRAWING TO PROVIDE REQUIRED COVERAGE IN ROOM.

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NO.	DATE	REVISION	BY

ALBEMARLE ALARM & ELECTRONICS
P.O. BOX 1337
ALBEMARLE, NC 28002
TEL: 704-983-1300
NC LICENSE # SP.FA/LV.18041
EXP. 09/30/2025

FIRE ALARM SYSTEM FOR:
GOOD HOPE BEHAVIORAL HEALTH URGENT CARE
410 DENIM DRIVE
ERWIN, NC 28339

FIRE ALARM PLAN

DATE:	03/24/2025
DRAWN BY:	JRC
CHECKED BY:	VDF
SCALE:	1/8"=1'-0"

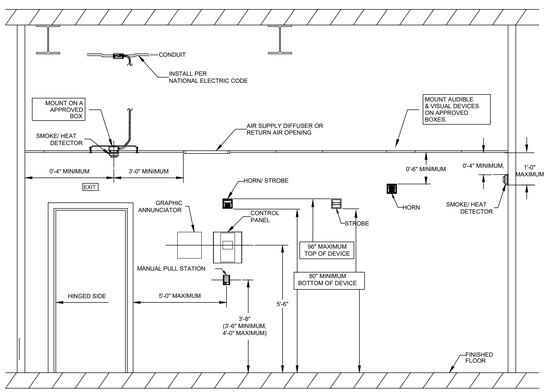
SHEET:
FA-1
SHEET 1 OF 1

3 FA-1 FIRE ALARM MATRIX
Scale: None

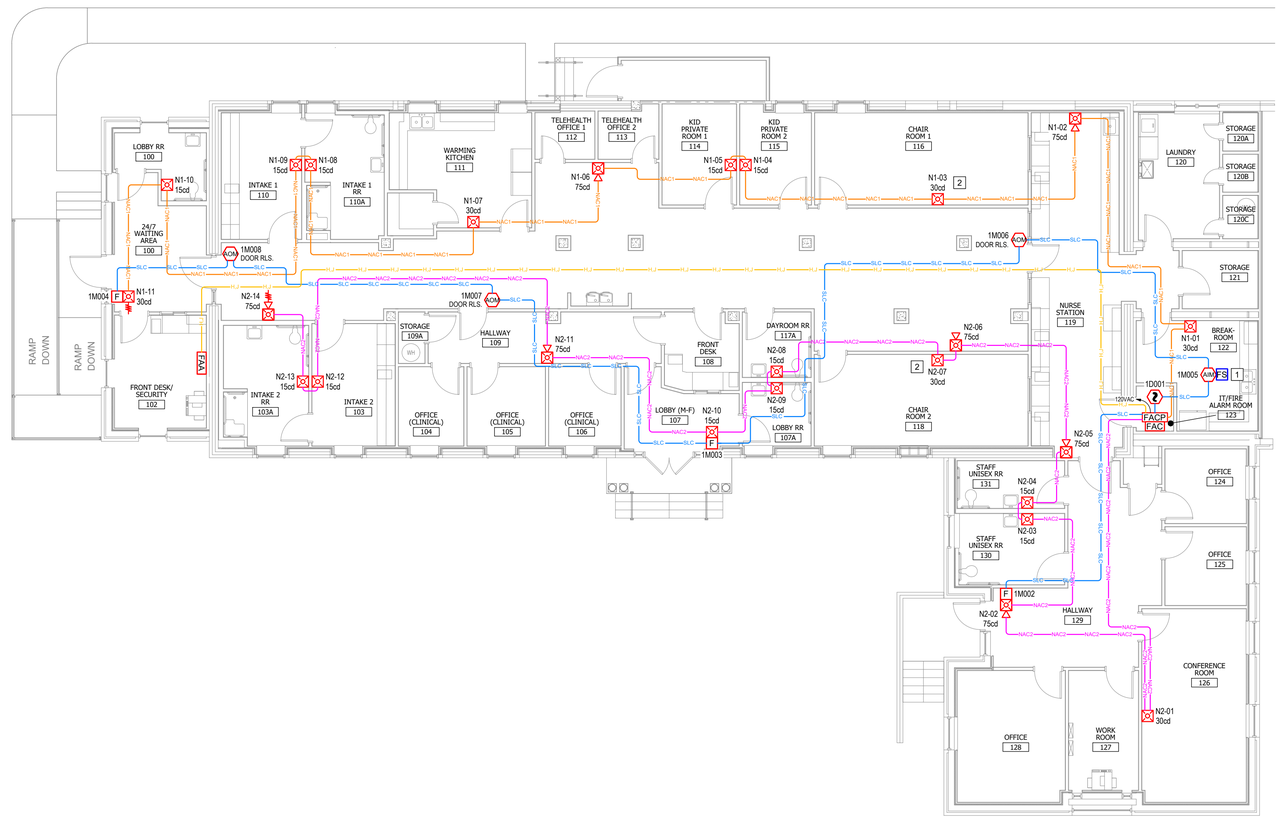
FUNCTION / OUTPUT

DEVICE / INPUT	ACTUATE COMMON ALARM SIGNAL INDICATOR	ACTUATE AUDIBLE ALARM SIGNAL	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTUATE AUDIBLE SUPERVISORY SIGNAL	ACTUATE COMMON TROUBLE SIGNAL INDICATOR	ACTUATE AUDIBLE TROUBLE SIGNAL	ACTUATE EVACUATION SIGNAL	TRANSMIT ALARM SIGNAL TO CENTRAL STATION	TRANSMIT SUPERVISORY SIGNAL TO CENTRAL STATION	TRANSMIT TROUBLE SIGNAL TO CENTRAL STATION	UNLOCK ACCESS CONTROL EGRESS DOORS
FIRE ALARM SYSTEM SYSTEM AC POWER FAILURE				●	●			●			
FIRE ALARM SYSTEM LOW BATTERY				●	●			●			
OPEN CIRCUIT				●	●			●			
GROUND FAULT				●	●			●			
NOTIFICATION APPLIANCE CIRCUIT SHORT				●	●			●			
SMOKE DETECTOR	●	●				●	●		●		
MANUAL FIRE ALARM PULL STATION	●	●				●	●		●		
SPRINKLER SYSTEM WATER FLOW	●	●				●	●		●		

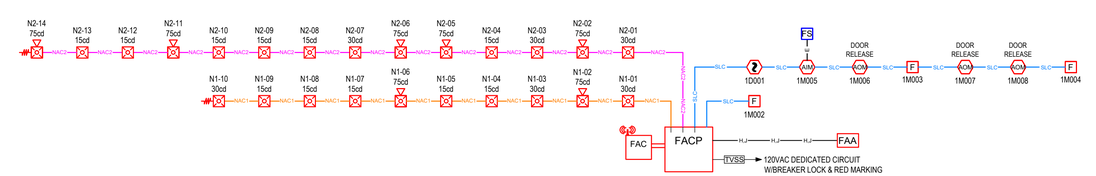
NFPA 72 & ADA DEVICE INSTALLATION REQUIREMENTS



4 FA-1 DEVICE MOUNTING HEIGHTS
Scale: None



1 FA-1 FIRE ALARM PLAN
Scale: 1/8"=1'-0"



2 FA-1 FIRE ALARM RISER
Scale: None

FIRE-LITE ALARMS by Honeywell

Standby Battery Calculation
Fireflite ES-50X Fire Alarm Control Panel

Protected Premises: Good Hope Behavioral Health Urgent Care **Date:** 9/10/2025
Address: 410 Denim Drive
City: Erwin **State:** NC **Zip:** 28339

Panel ID: FACP **Location:** ITFire Alarm Room 123

System Device	Qty	Standby Current Draw: Draw	Standby Current Draw: Standby	Alarm Current Draw: Draw	Alarm Current Draw: Alarm
ES-50X	1	0.141000	0.141000	0.257000	0.257000
ANN-80 Remote Annunciator	1	0.015000	0.015000	0.040000	0.040000
IPOTS-CCM Communicator	1	0.040000	0.040000	0.041000	0.041000
SLE MAX2-FIRE Cellular Communicator	1	0.085000	0.085000	0.325000	0.325000
SD365 Photo Detector	1	0.000200	0.000200	0.004500	0.004500
BG-12LX Manual Pull Station	3	0.000200	0.000600	0.005000	0.015000
MMF-300 Monitor Module	1	0.000375	0.000375	0.005000	0.005000
CRF-300 Relay Module	3	0.000255	0.000765	0.006500	0.019500
P2WLED75	7	0.000000	0.000000	0.087000	0.000000
SWLED15	12	0.000000	0.000000	0.018000	0.000000
SWLED30	6	0.000000	0.000000	0.020000	0.000000
			Total Standby:	**0.283**	**Total Alarm:** **0.707**

Secondary Load Requirements 8.23 **Amp Hours**
Total Secondary Load from the calculation table below.

Current Draw (Amps)		Time (Hours)	Total (AH)
Secondary Standby Load 0.283		Required Standby Time: 24	6.80
Secondary Alarm Load 0.707		Required Alarm Time: 0.084	0.06
		Total Secondary Load:	6.86
		Derating Factor:	1.20
		Secondary Load Requirements:	8.23

Battery Selection 12 **Amp Hours**

FACP STANDBY BATTERY CALCULATION

Point to Point Voltage Drop Analysis
Fireflite ES-50X Fire Alarm Control Panel
Source Voltage: 20.4 Nominal System Voltage

Project Name: Good Hope Behavioral Health Urgent Care **Date:** 9/10/2025
Circuit No: N1 **Minimum Voltage:** 16
Area Covered: Ground Floor **Wire Gauge:** 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet) Between	Distance (Feet) Total	Voltage at Device
1	SWLED30	0.022	35	35	20.32
2	P2WLED75	0.087	55	90	20.21
3	SWLED30	0.022	45	135	20.14
4	SWLED15	0.018	45	180	20.08
5	SWLED15	0.018	15	195	20.06
6	P2WLED75	0.087	35	230	20.02
7	SWLED30	0.022	40	270	19.99
8	SWLED15	0.018	50	320	19.97
9	SWLED15	0.018	15	335	19.96
10	SWLED15	0.018	55	390	19.95
11	SWLED30	0.022	35	425	19.95
			Total Power:	**0.352**	**% Voltage Drop:** **-2.23%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

Go

Point to Point Voltage Drop Analysis
Fireflite ES-50X Fire Alarm Control Panel
Source Voltage: 20.4 Nominal System Voltage

Project Name: Good Hope Behavioral Health Urgent Care **Date:** 9/10/2025
Circuit No: N2 **Minimum Voltage:** 16
Area Covered: Ground Floor **Wire Gauge:** 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet) Between	Distance (Feet) Total	Voltage at Device
1	SWLED30	0.022	65	65	20.15
2	P2WLED75	0.087	45	110	19.99
3	SWLED15	0.018	40	150	19.86
4	SWLED15	0.018	15	165	19.82
5	P2WLED75	0.087	30	195	19.73
6	P2WLED75	0.087	45	240	19.63
7	SWLED30	0.022	15	255	19.60
8	SWLED15	0.018	45	300	19.53
9	SWLED15	0.018	15	315	19.50
10	SWLED15	0.018	35	350	19.45
11	P2WLED75	0.087	45	395	19.39
12	SWLED15	0.018	65	460	19.34
13	SWLED15	0.018	15	475	19.33
14	P2WLED75	0.087	30	505	19.32
			Total Power:	**0.505**	**% Voltage Drop:** **-5.31%**

NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

Go

NAC VOLTAGE DROP CALCULATIONS

N
0 4' 8' 16'

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