

Portsmouth Fire Department

Bureau of Fire Prevention and Control

170 Court St., Portsmouth NH 03801 603-427-1515 Fax 603-427-1555



General Information for Fire Alarm Designers / Installation Contractors / Technicians

IMPORTANT NOTE: A Fire Protection Engineer (FPE) of record **may** be required for new installations and some alterations, if required by the Bureau. The registered design professional's license must designate them as qualified in the field of fire protection. All documents shall be reviewed and stamped by the FPE to be considered a complete permit application. Any deviations from the approved plan shall be submitted to the FPE of record for review, stamped and submitted to the Bureau before a final inspection.

Permits and Inspections shall be required for:

- New installations
- Alterations of existing systems (relocating a device is an alteration)
- Repairs of existing systems, including FACP board only replacements
- **Exemptions**- testing, inspecting, damaged/faulty device and battery replacements. Emergency repairs require a permit applied for within 48 hours of starting work. Notify bureau ***immediately*** of ***any*** system impairment longer than 4 hours at 603.427.1515 **AND** fireprevention@cityofportsmouth.com

Installing contractors please note:

In addition to the online application and electronic submittals, **one** set of complete, hard copy paper plans shall be submitted directly to the Fire Prevention Bureau at 170 Court St, Portsmouth NH 03801 (603.610.7243).

Electronic **and** hard copy submittals shall include:

- A. Names and addresses of protected premises, owner, occupant, primary installing contractor and UL listed central station that will monitor (include current UL certificate of central station with spec/data sheets)
- B. All floor plans include: Date of issue/revision, **all** walls, doors and partitions extending to within 15% of ceiling height room, a device legend, a graphic scale, a point of compass (indication of North), floor/level identification, **all** system device and component locations, system riser locations and reference applicable codes applied to design and installation.
- C. Locations of fire alarm primary power disconnecting means for all AC branch circuits serving fire alarm equipment including plug in transformers (include panelboard name and circuit breaker number)
- D. Locations of monitor/control interfaces to other systems
- E. Type and quantity of conductors and conduit (if used) for each circuit
- F. Identification of any ceiling over 10 feet in height and details of non-smooth ceiling geometries where automatic fire detection is being proposed.
- G. A narrative description or input/output matrix of operation (a generic I/O matrix will be rejected)

- H. Control unit diagrams for all control equipment, power supplies, battery chargers, and annunciators including:
 - i. Identification and location(s) of the control equipment depicted. All field wiring terminals and terminal identifications. All circuits connected to field wiring terminals and circuit identifications. All indicators and manual controls identified. *This shall include the wiring connections from a FACP and any communicator.*
- I. System calculations including:
 - i. Battery calculations (all panels, including standalone communicators)
 - ii. Notification Appliance Circuit voltage drop calculations (bulk or point to point)
 - iii. Line resistance and speaker circuit dB loss calculations
- J. Typical wiring diagrams shall be provided for all initiating devices, notification appliances, remote indicators, annunciators, remote test stations, and end-of-line power supervisory devices
- K. Specification sheets for all panels, communicators, enclosures, cabinets, annunciators, cable/wire, initiating devices, notification devices and all other materials to be connected to the system. Identify the specific device when the sheet lists multiple. (Pages and sheets that do not pertain to the fire alarm shall not be included with the submittal)

Additional Installation and Acceptance Requirements with items commonly overlooked:

- A rough and final inspection is required, unless stated in writing
- All panel, annunciator and pull station locks shall be keyed CAT-30
- Duct smoke detectors: 1- shall be powered by the fire alarm system, 2 reset when the FACP is reset, 3- shall report as a supervisory alarm by individual point/ID. Fan shutdown shall be verified by installer and documented in the record of completion
- All fire protection sprinkler and standpipe system valves shall be supervised. All water flow devices shall be supervised and automatically report as a fire alarm
- All fire alarm and carbon monoxide alarm signals shall be transmitted to a UL listed central station by individual point/id and shall be immediately retransmitted to the Portsmouth Fire Department with an individual device description, not a point/id or zone number only
- Elevator recall operations shall be in compliance with the NH Elevator and Accessibility Lift Law (NH RSA 157-B)
- Alarm silence functions shall disable audible notification only. Visual notification devices shall remain activated until system is reset
- Exterior key boxes are required from www.knoxbox.com. Be sure to select Portsmouth, NH Fire Department to ensure proper keying. Consult with Bureau on the type, number of boxes, master key quantity/requirements and installation location(s) prior to ordering
- A fully functional remote annunciator shall be located at the main entrance to all tenant units, **keyed in cat 30**. All annunciators shall be 72" to their top, AFF. Consult with Bureau for approval of location
- Bagging/covering of existing smoke/heat detectors is only permitting during dusty work in the vicinity, never overnight. If, they are found to be covered outside these parameters, a stop work order shall be issued
- Communicators and their antennas if remote, require smoke or heat coverage
- On site storage of as built, installation instructions and site specific software. This shall be verified at inspection
- An exterior **red** visual notification device shall be installed to indicate a fire alarm activation within a specific tenant space. Consult Bureau for approval of location and number of required devices in multi-tenant occupancies
- An exterior **green** visual notification device shall be installed to indicate a carbon monoxide alarm activation within a specific building, tenant space or garage. Consult Bureau for approval of location and number of required devices in multi-tenant occupancies

*A **completed** 2013 NFPA 72 Fire Alarm System Record of Completion Form (including supplemental forms), along with as built drawings, shall be provided to the bureau prior to requesting an inspection.*

*Final inspections **shall not** be scheduled without these documents.*