



250 FRANK H. OGAWA PLAZA, SUITE 3341 • OAKLAND, CALIFORNIA 94612-2032

Fire Prevention

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FIRE ALARM PLAN SUBMITTAL REQUIREMENTS

All of the following information is required to be shown on the drawing with the exception of data cut sheets and listing sheets for fire alarm components. These may be submitted separately in booklet form.

SITE PLAN

- A plan of the entire site with all buildings at an appropriate scale, scale can be 1" = 30' or 40'.
- Clearly identify area of work.
- Building names or the designation of all buildings
- Location of the FACP, all power Boosters, Terminal Cabinets and any Remote Annunciator panels.
- Conduit runs connecting the panels and buildings, specify the wire type and size.

Note: Tenant Improvements (TI's) not required to submit site plan.

FLOOR PLAN

- Floor plan of every building within the scope of work.
- Scale is required to be shown at 1/8" scale. Others scales are acceptable if the information is legible.
- Label all rooms and their use within space on the floor plan.
- Indicate all door swings and all partition walls.
- Indicate the location of **all** fire alarm devices and panels.
- Indicate the candela rating of each visual device adjacent to the device shown on the floor plan. (If only ONE type of visual device is used, candela may be shown on legend only.)
- Indicate the Circuit and Device number adjacent to each device (both initiating and notification circuits) in the sequence intended to be wired per the riser diagram.

FIRE ALARM DETAILS & CALCULATIONS

SYSTEM DESCRIPTION

- Provide the Type of system, either **Manual, Automatic or Both**.
- Provide whether the system is addressable or non-addressable system.
- Provide whether class A or B.

GENERAL NOTES

- Final Fire Alarm Test will be witnessed by an Inspector from the Oakland Fire Department.
- Underground and exterior conduits will have watertight fittings.
- Fire Alarm Device Mounting Heights:
 - Pull Station 48" to center line of device above finish floor (ABFF).
 - Interior Horns: 90" to top of the device ABFF, and not less than 6" from ceiling
 - Wall mounted strobe, horn, and/or horn/strobe: 80" to bottom of device and not greater than 96" ABFF, but not less than 6" from ceiling.
- Audible device(s) shall be at least 15 dba above average ambient sound level but not less than 70 dba at 10' or more than 120 dba in total **throughout!**
- Audible devices shall sound the California Uniform Fire Alarm Signal in temporal mode.
- Provide at least one exterior horn/strobe on exterior of building for E occupancies.
- Visual devices shall not exceed 3 flashes per second and shall not be slower than on flash every second.

APPLICABLE CODES

- CBC 2001, CEC 2001, CMC 2001, CFC 2001
- State Fire Marshal Title 19, Public Safety
- NFPA 72, 1999 Edition w/ CA Amendments

SEQUENCE OF OPERATION

- Describe the sequence of operation of the system. Indicate what occurs when the system is activated by various devices and trouble conditions. A matrix table is acceptable. Show only the devices within the system.

SYMBOL LEGEND

- Provide a symbol legend if not already provided on other sheets of the electrical drawings. If shown on first sheet of electrical drawings and on fire alarm drawings, be sure that the symbols match, or refer to the fire alarm legend as the one being used.
- Provide a wire schedule noting size and type for indicating and annunciating circuits.

EQUIPMENT LIST

- Indicate the make and model of each fire alarm device and component.
- Indicate the CSFM listing number for each device.
- Provide data cut sheets for all devices on system.
- Provide current CSFM listing sheets for all devices.

RISER DIAGRAM

- Show all panels and circuits in straight line format in the sequence intended.
- Indicate the name of the building for each circuit shown.
- Note the EOL (end of line) resistor for each circuit required.
- Specify the designated 120 volt circuit for connection to FACP and/or power boosters (Identify the electrical panel by number and the circuit number.) Reference: NFPA Fire Alarm Handbook

WIRING DIAGRAM

- Provide diagrams for wiring connections for all devices in the system.
- Provide diagram for wiring connection between fire alarm panels and/or power boosters.

CALCULATIONS

- Provide a separate battery calculation for the fire alarm panel and any power boosters.
- Note the required load and the size of battery provided.
- Provide voltage drop calculations for **each** indicated circuit. Voltage Drop shall not exceed 10% maximum.
- For Alteration Projects:
 - Differentiate between existing, new load and the total load required for the entire system.

SCOPE OF FIRE ALARM WORK & MISCELLANEOUS INFORMATION

- Provide 3 sets of the plans, cut sheets, and CSFM Listings with each submittal.
- Provide a few brief lines to identify the scope and extent of the fire alarm work involved. If doing a complete replacement, please state so. If doing alterations or additions, very briefly state the extent of the alterations and/or additions.
- Be sure to clearly **differentiate** between **new and existing** conditions and devices. This can be done with a notation of (N) and (E) or by written notation.
- Provide the occupancy classification of the building or area submitted for coverage
- Provide whether or not building is sprinklered or not, in partial sprinkler building provide coverage location.
- Provide Building Construction Type
- A **C-10 Stamp is required** on the plans and they **must be signed by the Architect or Engineer** of record.