

## 2006 Building Code Change Request Form

Do you agree to permit sharing all information on this form with the Canadian Commission on Building and Fire Codes and Building Code Review Committees for the purposes of code development?

Yes  No

I am submitting this on behalf of:  Myself, or  
 Organisation (Ontario Association of Fire Chiefs)

Your Title: President

Your Name: Fire Chief Tim Beckett

Address: 353 Bayly St. West, Suite 206

City: Ajax

Province: Ontario

Postal Code: L1S 6M2

Telephone: 905-426-9865

Facsimile: 905-426-3032

Email: tim.beckett@kitchener.ca

Your function:  Fire Chief

CODE CHANGE REQUEST:

To an existing provision of the Building Code. Code Reference of the requested change :

Add a new code provision. Add a Sentence to DivC 1.3.4.1.

Have you forwarded this change to the Canadian Commission on Building and Fire Codes as a proposed amendment to the model National Building or Plumbing Codes?  Yes  No

Personal information provided on this form is collected under the authority of the Building Code Act, 1992 and will be used for the purpose of code development. Please direct any questions about the collection of information by mail to the following address:

Manager, Code Development, Legislation and Appeals

Building and Development Branch

777 Bay Street 2nd Fl., Toronto, Ontario M5G 2E5

telephone: (416) 585-6666

or by facsimile at: (416) 585-7531

**Proposed Change**

<p><b>REQUESTED CHANGE/ADDITION:</b> What wording do you propose for the change?</p>	<p>Amend the OBC to include the requirements of automatic fire sprinkler systems in all new construction. This would be particular to 3.2.2.42 Group C, Any height, any area.</p> <p>Remove subsection (d) "<i>if the building is not sprinklered...</i>" and replace with (d) <i>the building shall be sprinklered</i>. Also the title would be 3.2.2.42. Group C, Any height, Any Area, <b>Sprinklered</b>.</p>
<p><b>Problem:</b> Why should the existing provision be revised? If requesting an addition to the Code, what is missing?</p>	<p>Flashovers in home fires lead to many of the injuries and deaths in residences. Over the years, increased use of combustibile furnishings in homes has reduced the period of time between the start of a free-burning fire and flashover – between 2.2 and 4.3 minutes. This means that flashover can easily occur in a home fire prior to the arrival of Fire Services. Residential sprinklers suppress the fire before flashover occurs.</p> <p>Fatal residential fires most often occur between the hours of midnight and 6:00 am, when victims are asleep. Victims are also disproportionately children and the elderly, who are vulnerable because they are physically less capable of escaping. When a fire occurs, occupants of a house may not be able to respond to smoke alarms and escape in the few minutes before flashover occurs.</p> <p>The large majority of fire deaths and injuries occur in residential fires. A review of fatal fire data over a three-year period in the Province of Ontario found that in 197 fatalities, 67% of the smoke alarms were not connected to power.</p>
<p><b>Justification/Explanation:</b> How does the requested change address the problem?</p>	<p>A combination of fire sprinklers and smoke alarms can cut the risk of dying in a home fire by about 80%.</p> <p>The presence of automatic fire sprinklers would also serve to reduce risks faced by fire fighters when fighting fires in buildings constructed from lightweight engineered wood framing systems.</p>
<p><b>Objective(s):</b> Which of the Code's objectives does the requested change address? See Part 2 of Division A of the Building Code for the list of objectives.</p>	<p>Enhanced public safety</p>
<p><b>Cost/Benefit Implications:</b> Will the change entail any added costs? Will it provide benefits that are measurable?</p>	<p>The cost for residential fire sprinklers ranges from \$1.50 to \$3.00 per sq. ft., depending on the size of the units.</p> <p>It is estimated that Insurance savings for units with sprinklers can range from 10% to 15%.</p> <p>The benefits of automatic fire sprinklers is that they save lives, significantly reduces property damage in the event of a fire, reduces the impact on the environment due to limited release of toxic and other hazardous combustion products, and can lead to reduced construction costs due to offsets</p>
<p><b>Enforcement Implications:</b> Can the requested change/addition be enforced by the infrastructure available to enforce this Code? Will its enforcement require an increase in resources?</p>	<p>Enforcement will not require an increase in resources.</p>
<p><b>Other Comments:</b> For example, identify other Code requirements affected by the requested change.</p>	<p>Many jurisdictions in North America have adopted requirements for automatic fire sprinklers in residential buildings. With the exception of Ontario, sprinklers are required in high-rise residential buildings across Canada. In addition to provincial requirements, Vancouver has adopted by-laws requiring residential sprinklers in all new residential buildings (including low density housing), under the City's statutory authority in British Columbia.</p>

	<p>Over 220 jurisdictions in North America have adopted requirements for residential fire sprinklers in residential buildings. The large majority of these jurisdictions are municipalities and other local governments in the United States, where building regulations tend to be under the jurisdiction of local rather than state government.</p> <p>Prominent experience with requirements has been gained in Scottsdale, Arizona and Prince George's County, Maryland. New York and Chicago have recently implemented requirements for residential fire sprinklers in high-rise residential buildings.</p>
<b>Attached Supporting Material:</b>	<p>There have been reviews of the effectiveness of residential fire sprinklers in two large North American jurisdictions, one in Canada and the other in the United States. Scottsdale, Arizona has had a sprinkler ordinance in place since 1986, and Vancouver, British Columbia has had a by-law since 1990. Both require all new residential developments to be sprinklered. Since the regulations in each jurisdiction came into effect, there have been no fire deaths in sprinklered homes, and over 90 percent of all fires in these homes were contained by the operation of a single sprinkler.</p> <p>The cost of fire damage or loss has also been significantly reduced. In Scottsdale, the damage in the average sprinklered incident was \$2,166.00 compared with \$45,019.00 in homes without sprinklers. The Vancouver experience has been similar. The average fire loss in a home with sprinklers was \$1,065.00 compared with \$13,937.00 in a home without sprinklers.</p>