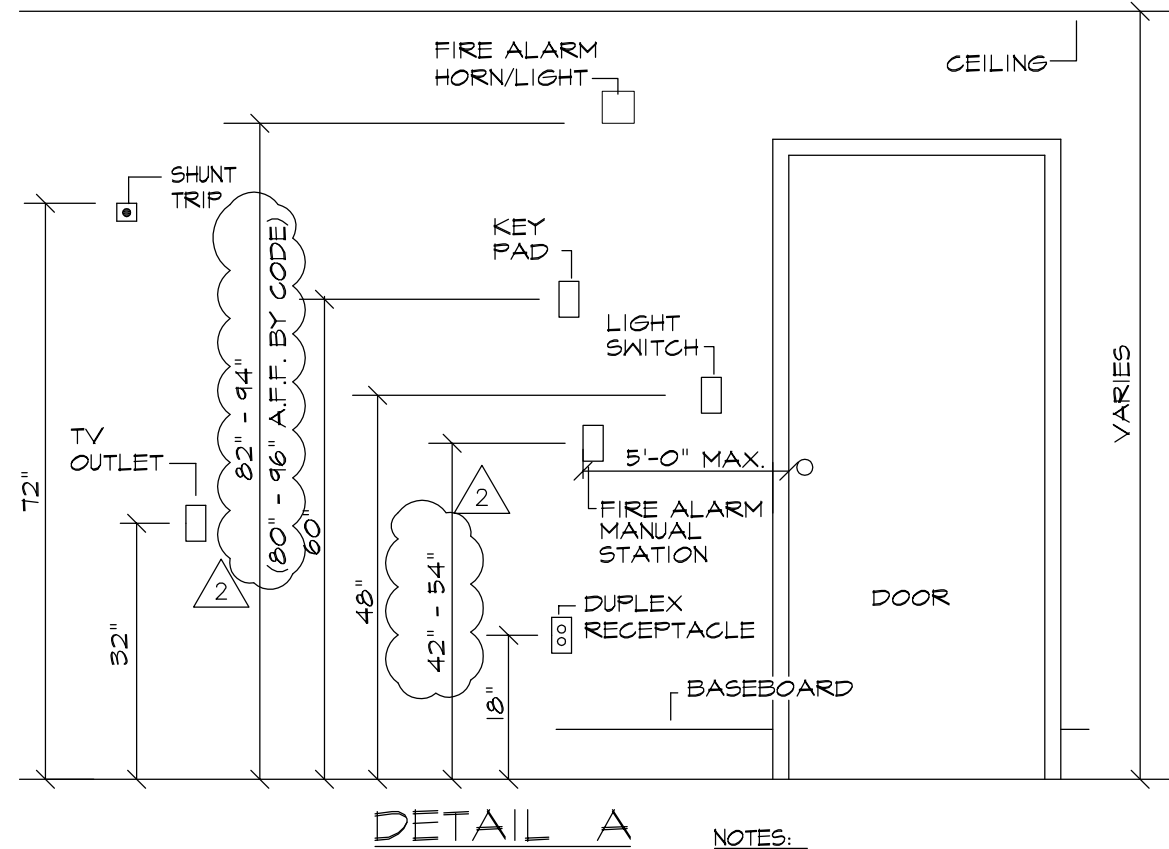


### SCOPE OF WORK

INSTALLATION OF NEW FIRE ALARM SYSTEM IN COMPLIANCE WITH THE CITY OF SANDRAS, FLORIDA AND NFPA 72, NATIONAL FIRE ALARM CODE, 2002 EDITION.

### DEVICE MOUNTING HEIGHTS



DETAIL A

- NOTES:
- MOUNT LIGHT SWITCH 36" AFF IN ROOMS FOR HANDICAPPED.
  - MOUNT DUPLEX RECEPTACLES 32" AFF IN ROOMS FOR HANDICAPPED.

### DEVICE MOUNTING HEIGHTS

N.T.S. (TYPICAL UNLESS NOTED ON PLANS)

### FIRE ALARM NOTES:

- CONTRACTOR IS RESPONSIBLE FOR PHONE LINE HOOK UP TO R.J.31 JACK TO ALARM SYSTEM, AND PHONE LINES FROM PHONE BOARD TO ALARM BOARD.
- CONTRACTOR IS RESPONSIBLE TO PROVIDE A LOG BOOK AND DRAWINGS, WHICH SHALL BE ATTACHED TO FIRE ALARM PANEL.
- CONTRACTOR WILL SUPPLY ALL REQUIRED EQUIPMENT, TESTING AND MATERIAL TO SUPPLY ABC W/ A FULLY OPERATIONAL FIRE ALARM SYSTEM.
- CONTRACTOR IS RESPONSIBLE TO INSTALL THE FIRE ALARM SYSTEM TO MEET ALL CITY, COUNTY, N.F.P.A. AND FLORIDA ACCESSIBILITY CODES.
- NO WIRES TO BE EXPOSED.
- ALL FIRE ALARM WIRING TO BE APPROVED W/ COUNTY, STATE AND CITY CODES.
- THE HEIGHTS OF THE KEY PAD, PULL STATIONS, STROBES, HORN STROBES TO MEET N.F.P.A. 72 AND ALL STATE, COUNTY AND FLORIDA ACCESSIBILITY CODE REQUIREMENTS.
- PANEL AND ALL ACCESSORIES TO BE SILENT KNIGHT 520B, NO ACCEPTION.
- ABC - ID #491067-001 IS TO MONITOR THIS SYSTEM W/ CENTRAL STATION CONTACT # (407) 891-0000 (EXT. 2449), UL FILE # 526241 FIRE ALARM.
- CONTRACTOR TO PROVIDE AND APPLY ALL NECESSARY CERTIFICATION LABELS ON THE FIRE ALARM PANEL, AND FILE ALL REQ'D. PAPER WORK TO REGISTER AND CERTIFY THE PANELS.
- ALL LOW VOLTAGE WIRING TO MEET REQUIREMENTS OF UL LISTING TYPE FPLR. WIRES TO BE IN RACEWAY IN ACCESSIBLE LOCATIONS, ALL RACEWAYS TO HAVE APPROVED TRANSITION FITTINGS FROM IN ACCESSIBLE LOCATIONS TO ACCESSIBLE LOCATIONS.
- INSTALLATION AND LOCATION OF ALL HEAT, SMOKE, STROBES, HORN STROBES, PULL STATIONS, ANNUNCIATOR, ETC. TO BE COORDINATED WITH OTHER EQUIPMENT.
- CONTRACTOR TO LABEL ALL DEVICES.
- CONTRACTOR TO PROVIDE A DEDICATED CIRCUIT LABELED IN RED AND MECHANICALLY PROTECTED, (FIRE ALARM) PANEL B-32.
- ALARM CONTRACTOR WILL CONNECT TO FIRE ALARM SYSTEM.
- ALL DEVICE LOCATION ARE APPROX. "VERIFY" OR AS STATED ON PLAN.
- ALL EQUIPMENT IDENTIFIED, COMPATIBLE & LISTED FOR USE & INDICATED ON PLANS INCLUDING UNIQUE IDENTIFICATION NUMBER.
- DUCT SMOKE DETECTOR REMOTE TEST SHALL BE MOUNTED ON WALL @ 5' A.F.F.
- SYSTEM INSTALLATION SHALL BE CABLED W/MIN. 10 GA. WIRE SIZE. OPEN WIRE INSTALLATION, CONDUIT SLEEVES USED FOR PROTECTION.
- ALL CONDUIT SHALL BE MIN. 1/2" Ø, MAX. 40% FILLED, TYP.
- ALL STROBE LIGHTS AND HORNS SHALL BE SYNCHRONIZED.
- KNOX BOX INSTALLED IN ACCORDANCE TO AUTHORITY HAVING JURISDICTION.
- ANNUNCIATOR SHALL BE INSTALLED IN KEY LOCK ENCLOSURE (CLEAR).
- DUCT SMOKE DETECTOR WILL BE SUPERVISION ONLY.
- ALL INITIATING, NOTIFICATION, SINGLE LINE CIRCUITS ARE CLASS B CIRCUITS.
- TAMPER AND FLOW SWITCHES MUST BE INSTALLED BY SPRINKLER CONTRACTOR.
- AA. TWO 12VDC @ 12AHR BATTERIES INSTALLED A CONTROL PANEL.

### Fire Alarm Sequence of Operation:

This system is to monitor a (remote and local) fire suppression system consisting of a water fire suppression installation (fire sprinklers, panel conditions, smoke detection and manual fire pull stations). Monitoring station will report to corresponding agencies, (fire department, fire alarm services co. and owner contacts).

#### Sprinkler Water Flow Switch: (Mechanical contact switch Class B circuit)

- Alarm condition: "Fire Zone" signal to Control Panel, (short).
  - Will generate a "Fire Water Flow" report to Monitoring Station.
  - Will sound N.A.C. (Notification Appliance Circuit) and Remote Annunciator.
  - Will display fault on Remote Annunciator.

#### Trouble condition: "Fire Trouble Zone" signal to Control Panel, (open).

- Will generate a "Fire Trouble Water Flow" report to Monitoring Station.
- Will sound trouble tone at Remote Annunciator.
- Will display fault on Remote Annunciator.

#### Normal condition: (normal)

- "Fire Restoral Zone" signal report to Monitoring Station when circuit returns to normal.

#### Tamper Backflow Valve, P.I.V. (Post Indicator Valve); (Mechanical contact switch Class B circuit)

- Alarm Condition: "Fire Trouble Zone" signal to Control Panel, (short).
  - Will generate a "Fire Trouble Valve Tamper" or "P.I.V. Tamper" report to Monitoring Station.
  - Will sound trouble tone at Remote Annunciator. (No N.A.C.)
  - Will display fault on Remote Annunciator.

#### Trouble Condition: "Fire Trouble Zone" signal to Control Panel, (open).

- Will generate a "Fire Trouble Valve" tamper or "P.I.V. Tamper" report to Monitoring Station.
- Will sound trouble tone at Remote Annunciator.
- Will display fault on Remote Annunciator.

#### Normal Condition: (normal)

- "Fire Restoral Zone" signal report to Monitoring Station when circuit returns to normal.

#### Manual Fire Pull Station: (Mechanical contact switch Class B circuit)

- Alarm condition: "Fire Zone" signal to Control Panel, (short).
  - Will generate a "Fire Pull Station" report to Monitoring Station.
  - Will sound N.A.C. and Remote Annunciator.
  - Will display fault on Remote Annunciator.

#### Trouble condition: "Fire Trouble Point" signal to Control Panel, (open).

- Will generate a "Fire Trouble Pull Station" report to Monitoring Station.
- Will sound trouble tone at Remote Annunciator.
- Will display fault on Remote Annunciator.

#### Normal condition: (normal)

- "Fire Restoral Zone" signal report to Monitoring Station when circuit returns to normal.

#### Smoke Detectors: (Auto Photo Electronic Switch Class B)

- Alarm condition "Fire Zone" signal to Control Panel, (short).
  - Will generate a "Fire Smoke Detector" report to Monitoring Station.
  - Will sound N.A.C. and Remote Annunciator.
  - Will display fault on Remote Annunciator.

#### Trouble condition: "Fire Trouble Zone" signal to Control Panel, (open).

- Will generate a "Fire Trouble Smoke Detector" report to Monitoring Station.
- Will sound trouble tone at Remote Annunciator.
- Will display fault on Remote Annunciator.

#### Normal condition: (normal)

- "Fire Restoral Zone" signal report to Monitoring Station when circuit returns to normal.

#### AC Duct Smoke Detectors: (Auto Photo Electronic Switch Class B)

- Alarm condition: "Fire Supervisor Zone" signal to Control Panel, (short).
  - Will generate a "Fire Supervisor AC Duct Smoke" report to Monitoring Station.
  - Will sound trouble tone at Remote Annunciator. (No N.A.C.)
  - Will display fault on Remote Annunciator.

#### Trouble condition: "Fire Trouble Zone" signal to Control Panel, (open).

- Will generate a "Fire Trouble AC Duct Smoke Detector" report to Monitoring Station.
- Will sound trouble tone at Remote Annunciator.
- Will display fault on Remote Annunciator.

#### Normal condition: (normal)

- "Fire Restoral Zone" signal report to Monitoring Station when circuit returns to normal.

#### General Panel Conditions will generate reports from Control Panel to Remote Annunciator and Monitoring Station:

- Ground Faults
  - Initiating circuits
  - Annunciating circuits (N.A.C. & Horn/Strobe)
- Battery
  - Low battery
  - Missing battery
  - Reverse battery (polarization)
  - Restoral power
- AC Power
  - Missing power
  - Restoral power
- Telephone
  - Trouble, Missing or Out of service.
  - Communication trouble (not able to connect to Monitoring Station)
- Panel or CPU Status
  - CPU failure (backup memory battery or program trouble)

The fire alarm system can be controlled, reset, alarm silenced and trouble silenced from a Remote Annunciator. No zone can be locally bypassed.

### POINT CONFIGURATION

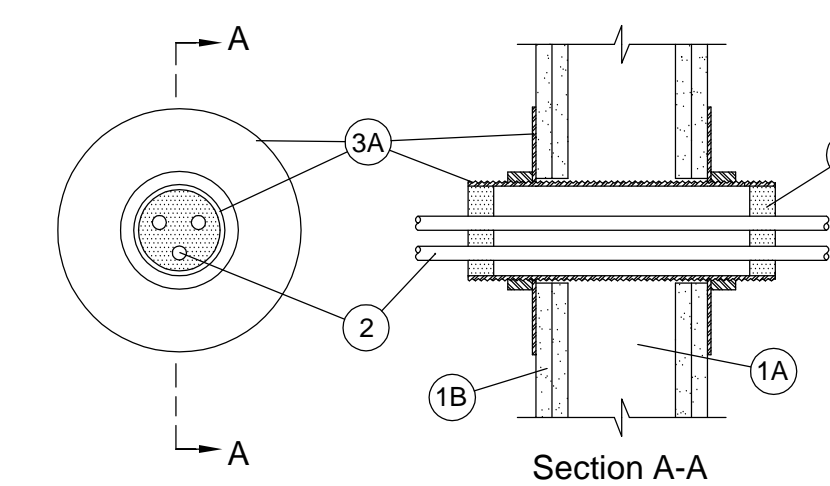
POINT	POINT DESCRIPTION
PT-1	WATER FLOW
PT-2	DDVC TAMPER
PT-3	P.I.V. TAMPER
PT-4	PULL STATION (FRONT)
PT-5	PULL STATION (REAR)
PT-6	PULL STATION (STORAGE ROOM)
PT-8	SMOKE DET. (ROOM / FSA)
PT-9	A/C DUCT SMOKE DETECTOR #1
PT-10	A/C DUCT SMOKE DETECTOR #2
NAC-1	HORN & STROBE SUPERVISION
NAC-2	HORN & STROBE SUPERVISION
NAC-3	HORN & STROBE SUPERVISION
NAC-4	HORN & STROBE SUPERVISION

### FIRE ALARM LEGEND

SYMBOL	QTY (DEVICES)	QTY (EQUIP)	DESCRIPTION	LOCATION	MANUFACTURER
②	2		SMOKE DETECTOR - ESL521B	CEILING	ESL
②	4		FULL STATION - MODEL 1 T	FLUSH WALL @ ENTRY 40" TO 48" A.F.F.	RSG
②	4		SMOKE DUCT DETECTOR DHI00ACDCLP	DUCT MOUNT	SYSTEM SENSOR
②	1		SUPPLIED BY FIRE SPRINKLER CONTRACTOR (WATER FLOW SWITCH)	FIRE SPRINKLER SYSTEM	
②	3		SUPPLIED BY FIRE SPRINKLER CONTRACTOR (FIRE ALARM TAMPER SWITCH)	FIRE SPRINKLER SYSTEM	
②	5		GEGS - 24PWR @ 75 CD AUDIO & VISUAL	WALL MOUNTED @ 2' A.F.F.	GENTEX
②	6		WGES - 75HR GEN24 SERIES W/ GOE WEATHER RESISTANT ENCLOSURE	WALL MOUNTED @ 2' A.F.F.	GENTEX
②	4		GCC24CR @ 75 CD AUDIO & VISUAL	CEILING MOUNTED (MTD. 15' A.F.F., MAX)	GENTEX
②	4		GCC24CR @ 45 CD AUDIO & VISUAL	CEILING MOUNTED (MTD. 15' A.F.F., MAX)	GENTEX
FSA	1		REMOTE ANNUNCIATOR MODEL NO. SK-5235	FLUSH WALL 40" TO 48" A.F.F.	SILENT KNIGHT
②	14		END OF LINE RESISTOR	IN BOX OR AT DEVICE - SEE POINT ASSIGNMENT	N/A
FACP	1		FIRE ALARM CONTROL PANEL MODEL NO. 520B	WALL MOUNT IN ELECTRICAL ROOM	SILENT KNIGHT
②	1		FIRE DEPARTMENT STORE KEY ENCLOSURE	ABOVE FRONT DOOR	FIRE DEPT. STANDARD
②	1		DUAL TELEPHONE LINE SURGE SUPPRESSOR MODEL ELK-455	ON TEL. CO. LINES	ELK
②	1		EQUIP. PANEL/DEDICATED CIRCUIT SURGE PROTECTOR DTK-120HW	AT PANELS	DITEK
②	1		FIRE ALARM PANEL SURGE PROTECTOR DTK-2LVLPF	AT PANELS	DITEK
②	7		5LB. ABC FIRE EXTINGUISHER AS MANUF. BY KIDDE	200G MIN. RATING MOUNTED W/TOP 48" A.F.F.	KIDDE
#/16/2			POKER LIMITED FIRE - UL LISTED N.E.C. TYPE FPLR CATALOG NUMBER FFL1602R - 16 GA.		KEYSTONE WIRE AND CABLE
#/16/2			POKER LIMITED FIRE - UL LISTED N.E.C. TYPE FPLR CATALOG NUMBER FFL1602R - 16 GA.		KEYSTONE WIRE AND CABLE
#/16/4			POKER LIMITED FIRE - UL LISTED N.E.C. TYPE FPLR CATALOG NUMBER FFL1604 - 16 GA.		KEYSTONE WIRE AND CABLE
#/16/4			POKER LIMITED FIRE - UL LISTED N.E.C. TYPE FPLR CATALOG NUMBER FFL1604 - 16 GA.		KEYSTONE WIRE AND CABLE

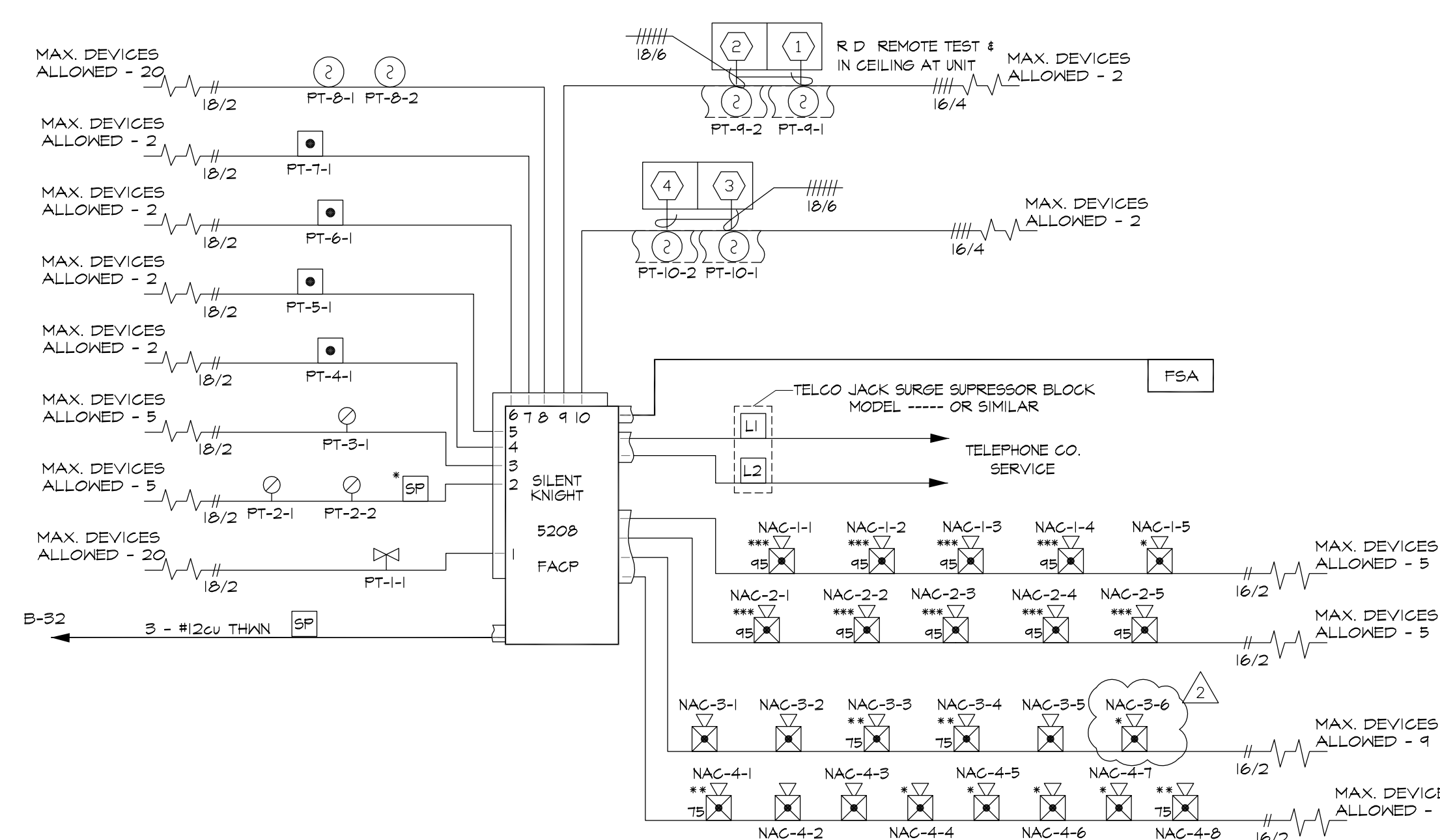
### System No. W-L-3138

F Ratings - 1 and 2 Hr (See Item 1)  
T Rating - 0 Hr



- Wall Assembly - The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
  - Studs - Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 3-5/8 in. wide and spaced 24 in. OC.
  - Gypsum Board - 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Designs in the UL Fire Resistance Directory. The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
  - Cables - Aggregate cross-sectional area of cables in Threaded Sleeve to be min 8 percent to max 48 percent of the aggregate cross-sectional area of the Threaded Sleeve. Cables to be rigidly supported on both sides of wall assembly. Any combination of the following types and sizes of cables may be used:
    - Max 200 pair No. 24 AWG (or smaller) copper conductor cable with polyvinyl chloride (PVC) jacketing and insulation.
    - Max 1/2 in. 750 kcmil power cable with copper conductors and cross-linked polyethylene (XLPE) jacketing.
    - Max 3/8 in. 20 AWG (or smaller) aluminum or copper conductor service entrance cable with PVC insulation and jacket.
    - Max 3/8 in. 8 AWG (or smaller) nonmetallic sheathed (Romex) cable with copper conductors, PVC insulation and jacket.
    - Max 7/8 in. 20 AWG (or smaller) multiconductor power and control cables with XLPE or PVC insulation and XLPE or PVC jacket.
    - Max RG59 (or smaller) coaxial cable with fluorinated ethylene insulation and jacketing.
    - Max 62.5/48 fiber optic cable with PVC insulation and jacketing.
    - Max 4 pair No. 24 AWG (or smaller) copper conductor category 5 with Hytar insulation and jacket.
- Firestop System - The firestop system shall consist of the following:
  - Firestop Device - Threaded steel sleeve device incorporating flat washers secured by threaded couplers. Device shall be installed around cables in accordance with the accompanying installation instructions. Device provided in nom 1, 2 and 4 in. sizes. Max diam of opening in wall for 1, 2 and 4 in. size devices are 1-1/4, 2-7/16 and 4-1/2 in. respectively.
  - UNIQUE FIRE STOP PRODUCTS INC - Threaded Sleeve
  - Fill, Void or Cavity Material - Sealant or Putty - Min 1 in. thickness of fill material applied within the Threaded Sleeve, flush with both ends.

\*Bearing the UL Classification Mark



### FIRE ALARM RISER

NOT TO SCALE

NOTE: THIS IS AN INSTALLATION DIAGRAM AND IT IS EXPECTED THAT THE SYSTEM WILL BE INSTALLED IN ACCORD WITH THIS DIAGRAM, NFPA 72 AND NEC 70.

REVISIONS	BY
OWNER REVISION 5-14-08	S.L.M.
BUILDING DEPT. 7-17-08	S.L.M.

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**ABC LIQUORS, INC.**  
8989 S. ORANGE AVE. - ORLANDO, FLA. 32809  
**ABC STORE NO. 50**  
SAWGRASS MILLS, SUNRISE, FLORIDA

DRAWN:	R. CARDONA
CHECKED:	S. RIVERA
DATE:	5-1-07
SCALE:	AS NOTED
JOB No:	50
SHEET	

F=1

FIRE ALARM NOTES AND DETAILS