

Layton City Fire Department

FIRE ALARM SYSTEM SHOP DRAWING CHECKLIST

The following is a checklist of items that must be included in alarm plans in order for us to conduct a review of the plans for approval. Please ensure that your plans include each of these items prior to submitting them to the fire department. Incomplete plans may be **rejected** and require **resubmission** and payment of **additional review fees**.

General:

- Three sets of alarm plans to Fire Prevention office (cannot be in electric plan)
- Name of owner and occupant
- Project location and/or street address
- Name, address, and telephone number of submitting contractor
- Drawing or resubmittal date
- Sheet number
- Revision number
- Sheet title
- Reviewer's notes
 - Type of panel (conventional, addressable, analog , etc.)
 - Type of system (manual, automatic, sprinkler supervisory, etc.)
 - Receiving station type (central, remote, auxiliary, local, etc.)
 - Wiring style or class of all circuits (class A, class B, style D, style Y, etc.)
 - Special features (built-in DACT, voice evac, wireless, etc.)
- Installer's notes
 - Installation methods
 - Special instructions

Fire alarm plan:

- Legend (symbol, description, mounting, and manufacturer's part number)
- Floor plan (to scale)
- Obstructions affecting fire alarm system layout (beams on ceiling, doors, stairs, changes in ceiling elevation, etc.)
- Occupancy (roomnames)
- Point of compass
- Graphic or numeric scale
- Device layout
 - Major equipment (control panels, annunciators, terminal cabinets, remote power supplies, etc.)
 - Initiating devices
 - Address, device, circuit, or zone number
 - Device type (if different devices use same symbol. I.e. photo-electric vs. ionization smoke detectors)
 - Notification appliances
 - Appliance or circuit number
 - Size and/or rating of appliance (DBA for audibles or Cd for visuals)
 - Control relays
 - Name and location of device being controlled
 - Point to point wiring and wire size
- Physical zone or area layout (where applicable)
- Zone or area descriptions

Fire alarm riser diagram:

- Major equipment (control panels, annunciators, terminal cabinets, remote power supplies, etc.)
- Typical devices (manual pulls, smoke detectors, horn/strobes, etc.)
- General wiring layout
 - Initiating circuits
 - Notification circuits
 - Control circuits
 - Data circuits
 - Communication circuits
 - Primary power circuit
- Zone or area description (where applicable)

Fire alarm wiring details:

- Wiring terminations for initiating devices and notification appliances
- Location and configuration of jumpers (where required)
- Connections to auxiliary circuits

Battery calculations:

- Major equipment (including modules within panel requiring additional current)
- Quantities of installed devices (model numbers, listed current draws in standby and alarm condition, etc.)
- Primary standby current required
- Secondary standby current required
- Secondary alarm current required
- Number of hours required in standby, minutes required in alarm
- Total amp-hours required by calculations
- Quantity and capacity of batteries supplied

Voltage drop calculations:

- Formula used for calculations
- Number of devices
- Required current for each device
- Distance between devices and total wire length
- Wire gauge used
- Source voltage
- Percent voltage drop (from source voltage)

Layton City Ordinance requirements

- Main alarm panel located in most constantly attended location (main office, reception desk, main corridor when shared by multiple occupancies)
- Visible annunciation located near front main entrance and readable from exterior of building or located on exterior of building near front main entrance
- Smoke detector and pull station located in vicinity of main alarm panel
- Manufacturer's cut sheets of each appliance and device in system