

DWV Fire & Rescue Services

Guide to Building Occupancy Approval

Fire Department Guide to Building Occupancy Approval (February 2026)

The following information is provided as a guide to assist you with obtaining final occupancy acceptance. This is being done to ensure that the common Fire Department requirements related to all new construction can be addressed as early as possible in the development of a new project.

The Site Superintendent is encouraged to contact the Fire Prevention Office early in the construction phase to establish a working relationship between the Fire Department and the Developer at the site. Email fireprevention@westvancouver.ca

Documentation

Prior to the Fire Department recommending occupancy acceptance to the Building Official, all documentation required is to be provided to the District of West Vancouver, including, but not limited to:

- Fire Alarm Verification Report and Certificate
- The ULC monitoring certificate is to be posted by the dialer
- Sprinkler Test Certificate (as per NFPA 13)
- Standpipe System riser schematic for Highrise Buildings (18m+)
- Sprinkler Engineer Schedule C/B
- Letter of Intent to demonstrate compliance with Radio Amplification Bylaw No. 5164, 2021.
- E-Comm In-Building Communications System Verification Report (if applicable)
- Fire and Life Safety Integrated System Test Report as per CAN/ULC-S1001
- Emergency Generator Verification Report
- Fire Pump Report
- Other documentation of fire and life safety systems as may be required

Fire Department Architectural Drawing Set

A Fire Department-Specific site plan drawing is required in the Code Compliance drawing set. This drawing is to include:

- Fire truck access route with weight considerations and turning radiuses noted
- Rollover curbs for all fire truck access routes to be noted
- Existing and proposed fire hydrant locations
- Dimensioned distance between hydrant(s) and fire department connections
- All proposed FDC locations
- Travel distances to all entrances from the primary access point
- Clearly identify the FD response point
- Fire Alarm Annunciator Panel and Fire Alarm Control Panel locations
- Proposed FD 3" lock cylinder location
- Proposed Fire Safety Plan & Operations Box location
- No Parking Fire Lane locations
- Proposed designations i.e. Stair A, Stair B etc.
- All entrances and exits from underground parking areas



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Resources

Fire Rescue Bylaw No. 5163, 2021

[Fire Rescue Bylaw No. 5163, 2021 | District of West Vancouver](#)

In-Building Emergency Responder Communications Enhancement Systems.

[Radio Amplification Bylaw No. 5164, 2021 | District of West Vancouver](#)

[Radio Amplification Bylaw No 5164 2021 Letter of Intent \(LOI\) Template.pdf](#)

A *Letter of Intent* is to be submitted with the Building Permit application outlining the intent to conduct radio coverage testing when the construction of the building is substantially complete, when all interior and exterior doors and windows have been installed as per District of West Vancouver Radio Amplification Bylaw No. 5164, 2021, effective date: December 13, 2021

Wildfire Hazard Development Permits

[Wildfire Hazard Development Permits | District of West Vancouver](#)

Hot Works Dangerous Goods/Compressed Gas Permits

[Fire Permits | District of West Vancouver](#)

Permits must be obtained as per Fire Rescue Bylaw No. 5163, 2021 Part 11. Permits are to be available for inspection on site.

Construction Fire Safety Plans and Fire Safety Plans

[Fire Safety Plan and Pre-Incident Plan Program | District of West Vancouver](#)

A Construction Fire Safety Plan to be submitted to the FD before construction starts as per Fire Rescue Bylaw No. 5163, 2021, Part 7.17 – 7.19. Prior to final occupancy being granted by the Building Official, a Fire Safety Plan and Pre- Incident Fire Plan produced by a professional fire safety planner is to be submitted to the FD as per Fire Rescue Bylaw No. 5163, 2021, Part 7.20 – 7.22

Fire Inspection Bulletins

[Fire Inspection Guidelines | District of West Vancouver](#)

Tower Cranes

The setup and de-mobilization of a tower crane in West Vancouver will require a Street Occupancy Permit. Engineering & Transportation: streetoccupancy@westvancouver.ca
A Rescue Service Agreement with West Vancouver Fire & Rescue must be entered into before a tower crane becomes operational. An application for this service is made through THARRP (Technical High Angle Rescue Rope Program) which is administered by the BC Safety Construction Alliance (BCSCA)

Visit: <https://tharrp.bccsa-services.ca/> to create an account with the BC Safety Construction Alliance or email your enquiry to info@bccsa.ca to start the application process. After setting up your BCSCA account and submitting your application, contact the West Vancouver Fire Rescue Services Training Division at wvfrtraining@westvancouver.ca to schedule a site visit from the Fire Department for tower crane rescue planning.



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⚠ **INDUSTRY ALERT: THERMAL RUNAWAY HAZARD**

Safety authorities including the NFPA, OSHA, and provincial Fire Marshals now classify unregulated lithium-ion charging banks as a critical life-safety hazard due to the explosive, rapid-heating nature of "thermal runaway." The following requirements reflect enforceable North American standards designed to prevent catastrophic fire spread and protect worker egress. To mitigate this hazard, all battery charging stations must adhere to the following strict safety protocols:

- Do not leave batteries charging unattended overnight unless housed in a **certified, fire-rated charging cabinet**.
- Locate charging banks on non-combustible surfaces, at least 3 metres away from combustible storage, waste bins, and flammable liquids.
- Never place charging stations in stairwells, corridors, or primary exit routes.
- Use only Original Equipment Manufacturer (OEM) chargers and batteries. Aftermarket or modified batteries are strictly prohibited.
- No Daisy-Chaining: Plug chargers directly into approved receptacles. Do not link multiple extension cords or power bars.
- Isolate: Immediately remove any dropped, swollen, punctured, or abnormally hot batteries from the building. Store them outside in a non-combustible container (e.g., a metal bucket with sand) pending safe disposal.

Code Provisions for Firefighting

Disclaimer: The following information is a *general* reminder to developers and builders of the legislative requirements related to emergency service vehicle access and firefighting capabilities for any site applying for Building Permits. Some 'Notes' and 'Articles' referenced in the codes below may not be present in this document. Always refer to the BCBC and BCFC for code references. The FD does not provide code consulting services to developers.

Portable Fire Extinguishers

In new dwellings within the District of West Vancouver, all construction of new dwelling units require the installation of a fire extinguisher (minimum 5lb. A.B.C. Dry Chemical). The fire extinguisher must be ULC or CSA approved, installed on the same floor level as the kitchen. This applies to *all units* within multi-residential and high-rise buildings.

In dwellings that are undergoing renovation/addition within the District of West Vancouver, the construction of an addition to an existing dwelling requires the installation of a fire extinguisher (minimum 5 lb. A.B.C. Dry Chemical). The fire extinguisher installed must be ULC or CSA approved installed on the same floor level as the kitchen.

BCFC - Part 2- Building Occupant Fire Safety - Division B - Section 2.5. Fire Department Access to Buildings - 2.5.1. General

2.5.1.1. Access to Building

- 1) Fire department vehicles shall have direct access to at least one face of every building by means of a street, yard or roadway in conformance with the British Columbia Building Code.

2.5.1.2. Access Panels and Windows



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1) Access panels or windows provided to facilitate access for firefighting operations shall be maintained free of obstruction.

2.5.1.3. Access to Roof

1) Where access to a roof is provided for firefighting purposes, keys shall be provided for locked roof access doors and kept in a location determined in cooperation with the fire department.

2.5.1.4. Access to Fire Department Connections

1) Access to fire department connections for sprinkler or standpipe systems by firefighters and their equipment shall be maintained free of obstructions at all times.

2.5.1.5. Maintenance of Fire Department Access

- 1) Streets, yards and roadways provided for fire department access shall be maintained so as to be ready for use at all times by fire department vehicles.
- 2) Vehicles shall not be parked to obstruct access by fire department vehicles and signs shall be posted prohibiting such parking.

BCBC - Part 9 Housing and Small Buildings - 9.10 Fire Protection

9.10.20.3. Fire Department Access to Buildings

1) Access for fire department equipment shall be provided to each building by means of a street, private roadway or yard. (See Notes A-9.10.20.3.(1) and A-3.2.5.6.(1).)

2) Where access to a building as required in Sentence (1) is provided by means of a roadway or yard, the design and location of such roadway or yard shall take into account connection with public thoroughfares, weight of firefighting equipment, width of roadway, radius of curves, overhead clearance, location of fire hydrants, location of fire department connections and vehicular parking.

BCBC - Part 3 Fire Protection, Occupant Safety and Accessibility - 3.2.5 Provisions for Firefighting

3.2.5.4. Access Routes

- 1) A *building* which is more than 3 *storeys* in *building height* or more than 600 m² in *building area* shall be provided with access routes for fire department vehicles
 - a) to the *building* face having a principal entrance, and
 - b) to each *building* face having access openings for firefighting as required by Articles 3.2.5.1. and 3.2.5.2. (See Note A-3.2.5.4.(1).)

3.2.5.5. Location of Access Routes

- 1) Access routes required by Article 3.2.5.4. shall be located so that the principal entrance and every access opening required by Articles 3.2.5.1. and 3.2.5.2. are located not less than 3 m and not more than 15 m from the closest portion of the access route required for fire department use, measured horizontally from the face of the building.
- 2) Access routes shall be provided to a building so that



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- a) for a building provided with a fire department connection, a fire department pumper vehicle can be located adjacent to the hydrants referred to in Article 3.2.5.15.,
- b) for a building not provided with a fire department connection, a fire department pumper vehicle can be located so that the length of the access route from a hydrant to the vehicle plus the unobstructed path of travel for the firefighter from the vehicle to the building is not more than 90 m, and
- c) the unobstructed path of travel for the firefighter from the vehicle to the building is not more than 45 m.

3) The unobstructed path of travel for the firefighter required by Sentence (2) from the vehicle to the building shall be measured from the vehicle to the fire department connection provided for the building, except that if no fire department connection is provided, the path of travel shall be measured to the principal entrance of the building.

4) If a portion of a building is completely cut off from the remainder of the building so that there is no access to the remainder of the building, the access routes required by Sentence (2) shall be located so that the unobstructed path of travel from the vehicle to one entrance of each portion of the building is not more than 45 m.

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 m, unless it can be shown that lesser widths are satisfactory,
 - b) have a centre-line radius not less than 12 m,
 - c) have an overhead clearance not less than 5 m,
 - d) have a change of gradient not more than 1 in 12.5 over a minimum distance of 15m
 - 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 m long, and
 - g) be connected with a public thoroughfare. (See Note A-3.2.5.6.(1).)
- 2) For buildings conforming to Article 3.2.2.50. or 3.2.2.58., no portion of the access route described in Sentence 3.2.2.10.(3) shall be more than 20 m below the uppermost floor level.

For any dead-end portion of an access route exceeding 90m

If an existing turnaround is proposed to satisfy this requirement, its acceptability based on relevant design guidelines needs to be demonstrated through a submitted analysis.



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WVFR Apparatus Weights and Size Specs

As per BCBC 3.2.5.6 fire access roads to be constructed to withstand a weight of 36,287 KG (80,000 lbs), and construction material must ensure accessibility under all climatic conditions.

Solid, paved surfaces accepted (no Grasscrete)

Engine: Height – 10'3" Length – 31'6" Width – 10'5" Gross Weight 47,000 lbs
Tower: Height – 10'11" Length – 43'1" Height – 10'2" Gross Weight 75,000 lbs

3.2.5.7. Water Supply

- 1) Every building shall be provided with an adequate water supply for firefighting. (See Note A- 3.2.5.7.(1).)
- 2) Buildings that are sprinklered throughout with a sprinkler system conforming to Article 3.2.5.12. or have a standpipe system conforming to Article 3.2.5.8. to 3.2.5.10. are deemed to comply with Sentence (1).

3.2.5.8. Standpipe Systems

- 1) Except as permitted by Sentence 3.2.5.9.(4), a standpipe system shall be installed in a building that is
 - a) more than 3 storeys in building height,
 - b) more than 14 m high measured between grade and the ceiling of the top storey, or
 - c) not more than 14 m high measured between grade and the ceiling of the top storey but has a building area exceeding the area shown in Table 3.2.5.8. for the applicable building height unless the building is sprinklered throughout.

3.2.5.9. Standpipe System Design

- 1) Except as provided in Sentences (2) to (6), Articles 3.2.5.10. and 3.2.5.11., and Sentence 3.2.4.9.(2), the design, construction, installation and testing of a standpipe system shall conform to NFPA 14, "Installation of Standpipe and Hose Systems."
- 2) A dry standpipe that is not connected to a water supply shall not be considered as fulfilling the requirements of this Article.
- 3) If more than one standpipe is provided, the total water supply need not be more than 30 L/s.
- 4) A standpipe need not be installed in a storage garage conforming to Article 3.2.2.90., provided the building is not more than 15 m high.
- 5) The residual water pressure at the design flow rate at the topmost hose connection of a standpipe system that is required to be installed in a building is permitted to be less than 690 kPa provided
 - a) the building is sprinklered throughout,
 - b) the water supply at the base of the sprinkler riser is capable of meeting, without a fire pump, the design flow rate and pressure demand of the sprinkler system, including the inside and outside hose allowance, and
 - c) fire protection equipment is available to deliver, by means of the fire department connection, the full demand flow rate at a residual water pressure of 690 kPa at the topmost hose connection of the standpipe system (see Note A-3.2.5.9.(5)(c)).
- 6) A fire department connection shall be provided for every standpipe system.



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Standpipe System Riser Schematic Submission

The primary requirement for the standpipe system is the capability to deliver the full demand flow rate of 500 GPM at a residual pressure of 100 PSI (600kPa) at the most remote hose connection (topmost floor).

Standpipe Design Key Review Actions for Code Consultant:

1. Hydraulic Schematic: Designers must submit a riser schematic clearly detailing the static and residual pressures at each level to verify the system's performance.
2. Pressure Integrity: Calculations must demonstrate that the system components (piping, fittings, and valves) can safely withstand the maximum pressure that can be applied by the Fire Department Connection (FDC) when pumping at the pressure necessary to achieve the 500 GPM @ 100 PSI demand.
3. Pressure Mitigation: If the maximum anticipated pressure exceeds 175 PSI, design modifications such as high-pressure piping/fittings and the installation of Pressure-Reducing Hose Valves (PRHVs) on lower floors will be required.
4. Connections: Fire department hose connections for standpipes shall be in protected exits.

3.2.5.15. Fire Department Connections

- 1) The fire department connection for a standpipe system shall be located so that the distance from the fire department connection to a hydrant is not more than 45 m and is unobstructed.
- 2) The fire department connection for an automatic sprinkler system shall be located so that the distance from the fire department connection to a hydrant is not more than 45 m and is unobstructed.

Fire Protection During Renovation, Construction and Demolition

The following information is a general reminder to developers and builders of the legislative requirements related to construction and demolition sites. This is not a comprehensive list of applicable codes.

Construction fencing all openings accessible from the ground level must be boarded up to prevent entry of unauthorized persons. Monitor the site frequently, if unauthorized activity is found, notify the Fire Department as additional measures may be required.

Renovation of Existing Sites

All aspects of construction fire safety planning apply to the renovation of existing sites. If the fire alarm cannot remain fully operational during the renovation, a fire watch will be required. Fire Watch requirements are detailed in Fire Rescue Bylaw No. 5163, 2021, Fire Watch Part 7.10 – 7.11

BCFC Section 5.6. Construction and Demolition Sites

Prior to construction proceeding above grade, a water supply must be connected to the fire suppression system. The water supply must be capable of supplying full water demand to the system as designed by the sprinkler engineer. The standpipe systems will be installed progressively in conformance with BCBC 3.2.5. The Standpipes must be wet unless there is a threat of freezing as per A- 5.6.1.6. Manual dry standpipes do not comply with the BC Building



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Code 3.2.5.9. (A dry standpipe that is not connected to a water supply shall not be considered as fulfilling the requirements) The Fire Department Connection (FDC) must always be accessible from the exterior of the construction fencing.

Interface Construction Protocols

As per Fire Rescue Bylaw No. 5263, 202, 8.12 – 8.14

8.12 High-risk construction and demolition activity, as defined in the North Shore Interface Construction and Maintenance Protocol for High-Risk Work During Periods of Extreme Fire Danger Ratings, will require a site-specific Construction Fire Safety Plan which must be available on site for review by the Fire Chief on request.

8.13 High-risk construction and demolition activity during high and extreme fire danger rated days, as established, or declared by the province, requires submission and acceptance of an interface construction mitigation checklist in the form required by the Fire Department.

8.14 The Owner(s) or Owner's Authorized Agent must:

- (a) Provide all mitigation measures that are required in the Construction Fire Safety Plan and/or the interface construction risk mitigation checklist, as applicable.
- (b) Where a site inspection is required to confirm that mitigation measures are in place during construction and/or demolition, pay the applicable fee prescribed in the Fees and Charges Bylaw; and
- (c) Ensure that the mitigation measures required pursuant to subsection 8.14(a) are complied with and/or must comply with any order by the Fire Chief to cease and desist any or all activities on site.

Once the Fire Danger Rating progresses from HIGH to EXTREME, all high-risk construction activity in interface and/or park areas (within 10 metres of the forest) shall cease at 3 pm each day and a minimum two-hour fire watch is required after construction ceases.

Examples of high-risk activity may include, but are not limited to:

Preparation or use of Explosives, Excavating, Drilling, Grinding, Hot works such as welding, Mechanical Brushing or Land Clearing, Trenching, Using Fire or Spark Producing Tools, Including Cutting Tools, Using or Preparing Fireworks or Pyrotechnics.

Some activities may continue as per the guidelines. See details here - *North Shore Interface Construction and Maintenance Protocol for High-Risk Work during Periods of Extreme Fire Danger Ratings*. [2022 WVFR - High Risk Work During Extreme Fire Danger - Contractors.pdf](#)

Shipping Containers in West Vancouver

Shipping containers used on-site must comply with Fire Rescue Bylaw No. 5163, 2021 Shipping Containers Part 9.65 – 9.72. Expect compliance inspections.



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Fire Department Lock Boxes

As per Fire Rescue Bylaw No. 5263, 2021, Part 9.2 all premises, not including single family dwellings, with a monitored or unmonitored fire alarm or an automatic fire sprinkler system, must

install a 3" Fire Department Key Cylinder or 4" Lock Box in a location approved by the Fire Department. Additional Fire Department Key Cylinders or Lock Boxes may be required at the discretion of the Fire Department. FD Key Cylinders are to be placed between 36" and 40" above the grade whenever practical.

FD Key Cylinders require coring into a minimum of 8" of rebar-free concrete. All new FD Key Cylinders are to be protected from water ingress either by placement under an overhang or by silicon or caulking sealed rain hood and must be within 5m of the main entrance and must be installed as per the manufacturer's instructions at the correct angle for drainage, and orientation. 3" Cylinder cores have a weld line that must be oriented **up** to ensure the cap is aligned correctly. All FD Key Cylinders and lock boxes to be sealed at the concrete interface with waterproof mastic type sealant.

Three locksmith companies have been approved to install and maintain these cylinders/boxes for buildings in West Vancouver. It is the responsibility of the developer or property owner to make the arrangements with the locksmith for installation of these cylinders.

Approved Vendors:

- Tidey Lock & Key Ltd – <https://www.tideylockandkey.ca/>
- Silverline Security Ltd – <https://silverlinelocksmith.ca/>
- Armoured Entry Systems - <https://armouredentrysystems.com/>

FD Key Access Requirements – Key Checklist: (Access to private residential areas not required) Front Door / Fire Alarm Panel / Fire Safety Plan Box / Elevator Keys / FF Phone Box / Mag Lock Reset Key / Master Key / Digital Keypad Codes / Stairwell Doors / Storage Garage Overhead Gate Clicker – Code / Storage Garage Man Doors / Electrical Room / Electrical Closets and all Electrical Cabinets within / Sprinkler Room / Boiler Room / Storage Rooms / Garbage Room / HVAC Room / Elevator Machine Room / Generator Room / Roof / Utility - Maintenance - Janitor Rooms / Gas Meter Cages / Recreation & Meeting Rooms / Exterior Gate Hasp Locks

Note on Elevator Keys: As the fire fighters will most likely need to leave the elevator key in the elevator cab, it is required that these keys be on a separate detachable key ring that allows the fire fighters to unclip it and leave it in the elevator. For buildings with multiple elevators, a set for each elevator is required.



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Acceptable 3" FD Key Cylinder & 4" Lock Box Installations:



Enclosed Storage Garages for Vehicles

“Enclosed Storage Garage” means a structure built within a common area of a Storage Garage. Enclosed Storage Garages in any multifamily residential development must comply with the Fire Code and Building Code as per DWV Fire Rescue Bylaw 5163, 2021, Part 9.60

Design must not include storage units, cabinets, or shelving, whether combustible or non-combustible, within Storage Garages and Enclosed Storage Garages. Enclosed Storage Garages must be designed to allow for visibility of the garage contents in such a way that routine visual inspection by the Fire Department is not impeded by a solid door.

“NO STORAGE PERMITTED EXCEPT IN COMPLIANCE WITH THE FIRE AND BUILDING CODE” signage is to be posted in all Enclosed Storage Garages in clear view of the parked vehicle in red text on white background with a red border.

The developer is prohibited from marketing or representing enclosed storage garages as "convertible into storage" or any other alternative use. These spaces are designated strictly for their approved purpose, and all promotional materials, sales agreements, and site descriptions must reflect this limitation to ensure compliance with the approved building use and applicable codes.



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Signage, Labels, Graphics and Certificates

Shop drawings for the fire alarm graphic annunciator panel, fire department connection signage, and stair labeling are to be submitted to WVFRS for review and approval prior to manufacture and installation.

Post MOT-standard (black block lettering, black boarder on white background) weight limit signage at the entrance of all elevated slabs, turn courts, and parking decks to indicate maximum allowable loads.

Fire Doors. As per Fire Rescue Bylaw No. 5163, 2021, Part 9.7 Every door used as a closure within a Fire Separation must have a permanent sign posted on the visible side of the door when the door is in the open position with the words "FIRE DOOR KEEP CLOSED".

Fire Alarm System Monitoring and Certificate Posting. As per Fire Rescue Bylaw No. 5163, 2021, Part 9.27 The Owner or Owner's Authorized Agent of any Building required by the Building Code or Construction Bylaw to have a monitored Fire Alarm System installed as per ULC S561 must obtain a ULC Certificate or equivalent as approved by the Fire Chief and post it in a permanent manner in close proximity to the monitoring equipment or such other location acceptable to the Fire Chief.

Every entrance to a passenger elevator shall have a permanent sign or symbol on each floor at each elevator entrance (above or adjacent to the call button); this symbol shall be at least 100 mm in height and width and indicate "In Case of Fire Do Not Use Elevator, Use Stairs". The sign should also incorporate universal fire safety symbol in accordance with NFPA 170. BCFC 2.8.2.7. (4).

Every Firefighter Elevator shall have a permanent sign inside the car above the firefighter control switch that indicates manufacturers "Instructions for Firefighter Operations Mode".

All service rooms and mechanical room doors to be clearly labelled indicating their purpose: Electrical Room, Water Entry Room, Sprinkler Room, Boiler Room, HVAC Room, Elevator Machine Room, Generator Room etc. 'No Storage Permitted' signage is to be posted on all service rooms and mechanical room doors.

All main electrical disconnect switches to be labelled to allow for immediate identification by firefighters, including electric vehicle disconnect switches in electrical room.

All sprinkler system flow switches and tampers to be clearly marked and accessible to authorized persons as per NFPA13 with metal or rigid plastic signs. This includes signage on the valve room door and on access panels for all floor zones, shut off and control valves.

Fire Department "Wayfinding" signage may be requested the building (exterior and interior). Load limit signs to be installed at the entrance of elevated structures, parking decks, or driveways where load limits apply. Overhead clearance height signage is required if applicable.

Entrance to the storage garage(s) is to be clearly identified with signage indicating which



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level(s) each entrance accesses. Level marking within the storage garage to be comprised of white lettering on a black background placed on both sides of every third pillar at an easily visible height throughout all levels.

Floor Identification

Stair designations to be Alphabetical. For example, stairs to be designated as such: Stair A, Stair B, Stair C, Stair D etc. Examples of stair designations that will *not* be accepted: Stair 1, Stair 2, Stair 3, Stair A1, Stair A2, Stair B1, Stair B2 etc. Levels are to be referred to as such, *not* as Floors on all signage, labels, and graphics. For example, STAIR B LEVEL 10. Stair labels will be placed on both sides of the doors.

As per Fire Rescue Bylaw No. 5163, 2021, Part 9.8 The Owner(s) or Owner's Authorized Agent of every Building greater than 4 stories must ensure that the following requirements are complied with:

- (a) Display conspicuous signage of the floor level in all stairwells at each floor level. The dimensions and type must be not less than 50 mm by 100 mm on permanent plastic laminate or equivalent material;
- (b) Have stair lettering as follows:
 - (i) main exit stair from lobby to floor levels above is to be Stair A;
 - (ii) other exit stair is to be Stair B; and
 - (iii) no Building or complex may duplicate stair letters, other than as stated in section 9.8(c);
- (c) For complex sites where there is more than one tower on a common podium and/or parkade, Stair A and Stair B should be duplicated in each tower. There must be no further duplication of Stair A and Stair B;
- (d) Numbering must not be used for stair signage;
- (e) Stair lettering plan for complex sites is to be submitted to the Fire Department and the Building Official for review;
- (f) Stair letters and floor level are to be clearly posted on both the inside of the stairwell and on the corridor side;
- (g) Cross Over Floors in a high building as defined by the Building Code, must be posted on the inside of the stairwell and identified on the fire alarm graphic annunciator; and
- (h) Stair letters in a high building as defined by the Building Code, must be identified on the fire alarm graphic annunciator.

Note Regarding Crossover Access to Floor Areas

Where stairwell doors are locked to prevent entry into floor areas from an exit stair, BCBC Sentence 3.4.6.18.(4)(a) requires the following: *Locked doors intended to prevent entry into a floor area from an exit stair shall be identified by a sign on the stairway side to indicate the location of the nearest unlocked door in each direction of travel.*

For each locked stairwell door within the exit stair enclosure, the following must be provided:

- A permanent sign installed on the stairway (interior) side of the door.
- The sign must clearly indicate:
 - The nearest unlocked floor above, and
 - The nearest unlocked floor below.
 - This requirement applies to all locked re-entry doors serving exit stairs.



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Example:



Fire Hydrant Requirements

New Fire Hydrants to be installed in accordance with Fire Rescue Bylaw No. 5163, 2021, Part 9.79 – 9.81. Private fire hydrants to be painted red with a green top cap. As part of the development of the property, the Fire Chief may require an Owner to provide additional fire hydrant(s) and/or FDC's to be located and installed to address Fire Department operational needs.



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Fire Department Connection (FDC) Signage

Signage shall be made from weatherproof metal or rigid plastic and have white letters on a red plate or fitting. Title text must be at least 2.5 in. (63.5 mm) in height, and all other text at least 1 in. (25mm) in height. Drawings of signage must be submitted to the Fire Department for approval prior to production and placement. See end of this document for FDC signage examples.

FDC Signage Wording: Required terminology to appear in this order.

- **Title:** FDC (2.5 in.)
- **Building Address:** (example) 760 16th STREET
- **Fire Pump:** FIRE PUMP (*if present*)
- **System Types:**
 - AUTOMATIC WET STANDPIPE
 - AUTOMATIC DRY STANDPIPE
 - MANUAL WET STANDPIPE
 - MANUAL DRY STANDPIPE
 - STANDPIPE AND AUTOSPRK.
 - AUTOSPRK.
- **System Demand @ FDC:** SYSTEM DEMAND @ FDC XXX PSI
- **Maximum Pressure:** MAX PRESSURE XXX PSI
- **Service Area Coverage:** (*examples*) BUILDING C – SOUTH ZONE, ENTIRE COMPLEX, BUILDING A ONLY, BUILDING A & B, SERVES 970 & 950 22ND

Important Notice Regarding System Demand @ FDC: The AHJ (Authority Having Jurisdiction) acknowledges that NFPA 14 allows for the *omitting* of *standpipe* system demand pressures if the required pressure at the FDC inlet is calculated to be 150 PSI or less, and the AHJ also acknowledges that NFPA 13 allows for the *omitting* of *sprinkler* system demand pressures if the pressure required at the FDC inlet is calculated to be 175 PSI or less.

However, the AHJ is exercising its authority and requires all signage to include the *System Demand @ FDC* pressure.

The **System Demand @ FDC** is the specific pressure (*measured in PSI*) required at the FDC inlet to satisfy the building's *most* demanding hydraulic design point. This value is the sum of the design pressure at the *most remote outlet*, plus friction loss through the piping, plus elevation (*head*) loss due to the height of the building.



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Reason for Requirement: The "@ FDC" suffix is required to provide an actionable target for the pumper operator. It translates the internal engineering requirements of the building into a street-level instruction that accounts for all vertical and frictional losses. Displaying this specific value on the signage achieves the following:

1. *Eliminates Math:* Firefighters do not have to calculate "head pressure" for the building's height during an emergency.
2. *Prevents Under-Pressurization:* It ensures the "minimum" code requirements are met at the highest floor.
3. *Ensures Safety:* When used in conjunction with the MAX PRESSURE label, it defines a safe operating window that prevents the accidental bursting of pipes from over-pressurization.

Commercial Kitchens

Commercial cooking equipment, fire suppression, hood, vent and exhaust systems must be installed in accordance with the Fire Code and NFPA 96 - "Ventilation Control and Fire Protection of Commercial Cooking Operations."

Outdoor Dining Areas

No storage is permitted in the outdoor dining area, including spare propane tanks. If storage of propane is to be considered for approval, CSA B149.2:20 Propane Storage and Handling Code must be complied with. If heating devices are to be installed, devices must be installed under permit and incorporate manufacturer's clearances to the building and combustible materials.

- Design to always maintain a 1-meter clear exit path within the outdoor dining area and from the main entrance to the sidewalk
- Design to maintain 1 meter of clearance around Fire Alarm Annunciator and Fire Department Connection.
- Ensure a fire extinguisher is located inside the closest building entrance.
- Combustible canopies, awnings, umbrellas and other materials or decorations must be flame spread rated per the BC Fire Code (CAN/ULC S109). Standards other than CAN/ULC-S109 are not acceptable in BC.
- No cooking or food preparation that produces grease-laden vapors is permitted outdoors.

See Following Pages for FDC Signage Examples



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Standpipe Systems

FDC

BUILDING ADDRESS

AUTOMATIC WET STANDPIPE

SYSTEM DEMAND @ FDC XXX PSI

MAX PRESSURE XXX PSI

SUPPLIES (AREA SERVED HERE)

FDC

BUILDING ADDRESS

FIRE PUMP

AUTOMATIC WET STANDPIPE

SYSTEM DEMAND @ FDC XXX PSI

MAX PRESSURE XXX PSI

SUPPLIES (AREA SERVED HERE)

FDC

BUILDING ADDRESS

AUTOMATIC DRY STANDPIPE

SYSTEM DEMAND @ FDC XXX PSI

MAX PRESSURE XXX PSI

SUPPLIES (AREA SERVED HERE)



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Fire Pump – Automatic Dry Standpipe Sign *Exclusion* Rationale

The most critical information for the pumper operator is the *SYSTEM DEMAND @ FDC* pressure. If a high-pressure building pump is present, its action is accounted for by the high required PSI listed; therefore, the system type *Fire Pump Automatic Dry Standpipe* is excluded.

FDC

BUILDING ADDRESS

MANUAL WET STANDPIPE

SYSTEM DEMAND @ FDC XXX PSI

MAX PRESSURE XXX PSI

SUPPLIES (AREA SERVED HERE)

FDC

BUILDING ADDRESS

MANUAL DRY STANDPIPE

SYSTEM DEMAND @ FDC XXX PSI

MAX PRESSURE XXX PSI

SUPPLIES (AREA SERVED HERE)



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Combined Standpipe Systems

A Combined Standpipe System is one where the piping supplies both the standpipe hose connections, which are used for manual firefighting (*meaning the water stream is physically controlled by a firefighter or trained person*), and the automatic sprinkler system heads.

FDC

BUILDING ADDRESS

STANDPIPE AND AUTOSPRK.

SYSTEM DEMAND @ FDC XXX PSI

MAX PRESSURE XXX PSI

SUPPLIES (AREA SERVED HERE)

FDC

BUILDING ADDRESS

FIRE PUMP

STANDPIPE AND AUTOSPRK.

SYSTEM DEMAND @ FDC XXX PSI

MAX PRESSURE XXX PSI

SUPPLIES (AREA SERVED HERE)

FDC

BUILDING ADDRESS

AUTOSPRK.

SYSTEM DEMAND @ FDC XXX PSI

MAX PRESSURE XXX PSI

SUPPLIES (AREA SERVED HERE)

FDC

BUILDING ADDRESS

FIRE PUMP

AUTOSPRK.

SYSTEM DEMAND @ FDC XXX PSI

MAX PRESSURE XXX PSI

SUPPLIES (AREA SERVED HERE)



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