

HARNETT COUNTY GOVERNMENT SERVICES CENTER LILLINGTON, NC

DEVICE LEGEND				
SYMBOL	DEVICE	PART NUMBER	BACK BOX	QTY.
[FACP]	FIRE ALARM CONTROL PANEL W/DAC & BATTERIES	NFS2-640	PROVIDED	1
[FAA]	REMOTE LCD ANNUNCIATOR	FDU-80	3-BOX 2-1/8" DEEP, SBB-3 - SURFACE MT.	3
[FAC]	FIRE ALARM CELLULAR COMMUNICATOR	SLE-CDMA-FIRE	PROVIDED	1
[RPS]	NAC POWER SUPPLY, 24 VDC, 10 AMP W/BATTERIES	FCPS-24S8	N/A	4
[P]	PHOTOELECTRIC SMOKE DETECTOR W/STANDARD BASE	FSP-951, B300-6	4" OCTAGON, 1-1/2" DEEP	26
[T]	135F ROR THERMAL DETECTOR W/STANDARD BASE	FST-951R, S300-6	4" OCTAGON, 1-1/2" DEEP	4
[D]	DUCT DETECTOR W/FSPR-951R & SAMPLING TUBE	DNR-FSP-951R DSTS	N/A	14
[F]	MANUAL PULL STATION	NBG-12LX	SINGLE GANG, 1-1/2" DEEP	8
[RM]	RELAY MODULE	FRM-1	4" SQUARE, 1-1/2" DEEP	12
[MM]	MONITOR MODULE	FMM-1	4" SQUARE, 1-1/2" DEEP	13
[T]	REMOTE TEST STATION W/ALARM INDICATOR	RTS151KEY	SINGLE GANG, 1-1/2" DEEP	14
[H]	HORN STROBE, WHITE, WALL MOUNT	P2WL	4" SQUARE, 1-1/2" DEEP	69
[H]	HORN STROBE, WHITE, CEILING MOUNT	PC2WL	4" SQUARE, 1-1/2" DEEP	41
[S]	STROBE, WHITE, WALL MOUNT	SWL	4" SQUARE, 1-1/2" DEEP	13
[H]	HORN, WHITE, WALL MOUNT	HWL	4" SQUARE, 1-1/2" DEEP	10
[H]	HORN, WHITE, CEILING MOUNT	HWL	4" SQUARE, 1-1/2" DEEP	2
[VSS]	120 VAC PANEL SURGE PROTECTOR	DTK-120HW	N/A	4
[SS]	24 VDC SURGE PROTECTOR, 2 CIRCUIT	DTK-2LVLPF	N/A	1
[M]	MULTI-VOLTAGE CONTROL RELAY W/LEADS	PAM-1	N/A	1
[W]	SPRINKLER SYSTEM WATER FLOW SWITCH	BY OTHERS	N/A	N/A
[TS]	SPRINKLER SYSTEM TAMPER SWITCH	BY OTHERS	N/A	N/A
[PV]	SPRINKLER SYSTEM P.I.V. TAMPER SWITCH	BY OTHERS	N/A	N/A
[BT]	SPRINKLER SYSTEM BACK FLOW TAMPER SWITCH	BY OTHERS	N/A	N/A
[*]	DENOTES END-OF-LINE RESISTOR	N/A	N/A	N/A

FIRE ALARM NOTES

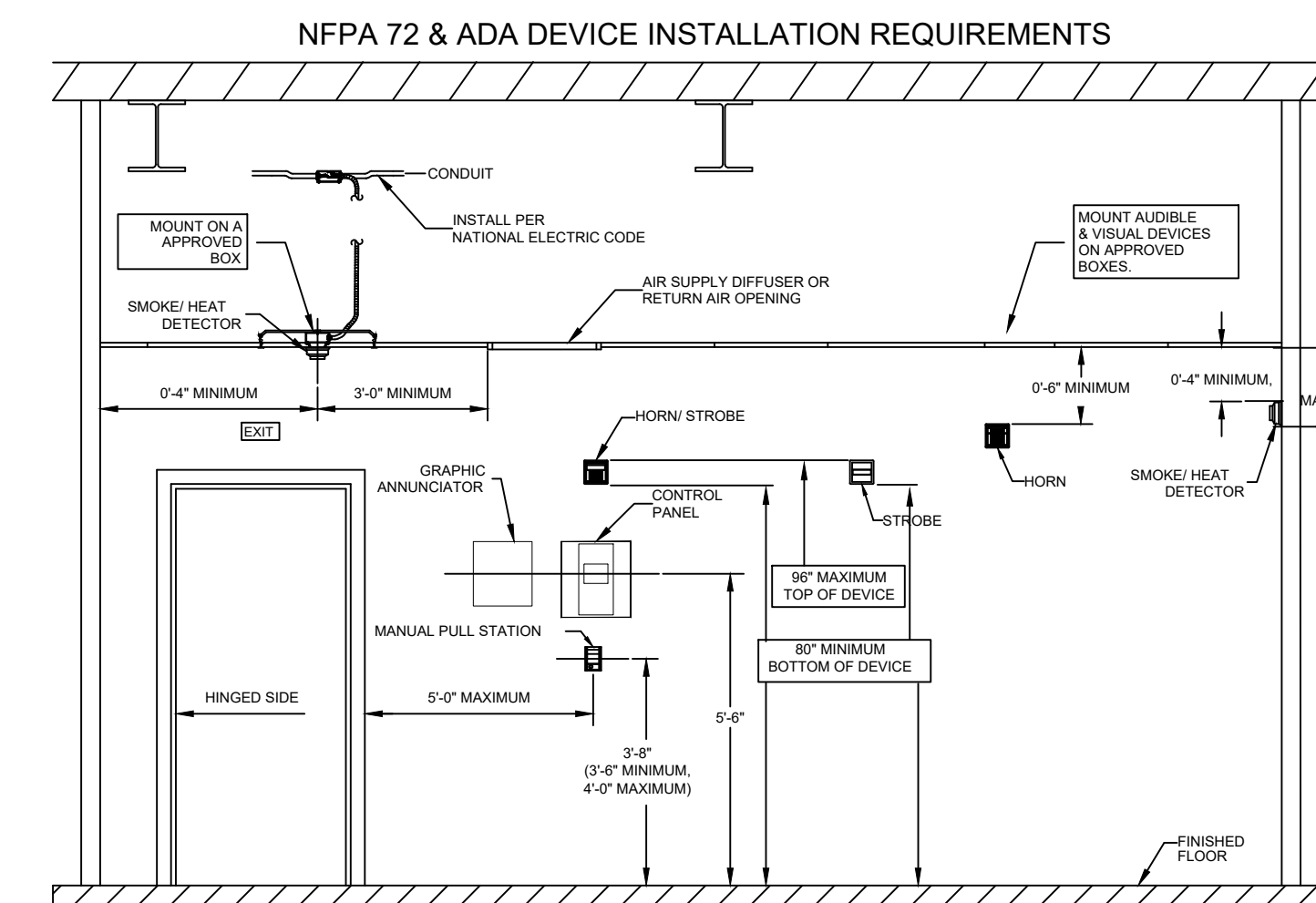
- FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE TO ALL APPLICABLE STATE AND LOCAL LAWS AND IN ACCORDANCE WITH THE 2013 EDITION OF NFPA 72.
- "60" RATING IS CALCULATED PER NFPA AND IT IS MINIMUM. PROVIDE MINIMUM OR HIGHER.
- ALL VISIBLE NOTIFICATION APPLIANCES SHALL BE SYNCHRONIZED PER NFPA 72.
- LABEL ALL DEVICES WITH ADDRESSES.
- LABEL ALL END-OF-LINE DEVICES WITH EOL ON DEVICE.
- ALL CABLE TO BE FREE OF SHORTS, GROUNDS, AND OPENS.
- SIGNALING LINE CIRCUITS (SLC) SHALL BE CLASS 'A' STYLE AS PER 2013 NFPA 72. CIRCUITS MAY NOT BE BRANCHED IN ANY WAY. ISOLATOR MODULES REQUIRED BETWEEN AT LEAST EVERY 20 INITIATING DEVICES.
- NOTIFICATION APPLIANCE CIRCUITS (NAC) SHALL BE CLASS 'B' STYLE AS PER 2013-NFPA 72. CIRCUITS MAY NOT BE BRANCHED IN ANY WAY. EOL TO PROVIDE CIRCUIT SUPERVISION.
- ALL WIRING SHALL BE PER MANUFACTURER'S SPECIFICATIONS.
- SMOKE DETECTORS SHOULD NOT BE LOCATED IN A DIRECT AIR-FLOW, NOR CLOSER THAN THREE FEET FROM AN AIR SUPPLY DIFFUSER.
- USE ONLY MANUFACTURER SUPPLIED KNOCKOUTS WHEN BRINGING CONDUITS INTO CONTROL PANELS. DO NOT BRING CONDUIT INTO THE BOTTOM OF CONTROL PANELS.
- DEDICATED AC SOURCE FOR THE FIRE ALARM SYSTEM IS REQUIRED. THIS BREAKER(S) MUST BE CLEARLY IDENTIFIED AT EACH PANEL. BREAKER TO BE IDENTIFIED BY A RED MARKING AND LOCKED IN THE "ON" POSITION.
- NOTIFY PATTERSON GROUP BEFORE CHANGING ANY WIRE PATHS TO NOTIFICATION APPLIANCES. THIS WILL AFFECT VOLTAGE LOSS CALCULATIONS.
- VERIFY QUANTITY AND LOCATIONS OF SPRINKLER POINTS TO MONITOR WITH THE SPRINKLER CONTRACTOR PRIOR TO ROUGH-IN.
- VERIFY DETECTOR REQUIREMENTS IN ELEVATOR PIT, SHAFT, AND MACHINE ROOM PRIOR TO ROUGH-IN. VERIFY LOCATION FOR SHUNT TRIP MODULES PRIOR TO ROUGH-IN.
- VERIFY LOCATION FOR RELAY MODULES USED FOR HVAC SHUTDOWN PRIOR TO ROUGH-IN. HVAC CONTRACTOR RESPONSIBLE FOR WIRING FROM MODULE TO SHUTDOWN CONTACTS ON HVAC EQUIPMENT.
- ALL OPENINGS IN RATED ASSEMBLIES SHALL BE REPAIRED AS PER LOCAL BUILDING CODES.

WIRE LEGEND		
SYMBOL	DESCRIPTION	WIRE TYPE/SIZE
A	SIGNALING LINE CIRCUIT (SLC)	16/2 FPLP TWISTED PAIR, SOLID, NO SHIELD
B	NOTIFICATION APPLIANCE CIRCUIT (NAC)	(2) 14 AWG THHN STRANDED, BLUE(+),BLACK(-)
E	INITIATING DEVICE CIRCUIT	(2) 14 AWG THHN STRANDED, RED(+), WHITE(-)
H	ANNUNCIATOR CIRCUIT	16/2 FPLP SOLID, NO SHIELD
J	24 VDC POWER	14/2 FPLP STRANDED
S	NAC SYNC CIRCUIT	(2) 14 AWG THHN STRANDED, BLUE(+),BLACK(-)
T	REMOTE TEST STATION	18/4 FPLP SOLID, NO SHIELD

ALL FIRE ALARM WIRING SHALL BE IN 3/4" MINIMUM CONDUIT

FIRE ALARM SYSTEM INPUT/OUTPUT MATRIX

SYSTEM INPUTS	SYSTEM OUTPUTS																								
	FACP ANNUNCIATION												NOTIFICATION						REQUIRED FIRE SAFETY CONTROL						
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1. MANUAL FIRE ALARM BOXES	●																								
2. AREA SMOKE & HEAT DETECTORS	●																								
3. CARBON MONOXIDE DETECTORS	●																								
4. ELEV LOBBY SMOKE DETECTOR - FIRST FLOOR	●																								
5. ELEV LOBBY SMOKE DETECTOR - SECOND FLOOR	●																								
6. SMOKE DETECTOR - ELEVATOR HOISTWAY	●																								
7. HEAT DETECTOR - ELEVATOR HOISTWAY	●																								
8. DUCT DETECTOR	●																								
9. ELEV CONTROLLER POWER SHUNT TRIP STATUS	●																								
10. SPRINKLER WATER FLOW IN BUILDING	●																								
11. SPRINKLER TAMPER SWITCH	●																								
12. SPRINKLER P.I.V. TAMPER	●																								
13. FIRE ALARM SYSTEM AC POWER FAILURE	●																								
14. FIRE ALARM SYSTEM LOW BATTERY	●																								
15. OPEN CIRCUIT	●																								
16. GROUND FAULT	●																								
17. NOTIFICATION APPLIANCE CIRCUIT SHORT	●																								
18. AHU SHUTDOWN OVERRIDE SWITCH	●																								
19. DUCT SYSTEM SUPERVISORY	●																								
20. EMERGENCY COMMUNICATIONS SUPERVISORY	●																								
21.																									
22.																									
23.																									
24.																									
25.																									
26.																									
27.																									



BY	DATE	REVISION	ENGINEER REVIEW COMMENTS
JC	11/25/2019	1	

PATTERSON GROUP SERVICES, INC.
229 CARTHAGE STREET
SANFORD, NC 27330
PHONE: 919-776-2403 FAX: 919-716-6091



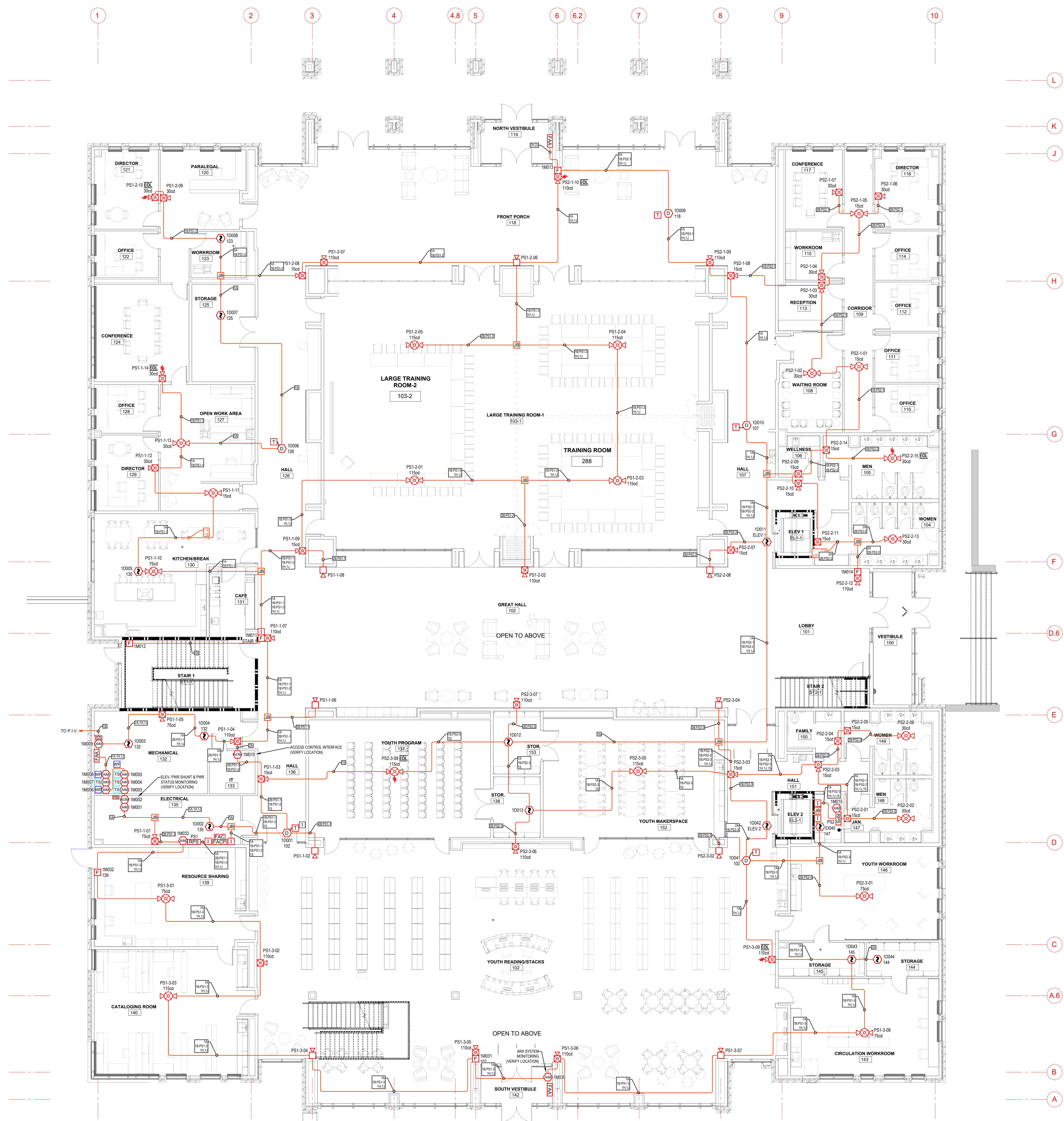
FIRE ALARM SYSTEM FOR:

HARNETT COUNTY GOVERNMENT SERVICES CENTER
301 W CORNELIUS HARNETT BLVD.
LILLINGTON, NC 27546

FIRE ALARM SYSTEM
FIRE ALARM NOTES
SYMBOL LEGEND
WIRE LEGEND
FIRE ALARM MATRIX
MOUNTING HEIGHTS

DATE: 11/25/2019
DRAWN BY: JRC
CHECKED BY: GSP
SCALE: N/A


NC LICENSE # 30023-SP-FA/LV



- GENERAL NOTES:**
- SEE RISER FOR 120 VAC CIRCUITS FOR FACP AND REMOTE POWER SUPPLIES.
 - SEE RISER FOR MODULE FUNCTIONS.
 - CEILING HEIGHTS IN AREAS WITH CEILING MOUNTED NOTIFICATION APPLIANCES ARE 10'-0" AFF OR LESS, OR CANDELA HAS BEEN ADJUSTED PER 2013 NFPA72.
- KEYED NOTES:**
- INSTALL TEST SWITCH/WINDICATOR IN CEILING NEAR DETECTOR. COORDINATE LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. TYPICAL FOR ALL DUCT DETECTORS.

BY:	
REVISION:	
DATE:	
NO.:	

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 SANFORD, NC 27330
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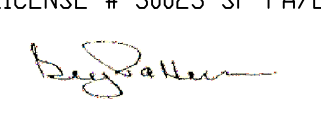


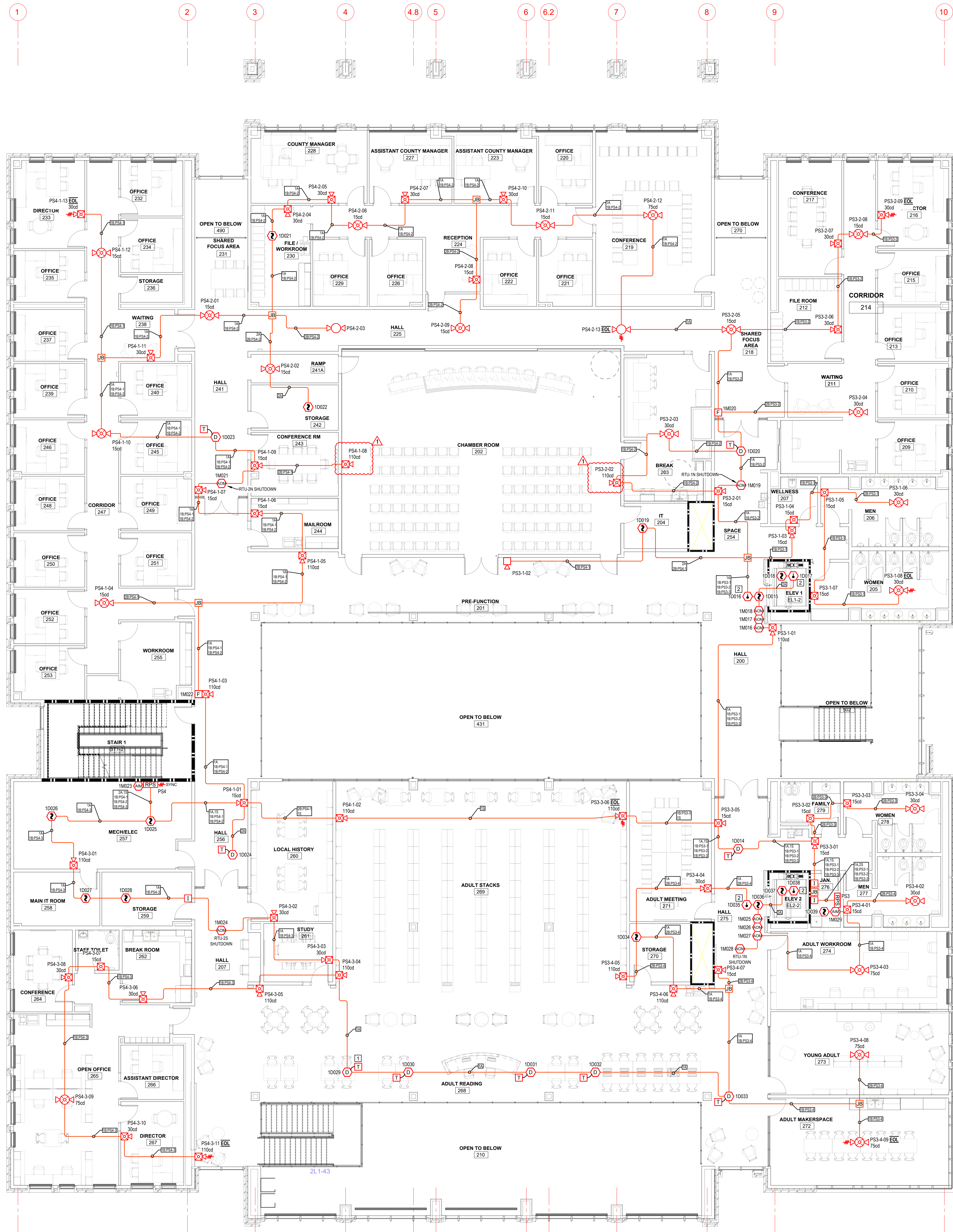
FIRE ALARM SYSTEM FOR:
HARNETT COUNTY GOVERNMENT SERVICES CENTER
 301 W CORNELIUS HARNETT BLVD.
 LILLINGTON, NC 27546

**FIRE ALARM SYSTEM
 FIRST FLOOR FIRE ALARM PLAN**

DATE: 11/25/2019
 DRAWN BY: JRC
 CHECKED BY: GSP
 SCALE: N/A

1 FIRST FLOOR FIRE ALARM PLAN
 FA-2 Scale: 1/8" = 1'-0"


NC LICENSE # 30023-SP-FA/LV




- GENERAL NOTES:**
- SEE RISER FOR 120 VAC CIRCUITS FOR FACP AND REMOTE POWER SUPPLIES.
 - SEE RISER FOR MODULE FUNCTIONS.
 - CEILING HEIGHTS IN AREAS WITH CEILING MOUNTED NOTIFICATION APPLIANCES ARE 10'-0" AFF OR LESS, OR CANDELA HAS BEEN ADJUSTED PER 2013-NFPA72.
- KEYED NOTES:**
- INSTALL TEST SWITCH INDICATOR IN CEILING NEAR DETECTOR. COORDINATE LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. TYPICAL FOR ALL DUCT DETECTORS.
 - INSTALL HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD. DO NOT INSTALL HEAT DETECTOR IN ELEVATOR SHAFT IF SPRINKLER HEAD IS NOT INSTALLED.

BY:	JJC
REVISION:	
ENGINEER REVIEW COMMENTS:	
DATE:	01/22/20
NO.:	1

PATTERSON GROUP SERVICES, INC.
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 SANFORD, NC 27330
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FIRE ALARM SYSTEM FOR:
HARNETT COUNTY GOVERNMENT SERVICES CENTER
 301 W CORNELIUS HARNETT BLVD.
 LILLINGTON, NC 27546

FIRE ALARM SYSTEM
2ND FLOOR FIRE ALARM PLAN

DATE:	11/25/2019
DRAWN BY:	JRC
CHECKED BY:	GSP
SCALE:	N/A

1 SECOND FLOOR FIRE ALARM PLAN
 FA-3 Scale: 1/8" = 1'-0"

NC LICENSE # 30023-SP-FA/LV
