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FIRE SAFETY PLAN - Construction and Demolition Sites

The following items from part of the permit approval process and shall be made available for the *authority having jurisdiction* (Fire Services – Fire Prevention Branch) for review.

These requirements apply to buildings or parts of buildings undergoing construction or demolition operations and include renovations according to the National Fire Code - Alberta Edition (NFC-AE) 2023, Section 5.6.

NFC-AE (2023) – 1.1.1.1 (1) Unless otherwise specified, the owner shall be responsible for carrying out the provisions of this code. The Contractor, as a representative of the owner, is responsible for the Fire Safety Plan.

Construction, Demolition and Renovation Sites

NFC-AE (2023) 5.6.1.4. **Access for Fire Fighting** sets out specific conditions to give the fire department the ability to ensure that the firefighting crews, equipment and apparatuses can reach a construction or demolition site to effectively control a fire situation. These provisions also ensure that firefighters have access to all levels of the buildings on the site and to the portable and fixed fire protection equipment serving the site.

- Fire department access is to be maintained from start to completion of project.
- Water supply – hydrants are to be installed, tested, operational and accessible prior to above grade construction.
- 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.
- Blocking or obstruction of access roads or hydrants with construction materials, equipment or excavation material is not permitted.

When required, streets, yards and roadways provided for fire department access shall be maintained to always be ready for use in all-weather by fire department vehicles. The access route is to meet the design as outlined in National Building Code – Alberta Edition (NBC-AE) (2023) – 3.2.5.6.

- Minimum 6m clear access width
- Minimum 12m centreline turning radius at corners and turnarounds
- Minimum 5m overhead clearance (building entrance canopies, plus 15 etc.)
- Maximum 8% gradient slope
- Designed to support and 85,000 lbs. load (our heaviest fire truck)
- And access route longer than 90m to have a turnaround, longer than 120m to have emergency access, longer than 200m to have a secondary access road connected to a thoroughfare as per ABC.

NFC-AE (2023), 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 Fire Safety for *buildings*, parts of *buildings*, facilities, adjacent buildings or facilities, and associated areas undergoing construction, alteration or demolition 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*. (Spruce Grove Fire Services – Fire Safety Codes Officer (SCO-Fire)) 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 SCO-Fire.

A Fire Safety Plan must address, in a manner acceptable to SCO-Fire, all requirements of the NFC-AE (2023).

This information is being provided for the construction industry as an aid in preventing injury and fires in and around construction 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 provisions to adhere to the various codes and standards applicable to their project or business.

Please submit your completed fire safety plan to Spruce Grove Fire Services (Fire Prevention) at the time of development permit application.

Fire Safety Plan

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

Building Name/Site Address:	
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Street address of the site is to be always posted and clearly visible for all emergency response personnel including police, fire, and ambulance.

Description of Project

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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 911?)

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Provide a list of instructions for site personnel to follow when an alarm is sounded: (E.g. Evacuate to the muster point and report attendance to site supervisor.)

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Check off each requirement when completed.

	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:	
	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: <ul style="list-style-type: none"> • Where is the fire or injury located on site? • Is everybody on site accounted for? 		
	Name of person responsible:		
	Assigned site fire warden(s) and various trades represented.		
	Fire extinguisher PASS instructions are displayed		

2. Training site personnel on evacuation procedures including:

Site orientation (familiarize on site personnel visitors on emergency procedures.)

Name of person responsible:	
	Regular site fire safety meetings are incorporated into regular safety meetings.
	Simulated fire drills as applicable and warranted.

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

4. Fire Fighting Services – unobstructed hydrant, fire department connection (FDC), sprinkler, temporary access route, standpipe.

Access to FDC or other fire extinguishing equipment, whether permanent or temporary, should be provided and always maintained.

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

	I have read and understand the requirements of the Spruce Grove Fire Services Emergency Access Standard .	
	Fire hydrants (maintain 2-meter access around hydrants)	
	Fire hydrants activation flow date:	
	Internal Standpipe System (existing)	
	Fire Department Connection	
	Emergency access routes	

Submit drawings showing location of firefighting systems such as:

- Hydrants
- Fire department connections
- Muster point(s)
- Access to building – 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 project commencement and must meet the provisions outlined in Standata FCI-09-01 Water Supplies and access for Firefighting; this must be designed to support firefighting equipment (85,000kg) and have a clear width less than 6m

5. Fire Extinguisher

	Provide sufficient numbers and sizes (2A10BC on movable equipment and 3A40BC in all other locations)		
	Serviced and tagged by a certified agency, within the year and mounted, with proper signage, where workers are present and at exit locations on every level, and meet the required travel distance between extinguishers (82ft or 25m)	Service Date:	
	At or near gas or propane fuel operated equipment		
	At or near areas where combustibles are stored		
	Adjacent to any hot works operations		

6. Hot Works Operations

Hot works operations to be maintained and situated as described in NFC-AE (2023) – 5.2; 5.2.2, 5.2.3 with a Fire Safety Plan as outlined in NFC-AE (2023) – 5.1.5.1 and 2.8.2.

Does your scope of work require Hot Works Operations?		YES		NO
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If "Yes" Please 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, Thermite welding, brazing, soldering, grinding, thermal spraying, thawing pipe, torch applied roofing or membrane adhesive bonding, or any other similar heat-producing activity.

	The area shall be clear of flammable and combustible materials
	Fire watch assigned during hot works operation and for a period not less than 60 minutes after its completion
	A final inspection of the hot works area shall be conducted 4 hours after completion of work
	If hot works are in the proximity of combustible or flammable contents, provisions have been made for the protection of such contents by noncombustible materials, thermal barrier or other means
	Work being performed by trained or certified personnel
	A fire extinguisher (4A40BC) is always present
	Proper ventilation, as required
	If hot tar pots are on site, provide fire extinguishers; hot tar pots must only be used by trained personnel and located away from combustible materials

7. Flammable / Combustible Liquid and Compressed Gas Storage

Compressed gas cylinders are to be used and stored as per NFC-AE (2023) – 3.3.5 with fire safety plan as per 5.2.3.7 and fire watch as per 5.2.3.3.

Temporary heating equipment is to provide separation and protection to the propane cylinders, lines and valves from construction vehicles and combustible storage as per NFC-AE (2023) – 5.6 CAN/CGA-B149.2-M95 – National Standard of Canada – propane Installation Code.

Does your scope of work require the storage of flammable/combustible liquids or compressed gases?		YES		NO
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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 to have proper signage or placards in place
	A current list of dangerous goods on site
	A 3A40BC fire extinguisher near storage and work areas
	Storage area away from egress and access routes to the site

8. Security

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

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9. Contact Personnel

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

Phone Number and Contact Information

Job Name	
Job Number	
Job Address	
Site Phone Number	

Emergency Response Team

	Name	Phone	Email
Site Superintendent			
Project Manager			
Safety Advisor			
Operations Manager			
Branch Manager			

Emergency Contact Numbers

Service	Phone Number	Service	Phone Number
Fire/Police/Ambulance	911	Spruce Grove Planning	780-962-7582
Environmental Protection Agency	1-800-222-6514	Spruce Grove Fire Services	780-962-4496
OH&S Provincial Dispatch	1-866-415-8690	Weather-Environment Canada	1-800-239-0484
Fortis Emergency 24hrs (Electric)	1-800-661-0097	Poison Control Centre	1-800-332-1414
ATCO Emergency 24hrs (Gas)	780-420-5585	Alberta One Call	1-800-242-3447
SGPW Emergency 24hrs (Water)	780-886-0115	Dangerous Goods Disaster Services	1-800-272-9600

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

Will any part of this building continue to be occupied during construction, alteration or demolition operations?		YES		NO
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If "Yes", refer to the following code requirements and describe how these provisions will be met.

NFC-AE (2023) 5.6.1.12. (1) Fire Separations in Partly Occupied Buildings

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 hr.

NFC-AE (2023) 5.6.1.21. (3) Occupied Buildings

Required exits from the occupied area shall be maintained or alternate means of egress shall be provided.

Is the existing building protected by a Fire Alarm System, Sprinkler System, or Standpipe System?		YES		NO
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If "Yes", refer to the following code requirements and describe how these provisions will be met.

NFC-AE (2023) 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 temporarily shut down during construction, alteration or demolition operations, protection during shutdown shall comply with Article 6.1.1.4.

NFC-AE (2023) 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-AE (2023) 5.6.1.14. Watch

1) A watch, with tours at intervals of not more than 1hr, 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 1 h, shall be provided when a portion of the building is occupied while construction operations are taking place.

3) Facilities shall be provided a watcher referred to in Sentences (1) and (2) to

- a) Ensure a fire warning is sounded to notify occupants, and
- b) Communicate with the fire department

Does your scope of work require a standpipe system?		YES		NO
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If "Yes", refer to the following code requirements and describe how these provisions will be met.

NFC-AE (2023) 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 ABC 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 ABC 3.2.5.
 - 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 systems shall remain in service until the permanent standpipe installation is complete.

- 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 storeys below the one being demolished, except for the storey immediately below it.

This Fire Safety Plan has been designed and submitted by:

Company	Contact Name	Date
Phone Number	Email Address	

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