



MEMORANDUM

TO: Mark Bakken
Chief Administrative Officer

DATE: July 22, 2020

FROM: Stephen R. Gamble, LLD (HONORARY), ECFO, FIFireE
Fire Chief

FILE NO: 7200-01

SUBJECT: Fire Protection – Top Floor Balconies

Related to a fire that occurred in the City of Langley the Fire Chief was asked to comment on the following queries:

- Would there be a possibility of requiring Condo's constructed before building code changes and that do not have top floor balcony sprinklers or attic sprinklers to retro fit?
- At minimum can they be required to equip the top floor balconies (or all for that matter) with fire extinguishers?

I offer the following:

- Fire Departments/Local Governments have no authority to retroactively enforce an upgrade on a building beyond the BC Fire Code/BC Building Code, in which the year the building was constructed. The Province and/or Fire Commissioner have the authority to execute an upgrade, however, the Provinces usual practice is to introduce changes to the BCBC/BCFC for new construction during Code revisions or through a Ministerial Order;
- Strata owners could consider:
 - 1) Not permitting smoking on balconies;
 - 2) If they are going to permit smoking on balconies provide information to the tenants on the safety use/extinguishment of smoking materials (i.e. do not use planters as ashtrays; dispose smoking materials in water, etc.).
 - 3) Not using barbeques and/or other fueled appliances (such as heaters and lights) or candles on balconies. If the strata is unwilling to consider this then educate the tenants on the correct use and safety precautions to follow.
 - 4) Removing exterior combustible materials, such as vinyl siding, and replace with materials such as Hardie Board.
 - 5) Review/update their fire safety plan.
 - 6) Practice their fire safety plan/procedures.
- Every homeowner should have at least one ABC Fire Extinguisher. The Fire Department can provide additional information (604.532.7500) to tenants/homeowners.

Background Articles (attached):

<https://www.mapleridgenews.com/news/a-call-for-balcony-sprinklers-in-four-storey-buildings/>

<https://www.vicnews.com/news/balcony-sprinklers-to-be-required-for-four-storey-wood-frame-buildings/>



Firefighters bring a victim to a waiting B.C. Ambulance crew during the Paddington Station fire in Langley City.

A call for balcony sprinklers in four-storey buildings

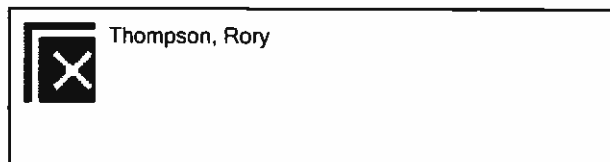
Langley City Council says B.C. building code should be upgraded in wake of Paddington Station fire

DAN FERGUSON / Feb. 11, 2017 3:00 p.m. / NEWS

Langley City Council is calling on Rich Coleman, the minister responsible for housing, to issue a ministerial order requiring sprinklers on the balconies of all new wood-frame four-storey multi-unit residential buildings, effective immediately.

While Coleman has said the provincial government plans to add a requirement for sprinklers on the balconies of four-storey wood-frame apartment buildings when the B.C. Building Code is next

updated, that may not happen for another year or two, a report to council from City fire chief Rory Thompson (pictured) said.



Council
unanimously
approved the

call at the Feb. 6 meeting.

The Thompson report said one in five City apartment building fires start on balconies, usually because of improperly disposed-of smoking materials.

Since 2007, the report said Langley City Fire Rescue Service has responded to 80 apartment fires that caused millions of dollars in damage, 11 injuries and one fatality.

Of these apartment fires, 16 were fires on balconies, 11 of them caused by improper disposal of smoker's material.

That was the cause of the Dec. 11 fire at the four-storey wood frame Paddington Station building in Langley City that did an estimated \$14 million of damage.

Once a fire penetrates the balcony ceiling, it is directly into the attic space, Thompson said.

That's a problem because the B.C. Building Code does not require fire separations between the ceiling of the top floor balconies and attic spaces.

The Thompson report said most apartment roofs are constructed using light-weight truss construction that starts to fail after five to 10 minutes of flame exposure.

In the Paddington Station fire, firefighters had the balcony fire knocked down from the exterior within five minutes of arrival, Thompson said.

"However, the first attack team into the apartment of origin reported heavy fire conditions already in the attic space."

The report notes that the National Building Code (NBC) requires the installation of sprinklers on balconies on four-storey buildings.

The NBC is a model building code issued by the National Research Council of Canada which has no legal status until adopted by regulators.

Thompson also cited a study by Surrey fire chief Len Garis and Dr. Joseph Clare on fire reports provided by the B.C. Office of the Fire Commissioner, which found roughly one in 10 multi-residential building fires originate from an outside area, either an exterior balcony or "court/patio/terrace area."

Fires that commence on a building's exterior were 5.5 times less likely to activate a smoke alarm and 1.4 times more likely to require visual sighting or some other means of personal detection the study found.



Aftermath of the Paddington fire.

Balcony sprinklers to be required for four-storey wood-frame buildings

Announcement comes after Dec. 11 Langley fire that left more than 100 people homeless in Langley City

DAN FERGUSON / Mar. 15, 2017 5:00 a.m. / NEWS

The provincial government has announced fire sprinklers will be required on the balconies of all new four-storey wood-frame residential buildings effective July 20.

The update to the BC Building Code comes after the Dec. 11 Paddington Station fire that destroyed the top floor of an upscale multi-unit complex in Langley

City, which the fire department blamed on a balcony fire and lack of sprinklers. More than 100 people were left homeless.

"If this building (Paddington) had sprinklers on the balconies and in the attic, this fire likely would not have spread into the attic space," a report by fire chief Rory Thompson said.

"I'm very pleased that the province is moving in that direction," City mayor Ted Schaffer said.

"I think it's great for anyone who is going to be looking at one of those residences down the road," Schaffer added.

In February, Langley City council made a public call for provincial action to require sprinklers.

Under the current BC Building Code, sprinklers generally are not required on balconies or in attics in residential buildings four storeys and under, but are generally required in residential buildings greater than four storeys.

Today's announcement said the new sprinkler requirements will not take effect until July 20 to allow time for the industry to adapt to the new requirement.

Fort Langley-Aldergrove MLA Rich Coleman, who is the minister responsible for housing, has said work on the revised building code was underway before the City fire that left more than 100 people homeless.

"Although the next edition of our building code won't be adopted until late 2017, we wanted to implement this change as soon as possible, in the interest of safety," Coleman said Wednesday.

The government announcement said building codes and fire sprinkler standards only apply at the time of construction and cannot be retroactively required on existing buildings.

Don Jolley, first vice-president of Fire Chiefs Association of BC applauded the news.

"This announcement demonstrates a commitment to greater use of fire sprinkler protection initiatives that will prevent significant fire-related losses in the future," Jolley said.



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