

Cleveland Fire Department



Cleveland Fire Department
Submittal Requirements for:
Architects and Engineers
Approved Sept. 1, 2016 by:
Captain Ben Atchley
Fire Marshal

Executive Summary

“The Mission of the Cleveland Fire Department is to serve the citizens and guests of the City of Cleveland by protecting life, property, and the environment from incidents involving fire, rescue, hazardous materials, and other emergencies, both manmade and natural. This will be accomplished through code management, public education, and professional emergency management.”



The Cleveland Fire Department’s Fire Prevention Division plays a large part of this mission by enforcement of the adopted fire codes. Part of this enforcement comes from a progressive approach to new construction. The following manual will describe the minimum requirements of the Cleveland Fire Department that are in addition to the requirements of the Building Division of the City of Cleveland Development and Engineering Services Department.

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General

The Cleveland Fire Department, in accordance with the City Municipal Code and the State of Tennessee, has adopted the 2012 edition of the International Fire Code and its references. All designs should start from this code. This fire code is the compliment to the city adopted building codes.

All submittals are digital and through the building division, so there is no need to submit to more than one place. Shop drawings are submitted directly to the fire department through the contracted professionals.

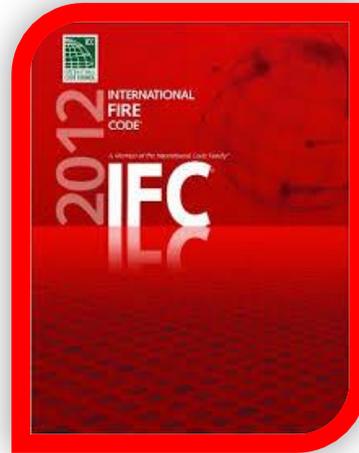
The fire protection portions of the plans will be reviewed by members of the Fire Prevention Division and then Approved, Approved with Stipulations, or Returned for Resubmittal.

A written report will be given to the submitter in regards to each section reviewed.

The following sections will be reviewed by the Fire Prevention Division:

- Civil
- Life Safety
- Portable Fire Extinguishers
- Automatic Sprinklers
- Fire Alarms
- Alternative Suppression Systems
- Other Fire Protection Features

All fire protection designs (not including civil and life safety) shall be included in a separate section labeled as Fire Protection (FP).



Civil

There are several reasons why the Cleveland Fire Department reviews Civil Drawings. The Cleveland Fire Department requires the following information to be included in these drawings:

- Water Supply
 - Domestic
 - Fire Protection
- Fire Hydrants
 - Existing Locations
 - Proposed Locations
- Fire Department Connections
- Fire Lanes and Access Roads

Life Safety

Both the IFC and the IBC include the same chapters that cover egress. Both the Fire Prevention Division and the Building Division review the submitted Life Safety plan in order to maintain a high degree of safety for building occupants. Illumination and signage in regards to egress is also reviewed by the Fire Prevention Division. There is no special illumination and signage submittal requirement. This is reviewed in the normal lighting/electrical sections.

Portable Fire Extinguishers

Portable fire extinguishers are required in most occupancies. The locations of each fire extinguisher are to be designed by the architect in order to ensure compliance. **This is not to be left up to fire extinguisher vendors or fire department personnel to decide.** The design shall include travel distances, heights and any other pertinent information.

Automatic Sprinklers

Automatic fire sprinklers are an important life safety component in buildings. The Cleveland Fire Department has taken the same approach used for submittals to the State of Tennessee. Therefore, the Fire Prevention Division requires all buildings under review that are required to have a sprinkler system within the jurisdiction of the Cleveland Fire Department, **include a design concept of the sprinkler system by an engineer or architect licensed by the State of Tennessee.** These plans shall include:

- Underground Details
- Fire Department Connection Details
- Riser Details
- Environmental Controls (for cold weather)
- Pipe Sizes
- Sprinkler Head Locations

Shop Drawings

Shop drawings are required to be submitted by a State of Tennessee licensed sprinkler contractor. **Shop drawings are not an acceptable substitute for engineered design intent.** Shop drawings must be reviewed and approved by the engineer or architect of record prior to submittal. If the shop drawings have not been reviewed, they will be returned for resubmittal. Items required with the shop drawings include:

- Approval of engineer of record or architect
- State required contractor information
 - Certificate number of the contractor
 - Date of preparation of shop drawings; and
 - Signature and license number of the responsible managing employee.
- Hydraulic Calculations
- Manufacturer's specifications of all materials being used

Fire Alarms

Fire alarms are an important life safety component in buildings. To ensure proper installation and compliance the fire prevention division requires shop drawings of proposed fire alarm systems. Shop drawings in new construction are required to be reviewed and approved by the architect prior to submitting to the fire department in order to confirm they meet the design intent of the architect. Items required with the shop drawings include:

- Approval of Architect
- TN Contractor license
- FACP Location
- Component Locations
- Wiring Details
- Manufacturer's specifications for all materials used

Alternative Suppression Systems

Alternative fire suppression systems are becoming more common. Any proposed alternative fire protection such as kitchen suppression for grease laden vapors, clean agent systems, water mist systems etc. must be designed by an approved design professional and included in the plans. Shop drawings reviewed and approved by the architect are an acceptable substitute.

Other Fire Protection Features and Needs

Many of the occupancies built in Cleveland will only require general fire protection needs, however special circumstances may arise that require the design professional to pay careful attention to other features not normally encountered such as high-piled storage or hazardous processes. If it is determined that these types of special needs exist, but are not designed, the fire department will require a resubmittal.

Elevations

Often over looked in plans submittals are legible, visible street numbers. A detail of street numbers is required on the building elevation plan. Also to be included is the location(s) of the Knox® rapid entry key box. The Cleveland Fire Department requires a Knox® box on all new buildings.

Fire Stopping

The Cleveland Fire Department requires that any penetrations through rated assemblies be of a listed design in order to properly maintain the designed rating. The details of these designs must be included in the submitted plans. All penetrations will be subject to destructive inspection to ensure workmanship is completed according to design. Third party listed designs are acceptable.

High-Piled Storage

High-piled storage must meet the requirements of chapter 32 of the IFC 2012. Special attention must be paid to **Table 3206.2**. It should be noted that high-piled storage has more requirements than just an automatic sprinkler system. Sprinkler system requirements that meet exception *i*. of the table in the 2015 IFC will be acceptable.