

## CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

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*Telephone number:* 507-213-0730      *Code or Rule Section:* Minnesota Building Code

*Firm/Association affiliation, if any:*      *Topic of proposal:* Single-exit apartment buildings  
 Footprint Development (Cody Fischer)  
 Center for Building in North America (Stephen Smith)

*Code or rule section to be changed:*      2024 IBC 1006.3.4.

*Intended for Technical Advisory Group ("TAG"):* Commercial Building Code Technical Advisory Group

**General Information**

**Yes    No**

- |  |                                     |                                     |
|--|-------------------------------------|-------------------------------------|
| A. Is the proposed change unique to the State of Minnesota?                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| B. Is the proposed change required due to climatic conditions of Minnesota?            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| C. Will the proposed change encourage more uniform enforcement?                        | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| D. Will the proposed change remedy a problem?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| E. Does the proposal delete a current Minnesota Rule, chapter amendment?               | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| F. Would this proposed change be appropriate through the ICC code development process? | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Proposed Language**

1. The proposed code change is meant to:
  - change language contained the model code book? If so, list section(s).  
     Minnesota Building Code 1006.3.3, 2024 IBC 1006.3.4
  - change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
  - delete language contained in the model code book? If so, list section(s).
  - delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
  - add new language that is not found in the model code book or in Minnesota Rule.

2. Is this proposed code change required by Minnesota Statute? If so, please provide the citation.  
No.
3. Provide *specific* language you would like to see changed. Indicate proposed new words with underlining and ~~strikethrough~~ words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

*(MR 1305.1006.3.3 and 2024 IBC 1006.3.4 - Updated with IBC renumbering and exit access travel distance change from 2024 IBC)*

**1006.3.4 Single exits.**

A single exit or access to a single exit shall be permitted from any story or occupied roof where one of the following conditions exists:

1. The occupant load, number of dwelling units or sleeping units, and exit access travel distance do not exceed the values in Table 1006.3.4(1) or 1006.3.4(2).
2. Rooms, areas, and spaces complying with Section 1006.2.1 with exits that discharge directly to the exterior at the level of exit discharge are permitted to have one exit or access to a single exit.
3. Parking garages where the vehicles are mechanically parked shall be permitted to have one exit or access to a single exit.
4. Group R-3 and R-4 occupancies shall be permitted to have one exit or access to a single exit.
5. Individual single-story or multistory dwelling units and sleeping units shall be permitted to have a single exit or access to a single exit from each dwelling unit or sleeping unit, provided that both of the following criteria are met:
  - 5.1. Each dwelling unit and sleeping unit complies with Section 1006.2.1 as a space with one means of egress.
  - 5.2. Each sleeping unit and dwelling unit either:
    - (a) has an exit that discharges directly to the exterior at the level of exit discharge; or
    - (b) has an exit access outside the entrance door that provides access to at least two approved independent exits.
6. A single exit shall be permitted to serve apartment houses classified as Group R-2 occupancies in buildings where the total number of stories does not exceed four, provided that all of the following conditions are met:
  - 6.1. There are four or fewer dwelling units per story.
  - 6.2. The interior exit stairway only serves dwelling units.
  - 6.3. The stairway shall be a minimum of 48" in width and shall not serve stories defined as a basement.
  - 6.4. Any corridor or intervening space associated with the stairway shall be a minimum of 44" in width.
  - 6.5. The building shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
  - 6.6. The travel distance from the entrance door of any dwelling unit to an exit does not exceed 35 ft.
  - 6.7. Exit access travel distance measured in accordance with Section 1017.3 does not exceed 125 feet.

- 6.8. Any corridors or intervening space serving as access to the exit for a story shall be constructed as a 1-hour fire partition in accordance with Section 708 with no reduction in fire-resistance rating.
- 6.9. Mezzanines and occupiable rooftops are prohibited.
- 6.10. Each sleeping room, including those located on the 4<sup>th</sup> story, shall be provided with emergency escape and rescue openings in conformance with Section 1031.
- 6.11. Each story shall have a maximum floor area of 4,000 gross square feet.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

Section 1006.3.3 of the Minnesota State Fire Code would need to be changed with the same language.

### **Need and Reason**

1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

Housing demand in Minnesota's cities has grown, and societal concerns about sprawl have increased since the I-codes were developed. Minneapolis in particular is zoning for infill multifamily development on single-family lots, which the current requirement for two remote exits in even very small four-story buildings is not compatible with. In developing the International Building Code on which the Minnesota Building Code is based, the International Code Council has not generally considered the need to accommodate such development, instead being dominated by interests more focused on single-family residential, commercial buildings, and low-rise garden apartment and large-lot, mid-rise multifamily typologies. As such, we are proposing the adoption of a different model code section that is more compatible with small-lot multifamily development.

2. Why is the proposed code change a reasonable solution?

Our proposed code section duplicates the requirements of NFPA 101 (30.2.4.6) and 5000 (equivalent language), which have been vetted through the National Fire Protection Association's national consensus process. Seattle and New York City have extensive experience with single-exit buildings up to six stories, and officials from those jurisdictions have stated that they have not encountered issues with fires.

In addition, a review of NFIRS and media accounts of fires in Seattle and New York City by one of the proponents (Stephen Smith), in conjunction with the Pew Charitable Trusts, has found no fire fatalities related to the exit in single-exit buildings above three stories. Vermont and Georgia (through its adoption of NFPA 101, which is the inspiration for this code change, in lieu of IBC Chapter 10) and the consolidated City and County of Honolulu (through its adoption of Seattle's unique code section) also allow taller single-stair buildings than what is currently allowed by the IBC and Minnesota's current code. This code section is on par with what is allowed statewide in Vermont and Georgia, and more conservative than what is allowed in New York City, Seattle, and Honolulu.

3. What other factors should the TAG consider?

The current philosophy around egress in multifamily buildings was developed long before many modern fire protection features, from fire sprinklers to enclosed stair shafts to fire-rated gypsum board. Current code sections were developed with large, double-loaded corridor buildings in mind, and apply the same standards for number of exits to four-story buildings with 2,500-sq. ft. floor plates as they do to 30-story

buildings with 25,000-sq. ft. floor plates. Fatalities from fires in this country, by parties not intimate with the source of ignition, especially related to egress, are now limited almost exclusively to unsprinklered dwellings.

After an initial committee hearing on September 5, 2024, we heard feedback from the committee and have adjusted our proposal. Below is a summary table of the feedback received, and our response.

Questions and concerns	Revisions and clarifications
Proposal should clearly outline “Technical Equivalencies” proposed in lieu of a 2 <sup>nd</sup> stair	<ul style="list-style-type: none"> <li>• Require NFPA 13</li> <li>• 48” minimum stair width</li> <li>• 44” minimum corridor width</li> <li>• 1-hr fire rating of corridors and intervening space</li> <li>• Mezzanines are prohibited</li> <li>• Accessible roofs are prohibited</li> <li>• Maximum 4,000 gross SQFT per floor</li> <li>• Maximum 20 occupants per floor</li> </ul>
<p>Current MN code for 2 stair building allows exceptions that can reduce the width of a stairway from 44” to 36”</p> <p>Units could have many bedrooms resulting in extremely high occupancies per story</p>	<p>Require a 48” wide single stair, and increase of 12” total</p> <p>Stories are limited to 4,000 gross square feet (20 occupants)</p>
4-story buildings should not sit on top of a 3hr podium building (Section 510.2)	Maximum of 4 stories above grade plane
Clarifying treatment of “intervening space” between dwelling door and the stair door	Require 1-hr fire rating
Egress windows should be required	Require EEROs in conformity with Section 1031
How do we clarify discharge requirements?	Defer to existing code – Section 1028.2
NFPA 101 has a lower required fire resistance rating for stairway enclosure (1 hr.) compared to MN code (2 hr.)	Defer to existing code – 2-hr. rated stairway shaft is required, be striking item 6.7 in our proposal
Current MN code does not define “one-half story”	Change 6.3 to “does not serve stories defined as a basement”
What is allowed in the stairway?	Defer to existing code.
What is required in the stairway (e.g., standpipe)?	Defer to existing code – standpipe is required in four-story buildings per 905.3.1.

The intent of this code change is to harmonize IBC 1006.3.3 with NFPA 101 30.2.4.6, (see below) and the feedback provided by the CCAC Commercial TAG at its meeting on September 5, 2024.

*30.2.4.6 A single exit shall be permitted in buildings where the total number of stories does not exceed four, provided that all of the following conditions are met:*

- (1) There are four or fewer dwelling units per story.*
- (2) The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with 30.3.5.*
- (3) The exit stairway does not serve more than one-half story below the level of exit discharge.*
- (4) The travel distance from the entrance door of any dwelling unit to an exit does not exceed 35 ft (10.7 m).*
- (5) The exit stairway is completely enclosed or separated from the rest of the building by barriers having a minimum 1-hour fire resistance rating.*
- (6) All openings between the exit stairway enclosure and the building are protected with self-closing door assemblies having a minimum 1-hour fire protection rating.*
- (7) All corridors serving as access to exits have a minimum 1-hour fire resistance rating.*
- (8) Horizontal and vertical separation having a minimum ½-hour fire resistance rating is provided between dwelling units.*

## **Cost/Benefit Analysis**

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

For small lots, this proposed code change will reduce costs by roughly 7 percent, by reducing the amount of floor area that must be built to serve an equal amount of rentable space by the same amount. [See here](#) for some examples of floor plans which illustrate the point.

2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.

This code section will decrease costs for very small buildings.

3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.

This code section will decrease costs for very small buildings.

4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

The proposed code change is simple and should not increase enforcement or compliance costs.

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city ([Minn. Stat. § 14.127](#))? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

## **Regulatory Analysis**

1. What parties or segments of industry are affected by this proposed code change?

Developers and architects will be affected, in that they will be allowed to build/design multifamily buildings that are one story taller than currently allowed with a single stair, which will be especially impactful on smaller lots. The sprinkler industry will be affected, in that more sprinklered structures will become economically viable (Minnesota does not currently require sprinklers in single-family houses, and almost none are provided with them). The fire service will be affected, in that more structures within their service area will be sprinklered and built with modern materials. In very rare circumstances, the fire service may be called upon to fight fires that are not suppressed by sprinkler systems in small, four-story multifamily buildings with a single exit. Building code officials will be affected, in that they will have to learn to approve plans meeting our proposed compliance option.

2. Can you think of other means or methods to achieve the purpose of the proposed code change? What might someone opposed to this code change suggest instead? Please explain what the alternatives are and why your proposed change is the preferred method or means to achieve the desired result.

In speaking with stakeholders while developing this code language, we were presented with two options to achieve our goals without modifying the code language: an alternative means and methods process, and presenting this code change to the International Code Council for inclusion in their 2027 model code. The former process is not realistic for small multifamily buildings, since the financial stakes are too low to justify costly and uncertain discretionary processes – as general a rule, performance-based and other non-prescriptive compliance routes are only financially justifiable with on large, profitable projects. One of the co-proponents to this Minnesota Building Code proposal did present a code change proposal to the ICC in Orlando in April, and while it is working its way through the process, a number of opponents suggested this code change would be better left to cities and states who feel they have an interest in allowing such buildings. Furthermore, even if the ICC does adopt our proposal for the 2027 edition, based on the lag in state adoptions, Minnesota would likely not even potentially adopt the language until the late 2020s – an unacceptably long delay in our view given the urgency of the housing and climate crises, and the desire by localities (like Minneapolis) to allow the development of more multifamily housing.

3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

The cost of not adopting this code change is in continuing to make it very difficult to develop small multifamily buildings in Minnesota. Cities like Minneapolis which seek to allow small multifamily development on single-family and small commercial lots will be practically limited to three stories, working at cross-purposes with land use goals, and also making it highly unlikely that any project will be large enough to carry the financial burden of an elevator, making such structures inaccessible to those with disabilities, to the state's large and growing senior population, and to families with young children.

4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement.

No.

\*\*\*Note: The information you provide in this code change proposal form is considered Public Data and used by the TAG to consider your proposed modification to the code. Any code change proposal form submitted to DLI may be reviewed at public TAG meetings and used by department staff and the Office of Administrative Hearings to justify the need and reasonableness of any proposed rule draft subject to administrative review and is available to the public.

\*\*\*\*Note: Incomplete forms will be returned to the submitter with instruction to complete the form. Only completed forms will be accepted and considered by the TAG. The submitter may be asked to provide additional information in support of the proposed code change.