MOCK
2026 ICC GROUP A AND B PUBLIC COMMENT HEARING

2026 WABO ABM
April 16, 2026

DISCUSSION GUIDE
2026 ICC CODE DEVELOPMENT CYCLE
PUBLIC COMMENT AGENDA DISCUSSION GUIDE

The purpose of this guide is to assist the efficient discussion of the individual agenda items by providing an overview of the committee actions, assembly actions (if any) and the submitted Public Comments. The agenda items are listed in the same order as the published Tentative Hearing Order on page lii of the 2026 Public Comment Agenda document.

See page xxxix of the 2026 Public Comment Agenda document (Section 10.5 of CP#28-05). Section 10.5.9.5 requires that the Code Development Committee Action be the initial motion.

Whenever a motion under consideration is for Approval as Submitted or Approval as Modified, a subsequent motion and second for a modification published in the Public Comment Agenda may be made (see Section 9.4.4). Each subsequent motion for modification, if any, shall be individually discussed and voted before returning to the main motion. When the initial motion is for Disapproval, that motion must be voted upon before any other motions are entered. This is reflected in the column under "Allowable Subsequent Motions" per Section 10.5.9.8 (CP#28).

Excerpts from CP #28:

10.5.9.5 Initial Motion: The Committee action from the Second Committee Action Hearing (CAH #2) shall be the initial motion considered.

10.5.9.6 Motions for Modifications: Whenever a motion under consideration is for Approval as Submitted or Approval as Modified, a subsequent motion and second for a modification published in the Public Comment Agenda may be made (see Section 9.4.4). Each subsequent motion for modification, if any, shall be individually discussed and voted before returning to the main motion. A two-thirds majority based on the number of votes cast by eligible voters shall be required for a successful motion on all modifications.

10.5.9.7 Voting: After dispensing with all motions for modifications, if any, and upon completion of discussion on the main motion, the Moderator shall then ask for the vote on the main motion. The vote on the main motion shall be taken electronically with the vote recorded and each vote assigned to the eligible voting member. In the event the electronic voting system is determined not to be used by ICC, a hand/standing count will be taken by the Moderator. If the motion fails to receive the majority required in Section 10.6, the Moderator shall ask for a new motion.

10.5.9.8 Subsequent Motion: If the initial motion is unsuccessful, a motion for either Approval as Submitted or Approval as Modified by one or more published modifications is in order. A motion for Disapproval is not in order. The vote on the main motion shall be taken electronically with the vote recorded and each vote assigned to the eligible voting member. In the event the electronic voting system is determined not to be used by ICC, a hand/standing count will be taken by the Moderator. If a successful vote is not achieved, Section 10.5.9.9 shall apply.

10.5.9.9 Failure to Achieve Majority Vote at the Public Comment Hearing. In the event that a code change proposal does not receive any of the required majorities in Section 10.6, the results of the Public Comment Hearing for the code change proposal in question shall be Disapproval. The vote count that will be reported as the Public Comment Hearing result will be the vote count on the main motion in accordance with Section 10.5.9.7.

10.5.9.10 Public Comment Hearing Results: The result and vote count on each code change proposal considered at the Public Comment Hearing shall be announced at the hearing. In the event the electronic voting system is not utilized and a hand/standing count is taken in accordance with Sections 10.5.9.7 and 10.5.9.8, the vote count will not be announced if an individual standing vote count is not taken. The results shall be posted and included in the Online Governmental Consensus Vote ballot (see Section 11.3).

10.5.9.10.1 Online Governmental Consensus Ballot Exceptions: Where Disapproval is the action at all three hearings in the code group cycle (First Committee Action Hearing (CAH #1), Second Committee Action Hearing (CAH #2) and the Public Comment Hearing), the Final Action on the code change proposal shall be Disapproval and the proposal shall not be placed on the Online Governmental Consensus Vote ballot.

10.6 Majorities for Public Comment Hearing Voting: The required voting majority for code change proposals individually considered shall be based on the number of votes cast by eligible voters at the Public Comment Hearing shall be in accordance with the following table.

Second Committee Action Hearing (CAH #2)	Desired Final Action		
	AS	**AMC/AMPC**	**D**
AS	Simple Majority	2/3 Majority	Simple Majority
AMC	2/3 Majority	Simple Majority to sustain the Committee Action (AMC) or; 2/3 Majority on each additional modification and 2/3 Majority on entire code change proposal for AMPC	Simple Majority
D	2/3 Majority	2/3 Majority	Simple Majority

VOTING AT THE PUBLIC COMMENT HEARINGS

The 2026 Public Comment Hearings in Hartford, CT are the first step in the process to determine the Final Action on 2024 Group A and 2025 Group B code changes – Public Comment Hearing (PCH) voting followed by the Online Governmental Consensus Vote (OGCV) utilizing cdpACCESS®. The following is a summary of the voting procedures published on page iv of the posted Public Comment Agenda (PCA), specifically noting how the final action will be determined. Be sure to review the PCA for a complete description of the process.

The first step is the voting that will occur at the Public Comment Hearings. This process is regulated by Section 10.5.9 of CP 28 Code Development (see page xxxiv in the PCA). The action at the PCH will be determined by an electronic voting system. In accordance with Section 11.1 of CP 28, the vote counts at the Public Comment Hearings will be combined with the online ballot votes during the OGCV as stipulated in Section 10.5.9.10.

The Consent Agenda will be voted with a motion to ratify the action taken at the Committee Action Hearings. This will be the Final Action on those code changes and they will not be considered in the Online Governmental Consensus Vote (Section 7.5.5).

The second step in the final action process is the Online Governmental Consensus Vote (OGCV). This is a process which is built into cdpACCESS and is regulated by Section 11.0 of CP 28. It is anticipated that the ballot period will start approximately two weeks after the Public Comment Hearings and will be open for two weeks. As noted in Section 11.1, the results of the PCH set the agenda and ballot options for the OGCV.

The following are examples of the application of the table in Section 11.1:

Second Committee Action Hearing (CAH #2)	**Public Comment Hearing result and Voting Majority**	**Online Governmental Consensus Ballot and Voting Majority**	
AS	**AS:** Simple Majority	**AS:** Simple Majority	**D:** Simple Majority
	AMPC: 2/3 Majority	**AMPC:** 2/3 Majority	**D:** Simple Majority
	D: Simple Majority	**AS:** Simple Majority	**D:** Simple Majority
AMC	**AS:** 2/3 Majority	**AS:** 2/3 Majority	**D:** Simple Majority
	AMC: Simple Majority	**AMC:** Simple Majority	**D:** Simple Majority
	AMPC: 2/3 Majority	**AMPC:** 2/3 Majority	**D:** Simple Majority
	D: Simple Majority	**AM:** Simple Majority	**D:** Simple Majority
D	**AS:** 2/3 Majority	**AS:** 2/3 Majority	**D:** Simple Majority
	AMPC: 2/3 Majority	**AMPC:** 2/3 Majority	**D:** Simple Majority
	D: Simple Majority	**AS:** 2/3 Majority	**D:** Simple Majority

As in the past, voters will have access to the hearing video from the Public Comment and both Committee Action Hearings. Non-eligible voters will also be able to log-in and view the OGCV ballot, but will not be permitted to vote.

TENTATIVE ORDER OF HEARING

RB35-25
F162-24
EB36-25
E18-24

RB35-25

IRC: SECTION 202 (New), SECTION 317 (New), 317.1 (New), 317.2 (New), R318.1, R321.1.1

Proposed Change as Submitted

Proponents: Steve Thomas, Shums Coda Associates, representing Colorado Chapter Code Development Committee (sthomas@coloradocode.net)

2024 International Residential Code

Add new definition as follows:

OCCUPIABLE ROOFS. An exterior space on a roof that is designed for human occupancy, other than maintenance or *repair*.

Add new text as follows:

SECTION R317
OCCUPIABLE ROOFS

R317.1 Occupiable Roofs. Occupiable roofs shall comply with this section. The occupiable roof shall not be included in the number of stories as regulated in Section R101.2.

R317.2 Enclosures . Elements or *structures* enclosing the occupiable roof areas shall not extend more than 48 inches (1220 mm) above the surface of the occupiable roof.

Exceptions:

1. Stair and mechanical enclosures not exceeding 50 square feet (4.65 m^2) in roof area.
2. Elements or structures enclosing occupiable roof areas located on the same level as a story.

SECTION R318
MEANS OF EGRESS

Revise as follows:

R318.1 Means of egress. *Dwelling units* shall be provided with a means of egress in accordance with this section. The means of egress shall provide a continuous and unobstructed path of vertical and horizontal egress travel from all portions of the *dwelling unit, including occupiable roofs,* to the required egress door without requiring travel through a garage. The required egress door shall open directly into a *public way* or to a *yard* or *court* that opens to a *public way*.

SECTION R321
GUARDS AND WINDOW FALL PROTECTION

R321.1.1 Where required. *Guards* shall be provided for those portions of open-sided walking surfaces, including floors, *stairs*, *ramps* and landings that are located more than 30 inches (762 mm) measured vertically to the floor or *grade* below at any point within 36 inches (914 mm) horizontally to the edge of the open side and at the perimeter of occupiable roofs. Insect screening shall not be considered as a *guard*.

Exception: Portions of an *occupiable roof* located less than 30 inches (762 mm) measured vertically to adjacent unoccupiable roof areas where *approved guards* are present at the perimeter of the roof.

Reason: The IRC is silent on how to apply the code to occupiable roofs. These occupiable spaces are becoming more popular and we need something in the code to address the issue. The proposed language is modeled after the IBC language regarding occupiable roofs. We believe that it is important to have some level of regulations when someone wants to use the roof for an occupiable space. This proposal will provide equivalent requirements to those included in the IBC.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact: We believe that most building departments are already requiring occupiable roofs to comply with these proposed requirements. The intent is to provide clarifying language to give the code official language to use for things that are already being done.

RB35-25

Public Hearing Results (CAH1)

Committee Action CAH1: **Disapproved**

Committee Reason: While adding an occupiable roof to the IRC is a good concept, there were concerns raised by the committee.An enclosure limitation should be considered. During the testimony, an amendment in Seattle was mentioned that might provide guidance.There needs to be coordination between the habitable attic and occupiable roof so that this does not effectively become a fourth floor level.The floor loads for the occupiable roof need to be addressed.

Vote: (8-2)

RB35-25

Approved Comments (CAH2)

Comment 1:

IRC: SECTION 202, R317.1, R317.2

Proponents: Steve Thomas, Shums Coda Associates, representing Colorado Chapter Code Development Committee (sthomas@coloradocode.net) requests As Modified by Committee (AMC2)

Modify as follows:

2024 International Residential Code

OCCUPIABLE ROOFS. An exterior space on a roof <u>that is not considered a story and</u> that is designed for human occupancy, other than maintenance or repair.

SECTION R317
OCCUPIABLE ROOFS

R317.1 Occupiable Roofs. Occupiable roofs shall comply with this section. The occupiable roof shall not be included in the number of stories as regulated in Section R101.2. <u>An occupiable roof shall only serve and be located above an individual dwelling unit and shall not extend over adjacent dwelling units. Occupiable roofs shall not be located above or at the same level of a habitable attic.</u>

~~**R317.2 Enclosures .** Elements or *structures* enclosing the occupiable roof areas shall not extend more than 48 inches (1220 mm) above the surface of the occupiable roof.~~

Exceptions:

1. ~~Stair and mechanical enclosures not exceeding 50 square feet (4.65 m^2) in roof area.~~
2. ~~Elements or structures enclosing occupiable roof areas located on the same level as a story.~~

R317.2 Enclosures . Elements or *structures* enclosing the occupiable roof areas shall not extend more than 60 inches (1220 mm) above the surface of the occupiable roof.

Exceptions:

1. A stair penthouse within a dwelling unit where all of the following are met:
   1.1. The interior landing area at the top of the stairs is less than 25 square feet (2.3 m^2).
   1.2. The use of the interior landing area is limited to circulation to and from the occupiable roof.
   1.3. Roof overhangs shall not exceed 2 feet (1372 mm). A maximum 3 feet x 3 feet (914 mm x 914mm) roof overhang located above the exterior door shall be permitted.
2. Where mechanical enclosures are provided on the roof, they shall comply with both of the following:
   2.1. The floor area of the enclosure shall be limited to a maximum of 6 inch space around the mechanical equipment or the minimum distance specified by the manufacturer for service, whichever is greater.
   2.2. Access to the mechanical enclosure shall not be from the interior of the building.
3. Elements and structures enclosing occupiable roof areas located on the same level as a story shall be permitted.

Reason: We are submitting this comment to address the issue of occupiable roofs in the IRC. The original proposal was submitted to get comments from the committe and others to make the language better. Thank you to those who provided comments to us. We have taken those comments and developed the language shown in this comment. The following changes have been proposed.

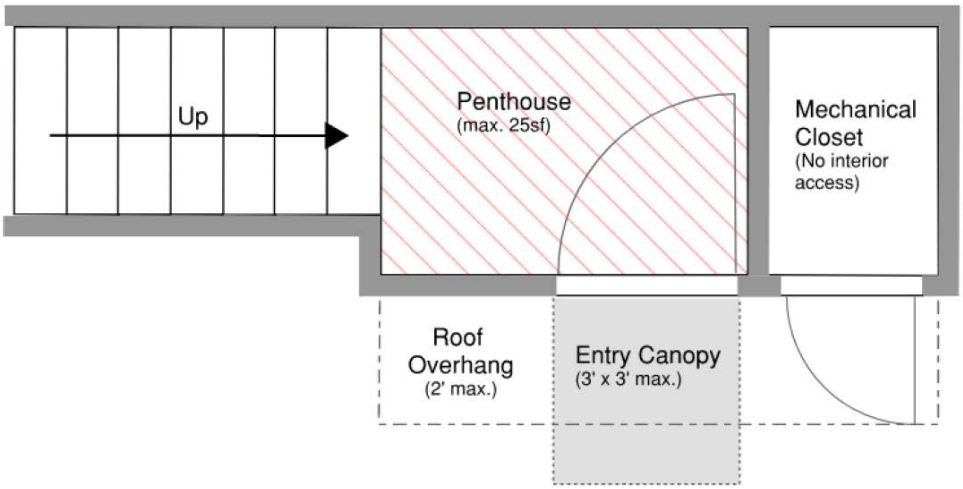
1. The definition has been revised to clarify that an occupiable roof is not a story. An occupiable roof does not meet the definition of a story so it cannot be designated as such.
2. We have clarified that the occupiable roof can only serve and be located above the dwelling unit is serves. The redundant language in Section 317.1 is intended to clearly state that an occupiable roof cannot extend partially or completly over an adjacent unit. This is to maintain the theory that a townhouse is a continuous building from the foundation to the roof.
3. We have provided a more detailed requirement for the permitted elements or structures above the occupiable roof. Much of this language is taken from the City of Seattle policy regarding occupiable roofs in the IRC (See figure below).
   1. Instead of regulating the size of the stairway penthouse, we are regulating the size of the landing at the top of the stairs.
   2. We have also reworded the language regarding mechanical enclosures. We are limiting the size to 6 inches larger than the mechanical equipment and requiring the access from the exterior.
   3. We also are allowing elements and structures on levels that are all ready a story.
4. We provided language regarding occupiable roofs and habitable attics. We are proposing that they not be permitted above or on the same level as an occupiable roof.

There was concern from the committee regarding the structural design of the building. It was pointed out that the IRC is a prescriptive code limited to a three-story building. If an occupiable roof is placed on top of a three story building, Section R301.1.3 would apply. It states, "Where a building of otherwise conventional construction contains structural elements exceeding the limits of Section R301 or otherwise not conforming to this code, these elements shall be designed in accordance with accepted engineering practice". So the three story building with an occupiable roof would need to be engineered to address any additional loads on the roof.

We believe we have addressed the concerns of the committee and those people who spoke in favor or of our concept. This language is

needed in the IRC because these types of areas are being constructed across the country. Code officials need guidance on how to handle the occupiable roofs and provide consistent application of the code.

See the following diagram showing the elements of a compliant penthouse:



Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact: Occupiable roofs are currently being constructed accross the country. This proposal just provides the code official with some guidance on how to handle these uses.

Comment (CAH2)# 1276

Public Hearing Results (CAH2)

Committee Action CAH2: **As Modified by Committee (AMC2)**

Approved Comments: Comment 1

Committee Modification:

Modify as follows:

R317.2 Enclosures. Elements or structures enclosing the occupiable roof areas shall not extend more than ~~60~~ 48 inches (1220 mm) above the surface of the occupiable roof.

Exceptions:

1. A stair penthouse within a dwelling unit where all of the following are met:

1.1. The interior landing area at the top of the stairs is less than 25 square feet (2.3 m 2).

1.2. The use of the interior landing area is limited to circulation to and from the occupiable roof.

1.3. Roof overhangs shall not exceed 2 feet (1372 mm). A maximum 3 feet x 3 feet (914 mm x 914mm) roof overhang located above the exterior door shall be permitted.

2. Where mechanical enclosures are provided on the roof, they shall comply with both of the following:

2.1. The floor area of the enclosure shall be limited to a maximum of 6 inch space around the mechanical equipment or the minimum distance specified by the manufacturer for service, whichever is greater.

2.2. Access to the mechanical enclosure shall not be from the interior of the building.

3. Elements and structures enclosing occupiable roof areas located on the same level as a story shall be permitted.

Committee Reason: The modification matches the height of the barriers around the occupied roof to the IBC. This does address some of the concerns regarding the requirements for an occupiable roof and when it would be considered another story. However, the new language in Section R317.2 Exception 2 still raises a concern that the 6-inch limit around equipment does not address ventilation requirements for such equipment.

Vote: (11-0)

RB35-25

Individual Consideration Agenda

Public Comment 1:

IRC: R317.2

Proponents: Steve Thomas, Shums Coda Associates, representing Colorado Chapter Code Development Committee (sthomas@coloradocode.net) requests As Modified by Public Comment (AMPC)

Further modify as follows:

2024 International Residential Code

R317.2 Enclosures . Elements or *structures* enclosing the occupiable roof areas shall not extend more than 48 inches (1220 mm) above the surface of the occupiable roof.

Exceptions:

1. A stair penthouse within a dwelling unit where all of the following are met:
   1.1. The interior landing area at the top of the stairs is less than 25 square feet (2.3 m ^{2}).
   1.2. The use of the interior landing area is limited to circulation to and from the occupiable roof.
   1.3. Roof overhangs shall not exceed 2 feet (1372 mm). A maximum 3 feet x 3 feet (914 mm x 914mm) roof overhang located above the exterior door shall be permitted.
2. Where mechanical enclosures are provided on the roof, they shall comply with both of the following:
   2.1. The floor area of the enclosure shall be limited to a maximum of 6 inch space around the mechanical equipment or the minimum ~~distance~~ clearances specified by the manufacturer ~~for service~~, whichever is greater.
   2.2. Access to the mechanical enclosure shall not be from the interior of the building.

3. Elements and structures enclosing occupiable roof areas located on the same level as a story shall be permitted.

Reason: This change is an effort to address occupiable roofs on buildings regulated by the IRC. The original proposal was revised to address the commmittee's and testifier's comments and presented at the CAH2. The committee approved those revisions but requested that we make a small revision regarding the size of any mechanical enclosure on the occupiable roof. Their concern was that it did not address clearance around equipment for ventilation. Therefore, we are now addressing that concern by requiring the clearances around the equipment to comply with the manufacturer's installation instructions. We also believe that it is clearer langinge for both clearances for service as well as ventilation.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact: The proposal is to clarify the requirement based on the committee's comments.

Public Comment# 3895

F162-24

IFC: SECTION 1108 (New), 1108.1 (New)

Proposed Change as Submitted

Proponents: Jeffrey Shapiro, International Code Consultants, representing Lake Travis Fire Rescue (jshapiro@ltfr.org)

2024 International Fire Code

Add new text as follows:

SECTION 1108
FIRE PROTECTION FOR POST-FIRE REPAIR OR RECONSTRUCTION

1108.1 Institutional and residential occupancies. Where an unsprinklered Group I, Group R-1, Group R-2 or Group R-4 Occupancy is repaired or reconstructed following a fire incident that caused more than 25-percent of a *fire area* to remain unoccupiable for a period of 60 or more days, an automatic sprinkler system complying with Section 903.3 shall be installed throughout such *fire area* or *fire areas* as part of the repair or reconstruction.

Reason: This proposal reflects the progress of a FCAC task group on the topic of retrofitting certain occupancies that have suffered a catastrophic fire. There was insufficient time to further discussion and consideration that might have yielded a consensus proposal, so I am submitting this as a basis for continued discussion.

Although I serve as a consultant to the National Fire Sprinkler Association, this proposal has not been reviewed or endorsed by NFSA, and I am not representing NFSA on this issue. My motivation comes from many years in the fire service observing reconstruction of unsprinklered buildings without sprinklers following a catastrophic fire, which has always struck me as illogical. If a newly built occupancy requires sprinklers, repair or reconstruction of a previously existing occupancy that suffered a catastrophic fire, particularly residential and institutional uses where occupants will be sleeping, should not be permitted by code.

During task group discussions, there was broad agreement that something could be done to address this concern in the code, but reaching agreement on code text was challenging. Essentially, the questions are, 1) what should be the trigger, or level of loss, warranting the addition of fire sprinklers in repair or reconstruction, and 2) what portion of a building should be required to be sprinklered?

Discussion explored the possibility of using fire fatalities as a Step 1 trigger, but consensus on a number of fatalities could not be reached. Some believed that a single fire fatality should be enough, while others looked at two or more or didn't support the concept. Also, defining a "fire fatality" in the code is challenging as an enforcement tool because the term might refer to individuals who were deceased at the scene, or it might also include individuals who are injured and later die as a result of such injuries. And, severe injuries might be regarded by those who deal with burn injuries as an equally sufficient justification vs. a fatality. For these reasons, the life-loss and injury triggers were abandoned in this proposal, in favor of trying to define a level of property damage that could be reasonably associated with a catastrophic fire.

Another Step 1 trigger that was considered was "multiple offender" buildings, or buildings that experience repeated fire incidents. This approach was also abandoned because consensus could not be reached on the number of fires over a time period, the damage level that should be considered as a contributing fire, or how a jurisdiction would keep track of a repeating fire incident history over time.

The approach that did gain sufficient traction was looking at a "fire area" as defined in the code to require a minimum 2-hour separation from other portions of a building, and a level of damage to a fire area that should be considered as sufficient to warrant requiring sprinklers as part of repair or reconstruction. There is not a scientific basis for establishing a threshold of this nature, so the threshold must ultimately be decided by a consensus of stakeholders. The suggested 25% of a fire area being unhabitable for a period of 90 or more days seems sufficient to serve as a benchmark. It was pointed out during discussion that, due to permitting delays, 30 days could be a very short timeframe for construction to be completed. However, it's difficult to argue that a fire wasn't a major incident if 25% of a fire area remains uninhabitable for 60 days. For example, an 8-unit fire area in an apartment building would require 3 or more units to be vacated for 60 days to trigger this section. A 40-room hotel would require 11 rooms to be vacated for more than 60 days to trigger this section. True, this might encourage a rapid pace of reconstruction by some to avoid the sprinkler requirement, but so be it. It's better to

have this requirement as a starting point in the code, and if someone can beat the clock, that should not be a reason to do nothing in the code.

With regard to Step 2, the portion of a building that should be required to be sprinklered where Step 1 has been satisfied, there were two discussion paths, either the entire building or only a sufficiently damaged fire area. This proposal suggests the latter based on feedback from the task group. Considering that a fire area might be a floor or section of a large building, much of which might not have been affected by the fire incident, some would regard it as excessive to require retrofitting sprinklers in those unaffected areas since such areas would not otherwise undergo repair or reconstruction. Hence, the suggested path of only requiring sufficiently impacted fire areas to be sprinklered. Such areas would probably experience substantial removal of drywall due to smoke and water damage, allowing for sprinkler system installation when the structure is exposed.

Cost Impact: Increase

Estimated Immediate Cost Impact: The best estimate is approximately $2.00 to $10.00 a square foot which is the range of cost related to the installation of automatic sprinkler systems in existing buildings.

Estimated Immediate Cost Impact Justification (methodology and variables):

Please see the following websites for the basis of the square footage costs.

https://www.angi.com/articles/home-fire-sprinklers-are-affordable.htm

https://nfsa.org/wp-content/uploads/2019/08/Retrofit-Guide-July-2019-v6-COLOR.pdf

F162-24

Public Hearing Results (CAH1)

Committee Action CAH1: **As Submitted**

Committee Reason: This proposal was approved as submitted as it was felt a reasonable trigger for the installation of an automatic sprinkler system after a fire based upon the type of occupancy and the extent of damage. It was noted that many jurisdictions in California already require this. There was concern that this will often trigger an entire infrastructure that did not exist previously and questions remain as to what the 60 days will include. Some also felt a better understanding how this will work with tax credits and the insurance industry is needed. (Vote 11-3)

F162-24

Public Hearing Results (CAH2)

Committee Action CAH2: **None-PC (Public Comment)**

Committee Reason: Comments discussed but no new action was taken by the committee. See Reason statement from CAH #1 action.

F162-24

Individual Consideration Agenda

Public Comment 1:

IFC: 1108.1

Proponents: Jonathan Humble, Jonathan Humble, FAIA, LLC, representing National Multi-Family Housing Council (festeel@att.net) requests As Modified by Public Comment (AMPC)

Modify as follows:

2024 International Fire Code

1108.1 Institutional and residential occupancies. Where an unsprinklered Group I, Group R-1, Group R-2 or Group R-4 Occupancy is repaired or reconstructed following a fire incident that caused more than ~~25-percent~~ 50-percent of a *fire area* to remain ~~unoccupiable~~ unsafe for occupancy for a period of ~~60~~ 180 or more days, an automatic sprinkler system complying with Section 903.3 shall be installed throughout ~~such~~ the affected *fire area* or *fire areas* as part of the repair or reconstruction.

Reason: The modifications attempt to further modify the proposal based on the testimony at the 2024 CAH-1, CAH-2 and other resources.

The original 25 percent was arbitrarily chosen. This proposal increases the value to 50 percent, a value that NMHC believes more suitable in determining the outcome of the future project that could include an automatic fire suppression systems (e.g., repair, alteration or reconstruction).

The NMHC preferred to have a scale that could better justify what constitutes the fire area not being occupiable, or habitable. Since the term "unoccupiable" is not defined it could be interpreted as meaning smoke damage, water damage, or any other cosmetic or non-structural interpretation. The NMHC recommends the use of the phrase "unsafe for occupancy," to replace "unoccupiable," which is a defined term in both the International Building and Fire Codes (Chapter One).

The modification to change 60 to 180 days reflects the current amount of time for seeking multiple approvals necessary to initiation and complete the repair or reconstruction. The additional number of days above 60 provides time for the building owner to prepare for and acquire approvals from or for the following: demolition permit, environmental permits as necessary, building permit, design professional contact(s), general contractor contract(s), bank funding, insurance company funding, government subsidy programs, affordable housing regulators, etc.

The phrase "the affected" was introduced to replace "such" as it represented a phrase that referred to the influenced or impacted area of the fire versus emphasizing a characteristic.

The original cost impact statement contained sprinkler installation values for only the new construction of one- and two-family dwellings only. For apartment buildings the additional cost would also include the installation of a new water supply line from the street, a new water meter, a new reduced pressure back-flow preventer (RPBP), new floor drain or drain(s) for the RPBP, and sprinkler supply lines/risers to the individual affected apartments, or, if a local municipal water supply region where a water line is not available the installation of a tank, pump, and related power, alarm, and other systems necessary to make the new system work.

Bibliography: No material for the bibliography.

Cost Impact: Increase

Estimated Immediate Cost Impact:

The original proposal cost impact statement and bibliographical references only addressed the installation of fire sprinklers in the new construction of one- and two-family dwellings. The cost impacts did not address the installation of a fire sprinkler system in an existing multi-family buildings which would require greater cost and more equipment and systems.

Estimated Immediate Cost Impact Justification (methodology and variables):

Specific repair cost impacts will be dependent upon the amount of damage overall as a result of the fire. In regard to financial off-set programs to assist in subsidizing repair costs, that will vary depending upon availability of such programs and their limitations, if in fact they are available.

The repair/alteration cost impact for a low- or mid-rise multi-family building will increase (depending on the size of the project) due to the

need for the installation of a new water supply line from the street (Estimated $50 to $300 per linear foot of excavation and installation of piping), a new reduced pressure back-flow preventer (Estimated $500 to over $1,000), a new floor drain or drain(s) for the RPBP (Estimated $500 to $2,000 per drain), and sprinkler supply lines/risers to the individual affected apartments (Estimated $2 to $7 per square foot per affected apartment). For those apartment buildings located outside of a reliable metropolitan water service providers region, the additional costs could include the installation of a water pump (Estimates $2 to $7 per square foot of coverage area) and sprinkler reservoir tank (Estimates $1,500 to $3,000) as the other option. All of the above exclude the cost of the various permits and inspections that are required. The cost data was based on publicly available information.

Public Comment# 3606

Public Comment 2:

IFC: 1108.1

Proponents: Quyen Thai, City of Tacoma, representing Myself (qthai@cityoftacoma.org); Hoyt Jeter, representing City of Tacoma (hjeter@cityoftacoma.org) requests As Modified by Public Comment (AMPC)

Modify as follows:

2024 International Fire Code

1108.1 Institutional and residential occupancies. Where an unsprinklered Group I, Group R-1, Group R-2 or Group R-4 Occupancy is repaired or reconstructed following a fire incident that caused more than 30~~25~~-percent of a *fire area* to remain unoccupiable for a period of 180~~60~~ or more days, an automatic sprinkler system complying with Section 903.3 shall be installed throughout such *fire area* or *fire areas* as part of the repair or reconstruction.

Reason: We believe that 60-days is too short of a time period because it has historically taken longer than 60 days, closer to 180-days for individuals to obtain a building permit, begin construction, obtain a final inspection before they can legally occupy the space again. We think 180-days is more practical to give people time to go through the permitting process.

The reason for modifying the 25% to 30% is more about aligning some of the definitions. We felt that 30% still gets to where the proponent is trying to get at and also aligns with the percentage requirement under the IEBC for substantial structural alteration and substantial structural damage. Both of those IEBC definition considers 30% as the threshold.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

~4.00 per SF for a 13R system (average)

~$1.30 per SF for a 13D system (average)

Estimated Immediate Cost Impact Justification (methodology and variables):

This proposal would decrease the cost since otherwise, from a practicaly perspective, every project if using the 60-day threshold would almost 100% of the time require an automatic sprinkler system be installed. Changing it to 180-days gives some grace based on real-life performance of building departments on when a structure/space be occupied again and NOT require sprinklers would allow for less cost in overall reconstruction.

Methodology used is based on industry average of cost per square feet on installing either a 13R or 13D system.

Public Comment# 3747

Public Comment 3:

Proponents: Kota Wharton, representing City of Grove City (kwharton@grovecityohio.gov) requests Disapproved

Reason: For reference, the proposed language is as follows: "**IFC 1108.1 Institutional and residential occupancies.** Where an unsprinklered Group I, Group R-1, Group R-2 or Group R-4 Occupancy **is repaired or reconstructed** following a fire incident that caused more than **25-percent of a fire area to remain unoccupiable for a period of 60 or more days**, an automatic sprinkler system complying with **Section 903.3** shall be **installed throughout such fire area or fire areas as part of the repair or reconstruction.**"

While the language is well intended the application is misplaced and not ready for primetime for the reasons described below. We ask for disapproval.

- **Wrong code:** The language should be found in the IEBC (specifically 403.1), not the IFC. As the IEBC stands, *:repairs* shall be done in a manner that **maintains** the level of fire protection provided," the new language would conflict and it is unlikely that building code users would either anticipate to find a more stringent requirement in the IFC or find authority to enforce it.
- **Substantial Cost without Justification:** The initial cost analysis describes this proposal as having a potential cost impact of approximately $2.00 to $10.00 per square foot. *e.g., for a 1,000 SQ R-1 fire area (mid-sized apartment?), the cost, by this model, could be anywhere between $8,000 and $40,000 if any more than 250 square feet (living room size?) became unoccupiable for 60 or more days after a fire, in addition to all other repair costs.* This cost is substantial when other non-construction costs are likely already assumed (loss of revenue, non-building component replacements, cleaning, storage, etc.). We find it arguably unreasonable to impose such a cost without significant data substantiating that a repaired or reconstructed building introduces any more risk than the construction before a fire event and without exceptions for cost-effectiveness limits or arguable technician infeasibility. Other impacts which should be considered, such as disproportionally affecting relatively small businesses that may occupy existing building stock, without sprinkler systems, and who appreciate the cost savings of not maintaining a sprinkler system or the exposure to sprinkler related damages during/after fires or system breakdown.
- **Scope Issue #1: "is repaired or reconstructed"** - this language addresses two types of post-fire restoration efforts; while both suggest replacing damaged components or wholes to their original state, they are arguably significantly different. A fire could cause smoke damage, with no structural damage, and require repairs of finishes and non-structural (used loosely) components, in one incident and in another cause the need to replace structural components; should each trigger sprinkler retrofits? We believe not.
- **Scope Issue #2: "25 percent of the fire area to remain unoccupaible**" - the language would be challenging to enforce. First, "unoccupiable" is undefined and thus could be subject to differing analysis. If the occupant decides not to occupy the structure but the building official does not revoke occupancy, is the building "unoccupiable"? If a fire occurs due to a attachment going though a service cable and the entire building's occupancy is revoked until the service entrance cable and finishes are replaced, should the owner be required to provide sprinklers?
- **Application Issue #1: "unoccupiable for more than 60 days" -** the time limit is reasonable in theory, but it will introduce practical enforcement issues. A space could remain "unoccupiable" for reasons far beyond the nexuses of a fire incident: fiscal ability, permitting, bidding, construction delays, mass evacuations, limited labor, inspection/administrative time etc. Should, for example, after wildfires, every I, R1, R2, and R4 building with damage in some fire area over 25% of that fire area be required to be provided with sprinklers because of a shortage of labor? Should a project that applies for a permit the day after a fire event but has to wait 30 days for some materials to arrive be forced to install sprinklers for a 30-day job?
- **Reference Issue #3: "an automatic sprinkler system complying with Section 903.3"** - the proper section would have been Section 903.2 **Where required**, rather than 903.3 Installation. By misplacing the requirement, the exception for Group I-4 day care facilities (etc) is missed and they may unintentionally be required to be sprinkled where they are otherwise exempt in new construction.
- **Interpretation Issue: "installed throughout such fire area or fire areas"** - while unlikely intended to read, the inclusion of fire area**s** here, where not previously mentioned, may lead to the unintended interpretation that damage in one fire area would require sprinkling in others.

Public Comment# 3615

EB36-25

IEBC: SECTION 310 (New), 310.1 (New), CHAPTER 10, SECTION 1009, 1009.1

Proposed Change as Submitted

Proponents: Julius Carreon, City of Bellevue, representing Washington Association of Building Officials Technical Code Development Committee (jcarreon@bellevuewa.gov); Micah Chappell, Seattle Dept. of Construction and Inspections (SDCI), representing Washington Association of Building Officials Technical Code Development Committee (WABO TCD) (micah.chappell@seattle.gov); Sean Angeley, City of Bellingham, representing Washington Associated of Building Officials, Technical Code Development Committee (smangeley@cob.org)

2024 International Existing Building Code

Add new text as follows:

SECTION 310
PLUMBING

310.1 Minimum Fixtures. Where an *alteration* results in increased occupant load of the story by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the International Plumbing Code based on the increased occupant load.

CHAPTER 10
CHANGE OF OCCUPANCY

SECTION 1009
PLUMBING

Revise as follows:

1009.1 Increased demand. Where the occupancy of an *existing building* or part of an *existing building* is changed such that the new occupancy is subject to increased or different plumbing fixture requirements or to increased water supply requirements in accordance with the *International Plumbing Code*, the new occupancy shall comply with the intent of the respective *International Plumbing Code* provisions.

Exception: ~~Only where the occupant load of the story is increased by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the International Plumbing Code based on the increased occupant load.~~

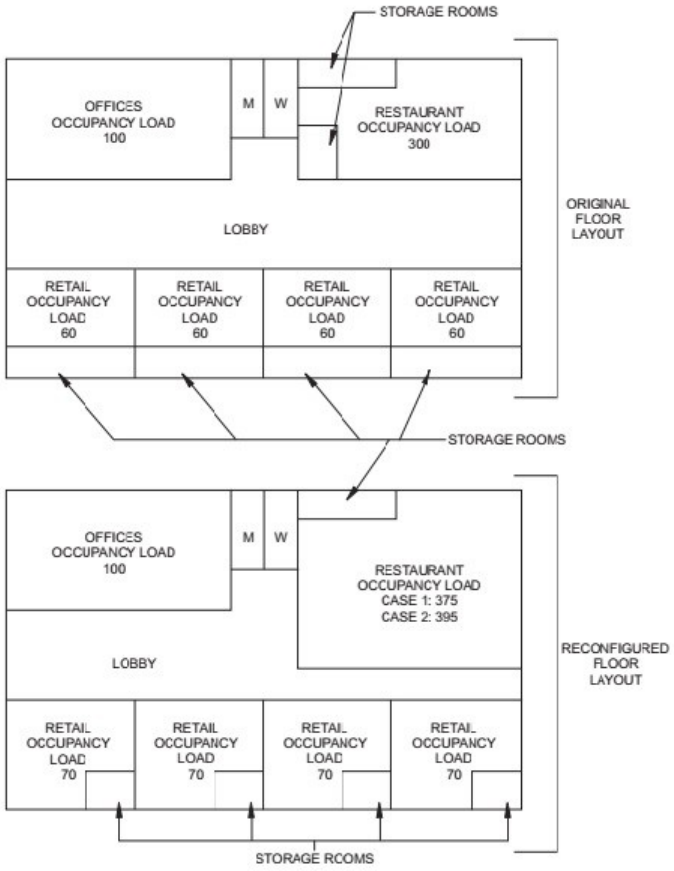
Reason: This code change is to undo the inadvertently substantive change when the plumbing requirements in the alterations section of the code (Section 809 in the 2018 IEBC and prior) were moved to the exception for plumbing fixtures in the change of occupancy section during the 2021 code cycle (See EB92-19): https://www.cdpaccess.com/proposal/5439/8306/preview/.

This provision allows existing plumbing fixtures to remain unchanged as long as renovations result in an occupant load increase of no more than 20% of the current load. During the 2021 code change cycle, proponents of EB92-19 argued that a 20% occupant load increase qualifies as a change of occupancy. They suggested relocating this provision from the Level 2 Alteration section to the Change of Occupancy chapter as an exception.

While we acknowledge that a significant occupant load increase could qualify as a change of occupancy, even within the same group classification (e.g., converting a restaurant to a bar/nightclub within Group A-2), we interpret the 20% allowance differently. We believe it should only apply to reconfigurations where the building's use or occupancy does not change, aligning with the definition of an alteration

(See Figure 809.1 as an example). This interpretation reflects that plumbing fixture requirements depend not only on occupant load but also on the building's use or occupancy type (see IBC Table 2902.1). For instance, in a change of occupancy scenario, converting a mercantile space (occupancy load factor = 60 sf/person) to a business use (occupancy load factor = 150 sf/person) could decrease the occupant load of the space but necessitate different plumbing fixture requirements. Applying the 20% exception in this scenario seems inappropriate because it could result in significantly insufficient plumbing fixtures for the new business use. Hence, this proposal is intended to correct this by removing the exception in Section 1009.1 and relocating it back to the alteration section.

In place of relocating the 20% plumbing allowance back to the alteration level 2 work area section, we believe it should be permitted for any compliance method. Hence, we are proposing to relocate the provision as a new section in Chapter 3.



(Alteration example from 2018 IEBC Commentary Figure 809.1)

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact: This code proposal is a clarification (or correction) that could decrease construction costs for alteration projects but may increase costs for change-of-occupancy projects.

EB36-25

Public Hearing Results (CAH1)

Committee Action CAH1: **Disapproved**

Committee Reason: The committee recognizes that the intent of this proposal has merit and agrees that relocation to Chapter 3 is appropriate. However, the proposal needs further refinement to address conditions beyond just alterations, including changes in use or

occupancy and additions. The committee encouraged the proponents to revise the proposal and submit for further consideration under CAH2.

Vote: (11-2)

EB36-25

Public Hearing Results (CAH2)

Committee Action CAH2: **None-PC (Public Comment)**

Committee Reason: Comments were called to the floor but no new action was taken by the committee. See reason statement from CAH #1 action.

EB36-25

Individual Consideration Agenda

Public Comment 1:

IEBC: SECTION 310, 310.1, CHAPTER 10, SECTION 1009, 1009.1

Proponents: Julius Carreon, City of Bellevue, representing Washington Association of Building Officials Technical Code Development Committee (jcarreon@bellevuewa.gov); Richard Williams, CWA Consultants, representing Washington Association of Building Officials Technical Code Development (richard@cwaconsultants.net); Sean Angeley, City of Bellingham, representing Washington Associated of Building Officials, Technical Code Development Committee (smangeley@cob.org); Micah Chappell, Seattle Dept. of Construction and Inspections (SDCI), representing Washington Association of Building Officials Technical Code Development Committee (WABO TCD) (micah.chappell@seattle.gov) requests As Modified by Public Comment (AMPC)

Modify as follows:

2024 International Existing Building Code

SECTION 310
PLUMBING

~~**310.1 Minimum Fixtures.** Where an *alteration* results in increased occupant load of the story by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the International Plumbing Code based on the increased occupant load.~~

310.1 Increased plumbing requirements. The *alteration*, *addition*, or *change of occupancy* in an *existing building* or *part* of an *existing building* shall comply with the water supply and minimum number of fixture requirements of the *International Plumbing Code*.

Exceptions:

1. Where the plumbing fixture ratios specified in *International Plumbing Code* Section 403.1 are unchanged and the resulting increase in occupant load does not exceed 20 percent.

2. Where the plumbing fixture ratios specified in *International Plumbing Code* Section 403.1 change and the resulting increase in the fixture calculation in accordance with Section 403.1.1 of the *International Plumbing Code* prior to rounding does not exceed 20 percent.

CHAPTER 10
CHANGE OF OCCUPANCY

SECTION 1009
PLUMBING

~~**1009.1 Increased demand.** Where the occupancy of an *existing building* or part of an *existing building* is changed such that the new occupancy is subject to increased or different plumbing fixture requirements or to increased water supply requirements in accordance with the *International Plumbing Code*, the new occupancy shall comply with the intent of the respective *International Plumbing Code* provisions.~~

Reason: This public comment addresses the committee's feedback on the original proposal at CAH1 and CAH2.

During CAH1, the committee approved the concept of relocating general plumbing requirements for alteration work to Chapter 3 but recommended expanding the proposal to include all types of work, such as additions and changes of occupancy. At CAH2, we submitted a comment incorporating that feedback and updated the exemption criterion from a 20% increase in occupant load to a 20% increase in the number of required plumbing fixtures, which more accurately reflects how plumbing demand is determined when occupancy changes involve different fixture ratios and an occupant-load-based threshold is insufficient (e.g., converting a mercantile space to a business occupancy where occupant load decreases but the number of required fixtures increases). Some committee members voted to support the comment, but it was disapproved (5–8), mainly because three other comments were introduced by other proponents and some committee members preferred to incorporate aspects of those comments. This public comment incorporates those items while maintaining the concepts the committee requested be refined.

Proposed changes from the original CAH1 proposal:

- Expands applicability to all types of work—alterations, additions, and changes of occupancy [CAH1 committee comment].
- Removes references to "a story" because the IPC allows plumbing fixtures to be located on an adjacent story (e.g., IPC 403.3.3, 403.3.4, 403.5, 403.6), and the IEBC should not be stricter than the code for new construction [CAH2 comment/discussion].
- Incorporates the current requirements from Section 1009.1 into Section 310.1 so that all existing requirements, such as water supply, for a change of occupancy are maintained.
- Clarifies application of the 20% increase exception by using the following conditions:
  •Exception 1- When the plumbing fixture increase is based solely on increased occupant load and fixture ratios remain unchanged (e.g., alterations or additions with the same use), use occupant-load increase as the criterion .
  •Exception 2- When the plumbing fixture increase involves changes in both occupant load and fixture ratios (e.g., changes of occupancy or additions with different uses), the increase in required fixtures is used as the criterion. For the purpose of determining the percentage increase, the calculated fractional plumbing fixture requirements for the new or added use are compared to the existing number of fixtures for each fixture type. See the example below:

Exception 2 examples – (Change of occupancy)

Scenario 1: Convert a 10,000 sf mercantile space to office.

1. Occupant loads

- *(existing)* Mercantile: 10,000 ÷ 60 = 167 persons (84 per sex)
- *(proposed use)* Office: 10,000 ÷ 150 = 67 persons (34 per sex)

2. Required fixtures (per sex)
Mercantile (existing)

- Water Closet (per sex): (fixture ratio = 1 per 500)= 1 male + 1 female

Office (new requirement)

- Water Closet (per sex): 34 occ. x (fixture ratio = first 50 @1 per 25) = 1.34 male + 1.34 female

3. Change in required fixtures

- required number of plumbing fixtures/existing= 1.34/1 (34% increase)

4. Exception check result: Exception does *not* apply. New Office use triggers more than a 20% increase in required fixtures, so the new office must comply with full IPC fixture counts.

Scenario 2: Convert an 8,000 sf mercantile space to office.

1. Occupant loads

(existing) Mercantile: 8,000 ÷ 60 = 134 persons (67 per sex)

- *(proposed use)* Office: 8,000 ÷ 150 = 54 persons (27 per sex)

2. Required fixtures (per sex)
Mercantile (existing)

- Water Closet (per sex):(fixture ratio = 1 per 500)= 1 male + 1 female

Office (new requirement)

- Water Closet (per sex): 27occ. x (fixture ratio = first 50 @1 per 25) = 1.08 male + 1.08 female

3. Change in required fixtures

- required number of plumbing fixtures/existing= 1.08/1 (8% increase)

4. Exception check result:Office use triggers less than a 20% increase in required fixtures, so the exception applies and no additional fixtures are required. While IPC Section 403.1.1 requires calculated fractional plumbing fixtures to be rounded up to the next whole number, the exception allows comparison of the calculated fractional fixture requirements **before rounding**, for consistency with the original occupant load increase exception (Exception No. 1).

Cost Impact: Decrease

Estimated Immediate Cost Impact:

By expanding the applicability of the 20 percent plumbing fixture exception to additions and changes of occupancy—not just alterations—this public comment could potentially decrease construction costs for more existing building projects, as some may not need to modify their existing toilet facilities if they meet either of the listed exceptions. The actual potential savings is dependent on conditions and occupancy type. but typical costs for critical plumbing fixture upgrades are as follows:

Estimated costs provided in the table are for **a single-occupancy commercial toilet and sink**.

Category	Estimated Cost	Details
Plumbing (Rough-in)	$3,000 – $8,000	Tapping into main lines, venting, and drains.
Fixtures (Toilet & Sink)	$800 – $2,500	Commercial-grade (wall-hung or high-efficiency).
Framing & Drywall	$1,500 – $3,500	Moisture-resistant "green board" is required.
Flooring & Tiling	$2,000 – $5,000	Slip-resistant commercial tile; waterproof base.

Category	Estimated Cost	Details
ADA Compliance	$1,000 – $2,500	Grab bars, specific clearances, and signage.
Permits & Inspections	$500 – $2,500	Commercial permits are higher than residential.

Estimated Immediate Cost Impact Justification (methodology and variables): By expanding the applicability of the 20 percent plumbing fixture exception to additions and changes of occupancy—not just alterations—this public comment could potentially decrease construction costs for more existing building projects, as some may not need to modify their existing toilet facilities if they meet either of the listed exceptions.

Public Comment# 3850

E18-24

IBC: 1006.2.2.5; IFC: [BE] 1006.2.2.5

Proposed Change as Submitted

Proponents: Jeff Grove, Chair, representing Building Code Action Committee (BCAC) (bcac@iccsafe.org)

2024 International Building Code

Revise as follows:

1006.2.2.5 Vehicular ramps. Vehicular ramps intended only for vehicle traffic shall not be considered as an *exit access ramp* ~~unless pedestrian *facilities* are~~ except where a walkway used exclusively as a pedestrian trafficway is provided.

2024 International Fire Code

Revise as follows:

[BE] 1006.2.2.5 Vehicular ramps. Vehicular ramps intended only for vehicle traffic shall not be considered as an *exit access ramp* ~~unless pedestrian *facilities* are~~ except where a walkway used exclusively as a pedestrian trafficway is provided.

Reason: Are vehicular ramps the driveways and crossovers for cars only with no parking on either side; or are they wherever a car drives in a parking garage. Pedestrian walkways are used for bridges between buildings in Chapter 31, so we did not want to use the defined term, but the words in the defined term would add clarity to this requirement. The term “pedestrian facilities” is not defined and is not clear.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact: This is a clarification of requirements for pedestrians on vehicular ramps. There are no changes to construction requirements.

E18-24

Public Hearing Results (CAH1)

Committee Action CAH1: **Disapproved**

Committee Reason: The change adds confusion. Does a pedestrian trafficway require a sidewalk or barriers along the vehicle ramp? If you have a pedestrian route, this is not longer a "vehicular ramp only for vehicle traffic." (Vote: 14-0)

E18-24

Public Hearing Results (CAH2)

Committee Action CAH2: **None-PC (Public Comment)**

Committee Reason: Comments discussed but no new action was taken by the committee. See Reason statement from CAH #1 action.

E18-24

Individual Consideration Agenda

Public Comment 1:

IBC: 406.4.3, 1006.2.2.5; IFC: [BE] 1006.2.2.5

Proponents: Jeff Grove, Chair, representing Building Code Action Committee (BCAC) (bcac@iccsafe.org) requests As Modified by Public Comment (AMPC)

Replace as follows:

2024 International Building Code

406.4.3 Ramps. Vehicle ramps without parking, and intended for vehicular traffic, shall not be considered as required *exits* unless a demarcated walkway for pedestrian traffic is ~~*facilities* are~~ provided. Vehicle ramps that are utilized for vertical circulation as well as for parking shall not exceed a slope of 1 unit vertical in 15 units horizontal (6.67-percent slope).

1006.2.2.5 Vehicular ramps. Vehicular ramps without parking, and intended for vehicular traffic, shall not be considered as ~~an *exit access ramp*~~ required *exits* unless a demarcated walkway for pedestrian traffic is ~~*facilities* are~~ provided.

2024 International Fire Code

[BE] 1006.2.2.5 Vehicular ramps. Vehicular ramps without parking, and intended for vehicular traffic, shall not be considered as ~~an *exit access ramp*~~ required *exits* unless a demarcated walkway for pedestrian traffic is ~~*facilities* are~~ provided.

Reason: The intent of this proposal is clarification and coordination. The current language is vague and widely misinterpreted. The proposed language clarifies what is required now, and will provide flexibility for the code official in it's application. The requirement for the walkway to be demarcated is added to clarify the need for separation but leaves the method of such separation open (barriers, marking, sidewalks, curbs, etc.). The term demarcated is already used in 1016.2 (item 6, exception 2).

Currently there is confusion on what is meant by 'vehicular ramp'. Based on Section 406.4.3, it is our interpretation that these are NOT vehicular ramps with parking on either side; they wherever a car drives parking garage or the circular ramps that cars use to move between floor levels in flat floor parking garages. In order to allow these ramps to be part of the means of egress (exit access), there should be a marked pedestrian path. We do not feel that this needs to be a raised sidewalk.Discussion and floor modifications brought up during CAH1 and CAH2 are incorporated into this public comment along with the coordination with Section 406.
Examples of the type of ramp are -

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact: This change is a clarification of existing requirements. There are no changes to construction requirements.

Excerpts from ICC Committee Action Hearing 2
Monographs
(Information Only)

RB35-25

IRC: SECTION 202 (New), SECTION 317 (New), 317.1 (New), 317.2 (New), R318.1, R321.1.1

Proposed Change as Submitted

Proponents: Steve Thomas, Shums Coda Associates, representing Colorado Chapter Code Development Committee (sthomas@coloradocode.net)

2024 International Residential Code

Add new definition as follows:

OCCUPIABLE ROOFS. An exterior space on a roof that is designed for human occupancy, other than maintenance or *repair*.

Add new text as follows:

SECTION R317
OCCUPIABLE ROOFS

R317.1 Occupiable Roofs. Occupiable roofs shall comply with this section. The occupiable roof shall not be included in the number of stories as regulated in Section R101.2.

R317.2 Enclosures . Elements or *structures* enclosing the occupiable roof areas shall not extend more than 48 inches (1220 mm) above the surface of the occupiable roof.

Exceptions:

1. Stair and mechanical enclosures not exceeding 50 square feet (4.65 m^2) in roof area.
2. Elements or structures enclosing occupiable roof areas located on the same level as a story.

SECTION R318
MEANS OF EGRESS

Revise as follows:

R318.1 Means of egress. *Dwelling units* shall be provided with a means of egress in accordance with this section. The means of egress shall provide a continuous and unobstructed path of vertical and horizontal egress travel from all portions of the *dwelling unit, including occupiable roofs,* to the required egress door without requiring travel through a garage. The required egress door shall open directly into a *public way* or to a *yard* or *court* that opens to a *public way*.

SECTION R321
GUARDS AND WINDOW FALL PROTECTION

R321.1.1 Where required. *Guards* shall be provided for those portions of open-sided walking surfaces, including floors, *stairs*, *ramps* and landings that are located more than 30 inches (762 mm) measured vertically to the floor or *grade* below at any point within 36 inches (914 mm) horizontally to the edge of the open side and at the perimeter of occupiable roofs. Insect screening shall not be considered as a *guard*.

Exception: Portions of an *occupiable roof* located less than 30 inches (762 mm) measured vertically to adjacent unoccupiable roof areas where *approved guards* are present at the perimeter of the roof.

Reason: The IRC is silent on how to apply the code to occupiable roofs. These occupiable spaces are becoming more popular and we need something in the code to address the issue. The proposed language is modeled after the IBC language regarding occupiable roofs. We believe that it is important to have some level of regulations when someone wants to use the roof for an occupiable space. This proposal will provide equivalent requirements to those included in the IBC.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact: We believe that most building departments are already requiring occupiable roofs to comply with these proposed requirements. The intent is to provide clarifying language to give the code official language to use for things that are already being done.

RB35-25

Public Hearing Results (CAH1)

Committee Action: **Disapproved**

Committee Reason: While adding an occupiable roof to the IRC is a good concept, there were concerns raised by the committee.An enclosure limitation should be considered. During the testimony, an amendment in Seattle was mentioned that might provide guidance.There needs to be coordination between the habitable attic and occupiable roof so that this does not effectively become a fourth floor level.The floor loads for the occupiable roof need to be addressed. (Vote: 8-2)

RB35-25

Individual Consideration Agenda

Comment 1:

IRC: SECTION 202, R317.1, R317.2

Proponents: Steve Thomas, Shums Coda Associates, representing Colorado Chapter Code Development Committee (sthomas@coloradocode.net) requests As Modified by Committee (AMC2)

Modify as follows:

2024 International Residential Code

OCCUPIABLE ROOFS. An exterior space on a roof <u>that is not considered a story and</u> that is designed for human occupancy, other than maintenance or repair.

SECTION R317
OCCUPIABLE ROOFS

R317.1 Occupiable Roofs. Occupiable roofs shall comply with this section. The occupiable roof shall not be included in the number of stories as regulated in Section R101.2. <u>An occupiable roof shall only serve and be located above an individual dwelling unit and shall not extend over adjacent dwelling units. Occupiable roofs shall not be located above or at the same level of a habitable attic.</u>

~~**R317.2 Enclosures .** Elements or *structures* enclosing the occupiable roof areas shall not extend more than 48 inches (1220 mm) above the surface of the occupiable roof.~~

~~**Exceptions:**~~

~~1. Stair and mechanical enclosures not exceeding 50 square feet (4.65 m^2) in roof area.~~

~~2. Elements or structures enclosing occupiable roof areas located on the same level as a story~~.

R317.2 Enclosures . Elements or *structures* enclosing the occupiable roof areas shall not extend more than 60 inches (1220 mm) above the surface of the occupiable roof.

Exceptions:

1. A stair penthouse within a dwelling unit where all of the following are met:
   1.1. The interior landing area at the top of the stairs is less than 25 square feet (2.3 m^2).
   1.2. The use of the interior landing area is limited to circulation to and from the occupiable roof.
   1.3. Roof overhangs shall not exceed 2 feet (1372 mm). A maximum 3 feet x 3 feet (914 mm x 914mm) roof overhang located above the exterior door shall be permitted.
2. Where mechanical enclosures are provided on the roof, they shall comply with both of the following:
   2.1. The floor area of the enclosure shall be limited to a maximum of 6 inch space around the mechanical equipment or the minimum distance specified by the manufacturer for service, whichever is greater.
   2.2. Access to the mechanical enclosure shall not be from the interior of the building.
3. Elements and structures enclosing occupiable roof areas located on the same level as a story shall be permitted.

Reason:

We are submitting this comment to address the issue of occupiable roofs in the IRC. The original proposal was submitted to get comments from the committe and others to make the language better. Thank you to those who provided comments to us. We have taken those comments and developed the language shown in this comment. The following changes have been proposed.

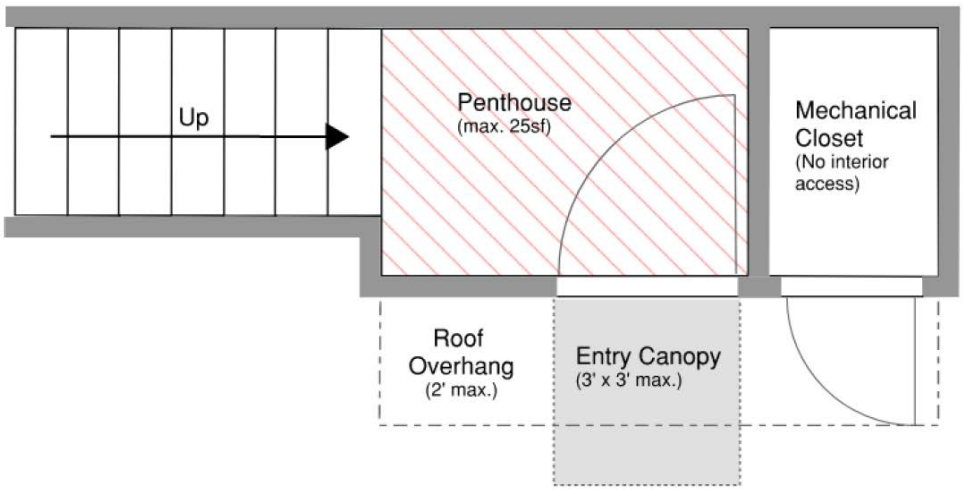
1. The definition has been revised to clarify that an occupiable roof is not a story. An occupiable roof does not meet the definition of a story so it cannot be designated as such.
2. We have clarified that the occupiable roof can only serve and be located above the dwelling unit is serves. The redundant language in Section 317.1 is intended to clearly state that an occupiable roof cannot extend partially or completly over an adjacent unit. This is to maintain the theory that a townhouse is a continuous building from the foundation to the roof.
3. We have provided a more detailed requirement for the permitted elements or structures above the occupiable roof. Much of this language is taken from the City of Seattle policy regarding occupiable roofs in the IRC (See figure below).
   1. Instead of regulating the size of the stairway penthouse, we are regulating the size of the landing at the top of the stairs.
   2. We have also reworded the language regarding mechanical enclosures. We are limiting the size to 6 inches larger than the mechanical equipment and requiring the access from the exterior.
   3. We also are allowing elements and structures on levels that are all ready a story.
4. We provided language regarding occupiable roofs and habitable attics. We are proposing that they not be permitted above or on the same level as an occupiable roof.

There was concern from the committee regarding the structural design of the building. It was pointed out that the IRC is a prescriptive code limited to a three-story building. If an occupiable roof is placed on top of a three story building, Section R301.1.3 would apply. It states, "Where a building of otherwise conventional construction contains structural elements exceeding the limits of Section R301 or otherwise not conforming to this code, these elements shall be designed in accordance with accepted engineering practice". So the three story building with an occupiable roof would need to be engineered to address any additional loads on the roof.

We believe we have addressed the concerns of the committee and those people who spoke in favor or of our concept. This language is needed in the IRC because these types of areas are being constructed across the country. Code officials need guidance on how to handle

the occupiable roofs and provide consistent application of the code.

See the following diagram showing the elements of a compliant penthouse:



Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact: Occupiable roofs are currently being constructed accross the country. This proposal just provides the code official with some guidance on how to handle these uses.

Comment (CAH2)# 1276

F162-24

IFC: SECTION 1108 (New), 1108.1 (New)

Proposed Change as Submitted

Proponents: Jeffrey Shapiro, International Code Consultants, Lake Travis Fire Rescue (jshapiro@ltfr.org)

2024 International Fire Code

Add new text as follows:

SECTION 1108
FIRE PROTECTION FOR POST-FIRE REPAIR OR RECONSTRUCTION

1108.1 Institutional and residential occupancies. Where an unsprinklered Group I, Group R-1, Group R-2 or Group R-4 Occupancy is repaired or reconstructed following a fire incident that caused more than 25-percent of a *fire area* to remain unoccupiable for a period of 60 or more days, an automatic sprinkler system complying with Section 903.3 shall be installed throughout such *fire area* or *fire areas* as part of the repair or reconstruction.

Reason: This proposal reflects the progress of a FCAC task group on the topic of retrofitting certain occupancies that have suffered a catastrophic fire. There was insufficient time to further discussion and consideration that might have yielded a consensus proposal, so I am submitting this as a basis for continued discussion.

Although I serve as a consultant to the National Fire Sprinkler Association, this proposal has not been reviewed or endorsed by NFSA, and I am not representing NFSA on this issue. My motivation comes from many years in the fire service observing reconstruction of unsprinklered buildings without sprinklers following a catastrophic fire, which has always struck me as illogical. If a newly built occupancy requires sprinklers, repair or reconstruction of a previously existing occupancy that suffered a catastrophic fire, particularly residential and institutional uses where occupants will be sleeping, should not be permitted by code.

During task group discussions, there was broad agreement that something could be done to address this concern in the code, but reaching agreement on code text was challenging. Essentially, the questions are, 1) what should be the trigger, or level of loss, warranting the addition of fire sprinklers in repair or reconstruction, and 2) what portion of a building should be required to be sprinklered?

Discussion explored the possibility of using fire fatalities as a Step 1 trigger, but consensus on a number of fatalities could not be reached. Some believed that a single fire fatality should be enough, while others looked at two or more or didn't support the concept. Also, defining a "fire fatality" in the code is challenging as an enforcement tool because the term might refer to individuals who were deceased at the scene, or it might also include individuals who are injured and later die as a result of such injuries. And, severe injuries might be regarded by those who deal with burn injuries as an equally sufficient justification vs. a fatality. For these reasons, the life-loss and injury triggers were abandoned in this proposal, in favor of trying to define a level of property damage that could be reasonably associated with a catastrophic fire.

Another Step 1 trigger that was considered was "multiple offender" buildings, or buildings that experience repeated fire incidents. This approach was also abandoned because consensus could not be reached on the number of fires over a time period, the damage level that should be considered as a contributing fire, or how a jurisdiction would keep track of a repeating fire incident history over time.

The approach that did gain sufficient traction was looking at a "fire area" as defined in the code to require a minimum 2-hour separation from other portions of a building, and a level of damage to a fire area that should be considered as sufficient to warrant requiring sprinklers as part of repair or reconstruction. There is not a scientific basis for establishing a threshold of this nature, so the threshold must ultimately be decided by a consensus of stakeholders. The suggested 25% of a fire area being unhabitable for a period of 90 or more days seems sufficient to serve as a benchmark. It was pointed out during discussion that, due to permitting delays, 30 days could be a very short timeframe for construction to be completed. However, it's difficult to argue that a fire wasn't a major incident if 25% of a fire area remains uninhabitable for 60 days. For example, an 8-unit fire area in an apartment building would require 3 or more units to be

vacated for 60 days to trigger this section. A 40-room hotel would require 11 rooms to be vacated for more than 60 days to trigger this section. True, this might encourage a rapid pace of reconstruction by some to avoid the sprinkler requirement, but so be it. It's better to have this requirement as a starting point in the code, and if someone can beat the clock, that should not be a reason to do nothing in the code.

With regard to Step 2, the portion of a building that should be required to be sprinklered where Step 1 has been satisfied, there were two discussion paths, either the entire building or only a sufficiently damaged fire area. This proposal suggests the latter based on feedback from the task group. Considering that a fire area might be a floor or section of a large building, much of which might not have been affected by the fire incident, some would regard it as excessive to require retrofitting sprinklers in those unaffected areas since such areas would not otherwise undergo repair or reconstruction. Hence, the suggested path of only requiring sufficiently impacted fire areas to be sprinklered. Such areas would probably experience substantial removal of drywall due to smoke and water damage, allowing for sprinkler system installation when the structure is exposed.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Estimated Immediate Cost Impact:

The best estimate is approximately $2.00 to $10.00 a square foot which is the range of cost related to the installation of automatic sprinkler systems in existing buildings.

Estimated Immediate Cost Impact Justification (methodology and variables):

Please see the following websites for the basis of the square footage costs.

https://www.angi.com/articles/home-fire-sprinklers-are-affordable.htm

https://nfsa.org/wp-content/uploads/2019/08/Retrofit-Guide-July-2019-v6-COLOR.pdf

F162-24

Public Hearing Results (CAH1)

Errata: This proposal includes published errata https://www.iccsafe.org/wp-content/uploads/2024-Group-A-Consolidated-Monograph-Updates.pdf

Committee Action: **As Submitted**

Committee Reason: This proposal was approved as submitted as it was felt a reasonable trigger for the installation of an automatic sprinkler system after a fire based upon the type of occupancy and the extent of damage. It was noted that many jurisdictions in California already require this. There was concern that this will often trigger an entire infrastructure that did not exist previously and questions remain as to what the 60 days will include. Some also felt a better understanding how this will work with tax credits and the insurance industry is needed. (Vote 11-3)

F162-24

Individual Consideration Agenda

Comment 1:

IFC: 1108.1

Proponents: Jonathan Humble, Jonathan Humble, FAIA, LLC, National Multi-Family Housing Council (festeel@att.net) requests As Modified by Committee (AMC2)

Modify as follows:

2024 International Fire Code

1108.1 Institutional and residential occupancies. Where an unsprinklered Group I, Group R-1, Group R-2 or Group R-4 Occupancy is repaired or reconstructed following a fire incident that caused more than ~~25 percent~~ 50 percent of a *fire area* to remain ~~unoccupiable~~ unsafe for occupancy for a period of ~~60~~ 180 or more days, an automatic sprinkler system complying with Section 903.3 shall be installed throughout ~~such~~ the affected *fire area* ~~or fire areas~~ as part of the repair or reconstruction.

Reason: The modifications shown attempt to further modify the proposal based on the testimony at the 2024 CAH-1 and other resources, as follows: The original 25 percent was arbitrarily chosen,. This proposal increases the value to 50 percent, a value that NMHC believes more suitable in determining the outcome of the future project that would include an automatic fire suppression systems (e.g., repair or reconstruction).

The NMHC preferred to have a scale that could better justify what constitutes the fire area not being occupiable, or habitable in the case of apartment buildings. Since the term "unoccupiable" is not defined and could mean anything to anyone at any time, the NMHC recommends the use of the phrase "unsafe for occupancy" which is defined in both the International Building and Fire Codes (Chapter One).

The change from 60 to 180 days is being proposed to reflect the current amount of time for seeking multiple approvals necessary to initiation and complete the repair or reconstruction. The additional days also provides additional time for the building owner to discuss the long term opportunities, such as seeking and acquiring approvals from other parties directly involved such as: banks and insurance companies, government subsidy programs, affordable housing, etc.

The phrase “or fire areas” was deleted to be consistent with the start of this provision which identified a single fire area. Any other fire areas, unless impacted by the same fire, are expected to received minor alterations for the water line to pass through to the affected fire area.

Further, the original cost impact statement contained construction values for one- and two-family dwellings only. For apartments the additional cost would include the installation of a new water supply line from the street, a new reduced pressure back-flow preventer, new floor drain or drains for the RPBP, and sprinkler supply lines/risers to the individual affected apartments, or, if a local municipal water supply is not available the installation of a tank, pump, and related power, alarm, and other systems necessary to make the new system work.

Bibliography: No material for the bibliogrpahy.

Cost Impact: Increase

Estimated Immediate Cost Impact:

The cost impact will increase because of the caveat of requiring the installation of an automatic fire suppression system as part of a repair project, which was the intent of the original code change proposal. For apartments this will include the installation of a new water supply line from the street, a new reduced pressure back-flow preventer, new floor drain or drains for the RPBP, and sprinkler supply lines/risers to the individual affected apartments. For those apartment buildings located outside of a reliable metropolitan water service the additional costs could include the installation of a water pump and tank as the other option. Further, in areas of the US, there is the opportunity for the jurisdiction to increase the appraised value of the building because there exist jurisdictions where anything beyond a repair is considered new construction and therefore subject to an increase in appraised or taxable value.

Estimated Immediate Cost Impact Justification (methodology and variables):

Specific cost impacts will be dependent upon the amount of damage overall as a result of the fire. In regard to financial off-set programs to assist in subsidizing repair costs, that will vary depending upon availability of such programs and their limitations, if in fact they are

available for such repairs.

Comment (CAH2)# 495

EB36-25

IEBC: SECTION 310 (New), 310.1 (New), CHAPTER 10, SECTION 1009, 1009.1

Proposed Change as Submitted

Proponents: Julius Carreon, City of Bellevue, representing Washington Association of Building Officials Technical Code Development Committee (jcarreon@bellevuewa.gov); Micah Chappell, Seattle Dept. of Construction and Inspections (SDCI), representing Washington Association of Building Officials Technical Code Development Committee (WABO TCD) (micah.chappell@seattle.gov); Sean Angeley, City of Bellingham, representing Washington Associated of Building Officials, Technical Code Development Committee (smangeley@cob.org)

2024 International Existing Building Code

Add new text as follows:

SECTION 310
PLUMBING

310.1 Minimum Fixtures. Where an *alteration* results in increased occupant load of the story by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the International Plumbing Code based on the increased occupant load.

CHAPTER 10
CHANGE OF OCCUPANCY

SECTION 1009
PLUMBING

Revise as follows:

1009.1 Increased demand. Where the occupancy of an *existing building* or part of an *existing building* is changed such that the new occupancy is subject to increased or different plumbing fixture requirements or to increased water supply requirements in accordance with the *International Plumbing Code*, the new occupancy shall comply with the intent of the respective *International Plumbing Code* provisions.

~~**Exception:** Only where the occupant load of the story is increased by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the International Plumbing Code based on the increased occupant load.~~

Reason:

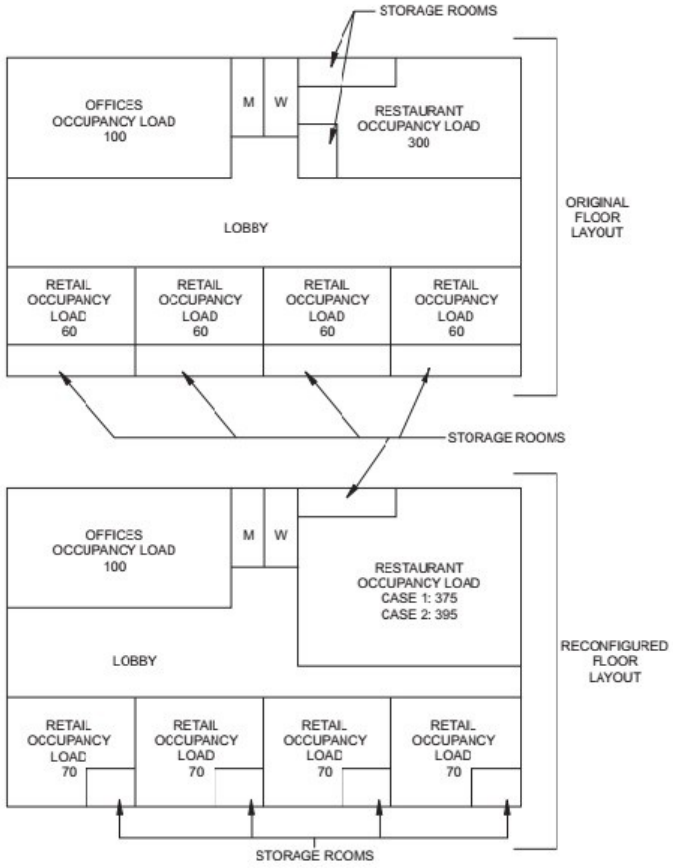
This code change is to undo the inadvertently substantive change when the plumbing requirements in the alterations section of the code (Section 809 in the 2018 IEBC and prior) were moved to the exception for plumbing fixtures in the change of occupancy section during the 2021 code cycle (See EB92-19): https://www.cdpaccess.com/proposal/5439/8306/preview/.

This provision allows existing plumbing fixtures to remain unchanged as long as renovations result in an occupant load increase of no more than 20% of the current load. During the 2021 code change cycle, proponents of EB92-19 argued that a 20% occupant load increase qualifies as a change of occupancy. They suggested relocating this provision from the Level 2 Alteration section to the Change of Occupancy chapter as an exception.

While we acknowledge that a significant occupant load increase could qualify as a change of occupancy, even within the same group classification (e.g., converting a restaurant to a bar/nightclub within Group A-2), we interpret the 20% allowance differently. We believe it should only apply to reconfigurations where the building's use or occupancy does not change, aligning with the definition of an alteration (See Figure 809.1 as an example). This interpretation reflects that plumbing fixture requirements depend not only on occupant load but also on the building's use or occupancy type (see IBC Table 2902.1). For instance, in a change of occupancy scenario, converting a mercantile

space (occupancy load factor = 60 sf/person) to a business use (occupancy load factor = 150 sf/person) could decrease the occupant load of the space but necessitate different plumbing fixture requirements. Applying the 20% exception in this scenario seems inappropriate because it could result in significantly insufficient plumbing fixtures for the new business use. Hence, this proposal is intended to correct this by removing the exception in Section 1009.1 and relocating it back to the alteration section.

In place of relocating the 20% plumbing allowance back to the alteration level 2 work area section, we believe it should be permitted for any compliance method. Hence, we are proposing to relocate the provision as a new section in Chapter 3.



(Alteration example from 2018 IEBC Commentary Figure 809.1)

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact: This code proposal is a clarification (or correction) that could decrease construction costs for alteration projects but may increase costs for change-of-occupancy projects.

EB36-25

Public Hearing Results (CAH1)

Committee Action: **Disapproved**

Committee Reason: The committee recognizes that the intent of this proposal has merit and agrees that relocation to Chapter 3 is appropriate. However, the proposal needs further refinement to address conditions beyond just alterations, including changes in use or occupancy and additions. The committee encouraged the proponents to revise the proposal and submit for further consideration under CAH2. (Vote: 11-2)

Individual Consideration Agenda

Comment 1:

IEBC: SECTION 310, 310.1, CHAPTER 10, SECTION 1009, 1009.1

Proponents: Richard Williams, CWA Consultants, representing Self (richard@cwaconsultants.net) requests As Modified by Committee (AMC2)

Modify as follows:

2024 International Existing Building Code

SECTION 310
PLUMBING

310.1 Minimum Fixtures. Where an *alteration*, *addition, or change of occupancy* results in increased occupant load of the story by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the International Plumbing Code based on the increased occupant load.

CHAPTER 10
CHANGE OF OCCUPANCY

SECTION 1009
PLUMBING

~~**1009.1 Increased demand.** Where the occupancy of an *existing building* or part of an *existing building* is changed such that the new occupancy is subject to increased or different plumbing fixture requirements or to increased water supply requirements in accordance with the *International Plumbing Code*, the new occupancy shall comply with the intent of the respective *International Plumbing Code* provisions.~~

Reason:

The original proposal sought to apply the 20% occupant load increase threshold only to alterations and to remove it from change of occupancy. The result would have meant that any change of occupancy would need to be in full compliance with plumbing fixture requirements for new construction. The committee indicated support for relocating requirements to Chapter 3, but felt the 20% occupant load increase should apply to additions and change of occupancy and not just to alterations. This comment is a direct response to the committee reason statement. It will add additions and change of occupancy to Section 310.1, and it will delete Section 1009.1 since it deals only with change of occupancy. The original proposal did not include this deletion. Also, because we are proposing to delete Section 1009.1, subsections that follow will have to be renumbered.

Cost Impact: Decrease

Estimated Immediate Cost Impact: This comment is a change to the scope of application of this section that could decrease construction costs for projects involving alterations or additions.

Estimated Immediate Cost Impact Justification (methodology and variables): We feel it is appropriate to apply the 20 percent occupant load increase threshold to projects involving alterations and additions, and not just changes of use/occupancy.

Comment 2:

IEBC: SECTION 310, 310.1, CHAPTER 10, SECTION 1009, 1009.1

Proponents: Julius Carreon, City of Bellevue, representing Washington Association of Building Officials Technical Code Development Committee (jcarreon@bellevuewa.gov); Micah Chappell, Seattle Dept. of Construction and Inspections (SDCI), representing Washington Association of Building Officials Technical Code Development Committee (WABO TCD) (micah.chappell@seattle.gov) requests As Modified by Committee (AMC2)

Further modify as follows:

2024 International Existing Building Code

SECTION 310
PLUMBING

~~**310.1 Minimum Fixtures.** Where an *alteration* results in increased occupant load of the story by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the International Plumbing Code based on the increased occupant load.~~

310.1 Increased demand. Where alterations, additions, or changes of occupancy to a story of an existing building result in increased plumbing demands, plumbing fixtures for the story shall be provided in the quantities specified in the International Plumbing Code.

Exception: Where the increase in required plumbing fixtures on a story of an existing building is less than 20 percent of the existing number of fixtures on that story, compliance with this section is not required.

CHAPTER 10
CHANGE OF OCCUPANCY

SECTION 1009
PLUMBING

~~**1009.1 Increased demand.** Where the occupancy of an *existing building* or part of an *existing building* is changed such that the new occupancy is subject to increased or different plumbing fixture requirements or to increased water supply requirements in accordance with the *International Plumbing Code*, the new occupancy shall comply with the intent of the respective *International Plumbing Code* provisions.~~

Reason:

This comment responds to the disapproval of the original proposal at CAH1 (10–2), where the primary concern was that the 20% plumbing fixture exemption applied solely to alterations, without addressing additions or changes in use or occupancy. To address this, the revised language expands applicability to all types of work—*alterations*, *additions*, and *changes of occupancy.*

In addition, the revised proposal shifts the exemption criterion from a 20% increase in occupant load to a 20% increase in the number of *required plumbing fixtures*. This change more accurately reflects how plumbing demand is determined under the IPC, which considers both occupant load and occupancy classification. For example, converting a *mercantile space* (with a load factor of 60 sf/person and 1 toilet per 500 occupants) to a *business occupancy* (150 sf/person but 1 toilet per 25 occupants) may actually reduce the occupant load, yet significantly increase the required number of fixtures. Under the original occupant-load-based trigger, this change would wrongly be exempted—even though more fixtures are clearly needed. The revised criterion avoids this gap and ensures that fixture exemptions are based on actual demand increases.

This proposal also relocates the provision to Chapter 3, where it applies consistently to alterations, additions, and changes of occupancy.

Cost Impact: Decrease

Estimated Immediate Cost Impact: By expanding the applicability of the 20% plumbing fixture exception to additions, and changes of occupancy, not just alterations, this comment could potentially decrease construction costs for more existing building projects.

Estimated Immediate Cost Impact Justification (methodology and variables): By expanding the applicability of the 20% plumbing fixture exception to additions, and changes of occupancy, not just alterations, this comment could potentially decrease construction costs for more existing building projects.

Comment (CAH2)# 853

Comment 3:

IEBC: 1009.1

Proponents: David Renn, PE, SE, City and County of Denver, representing Code Change Committee of ICC Colorado Chapter (david.renn@denvergov.org) requests As Modified by Committee (AMC2)

Replace as follows:

2024 International Existing Building Code

1009.1 Increased demand. Where the occupancy of an *existing building* or part of an *existing building* is changed such that the new occupancy is subject to increased or different plumbing fixture requirements or to increased water supply requirements in accordance with the *International Plumbing Code*, the new occupancy shall comply with the intent of the respective *International Plumbing Code* provisions.

Exception: Where plumbing fixture requirements are increased only due to an increased occupant load, compliance with *International Plumbing Code* fixture requirements is not required where the occupant load is increased by 20 percent or less. ~~Only where the occupant load of the story is increased by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the *International Plumbing Code* based on the increased occupant load.~~

Reason:

This comment addresses the concern raised at CAH1 that an increase in occupant load is technically a change of occupancy, based on definition, so this exception should remain in the change of occupancy section. Plumbing fixture requirements are based on two criteria - the use of the space, which dictates plumbing fixture to occupant load ratios, and the occupant load itself. The current 20% exception was always intended to only apply when the fixture requirements change only due to an increase in occupant load, but the current wording would apply if there is a change in plumbing fixture ratios as well. This is a problem since a change in the ratios could result in more fixtures required even when there is a decrease in occupant load. For example, a change from retail to office would decrease the occupant load, but the plumbing fixture ratios greatly increase the number of fixtures required (1:500 versus 1:25 or 1:50) - the current exception would allow this change of occupancy with no additional fixtures since the occupant load decreased. To fix this, this comment rewords the exception to make it clear that it only applies where the increase in fixture requirements is only due to an increase in occupant load, as intended.

This comment also makes a change to eliminate the wording regarding a 20% increase in the occupant load of a story, since toilet facilities can serve multiple stories, or there can be multiple facilities on a single story that only serve a portion of the story. The revised wording is simply based on required plumbing fixtures that would be based on the occupant load served by a given facility, which is more appropriate.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact: This comment retains the intent of the original proposal and does not change the justification for no cost impact in the original proposal.

Comment 4:

IEBC: SECTION 1009, 310.1 (New), 1009.1, 1009.2, 1009.3, 1009.4, 1009.5, 1302.1.6

Proponents: Grant Ullrich, City of Chicago, representing Self (grant.ullrich@cityofchicago.org) requests As Modified by Committee (AMC2)

Replace as follows:

2024 International Existing Building Code

SECTION ~~1009~~ 310 PLUMBING

310.1 Alteration or addition. Where an *alteration* or *addition* increases the occupant load of a story by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified by the *International Plumbing Code* based on the increased occupant load.

~~1009.1~~ 310.2 ~~Increased demand~~ Change of occupancy. Where ~~the occupancy of an *existing building* or part of an *existing building* is changed such that the new occupancy~~ a *change of occupancy* is subject to increased or different plumbing fixture requirements or to increased water supply requirements in accordance with the *International Plumbing Code*, the new occupancy shall comply with the intent of the respective *International Plumbing Code* provisions.

Exception: ~~Only where the occupant load of the story is increased by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the *International Plumbing Code* based on the increased occupant load.~~ Additional water closets and lavatories shall only be required for a story where the existing quantity of water closets and urinals serving the story is both:

1. Less than 75 percent of the quantity of water closets required by the*International Plumbing Code* for the new occupancy.
2. At least three fewer than quantity of water closets required by the*International Plumbing Code* for the new occupancy.

~~1009.2~~ 310.2.1 Food-handling occupancies. If the new occupancy is a food-handling establishment, all existing sanitary waste lines above the food or drink preparation or storage areas shall be panned or otherwise protected to prevent leaking pipes or condensation on pipes from contaminating food or drink. New drainage lines shall not be installed above such areas and shall be protected in accordance with the *International Plumbing Code*.

~~1009.3~~ 310.2.2 Interceptor required. If the new occupancy will produce grease or oil-laden wastes, interceptors shall be provided as required in the *International Plumbing Code*.

~~1009.4~~ 310.2.3 Chemical wastes. If the new occupancy will produce chemical wastes, the following shall apply:

1. If the existing piping is not compatible with the chemical waste, the waste shall be neutralized prior to entering the drainage system or the piping shall be changed to a compatible material.
2. Chemical waste shall not discharge to a public sewer system without the approval of the sewage authority.

~~1009.5~~ 310.2.4 Group I-2. If the occupancy group is changed to Group I-2, the plumbing system and medical gas system shall comply with the applicable requirements of the *International Plumbing Code*.

~~1302.1.6 Plumbing fixtures.~~ ~~Plumbing fixtures shall be provided in accordance with Section 1009 for a change of occupancy and Section 808 for *alterations*. Plumbing fixtures for *additions* shall be in accordance with the *International Plumbing Code*.~~

Reason:

The original proposal attempted to provide a solution for alterations and additions that were not also changes of occupancy. In doing so, it

removed an existing provision applicable to changes of occupancy. The committee did not support this approach.

The committee did support providing a uniform approach in Chapter 3.

This comment provides a uniform approach to both alterations and additions and changes of occupancy. This comment recognizes the original proposal raised a valid concern about changes in occupancy that resulted in more intense demand for plumbing fixtures (per the Plumbing Code) without a corresponding increase in occupant load.

This comment attempts to address that by amending the change of occupancy exception to compare the existing and required quantities of water closets. To avoid awkward language about rounding up and also avoid penalizing small occupancies, the exception contains two conditions.

This comment also relocates the remaining common-sense change of occupancy provisions from Chapter 10 (applicable only to the work area and performance compliance methods) to Chapter 3 (provisions for all compliance methods.) This allows deletion of Section 1302.1.6.

Cost Impact: Decrease

Estimated Immediate Cost Impact: This change will reduce existing requirements to provide additional plumbing fixtures when an alteration or addition (without change of occupancy) results in a small increase in occupant load. This change (relative to the original proposal) will also retain an existing allowances for change of occupancy when there is only a small increase in the quantity of fixtures required for new construction.

Estimated Immediate Cost Impact Justification (methodology and variables): This will allow some projects to avoid the need to add or alter plumbing, or find space for new toilet facilities, both of which can be a significant expense.

Comment (CAH2)# 1685

E18-24

IBC: 1006.2.2.5; IFC: [BE] 1006.2.2.5

Proposed Change as Submitted

Proponents: Jeff Grove, Chair, Building Code Action Committee (BCAC) (bcac@iccsafe.org)

2024 International Building Code

Revise as follows:

1006.2.2.5 Vehicular ramps. Vehicular ramps intended only for vehicle traffic shall not be considered as an *exit access ramp* ~~unless pedestrian *facilities* are~~ except where a walkway used exclusively as a pedestrian trafficway is provided.

2024 International Fire Code

Revise as follows:

[BE] 1006.2.2.5 Vehicular ramps. Vehicular ramps intended only for vehicle traffic shall not be considered as an *exit access ramp* ~~unless pedestrian *facilities* are~~ except where a walkway used exclusively as a pedestrian trafficway is provided.

Reason: Are vehicular ramps the driveways and crossovers for cars only with no parking on either side; or are they wherever a car drives in a parking garage. Pedestrian walkways are used for bridges between buildings in Chapter 31, so we did not want to use the defined term, but the words in the defined term would add clarity to this requirement. The term “pedestrian facilities” is not defined and is not clear.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at BCAC webpage.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a clarification of requirements for pedestrians on vehicular ramps. There are no changes to construction requirements.

E18-24

Public Hearing Results (CAH1)

Committee Action: **Disapproved**

Committee Reason: The change adds confusion. Does a pedestrian trafficway require a sidewalk or barriers along the vehicle ramp? If you have a pedestrian route, this is not longer a "vehicular ramp only for vehicle traffic." (Vote: 14-0)

E18-24

Individual Consideration Agenda

Comment 1:

IBC: 1006.2.2.5; IFC: [BE] 1006.2.2.5

Proponents: Jeff Grove, Chair, Building Code Action Committee (BCAC) (bcac@iccsafe.org) requests As Modified by Committee (AMC2)

Modify as follows:

2024 International Building Code

1006.2.2.5 Vehicular ramps. Vehicular ramps intended only for vehicle traffic shall not be considered as an *exit access ramp* except where a demarcated walkway used exclusively ~~as a~~ for pedestrian traffic ~~way~~ is provided.

2024 International Fire Code

[BE] 1006.2.2.5 Vehicular ramps. Vehicular ramps intended only for vehicle traffic shall not be considered as an *exit access ramp* except where a demarcated walkway used exclusively ~~as a~~ for pedestrian traffic ~~way~~ is provided.

Reason: The modifications are intended to address the committee's concerns.

Vehicular ramps are driveways and crossovers for cars only with no parking on either side; they are not sloped surfaces between parking where vehicles enter or exit spaces. Typically pedestrians are not using these entrance ramps. The allowance is for emergency egress if needed.

The requirement for the walkway to be **demarcated** is added to clarify the need for separation but leaves the method of such separation open (barriers, marking, sidewalks, curbs, etc.). The term demarcated is already used in 1016.2 (item 6, exception 2).

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a clarification of requirements for pedestrians on vehicular ramps. There are no changes to construction requirements.

Comment (CAH2)# 128