

# Guidelines for Fire Safety Plans at Construction or Demolition Sites

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# **Guidelines for Fire Safety Plans at Construction or Demolition Sites**

Construction, renovation and demolition involve many hazardous processes and safety risks. The BC Building Code, BC Fire Code and District of Saanich bylaws provide minimum requirements to ensure that during these processes safety of life and property are a priority.

The Saanich Fire Department would like to provide the owner or developer with all of the required information prior to beginning a project so that there are no delays in completion due to safety issues.

Division B, Part 2.8.2 of the 2018 BC Fire Code states the guidelines for owners or contractors performing construction, alteration or demolition of every building, including any incomplete or abandoned buildings. Reference to the District of Fire Services Operational Bylaw, 2021, No. 9713 should also be reviewed.

Construction and demolition projects can range in size from large multi storey buildings to small single storey residences and may even include additions or renovations to existing buildings.

The degree to which these requirements are required should be determined in advance as part of the fire safety plan, taking into consideration such issues as the size of the project, the site conditions and the hazardous processes involved. Consultation with the Saanich Fire Department is recommended in order to ensure that all requirements are being met.

# Minimum Requirements for all Construction, Renovation or Demolition Projects

Preparation of a fire safety plan includes the following:

- 1. Designation and organization of site personnel to carry out fire safety duties including a fire watch if applicable.
- 2. In the event of fire:
  - a. sounding a fire alarm,
  - b. notifying the fire department,
  - c. instructing site personnel on the procedures to be followed when the alarm sounds,
  - d. firefighting procedures.
- 3. Measures for controlling fire hazards in and around the building.
- 4. Maintenance procedure for firefighting facilities.
- 5. Submit one paper hard copy and one digital copy of the Fire Safety Plan to the Saanich Fire Department, 760 Vernon Avenue, for review by a Fire Prevention Officer.
- 6. A fee of \$100 must accompany the two draft copies of your Fire Safety Plan (Fire Services Operational Bylaw, 2021, No. 9713).
  - a. If the review takes more than two hours, but less six hours, an additional fee of \$125 will be charged.
  - b. If the review takes more than six hours, an additional fee of \$125 plus \$100 per hour for every hour over six hours (minimum of one hour) will be charged.
- 7. The plans will be reviewed and upon approval the digital copy will be retained by the Fire Department and the signed paper copy will be returned.

#### Access for Fire Fighting:

- 1. Unobstructed access to fire hydrants, portable extinguishers and to fire department connections for standpipe and sprinkler systems shall be maintained.
- 2. Where required, access routes for fire department vehicles shall be provided to construction and demolition sites.
- 3. Where a construction or demolition site is fenced so as to prevent general entry, provision shall be made for access by fire department equipment and personnel.

#### **Cutting and Welding Operations:**

1. Consult with the Saanich Fire Department for specific requirements for cutting or welding operations.

#### **Portable Extinguishers:**

- 1. In addition to existing extinguishers required by the BC Fire Code, portable extinguishers shall be provided.
- 2. Adjacent to cutting or welding operations,
  - a. in areas where combustibles are stored,
  - b. near or on any internal combustion engines,
  - c. adjacent to areas where flammable liquids or gasses are stored or handled,
  - d. adjacent to temporary oil-fired or gas-fired equipment, and
  - e. adjacent to bitumen heating equipment.
- 3. The extinguishers required shall have a minimum rating of:
  - a. 2-A,10B:C on movable equipment, and
  - b. 4-A,40B:C in all other locations.

#### **Standpipe Systems:**

- 1. Where a standpipe system is to be installed in a building under construction, the system shall be installed progressively in conformance with the BC Building Code.
- 2. Where a building being demolished floor by floor is equipped with a standpipe system, the system, together with the fire department connections and valves, shall be maintained in operable condition on all stories below the one being demolished, except for the storey immediately below it. (Take into consideration freezing conditions and consult with the fire department if variance is required.)

# **Provision for Means of Egress:**

- 1. In areas of a building where construction operations are taking place, at least one exit shall be accessible and usable at all times.
- 2. In buildings being demolished, at least one stairway shall be maintained in usable condition at all times.

#### **Fire Warning:**

- 1. A system shall be provided to alert site personnel of a fire.
- 2. The system required shall be capable of being heard throughout the building.

#### **Building Service Shutoff at Demolition Sites:**

- 1. Except for water supplies for firefighting, building services shall be shut off and gas and fuel lines shall be capped in a building being demolished.
- 2. Temporary electrical installations shall be installed in conformance with the BC Safety Standards Act and pursuant regulations.

#### Clearance to Combustible Materials:

- 1. Internal combustion engines shall be located so that their exhaust discharges not less than 500 mm from combustible material.
- Where exhaust from internal combustion engines is piped to the outdoors, a clearance of not less than 150 mm shall be maintained between the exhaust pipe and any combustible material.

3. The clearance between combustible materials and temporary heating equipment, including flues, shall be in conformance with the BC Building Code and in conformance with the minimum clearances shown on certified heating equipment.

# Fuel Supply, Tanks, Piping and Reservoir Installation:

- 1. Fuel supplies for heating equipment and internal combustion engines shall conform to the BC Safety Standard Act.
- 2. Installation and removal of any oil burning equipment and flammable and combustible liquid storage tanks require a permit as per the District of Saanich Oil Burning Equipment and Flammable Liquid and Combustible Liquid Fuel Tank Bylaw No. 9265.
- 3. Removal of any piping, tanks or reservoirs shall meet the requirements of the BC Fire Code, and applicable Environmental regulations.

# Fire Separations in Partly Occupied Buildings:

1. Where part of a building continues to be occupied, the occupied part shall be separated from the part being demolished or constructed by a fire separation having a fire resistance rating of not less than one hour.

#### Fire Watch:

- A watch, with tours at intervals of not more than one hour shall be provided throughout demolition sites when there are occupants in the portion of the building not being demolished.
- 2. Except where a building is provided with a fire alarm system or similar equipment, a watch, with tours at intervals of not more than one hour shall be provided when a portion of the building is occupied while construction operations are taking place,
- 3. Facilities shall be provided to enable the watcher to communicate with the fire department.

# Smoking:

- 1. Smoking shall not be permitted in areas where conditions are such as to make smoking a fire or explosion hazard,
- 2. An area where smoking is not permitted shall be identified by signs,
- 3. Where smoking is permitted, an adequate number of ashtrays shall be provided.

### **Combustible Liquid and Flammable Liquid Storage:**

 Storage of Combustible and Flammable Liquid shall meet the requirements of the BC Fire Code and the District of Saanich Oil Burning Equipment and Flammable Liquid and Combustible Liquid Fuel Tank Bylaw No. 9265. Contact the Saanich Fire Department for information.

#### **Disposal of Combustible Refuse:**

 Combustible refuse in sufficient quantities to constitute a fire hazard shall be moved to a safe location.

#### **Excavation:**

1. Before any excavation begins ensure that all services are shut off, capped and labeled with the cooperation of the service companies involved.