

# FIRE ALARM DRAWING REVIEW COMMENTS

Project Name: \_\_\_\_\_ Project #: \_\_\_\_\_

Date Received: \_\_\_\_\_ Date Completed: \_\_\_\_\_

**The referenced submittal is being returned for the reasons checked. Please correct and resubmit.**

References are to 2013 NFPA 72, unless indicated otherwise.

Items indicated apply to sealed/engineers preliminary drawings.

Items indicated apply to contractor shop drawings.

1.  Design documents have been prepared by/under the direction of an engineer. State law requires the sealing engineer to be competent in the field of engineering practiced. As such, any engineer preparing bid documents and/or specifications related to fire alarm systems shall be competent in such systems. System plans and specifications shall be developed by persons who are experienced in the proper design, application, installation, and testing of the systems as required by NFPA 72, 10.5.1.1. Due to the extent of errors these plans shall be resubmitted, and are subject to submittal to the state engineering licensing board for review as to the competency being represented and issued for contractor use.
2.  Preliminary plans prepared by engineers and used for bidding/solicitation are required by this jurisdiction to include all applicable items indicated by 7.3.3 & A.7.3.3. Such drawings shall be sealed by the engineer competent in fire alarm system design.
3.  The documentation of acoustically distinguishable spaces (ADS) shall be identified for voice emergency communications systems (ECS). It is the designer's responsibility to ensure that voice intelligibility can be achieved, accounting for the acoustic properties of the space, and not left up to the ECS installer. 7.3.4.5, & 18.4.10.1
4.  Design documents shall specify the rooms and spaces that will have visible notification and those where visible notification appliances will not be provided. The designer shall thus identify all areas where visual notification is required to comply with NFPA 72 and ADA. The proper spacing of strobes shall be in accordance with candela criteria of 18.5. 7.3.4.6, & 18.5.2.1
5.  Visual devices are not located in accordance with NFPA 72, 18.5, & 18.5.2.3.
6.  Visual notification devices shall be provided in outpatient exam/fitting rooms per the United States Access Board, Bulletin #2: Visual Alarms. 18.5.2.2
7.  Circuit and pathway survivability shall be clearly identified. A.7.3.3, 12.3, 12.4
8.  Shop drawings have not been prepared to NFPA 72 criteria. 7.2.1, & 7.4
9.  Shop Drawings have not been prepared in accordance with IBC 907 (Int. Building Code).
10.  Shop drawings have not been prepared per engineers design documents.
11.  Voltage drop calculations are not provided/prepared in accordance with 7.2.1, & 7.4.10.
12.  Voltage drop calculations/criteria does not match local requirements.
13.  NAC circuits do not have spare capacity as required by local requirements.
14.  NAC circuits do not have spare capacity as required by IBC 907 for employee work areas.
15.  Battery/Standby calculations are not included per NFPA 72, 7.2.1.
16.  Control unit diagrams have not been provided per NFPA 72, 7.4.7.
17.  Device circuits and routing is not clearly identified. 7.4.5, & 7.4.7
18.  Device circuits do not meet minimum survivability criteria as required by engineer. \_\_\_\_\_
19.  All device cut-sheets / data sheets shall be provided. 7.2.1(5)
20.  Sequence of operation is not clearly identified for all input / output functions. This shall include interaction with other systems (HVAC, access control, smoke control, elevators, fire doors, hold-open devices, etc.) 7.2.1(4)
21.  Design criteria does not match engineer's requirements. \_\_\_\_\_

- 22.  Documentation of qualified installers shall be provided. 10.5.2.2(2), & 10.5.2.3. This jurisdiction accepts CSA FA2, NICET Level 2 in fire alarm, or others per local/state policy.
- 23.  Provide manufacturer certification that individual and installing company is an authorized representative of the control panel manufacturer. 10.5.2.2(3), & 10.5.2.3
- 24.  Call out on drawings and provide cut sheet for documentation cabinet. 7.7.2
- 25.  Based on information provided, it does not appear that adequate space/clearance has been provided for control equipment and panels in accordance with NFPA 70 (NEC) 110.26. Please verify that at least 3-feet is provided in front of all panels, and that appropriate wall space is allocated for the system control panels including main control panel, booster panels, amplifiers, etc). Show intended location(s) of main panels.
- 26.  Manual pull stations have not been provided as required. IBC 907
- 27.  Identify where sprinkler riser, valves, flow switch, etc. are located for suppression system equipment as applicable. This includes other suppression equipment such as hood systems, etc. being monitored by fire alarm system. 7.2.1(3)
- 28.  Clearly identify how this system is to interact with elevator control equipment including recall and shunting. 21.3, & 21.4
- 29.  Due to incomplete information, a complete review has not been performed. Designer/Contractor shall ensure project complies with all applicable requirements and shall resubmit.
- 30.  Due to performance-based criteria of this project, review and acceptance of the engineer of record (EOR) is required. Please submit evidence that EOR has reviewed and verified compliance with performance criteria. 7.3.7.3
- 31. Additional notes:

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If I can provide any assistance or clarifications, please let me know.

Reviewer: \_\_\_\_\_ Phone: \_\_\_\_\_

Agency: \_\_\_\_\_ Email: \_\_\_\_\_

**Note:**

It is not the responsibility of this reviewer or agency to verify full and complete compliance with every code or contract requirement. A spot review is provided in an attempt to identify limited criteria required by this jurisdiction and applicable codes. Inspections are provided in an attempt to verify certain aspects of the installation. Acceptance/Approval of any submitted criteria and/or inspection is not a guarantee of code compliance. It is the responsibility of the design professional and the installer to comply and verify ALL applicable code and contract document requirements have been satisfied. Failure to comply with adopted codes is a violation of law and subject to penalty as outlined by adopted statute/ordinance.