

# ***Fire and Safety Risks Posed by Wood Frame Residential Construction***

**LEN GARIS**

An evidence based review of the stated concerns.

**Len Garis**, the Fire Chief for the City of Surrey, Professor at the University of the Fraser Valley, Affiliated Research Faculty, John Jay College of Criminal Justice , New York, will discuss research undertaken in partnership with Dr. Joe Clare and will examine stakeholder concerns with the fire and safety risks posed by wood frame residential construction. The talk will commence by discussing the background to the concerns from the fire service with respect to these structures, and how these contrast with the benefits that have been identified for these buildings.

The specific nature of the concerns that have been raised by the key stakeholders will be outlined and then discussed with respect to research findings that have examined these issues, including an overview of the National Research Council work that has contributed to the safety margins relied on in the new building codes, and a retrospective analysis of recent fire outcomes for relevant structures in BC. Vulnerabilities with previous constructions that have been identified will be discussed, along with an explanation as to how the amended building code addresses these.

The talk will conclude by explaining that, based on available simulation and retrospective data, and acknowledging the amendments that have been made to the building code to protect these new, taller wood frame buildings, there does not appear to be data-driven support for the concerns raised by key stakeholders with respect to these structures. In addition, the rate-of-return on the increasing demands for fire protection relative to the reduction in fire losses will be explained, with the intent of demonstrating that the ever-growing total cost of fire requires all stakeholders to be more mindful of adding additional costly safety components without considering their effectiveness.

**Len Garis** is the Fire Chief for the City of Surrey, BC and is an Adjunct Professor in the School of Criminology and Criminal Justice at the University of the Fraser Valley, Affiliated Research Faculty, John Jay College of Criminal Justice, New York and a member of the Institute of Canadian Urban Research Studies, Simon Fraser University. Contact him at [Len.Garis@ufv.ca](mailto:Len.Garis@ufv.ca).