

## 10 Minute Fire Response Boundary Map and Construction Practices Update

In December 2020, Edmonton Fire Rescue Services updated the [City's 10-minute fire response time map](#) (Legend - *select* ERD Public Data - *select* Outside 10 Minute Boundary). This update triggered interest from CHBA and UDI to explore new or updated approaches to meeting the National Building Code-2019 Alberta Edition (Code) requirements for buildings constructed outside the 10-minute fire response time boundary.

The City met with industry partners several times over the course of 2021 to discuss potential alternatives to the prescriptive Code paths. Industry partners expressed that their objective for moving towards more homogenous construction options was to help streamline the permit application and construction process for new neighbourhoods.

Of particular interest in the discussions were the Code requirements for exterior walls of buildings located outside the response boundary and less than 2.4 metres from the property line (limiting distance) to be constructed with non-combustible cladding and free of windows to mitigate the amount of heat exposure to neighbouring buildings. Industry partners expressed that this posed challenges for Code compliance, such as the requirement for bedroom windows in an unsprinklered house to allow for emergency egress in the event of a fire.

As a result, the City undertook a review of the request for specific variance and the associated [Intertek report](#) commissioned by CHBA, which tested gypsum-sheathed exterior walls with wood frame windows to evaluate heat exposure on neighbouring buildings. The City's review of the report methodology and findings reinforced that this type of construction is considered an acceptable alternative path to the prescriptive Code requirements for exterior walls of buildings outside the response time boundary.

Industry partners subsequently inquired whether the use of intumescent-coated OSB or plywood products would be considered as an equivalent to gypsum sheathing under combustible cladding materials. To date, insufficient technical progress has been made to support the acceptance of these materials as equivalent to gypsum sheathing.

While the City recognizes the importance of working with industry partners to streamline processes, it must balance that with ensuring that what is built is safe and meets Code requirements and/or the conditions of an acceptable alternative. As such, the City will not accept these materials as an acceptable alternative solution until or unless there is sufficient test evidence.

Sentence 1.2.1.1.(1) of Division A of the Code sets out the conditions and process for proposing alternative construction solutions to the prescriptive Code requirements. Alternatives, including modifications to the [Intertek report](#) test conditions, must follow this process to be considered. This involves identification of the specific provision(s) to be varied, expression of the level of performance intended by those provision(s), and analysis to demonstrate proposed alternative(s) provide a similar or better level of performance and safety. Additional information and prescribed [form for variance](#) can be obtained from the Safety Codes Council.

Effective 1 January 2022, the City will only accept building permit applications containing plans and/or specifications that reflect applicable Code-compliant wall assemblies per Article 9.10.15.3. of Division B of the Code or a specific variance by alternative solution using the process outlined above. This contributes to safe homes and communities, as well as streamlined permit applications. These changes will not affect the products and processes permitted to be used to protect adjacent properties during construction ([adjacent property protection](#)) and Article 5.6.1.2. of Division B of the National Fire Code-2019 Alberta Edition and the [Fire Rescue Services' guidelines](#) still apply in these situations.

A revised version of the 10 minute Fire Response Boundary map is expected to be released on January 1, 2022. While no major impacts are forecasted, there may be some changes in relation to newly created roadways that will expand the boundaries in some areas. No changes will be made that shrink the current boundaries.

If you have any questions in this regard, please feel free to contact Chad Rich, General Supervisor, Safety Codes Inspections at [chad.rich@edmonton](mailto:chad.rich@edmonton).