

PORTLAND FIRE & RESCUE

November 21, 2023



FIRE SAFETY CONSTRUCTION REQUIREMENTS FOR FOUR OR FIVE STORY WOOD FRAME STRUCTURES

PURPOSE:

To provide guidelines for the development of a required prefire protection plan.

SCOPE:

The provisions of these guidelines shall apply to activities occurring during all phases of construction of four and five story wood frame structures. The suggested elements contained in this document are not to be considered all-inclusive but are to be used as a starting point in developing a prefire protection plan.

REFERENCES:

Oregon Fire Code Chapter 33, Fire Safety During Construction and Demolition

PROCEDURES:

The intent of the prefire protection plan is to specify measures and practices to be incorporated to minimize the potential for the occurrence and spread of fires, and to facilitate firefighting efforts during building construction. An approved prefire protection plan is a condition of the building permit and shall be maintained on site at all times during construction of the project.

The objectives of the prefire protection plan shall focus on:

- Controlling the sources of ignition.
- Controlling the spread of fire both within the structure under construction and any adjacent exposures in close proximity.
- Efforts to maintain the structural stability of the wood framing in the event of a fire.

GENERAL PROVISIONS TO INCLUDE:

- Designating a person to be the point of contact between the City and the contractors who will oversee the administration of the prefire protection plan.
- Providing site security against unlawful trespassing. This shall include perimeter fencing and an on-site presence at all times. The 24/7 on-site presence shall commence at the completion of the 2nd story of **wood frame** construction. Responsibilities and resources available for on-site security shall be detailed.

- Identifying general precautions to be taken to prevent fires such as methods of controlling on-site smoking, waste disposal, cutting and welding operations, use of portable heaters, storage and use of flammable and combustible liquids and other work that may be a fire hazard.
- Providing a temporary or permanent water supply of sufficient volume, duration, and pressure to properly operate firefighting equipment. This water supply shall be available prior to beginning combustible framing.
- Ensuring that the installation of automatic sprinkler piping and heads will closely follow the construction phases and be placed in service as soon as practical following the completion of framing of each floor. Sprinkler system activation may be by means of a manually activated valve until the building envelope is substantially completed and freezing weather is no longer anticipated.
- Ensuring that fire walls and exit enclosures will be given construction priority which should include the installation of fire doors and automatic closing devices as soon as practical.
- Providing fire apparatus access roads capable of accommodating fire department operations.
- Providing standpipes in each stair enclosure once the project framing reaches the second floor. Standpipes are to be maintained per code as construction progresses in such a manner that they are always ready for fire protection use. Standpipes shall also be interconnected and provided with a FDC outside the perimeter fencing.
- Providing compartmentalization and methods of maintaining said compartments.
- Identifying the methods employed to manage the connections of framing elements as the building progresses floor to floor.