

The Alberta Fire Code (2014), Division B, Sentence 5.6.1.2(1), requires that prior to the commencement of construction or demolition operations, a Fire Safety Plan shall be prepared for the site.

A Fire Safety Plan establishes minimum requirements that will provide a reasonable degree of life safety from fire and similar emergencies. Plans must comply with the Alberta Building Code, Alberta Fire Code, and other applicable laws and regulations.

The Fire Safety Plan must be site specific and may be reviewed at any time by Strathcona County Emergency Services. The Contractor, as a representative of the owner, is responsible for the development and maintenance of the Fire Safety Plan until occupancy. The Plan must be reviewed and updated if required as the construction site progresses.

There can only be one Fire Safety Plan for each site. Strathcona County Emergency Services must be notified of any changes to the Fire Safety Plan to ensure all life/property safety requirements continue to be met.

It is unlawful to start construction, renovation and demolition without a fire safety plan. If you begin without a plan in place, you may be ordered to stop work, ordered to remove work already done, or prosecuted.

A Fire Safety Plan for each site must be posted and employees are expected to be trained in how to follow its provisions.

This form/guideline document is to be used if your project is one or more of the following: (check all that apply)

- A demolition project
- A residential project of 5 units or more
- A commercial project
- An industrial project

Project information

Project name _____

Project scope Construction Demolition Renovation

Building permit # _____ Cost of project (estimate) \$ _____

Applicant name _____ Company/Title _____

Phone number _____ Email _____

Site information

Name of Contractor _____

Site Phone Number _____

Site Supervisor _____ Phone Number _____

Site Fire Warden _____ Phone Number _____

After Hours Contact _____ Phone Number _____

Construction site plot plan

A legible computer generated construction site plot plan shall be incorporated into the fire plan and posted in a conspicuous area(s). The plan shall include the following:

- Site Address.
- Location of exit(s) and exit routes are clearly identified within the site or from floors.
- Location of evacuation route(s). Indicate primary and secondary access and egress paths.
- Location of muster point(s) (highlighted) – must be within one block of the site.
- Identify adjacent and adjoining streets.
- Location of first aid station (if any).
- Location of flammable or combustible liquids/hazardous processes.
- Location of firefighting equipment (fire hydrants, fire extinguishers, etc. – highlighted).

INSERT COMPUTER GENERATED CONSTRUCTION SITE PLOT PLAN HERE

Access – route & design

- Emergency Services access is to be maintained and accessible at all times from initiation of the project.
- An all-weather access road is to be installed and maintained throughout the construction process at all times of the year under all weather conditions.
- Hydrants (or equivalent water supply as approved by Strathcona County Emergency Services) are to be installed, tested, operational and accessible prior to above grade construction.
- Obstruction of access roads or hydrants with construction materials, fences, equipment or excavation material is not permitted.
- Streets, yards and roadways provided for Emergency Services shall be maintained so as to be ready for use at all times in all weather conditions by Emergency Services vehicles. The access route is to meet the design as outlined in the Alberta Building Code (2014):

Alberta Building Code (2014) Article 3.2.5.6 Access Route Design

1) *A portion of a roadway or yard provided as a required access route for fire department use shall*

- a) have a clear width not less than 6 metres, unless it can be shown that lesser widths are satisfactory,*
- b) have a center line radius not less than 12 metres,*
- c) have an overhead clearance not less than 5 metres,*
- d) have a change of gradient not more than 1 in 12.5 over a minimum distance of 15 metres,*
- e) be designed to support the expected loads imposed by firefighting equipment and be surfaced with concrete, asphalt or other material designed to permit accessibility under all climatic conditions,*
- f) have turnaround facilities for any dead-end portion of the access route more than 90 metres long, and*
- g) be connected with a public thoroughfare. See Appendix A.*

Alberta Building Code (2014) Appendix-3.2.5.6(1) Fire Department Access Route, the design and construction of fire department access routes involves the consideration of many variables should be considered in relation to the type of fire department vehicles available in the municipality or area where the building will be constructed. It is appropriate, therefore, that the local fire department be consulted prior to the design and construction of access routes.

2) *For buildings conforming to Article 3.2.2.50. (Group C, up to 6 Storeys, Sprinklered) or 3.2.2.58 (Group D, up to 6 Storeys, Sprinklered), no portion of the access route described in Sentence 3.2.2.10(3) (A building conforming to Article 3.2.2.50. or 3.2.2.58. is considered to face 1 street where not less than 25% of the building perimeter is located within 15 metres of a street.) shall be more than 20 metres below the uppermost floor level.*

Fire fighting equipment

- Site address is posted and clearly legible at the street side of the work/event site at all times.
- Firefighting equipment (fire hydrant(s), fire department connections) are installed, tested, accessible and are in proper working condition at the start of construction, and will be maintained and accessible for fire fighters at all times during construction.
- All staff must know the location of the firefighting equipment in their area.
- Fire extinguishers are mounted, with proper signage and located
 - with a maximum travel distance of 23 metres to an extinguisher, at or near exit locations,
 - at or near gas or propane fuel operated equipment,
 - adjacent to any hot works operations (cutting torch, welding or torching),
 - in close proximity to storage and work areas.
- Fire extinguishers are checked for annual certification and will be inspected and ready for use prior to construction.
- Never return an empty or used fire extinguisher to its station. Clearly mark it out of service and exchange it for a charged and serviced fire extinguisher.
- All staff must receive training before using fire extinguishing equipment.

Requirements for adjacent property protection

Is this a new building? Yes (fill out Part 1) No (fill out Part 2)

Will any part of this building continue to be occupied during construction? No Yes (if yes, fill out Part 2)

Part 1

Provide an outline of what option(s) are to be used for the protection of adjacent property as per the Alberta Fire Code (2014), Division B, Section 5.6 Construction and Demolition Sites.

Alberta Fire Code (2014) Article 5.6.1.2 Protection of Adjacent Buildings

- 3) Protection shall be provided for adjacent buildings and facilities that would be exposed to fire originating from buildings, parts of buildings, facilities and associated areas undergoing construction, alteration or demolition operations.

Alberta Fire Code (2014) Appendix-5.6.1.2(1) Methods and materials used to protect adjacent buildings and facilities can range from active to passive systems such as spatial separation, installing water curtains, using construction methods and materials that include gypsum sheathing, or erecting a temporary fire barrier such as a fire tarpaulin.

Part 2

Refer to the following code requirements and describe how these provisions will be met:

Alberta Fire Code (2014) Article 5.6.1.12 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 1 h.

Alberta Fire Code (2014) Article 5.6.1.21 Occupied Buildings

- 1) When a building is occupied prior to its completion or during extensive alterations to it, fire safety measures in the occupied portions of the building shall be maintained or alternate provisions made.
- 2) Measures shall be taken to cordon off and control access to the work areas.
- 3) Required exits from the occupied area shall be maintained or alternate means of egress shall be provided. See Appendix A.

Alberta Fire Code (2014) Appendix 5.6.1.21(3) Where exits are obstructed by construction while the building is occupied, an alternative means of egress must be established. Replacing a window with a door and providing the necessary step and walkway could be an acceptable temporary solution.

Water supplies and access for fire fighting

- Ensure that firefighters, equipment and apparatus can reach a construction or demolition site in order to effectively control a fire.
- Ensure that firefighters have access to all levels of the buildings on site and to the portable and fixed fire protection equipment serving the site.

Alberta Fire Code (2014) Article 5.6.1.4 Access for Firefighting

- 1) Unobstructed access to fire hydrants, portable extinguishers and to fire department connections for standpipe and sprinkler systems shall be maintained.
 - 2) A means shall be provided to allow firefighters to perform their duties on all levels of the building.
 - 3) Provision shall be made for the use of existing elevators, hoists or lifts to assist firefighting personnel in reaching all levels of the building.
 - 4) Access routes for fire department vehicles shall be provided and maintained to construction and demolition sites.
 - 5) 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.
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Alberta Fire Code (2014) Appendix-5.6.1.4(4) Access for Firefighting. The fire safety plan for the construction or demolition site of buildings conforming to Article 3.2.2.50 or 3.2.2.58 of Division B of the Alberta Building Code (2014) should take into consideration the design of the access route to the building under construction as well as the elevation of the access route relative to the uppermost floor level to facilitate firefighter access to the roof. (See Sentence 3.2.5.6(2) of Division B of the Alberta Building Code (2014).)

Protection during shutdown

Where a fire protection system is provided, it shall remain operational throughout the construction, alteration or demolition area where reasonably practical except as permitted in the following bullets:

- Strathcona County Emergency Services has been called at 780.464.8465 and informed of any fire protection shutdowns.
- When any portion of a fire protection system is temporarily shut down during construction, alteration or demolition operations, protection during shutdown shall comply with Alberta Fire Code (2014) Article 6.1.1.4.

Alberta Fire Code (2014) Article 6.1.1.4 Protection during Shutdown

- 1) *When any portion of a fire protection system is temporarily shut down, alternative measures shall be taken to ensure that protection is maintained. (See Appendix A.)*

Appendix-6.1.1.4(1) Interruption of normal operation of a fire protection system for any purpose constitutes a "temporary shutdown." Types of interruptions include, but are not limited to, periodic inspection or testing, maintenance, and repairs. During a shutdown, alternative measures are necessary to ensure that the level of safety intended by the Code is maintained.

In the shutdown of a fire alarm system, alternative measures should be worked out in cooperation with the fire department to ensure that all persons in the building can be promptly informed, and the Fire Department notified, should a fire occur while the alarm system is out of service.

When a sprinkler system is shut down, measures that can be taken include the provision of: emergency hose lines and portable extinguishers, extra fire watch service and, where practicable, temporary water connections to the sprinkler system.

Security

24-hour security for the worksite may include the list below. Depending on the project type and location, Strathcona County Emergency Services may request all of the security elements to be included in the fire plan. Check the level of security that applies:

- | | |
|--|--|
| <input type="checkbox"/> Lockable fencing erected around perimeter of worksite | <input type="checkbox"/> Security Patrol |
| <input type="checkbox"/> Night watchman (with nightly rounds conducted) | <input type="checkbox"/> Building secured and locked |
| <input type="checkbox"/> Video | <input type="checkbox"/> Monitored alarm system |
| <input type="checkbox"/> Other (specify) _____ | |

Fire Protection

- Keep all entrances, exits and roadway(s) clear of obstructions such as vehicles, equipment and general clutter at all times.
- At least one exit from every floor shall be maintained and operational at all times.
- Maintain good housekeeping practices, including the removal of excess garbage material on a regular basis.
- Have appropriate spatial separation from other combustibles and is to be monitored on a daily/weekly basis to minimize the fire load. Access for firefighting equipment and personnel must be maintained at all times.
- Outdoor refuse containers shall be kept at least 3 metres from a combustible building and any building overhang or opening. Combustible waste materials in and around buildings shall not be permitted to accumulate in quantities or locations that will constitute a fire hazard. Burning of waste material at construction sites is NOT PERMITTED
- Keep your work and floor areas free of unnecessary combustible materials, including around any buildings.
- Use proper degreasing agents. Never use gasoline or other flammable liquids for degreasing or cleaning equipment.

- Construction heaters shall be connected so as to minimize danger of mechanical damage and upset and be installed on a solid level base. Temporary heaters must be placed at least 5 metres from combustible tarpaulins or similar coverings. Tarps must be securely fastened to prevent wind from blowing where they could upset the heater or be set on fire. Piping, tubing, hose and fittings shall be supported, secured and protected from damage and strain. Propane regulators shall be properly fastened within the protective cover.
- All fire doors are to be kept closed at all times.
- Smoking should be allowed only in designated fire safe areas and the smoking material is disposed of in a fire safe fashion.

Hot works operations

- Hot works area(s) shall be clear of flammable and combustible materials.
- Assign a fire watch during hot works operation and for a period of 60 minutes after completion.
- A final inspection of the hot works area will be performed 4 hours after completion.
- Ensure hot works in the proximity of combustible or flammable materials have provisions for protection of such materials by non-combustible materials, thermal barrier or other means.
- All hot works processes are performed by trained or certified personnel who are familiar with the safe use of hot work equipment.
- At least one portable fire extinguisher and a pail of water shall be provided in the hot work area at all times.
- Proper ventilation will be in place and maintained as required.
- Hot tar pots located on site are complete with fire extinguishers, trained personnel, and located away from combustible materials.

Flammable and combustible storage

- Storage area(s) are separated from any combustible material by a minimum of 3 metres, are protected from vehicular/industrial motorized traffic, and are locked and vented as required.
- Fuel, hazardous materials, and all other material(s) are stored appropriately and are not obstructing access or egress from site/facility.
- Portable pressurized (new or used) cylinders are secured when not in use.
- Appropriate and proper signage or acceptable placards are in place.
- A current /updated list of dangerous goods is kept on site and readily available in case of an emergency.
- Portable fire extinguishers are kept in close proximity to storage and work areas.
- Storage area(s) are away from all access and egress routes on and to the work site.

Training

- Ensure site orientations are provided to all workers/staff.
- Have first aid trained workers/staff on site.
- Ensure fire safety requirements and evacuation procedures are incorporated into regular worksite/event safety meetings.
- Simulated fire drills may be held as applicable and warranted.
- Workers/staff are trained in the use of fire extinguishers.

Access keys

- Site office/fire department key box contains keys to site area(s).
- Site supervisor(s)/after hours contacts act as the key holder(s).

Construction Site Fire Safety Plan (Comprehensive)

(Page 7 of 7)

This plan is designed in conformance with the Alberta Fire Code (2014) Article 5.6.1.3. Fire Safety Plan and on signature, becomes an agreement between the building owner/contractor and Strathcona County.

I have read and understand the requirements of the Comprehensive Construction Site Fire Safety Plan. I am the property owner or a representative of the property owner.

Completed by (print name) _____ Signature _____

Date completed _____

Return completed construction site fire safety plan to:

Strathcona County, Planning & Development Services
2001 Sherwood Drive
Sherwood Park, Alberta T8A 3W7
Phone: 780.464.8080 Fax: 780.464.8142
Email: planninganddevelopment@strathcona.ca

Personal information is collected under authority of section 33(a) and (c) of the Alberta Freedom of Information and Protection of Privacy Act, and will be used in the management and administration of the fire safety program, and must be posted at the site as directed by Strathcona County. If you have any questions regarding the collection or use of this information, please contact Fire Prevention at 780-449-9651.

Strathcona County Emergency Services Use Only

Reviewed by (print name) _____ Signature _____

Date _____ SCO number _____

POST ON CONSTRUCTION SITE

Site address _____

Emergency contact name _____ Phone number _____

Muster point(s) _____

IN CASE OF A FIRE

- Don't panic. Leave fire area immediately.
- Sound horn or activate fire alarm system. If your site has no fire alarm/horn, yell or shout to others that there is an emergency and to evacuate to designated muster point(s). The alarm should be heard by everyone working on the site.
- Close all doors behind you. Turn off equipment if safe to do so.
- Use nearest exit, do not use man lifts or elevators.
- Immediately notify the Fire Department (9-1-1) from a safe location. Provide the operator with the above worksite address and a description of the emergency.
- Meet at the designated muster point and do not leave the area unless it is compromised. If compromised meet at the secondary designated muster point.
- The designated Fire Warden will complete a head count and make sure everyone is accounted for. A buddy system shall be employed. If anyone is unaccounted for notify the Fire Department and local authorities.
- A person will be assigned to meet the Fire Department and give information such as where is the fire or injury located on site and that everyone on site is accounted for.
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WHEN TO FIGHT A FIRE

You should fight a fire with a fire extinguisher only when the following are true:

- Everyone has left or is leaving the building.
- The Fire Department has been called.
- The fire is small and confined to the immediate area where it started.
- You can fight the fire with your back to a safe escape route.
- Your extinguisher is rated for the type of fire you are fighting and is in good working order.
- You have had training in use of the extinguisher and are confident that you can operate it effectively.

NOTE: If you have the slightest doubt about whether or not to fight the fire – DON'T. Instead, evacuate, and close the door behind you to slow the spread of fire.
