



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Cody Fischer, Stephen Smith *Date:* May 6, 2024

Email address: cody@footprintdev.com,
stephen@centerforbuilding.org *Model Code:* International Building Code

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: 1006.3.3

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
 - 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.

1006.3.3 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 common path of egress travel distance do not exceed the values in Table 1006.3.3(1) or 1006.3.3(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 number of stories above grade plane 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 enclosure 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 shall not exceed 125 feet.

6.8. Any corridor or intervening space serving as access to the exit for a story shall have a minimum 1-hour fire resistance rating.

6.9. Mezzanines and occupiable rooftops are prohibited.

6.10. Each dwelling unit 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.

1031.2 Where required.

In addition to the means of egress required by this chapter, emergency escape and rescue openings shall be provided in the following occupancies:

1. Group R-2 occupancies located in stories with only one exit or access to only one exit as permitted by Tables 1006.3.4(1) and 1006.3.4(2), or by Section 1006.3.3, item 6.
2. Group R-3 and R-4 occupancies.

Basements and sleeping rooms at or below the fourth story above grade plane shall have not fewer than one emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way or to a yard or court that opens to a public way, or to an egress balcony that leads to a public way.

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 their 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 & Concerns	Revisions & Clarifications
Proposal should clearly outline "Technical Equivalencies" proposed in lieu of a 2nd stair	<ul style="list-style-type: none"> ● Require NFPA 13 ● 48" minimum stair width ● 44" minimum corridor width ● 1-hr fire rating of corridors and intervening space ● Mezzanines are prohibited ● Accessible roofs are prohibited ● Maximum 4,000 gross SQFT per floor ● Maximum 20 occupants per floor
<p>Current MN code for 2 stair buildings allows exceptions that can reduce the width of a stair 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, an 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 - Shall discharge directly to the exterior of the building per Section 1028.2
NFPA 101 has a lower required fire rating for stairs (1 hr) vs. MN Code (2 hr)		Defer to existing code - Require 2hr rated stair shaft by striking 6.7
Current MN code does not define "one-half story" and is ambiguous		Change 6.3 to "does not serve stories defined as a basement"
What is allowed in the stair?		Defer to existing code
What is required in the stair (standpipes)		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 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.

Questions & Concerns Raised at 9/5 and 10/ 14 TAG meetings

Questions & Concerns		Revisions & Clarifications
Proposal should clearly outline "Technical Equivalencies" proposed in lieu of a 2nd stair		<ul style="list-style-type: none"> ● Require NFPA 13 ● 48" minimum stair width ● 44" minimum corridor width ● 1-hr fire rating of corridors and intervening space ● Mezzanines are prohibited ● Accessible roofs are prohibited ● Maximum 4,000 gross SQFT per floor ● Maximum 20 occupants per floor
<p>Current MN code for 2 stair buildings allows exceptions that can reduce the width of a stair 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, an 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 - Shall discharge directly to the exterior of the building per Section 1028.2
NFPA 101 has a lower required fire rating for stairs (1 hr) vs. MN Code (2 hr)		Defer to existing code - Require 2hr rated stair shaft by striking 6.7
Current MN code does not define "one-half story" and is ambiguous		Change 6.3 to "does not serve stories defined as a basement"
What is allowed in the stair?		Defer to existing code
What is required in the stair (standpipes)		Defer to existing code

10/31 REVISED PROPOSAL SUBMISSION - REDLINED

1006.3.3 Single exits.

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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 **above grade plane** 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 enclosure** 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 shall not exceed 125 feet.
- 6.8. Any corridor **or intervening space** serving as access to the exit **for a story** shall have a minimum 1-hour fire resistance rating.
- 6.9. Mezzanines **and occupiable rooftops** are prohibited.
- 6.10. Each dwelling unit 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.**

1031.2 Where required.

In addition to the means of egress required by this chapter, emergency escape and rescue openings shall be provided in the following occupancies:

1. Group R-2 occupancies located in stories with only one exit or access to only one exit as permitted by Tables 1006.3.4(1) and 1006.3.4(2), **or by Section 1006.3.3, item 6.**
2. Group R-3 and R-4 occupancies.

Basements and sleeping rooms **at or** below the fourth story above grade plane shall have not fewer than one emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way or to a yard or court that opens to a public way, or to an egress balcony that leads to a public way.

10/31 REVISED PROPOSAL SUBMISSION - CLEAN

1006.3.3 Single exits.

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- 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 shall not exceed 125 feet.
- 6.8. Any corridor or intervening space serving as access to the exit for a story shall have a minimum 1-hour fire resistance rating.
- 6.9. Mezzanines and occupiable rooftops are prohibited.
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4. Group R-3 and R-4 occupancies.

Basements and sleeping rooms *at or below* the fourth story above grade plane shall have not fewer than one emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way or to a yard or court that opens to a public way, or to an egress balcony that leads to a public way.

10/14 REVISED PROPOSAL SUBMISSION

1006.3.3 Single exits.

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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 vertical exit enclosure only serves dwelling units

6.3. The stairway and any associated corridors shall be a minimum of 44" in width and shall not serve stories defined as a basement.

6.4. The building shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

6.5. The travel distance from the entrance door of any dwelling unit to an exit does not exceed 35 ft.

6.6. Exit access travel distance measured in accordance with Section 1017.3 shall not exceed 125 feet..

6.7. All corridors serving as access to the exit shall have a minimum 1-hour fire resistance rating.

6.9. Mezzanines are prohibited



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: C. Scott Anderson

Date: 7/10/24 Revision 10/10/24

Email address: c.scott.anderson@minneapolismn.gov

Model Code: 2024 IBC

Telephone number: 612-246-7303

Code or Rule Section: 202, 1210.3, 2902.1, 2901.2 MAC 1109.2 + 1109.2.2

Firm/Association affiliation, if any: City of Minneapolis

Topic of proposal: 202, 1210.3, 2902.1, 2901.2 MAC 1109.2 + 1109.2.2

Code or rule section to be changed: 202, 1210.3, 2902.1, 2901.2 MAC 1109.2 + 1109.2.2

Intended for Technical Advisory Group ("TAG"):

General Information

Yes **No**

- | | | |
|--|-------------------------------------|-------------------------------------|
| A. Is the proposed change unique to the State of Minnesota? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Proposed Language

1. The proposed code change is meant to:

- change language contained the model code book? If so, list section(s).
- 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.
202, 1210.3, 2902.1, 2901.2, Table 2902.1 MAC 1109.2 + 1109.2.2

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.

202 Definitions

ROOM. "Room" means a space or area bounded by any obstruction over 6 feet (1829 mm) in height which at any time encloses more than 80 percent of the perimeter of the area. In computing the unobstructed perimeter, openings less than 3 feet (914 mm) in clear width and less than 6 feet 8 inches (2032 mm) in height shall not be considered. Water closet compartments, Aisles and corridors shall not be construed to form rooms.

1210.3 Privacy

~~Public restrooms~~ Toilet and bathing rooms shall be visually screened from outside entry or exit doorways to ensure user privacy within the ~~restroom, toilet or bathing room~~. This provision shall also apply ~~where~~ to mirrors where their location would compromise ~~personal~~ user privacy. Privacy at water closets and urinals shall be provided in accordance with Sections 1210.3.1 ~~and~~ 1210.3.2, 1210.3.3 and 1210.3.4. Bathing rooms shall be provided with privacy in accordance with Section 1210.4.

Exception: Visual screening shall not be required for single-occupant toilet rooms with a lockable door.

[P] 1210.3.1 Water closet compartment in multi-user toilet rooms separated by sex.

Each water closet ~~utilized by the public or employees~~ shall occupy a separate compartment with walls or partitions and a door enclosing the fixtures to ensure privacy. The bottom edge of the partition and door shall be located not more than 16 inches (406 mm) above the finished floor. The top edge of the partition and door shall be located not less than 69 inches (1726 mm) above the finished floor. Gaps shall not be greater than of ½ inch (13 mm) between the edge of the door and the partition. Doors shall be capable of being secured from within the compartment.

Exceptions:

1. Water closet compartments shall not be required in a single-user, family or assisted-use toilet room with a lockable door.
2. Toilet rooms located in child day care facilities and containing two or more water closets shall be permitted to have one water closet without an enclosing compartment.
3. This provision is not applicable to toilet areas located within Group I-3 occupancy housing areas.

1210.3.2 Water closet compartment in multi-user toilet rooms not separated by sex in other than E occupancies.

Each water closet shall occupy a separate compartment with walls and a door to ensure privacy meeting all of the following:

1. Compartment walls shall extend from the floor to the ceiling.
2. Doors shall be lockable from the inside of the compartment. Lock shall be capable of being unlocked from the outside of the compartment by use of a key or other special device. Locking device shall be readily distinguishable as locked from both sides of the door.

3. Doors shall not be undercut by more than ½"
4. At least 20% but not less than one compartment shall include a lavatory

Exceptions:

1. Water closet compartments shall not be required in a single-user, family or assisted-use toilet room with a lockable door.
2. Toilet rooms located in child day care facilities and containing two or more water closets shall be permitted to have one water closet without an enclosing compartment.
3. This provision is not applicable to toilet areas located within Group I-3 occupancy housing areas.

1210.3.3 Water closet compartment in multi-user toilet rooms not separated by sex in E occupancies.

Each water closet shall occupy a separate compartment with walls and a door to ensure privacy meeting all of the following:

1. Compartment doors shall be observable from primary circulation areas or other normally occupied spaces.
2. Compartment walls shall extend from the floor to the ceiling.
3. Compartment doors shall be lockable from the inside of the compartment. Lock shall be capable of being unlocked from the outside of the enclosure by use of a key or other special device. Locking device shall be readily distinguishable as locked from both sides of the door.
4. Compartment doors shall not be undercut by more than ½"
5. Compartment doors shall swing out of the compartment and be equipped with a hold open device that maintains an angle of not less than 10 degrees.
EXCEPTION: Doors to accessible compartments shall comply with Minnesota Accessibility Code.
6. Compartment doors shall not latch when unlocked.
7. There shall be no less than two entry points into each toilet facility. Entry points shall be separated by not less than ½ the length of the maximum overall diagonal dimension of the toilet facility.
8. Doors are not permitted between the toilet facility and any adjacent circulation or other normally occupied space.
9. At least 40% but not less than two compartments shall include a lavatory

Exceptions:

1. Water closet compartments shall not be required in a single-user, family or assisted-use toilet room with a lockable door.
2. Toilet rooms located in child day care facilities and containing two or more water closets shall be permitted to have one water closet without an enclosing compartment.

[P] 1210.3.4 Urinal partitions.

Each urinal utilized by the public or employees shall occupy a separate area with walls or partitions to provide user privacy in accordance with section 1210.3.4.1 and 1012.3.4.2.

Exceptions:

1. Urinal partitions shall not be required in a single-occupant or family or assisted-use toilet room with a lockable door.
2. Toilet rooms located in child day care *facilities* and containing two or more urinals shall be permitted to have one urinal without partitions.

1210.4.1 Urinal partitions in toilet facilities separated by sex.

The walls or partitions shall begin at a height not more than ~~12~~ 16 inches (~~305~~ 406 mm) from and extend not less than 60 inches (1524 mm) above the finished floor surface. The walls or partitions shall extend from the wall surface at each side of the urinal not less than 18 inches (457 mm) or to a point not less than 6 inches (152 mm) beyond the outermost front lip of the urinal measured from the finished backwall surface, whichever is greater.

1210.4.1 Urinal partitions in toilet facilities NOT separated by sex.

Each urinal shall occupy a separate compartment with walls and a door to ensure privacy meeting all of the following:

1. Compartment walls shall extend from the floor to the ceiling.
2. Doors shall be lockable from the inside of the compartment. Lock shall be capable of being unlocked from the outside of the compartment by use of a key or other special device. Locking device shall be readily distinguishable as locked from both sides of the door.
3. Doors shall not be undercut by more than ½"

1210.4 Bathing rooms NOT separated by sex.

Each bathing room shall occupy a separate compartment with walls and a door enclosing the fixtures to ensure privacy meeting all of the following:

1. Walls shall extend from the floor to the ceiling.
2. Doors shall be lockable from the inside of the compartment. Lock shall be capable of being unlocked from the outside of the compartment by use of a key or other special device. Locking device shall be readily distinguishable as locked from both sides of the door.
3. Doors shall not be undercut by more than ½"
4. Each compartment shall be provided with a changing area separated from the bathing area to prevent wetting of the changing area during the bathing activities.

Exceptions:

1. 1-3 occupancies

[P] 2902.1.1 Fixture calculations.

To determine the *occupant load* of each sex, the total *occupant load* shall be divided in half. To determine the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the *occupant load* of each sex in accordance with Table 2902.1. Fractional numbers resulting from applying the fixture ratios of Table 2902.1 shall be rounded up to the next whole number. For calculations involving multiple occupancies, such fractional numbers for each occupancy shall first be summed and then rounded up to the next whole number.

Exceptions:

1. The total *occupant load* shall not be required to be divided in half where *approved* statistical data indicates a distribution of the sexes of other than 50 percent of each sex.
2. Where multiple-user *facilities* are designed to serve all genders, the minimum fixture count shall be calculated ~~100 percent~~, based on 125% of the total occupant load. In such multiple-user *facilities*, each fixture type shall be in accordance with ICC A117.1 .

[P] 2902.1.3 Lavatory distribution.

Where two or more toilet facilities are provided for each sex, the required number of lavatories shall be distributed proportionately to the required number of male- and female-designated water closets. Where toilet rooms are not separated by sex, lavatories shall be located in the same room or space as the water closet compartments.

[P] 2902.1.4 Substitution of Urinals for Water Closets

Urinals may be substituted for water closets in accordance with the following:

1. In each bathing or toilet facility where facilities are separated by sex, urinals shall not be substituted for more than 67 percent of the required water closets in assembly and educational occupancies.
2. In each bathing or facility room where facilities are separated by sex, urinals shall not be substituted for more than 50 percent of the required water closets in other than assembly and educational occupancies.
3. In each bathing or facility room where facilities are not separated by sex, urinals shall not be substituted for more than 20 percent of the required water closets in all occupancies.

[P] 2902.2 Separate facilities.

Where plumbing fixtures are required, separate *facilities* shall be provided for each sex.

Exceptions:

1. Separate toilet *facilities* shall not be required for *dwelling units* and *sleeping units*.
2. Separate toilet *facilities* shall not be required in *structures* or tenant spaces with a total *occupant load*, including both employees and customers, of ~~15- 25~~ or fewer.
3. Separate toilet *facilities* shall not be required in mercantile occupancies in which the maximum *occupant load* is 100 or fewer.
4. ~~Separate toilet *facilities* shall not be required in business occupancies in which the maximum *occupant load* is 25 or fewer.~~
5. Separate toilet *facilities* shall not be required to be designated by sex where single-user toilet rooms are provided in accordance with Section 2902.1.2.
6. In other than E occupancies, Separate toilet *facilities* shall not be required where rooms having both water closets and lavatory fixtures are designed for use by all *persons* regardless of sex and privacy is provided for water closets in accordance with Section 1210.3.2 .405.3.4 of the *International Plumbing Code* and for urinals in accordance with Section 405.3.5 of the *International Plumbing Code*.
7. In E occupancies, Separate toilet *facilities* shall not be required where rooms having both water closets and lavatory fixtures are designed for use by all *persons* regardless of sex and privacy is provided for water closets in accordance with Section 1210.3.3.
8. Separate bathing facilities shall not be required for rooms having bathing fixtures designed for use by both sexes and privacy installed in accordance with Section 1210.4.

Table 2902.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (footnote)

- ~~K. In each bathroom or toilet room, urinals shall not be substituted for more than 67 percent of the required water closets.~~

Minnesota Accessibility Code modifications

1110.2.4 Water closet compartment in toilet rooms separated by sex

Where water closet compartments are provided in a toilet room or bathing room, at least 5 percent of the total number of compartments shall be wheelchair-*accessible* compartments. Where two or more water closet compartments are provided in a toilet room or bathing room, at least 5 percent of the total number of compartments shall be ambulatory-*accessible* water closet compartments in addition to the wheelchair-*accessible* compartments.

1110.2.5 Water closet compartment in toilet rooms not separated by sex

Where water closet compartments are provided in a toilet room or bathing room, at least 20 percent of the total number of compartments but not less than two shall be wheelchair-*accessible* compartments. Where 3 or more water closet compartments are provided in a toilet room or bathing room, an ambulatory-*accessible* water closet compartment in addition to the wheelchair-*accessible* compartments shall be provided. Where 4 or more water closet compartments are provided in a toilet room or bathing room at least 20 percent of the total number of compartments but not less than two shall be ambulatory-*accessible* water closet compartments in addition to the wheelchair-*accessible* compartments.

1110.2.5 6 Lavatories

Where lavatories are provided, at least 5 percent, but not less than one provided in accessible spaces, shall be accessible. Where an accessible lavatory is located within the accessible water closet compartment at least one additional accessible lavatory shall be provided in the multicompartment toilet room outside the water closet compartment. Where the total lavatories provided in a toilet room or bathing *facility* is six or more, at least one lavatory with enhanced reach ranges shall be provided.

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.

NO

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.)
Toilet and bathing facilities not separated by sex is a design option that is often requested. The model codes have taken some steps to incorporate this into the code. The privacy provisions in the current and proposed codes are not adequate and do not address the specific issues related to school facilities.
2. Why is the proposed code change a reasonable solution?

Currently any option to not separate facilities by sex requires an alternate design approved by the AHJ. Thus each design is subject to the interpretation of the Building Official in each jurisdiction. Adopting these rules will provide direction and clarity. Since alternative compliance decisions by the AHJ are not appealable, this will provide some confidence that designs that meet these requirements will be approved.

3. What other factors should the TAG consider?

There are a number of uses, primarily in assembly functions where the quantity of required fixtures per occupant for male and female are not equal. How to address this difference when using non-separated toilet facilities is not addressed in the model code nor in this code change proposal. This may lead to some confusion or disparity in how these provisions are applied. Accessible signage requirements are also an issue as there is currently no direction as to how to provide signage for identifying ambulatory accessible toilet compartments nor any specific requirement to provide signage at a wheelchair accessible compartment.

Cost/Benefit Analysis

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

The decision to provide toilet facilities not separated by sex is a design decision. While some of the individual requirements listed for designing this option may be more expensive, they should generally be offset by the reduction in requirements for providing separate rooms.

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.

No cost change

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

NA

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

No

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?

Architects, Contractors, Developers, Building Owners, Contractors, Building Officials

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.

The current process of alternate compliance is the only other option available.

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?
Not adopting this change will result in inconsistency in code enforcement. Since non sex separated toilet facilities are only allowed via the alternate compliance path, each individual project is subject to review and the unique opinion of the building official in each jurisdiction. A design may be approved in Minneapolis but not in St. Paul. Alternative compliance designs are not subject to the code appeals process.

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: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: [Britt McAdamis](#)

Date: [04/23/2024](#), Revised [10/17/2024](#)

Email address: britt.mcadamis@state.mn.us

Model Code: [2024](#)

Telephone number: [651-284-5276](#)

Code or Rule Section: [1011.15](#)

Firm/Association affiliation, if any: [DLI/CCLD](#)

Topic of proposal: [Ships ladders](#)

Code or rule section to be changed: [1305.1011.15](#)

Intended for Technical Advisory Group ("TAG"): [1305](#)

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 checked="" type="checkbox"/> | <input type="checkbox"/> |
| C. Will the proposed change encourage more uniform enforcement? | <input checked="" type="checkbox"/> | <input 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).
[1011.15 Ships ladders](#)

change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
[1305.1011.15 Ships ladders](#)

delete language contained in the model code book? If so, list section(s).
[1011.15 Ships ladders](#)

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.

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 1305.1011.15

1011.15 Ships ladders stairs. ~~Ships ladders stairs constructed in accordance with 1011.15.1 as required for permanent stairs in accordance with the Minnesota Mechanical Code, Minnesota Rules, part 346.306, subpart 1, amending IMC Section 306.5,~~ shall be permitted to be used as a means of egress component at the following locations:

1. ~~Ships ladders are permitted to be used in~~ In Group I-3 occupancies for *means of egress* at control rooms or elevated facility observation stations not more than 250 square feet (23 m²) in floor area.
2. ~~Ships ladders are permitted to be used as~~ As a component for means of egress at recessed or elevated floors or platforms when the area served has an occupant load of five or fewer and the space meets all of the following criteria:
 - 2.1. Access to the area served is limited to building facilities staff, maintenance staff, employees, or other authorized personnel.
 - 2.2. Required access to the area served is limited and periodic.
 - 2.3. The area served is used for building maintenance service functions, or for equipment access or monitoring.
 - 2.4. The area served is not required to have a second means of egress by other provisions of this code.
 - 2.5. The area served is not classified as a Group H occupancy.
3. ~~Ships ladders are permitted to be used for~~ For access to mechanical equipment and appliances on roofs or elevated structures unoccupied spaces in accordance with the *Minnesota Mechanical Code*.
4. For access to unoccupiable roofs.
5. For access to equipment pits and service pits in accordance with 1209.4.

Following code language from 1346.0306.5 to new 1305 code section.

1011.15.1 Ships ladder stair construction. The ~~permanent stair ships ladder stair~~ shall, at a minimum, meet the following:

1. The stair shall be installed at an angle of ~~not more than 60-50-70~~ degrees measured from the horizontal plane.
2. The stair shall have flat treads at least 6 inches (152 mm) deep and a clear width of at least 18 inches (457 mm) with equally spaced risers at least ~~10.5 inches (267 mm)~~ 6.5 inches (165 mm) high and not exceeding 14 inches (356 mm).
3. The stair shall have intermediate landings not exceeding 18 feet (5.5 m) vertically.
4. Continuous handrails shall be installed on both sides of the stair.
5. The clear distance above the tread nosing shall not be less than 80 inches (2032 mm).
5. ~~Interior stairs shall terminate at the under side of the roof at a hatch or scuttle of at least 8 square feet (0.74 m²) with a minimum dimension of 20 inches (508 mm).~~
6. ~~When a roof access hatch or scuttle is located within 10 feet (3.0 m) of a roof edge, a guard shall be installed in accordance with IMC Section 304.11.~~
6. The stair shall be designed for the live loads indicated in Section 1607.10.
7. Exterior stairs shall terminate at the roof access point or at a level landing of at least 8 square feet (0.74 m²) with a minimum dimension of 20 inches (508 mm). ~~The landing shall have a guard installed in accordance with IMC Section 304.11.~~

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.

1346.0306.5

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.)

The term ship stair is used to be consistent with terminology from OSHA and to not loose any applicable code sections applicable to stairs in general such as head room height, hatch dimensions, etc.

The body language is amended to indicate the areas where a ship stair can be used and not direct all compliance to the MN mechanical code and provide direction to new dimensional standard in proposed new section 1011.15.1.

Item 1 and 2 are rewritten to the same language as current Minnesota amendment but removed duplicate language.

Item 3 is reworded to be consistent with the terminology of the MN Mechanical Code.

Item 4 is added in allow ship stairs to be used to access unoccupiable roofs as permitted by the IBC.

Item 5 is added in allow ship stairs to be used to access to equipment pits and service pits per new MN code section 1209.4

New Section 1011.15.1 is taken from the current MR 1346.0306.5 provisions for a permanent stair and merged with the OSHA standards for ship stairs. The requirements and dimensions were derived from comparing the current MR 1346.0306.5 along with OSHA standards to be aligned with industry standards. Other subitems were removed as they are addressed elsewhere in the mechanical code and are not necessary to be included in the building code.

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

Current MR directs the designer to the MMC for construction requirements for a ship stair, when a ship stair is permitted by the MBC for uses other than mechanical access, therefore it is reasonable to keep the construction requirements within the building code which is also in line with the IBC. Additionally, the architect is typically the designer for roof access and or mechanical access components and is already operating in the building code for code compliance.

Current MR 1346.0306.5 which contains the construction requirements for a permanent stair, is not using the same terminology or dimensional uniformity that is seen in both the IBC and OSHA standards for ships ladders.

It is reasonable to maintain the building code to be as close to industry standards as possible while mirroring the MR from 1346 for consistency across both codes. Proposal is to change 1346.0306.5 to mirror the new code section proposed as 1011.15.1.

3. What other factors should the TAG consider?

MR 1346.0306.5 has amended this section for climate factors due to our unique weather conditions and limits the use of ladders as access to mechanical equipment for safety considerations.

Cost/Benefit Analysis

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

This proposal is a clarification of the code requirements and would impose no cost increase.

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.

N/A

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

N/A

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

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?
Architects, Engineers, Mechanical contractors
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.
No significant changes, reorganization and relocation of code requirements.
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?
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.

***Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Greg Metz

Date: 7/27/2022, Revised 10/17/2024

Email address: greg.metz@state.mn.us

Model Code: IBC 2024

Telephone number: 651-284-5884

Code or Rule Section:

Firm/Association affiliation, if any: DLI/CCLD

IBC 1208.4 Equipment and service pits

Code or rule section to be changed: MR 1305

General Information

Yes **No**

- A. Is the proposed change unique to the State of Minnesota? Yes No
- B. Is the proposed change required due to climatic conditions of Minnesota? Yes No
- C. Will the proposed change encourage more uniform enforcement? Yes No
- D. Will the proposed change remedy a problem? Yes No
- E. Does the proposal delete a current Minnesota Rule, chapter amendment? Yes No
- F. Would this proposed change be appropriate through the ICC code development process? Yes No

Proposed Language

1. The proposed code change is meant to:

- change language contained the model code book? If so, list section(s).
- 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.
MBC 1208.4 Equipment and service pits

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 ~~strikeout~~ words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

1209.4 Equipment and service pits. A ship stair shall be permitted to access equipment pits and service pits in accordance with 1011.15.1.

Exception: Elevator pits.

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.
No.

Need and Reason

1. Why is the proposed code change needed?
Currently access to equipment platforms is addressed for gaining access to elevated equipment, but no guidance is provided for depressed areas. Access to pits for vehicle maintenance and pits for mechanical or electrical equipment are not addressed.
2. Why is the proposed code change a reasonable solution?
This code section clarifies that a stair compliant with building code section 1012 is not necessary, but access to service locations and equipment located in pits can be safely gained via the same type of ship's ladder as elevated platforms.
3. What other considerations should the TAG consider?
None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.
The proposed will decrease construction costs by allowing less expensive and space intensive stair construction.
2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
The cost is readily offset by the assurance that fire walls are constructed correctly and reviewed by a third-party.
3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
No
4. 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? 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?
Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.

2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
None
3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
No
4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.
5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
None.
6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
Non-uniformity in code application and undue expense when standard stairs are required into pits.
7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
No
8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

***Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Greg Metz

Date: 7/26/2022

Email address: greg.metz@state.mn.us

Model Code: IBC 2024

Telephone number: 651-284-5884

Code or Rule Section:

Firm/Association affiliation, if any: DLI/CCLD

IBC 1705.19 Special inspections of fire walls

Code or rule section to be changed: MR 1305

General Information

Yes **No**

- | | | |
|--|-------------------------------------|-------------------------------------|
| A. Is the proposed change unique to the State of Minnesota? | <input type="checkbox"/> | <input checked="" 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 checked="" type="checkbox"/> | <input 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).

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.
MBC 1705.19 Special Inspections of Fire Walls

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 ~~strikeout~~ words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

1705.21 Special inspections of fire walls. For the fire resistance systems of fire walls, periodic special inspections shall be required for the following:

- a. fastening of fire resistance rated panel systems to substrates.
- b. installation of fire-resistance-rated joint systems.
- c. Installation of fire and smoke damper systems
- d. verification of structural independence on each side of the fire wall.
- e. visual inspection that there are no unprotected openings in the fire wall.

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.

No.

Need and Reason

1. Why is the proposed code change needed?
Fire walls are complex and highly detailed building elements. Building inspectors cannot be present for each part of the firewall construction to verify conformance for this critical part of passive fire protection.
2. Why is the proposed code change a reasonable solution?
Buildings large enough to have fire walls also typically have a special inspections program for other building components. Adding periodic inspections for these critical components will help ensure that this critical fire protection element is constructed correctly.
3. What other considerations should the TAG consider?
None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.
The proposed will increase construction costs by adding special inspections to larger buildings that have fire walls.
2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
The cost is readily offset by the assurance that fire walls are constructed correctly and reviewed by a third-party.
3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
No
4. 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? 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?

Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners of buildings large enough to require a fire wall.

2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

None

3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?

No

4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

None.

6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

Continued spot inspection of fire walls at or near completion where most of the critical work is covered or concealed.

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

No

8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

***Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Greg Metz

Date: 8/30/2022

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Model Code: IBC 2024

Telephone number: 651-284-5884

Code or Rule Section:

Firm/Association affiliation, if any: DLI/CCLD

1805.1.3 Ground water control

Code or rule section to be changed: MR 1305

General Information

Yes **No**

- A. Is the proposed change unique to the State of Minnesota? Yes No
- B. Is the proposed change required due to climatic conditions of Minnesota? Yes No
- C. Will the proposed change encourage more uniform enforcement? Yes No
- D. Will the proposed change remedy a problem? Yes No
- E. Does the proposal delete a current Minnesota Rule, chapter amendment? Yes No
- F. Would this proposed change be appropriate through the ICC code development process? Yes No

Proposed Language

1. The proposed code change is meant to:

change language contained the model code book? If so, list section(s).

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.
IBC 1805.1.3 Ground water control

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 ~~strikeout~~ words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

1805.1.3 Ground water control. Where the ground water table is lowered and maintained at an elevation not less than 6 inches (152 mm) below the bottom of the lowest floor by means which do not include the use of pumps, electricity or fossil fuels, the floor and walls shall be dampproofed in accordance with Section 1805.2. The design of the system to lower the ground water table shall be based on accepted principals of engineering that shall consider, but not necessarily be limited to, permeability of the soil, rate at which the water enters the drainage system, rated capacity of ~~pumps~~ drainage system, ~~head against which pumps are to operate~~ and the rated capacity of the disposal area of the system.

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.

Yes, Section 1805.3 Waterproofing

Need and Reason

1. Why is the proposed code change needed?

Minnesota Statute 103G.271 limits the amount of ground water that can be removed and discharged to 1,000,000 gallons/year which equates to approximately 2,700 gallons of water per day.

Dewatering a building excavation and mandating continuous use of energy for pumping in order to defray the cost of waterproofing is counter to energy conservation measures sought by the state.

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

New construction below the water table should be waterproofed and not rely on pumping groundwater to keep below grade spaces dry. If the power should fail, lower-level spaces would flood.

Minnesota Rule 1335 no longer allows pumping for spaces below grade located in areas susceptible to flooding which may not have a high-water table and only require pumping seasonally. It is not reasonable to allow buildings to continually pump ground water to keep spaces dry when other buildings which only require periodic pumping are not permitted to do so because of the risk of power outage.

3. What other considerations should the TAG consider?

Minnesota statutes and regulations against pumping and dumping groundwater for other purposes. Sustainability and resiliency concerns for long term impact of building viability. The code does not require that the pumps have any sort of back-up power, so spaces located below the water table will flood if there is a power outage.

If this proposal is rejected, consider adding to this section a reference to Minnesota Statute 103G.271 for "Appropriation and use of waters."

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

Yes, the proposed change will increase construction costs for buildings designed with spaces located below the ground water table. Spaces located below the water table will be required to be waterproofed rather than dampproofed. Waterproofing is more expensive

than dampproofing. Some of the cost will be deferred by eliminating the need for a building drainage system, ground water pumps and the power system infrastructure to support them.

2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
Yes. Spaces constructed below the water table will not be at risk of flood during a power failure. Flooding is detrimental to most standard building materials and the moisture associated with flooding and dampness fosters microbial growth which adversely affects indoor air quality. Requiring waterproofing in lieu of allowing pumping when spaces are located below the water table will save energy associated with pumping, save groundwater resources by allowing groundwater to stay in place, and maintain the capacity of stormwater management systems which are typically used to dump groundwater.
3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
No
4. 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? 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?
Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
None
3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
No
4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.
5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
None.
6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
Construction of buildings seemingly allowed to build to any depth below the water table and pump groundwater in lieu of providing waterproofing and potentially inadvertently violating Minnesota Statute 103G.271 which limits the amount of groundwater that can be pumped.
7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.

No

8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
Change in this rule will support compliance with Minnesota Statute 103G.271 which regulates pumping of groundwater.

***Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: C. Scott Anderson

Date: 6/13/24 Revised 7/8/24 9/19/24

Email address: c.scott.anderson@minneapolismn.gov

Model Code: 2024 IBC

Telephone number: 612-246-7303

Code or Rule Section: 1809.5

Firm/Association affiliation, if any: City of Minneapolis

Topic of proposal: 1809.5

Code or rule section to be changed: 1809.5

Intended for Technical Advisory Group ("TAG"):

General Information

Yes **No**

- A. Is the proposed change unique to the State of Minnesota? Yes No
- B. Is the proposed change required due to climatic conditions of Minnesota? Yes No
- C. Will the proposed change encourage more uniform enforcement? Yes No
- D. Will the proposed change remedy a problem? Yes No
- E. Does the proposal delete a current Minnesota Rule, chapter amendment? Yes No
- F. Would this proposed change be appropriate through the ICC code development process? Yes No

Proposed Language

1. The proposed code change is meant to:

- change language contained the model code book? If so, list section(s). 1809.5
- 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.
1809.5

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.

2020 MSBC

1809.5 Frost protection.

Except where otherwise protected from frost, foundations and other permanent supports of *buildings* and *structures* shall be protected from frost by one or more of the following methods:

1. ~~Extending below the frost line of the locality.~~ Constructed in accordance with 1303.1600.
2. Constructing in accordance with ASCE 32.
3. Erecting on solid rock.

~~**Exception:** Freestanding buildings constructed in accordance with Minnesota Rules, Chapter 1303, shall not be required to be protected.~~

Exception: Free-standing *buildings* meeting all of the following conditions shall not be required to be protected:

1. ~~Assigned to Risk Category I.~~ Classified as group U occupancy
2. Area of ~~600~~ 1,000 square feet (56 m²) or less for *light-frame construction* or 400 square feet (37 m²) or less for other than *light-frame construction*.
3. Eave height of 10 feet (3048 mm) or less.

Shallow foundation shall not bear on frozen soil unless such frozen condition is of a permanent character.

103.1600 subp 2

~~**Exception:** Slab on grade construction may be placed on any soil except peat or muck for detached one-story private garage, carport, and shed buildings not larger than 1,000 square feet (92.9 m²).~~

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.

No

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.)

The Mn amendment referencing to chapter 1303 should be deleted.

The model code language provides more clear language and addresses more options. There is a reference in 1300.1600 to soils under slab on grade buildings that I believe is intended to address a size limit for these structures so I have modified the model code language to match up with the current Mn allowance of 1,000 s.f. but only for light frame construction.

2. Why is the proposed code change a reasonable solution?
It addresses a life safety issue unique to cold weather climates.

3. What other factors should the TAG consider?

None

Cost/Benefit Analysis

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

This is an editorial change and should not impact the cost of construction. Structures are required to have foundations. A stoop or landing is a structure per the IBC definition.

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.

No cost change

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

NA

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

No

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?

Architects, Contractors, Developers, Building Owners, Contractors, Building Officials

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.

No

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?

Egress doors could become unusable during cold weather conditions thus trapping people inside a structure.

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: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: C. Scott Anderson

Date: 6/13/24 Revised 7/8/24 9/19/24

Email address: c.scott.anderson@minneapolismn.gov

Model Code: 2024 IBC

Telephone number: 612-246-7303

Code or Rule Section: 1809.5.1 + 1010.1.5

Firm/Association affiliation, if any: City of Minneapolis

Topic of proposal: 1809.5.1 + 1010.1.5

Code or rule section to be changed: 1809.5.1 + 1010.1.5

Intended for Technical Advisory Group ("TAG"):

General Information

Yes **No**

- A. Is the proposed change unique to the State of Minnesota? Yes No
- B. Is the proposed change required due to climatic conditions of Minnesota? Yes No
- C. Will the proposed change encourage more uniform enforcement? Yes No
- D. Will the proposed change remedy a problem? Yes No
- E. Does the proposal delete a current Minnesota Rule, chapter amendment? Yes No
- F. Would this proposed change be appropriate through the ICC code development process? Yes No

Proposed Language

1. The proposed code change is meant to:

- change language contained the model code book? If so, list section(s). 1809.5.1
- 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. 1809.5.1 + 1010.1.5

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 ~~strike through~~ words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

1809.5.1 Frost protection at ~~required exits.~~ exterior landings

Frost protection shall be provided at exterior landings for all ~~required~~ exterior doors used for egress purposes ~~exits with outward-swinging doors. Frost protection shall only be required to the extent necessary to ensure the unobstructed opening of the required exit doors.~~

Add new section

1010.1.5.1 Landings at Exterior Exit Doors

Frost protection in accordance with 1809.5 shall be provided at exterior landings for at all exterior doors used for egress purposes with outward swinging doors.

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.

No

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.)

Section 1809.5.1 is relocated to 1010.5 as it is addressing landings and it is more likely that this requirement will be identified here than in the foundations section.

The word "required" has been removed because all exit doors need to be safe. Section 1010.1 requires that all doors provided for egress purposes in excess of those required for egress are required to meet the requirements of chapter 10. Therefore frost protection should also be extended to all doors provided for egress purposes.

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

It addresses a life safety issue unique to cold weather climates.

3. What other factors should the TAG consider?

None

Cost/Benefit Analysis

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

This is an editorial change and should not impact the cost of construction. Structures are required to have foundations. A stoop or landing is a structure per the IBC definition.

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.

No cost change

3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.
NA
4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
No
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?
Architects, Contractors, Developers, Building Owners, Contractors, Building Officials
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.
No
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?
Egress doors could become unusable during cold weather conditions thus trapping people inside a structure.
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: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can be considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Greg Metz

Date: 9/1/2022

Email address: greg.metz@state.mn.us

Model Code: IBC 2024

Telephone number: 651-284-5884

Code or Rule Section:

Firm/Association affiliation, if any: DLI/CCLD

IBC 2603.5 Exterior walls of buildings of any height; and

Code or rule section to be changed: MR 1305

MBC 2603.5.8 Exterior walls with additional façade safety features

General Information

Yes **No**

- | | | |
|--|-------------------------------------|-------------------------------------|
| A. Is the proposed change unique to the State of Minnesota? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| B. Is the proposed change required due to climatic conditions of Minnesota? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| C. Will the proposed change encourage more uniform enforcement? | <input checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input 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).

- 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.
 IBC 2603.5 Exterior walls of buildings of any height; Add Subsection 2603.5.8

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 ~~strikeout~~ words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

2603.5 Exterior walls of buildings of any height. *Exterior walls* of buildings of Type I, II, III, or IV construction of any height shall comply with Sections 2305.1 through 2305.7. *Exterior walls* of cold storage *buildings* required to be constructed of noncombustible materials, where the *building* is more than one *story* in height, shall comply with the provisions of Sections 2603.5.1 through 2603.5.7. *Exterior walls of buildings* of Type V construction shall comply with Sections 2603.2, 2603.3 and 2603.4. *Fire blocking* shall be in accordance with Section 718.2.

Exception: Buildings of Type II, III, or IV construction where the exterior wall height does not exceed 70 feet in height above the level of fire department access, and where the exterior walls comply with Sections 2603.5.1, 2603.5.2, 2603.5.4, 2603.5.6, 2603.5.7, and 2603.5.8.

2603.5.8 Exterior walls with additional façade safety features. Exterior walls with additional façade safety features shall include the following:

1. The building is equipped with an automatic sprinkler system per Section 903.3.1.1, and fire flow analysis has been performed without sprinkler decrease allowance that shows adequate water is available.
 2. There is not less than 30 feet (9144 mm) of clear yard space on each side of the building that will allow fire fighter access to the exterior walls.
 3. A fire department access lane compliant with Minnesota Fire Code Section 503 is located within 150 feet (45270 mm) of any façade location requiring additional façade safety features.
 4. Exterior walls in which concealed spaces contain combustible components are provided with Fireblocking in such a manner so as to interrupt and cut off concealed air spaces (both vertical and horizontal)
 - a. Fireblocking shall be installed within concealed spaces of exterior wall assemblies at every floor level or at maximum vertical intervals not exceeding 20 feet. Fireblocking shall be installed at horizontal intervals not exceeding 40 feet in exterior walls of noncombustible construction.
 - b. Materials used for Fireblocking in exterior wall assemblies shall comply with Section 7.18.2.1.
 5. Exterior walls containing foam plastic insulation are not designed with horizontal projections or elements that would block a fire hose stream from the ground unless the projections are provided with frost protected exterior sprinkler coverage above the projection.
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.
No.

Need and Reason

1. Why is the proposed code change needed?
The Minnesota energy code is increasingly requiring exterior continuous insulation and the most economical insulation for this function is foam plastic. The current code is written as all-or-nothing for buildings of any height over one story for Construction Types I, II, III and IV. Yet, Construction Type VA will allow exterior facades with foam plastics up to 70 feet in height without restrictive testing if the building is fully sprinkled.
2. Why is the proposed code change a reasonable solution?
It allows the same type of foam plastic exterior insulation up to the same height as Type V-A construction provided that the building is fully sprinkled on the interior to mitigate fire

propagation through windows to the exterior facades, that fire blocking is provided at intervals to inhibit façade fire propagation, and to ensure fire department access to all facades with foam plastics.

3. What other considerations should the TAG consider?

The need for an NFPA 285 test for every variant of a wall assembly for exterior facades given restrictions in height to that which is allowed for Type VA construction without NFPA 285 testing.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

The proposed change will decrease construction costs because foam plastic insulation is less expensive than mineral wool insulation of equivalent insulating properties. These are the two primary insulations available for continuous exterior insulation.

2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.

N/A

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

No

4. 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? 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?

Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.

2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

None

3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?

No

4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

None.

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

Continued avoidance of continuous exterior insulation in commercial construction resulting in continued significant energy consumption in new buildings.

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

No

8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

***Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Greg Metz

Date: 9/2/2022

Email address: greg.metz@state.mn.us

Model Code: IBC 2024

Telephone number: 651-284-5884

Code or Rule Section:

Firm/Association affiliation, if any: DLI/CCLD

IBC 3002.9 Plumbing & Mechanical systems in hoistways

Code or rule section to be changed: MR 1305

General Information

Yes **No**

- A. Is the proposed change unique to the State of Minnesota? Yes No
- B. Is the proposed change required due to climatic conditions of Minnesota? Yes No
- C. Will the proposed change encourage more uniform enforcement? Yes No
- D. Will the proposed change remedy a problem? Yes No
- E. Does the proposal delete a current Minnesota Rule, chapter amendment? Yes No
- F. Would this proposed change be appropriate through the ICC code development process? Yes No

Proposed Language

1. The proposed code change is meant to:

- change language contained the model code book? If so, list section(s).
- 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).
IBC 3002.9 Plumbing and mechanical systems
- 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 ~~strikeout~~ words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

(MN Amendment) **3002.9 Plumbing and mechanical systems.** Plumbing and mechanical system installed within elevator hoistways shall be provided in accordance with the following:

3002.9.1 Plumbing systems. Plumbing systems in hoistways shall be limited to and provided in accordance with Minnesota Rules Chapter 1307.

3002.9.2 Mechanical systems. Mechanical systems and mechanical components ~~in-serving~~ hoistways shall be ~~limited to those serving the hoistway~~ located outside of the hoistway and separated from the hoistway by fire-resistance-rated construction equal to that of the hoistway construction. Mechanical systems serving the hoistway shall not serve other portions of the building.

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.

No.

Need and Reason

1. Why is the proposed code change needed?
Minnesota's climate requires heating of hoistways. In many cases, elevator equipment requires mechanical cooling of hoistways. The Minnesota Elevator Code does not allow entrance into the hoistways except by licensed professionals. Mechanical service personnel that provide maintenance and repairs to mechanical equipment are typically not qualified to enter a hoistway to provide that work.
2. Why is the proposed code change a reasonable solution?
The proposed code change allows mechanical systems to condition hoistways, provides protection of the hoistway with a fire-resistance-rated separation between equipment and the hoistway itself, and allows for maintenance personnel to access the mechanical equipment for service.
3. What other considerations should the TAG consider?
None.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.
The proposed change will decrease construction costs by not requiring additional certification/licensure of mechanical contractors in order to access mechanical equipment located within elevator hoistways.
2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
N/A
3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
No

4. 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? 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?
Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
None
3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
No
4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
None.
6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
Continued confusion over what is allowed and required when hoistways need heating or air conditioning.
7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
No
8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

***Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Greg Metz

Date: 9/7/2022

Email address: greg.metz@state.mn.us

Model Code: IBC 2024

Telephone number: 651-284-5884

Code or Rule Section:

Firm/Association affiliation, if any: DLI/CCLD

IBC 3005.4.1 Machine Room Access

Code or rule section to be changed: MR 1305

General Information

Yes **No**

- | | | |
|--|-------------------------------------|-------------------------------------|
| A. Is the proposed change unique to the State of Minnesota? | <input type="checkbox"/> | <input checked="" 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 checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input 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).

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.
IBC 3005.4.1 Machine Room Access

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 ~~strikeout~~ words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

3005.4.1 Machine and controls access. Access to elevator machine rooms, control rooms, control spaces or machinery spaces shall not require passage through kitchens, toilet rooms, dwelling units, or sleeping units.

Exception: Elevators that serve a single dwelling unit or sleeping unit may access the machine room or control room through the dwelling unit or sleeping unit served.

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.

No.

Need and Reason

1. Why is the proposed code change needed?
A handful of projects have designed elevator machine room access through toileting facilities that are separated by sex. There is nothing in the code prohibiting this, but it requires closing the toilet room to work on the elevator.
2. Why is the proposed code change a reasonable solution?
Waiting to vacate toilet rooms and then closing toilet rooms in order to access and maintain elevator and escalator machine rooms is very inconvenient and typically not necessary. If codified, access to the machine rooms and control rooms where not passing through toilet rooms or dwelling/sleeping units is easily accommodated.
3. What other considerations should the TAG consider?
None.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.
No cost
2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
N/A
3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
No
4. 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? 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?
Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.

2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
None
3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
No
4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.
5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
None.
6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
Continued occasional location of elevator or escalator machine room/control room access through toilet rooms or dwelling/sleeping units with no code recourse to correct the problem.
7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
No
8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

***Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Staff

Date: August 24, 2024

Email address: chris.rosival@state.mn.us

Model Code: 2024 IMC & 2024 IBC

Telephone number: 651-284-5510

Code or Rule Section: 1346.1206.1.1 & 1305.3005.7

Firm/Association affiliation, if any: DLI

Topic of proposal: Hydronic piping in elevator rooms

Code or rule section to be changed: Hydronic Piping

Intended for Technical Advisory Group ("TAG"):

General Information

Yes No

- | | | |
|--|-------------------------------------|-------------------------------------|
| A. Is the proposed change unique to the State of Minnesota? | <input type="checkbox"/> | <input checked="" 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 checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/> |

Proposed Language

1. The proposed code change is meant to:

change language contained in the model code book? If so, list section(s).

MR 1346.1206.1 & MR 1305.3005.7

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 ~~striethrough~~ words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

SECTION 1206

PIPING INSTALLATION

1206.1 General. Piping, valves, fittings and connections shall be installed in accordance with the conditions of approval.

1206.1.1 Elevator machine rooms. Hydronic piping shall not enter or pass through elevator machine rooms.

3005.7 Mechanical piping. Hydronic piping shall not enter or pass through elevator machine rooms.

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.
Copying the amendment in the IMC and IBC.

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.)
MR 1307 does not allow hydronic piping in machine rooms and this is not addressed in MR 1346.
2. Why is the proposed code change a reasonable solution?
This CCP is a simple clarification to specify where hydronic piping is not allowed.
3. What other factors should the TAG consider?
None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.
N/A
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.
N/A.
3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.
N/A
4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
N/A
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 change

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?
Designers, installers and mechanical inspectors.
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.
No.
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?
Possible cost increases for changes needed to comply with MR 1307
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.
N/A

***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.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Greg Metz

Date: 9/7/2022

Email address: greg.metz@state.mn.us

Model Code: IBC 2024

Telephone number: 651-284-5884

Code or Rule Section:

Firm/Association affiliation, if any: DLI/CCLD

IBC 3006.2 Hoistway Opening Protection Required

Code or rule section to be changed: MR 1305

General Information

Yes **No**

- A. Is the proposed change unique to the State of Minnesota? Yes No
- B. Is the proposed change required due to climatic conditions of Minnesota? Yes No
- C. Will the proposed change encourage more uniform enforcement? Yes No
- D. Will the proposed change remedy a problem? Yes No
- E. Does the proposal delete a current Minnesota Rule, chapter amendment? Yes No
- F. Would this proposed change be appropriate through the ICC code development process? Yes No

Proposed Language

1. The proposed code change is meant to:

change language contained the model code book? If so, list section(s).
IBC 3006.2 Hoistway Opening Protection Required

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 ~~strikeout~~ words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

2024 IBC 3006.2 Elevator hoistway door protection required. Elevator hoistway doors shall be protected in accordance with Section 3006.3 where an elevator hoistway connects more than three stories, and is required to be enclosed within a *shaft enclosure* in accordance with Section 712.1.1 and any of the following conditions apply:

- ~~1. The building is not protected throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.~~
 - ~~2. The building contains a Group I-1, Condition 2 occupancy.~~
 - ~~3. The building contains a Group I-2 occupancy.~~
 - ~~4. The building contains a Group I-3 occupancy.~~
 - ~~5. The building is a high rise and the elevator hoistway is more than 75 feet (22 860 mm) in height. The height of the hoistway shall be measured from the lowest floor to the highest floor of the floors served by the hoistway.~~
 - ~~6. The elevator hoistway door is located in the wall of a corridor required to be fire resistance rated in accordance with Section 1020.1~~
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.
Should be considered with changes to Section 3006.3 Hoistway opening protection.

Need and Reason

1. Why is the proposed code change needed?
Elevator lobbies are intended to protect floors from smoke migrating through the elevator shaft since elevator doors that limit the passage of smoke are not widely available.

Elevator lobbies are an opportunity to mitigate stack effect building pressurization and air migration through buildings via elevator shafts. Doors and roll down smoke curtains do not mitigate air movement in non-emergency conditions because they are always open. The condition allows free migration of air through the shaft under normal conditions contributing to stack effect building pressurization, air infiltration, energy loss, and lower indoor air quality
2. Why is the proposed code change a reasonable solution?
The proposed change provides for a low technology, highly effective means to provide significant energy savings benefit, improve indoor air quality, and enhance passive fire safety.
3. What other considerations should the TAG consider?
 - Building compartmentalization in Minnesota Rules Chapter 1323 to mitigate stack-effect air flow in buildings four stories and taller in height.
 - Consider allowing electrically operated automatic sliding doors for elevator lobbies when not part of the means of egress path.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.
Minor cost change for sprinkled buildings four stories and taller in height. Cost increase will include the cost of a fire resistance rated pair of doors with closers for each story. Cost of a fire resistance rated door pair is approximately \$1,800.

2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
The increase in cost will be offset by additional passive fire safety, improved indoor air quality due to a reduction in uncontrolled air infiltration due to stack effect, and improved energy efficiency due to mitigation of stack effect building pressurization.
3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
No
4. 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? 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?
Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
None
3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
No
4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
None.
6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
Continued air infiltration and exfiltration due to stack-effect, energy loss, increased energy costs, perpetuated poor air quality.
7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
No
8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

***Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Greg Metz

Date: 8/11/2022

Email address: greg.metz@state.mn.us

Model Code: IBC 2024

Telephone number: 651-284-5884

Code or Rule Section:

Firm/Association affiliation, if any: DLI/CCLD

IBC 3006.3 Hoistway Opening Protection

Code or rule section to be changed: MR 1305

General Information

Yes **No**

- A. Is the proposed change unique to the State of Minnesota? Yes No
- B. Is the proposed change required due to climatic conditions of Minnesota? Yes No
- C. Will the proposed change encourage more uniform enforcement? Yes No
- D. Will the proposed change remedy a problem? Yes No
- E. Does the proposal delete a current Minnesota Rule, chapter amendment? Yes No
- F. Would this proposed change be appropriate through the ICC code development process? Yes No

Proposed Language

1. The proposed code change is meant to:

change language contained the model code book? If so, list section(s).
IBC 3006.3 Hoistway Opening Protection

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 ~~strikeout~~ words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

2024 IBC 3006.3 Elevator hoistway door protection. Where Section 3006.2 requires protection of the elevator hoistway doors, the protection shall be provided by one of the following:

1. An enclosed elevator lobby shall be provided at each floor to separate the elevator hoistway doors from each floor with ~~fire partitions in accordance with Section 708~~ smoke barriers in accordance with Section 709. In addition, doors protecting openings in the ~~fire partitions~~ smoke barriers shall comply with Section 716.2.2.1 as required for smoke barrier walls. Penetrations of the ~~fire partitions~~ smoke barriers by ducts and air transfer openings shall be protected as required for corridors in accordance with ~~Section 717.5.4.1~~ Section 717.5.5.
2. An enclosed elevator lobby shall be provided at each floor to separate the elevator hoistway doors from each floor by smoke partitions in accordance with Section 710. In addition, doors protecting openings in the smoke partitions shall comply with /Sections 710.5.2.2, 710.5.2.3 and 716.2.6.1. Penetrations of the smoke partitions by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 717.5.4.1.
- ~~3. Additional doors or other devices shall be provided at each elevator hoistway door in accordance with Section 3002.6. Such doors or other devices shall comply with the smoke and draft control door assembly requirements in Section 716.2.2.1.1 when tested in accordance with UL 1784 without an artificial seal at the bottom.~~
- ~~4. The elevator hoistway shall be pressurized in accordance with Section 909.21.~~
- ~~5. A smoke protective curtain assembly for hoistways shall be provided at each elevator hoistway door opening in accordance with Section 3002.6. Such curtain assemblies shall comply with the smoke and draft control requirements in Section 716.2.2.1.1 when tested in accordance with UL 1784 without an artificial bottom seal. Such curtain assemblies shall be equipped with a control unit listed to UL 864. Such curtain assemblies shall comply with Section 2.11.6.3 of ASME A17.1/CSA B44. Installation and maintenance shall be in accordance with NFPA 105.~~

Note: 2024 IBC removed automatic sprinkler protection as a condition of item 2 utilizing smoke partitions walls.

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.
No.

Need and Reason

1. Why is the proposed code change needed?

Elevator lobbies are intended to protect floors from smoke migrating through the elevator shaft since elevator doors that limit the passage of smoke are not widely available. Fire partitions do not have criteria for limiting the passage of smoke.

Elevator lobbies are an opportunity to mitigate stack effect building pressurization and air migration through buildings via elevator shafts. Doors and roll down smoke curtains do not mitigate air movement in non-emergency conditions. The condition allows free migration of air through the shaft under normal conditions contributing to stack effect building pressurization, air infiltration, energy loss, and lower indoor air quality

Elevator pressurization protects the shafts from smoke intrusion during emergency conditions but allows free migration of air through the shaft under normal conditions contributing to stack effect building pressurization, air infiltration, energy loss, and lower indoor air quality.

2. Why is the proposed code change a reasonable solution?
It provides for a low technology, highly effective means to provide for fire safety, save energy and improve indoor air quality.
3. What other considerations should the TAG consider?
 - Building compartmentalization in Minnesota Rules Chapter 1323 to mitigate stack-effect air flow in buildings four stories and taller in height.
 - Consider allowing electrically operated automatic sliding doors for elevator lobbies when not part of the means of egress path.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.
No cost change.
2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
N/A
3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
No
4. 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? 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?
Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
None
3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
No
4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.
5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
None.
6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

Continued air infiltration and exfiltration due to stack-effect, energy loss, increased energy costs, perpetuated poor air quality.

7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
No
8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

***Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Greg Metz

Date: 9/7/2022

Email address: greg.metz@state.mn.us

Model Code: IBC 2024

Telephone number: 651-284-5884

Code or Rule Section:

Firm/Association affiliation, if any: DLI/CCLD

IBC 3007.2.1 Fire Service Access Elevator
Sprinkler system prohibited locations

Code or rule section to be changed: MR 1305

General Information

Yes **No**

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

Proposed Language

1. The proposed code change is meant to:

change language contained the model code book? If so, list section(s).

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.
IBC 3007.2.1 Prohibited Locations

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 ~~strikeout~~ words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

IBC 3007.2.1 Prohibited locations. Automatic sprinklers shall not be installed in machine rooms, elevator machinery spaces, control rooms, control spaces, and elevator hoistways of fire service access elevators.

Exception: Health care occupancies that are: 1) required to have NFPA 13 systems; 2) licensed by the Minnesota Department of Health; and 3) participate in Title XVIII (Medicare) or Title XIX (Medicaid) of the Social Security Act.

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.
No.

Need and Reason

1. Why is the proposed code change needed?
To coordinate with federal standards requirements for licensing of federally funded healthcare facilities so that they may maintain their healthcare licenses.
2. Why is the proposed code change a reasonable solution?
It addresses the specific requirement of the healthcare licensing industry without including other building types where sprinkler discharge in the elevator equipment areas could be problematic.
3. What other considerations should the TAG consider?
None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.
No cost change. The change is consistent with MBC 903.3.1.1.1 Exempt Locations, Item 7 exception.
2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
N/A
3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
No
4. 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? 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?
Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.

2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
None
3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
No
4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.
5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
None.
6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
Mis-coordinated code sections and continued confusion as to whether sprinklers can be installed in elevator machine rooms or not.
7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
No
8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

***Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Greg Metz

Date: 9/7/2022

Email address: greg.metz@state.mn.us

Model Code: IBC 2024

Telephone number: 651-284-5884

Code or Rule Section:

Firm/Association affiliation, if any: DLI/CCLD

IBC 3101.1 Special Construction- Scope

Code or rule section to be changed: MR 1305

General Information

Yes **No**

- A. Is the proposed change unique to the State of Minnesota? Yes No
- B. Is the proposed change required due to climatic conditions of Minnesota? Yes No
- C. Will the proposed change encourage more uniform enforcement? Yes No
- D. Will the proposed change remedy a problem? Yes No
- E. Does the proposal delete a current Minnesota Rule, chapter amendment? Yes No
- F. Would this proposed change be appropriate through the ICC code development process? Yes No

Proposed Language

1. The proposed code change is meant to:

change language contained the model code book? If so, list section(s).

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.
IBC 3101.1 Scope

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 ~~strikeout~~ words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

IBC 3101.1 Scope. The provisions of this chapter shall govern special building construction including membrane structures, temporary structures, pedestrian walkways and tunnels, awnings and canopies, marquees, signs, telecommunications and broadcast towers, swimming pools, spas and hot tubs, automatic vehicular gates, solar energy systems, greenhouses, relocatable buildings, and intermodal shipping containers, window cleaning safety provisions.

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.
No.

Need and Reason

1. Why is the proposed code change needed?
To incorporate Minnesota Amendment Section 3114 into the scoping of the chapter.
2. Why is the proposed code change a reasonable solution?
Without scoping from 3101.1, the provisions in Section 3114 are technically not included in the code because there is not a code path incorporating the section into the body of work.
3. What other considerations should the TAG consider?
None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.
No cost change. Section 3114 is already printed in the code and typically enforced. This is a clerical item to ensure consistency.
2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
N/A
3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
No
4. 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? 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?
Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
None

3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?

No

4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

None.

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

Costs of arguments and hearings associated with disagreements regarding the legal application of Section 3114.

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

No

8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

***Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Steve Poor

Date: 6/20/2024

Email address: steve.poor@minneapolismn.gov

Model Code: Minnesota State Building Code

Telephone number: 612-364-4657

Code or Rule Section: Section 3103

Firm/Association affiliation, if any: City of Minneapolis

Topic of proposal: Temporary structures

Code or rule section to be changed: Section 3103

Intended for Technical Advisory Group ("TAG"): June 27, 2024

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 checked="" type="checkbox"/> | <input type="checkbox"/> |
| C. Will the proposed change encourage more uniform enforcement? | <input checked="" type="checkbox"/> | <input 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 in the model code book? If so, list section(s).

change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).

Section 3103

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.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with underlining and ~~striketrough~~ words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

SECTION 3103 TEMPORARY STRUCTURES

General. The provisions of Sections through shall apply to structures erected for a period of less than ~~180~~ 210 days. Tents, umbrella structures and other membrane structures erected for a period of less than ~~180~~ 210 days shall comply with the International Fire Code. Those erected for a longer period of time shall comply with applicable sections of this code.

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.

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.)

This change will allow restaurants and other businesses that use temporary structures during Minnesota winters to ensure the temporary structure can be up throughout all months of inclement weather.

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

This change extends the current 180 day rule to add an extra month.

3. What other factors should the TAG consider?

Cost/Benefit Analysis

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

No – it will not change inspection costs.

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.
3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.
4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

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 – this is a minor change to existing code.

Regulatory Analysis

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

Hospitality businesses

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.
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?
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.

***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.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Greg Metz

Date: 5/30/2024

Email address: greg.metz@state.mn.us

Model Code: IBC 2024

Telephone number: 651-284-5884

Code or Rule Section:

Firm/Association affiliation, if any: DLI/CCLD

IBC 3114.1 Intermodal shipping containers

Code or rule section to be changed: MR 1305

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 checked="" type="checkbox"/> | <input type="checkbox"/> |
| C. Will the proposed change encourage more uniform enforcement? | <input checked="" type="checkbox"/> | <input 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).
MBC 3114.1 General.
- 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 ~~strikeout~~ words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

3114.1 General. The provisions of Section 3114 and other applicable sections of ~~this code~~ the Minnesota State Building Code shall apply to *intermodal shipping containers* that are repurposed for use as *buildings* or *structures*, or as a part of *buildings* or *structures*. Intermodal shipping containers used as buildings or parts of buildings shall meet all requirements for new construction.

Exceptions:

1. *Intermodal shipping containers* previously *approved* as existing *relocatable buildings* complying with Chapter 14 of the *International Existing Building Code*.
2. Stationary storage battery arrays located in *intermodal shipping containers* complying with Chapter 12 of the *International Fire Code*.
3. *Intermodal shipping containers* that are *listed* as equipment complying with the standard for equipment, such as air chillers, engine generators, modular *data centers*, and other similar equipment.
4. *Intermodal shipping containers* housing or supporting experimental equipment are exempt from the requirements of Section 3114, provided that they comply with all of the following:
 - 4.1. Such units shall be single stand-alone units supported at grade level and used only for occupancies as specified under *Risk Category I* in Table 1604.5.
 - 4.2. Such units are located a minimum of 8 feet (2438 mm) from adjacent *structures*, and are not connected to a fuel gas system or fuel gas utility.
 - 4.3. In *hurricane-prone regions* and *flood hazard areas*, such units are designed in accordance with the applicable provisions of Chapter 16.
5. Intermodal shipping containers previously approved as buildings or parts of buildings and not undergoing alteration or relocation.

Need and Reason

1. Why is the proposed code change needed?

There is a need for clarity that the items listed in Section 3114 are not the only requirements for using shipping containers for buildings. There are fire safety requirements, accessibility requirements, energy code requirements, ventilation requirements, and a host of other requirements found in other parts of the State Building Code.

Because the charging language requires shipping containers used for buildings to comply as for new construction for clarity, we need to add an exception that allows existing non-conforming conditions to remain where shipping containers are already used as buildings but are not themselves being altered or moved.
2. Why is the proposed code change a reasonable solution?

The language merely provides clarity and does not add to the requirements already strongly implied but not specifically stated.
3. What other considerations should the TAG consider?

Consider requiring special inspections for materials and welds since the containers are not new product, have likely been exposed to salt air and may be damaged or in various states of decay.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.
No cost change. This is merely clarification.
2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
N/A
3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
No
4. 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? 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?
Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Electrical inspectors, building owners and building tenants.
2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues? None
3. Are there less costly intrusive methods for achieving the purpose of the proposed rule? No
4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None.
6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
Designer/owner confusion regarding the requirements for using shipping containers as buildings.
7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
No
8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
N/A

***Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Greg Metz

Date: 9/7/2022

Email address: greg.metz@state.mn.us

Model Code: IBC 2024

Telephone number: 651-284-5884

Code or Rule Section:

Firm/Association affiliation, if any: DLI/CCLD

IBC 3301.1 Scope.

Code or rule section to be changed: MR 1305

General Information

Yes **No**

- A. Is the proposed change unique to the State of Minnesota? Yes No
- B. Is the proposed change required due to climatic conditions of Minnesota? Yes No
- C. Will the proposed change encourage more uniform enforcement? Yes No
- D. Will the proposed change remedy a problem? Yes No
- E. Does the proposal delete a current Minnesota Rule, chapter amendment? Yes No
- F. Would this proposed change be appropriate through the ICC code development process? Yes No

Proposed Language

1. The proposed code change is meant to:

change language contained the model code book? If so, list section(s).

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.
IBC 3301.1 Scope.

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 ~~strikeout~~ words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

3301.1 Scope. The provisions of this chapter shall govern safety during construction and the protection of adjacent public and private properties. Fire safety during construction shall also comply with the applicable provisions of Chapter 33 of the International Fire Code.

3301.2 Partial Occupancy. Where an existing building is intended to be partially occupied during construction, the following conditions shall be met:

1. The means of egress for occupied portions of the building shall comply with travel distance limits and number of exits required. Temporary means of egress may include temporary exterior fire escapes or exterior stairways constructed of any materials allowed by code.
2. For buildings equipped with an automatic sprinkler system and part or all of the system is required to be non-operational for a period of time, the travel distance limits and number of required exits shall be provided as for non-sprinkled buildings. Fire extinguishers shall be placed within 75 feet of travel distance from any occupied location within the building.
3. Spaces located beyond the allowable travel distance limits shall be cordoned off to not be occupied and shall be signed "Limits of safe occupancy, construction workers only beyond this point."
4. There shall be not less than a one-hour fire barrier separating the construction work area from occupied portions of the building.
5. Means of egress from occupied portions shall not pass through a construction work area.
6. Means of egress including temporary means of egress shall include exit discharge to the public way or safe dispersion area that can be maintained free and clear of ice and snow.

Renumber following code sections accordingly.

3301.3 ~~3301.2~~ Storage and Placement

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.
No.

Need and Reason

1. Why is the proposed code change needed?
The code does not provide any guidance on safe partial occupancy of buildings undergoing renovation and construction.
2. Why is the proposed code change a reasonable solution?
It clarifies what is required for basic occupant safety and provides guidance for handling areas beyond the limits of safe occupancy. The requirements are consistent with current code, and are merely included to reduce construction costs by clarifying requirements in a less subjective manner while maintaining occupant safety during construction.
3. What other considerations should the TAG consider?
None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.
No cost change.

2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
N/A
3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
No
4. 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? 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?
Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
None
3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
No
4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.
5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
None.
6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
Wide variations in requirements for partial occupancy leading to inconsistency in requirements and elevated construction costs to mitigate the uncertainty.
7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
No
8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

***Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Gregory Metz

Date: 7/18/2024

Email address: Greg.Metz@State.MN.US

Model Code: 2024 IBC

Telephone number: 651-284-5884

Code or Rule Section: 3314.1

Firm/Association affiliation, if any: DLI/CCLD

Topic of proposal: Fire Watch

Code or rule section to be changed: 3114.1 Fire Watch

Intended for Technical Advisory Group ("TAG"): MR 1305

General Information

Yes No

- | | | |
|--|-------------------------------------|-------------------------------------|
| A. Is the proposed change unique to the State of Minnesota? | <input type="checkbox"/> | <input checked="" 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 checked="" type="checkbox"/> | <input 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).

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 ~~striketrough~~ words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

3314.1 Fire watch during construction. ~~A~~ When required by the fire code official, fire watch shall be provided during nonworking hours ~~for construction that exceeds 40 feet (12 192 mm) in height above the lowest adjacent grade at any point along the building perimeter~~, for new multi-story construction ~~with an aggregate area exceeding 50,000 square feet (4645 m²) per story or as required by the fire code official.~~

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.
No

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.)

Model code mandates a fire watch under certain conditions for building size and when construction exceeds normal limits of firefighting capability from the ground. The model code imposes expensive staffing for fire watch when the service may not be necessary.

2. Why is the proposed code change a reasonable solution?
The proposed change gives the discretion to the fire official to require a fire watch or not.
3. What other factors should the TAG consider?

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.
The change will decrease construction costs by not mandating fire watch for all buildings taller than three stories (40 feet) or 50,000 square feet.
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.
N/A
3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.
N/A
4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
N/A
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?
Architects, engineers, developers, building owners, code officials, firefighters

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.
No

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?
Added cost to buildings, especially multi-family housing with no ultimate benefit to the owner or occupants.

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: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can be considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Carsten Jonas

Date: 7/3/2024

Email address: carstenmjonas@gmail.com

Model Code: IBC/IFC

Telephone number: 7813638193

Code or Rule Section: N/A

Firm/Association affiliation, if any: Self

Topic of proposal: Exit signs

Code or rule section to be changed: New section 1013.7

Intended for Technical Advisory Group ("TAG"): 1305/Fire Code Compatibility

General Information

Yes No

- | | | |
|--|-------------------------------------|-------------------------------------|
| A. Is the proposed change unique to the State of Minnesota? | <input type="checkbox"/> | <input checked="" 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 checked="" type="checkbox"/> | <input type="checkbox"/> |
| D. Will the proposed change remedy a problem? | <input type="checkbox"/> | <input checked="" 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 checked="" type="checkbox"/> | <input type="checkbox"/> |

Proposed Language

1. The proposed code change is meant to:

- change language contained the model code book? If so, list section(s).
- 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 ~~striketrough~~ words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.
1013.7 Pictograms. In lieu of or in addition to the word "EXIT", exit signs may include the pictogram for an emergency exit as standardized by the International Organization for Standardization in Standard 7010.
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.
 No.

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.)
 For many years, a pictogram (symbol) to indicate an emergency exit has been internationally standardized (see attached PDF for an example). This symbol has been adopted in jurisdictions around the world, including other English-speaking ones such as Canada, Australia, New Zealand, and the United Kingdom.
 The pictogram makes exit signs readily understandable by anyone regardless of the language they speak. In addition, when it is used with a directional arrow (as the example in the attached PDF shows), this arrow is much larger compared to the arrow on textual exit signs.
 This enhances safety by making it easier for occupants to find the exit, especially if it's a building that they're not familiar with.
 It should be noted that the pictogram has been used in some buildings in Massachusetts and New York State. These installations were likely individual variances.
2. Why is the proposed code change a reasonable solution?
 This change will allow the pictogram on exit signs in all buildings. This change does not require it, so new and existing buildings that prefer to continue using textual exit signs will still be permitted to do so.
3. What other factors should the TAG consider?
 Eventually requiring the pictogram on exit signs in occupancies that are likely to attract international visitors (e.g. some Group A occupancies such as airport terminals, and Group R-1 occupancies such as hotels.)

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.
 No, the manufacturing costs and installation procedures for an exit sign that has the pictogram are identical to one that uses the word "EXIT".
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.
 N/A
3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.
 N/A
4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No, the inspection procedures for an exit sign that has the pictogram are identical to one that uses the word "EXIT".

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, there is no cost impact from this change.

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?
Building owners and patrons.
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.
Another option could have been to wait for an IBC/IFC code change. However, earlier this year at the ICC Committee Action Hearings in Orlando, there was significant confusion over the applicability of the proposed change as the IBC/IFC change proposal (E78-24) appeared to only apply to externally illuminated exit signs, not internally illuminated ones. This state-level amendment proposal is designed to avoid this confusion by creating a new subsection that applies to both types of exit signs.
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 probable costs or consequences if this change were not adopted are:
People may be less easily able to recognize the direction of the emergency exit due to the small directional arrows on textual exit signs.
International visitors to Minnesota may be less likely to recognize emergency exits in buildings.
Conversely, Minnesotans who travel internationally may be less likely to recognize emergency exits in buildings they visit on their travels.
Building owners who, in the absence of this code change, wish to use the pictogram on the exit signs in their building will have to apply for a variance.
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.
A potential issue that may come up is a purported conflict between this code change and OSHA regulations. (In areas where MNOSHA does not have its own regulations, it enforces the federal OSHA regulations. There do not appear to be MNOSHA-specific regulations regarding exit signs, so the federal OSHA regulations are applicable and I'll use them for this analysis.)
Despite what initially appears to be a conflicting requirement in 29 CFR 1910.37(b), 29 CFR 1910.35 provides that compliance with applicable provisions of NFPA 101, 2009 edition, will be considered compliant with regards to applicable provisions of OSHA's means of egress requirements. Since its 2003 edition, NFPA 101 expressly allows the pictogram on exit signs, including in lieu of the word "EXIT", if allowed by the state/local jurisdiction, per sections 7.10.3.2 and A.7.10.3.2, the latter of which states: "Pictograms are permitted to be used in lieu of, or in addition to, signs with text."
Therefore, OSHA regulations do not preempt or otherwise conflict with this code change.

***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.

CCP24_110 example

Example of what the pictogram looks like (with a directional arrow):



Minnesota Department of Public Safety State Fire Marshal Division

24CCP_125

Fire Code Change Proposal Form

(Submit via email to: fire.code@state.mn.us)

***Please complete all sections. Incomplete forms may be returned for additional information.*

Author/requestor: [Forrest Williams, Supervisor \(SFM\)](#)

Date: [10/16/2024](#)

Email address: forrest.williams@state.mn.us

Telephone number: [651-769-7784](#)

Organization/Association/Agency, if any: [DPS – State Fire Marshal](#)

Code or rule section to be changed (include code or rule title and edition year): [2020 MSFC 7511.1010.1.9.4 & 2020 MBC 1305.1010.1.9.4](#)

Is the subject matter of the proposed change also regulated by the Minnesota Building Code?

YES: NO: UNKNOWN:

***If yes, a [building code change proposal](#) must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division.*

General Information

Yes No

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

Proposed Language

1. The proposed code change is meant to:



Minnesota Department of Public Safety State Fire Marshal Division

Change language contained the model code book? If so, list section(s).

Change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).

2020 MSFC 7511.1010.1.9.4 & 2020 MBC 1305.1010.1.9.4

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 words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

Note: The purpose of this change proposal is to resolve a conflict between the state fire and building codes and Minnesota Rules for the security of large firearms dealers by adding item #12 below.

(2020 MSFC 7511.1010.1.9.4, as amended)

1010.1.9.4 Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exists:

1. Places of detention or restraint.

2. In buildings in occupancy Group A having an occupant load of 300 or less, in buildings in occupancy Groups B, F, M, and S and in places of religious worship, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side, provided:

2.1 The locking device is readily distinguishable as locked.

2.2 A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING



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Minnesota Department of Public Safety State Fire Marshal Division

IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background.

2.3 The use of the key-operated locking device is revocable by the fire code official for due cause.

3. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware.
4. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of ten or less are permitted to be equipped with a night latch, dead bolt, or security chain, provided such devices are openable from the inside without the use of a key or tool.
5. Fire doors, after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.
6. Doors serving roofs not intended to be occupied shall be permitted to be locked preventing entry to the building from the roof.
7. Delayed egress locks, installed and maintained in conformance with Section 1010.1.9.8.
8. Controlled egress doors installed and maintained in conformance with Section 1010.1.9.7.
9. Electrically locked egress doors installed and maintained in conformance with Section 1010.1.9.9 or 1010.1.9.10.
10. In rooms, other than detention cells, where occupants are being restrained for safety or security reasons, special detention arrangements that comply with the requirements of Section 1010.1.11 are permitted.
11. Means of egress stairway doors, installed and maintained in conformance with Section 1010.1.9.12.

12. Retail spaces used exclusively for large firearms dealers shall be secured in accordance with Minnesota Rules 7504.0300. Means of egress doors from spaces allocated to dealing with firearms shall remain unlocked from the egress side whenever the space is occupied. There shall be no requirement for signs and this provision is subject to inspection during normal business hours by the code official or law enforcement as defined in Minnesota Rules 7504.0500.

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.
[2020 MBC 1305.1010.1.9.4](#)

Need and Reason



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Minnesota Department of Public Safety State Fire Marshal Division

1. Why is the proposed code change needed?

Currently, the state fire and building codes are in conflict with MN Rules for the securing of large firearms dealers. MN Rules 7504.0300 allows large firearms dealers options for securing perimeter doorways, including the use of a standard operational hardware lockset in addition to a deadbolt lock or the use of a metal security grate equipped with a padlock. Each of these options have the potential to be prohibited under the state fire and building codes depending on conditions. Further, ATF firearms licensing under 27 CFR Part 478 is contingent upon dealers conforming to MR 7504.0300.

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

This change is reasonable based on the following:

- These security measures will not inhibit occupant egress as such areas will only be secured from the egress side after-hours when the areas are not occupied.
- 2020 MSFC 1031.2.1 states that security devices affecting the means of egress shall be subject to approval of the fire code official. And the IFC commentary for Section 1010.1.9.2 states the following regarding security devices: "Security locks can be placed at any height. An example would be an unframed glass front door of a tenant space in a mall that has the lock near the floor level. The lock is only used when the store is not open for business. Such locks are not required for the normal operation of the door."

3. Is there additional data or information that should be considered?

n/a

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

No change in costs. This revision simply eliminates a current conflict in MN Rules by acknowledging the security requirements for large firearms dealers required under MR 7504.0300.

2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.

n/a

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

no

4. 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? 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



Minnesota Department of Public Safety State Fire Marshal Division

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?
[Large firearms dealers and property owners, fire and building code officials, and design professionals,](#)
2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
[none](#)
3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
[no](#)
4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
[no](#)
5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
[none](#)
6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
[Without adopting this change, the conflict between the state fire and building codes and MN Rules for the securing of large firearms dealers will continue. The result being: some building and fire code officials will continue to not allow these security features while local law enforcement will mandate such features be present.](#)
7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
[27 CFR Part 478. ATF firearms licensing is contingent upon dealers conforming to MR 7504.0300.](#)
8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
[ATF firearms licensing under 27 CFR Part 478 is contingent upon dealers conforming to MR 7504.0300.](#)



Minnesota Department of Public Safety State Fire Marshal Division

***Please complete all sections. Incomplete forms may be returned for additional information.*



Updated July 2022



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Jerry Norman

Date: 9/13/2024

Email address: gnorman@rochestermn.gov

Model Code: 2024 IBC

Telephone number: 507-328-2622

Code or Rule Section: Table 1006.3.4(1)

Firm/Association affiliation, if any: NA

Topic of proposal: sleeping units

Code or rule section to be changed: 2024 IBC

Intended for Technical Advisory Group ("TAG"):

General Information

Yes **No**

- A. Is the proposed change unique to the State of Minnesota? Yes No
- B. Is the proposed change required due to climatic conditions of Minnesota? Yes No
- C. Will the proposed change encourage more uniform enforcement? Yes No
- D. Will the proposed change remedy a problem? Yes No
- E. Does the proposal delete a current Minnesota Rule, chapter amendment? Yes No
- F. Would this proposed change be appropriate through the ICC code development process? Yes No

Proposed Language

1. The proposed code change is meant to:

change language contained the model code book? If so, list section(s).

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).
IBC Table 509.1

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

- Provide *specific* language you would like to see changed. Indicate proposed new words with underlining and ~~striketrough~~ words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

TABLE 1006.3.4(1) – STORIES AND OCCUPIABLE ROOFS WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES

STORY	OCCUPANCY	MAXIMUM NUMBER OF DWELLING UNITS OR SLEEPING UNIT	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
Basement, first, second or third story above grade plane and	R-2 ^{a, b, c}	4 dwelling <u>or sleeping</u> units	125 feet
Forth story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 304.8 mm
 NP = Not Permitted
 NA = Not Applicable

a. Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and protected with emergency escape and rescue openings in accordance with Section 1031.
 b. This table is used for group R-2 occupancies consisting of dwelling units or sleeping units. For other Group R-2 occupancies, use Table 1006.3.4 (2).
 c. This table is for occupiable roofs accessed through and serving individual dwelling units or sleeping units in Group R-2 occupancies. For other Group R-2 occupancies with occupiable roofs that are not accessed through and serving individual units use Table 1006.3.4(2).

- Is 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.

No

Need and Reason

- 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.)

The table identifies when a single means of egress is allowed from a story. The table allows up to 4 dwelling units per story for up to 3 stories above grade plane, but would not allow 4 sleeping units per story for up to 3 stories above grade plane and instead references the user to another code table (Table 1006.3.4(2)) which would not allow a single exit from the 3rd story above grade plane for a sleeping unit type group R-2 occupancy. By definition (ref. IBC Sec. 202) the difference between a sleeping unit and a dwelling unit is that a dwelling unit has provisions for sanitation AND cooking, where a sleeping unit has provisions for sanitation OR cooking but not both. Normally sleeping units have sanitation facilities only. So the question is “How does the addition of a cooking appliance make it SAFER and thereby allow the addition story?” Actual example that have been effected are small dormitory buildings and existing dwelling units turned into rooming houses.

- Why is the proposed code change a reasonable solution?

If the code has determined that 4 dwelling units with a single means of egress is safe for up to 3 stories above grade plane, then logically 4 sleeping units should also be permitted. Individual sleeping units are typically smaller in size than a dwelling unit, are provided with smoke alarms, and are separated from adjoining spaces with rated construction.

- What other factors should the TAG consider?

Cost/Benefit Analysis

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

Decrease cost as a second means of egress will no longer be required from these facilities.

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.
3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.
4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

It will reduce enforcement cost as a second means of egress will not need to be confirmed during plan review or inspection.

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?

Architects, engineers and contractors.

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.

It could be a separate provision in section 1006.3.4 instead of being in the table.

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?

Failure to adopt the code change will limit option for designers on small lots thereby reducing affordable housing options.

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.

Yes. The legislature has direct MN DLI to review the single exit building provisions, but most efforts have been focused on “dwelling unit” buildings not “sleeping unit” buildings.

***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.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Jerry Norman

Date: 9/13/2024

Email address: gnorman@rochestermn.gov

Model Code: 2024 IBC

Telephone number: 507-328-2622

Code or Rule Section: Table 509.1

Firm/Association affiliation, if any: NA requirement

Topic of proposal: Radiation Damper

Code or rule section to be changed: 2024 IBC

Intended for Technical Advisory Group ("TAG"):

General Information

Yes **No**

- A. Is the proposed change unique to the State of Minnesota? Yes No
- B. Is the proposed change required due to climatic conditions of Minnesota? Yes No
- C. Will the proposed change encourage more uniform enforcement? Yes No
- D. Will the proposed change remedy a problem? Yes No
- E. Does the proposal delete a current Minnesota Rule, chapter amendment? Yes No
- F. Would this proposed change be appropriate through the ICC code development process? Yes No

Proposed Language

1. The proposed code change is meant to:

change language contained the model code book? If so, list section(s).

change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).

X delete language contained in the model code book? If so, list section(s).
IBC Table 509.1

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 ~~striethrough~~ words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

TABLE 509.1 – INCIDENTAL USES

First 12 row unchanged

Group I-3 cells and ~~Group I-2 patient rooms~~ equipped with padded surfaces

Remaining 5 rows unchanged

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.

No

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.)

The addition of I-2 to this line of the table was new in the 2020 State Building Code. It requires a one-hour fire-resistance rating (fire barrier) around padded room in both group I-3 (detention) facilities and group I-2 (health care) facilities. These spaces are typically utilized to isolate patients that pose a risk of harming themselves. The problem is that requiring the room to be rated will also require rated opening protection (doors). Rated doors pose a suicide risk as there is not readily available anti-ligature rated hardware (hinges, closers, latch/lock sets). This was brought to my attention by one of the largest MN health care architectural firm BWBR and confirmed by one of the largest health care providers MAYO. This was also confirmed with the MN Department of Health Facility Provider Section. Most licensed health care providers participate in the federal Medicare/Medicaid program which reviews and inspects for compliance with NFPA 101 Chapter 18 or 19. NFPA 101 does not require a fire-resistance rated separation.

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

These spaces are protected against fire and fire spread because typically they are: (1) in fully NFPA 13 sprinkled buildings, (2) under direct visual supervision, (3) utilize approved foam padding regulated by both the building & fire code, and (4) in a building with a fire alarm system including smoke detectors. The requirement for a fire-resistive separation would not, in my opinion, offset the risk posed by the non-anti-ligature hardware.

3. What other factors should the TAG consider?

Cost/Benefit Analysis

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

Decrease cost as noted there is not readily available fire protection hardware that provides anti-ligature features.

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.
3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.
4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

It will reduce enforcement cost as the door/hardware will not need to be confirmed during plan review or inspection.

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?

Architects, engineers and health care providers.

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.

No, although I question the need in a group I-3 for virtually the same reason.

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?

Health care providers will either: (1) have to expend more money to obtain rated anti-ligature hardware, (2) go with traditional rated hardware and hope for the best, or (3) propose an alternate means and methods of construction for every instance to every AHJ.

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.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: Jerry Norman

Date: 9/13/2024

Email address: gnorman@rochestermn.gov

Model Code: 2024 IBC

Telephone number: 507-328-2622

Code or Rule Section: 717.6.2

Firm/Association affiliation, if any: NA requirement

Topic of proposal: Radiation Damper

Code or rule section to be changed: 717.6.2 ex #2

Intended for Technical Advisory Group ("TAG"):

General Information

Yes **No**

- A. Is the proposed change unique to the State of Minnesota? Yes No
- B. Is the proposed change required due to climatic conditions of Minnesota? Yes No
- C. Will the proposed change encourage more uniform enforcement? Yes No
- D. Will the proposed change remedy a problem? Yes No
- E. Does the proposal delete a current Minnesota Rule, chapter amendment? Yes No
- F. Would this proposed change be appropriate through the ICC code development process? Yes No

Proposed Language

1. The proposed code change is meant to:

change language contained in the model code book? If so, list section(s).
2024 IBC Sec. 717.6.2

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 ~~striethrough~~ words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

717.6.2 Membrane penetrations. (unchanged)

1. (unchanged)

2. (unchanged)

Exceptions:

1. (unchanged)

2. Where exhaust duct or outside air duct penetrations are: (1) located within the cavity of a wall below the horizontal assembly, (2) are protected by an approved firestop system that: is installed and tested in accordance with ASTM E 814 or UL 1479 and has an F rating and T rating equivalent to the required rating of the horizontal assembly being penetrated, (3) do not pass through another dwelling unit or tenant space, and (4) are not used as a dryer exhaust unless located in a building protected throughout by automatic sprinkler system in accordance with Section 903.3.1.1. ~~in accordance with Section 714.5.2 are located within the cavity of a wall and do not pass through another dwelling unit or tenant space.~~

3. (unchanged)

3. (unchanged)

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.

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.)

The primary purpose of the proposed amendment is to provide clear consistent requirements for a common design issue for the sake of consistent application. It recognizes what has been typically approved, despite not being technically correct, and provides additional protection against the greatest fire concern which is dryer exhaust duct fires.

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

It recognizes standard historical practices while at the same time addressing the major fire concern.

3. What other factors should the TAG consider?

Cost/Benefit Analysis

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

It most likely will reduce cost in municipalities that enforced the strict letter of the code rather than standard construction practice.

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.

There will be increase cost if the designer was planning on an NFPA 13R sprinkler system, but needs to upgrade to an NFPA 13 system to meet the dryer duct provision of the amendment. However there are other ways to avoid that requirement that could and are currently being utilized such as running the ductwork through a non-rated soffit.

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

The owner.

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

When compared to the unamended language enforcement cost should be virtually the same.

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?

Architects, mechanical engineers, building and mechanical contractors.

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.

An simplified amendment could be done that removes the language “in the cavity of a wall” and merely references section 714.5.2. This will require the user to have a higher level of code sophistication as 714.5.2 will then send you to yet another few sections to determine compliance. This amendment consolidated those requirements into one section.

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 biggest consequence is lack of uniform application.

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.