CONSTRUCTION FIRE SAFETY PLAN FOR MAJOR PROJECTS

Includes new buildings, additions, exterior alterations and full-building demolitions.

For renovations or partial demolitions use Construction Fire Safety Plan for Renovations.

BACKGROUND INFORMATION

National Fire Code – 2019 Alberta Edition (NFC – 2019(AE)):

NFC – 2019(AE) Division B, Section 5.6 requires a Fire Safety Plan for all construction, renovation and demolition sites.

Division B, Section 5.6

This Section applies to the fire safety for buildings, parts of buildings, facilities, adjacent buildings or facilities, and associated areas undergoing construction, alteration or demotion operations.

Division B, Section 5.6.1.3.(1):

Prior to the commencement of construction, alteration or demolition operations, a Fire Safety Plan, accepted in writing by the fire department and the authority having jurisdiction, shall be prepared for the site.

The Fire Safety Plan:

Will be **site specific** and may be reviewed at any time by the *authority having jurisdiction* (St. Albert Fire Services – Fire Safety Codes Officer (Fire-SCO-). The Fire Safety Plan should be reviewed and updated as the construction site progresses. The Contractor, as a representative of the owner, is responsible for the Fire Safety Plan until occupancy.

The owner, developer or contractor responsible for a construction or demolition site is required to develop a Fire Safety Plan acceptable to a Fire-SCO.

A Fire Safety Plan must address, in a manner acceptable to the Fire-SCO, all topics of (applicable to the site) covered in each of the perspective Articles in Section 5.6 of the NFC – 2019(AE).

It is required that a Fire Safety Plan be accepted in writing by the Fire Department and the Authority Having Jurisdiction.

A Fire Safety Plan:

- Shall be submitted for review and acceptance.
- Shall be accepted prior to construction or demolition, including renovations.
- Must conform to the requirements of the NFC – 2019(AE).
- Shall be complete, blank sections will result in a rejected Fire Safety Plan.

If certain provisions listed in this plan do not pertain to your specific site please enter "NOT REQUIRED" in the section. Details for any provision that is applicable to your site MUST be included in this plan.

This information is being provided for the construction industry and is an aid in preventing injury and fires in and around constructions sites and to address life and property fire safety issues. Keeping in mind it is the sole responsibility of the owner or representatives of the owner to:

- be aware of all regulations within the jurisdiction.
- carry out or make provision to adhere to the various codes and standards applicable to their project or business.

Please submit your completed fire safety plan to St. Albert Fire Services at the time of commercial building permit application.

FIRE SAFETY PLAN

All applicable provisions must be adhered to. Construction sites may be inspected for compliance at any stage of construction. The accepted Fire Safety Plan shall be posted on site and is intended for use by your contractors, sub-contractors and any site personnel.

A Fire Safety Plan should include, but is not limited to the following information. Please check off all applicable provisions and provide additional detail where required for your specific Fire Safety Plan.

Commercial Final Permit #:
Building Name:
Site Address:
Description of Project:

SECTION 1: EMERGENCY PROCEDURES

To be used in THE EVENT OF AN EMERGENCY

A building under construction, without functional fire protection equipment is at its most vulnerable stage, therefore it is imperative to initiate emergency response at the earliest possible opportunity.

What are your provisions for initiating emergency evacuation procedures on this site and how will you notify emergency responders (e.g. Sounding of air horn – 3 blasts, activating fire alarm, calling 9-1-1?)

Provide a list of instructions for site personnel to follow when an alarm is sounded:

☐	Exit routes are provided with clearly identified signage to indicate egress from floor areas/building.
☐	Designated gathering location (muster point) will be off site with signage.
☐	Location of Muster Point:
☐	List of personnel on site, updated and current - you should know who is on site.
☐	Person assigned to meet the fire department and give information such as: • Where the fire or injury is located on site • Is everybody accounted for • Name of person responsible:
☐	Assigned site fire wardens(s), various trades represented.

Directions and training for confining, controlling and extinguishing the fire:

SECTION 2: TRAINING

Training of site personnel on evacuation procedures including:

☐	Site orientation (familiarize on personnel visitors on emergency procedures.)
☐	Name of Person responsible:
☐	Regular site safety meetings incorporated into regular safety meetings.
☐	Simulated fire drills as applicable and warranted.

SECTION 3: ASSIGNED SITE PERSONNEL

Assigned site personnel responsible for fire prevention activities such as:

☐	Control of combustibles on the site and around the buildings including removal of excess garbage material on a regular basis and general housekeeping. Name of person responsible:
☐	Ensure that combustible hoarding is secured to prevent contact with the heaters. Name of person responsible:
☐	Maintain clear unobstructed access for fire department apparatus to building(s)and to fire fighting services such as hydrants and fire department connections i.e. sprinkler and/or standpipes. Name of person responsible:
☐	Parking of vehicles or delivery trucks, directed so as to not obstruct fire department access to the site and buildings. (off site parking and storage may be considered.) Name of person responsible:
☐	Maintenance and operation of at least one exit from every floor. Name of person responsible:
☐	Smoking shall not be permitted in areas where conditions are hazardous, or potential of ignition exists.

SECTION 4: Fire Fighting Services

Unobstructed hydrant, fire department connection, sprinkler, emergency access route, standpipe.

Check all applicable fire fighting services that are installed, tested and activated at the start of the construction. These must always be maintained and accessible for fire fighters.

☐	Hydrants (maintain 2 metre access around hydrants)
☐	Standpipes (existing)
☐	fire department connection - 100mm Storz Coupling
☐	Emergency access routes:

Provide a drawing, detailing you emergency response plan, including:

☐	Nearest Fire Hydrant Locations
☐	Fire Department Connections (100mm Storz Coupling and/or standpipe)
☐	Site Muster Point
☐	Emergency Access to the building and site – primary and secondary access points
☐	The site is properly addressed, and the sign is visible and legible to the emergency crews.
☐	An all weather road shall be constructed prior to the commencement and must be designed to support the expected loads imposed by fire fighting equipment (38,500 kg) and have a clear width not less than 6 metres. Refer to the following code for Water Supply and Access for Fire Fighting: **NFC – 2019 (AE) 5.6.1.4 Access for Firefighting** 1. Unobstructed access to fire hydrants, portable extinguishes 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. **NFC – 2019 (AE) 5.6.3.5 Water Supply** 1. An adequate water supply for firefighting shall be provided as soon as combustible construction materials arrive on site.

SECTION 5: Fire Extinguishers

☐	Provide sufficient numbers and sizes. (3-A:20-B:C on all moveable equipment and 4-A:40-B:C in all other locations, including on or near any combustion engines.)
☐	Serviced and tagged by a certified agency, within the last year.
☐	Mounted, with proper signage, where workers are present and at all exit locations on every level, and meet the required travel distance between extinguishers (75 feet or 22.86 m).
☐	At or near gas or propane fuel operated equipment.
☐	At or near areas where combustibles are stored.
☐	Adjacent to any hot works operations.

SECTION 6: HOT WORKS OPERATIONS

Does your scope of work require Hot Work Operations?

☐ Yes ☐ No

If yes, refer to the following code requirements and describe (at the bottom of this section) how these provisions will be met, and check all applicable provisions.

Definition: The burning, welding, heating of a material, or a similar operation that is capable of initiating fires or explosions including, but not limited to, cutting, welding, Thermit welding, brazing, soldering, grinding, thermal spraying, thawing pipe, torch applied roofing or membrane adhesive bonding, or any other similar heat producing activity.

☐	Hot work must be performed by trained or certified personnel.
☐	A fire extinguisher (4-A:40-B:C) is always present.
☐	Proper ventilation, as required.
☐	If hot tar pots are on site, provide fire extinguishers. Hot tar posts must only be used by trained personnel and located away from combustible materials.

NFC - 2019 (AE) 5.2.3 Prevention of Fires

NFC - 2019 (AE) 5.2.3.1 Location of Operations

1. ☐ Except as provided in Sentence (2), *hot work* shall be carried out in an area free of combustible and flammable contents, with walls, ceilings and floors of *non-combustible construction* or lined with non-combustible materials.
2. ☐ When it is not practicable to undertake hot work in an area described in Sentence (1),
    a. combustible and flammable materials within a 15 m distance from the *hot work* shall be protected against ignition in conformance with Article 5.2.3.2.,
    b. a continuous fire watch shall be provided during the hot work and for a period of not less than 60 min after its completion in conformance with Article 5.2.3.3., and
    c. a final inspection of the *hot work* area and adjacent exposed areas shall be conducted
        i. 4h after completion of the work, or
        ii. after completion of the fire watch required in Clause(b), in which case a more comprehensive inspection shall be conducted.
3. ☐ When there is a possibility of sparks or open flames reaching combustible material in areas adjacent to the area where *hot work* is carried out,
    a. openings in walls, floors or ceilings shall be covered or closed to prevent the passage of sparks or open flames to such adjacent areas, or
    b. Sentence (2) shall apply to such adjacent areas.
    c.

NFC – 2019 (AE) 5.2.3.2 Protection of Combustibles and Flammable Materials

1. ☐ Any combustible and flammable material, dust or residue shall be
    a. removed from the area where *hot work* is carried out, or
    b. except as provided in Sentence (2), protected against ignition by the use of non-combustible material.
2. ☐ Combustible materials or *building* surfaces that cannot be removed or protected against ignition as required in Clause (1)(b) shall be thoroughly wetted where *hot work* is carried out.
3. ☐ The fire watch described in Clauses 5.2.3.1.(2)(b) and (c) shall be carried out by more than one person if combustible materials are exposed to the *hot work* operations but cannot be directly observed by the initial person performing the fire watch.
4. ☐ Any process or activity that produces flammable gases or vapours, combustible dusts or combustible fibers in quantities sufficient to create a fire or explosion hazard shall be interrupted and the hazardous conditions shall be removed before any *hot work* is carried out.
    If yes, please describe:

SECTION 7: FLAMMABLE/COMBUSTIBLE LIQUID AND COMPRESSED GAS STORAGE

Does your scope of work require the storage of flammable/combustible liquids or compressed gases?
☐ Yes ☐ No
If yes, all provisions below are applicable.

☐	Storage area separated from combustible material by 3m.
☐	Storage area locked and vented.
☐	Storage area protected from vehicular/industrial motorized traffic.
☐	Portable pressurized (full or empty) cylinders secured when not in use.
☐	Area is to have proper signage or placards in place.
☐	A current list of dangerous goods must on site.
☐	A portable 4-A:40-B:C fire extinguisher in close proximity to storage and work areas.
☐	Storage area is away from egress and access routes to the site.

SECTION 8: Security

What are your provisions for site security when workers are absent from the site?

SECTION 9: CONTACT PERSONNEL

☐	Provide a list of names and telephone numbers of persons to be contacted during non-operating hours or in emergency situations to be posted on site.

In addition to the above, please check off all the following provisions that may be relevant to your scope of work:

NFC – 2019 (AE) Section 5.6 Construction and Demolition Sites

Will any part of this building continue to be occupied during construction, alteration or demolition operations?

☐ Yes ☐ No

If "Yes", refer to the following code requirements and describe how these provisions will be met, and check all applicable provisions.

NFC – 2019 (AE) 5.6.1.12.(1) Fire Separations in Partly Occupied Buildings

☐ Where a 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.

Building / Fire Code Bulletin Standata 19-FCB-005 - Occupancy of Buildings Under Construction

☐ Exits and accesses to exit are complete including fire separations, doors, door hardware, self-closing devices, guards and handrails from the upper most storey to be occupied down to the level from which occupants will exit the building (or the lowest level in the basement up to the exit level if the exit serves the basement). Means of access to the building may need to be enclosed to protect the building occupants from falling objects.

The Occupancy of Buildings Under Construction *document can be found online.*

If yes, please describe:

For alteration, construction of an addition or demolition operations:

Is the existing building protected by a Fire Alarm System, Sprinkler System or Standpipe System?

☐ Yes ☐ No

If "Yes", refer to the following code requirements and describe how these provisions will be met, check all provisions that apply.

NFC – 2019 (AE) 5.6.1.13. Protection during Shutdown

1. ☐ Except as permitted in Sentence (2), where a fire protection system is provided, it shall remain operational throughout the construction, alteration or demolition area where reasonably practical.
2. ☐ When any portion of a fire protection system is temporary shut down during construction, alteration or demolition operations, protection during shutdown shall comply with Article 6.1.1.4.

NFC – 2019 (AE) 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.

NFC – 2019 (AE) 5.6.1.14. Watch

1. ☐ A watch, with tours at intervals of not more than 1h, 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 or intervals of not more than 1 h, 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 referred to in Sentences (1) and (2) to
    a. ensure a fire warning is sounded to notify occupants, and
    b. communicate with fire department.

If yes, please describe:

Does your scope of work require a standpipe system?

☐ Yes ☐ No

If “Yes”, refer to the following code requirements and describe how these provisions will be met.

NFC – 2019 (AE) 5.6.1.6. Standpipe Systems

1. ☐ Where a standpipe system is to be installed in a *building* under construction or alteration, the system shall be installed progressively in conformance with Subsection 3.2.5 of Division B of the NBC – 2019 (AE) in areas permitted to be occupied.
2. Where a standpipe system is to be installed in portions of a building under construction or alteration that are not occupied, the following shall apply:
    a. ☐ a permanent or temporary standpipe system is permitted in accordance with Clauses (b) and (c),
    b. ☐ the standpipe system shall be provided with conspicuously marked and readily accessible fire department connections on the outside of the building at street level and shall have at least one hose outlet at each floor,
    c. ☐ the pipe size, hose valves and water supply shall conform to Subsection 3.2.5. of Division B of the NBC – 2019 (AE),
    d. ☐ the standpipe system shall, as a minimum be securely supported and restrained on alternate floors,
    e. ☐ at least one hose valve for attaching fire department hose shall be provided at each intermediate landing or floor level in the exit stairway,
    f. ☐ valves shall be kept closed at all times and guarded against mechanical damage,
    g. ☐ the standpipe shall not be more than one floor below the highest forms, staging, and similar combustible elements at all times, and
    h. ☐ temporary standpipe system shall remain in service until the permanent standpipe installation is complete.

    If yes, please describe:

3. ☐ Where a *building* being demolished floor by floor is equipped with a standpipe system, the system, together with fire department connections and valves, shall be maintained in operable condition on all stories below the one being demolished, except for the story immediately below it.

SUBMISSION

Name:
Phone number:
Email:

This information is being collected under the authority of Sections 33 (a) & (c) of the *Freedom of Information and Protection* of *Privacy Act*, R.S.A., 2000, and *National Fire Code – 2019 Alberta Edition*, and will be used to process your permit application. Furthermore, please know that your name, address, and details related to your permit may be included on reports that are available to the public, as permitted under Part 2 of the *Freedom of Information and Protection of Privacy Act*. If you have any questions about the collection, contact the Fire Services at 780-418-6069.