

IBC - General



2022 GROUP B PUBLIC COMMENT AGENDA

SEPTEMBER 14 - 21, 2022

KENTUCKY INTERNATIONAL CONVENTION CENTER
LOUISVILLE, KY

2022 Public Comment Agenda

First Printing

Publication Date: August 2022

Copyright © 2022

by

International Code Council, Inc.

ALL RIGHTS RESERVED. This 2022 Public Comment Agenda is a copyrighted work owned by the International Code Council, Inc. ("ICC"). Without advance written permission from the ICC, no part of this book may be reproduced, distributed, or transmitted in any form or by any means, including, without limitations, electronic, optical or mechanical means (by way of example and not limitation, photocopying, or recording by or in an information storage retrieval system). For information on use rights and permissions, please contact: ICC Publications, 4051 Flossmoor Road, Country Club Hills IL, 60478. Phone 1-888-ICC-SAFE (422-7233).

Trademarks: "International Code Council," the "International Code Council" logo, "ICC," the "ICC" logo and other names and trademarks appearing in this book are registered trademarks of the International Code Council, Inc., and/or its licensors (as applicable), and may not be used without permission.

PRINTED IN THE USA

Proposed Change as Submitted

Proponents: David Bonowitz, representing Self (dbonowitz@att.net)

THIS CODE CHANGE WILL BE HEARD BY THE INTERNATIONAL BUILDING CODE-STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEES.

2021 International Building Code

Add new definition as follows:

LIFE SAFETY COMPONENTS (for risk category). *Components of life safety systems, designated seismic systems, emergency power systems, and emergency and egress lighting systems. This definition of life safety components is limited in application to the provisions of Section 1604.5.*

Reason:

This proposal defines a term already used in Section 1604.5.1. (If approved, the words "life safety components," currently used only in Sec 1604.5.1, would be italicized by staff.)

The term "life safety components" is similar to the term *life safety systems*, which was defined only in the 2021 IBC. But "life safety components" is also understood to include certain nonstructural components commonly considered "life safety systems" for purposes of seismic design, as cited in Section 1613 and as used without definition in ASCE 7. Those are identified by the IBC-defined term *designated seismic systems*.

Thus, a reasonable definition of *life safety components*, as already used in Section 1604.5.1 can be derived by combining these two groups of components. By adding *emergency power systems* (also already defined) and lighting, the proposed definition also draws from (and coordinates with) the scope of ASCE 41 (see below).

For reference:

ASCE 7 does not define "life safety systems," but for the design of protection for nonstructural components, Chapter 13 sets the component importance factor equal to 1.5 for any component "required to function for life-safety purposes after an earthquake, including fire protection sprinkler systems and egress stairways." The IBC term *designated seismic systems* covers these.

Similarly, ASCE 41 does not define "life safety systems," but its Tier 1 procedure includes a checklist section titled "Life Safety System," which includes the following items:

- Fire suppression piping: anchorage
- Flexible couplings (for fire suppression piping)
- Emergency power: anchorage of "equipment used to power or control Life Safety systems"
- Stair and smoke ducts
- Sprinkler ceiling clearance
- Emergency lighting (includes egress lighting)

Cost Impact: The code change proposal will not increase or decrease the cost of construction

The proposal merely codifies the current understanding of a previously undefined term, using other terms already defined in the IBC.

G2-22

Public Hearing Results

Committee Action:

Disapproved

Committee Reason: Disapproved as the proposed definition could be construed as incomplete and it is recommended for BCAC review and coordination. (Vote: 12-2).

G2-22

Individual Consideration Agenda

Public Comment 1:

IBC: SECTION 202, 1604.5.1

Proponents: David Bonowitz, representing FEMA-ATC Seismic Code Support Committee (dbonowitz@att.net); Kelly Cobeen, representing Federal Emergency Management Agency/Applied Technology Council - Seismic Code Support Committee (kcobeen@wje.com); Michael Mahoney, representing FEMA (mike.mahoney@fema.dhs.gov) requests As Modified by Public Comment

Modify as follows:

2021 International Building Code

LIFE SAFETY COMPONENTS (for risk category). ~~Components of life safety systems, designated seismic systems, emergency power systems, and emergency and egress lighting systems. This definition of life safety components is limited in application to the provisions of Section 1604.5.~~

1604.5.1 Multiple occupancies. Where a building or structure is occupied by two or more occupancies not included in the same *risk category*, it shall be assigned the classification of the highest *risk category* corresponding to the various occupancies. Where buildings or structures have two or more portions that are structurally separated, each portion shall be separately classified. Where a separated portion of a building or structure provides required access to, required egress from or shares ~~life safety components~~ life safety systems, designated seismic systems, emergency power systems, or emergency and egress lighting systems with another portion having a higher *risk category*, both portions shall be assigned to the higher *risk category*.

Exception: Where a *storm shelter* designed and constructed in accordance with ICC 500 is provided in a building, structure or portion thereof normally occupied for other purposes, the *risk category* for the normal occupancy of the building shall apply unless the *storm shelter* is a designated emergency shelter in accordance with Table 1604.5.

Commenter's Reason: This comment takes a proposed definition that would only have applied to one code section, and instead makes it part of that section's text directly.

At the hearings, most of the opposition to G2 was about the new proposed definition relying almost entirely on other defined terms and not providing much new. There's nothing wrong with that (lots of IBC definitions use other defined terms), but if that's a concern, this comment resolves it. Similarly, any concern that a "system" would be defined as a type of "component" is also made moot by this comment.

The committee's reason for disapproval also reflects part of the direction we suggested at the hearings, namely that a BCAC effort is needed to resolve and coordinate various existing definitions and quasi-definitions, in the code and its referenced standards, related to "life safety components." While that would still be worthwhile, in the mean time it remains important to clarify what the term already used in Section 1604.5.1 intends. This public comment makes that clarification.

Finally, there might be some concern that by clarifying the current code language, we might be excluding some things that should be included, or including some things that should be excluded. But the vague, undefined *current* code language -- which would remain if G2 is disapproved -- presents the same problem. (Examples given at the hearings are interesting but should not justify disapproval. We don't know if alarms, gas detection systems, etc. were intended as *life safety components* when the phrase was first codified, but those should already be included in *life safety systems* because they "enhance or facilitate evacuation." We also don't know if partitions or doors used for smoke compartmentation were intended, but it stands to reason that they should be, and that they would be important to consider explicitly when designing a building with multiple connected wings.)

Our original proposal contemplated a Chapter 2 definition. Since similar terms are already used elsewhere in the code, ICC staff added the final sentence saying that the proposed definition would only apply in Section 1604.5. Once that caveat is added, however, there's no reason to put the definition in Chapter 2. Instead, per this public comment, we can just put the same idea right into the text of Section 1604.5.1, replacing the undefined term with more explicit wording, using terms already defined. Doing this avoids any concern about whether the definition might apply elsewhere, might "be construed as incomplete" because it merely uses other defined terms, or might interfere with other definitions.

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction. As with the original proposal, the public comment merely codifies the current understanding of an existing but undefined term, using other terms already defined in the IBC.

Public Comment# 3152

G4-22 Part I

Proposed Change as Submitted

Proponents: Marcin Pazera, representing Polyisocyanurate Insulation Manufacturers Association (mpazera@pima.org); Justin Koscher, Polyisocyanurate Insulation Manufacturers Association, representing Polyisocyanurate Insulation Manufacturers Association (jkoscher@pima.org)

THIS IS A TWO PART CODE CHANGE. PART 1 WILL BE HEARD BY THE INTERNATIONAL BUILDING CODE-STRUCTURAL COMMITTEE, PART 2 WILL BE HEARD BY THE INTERNATIONAL RESIDENTIAL CODE BUILDING COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

2021 International Building Code

Revise as follows:

[BS] ROOF REPLACEMENT. ~~The process of removing the existing roof covering, repairing any damaged substrate and installing a new roof covering.~~ An alteration that includes the removal of all existing layers of roof assembly materials down to the roof deck and installing replacement materials above the existing roof deck.

2021 International Existing Building Code

Revise as follows:

[BS] ROOF REPLACEMENT. ~~The process of removing the existing roof covering, repairing any damaged substrate and installing a new roof covering.~~ An alteration that includes the removal of all existing layers of roof assembly materials down to the roof deck and installing replacement materials above the existing roof deck.

Reason: This proposal revises the definition for roof replacement to reflect the intent and the scope of the roof replacement activity that takes place, which includes removal of all existing materials installed above the roof deck, removing those materials down to the roof deck, and installing a new roof assembly above the roof deck. The definition more explicitly states that roof replacement is an alteration as indicated in Section C503 of the IECC. The revised language in the definition more appropriately aligns with the requirements in Chapter 15 (Section 1512) of the IBC. The term “roof assembly” is already defined in the IECC and in the IBC (for use in Chapter 15). Furthermore, PIMA submitted a code change proposal for the Group B development cycle to explicitly reflect that existing roof insulation that is in good repair may be reused as part of a roof replacement (Section 1512.4). Therefore, this proposal should not be interpreted as requiring the disposal of existing roof insulation that is in good repair. This proposal simply aligns the definition with the existing requirements for roof replacements, which are intended in part to ensure that the building and roof deck are in proper condition prior to the installation of new roofing materials.

Cost Impact: The code change proposal will not increase or decrease the cost of construction
This code change proposal will have no impact on the cost of construction. The proposal does not impose new requirements.

G4-22 Part I

Public Hearing Results

Committee Action:

Disapproved

Committee Reason: Disapproved as the existing language is clear and, as worded, the proposal could be confusing. The committee expressed concerns with bringing code requirements into a definition. The proposed definitions do not address the condition without a roof deck and may conflict with existing code exceptions. (Vote: 14-0)

G4-22 Part I

Individual Consideration Agenda

Public Comment 1:

IBC: SECTION 202; IEBC: SECTION 202

Proponents: Wanda Edwards, representing PIMA (we@wandaedwardsconsulting.com); Marcin Pazera, representing Polyisocyanurate Insulation

Modify as follows:

2021 International Building Code

[BS] ROOF REPLACEMENT. An alteration that includes the removal of all existing layers of *roof assembly* materials down to the roof deck and installing new *roof assembly* materials ~~replacement materials~~ above the ~~existing~~ roof deck.

2021 International Existing Building Code

[BS] ROOF REPLACEMENT. . An alteration that includes the removal of all existing layers of *roof assembly* materials down to the roof deck and installing new *roof assembly* materials ~~replacement materials~~ above the ~~existing~~ roof deck.

Commenter's Reason: This proposed modification revises the original code change proposed for roof replacement definition to reflect the intent and the scope of the roof replacement activity that takes place. The activity includes removal of all existing roof assembly materials down to the roof deck, and installing new roof assembly materials above the roof deck. The revised language in the definition more appropriately aligns with the requirements in Chapter 15, Section 1512.2 title "Roof Replacements" of the IBC, which states that "roof replacement shall include the removal of all existing layers of roof assembly materials down to the roof deck". Finally, the modification retains the language from the original proposal that more explicitly identifies roof replacement an alteration as indicated in Section C503.2.1 titled "Roof Replacement" of the International Energy Conservation Code (IECC). This is an important provision because roof replacements must comply with energy efficiency provisions of the IECC.

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction. The proposed modification and the original code change proposal will not increase or decrease cost of construction. The proposal does not impose new requirements.

Public Comment# 3368

G4-22 Part II

Proposed Change as Submitted

Proponents: Marcin Pazera, representing Polyisocyanurate Insulation Manufacturers Association (mpazera@pima.org); Justin Koscher, Polyisocyanurate Insulation Manufacturers Association, representing Polyisocyanurate Insulation Manufacturers Association (jkoscher@pima.org)

THIS IS A TWO PART CODE CHANGE. PART 1 WILL BE HEARD BY THE INTERNATIONAL BUILDING CODE-STRUCTURAL COMMITTEE, PART 2 WILL BE HEARD BY THE INTERNATIONAL RESIDENTIAL CODE BUILDING COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

2021 International Residential Code

Revise as follows:

[RB] ROOF REPLACEMENT. ~~The process of removing the existing roof covering, repairing any damaged substrate and installing a new roof covering.~~ An alteration that includes the removal of all existing layers of roof assembly materials down to the roof deck and installing replacement materials above the existing roof deck. For the definition applicable in Chapter 11, see Section N1101.6.

Reason: This proposal revises the definition for roof replacement to reflect the intent and the scope of the roof replacement activity that takes place, which includes removal of all existing materials installed above the roof deck, removing those materials down to the roof deck, and installing a new roof assembly above the roof deck. The definition more explicitly states that roof replacement is an alteration as indicated in Section C503 of the IECC. The revised language in the definition more appropriately aligns with the requirements in Chapter 15 (Section 1512) of the IBC. The term "roof assembly" is already defined in the IECC and in the IBC (for use in Chapter 15). Furthermore, PIMA submitted a code change proposal for the Group B development cycle to explicitly reflect that existing roof insulation that is in good repair may be reused as part of a roof replacement (Section 1512.4). Therefore, this proposal should not be interpreted as requiring the disposal of existing roof insulation that is in good repair. This proposal simply aligns the definition with the existing requirements for roof replacements, which are intended in part to ensure that the building and roof deck are in proper condition prior to the installation of new roofing materials.

Cost Impact: The code change proposal will not increase or decrease the cost of construction
This code change proposal will have no impact on the cost of construction. The proposal does not impose new requirements.

G4-22 Part II

Public Hearing Results

Committee Action:

Disapproved

Committee Reason: The proposal was disapproved because the committee felt that the existing definition for 'roof replacement' is sufficient. The concerns raised is already addressed in Section R908.3. The proposed text combines repair and alterations in the same definition. (Vote: 10-0)

G4-22 Part II

Individual Consideration Agenda

Public Comment 1:

IRC: SECTION 202, R908.3

Proponents: Wanda Edwards, representing PIMA (we@wandaedwardsconsulting.com); Marcin Pazera, representing Polyisocyanurate Insulation Manufacturer Association (mpazera@pima.org); Richard Justin Koscher, representing Polyisocyanurate Insulation Manufacturers Association (jkoscher@pima.org) requests As Modified by Public Comment

Modify as follows:

2021 International Residential Code

[RB] ROOF REPLACEMENT. An alteration that includes the removal of all existing layers of *roof assembly* materials down to the roof deck and installing a new roof assembly replacement materials above the ~~existing~~ roof deck. For the definition applicable in Chapter 11, see Section N1101.6.

R908.3 Roof replacement. *Roof replacement* shall include the removal of existing layers of ~~roof coverings~~ assembly materials down to the *roof deck*.

Exception: Where the existing *roof assembly* includes an ice barrier membrane that is adhered to the *roof deck*, the existing ice barrier membrane shall be permitted to remain in place and covered with an additional layer of ice barrier membrane in accordance with Section R905.

Commenter's Reason: This proposed modification revises the original code change proposed to the roof replacement definition to reflect the intent and the scope of the roof replacement activity that takes place. The activity includes removal of all existing materials installed above the roof deck down to the roof deck, and installing new roof assembly materials above the roof deck. The definition as proposed more explicitly states that roof replacement is an alteration and must comply with Section N1111 titled "Alterations" of the International Residential Code (IRC), which requires all new materials to meet the requirements for new construction. Section N1111 currently includes a pointer that alterations must comply with Section N1102 titled "Building Envelope". This is an important provision because roof replacements must comply with the energy efficiency provisions of the IRC.

Based on the comments during the Committee Action Hearing (CAH), the proposal includes a modification to the section R908.3 titled "Roof Replacements" of the International Residential Code (IRC). The specific modification revises the term "roof covering" to "roof assembly" to align terminology with Section R908.3 of the IRC.

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction. The public comment is a clarification of current code requirements and will have no effect on the cost of construction.

Public Comment# 3442

G13-22

Proposed Change as Submitted

Proponents: Gregory Wilson, representing FEMA (gregory.wilson2@fema.dhs.gov); Rebecca Quinn, representing DHS Federal Emergency Management Agency (rcquinn@earthlink.net)

THIS CODE CHANGE WILL BE HEARD BY THE INTERNATIONAL BUILDING CODE-STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEES.

2021 International Building Code

APPENDIX G FLOOD-RESISTANT CONSTRUCTION

SECTION G112 OTHER BUILDING WORK

Revise as follows:

G112.1 Garages and accessory structures. Garages and accessory structures shall be designed and constructed in accordance with ASCE 24, subject to the limitations of this section:

1. In flood hazard areas other than coastal high hazard areas and Coastal A Zones, the floors of detached garages and detached accessory storage structures are permitted below the elevations specified in ASCE 24 provided such structures are used solely for parking or storage, are one story and not larger than 600 square feet (55.75 m²).
2. In coastal high hazard areas and Coastal A Zones, the floors of detached garages and detached accessory storage structures are permitted below the elevations specified in ASCE 24 provided such structures are used solely for parking or storage, are one story and are not larger than 100 square feet (9.29 m²). Such structures shall not be required to have breakaway walls or flood openings.

Reason: The regulations of the National Flood Insurance Program require all structures to be elevated or dry floodproofed (nonresidential only). FEMA guidance issued in 1993 (NFIP Technical Bulletin 7) states that communities must use variances to authorize non-elevated detached accessory structures that are wet floodproofed. Wet floodproofing measures minimize flood damage by allowing certain areas to flood, relieving hydrostatic loads and using materials resistant to flood damage. FEMA expects to reissue Technical Bulletin 7 in early 2022. In 2020, FEMA issued a policy and bulletin specifying requirements for communities to issue permits for non-elevated, wet floodproofed accessory structures rather than variances. Notably, the policy and bulletin establish size limits as a function of flood zone. In flood hazard areas identified as Zone A (all zones that start with "A"), the size limit is one-story two car garage (600 sq ft) and in areas identified as Zone V (start with "V"), the size limit is 100 sq ft. Detached accessory structures that are larger than these sizes must fully comply with the elevation or dry floodproofing requirements for buildings in flood hazard areas. Alternatively, communities may consider individual variances for those larger accessory structures (local floodplain management regulations have criteria for considering variances).

The proposal amends Section G112.1 in IBC Appendix G, Flood-Resistant Construction, to specify size limits applicable when the provisions of ASCE 24 are used to allow wet floodproofed accessory storage structures and detached garages in flood hazard areas. Note that enclosures under elevated buildings used solely for parking, storage and building access are enclosures, not garages.

The size limits specified by FEMA are:

- In flood hazard areas other than coastal high hazard areas, one-story and not larger than 600 sq ft (approximately a two-car garage). FEMA expects communities to require elevation or dry floodproofing if the structures are larger, or approve them by variance.
- In coastal high hazard areas (Zone V), not larger than 100 sq ft. Note that breakaway walls and flood openings, which are required by ASCE 24, are not required (not required by the FEMA policy). FEMA expects communities to require elevation if the structures are larger, or approve them by variance.

Bibliography: The Floodplain Management Agricultural Structures Policy and FEMA P-2140, *Floodplain Management Bulletin: Requirements for Agricultural Structures and Accessory Structures*, are available here: <https://www.fema.gov/media-collection/floodplain-management-requirements-agricultural-and-accessory-structures>

Cost Impact: The code change proposal will decrease the cost of construction

The code change proposal limits the size of detached accessory structures and detached garages that can be wet floodproofed. There will be a reduction in costs for accessory structures in Zone V because ASCE 24 requires breakaway walls and flood openings, but the FEMA policy does not specify breakaway walls or flood openings. For 100 sq ft structures (10 x 10) there will be a cost decrease by avoiding the installation of at least

two flood openings. Engineered flood opening devices cost approximately \$100-\$150 each, not including the cost of installation (nonengineered openings, such as typical air vent device disabled in the open position, cost less). Cost data for fabrication of breakaway walls is not available. FEMA Technical Bulletin 9 contains prescriptive solutions for breakaway walls that do not require certification of design. A 10 x 10 structure has 100 linear feet of wall, thus cost savings are attributable to not having to fabricate approximately 100 feet of breakaway wall. An increase in costs occurs only when property owners want accessory structures or detached garages in flood hazard areas that are larger than the specified limits because those larger structures must be installed on elevated foundations (or dry floodproofed in Zone A/AE), unless approved by individually considered variances to be wet floodproofed. However, it is reasonable to assume that the larger the size, the more costly would be the losses resulting from flooding. Therefore, there are avoided damage costs due to elevating or dry floodproofing (Zone A) and limiting size (Zone V). Additional costs for those larger structures to be elevated depend on the type of foundation chosen. In the report "Natural Hazard Mitigation Saves," the National Institute of Building Sciences estimates a cost of \$33 per foot of elevation per pile and \$325 per foot of elevation for stairs. Therefore, for a 1152 square foot accessory structure (24 ft by 48 ft) with 15 piles spaced 12 feet on center, the added cost of elevation would be \$820 per foot of elevation. It is reasonable to assume the cost would be less when more typical pier foundation elements and anchoring are used.

Bibliography: Natural Hazard Mitigation Saves (2019), National Institute of Building Sciences. <https://www.nibs.org/projects/natural-hazard-mitigation-saves-2019-report>.

G13-22

Public Hearing Results

Committee Action:

As Submitted

Committee Reason: Approved as submitted as the proposed code provisions are based on FEMA guidance. The provisions appropriately specify size limits applicable when the provisions of ASCE 24 are utilized. (Vote: 14-0)

G13-22

Individual Consideration Agenda

Public Comment 1:

IBC: G112.1

Proponents: Kota Wharton, representing City of Grove City (kwharton@grovecityohio.gov) requests As Modified by Public Comment

Modify as follows:

2021 International Building Code

G112.1 Garages and accessory structures. Garages and accessory structures shall be designed and constructed in accordance with ASCE 24, subject to the limitations of this section:

Exceptions:

1. In flood hazard areas other than coastal high hazard areas and Coastal A Zones, the floors of detached garages and detached accessory storage structures are permitted below the elevations specified in ASCE 24 provided such structures are used solely for parking or storage, are not more than one story above grade and ~~not larger than~~ exceeding 600 square feet (55.75 m²).
2. In coastal high hazard areas and Coastal A Zones, the floors of detached garages and detached accessory storage structures are permitted below the elevations specified in ASCE 24 provided such structures are used solely for parking or storage, are not more than one story above grade and are ~~not larger than~~ exceeding 100 square feet (9.29 m²). Such structures shall not be required to have breakaway walls or flood openings.

Commenter's Reason: Clarity changes.

These limitations are intended to be exceptions, they should be listed as such.

Cost Impact: The net effect of the public comment and code change proposal will decrease the cost of construction. See proponent's initial statement. This PC is for clarity.

