



FIRE ALARM SUBMITTAL REQUIREMENTS

KELLER FIRE-RESCUE FIRE MARSHAL'S OFFICE

These guidelines shall be adhered to when a business, facility or organization proposes to install or modify a fire alarm system, within the City of Keller. All fire alarm systems for the purposes of this guideline and any other guidelines or requirements of the Fire Department shall conform to the 2021 International Fire Code, as amended and adopted by the City of Keller and NFPA 72, the most current Edition. This guide does not replace, nor supersede any adopted codes and/or ordinances adopted by the City of Keller, or determinations and positions of the Fire Chief or Fire Marshal.

Performance and Installation Requirements

1. Fire alarm systems, new or replacement shall be addressable. **Installation of the Class A Loop is required throughout the building upon initial installation of a panel AND for replacement panels.** 2021 IFC Section 907.6.1.1 as amended and adopted.
2. All fire alarm systems shall have full occupant notification and pull stations at all marked exits. 2021 IFC Section 907.6.1.1 as amended and adopted.
3. All alarm systems, new or replacement shall transmit alarm, supervisory and trouble signals descriptively to the approved central station, remote supervisory station or proprietary supervising station as defined in NFPA 72, with the correct device designation and location of addressable device identification. Alarms shall not be permitted to be transmitted as a General Alarm or Zone condition. 2021 IFC 907.1.4 as amended and adopted.
4. **A manual fire alarm system shall be installed in Group A occupancies having an occupant load of 100 or more persons or more than 100 persons above or below the lowest level of exit discharge. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy. 2021 IFC 907.2.1 and 907.2.3 as amended and adopted.**
5. All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All signaling line circuits (SLC) shall be installed in such a way that a single open will not interfere with the operation of any addressable devices (Class A). Outgoing and return SLC conductors shall be installed in accordance with NFPA 72 requirements for Class A circuits and shall have a minimum of four (4) feet separation horizontal and one (1) foot vertical between supply and return circuit conductors. The initiating device circuit (IDC) from a signaling line circuit interface device shall be wired Class A, provided the distance from the interface device to the initiating device is ten feet or less. All wiring, SLC, IDC, NAC shall be wired Class A. Minimum fire alarm design shall include a manual pull station at each exit and notification devices throughout.
6. A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.2.3 and installed in accordance with Section 907.2.3 shall be installed in Group E educational occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of one hundred feet (100') open space, all buildings whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems. 2021 IFC Section 907.2.3 as amended and adopted.
7. High-rise buildings. Buildings having any floors used for human occupancy located more than 55 feet

above the lowest level of fire department vehicle access shall be provided with an automatic fire alarm system and an emergency voice/alarm communications system in accordance with 2021 IFC Section 907.6.4.2.

8. Manual alarm actuating devices (pull stations) shall be an approved double action type.
9. All fire alarm systems shall be installed in such a manner that the failure of any single alarm-actuating or alarm indicating device will not interfere with the normal operation of any other such devices. IFC 2021 Section 907.6.1.1 as amended and adopted.
10. All alarms shall be transmitted to the U.L. Listed Central Station monitoring company with the device(s) designation and location, or addressable device identification. This is commonly referred to as POINT ID. (See Fire Alarm Operational Guidelines).
11. An exterior audible and visible notification device shall be provided on the exterior of the building and shall be located above or nearest to the Fire Department Connection. This notification device shall operate on a water flow alarm only, shall be non-silenceable. The notification device shall be wired from the fire alarm control panel as a dedicated latching circuit and be supervised.
12. Addressable or analog systems shall show address numbers on the plans and provide a detail list of address verbiage for approval.
13. Primary power shall be from a dedicated circuit which is listed on the approved building electrical plans.
14. Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor in high-rise buildings.
15. A UL Listed surge suppressor shall be provided for each FACP or Power Supply and shall be located a minimum of a 6 ft. wire run length from each protected device. It is recommended the surge suppressor is located as close as practical to the dedicated AC service breaker.
16. All devices, circuits, and auxiliary systems shall be supervised.
17. When the fire alarm control panel is not located at the main entrance, a remote annunciator shall be located at the entrance. Regardless of the location, the ability to control the fire alarm shall be provided at the location of the automatic sprinkler system and main entrance.
18. Systems shall be operable and resettable without any special knowledge or the use of an access code or key.
19. Addressable/analog intelligent systems shall contain a history file of the past 100 events.
20. Duct detectors shall alarm supervisory only and shall receive their power from the FACP.
21. An adequate number of fire alarm notification devices shall be provided such that a minimum sound level 15 dB above average ambient will be achieved.
22. All fire alarm equipment shall be listed for its intended purpose.
23. The fire alarm control panel shall be listed and compatible with all devices and capable of delivering all required signals.
24. Fire alarm systems shall be installed only by companies and individuals licensed by the State of Texas and the State Fire Marshal's Office, or as otherwise provided for in state statutes.
25. Based upon the specific use and construction of the building, additional and/or specialized fire alarm equipment may be required.

Submittal Requirements

1. Plans with a "Wet" RME signature and stamp, as required by the 2021 IFC Section 106.2.1.
2. Copy of Executed contract for project
3. Scope of work letter
4. Manufacturer's data sheets for all components used in the project including manufacturer's parameters and listing organizations approval

5. Battery calculations

General Requirements

Installation, including panel replacement, fabrication or otherwise construction of the system is prohibited without approved plans and permit.

Plans approved by the Fire Marshal's Office give authorization for construction. Final approvals are subject to field verification.

Any approval issued by the Fire Marshal's Office does not release the contractor or property owner from the responsibility of full compliance with all applicable codes and ordinances relating to the construction project.

All installations must concur with the approved plans. Any deviation from the approved plans requires a re-submittal to the Fire Marshal's Office. All fire department inspection forms and permits shall be kept in a permit packet on the job site until final inspection passes.

Permits are active for six months; if no inspections are scheduled after the permit is approved and six months pass, a re-submittal fee of \$150.00 is required before any inspections can be scheduled.