

FIRE SAFETY PLAN '19

CASCADE HEIGHTS ELEMENTARY

4343 SMITH AVENUE
BURNABY, BC



Burnaby School District 41
Maintenance Services Centre
3350 Norland Avenue
Burnaby, BC V5B 3A6



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FIRE DEPARTMENT INFORMATION

APPOINTMENT OF THE SUPERVISORY STAFF

DATE:	AUGUST 2019
FIRE SAFETY DIRECTOR (PRINCIPAL):	ANTHONY YAM
DEPUTY FIRE SAFETY DIRECTOR (HEAD TEACHER):	GABRIEL ANGERILLI
CONTACT INFORMATION:	(604)296-9007 4343 SMITH AVENUE

EMERGENCY CONTACTS

Burnaby Fire Department	911
Non-Emergency Number	604-294-7190
Police	911
Ambulance	911
Poison Control	604-682-5050
B.C. Hydro	1-888-769-3766
Fortis Gas	1-800-773-7001
Fire Alarm System (Community Fire)	604-944-9242
Sprinkler System (Community Fire)	604-944-9242
Portable Fire Extinguishers (Community Fire)	604-944-9242
Emergency Lighting (Community Fire)	604-944-9242
Security Monitoring (O'ron)	604-731-4126
Fire Safety Plan (Burnaby School District)	604-296-6930

BUILDING DESCRIPTION

Building Name	CASCADE HEIGHTS ELEMENTARY SCHOOL
Building Address	4343 SMITH AVE, BURNABY B.C. V5G 2V5
Year of Construction <i>(Original + Subsequent Additions)</i>	1952/1954/1959/1961/1963/1969/1999
Type of Construction	Type V – Wood Frame
Number of levels above grade	1
Number of levels below grade	0
Occupancy	Group A Division 2 (Assembly), BCBC 2012 Part 3.1.2.1
Main Construction Material	Wood
Exterior Walls & Windows	Wood Frame Aluminum Windows
Interior Walls & Finish	Gyproc over Wood Studs – various coverings Concrete Block as firewall between additions
Floors Construction	Concrete & Wood Frame – various coverings
Roof Construction	Wood Roof & Asphalt Membrane
<p>Areas Of Usage</p> <p>MAIN FLOOR = OFFICES, CLASSROOMS, GYM, WASHROOMS, MECHANICAL & ELECTRICAL ROOMS</p>	

FIRE ALARM DESCRIPTION

Manufacturer: **SIMPLEX 4005**

Stage: **SINGLE**

Supervised: **YES**

Monitored: **YES**

Voice Communication: **NO**

Sequence of Operations:

The fire alarm panel can be in one of three modes: Normal, Alarm, and Trouble

There are three lamps you must familiarize yourself with: Power on Lamp (green), Alarm Zone Lamp (red), and Trouble Lamp (yellow).

There are three switches you must familiarize yourself with: RESET, ALARM SILENCE, and TROUBLE SILENCE.

Normal Mode:

The fire alarm system senses that all the components are operating properly. The only visual indication on the panel is the illuminated power-on lamp.

Alarm Mode:

The fire alarm system senses that a component has activated. A lamp will be illuminated on the fire panel indicating what zone has been activated. This will cause an audible alarm in the building and send in signal to the monitoring company.

Upon activation of a component, alarms will sound throughout the building as per code requirements, sending a signal to the monitoring company. The monitoring company will call the Burnaby Fire Department.

Do not silence or reset the fire alarm until the Fire Department has given the all clear to do so.

Reset Mode:

- Acknowledge the alarm
- Press the signal silence button
- Ensure all devices are restored
- Press the reset button (system should reset)
- If the system does not reset, call the contractor responsible for the alarm system

Trouble Mode:

The fire alarm system senses one of the components is not working properly. The trouble light will be illuminated on the panel and there will be an audible alarm coming from the panel. The FSD should contact the service provider and inform the company that the fire alarm system is in trouble mode.

*** A flashing light on the main fire alarm panel and an alert tone sound will indicate a system trouble.**

***Remote Fire Alarm Annunciator Panel**

Location: [Main Entrance – East off of Smith Avenue](#)

***Fire Alarm Control Panel (FACP)**

Location: [Main Electrical Room – adjacent to Main Office](#)

Smoke Detectors:

- [Top of Stairways](#)
- [Corridors](#)
- [Classrooms](#)

Heat Detectors:

- [Mechanical Room](#)

***Manual Pull Station:**

Location: [Adjacent to all designated fire separation and exterior exit doors](#)

***Electrical Disconnect:**

Location: [Main Electrical Room – Adjacent to Main Office](#)

Elevators:

Number: [0](#)

Location: [n/a](#)

Floor Access: [n/a](#)

Emergency Generator: [n/a](#)

Emergency Lighting:

Power Source: [Batteries – 30 minutes / throughout building](#)

***Exiting:**

Locations: [see drawing for green arrow exit locations](#)

Fire Department Access Routes:

[Primary: Smith Avenue – Access lanes to access parking lots](#)

[Secondary: Spruce & Fir Street to access back lane](#)

***Fire Department Connection:**

Location: [n/a](#)

Description: [n/a](#)

Fire Department Lock Box:

Description/Location: [n/a](#)

Fire Pump: [No](#)



***Fire Department Roof Access:** Roof Hatch

Location: South Wing – Custodian’s Room

***Fire Hydrant(s):**

Location: Public – Smith Avenue

***Gas Shut-Off:**

Location: North Parking Lot



Hazards:

There are small amounts of chemicals stored in the custodian closets/rooms.

Smoke Control:

There are windows that can be opened. Some air handling units can be controlled for air movement.

Sprinkler System: No

Control Valve Location: n/a

Coverage: n/a

Standpipe & Hose System: No

***Water Shut-Off Location:**

Location: South Wing – Custodian’s Room

**see floor plan drawings for specific locations*

SITE PLAN DRAWINGS

FLOOR PLAN DRAWINGS

PART 1 – OBJECTIVES OF THE FIRE SAFETY PLAN

GENERAL:

Fire safety planning has three primary objectives. These objectives are:

- Fire Hazard Control.
- Fire Protection System Maintenance.
- Emergency Evacuation.

Fire Safety Planning prevents the occurrence of fire by the control of fire hazards in the building. It ensures operation of fire protection systems by establishing maintenance procedures and provides a systematic method of safe and orderly evacuation of the building in the event of a fire.

EMERGENCY EVACUATION CONCEPT:

Trained supervisory staff can be of great value in directing and assisting the orderly movement of people in the event of a fire and performing fire control until the arrival of the Burnaby Fire Department.

Evacuation procedures relying heavily on supervisory staff are complex in that such staff requires continued training, frequent drilling and must be continuously on the premises in order to fulfil their responsibilities during an emergency. Conducting regular training and meeting sessions heighten the preparedness for required response. A team approach is essential for life saving procedures to have any effect.

Based on these facts, the evacuation objectives outlined in this manual are required to be discussed and practiced regularly with consideration given to all areas of life safety.

EVACUATION SEQUENCE:

During an emergency, all occupants will exit the building via a safe exit. Challenged persons should proceed with their assistants, if available, to the nearest safe exit.

The Instructions for Occupants In Case of Fire posted prominently on each floor area provides quickly read information on procedures to follow in the event of a fire.

Use of this concept should ensure a systematic method of safe and orderly evacuation of the building in the event of a fire.

PART 2 – FIRE SAFETY DIRECTOR, DEPUTY FIRE SAFETY DIRECTOR & FIRE WARDEN’S RESPONSIBILITIES

SUPERVISORY STAFF DESIGNATION

Primary Fire Safety Director:

[Terry Gomez](#)

[Health & Safety Manager](#)

[Burnaby School District #41](#)

[\(604\)296-6930 ext. 661061](#)

School Fire Safety Director: [Principal](#)

School Deputy Fire Safety Director: [School Head Teacher / Vice-Principal\(s\)](#)

(See “appointment of supervisory staff for contact information)

The Fire Safety Director (FSD) is appointed in writing by the building owner. The FSD is not in the building on a continuous basis; however, the FSD must be available to respond to the building on notification of a fire emergency in order to fulfil his or her obligations as described in this Plan. The FSD is required to wear a designated hat or vest understood by occupants of the building as the FSD. In the event that the FSD is unavailable, a Deputy Fire Safety Director (DFSD) must be available to perform the obligations of the absent FSD.

The BC Fire Code requires that the building fire protection and life safety systems receive a variety of regular inspections, service and maintenance. The majority of inspections are generally quick checks to ensure that the particular system is operational and not in need of service. Inspections do not require a high degree of technical knowledge of the particular system, but rather the ability to check for a specific problem and have it corrected. Such inspections can be performed by the FSD where he or she is in the building on a daily basis. Service and maintenance procedures generally involve technical procedures and will be performed by qualified individuals or private contractors specializing in the particular field.

GENERAL INFORMATION

It is important to remember that those persons on and above the floor involved in the fire are in the utmost danger and should be the first to be considered. Those people below the fire may not be in any immediate danger. All key personnel should be instructed as to the location and use of firefighting equipment such as extinguishers and hoses. It is most important that everyone in the building be made well aware of the absolute necessity of keeping stairwell doors closed at all times, except of course when the stairway is actually being used. One door propped or held open could mean that the entire stairway could become a smoke filled shaft and hamper the use of the stairwell as a means of exit. All personnel must be instructed to close all doors behind them as they leave the building.

FIRE SAFETY DIRECTOR DUTIES AND RESPONSIBILITIES

GENERAL:

Administering and maintaining the Fire Safety Plan. This should include:

- Updating the Fire Safety Plan when alterations are made to the building.
- Training of Deputy Fire Safety Director(s).
- Recording information on the following:
 - Fire incidents
 - False alarms
 - Fire drills
 - Discharge or operation of fire equipment
 - Training periods
 - Name, location and disability of challenged persons and their assistants
 - Minutes of fire safety meetings.

Ensuring that fire protection systems are inspected, maintained, and serviced in accordance with the Plan and with the BC Fire Code. Where an inspection, maintenance or testing procedure is beyond in-house capabilities, it is his/her responsibility to have qualified personnel complete the procedure.

Refer to Part 5, Inspection, Maintenance and Testing of Fire Protection Equipment in this Fire Safety Plan for service requirements.

Ensuring that additional precautions are taken to offset the hazard to occupants where fire protection systems are inoperable. This should include:

- Checking the Fire Safety Plan and BC Fire Code when fire protection systems are in need of repair.
- Advising the Burnaby Fire Department of the system status.

Ensuring that building maintenance, alteration or renovation does not expose the building or occupants to undue fire hazards and precautions are taken to ensure building and occupant safety (see Precautions during Repairs, Alterations and Renovations). This should include:

- Checking the Fire Safety Plan and the BC Fire Code when such activities take place to ensure that they meet with the Fire Safety Plan and the BC Fire Code Regulations.

Ensuring the supervisory staff is available to respond to the premises in the event of notification of an emergency. In particular, this should include notifying the DFSD when he/she will not be available.

Provide information to occupants on general fire safety and evacuation procedures. This should include:

- Provide new occupants with Part 6 of the Fire Safety Plan.
- Notifying occupants whenever the FSD or DFSD changes.

- Resolving any fire hazards that are reported by occupants, guests or the Burnaby Fire Department.
- Maintaining familiarity with the building's fire protection systems.
- Become familiar with fire regulations. This should include:
 - Obtain and review a copy of the BC Fire Code 2012.
 - Ensure that electrical rooms are not used for storage.
 - Ensure that established policies are adhered to.

Consider other emergency situations that could affect the building such as earthquakes or natural gas leaks. Notify the alarm monitoring station (if applicable) when emergency contacts change.

FIRE SAFETY DIRECTOR/ DEPUTY FIRE SAFETY DIRECTOR'S EMERGENCY PROCEDURES

EMERGENCY EVACUATION:

The Fire Safety Director shall:

1. Proceed to the main floor or fire command station.
2. Be sure the Burnaby Fire Department has been notified.
3. Liaise with the DFSD and give instructions or requests what you want and need.
4. Control and direct the evacuation once conditions have been determined.
5. Maintain a checklist of floor evacuation and details of any missing or challenged persons for Burnaby Fire Department personnel.

CONTROL OF FIRE HAZARDS IN THE BUILDING

Exits and Aisles – BC Fire Code [2012] 3.2.2.2.

All exits and aisles from the building must be kept free of obstructions at all times.

APPOINTMENT OF FLOOR WARDENS

If the possibility that floor wardens are, or may be required, the client or owner will appoint or delegate a person take on the duties of the floor warden. The name(s) will then be given to the Fire Safety Director. If for any reason the person(s) designated as the Floor Warden changes, the client/owner will make the FSD aware of the change.

Area	FLOOR WARDEN	ASSISTANT FLOOR WARDEN
Ground Floor		
Second Floor		

EVACUATION OF CLASSROOMS

Faculty & Teaching Staff – Responsibilities

Faculty and Teaching Staff must cease instruction at once upon hearing the fire alarm and direct students via the nearest emergency exit to the assembly areas.

Always be aware of the following:

- Location of the Fire Alarm
- Exit routes
- Location of the Fire extinguishing equipment
- Refuge areas
- Assembly area(s)

GENERAL DUTIES OF FLOOR WARDENS

Their primary role is to facilitate the orderly evacuation of their designated floor area to the building's designated assembly area(s).

Another role is to perform a daily check of their designated floor areas for:

- Accumulation of combustible or flammable materials.
- Ignition sources, example: worn extension cords, oily rags, over-heated equipment
- Exits lights illuminated, adequate lighting in the corridors
- Fire and exit doors are required to be closed and latched at all times. Door hardware shall be in good working order. Fire doors must never be blocked or wedged in the open position.
- All exit routes shall never be blocked or obstructed.

PRECAUTIONS DURING REPAIRS, ALTERATIONS AND RENOVATIONS

PORTABLE FIRE EXTINGUISHERS:

Where a service company needs to remove a Fire Extinguisher from the building, a replacement Fire Extinguisher of the same type shall be provided in its place.

BUILDING:

During repairs, alterations and renovations always ensure that the building and its occupants are not exposed to undue fire hazards created by contractors' equipment or supplies that are brought into the building. Frequent inspection of the affected area(s) is suggested in order to ensure the following:

1. Exits are free of any obstructions.
2. Work areas are inaccessible to the building occupants.
3. Contractors have obtained all required building and operation permits.
4. Any flammable and combustible liquids are handled and stored safely.
5. Heat producing equipment such as welding/cutting equipment and portable heaters are used safely.

Where a problem is suspected, the Burnaby Fire Department should be contacted in order to provide advice or perform an inspection.

FIRE WATCH:

When certain components of a building's fire protection systems are not functioning, a Fire Watch must be posted until such issues are corrected.

A FIRE WATCH IS:

- a trained person who continuously patrols the affected area (every 30 minutes),
- is ready to access and use fire extinguishers if necessary, and
- has the ability to promptly notify the Burnaby Fire Department and the building occupants.

Such persons must also be able to help prevent fires from occurring, to extinguish small fires and to protect the public from fire or life safety dangers.

During the patrol of the area, the person should not only be looking for fire, but should make sure that the other fire protection features of the building such as egress routes, common lighting, portable fire extinguishers etc. are available and functioning properly.

Please contact the Burnaby Fire Department to confirm once the building's fire protection systems are fully functioning.

PROCEDURES AFTER FIRE SAFETY EQUIPMENT HAS OPERATED

PORTABLE FIRE EXTINGUISHERS:

When fire extinguishers have been used, a qualified ASTTBC contractor shall service them.

PART 3 – INSTRUCTION TO OCCUPANTS

Occupant Fire Prevention

- No smoking within the building. Smoking outdoors is restricted to 7.5 metres minimum from doorways and air intakes.
- Use large non-tip ashtrays and empty them only when you are sure the ashes, matches and butts are cold. Make sure no one, including visitors, has left cigarettes smoldering in wastebaskets or on furniture.
- Be alert around electrical equipment. If electrical equipment is not working properly or if it gives off an unusual odour - often the first sign of a problem that could cause a fire - disconnect the equipment and call Facilities Management.
- Promptly replace any electrical cord that is cracked or has a broken connection.
- When using extension cords protect them from damage - do not put them across doorways or any place where they will be stepped on or chafed. Check the amperage load specified by the manufacturer or the listing laboratory, and do not exceed it. Do not plug one extension cord into another, and do not plug more than one extension cord into one outlet.
- Extension cords are for temporary use “only” and not to take the place of permanent wiring. Have a qualified electrician install additional outlets if required.
- Keep all heat-producing appliances away from the wall and away from anything that might burn. Leave plenty of space for air to circulate around equipment that normally gives off heat.
- Make sure all appliances in your area - such as coffee makers and hot plates - are turned off when not in use. It is best to assign one person to make this check every day.
- Do your part to keep storage areas, stairway landings, and other out-of-way locations free of waste paper, empty cartons, dirty rags, and other material that could fuel a fire.
- Report fire hazards to the Fire Safety Director.

Fire Preparedness

- Know the location of the two exits closest to your area. Count the number of doors between you and each of those exits - in case you must escape through a darkened, smoke-filled corridor where you can't read the names on the doors.
- Learn where the nearest pull station is located and how to activate it.
- Post the 9-1-1 Burnaby Fire Department Emergency Number on your telephone.
- Learn the sound of your building's fire alarm.
- During the annual fire drill, which will be conducted by the Fire Safety Director, do the following:

- Review the basic *IN CASE OF FIRE* procedures posted in the corridors, and Evacuation Procedures
- Ensure you know who the Fire Safety Director and Deputies are, and how to contact them
- Read the other information provided in *Occupant Fire Prevention, Preparedness, & Control*

INSTRUCTIONS TO OCCUPANTS IN CASE OF FIRE

WHEN YOU DISCOVER A FIRE IN THE BUILDING:

- Leave the fire area immediately.
- Sound the fire alarm by activating the nearest red fire alarm pull station.
- Call the Fire Department, dial **9-1-1** from a safe location and provide school address (located on the front cover).
- Close doors behind you while leaving the building via the nearest safe fire exit.
- Remain calm and assist others.
- Proceed directly to the designated assembly area.

IF YOU HEAR THE FIRE ALARM:

1. Leave the building immediately via the nearest safe fire exit.
2. Close doors behind you while leaving the building.
3. Remain calm and assist others.
4. Proceed directly to the designated assembly area.

GENERAL INFORMATION

While exiting, walk, do not run. Shut all doors behind you and alert those who have difficulty hearing that an emergency evacuation of the building is under way. Proceed along corridors and through exits in a quiet and orderly manner. High-heeled shoes are hazardous while proceeding down stairs, and it is advisable to remove them before entering the stairwell. Do not push or jostle.

Assist persons requiring assistance to reach the nearest safe exit:

When you have reached the outside of the building, move away from the doorway to allow others behind you to emerge from the exit and proceed to the assembly area.

DO not re-enter the building for any reason until you have been advised to do so by the Burnaby fire department.

PORTABLE FIRE EXTINGUISHERS

Portable fire extinguishers are useful only if you know how to use them, if they are right for the type of fire you are fighting, and if the fire is discovered immediately. You should not attempt to fight even a small fire until people have been evacuated from the area and the Burnaby Fire Department has been called. Never attempt to fight a fire if any of the following is true:

- You are uncertain about how to use the extinguisher.
- The fire is spreading beyond the immediate area where it started.
- The fire could block your escape route.
- You are alone.

How To Use A Multi-Purpose Dry Chemical Type Fire Extinguisher

Remember the word: **PASS**



Most portable fire extinguishers work according to these directions, but some do not. Read and follow the directions on the fire extinguishers within your building.

NOTE:

CO₂ (Carbon Dioxide) and K Type Fire Extinguishers require slightly different action. Be sure to read the instructions.

FIRE DRILL PROCEDURES

Annual:

Each year the Fire Safety Director / Deputy Fire Safety Director shall conduct fire drills. All occupants are required to participate in the fire drill and to evacuate the building. Use the following procedures when conducting the fire drill:

- Notify the alarm supervisory service and the Burnaby Fire Department on their non-emergency phone numbers that you are planning to have a fire drill and that you will call them back when the drill is complete.
- Activate a fire pull station to initiate fire alarms throughout the building.
- Evacuate the building.
- The Fire Safety Director / Deputy Fire Safety Director should perform his or her duties as detailed in the Fire Safety Plan.
- Restore the manual fire alarm pull station and then reset the fire alarm system.
- Invite occupants to occupy the building.
- Notify the alarm supervisory service and the Burnaby Fire Department that the fire drill is complete.
- Discuss the fire drill with occupants in an attempt to identify problems.
- Complete the Incident Activity Report.

EMERGENCY RESPONSE

Staff Guidelines

SCHOOL-SPECIFIC INFORMATION

School _____

Room # _____

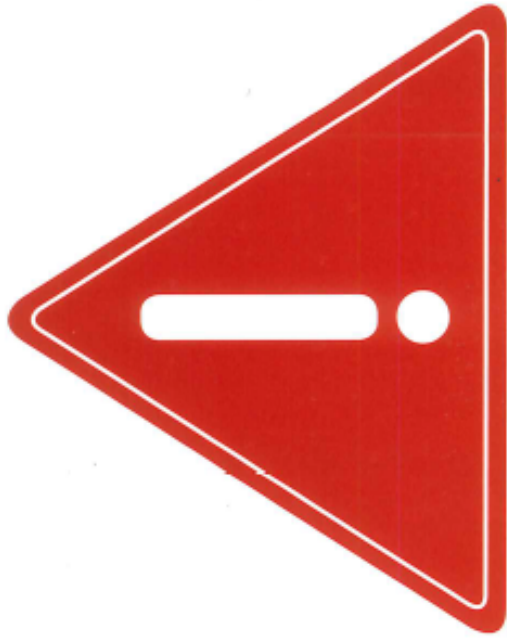
PRIMARY Safe Assembly Area _____

BACKUP Safe Assembly Area _____

OFF-SITE Safe Assembly Area _____

EMERGENCY RESPONSE

Staff Guidelines



burnabyschools.ca



EMERGENCY RESPONSE STAFF GUIDELINES

Every scenario requires your decision making skills.

EVENT	NOTIFICATION	RESPONSE	EXPECTED ACTION
Fire, Bomb Threat, Gas Leak Fire Alarm or PA Announcement	Earthquake, Explosion Feel Shaking	Outdoor Safety Hazard (eg. wild animal, extreme weather, toxic spill) PA Announcement	Neighbourhood Security Concern 5 Bells PA Announcement
Fire, Bomb Threat, Gas Leak Fire Alarm or PA Announcement	Earthquake, Explosion Feel Shaking	Outdoor Safety Hazard (eg. wild animal, extreme weather, toxic spill) PA Announcement	Neighbourhood Security Concern 5 Bells PA Announcement
EVACUATE	DROP-COVER-HOLD ON	SHELTER IN PLACE	HOLD & SECURE
<ul style="list-style-type: none"> Direct students to exit calmly - no talking, pushing, running or cell phone use Grab attendance sheet and close door Go to Safe Assembly Area* Take attendance Remain until released by PWP* or authorities Unassigned teachers and staff go to Safe Assembly Area* 	<ul style="list-style-type: none"> Direct students to "Drop-Cover-Hold On" After shaking stops, wait for at least 60 seconds before evacuating EVACUATE 	<ul style="list-style-type: none"> Direct everyone into the building Close exterior classroom doors and windows Take attendance Remain in Shelter in Place until released by PWP* 	<ul style="list-style-type: none"> Direct everyone into classrooms Be quiet Lock/block all classroom doors Cover all interior windows Lights off (if possible) Get down low, out of sight, away from doors and windows Put cell phones on silent and face down Take attendance Remain in Lockdown until released by PWP* or authorities Any students or staff outside go to Safe Assembly Area*

EVACUATION NOTES:

- Check that exit routes are clear or choose an alternate route if yours is blocked or unsafe.
- Everyone should cover their heads with a bag or book.
- If an aftershock occurs while exiting, "Drop, Cover, and Hold On" until shaking stops.
- Do NOT use elevators.

* **PWP**
Principal, Vice-Principal, Designate, or Supervisor

* **SAFE ASSEMBLY AREAS**
Pre-identified gathering places (see reverse)

CELL PHONE EXPECTATIONS

- 1) Monitor cell phone use
- 2) For safety reasons, do not allow posts to social media
- 3) During a lockdown, put cell phones on silent and face down

PART 4 – INSPECTION, TESTING & MAINTENANCE OF FIRE PROTECTION EQUIPMENT

RESPONSIBILITY: The owner/agent is responsible to ensure that daily, annual testing, inspection, and maintenance of all life safety equipment and systems are carried out and are properly recorded only by qualified technicians.

GENERAL:

The BC Fire Code Regulations require that fire protection installations be maintained in operating condition in accordance with Part 6 BC Fire Code. In most cases, the BC Fire Code does not specify in detail the necessary inspection, maintenance and testing procedures; instead, it references standards such as those developed by the National Fire Protection Association, the Canadian Standards Association, and the Underwriters Laboratories of Canada. Where such standards are referenced by the BC Fire Code, they have been identified in this Plan as "Reference Standard".

RECORDS:

Records of inspection, testing or maintenance of fire protection equipment shall be completed by a qualified (certified) contractor only. Records of inspection, testing or maintenance of fire protection equipment shall be retained for a period not less than two (2) years from the date of such service. Any activities recorded on the Daily Inspection Report are exempted from this requirement.

QUALIFIED ASTTBC CONTRACTORS:

Contractors shall have proper certification (ASTTBC) for performing any inspections or testing of the fire protection systems. Inspection and testing procedures must meet the minimum requirements set by the applicable code. Guidelines for use by the Fire Safety Director containing information of such procedures are available in part of this Plan.

CHIMNEY, FLUE AND FLUE PIPES

Reference & Standard: BC Fire Code Regulations 2012, Section 2.6.1.4

RESPONSIBILITY: Qualified Contractor

2.6.1.6. Operation and Maintenance Procedures

- 1) Heating, ventilating and air-conditioning systems, including *appliances, chimneys* and *flue pipes*, shall be operated and maintained so as not to create a hazardous condition.
- 2) Except for self-contained systems within *dwelling units*, disconnect switches for mechanical air-conditioning and ventilating systems shall be operated at intervals not greater than 12 months to establish that the system can be shut down in an emergency.

CLOSURES & FIRE SEPARATIONS

Reference Standard: BC Fire Code Regulations 2006, Section 2.2.2.4

2.2.2.4. Inspection and Maintenance

- 1) Defects that interfere with the operation of *closures* in *fire separations* shall be corrected, and such *closures* shall be maintained to ensure that they are operable at all times by:
 - a) keeping fusible links and other heat-actuated devices undamaged and free of paint and dirt,
 - b) keeping guides, bearings and stay rolls clean and lubricated,
 - c) making necessary adjustments and repairs to door hardware and accessories to ensure proper closing and latching, and
 - d) repairing or replacing inoperative parts of hold-open devices and automatic releasing devices.
- 2) Doors in *fire separations* shall be inspected at intervals not greater than 24 h to ensure that they remain closed unless the door is equipped with a hold-open device conforming to the British Columbia Building Code.
- 3) Doors in *fire separations* shall be operated at intervals not greater than one month to ensure that they are properly maintained in accordance with Sentence (1), as specified in the Fire Safety Plan prepared in conformance with Section 2.8.
- 4) *Closures* in *fire separations* shall not be obstructed, blocked, wedged open, or altered in any way that would prevent the intended operation of the *closure*.
- 5) *Fire dampers* and *fire stop flaps* shall be inspected at intervals not greater than 12 months to ensure that they are in place and are not obviously damaged or obstructed.

EMERGENCY LIGHTING UNITS

Reference Standard: BC Fire Code Regulations 2012, Section 6.5.1.7

RESPONSIBILITY: Fire Safety Director or Designate

PROCEDURE:

Self-contained emergency lighting unit equipment shall be inspected to ensure that:

- (a) pilot lights are functioning and not obviously damaged or obstructed,
- (b) the terminal connections are clean, free of corrosion and lubricated when necessary,

(c) the terminal clamps are clean and tight in accordance with the manufacturers' specifications,

(d) the battery surface is kept clean and dry, and

(e) the emergency lights will function on failure of the primary power supply.

RECORD KEEPING: Monthly Inspection and Testing Report

ANNUAL TESTING:

RESPONSIBILITY: Qualified Contractor / ASTTBC Contractor

PROCEDURE:

Self-contained emergency lighting unit equipment shall be tested to ensure that the unit will provide emergency lighting for duration equal to the design criterion under simulated power failure conditions.

Minimum operating time of 30 minutes.

After completion of the test, the charging conditions for voltage and current and the recovery period shall be tested to ensure that the charging system is functioning in accordance with the manufacturers' specifications.

RECORD KEEPING: Annual Inspection and Testing Report.

EXIT LIGHTING

Reference Standard: BC Fire Code Regulations 2012, Section 2.7.3.1

RESPONSIBILITY: Fire Safety Director or Designate

PROCEDURE: The emergency electrical power supply system must be completely tested at least once every month. Emergency exit lighting equipment shall be inspected to ensure that:

(a) the terminal clamps are clean and tight according to the manufacturer's specifications,

(b) the emergency lights will function upon failure of the primary power supply,

(c) a periodic test of the system operation shall:

i. simulate a power failure of the normal supply, and

ii. include an inspection to assess the correct functioning of all auxiliary equipment.

RECORD KEEPING: Monthly Inspection and Testing Report.

ANNUAL TESTING:

RESPONSIBILITY: Qualified Contractor / ASTTBC Contractor

PROCEDURE: Emergency exit lighting equipment shall be tested to ensure that the unit will provide emergency exit lighting for duration equal to the design criterion under simulated power failure conditions. Minimum operating time of thirty-30 minutes. After completion of the test, the charging conditions for voltage and current and the recovery period shall be tested to ensure that the charging system is functioning in accordance with the manufacturer's specifications.

RECORD KEEPING: Annual Inspection and Testing Report.

FIRE DAMPERS AND FIRE STOP FLAPS

ANNUAL INSPECTION

RESPONSIBILITY: Qualified Contractor

Reference Standard: BC Fire Code Regulations 2012, Section 2.2.2.4.

PROCEDURE:

Ensure that fire dampers and fire stop flaps are in place and are not obviously damaged or obstructed.

FIRE DEPARTMENT ACCESS TO BUILDING

Reference Standard: BC Fire Code Regulations 2012, Section 2.5.1.1.

RESPONSIBILITY: Fire Safety Director or Designate

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

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 fire fighters 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 Burnaby Fire Department vehicles and signs shall be posted prohibiting such parking.

FIRE DETECTION AND ALARM SYSTEM

Reference Standard: BC Fire Code 2012, Section 6.3.1.2. ULC S536 Standard for the Testing and Maintenance of Existing Fire Alarm Systems

RESPONSIBILITY: Qualified Contractor / ASTTBC Contractor

6.3.1.2. Inspection and Testing

1) Fire alarm systems shall be inspected and tested in conformance with CAN/ULCS536,

"Inspection and Testing of Fire Alarm Systems."

2) Fire alarm and detection system components shall be accessible for purposes of inspection or maintenance.

Monthly Testing:

A) One initiating field device or manual pull station shall be operated on a rotational basis and the system inspected for operation as follows:

- (i) An alert signal or an alarm signal confirmed on a rotational basis to a minimum of one zone or as may be required by the Fire Safety Plan for the building;
- (ii) The primary annunciator inspected to determine that the tested device annunciated correctly;
- B) Operation of the common audible and visual trouble signs;
- C) Batteries shall be inspected for the following:
 - (i) Terminals are clean and lubricated;
 - (ii) Terminal clamps are secure;
 - (iii) Electrolyte level and specific gravity, where applicable, are as specified by the manufacturer;
- D) One emergency telephone shall be tested on a rotational basis for two-way Communication and correct indication at the control unit; and
- E) Voice paging capability to one zone confirmed on a rotational basis.

HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS

Reference Standard: BC Fire Code Regulations 2012, Section 2.6.1.6.

RESPONSIBILITY: Qualified Contractor

2.6.1.6. Operation and Maintenance Procedures

- 1) Heating, ventilating and air-conditioning systems, including *appliances, chimneys* and *flue pipes*, shall be operated and maintained so as not to create a hazardous condition.
- 2) Except for self-contained systems within *dwelling units*, disconnect switches for mechanical air-conditioning and ventilating systems shall be operated at intervals not greater than 12 months to establish that the system can be shut down in an emergency.

MEANS OF EGRESS

Reference Standard: BC Fire Code Regulations 2012, Section 2.7.1

RESPONSIBILITY: Fire Safety Director or Designate

2.7.1.1. Means of Egress

- 1) *Means of egress* shall be provided in *buildings* in conformance with the British Columbia Building Code.

2.7.1.2. Open Floor Areas

- 1) Aisles in conformance with Sentences (2) to (4) shall be provided in every *floor area* that
 - a) is not subdivided into rooms or *suites* served by corridors giving *access to exits* and
 - b) is required by the British Columbia Building Code to have more than one egress doorway.
- 2) Every required egress doorway shall be served by an aisle that
 - a) has a clear width not less than 1100 mm,
 - b) has access to at least one additional egress doorway, and
 - c) at every point on the aisle, provides a choice of 2 opposite directions by which to reach an egress doorway.
- 3) A subsidiary aisle with only a single direction of travel to an aisle described in Sentence (2) is permitted provided it has a clear width not less than 900 mm and a length not greater than:

- a) 7.5 m in *business and personal services, mercantile and high-hazard industrial occupancies*,
- b) 10 m in *medium-hazard industrial occupancies*, or
- c) 15 m in *low-hazard industrial occupancies*.

4) Every individual work area in *business and personal services occupancies* shall be located adjacent to an aisle or subsidiary aisle.

2.7.2.1. Exit Doors

- 1) Except as provided in Sentences (2), (3) and (4), all doors forming part of a *means of egress* shall be tested at intervals not greater than one month to ensure that they are operable.
- 2) The safety features of revolving doors shall be tested at intervals not greater than 12 months.
- 3) Sliding doors that are required to swing on their vertical axes in the direction of egress when pressure is applied shall be tested at intervals not greater than 12 months.
- 4) When doors are equipped with electromagnetic locks, these locks shall be tested at intervals not greater than 12 months.

PORTABLE FIRE EXTINGUISHERS:

Reference Standard: BC Fire Code 2012, Section 6.2.1.1 to N.F.P.A. #10 Standards for Inspection, Testing and Maintenance of Portable Fire Extinguishers

RESPONSIBILITY: Fire Safety Director or Designate

- Located in designated location
- No obstructions to access visibility
- Operating instruction labels are facing outward
- Seal and tamper indicators are not broken or missing
- Pressure gauge reading or indicator in the operable range or position
- Examine for obvious physical damage, corrosion, leakage or clogged nozzle

Annual: Qualified Contractor / ASTTBC Contractor

6.2.1.1. Inspection, Testing and Maintenance

1) Portable extinguishers shall be inspected, tested and maintained in conformance with NFPA 10, "Portable Fire Extinguishers".

6.4.1.1. Inspection, Testing and Maintenance

1) Water-based fire protection systems shall be inspected, tested and maintained in conformance with NFPA 25, "Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems".

PART 5 – CHECKLISTS & ANNUAL INSPECTION, TESTING, MAINTENANCE REPORTS

INCIDENT/ACTIVITY REPORT

1. INCIDENT/ACTIVITY

Fire False Alarm Fire Drill Training Fire Safety Meeting Fire Equipment

2. DETAILS

Date: _____ Time: _____ Device/Equipment: _____

Floor: _____ Zone: _____ Injuries: _____

Cause or Reason for Incident: _____

Any Damage or Loss: _____

3. ACTION

Who discovered the fire: _____

Did the Burnaby Fire Department attend? _____

If not, why: _____

Who operated fire equipment? _____

4. Comments/Recommendations: _____

5. DISTRIBUTION LIST

Burnaby Fire Department

School District Administration Office

Tenants

Deputy Fire Safety Director

Insurance Company Police

Signature

Date

DAILY INSPECTION CHECKLIST

Daily Inspections:

Daily inspections may be conducted by trained facility personnel. Daily inspection reports shall be maintained and be available on site for the review by the Authority Having Jurisdiction.

Common Public Areas:

- No flammable or combustible liquid storage
- No combustible or refuse accumulations
- No worn or soaked rags

Means of Egress:

- Fire Exit Doors are operable.
- Corridors and exits are clear of obstructions
- Exterior landings and routes leading from the building are clear of obstruction (snow, ice, etc.)

Fire Detection and Alarm System:

- Fire Alarm A/C power lamp is on
- Fire Alarm not indicating trouble

Burnaby Fire Department Access to Building:

- Access routes are clear of obstructions

Date: _____

Inspected by: _____

WEEKLY INSPECTION AND TESTING CHECKLIST

Weekly inspections may be conducted by trained facility personnel. Weekly inspection reports shall be maintained and be available on site for review by the Authority Having Jurisdiction.

FIRE DETECTION AND ALARM SYSTEM:

Reference Standard: BC Fire Code 2012, Section 6.3.1.2.
ULC S536: Standard for the Testing and Maintenance of Existing Fire Alarm Systems.

Fire Alarm A/C Power Lamp is ON.

Fire Alarm is not indicating TROUBLE.

Date: _____

Inspected by: _____

MONTHLY INSPECTION AND TESTING CHECKLIST

Monthly Inspection:

Monthly inspections may be conducted by trained facility personnel. Monthly inspection reports shall be maintained and be available on site for the review by the Authority Having Jurisdiction.

PORTABLE FIRE EXTINGUISHERS:

- Located in designated location
- No obstructions to access visibility
- Operating instruction labels are facing outward
- Seal and tamper indicators are not broken or missing
- Pressure gauge reading or indicator in the operable range or position
- Examine for obvious physical damage, corrosion, leakage or clogged nozzle

EMERGENCY LIGHTING UNITS:

- Pilot lights are functioning and not obviously damaged or obstructed.
- The terminal connections are clean, free of corrosion and lubricated when necessary.
- The terminal clamps are clean and tight as per manufacturer's specifications, and the battery surface is kept clean and dry.

Monthly Inspection:

Monthly inspections may be conducted by trained facility personnel. Monthly inspection reports shall be maintained and be available on site for the review by the Authority Having Jurisdiction.

Date: _____ Inspected by: _____

FIRE DETECTION AND ALARM SYSTEM, DEVICE LOCATIONS:

- One initiating field device or manual pull station shall be operated on a rotational basis and the system inspected for operation as follows:
- An alert signal or an alarm signal confirmed on a rotational basis to a minimum of one zone or as may be required by the Fire Safety Plan for the building;
- The primary annunciator inspected to determine that the tested device annunciated correctly;
- Operation of the common audible and visual trouble signs;
- Batteries shall be inspected for the following:
- Terminals are clean and lubricated;
- Terminal clamps are secure;
- Electrolyte level and specific gravity, where applicable, are as specified by the manufacturer.

Date: _____

Inspected by: _____

ANNUAL INSPECTION AND TESTING CHECKLIST

Responsibility: Applied Science Technologists & Technicians (ASTTBC) contractor.

- Portable Fire Extinguishers
- Fire Detection and Alarm System
- Emergency Lighting Units
- Fire Dampers and Fire Stop Flaps
- Chimney, Flue and Flue Pipes
- Heating, Ventilation and Air Conditioning

One form per year

Retain copy of Contractors Service Report

ANNUAL REVIEW OF THE FIRE SAFETY PLAN

In accordance with 2.8.2.1(2) of the 2012 BC Fire Code the Fire Safety Plan shall be reviewed and any changes or revisions shall be submitted to the Authority Having Jurisdiction.

2.8.2.1(2) The Fire Safety Plan shall be reviewed at intervals not greater than **twelve-12 months** to ensure that it takes account of changes in use and other characteristics of the building.

Responsibility: FIRE SAFETY DIRECTOR

Update the Fire Safety Director/Deputy Fire Safety Director

Update Fire Warden List

Update list of disabled people within the building

Update Hazard Material List

Update renovations or modifications to the building

Update replacement or modifications to life safety systems

PART 6 – LEGAL BASIS FOR FIRE SAFETY PLANNING

Why Plan?

Every year thousands of fires break out in buildings, causing deaths, injuries and millions of dollars in fire damage. Such losses could be reduced if everyone practised good fire prevention and planned ahead for a fire emergency. Although all provisions of Section 2.8 of the Fire Code will not apply to all buildings, it is reproduced in its entirety herein for information purposes. In British Columbia, the Fire Services Act stipulates the requirements for fire prevention within the province. The B.C. Fire Code Regulations are pursuant to the Fire Services Act and require that emergency planning and fire safety planning be done as follows:

BRITISH COLUMBIA FIRE CODE REGULATIONS 2012

Section 2.8 Emergency Planning:

- 2.8.1.1(1) Fire emergency procedures conforming to this Section shall be provided for:
- (a) every building containing an assembly or a care or detention occupancy,
 - (b) every building required by the BC Building Code to have a fire alarm system,
 - (c) demolition and construction sites regulated under Sections 2.14 of this Code,
 - (d) storage areas required to have a Fire Safety Plan in conformance with Articles 3.3.2.6 and 3.3.2.9...,
 - (e) areas where flammable liquids or combustible liquids are stored or handled in conformance with Article 4.1.5.6. and,
 - (f) areas where hazardous processes or operations occur in conformance with Article 5.1.5.1.
- 2.8.1.2(1) Supervisory staff shall be trained in the fire emergency procedures described in the Fire Safety Plan before they are given any responsibility for fire safety.
- 2.8.1.3(1) Any keys or special devices needed to operate the fire alarm system or provide access to any fire protection systems or equipment shall be readily available to on-duty supervisory staff.

Subsection 2.8.2. Fire Safety Plan

- 2.8.2.1(1) In buildings or areas described in Article 2.8.1.1, a Fire Safety Plan conforming to this Section shall be prepared in cooperation with the Fire Department and other applicable regulatory authorities and shall include:
- (a) the emergency procedures to be used in case of fire, including:
 - i) sounding the fire alarm,

- ii) notifying the Fire Department,
- iii) instructing occupants on procedures to be followed when the fire alarm sounds,
- iv) evacuating occupants, including special provisions or persons requiring assistance,
- v) confining, controlling and extinguishing the fire;
- (b) the appointment of supervisory staff and other occupants in their responsibilities for fire safety duties,
- (c) the training of supervisory staff and other occupants in their responsibilities for fire safety,
- (d) documents, including diagrams showing the type, location and operation of the building fire emergency systems,
- (e) the holding of fire drills,
- (f) the control of fire hazards in the building,
- (g) the inspection and maintenance of the building and its facilities provided for the safety of the occupants, and
- (h) a copy of the records of inspections, maintenance procedures or tests as required by Article 1.1.1.6..

- 2.8.2.1(2) The Fire Safety Plan shall be reviewed at intervals not greater than twelve-12 months to ensure that it takes account of changes in use and other characteristics of the building.
- 2.8.2.5(1) The Fire Safety Plan shall be kept in a location, designated by the authority having jurisdiction within the building, for reference by the Fire Department, supervisory staff and other personnel.
- 2.8.2.6(1) A copy of the fire emergency procedures and other duties for supervisory staff, as laid down in the Fire Safety Plan, shall be given to all supervisory staff.
- 2.8.2.7(1) A minimum of one-1 copy of the fire emergency procedure shall be prominently posted on each floor area.

Subsection 2.8.3 Fire Drills:

- 2.8.3.1(1) The procedure for conducting fire drills shall be determined by the person in responsible charge of the building, taking into consideration:
- (a) the building occupancy and its fire hazards,
 - (b) the safety features provided in the building,
 - (c) the desirable degree of participation of occupants other than supervisory staff,
 - (d) the number and degree of experience of participating supervisory staff,
 - (e) the features of fire emergency systems installed in buildings within the scope of Subsection 3.2.6. of the BC Building Code.
- 2.8.3.2(1) Fire drills as described in Sentence 2.8.3.1(1) shall be held at intervals not greater than twelve-12 months for the supervisory staff.

PART 7 – DEFINITIONS

Access to Exit –

Part of a means of egress with a floor area that provides access to an exit serving the floor area.

Alarm Signal –

An audible signal transmitted throughout the building to advise occupants that a fire emergency exists.

Central Alarm & Control Facility -

The central alarm control facility (CACF) is the main fire alarm panel.

Class “A” Fire -

A fire involving combustible materials such as wood, cloth, or paper.

Class “B” Fire -

A fire involving flammable or combustible liquids, fat, or grease.

Class “C” Fire -

A fire involving energized electrical equipment.

Closure -

A device or assembly for closing an opening through a fire separation (such as a door), and including all components such as hardware, closing devices, frames, and anchors.

Combustible Liquid -

A liquid having a flash point at or above 37.8° C and below 93.3° C.

Deputy Fire Safety Director (D.F.S.D.) -

Appointed supervisory staff member who assumes the duties of the Fire Safety Director during his / her absence.

Dry Sprinkler System -

A fire sprinkler system, which has sprinkler supply piping containing air. Such a system can be installed in areas subjected to freezing conditions as water is always in the sprinkler piping.

Exit -

That part of a means of egress that leads from the floor area it serves, including any doorway leading directly from a floor area, to an open public thoroughfare or to an exterior open space protected from fire exposure from the building and having access to an open public thoroughfare.

Fire Code -

The B.C. Fire Code Regulations 2012, pursuant to the Fire Services Act.

Fire Safety Director (F.S.D.) –

A person appointed by the owner or authorized agent of the owner in writing and will assume to implement and maintain the Fire Safety Plan

Fire Safety Plan -

A plan, which provides information to occupants for control of fire hazards, maintenance of fire protection systems, and evacuation procedures for their building.

Fire Protection Systems -

A general term used in this document which includes sprinkler and fire alarm systems, hose stations, portable fire extinguishers, fire dampers, emergency lights, exit signs, fire doors, smoke control equipment, and voice communication systems.

Flammable Liquid -

Any liquid having a flash point below 37.8° C and having a vapour pressure not exceeding 275.8 kPa (absolute) at 37.8° C.

Means of Egress -

A continuous path of travel provided by a doorway, hallway, corridor, exterior passage-way, balcony, lobby, stair, ramp, or other egress facility or combination thereof, for the escape of persons from any point in a building, room, or contained open space to a public thoroughfare or other acceptable open space (means of egress includes exits and access to exits).

Qualified Contractor -

Refers to a certified technician or ASTTBC certified technician to conduct all inspections and testing. Repairs or installations need to be conducted by persons having specific trade qualifications.

Supervisory Staff -

Those occupants of a building who have been appointed to take responsibility for some aspect of the fire safety plan (Fire Safety Director & Deputies).

Wet Sprinkler System -

A fire sprinkler system which has sprinkler supply piping containing water. Such a system cannot be installed in areas subjected to freezing conditions as water is always in the sprinkler piping.