

Building and Safety Codes and Tiny Homes

With the growing interest in tiny homes in Edmonton, across Canada and globally, the question of how tiny homes fit within building codes has arisen. In response, a Provincial-Territorial-Municipal Working Group on Tiny Homes prepared a discussion paper¹ for the Provincial-Territorial Policy Advisory Committee on Codes (a federal permanent committee within Codes Canada, National Research Council) on the challenges with getting permits for tiny homes in Canada. The discussion paper provides an in-depth review of the variety of tiny homes being built in Canada and highlights a number of areas where the National Building Code requires clarification to ensure consistency in the application of the code.

Currently, any structure in Alberta intended to be used as a year-round residence must meet the Alberta Building Code, including those manufactured anywhere other than on-site.² Additionally, certification of any off-site facility in which building components or structures are produced is required. CSA A277, “Procedure for Certification of Prefabricated Buildings, Modules and Panels” outlines a process to provide a level of assurance that factory-constructed buildings or components comply with safety codes for where the structure is intended to be located while addressing the difficulty of inspecting completed wall, roof, and floor assemblies. The CSA A277 certification does not pertain to portions of the building that are constructed on-site and appropriate safety codes permits must be obtained for their construction or installation, for example, the construction of permanent foundations.³

¹ Provincial-Territorial-Municipal Working Group on Tiny Home. 2016. *Tiny Houses in Canada's Regulatory Context: Issues and Recommendations*. [online]. Available at: http://www.cmhi.ca/sites/default/files/tiny_homes_discussion_paper_revised_2016-10-02.pdf

² CSA standards are also commonly referenced for factory-constructed living accommodations including tiny homes. The CSA Z240 RV Series - Recreational Vehicles and the CSA Z241 Series Park Model Trailer standards apply to vehicles and buildings for seasonal and recreational accommodation. Dwellings intended for year-round, permanent occupancy are built to the CSA Z240 MH Series - Manufactured Homes standard, which continues to evolve toward significant alignment with the requirements of the National Building Code, with specific provisions to address issues particular to manufactured homes.

³ There are provisions for a manufactured building to have a temporary foundation in the standard CSA Z240.10.1, “Site Preparation, Foundation, and Installation of Buildings.” This standard, which is not part of the CSA Z240 MH Series, contains requirements for:

- surface foundations that may be used where the soil is not moisture-susceptible or where building deformation resistance is provided,
- site preparation, anchorage and skirting for buildings on surface foundations, and
- connection of modules in multiple-section prefabricated buildings.

A challenge with the application of the Alberta Building Code to tiny homes is that some requirements cannot be met in such small spaces. For example, many tiny homes place sleeping areas in raised lofts which would not meet typical ceiling heights for bedrooms.

Recognizing this challenge, a Code Change Request ⁴ was made in 2017 to the National Research Council by a representative of the Provincial-Territorial-Municipal Working Group on Tiny Homes, with the stated intention of seeking clarity and a rational approach to minimum standards for tiny homes specifically related to:

- *Application of the Code* - to clarify that the Building Code applies to structures built off-site but not in a factory, and to structures built on a chassis.
- *Lateral Loads* - to address factory-constructed buildings constructed on a chassis, requiring that the structures are able to withstand loads in transit, and wind and seismic loads wherever the building is installed or relocated.
- *Combination Rooms* - to clarify the conditions under which multiple areas may be deemed a combination room, impacting other code requirements.
- *Mezzanines* - to clarify the conditions under which loft spaces used or intended to be used for sleeping are not considered to be mezzanines.
- *Ceiling Heights* - to address the conditions under which the current minimum 2.1 metres dwelling ceiling height applies. Sleeping lofts, often constructed under sloped or slightly-raised roof and providing only enough space for a sleeping area are proposed to be considered as built-in bunk beds, for which minimum ceiling heights do not apply. Additionally, a minimum ceiling height of 1.95 metres, permissible in a secondary suite, is proposed for sleeping spaces, kitchens and bathrooms under sleeping lofts in dwelling units with a floor area not exceeding 40 square metres.
- *Egress Windows* - to address installation of egress windows in sleeping lofts or spaces on a different level from the room they are within.
- *Guards* - to clarify that the installation of a standard guard does not apply to sleeping lofts where no walking surface exists.
- *Stairs* - to clarify stair requirements apply where stairs are installed and that ladder access to a sleeping loft need not be considered a stair, and thus neither handrails or guards are required.

⁴ Chown, Adaire. 2017. *Tiny Houses NBC Code Change Request*. [online] Available at: <<https://tinyhouselistingscanada.com/wp-content/uploads/2017/06/NBC-Code-Change-Request.pdf>>

- *Doorway Opening Sizes* - to address the conditions under which the current minimum door height of 1.98 metres applies. A minimum door height of 1.89 metres, permissible in a secondary suite, is proposed in dwelling units with a floor area not exceeding 40 square metres.
- *Doorways Serving Bathrooms* - to clarify that minimum doorway width requirements, intended to provide a degree of barrier-free access to a water closet room, need not apply to doorways not served by a hallway.

An update for the National Building Code is anticipated to be completed by 2020; however, it is understood that the changes requested for tiny homes noted above are not likely to be addressed in the NBCC2020, which is intended to be the basis of the 2021 Alberta Building Code.

In the absence of national direction, Administration will continue to work with the Province and Safety Codes Council to develop policy and guidance on the application of Safety Codes specifically for tiny homes within Edmonton and Alberta. Although permitting tiny homes on wheels from a zoning perspective is within reach, a timeline for when building permits could be issued is less certain and is dependent on direction from the Province.