



## Adopted Fire Code - Checklist and Installation Guide



This guide is based on **Ordinance # 12-4508**, adopting the 2012 International Fire Code (IFC) as amended. The checklist is a *brief summary* of the amended requirements for buildings in the city of Iowa City. Some items may not apply to specific buildings, or there may be additional Fire Code requirements that apply.

### *Fire Apparatus Access*

- Fire apparatus access roads shall be constructed of Portland cement concrete conforming to the specifications of the Iowa Department of Transportation C-3 or M-3 mixes. The concrete access road shall be a minimum of 7 inches thick over compacted soil.
- Fire apparatus access roads shall have an unobstructed width of not less than 20 feet, except for approved security gates and an unobstructed vertical clearance of not less than 13 feet 6 inches.
- Fire lanes may be designated if necessary. See City Code 9-4-13 for additional rules and regulations.

### *Premises Identification*

- The address is to be posted on the street side of the building as a minimum. Refer to Fire Code Section 505.1 for requirements.

### *Key Boxes*

- A Knox Box is required (3200 Series with hinged door) and can be recessed or surface mounted in an approved location at a height of 6 feet to the center of the box. The contractor must obtain a form from the Office of the Fire Marshal to order the box.

### *Fire Protection Water Supplies*

- Fire hydrants to be installed with grade mark on fire hydrant at finish grade and steamer connection to face parking lot or access road for fire apparatus hook-up.
- Life safety systems shall be tagged with an "Iowa City" inspection tag.

### *Water Based Fire Protection Systems*

- Working plans shall be stamped by a qualified person having a minimum NICET Level III certification for Automatic Sprinkler System Layout OR be a licensed engineer with experience in life safety system design. Other qualifications may be approved by the code official.
- An automatic sprinkler system shall be installed throughout all fire areas containing a Group B ambulatory health care facility occupancy.
- Provide a minimum 10%, but not less than 5 psi, safety margin above static pressure in the fire protection system hydraulic calculation.
- An approved weatherproof horn/strobe shall be mounted directly above the fire department connection between 7-10 feet above grade.
- Approved and supervised audible visual notification appliances shall be installed on each level of the interior of the building.
- A sprinkler control valve and water-flow device is required for each normally occupied floor.

### *Portable Fire Extinguishers*

- The minimum size rating for fire extinguishers shall be 5 pound 2-A 10-BC. Travel distance for low hazard occupancy is 75 feet. Check with the Office of the Fire Marshal for other type of occupancy requirements. Extinguishers required near Type 1 hoods must be compatible with the hood system.

### *Fire Alarm and Detection Systems*

- Working plans shall be stamped by a qualified person having a minimum NICET Level III certification for Fire Alarm Systems OR be a licensed engineer with experience in life safety system design. Other qualifications may be approved by the code official.
- An approved and addressable fire alarm system shall be provided in structures and buildings and provide occupant notification in accordance with 907.5.
- A minimum of one manual fire alarm box shall be provided in an approved location to initiate a fire alarm signal for fire alarm systems employing automatic fire detectors or water-flow detection devices.
- Daycare occupancies classified as Group E Occupancy shall not require a monitored fire alarm system, unless required elsewhere in the code.
- Supervised smoke alarms shall be installed in all common corridors and at the top and bottom of all stairway enclosures in Groups R-2, R-4, and I-1 occupancies.
- Each address point identification shall have an alpha/numeric descriptor location that must be reported to the Emergency Communications Center upon supervisor and/or alarm conditions.
- Fire alarm and/or annunciator panels shall have all zones and address points plainly and permanently labeled as to their location on the outside of the panel or on an easily readable map of the building.

### *Smoke and Heat Vents*

- The ESFR exception for sprinkler protection has been deleted from Table 3206.2.
- Where installed in buildings with an automatic sprinkler system, smoke and heat vents shall be designed to operate automatically by actuation of a heat-responsive device rated at least 100 degrees F above the operating temperature of the sprinkler.
- Individual manual controls for each fan unit shall be provided.

### *Fire Department Connections*

- The minimum fire department connection size shall be 2 ½ "National Standard Thread.
- The fire hydrant supporting the fire department connection for sprinklered buildings must be within 100 driving feet of the connection on hard surface and located on the same side of the fire department access.
- The fire department connection shall be located on the street side of buildings, not less than 18 in. from the bottom of the cap(s) and not more than 3 ft. from the top of the cap(s) above the level of the adjacent grade or access level.
- Locking fire department connection caps are required on all sprinkler systems and standpipes. New systems shall have the caps installed prior to system acceptance testing. Existing systems shall have the caps installed after the 5-year obstruction testing. The locking caps are available through the Knox Company.