

Code Review

2018 Changes to International Codes

IBC - GENERAL - STRUCTURAL - STRUCTURAL TAC

W A R N I N G

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W A R N I N G



2018 International Building Code (IBC – General) – Structural

Structural TAC

| IBC-Structural Code Change No | IBC-Structural Section | Change Summary b/t 2015 IBC and 2018 IBC. Structural. | Change Summary b/t 2017 FBC and 2018 IBC. Structural. | Staff comments |
|-------------------------------|---|--|---|----------------|
| G179-15 | 602.4, TABLE 602.4, 602.4.1, 602.4.2, 602.4.3, 602.4.4, 602.4.5, 602.4.9, 2304.11, 2304.11.1, TABLE 2304.11.1.1, 2304.11.2, 2304.11.3, 602.4.8, 602.4.8.2, 602.4.8.1, 602.4.6, 602.4.6.2, 602.4.6.1, 2304.11.4, 2304.11.5, 602.4.7, 2304.11.4.2 (New) | Revises sections 602.4, 602.4.2, 602.4.3 deletes without substitution 602.4.3, 602.4.4, 602.4.5, revises sections 602.4.3, 2304.11, 2304.11.1, 2304.11.1.1, 2304.11.1.2, 2304.11.1.3, 602.4.8, 602.4.8.2, 602.4.8.1, 602.4.6, 602.4.6.2, 602.4.6.1, 2304.11.4, 2304.11.4.1, adds new section 2304.11.4.2, and revises table 2304.11 to provide necessary consolidation and eliminates duplicative text between Chapters 6 and 23. Cost Impact: Will not increase the cost of construction. Since this is a reorganization of existing requirements , not the creation of new requirements, this code change will not increase the cost of construction. | Same as change between 2015 IBC and 2018 IBC | |

Rule 61G20-2.002 2. Technical amendments needed to accommodate the specific needs of this state include but are not limited to amendments to the Florida Building Code that provide for the following: a. Establish minimum life safety construction requirements to protect buildings and their occupants from fire, wind, flood, and storm surge using the latest technical research and engineering standards for buildings and materials products. b. Provide for flood protection provisions that are consistent with the latest flood protection requirements of the National Flood Insurance Program. c. Maintain eligibility for federal funding and discounts from the National Flood Insurance Program, the Federal Emergency Management Agency, and the United States Department of Housing and Urban Development. d. Provide for energy efficiency standards for buildings that meet or exceed the national energy standards as mandated by Title III of the Energy Conservation and Protection Act. e. Maintain coordination with the Florida Fire Prevention Code. f. Provide for the latest industry standards and design

| TAC Action | | Commission Action | | TAC | Cmsn. |
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| Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | | Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | | <input type="checkbox"/> | <input type="checkbox"/> |
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| G180-15 | 406.7.2, TABLE 601, 603.1, 705.2.3, 803.3, 803.13.3, 1406.3, [BG] 1510.2.5, [BG] 1510.3, 3105.3, D102.2.8, 803.1 | Revises sections 406.7.2, TABLE 601, 603.1, 705.2.3, 803.3, 803.13.3, 1406.3, [BG] 1510.2.5, [BG] 1510.3, 3105.3, D102.2.8, 803.1 to reorganize current heavy timber provisions. Cost Impact: Will not increase the cost of construction. Since this is a reorganization of existing requirements , not the creation of new requirements, this code change will not increase the cost of construction. | Same as change between 2015 IBC and 2018 IBC | | |
| Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | | Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | | <input type="checkbox"/> | <input type="checkbox"/> |
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| G211-15 | 3101.1, 3111, 3111.1, 3111.1.1, 3111.1.1 (New), 3111.1.2 (New), 3111.2 (New), 3111.2.1 (New), 3111.3 (New), 3111.3.1 (New), | Revises section 3101.1 "Scope," revises section 3111.1 "General," revises section 311.1 "SOLAR ENERGY SYSTEMS," deletes without substitution section 3111.1.1 "Rooftop-mounted photovoltaic panels and modules," adds new sections 3111.1.1 "Wind resistance," adds new section "3111.1.2 "Roof live load," adds new section 3111.1.3 "Guards," adds new section 3111.2 "Solar thermal systems," adds new section 3111.2.1 "Equipment listings," adds new section 3111.3 "Photovoltaic solar energy systems," adds new section 3111.3.1 "Equipment listings," adds new section 3111.3.2 "Fire classification," adds new section 3111.3.3 "Building integrated photovoltaic systems," adds | Same as change between 2015 IBC and 2018 IBC | | |

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| | <p>3111.3.2 (New), 3111.3.3 (New), 3111.3.4 (New), 3111.3.5 (New), 3111.3.5.1 (New)</p> | <p>new section 3111.3.4 “Access and pathways,” adds new section 3111.3.5 “Ground mounted photovoltaic systems,” adds new section 3111.3.5.1 “Fire separation distances,” adds new standard “ICC/SRCC ICC 900/SRCC 300 Solar Thermal Systems,” and adds new standard “ICC 901/SRCC 100 Solar Thermal Collector” to clarify solar energy systems requirements. . The code change was further modified by the Committee. The modification removed a fatal flaw in the original proposal.</p> <p>Cost Impact: Will not increase the cost of construction. This code change proposal will not increase the cost of construction. The proposal attempts to clarify the code, but does not make any technical changes to code requirements.</p> | | |
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| <p>TAC Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/></p> | <p>Commission Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/></p> | | <p>TAC</p> | <p>Cmsn.</p> | |
| | | <p><input type="checkbox"/> No Action Needed</p> | <p><input type="checkbox"/></p> | <p><input type="checkbox"/></p> | |
| | | <p><input type="checkbox"/> Overlapping provisions</p> | <p><input type="checkbox"/></p> | <p><input type="checkbox"/></p> | |

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| <p>G212-15</p> | <p>3102.1.1</p> | <p>Revises section 3102.1.1 “Tensile membrane structures and air-supported structures” to new referenced standard ASCE 55 which provides minimum criteria for the design and performance of tensile membrane cable and rigid member structures, including frame structures, collectively known as tensile membrane structures, including permanent and temporary structures as defined herein.</p> <p>Cost Impact: Will not increase the cost of construction. This proposal coordinates the provisions of the code with the provisions of the referenced standard and provides the correct pointer to ASCE 55.</p> | <p>Same as change between 2015 IBC and 2018 IBC</p> | |
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Rule 61G20-2.002 2. Technical amendments needed to accommodate the specific needs of this state include but are not limited to amendments to the Florida Building Code that provide for the following:
a. Establish minimum life safety construction requirements to protect buildings and their occupants from fire, wind, flood, and storm surge using the latest technical research and engineering standards for buildings and materials products. b. Provide for flood protection provisions that are consistent with the latest flood protection requirements of the National Flood Insurance Program. c. Maintain eligibility for federal funding and discounts from the National Flood Insurance Program, the Federal Emergency Management Agency, and the United States Department of Housing and Urban Development. d. Provide for energy efficiency standards for buildings that meet or exceed the national energy standards as mandated by Title III of the Energy Conservation and Protection Act. e. Maintain coordination with the Florida Fire Prevention Code. f. Provide for the latest industry standards and design

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| G222-15 | 3112 (New), 3112.1 (New), 3112.2 (New), 3112.3 (New), 3112.4 (New), 3112.5 (New), 3112.6 (New), 3112.6.1 (New) | Adds new section 3112 "GREENHOUSES," adds new section 3112.1 "General," adds new section 3112.2 "Accessibility," adds new section 3112.3 "Structural design," adds new section 3112.4 "Glass and glazing," adds new section 3112.5 "Light-transmitting plastics," adds new section 3112.6 "Membrane structures," and adds new section 3112.6.1 "Plastic film" to provide a helpful collection of regulations which affect greenhouses. Cost Impact: Will not increase the cost of construction. There is no cost impact related to this proposal because this proposal only reorganizes and references existing code language into a new section. | Same as change between 2015 IBC and 2018 IBC | | |
| TAC Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | | <input type="checkbox"/> | <input type="checkbox"/> |
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| G2-16 Part I | 202 | Revises section 202 definition of "CONVENTIONAL LIGHT-FRAME CONSTRUCTION," and revises section 202 definition of "LIGHT-FRAME CONSTRUCTION" to removing unnecessary wording from the definitions. The code change was further modified by the Committee. The modification further simplifies and clarifies the definitions by removing unnecessary wording. | Same as change between 2015 IBC and 2018 IBC | | |

Rule 61G20-2.002 2. Technical amendments needed to accommodate the specific needs of this state include but are not limited to amendments to the Florida Building Code that provide for the following:

a. Establish minimum life safety construction requirements to protect buildings and their occupants from fire, wind, flood, and storm surge using the latest technical research and engineering standards for buildings and materials products. b. Provide for flood protection provisions that are consistent with the latest flood protection requirements of the National Flood Insurance Program. c. Maintain eligibility for federal funding and discounts from the National Flood Insurance Program, the Federal Emergency Management Agency, and the United States Department of Housing and Urban Development. d. Provide for energy efficiency standards for buildings that meet or exceed the national energy standards as mandated by Title III of the Energy Conservation and Protection Act. e. Maintain coordination with the Florida Fire Prevention Code. f. Provide for the latest industry standards and design

| | | <p>Cost Impact: Will not increase the cost of construction. There is no increase in the cost of construction due to this change as it is only intended to clarify the existing code provisions.</p> | | | | | | | | | | | |
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| <input type="checkbox"/> No Action Needed | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | |
| <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | |
| G2-16 Part II | R202 | <p>Revises section 202 definition “Light-frame construction” to clarify existing code provisions. The code change was further modified by the Committee. The modification deleted "A method of" which was ambiguous and unnecessary language.</p> <p>Cost Impact: Will not increase the cost of construction. There is no increase in the cost of construction due to this change as it is only intended to clarify the existing code provisions.</p> | Same as change between 2015 IBC and 2018 IBC | | | | | | | | | | |
| <p>TAC Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain):</p> | | <p>Commission Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain):</p> | | <table border="1"> <thead> <tr> <th></th> <th>TAC</th> <th>Cmsn.</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> No Action Needed</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Overlapping provisions</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table> | | TAC | Cmsn. | <input type="checkbox"/> No Action Needed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> |
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| <input type="checkbox"/> No Action Needed | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | |
| <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | |
| G7-16 | 202 | <p>Revises section 202 definition “Drilled shaft” to clarify existing code provisions.</p> <p>Cost Impact: Will not increase the cost of construction. There is no increase in the cost of construction due to this change as it is only intended to clarify the existing code provisions.</p> | Same as change between 2015 IBC and 2018 IBC | | | | | | | | | | |

Rule 61G20-2.002 2. Technical amendments needed to accommodate the specific needs of this state include but are not limited to amendments to the Florida Building Code that provide for the following:
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| | | | | <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> |
| G9-16 Part I | 202 | Revises section 202 definition “Fenestration” and adds new definition of “Vertical fenestration” to clarify fenestration characteristics. Cost Impact: Will not increase the cost of construction. The proposal clarifies the characteristics of fenestration. It does not change the requirements for them, and will not increase the cost of construction. | Same as change between 2015 IBC and 2018 IBC | | | |
| Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | | Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | | <input type="checkbox"/> No Action Needed | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> |
| G9-16 Part II | | Revises section 202 definition “Fenestration” and adds new definition of “Vertical fenestration” to clarify fenestration characteristics. Cost Impact: Will not increase the cost of construction. The proposal clarifies the characteristics of fenestration. It does not change the requirements for them, and will not increase the cost of construction. | Same as change between 2015 IBC and 2018 IBC | | | |
| Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | | Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | | <input type="checkbox"/> No Action Needed | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> |
| G10-16 Part | 202 | Revises section 202 definition “Skylights and | Same as change | | | |

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| I | | <p>sloped glazing” to clarify which products fall under the “skylight” category.</p> <p>Cost Impact: Will not increase the cost of construction. The proposal simply clarifies which products fall under the category of "skylight", and by default, which do not. It will not impact the cost of construction</p> | <p>between 2015 IBC and 2018 IBC</p> | | | |
| <p>TAC Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/></p> | | <p>Commission Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/></p> | | <p><input type="checkbox"/> No Action Needed</p> <p><input type="checkbox"/> Overlapping provisions</p> | <p>TAC</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> | <p>Cmsn.</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> |
| G10-16 Part II | 202 | <p>Revises section 202 definition “Skylight” to clarify which products fall under the “skylight” category.</p> <p>Cost Impact: Will not increase the cost of construction. The proposal simply clarifies which products fall under the category of "skylight", and by default, which do not. It will not impact the cost of construction</p> | <p>Same as change between 2015 IBC and 2018 IBC</p> | | | |
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| G12-16 | 202 | <p>Revises section 202 definition “Lowest floor” to make this definition consistent with the change to 2015 IRC R322.1.5 that was Approved as Submitted (RB182-13) to ensure consistency with the definition of the National Flood Insurance Program.</p> <p>Cost Impact: Will not increase the cost of construction. Modifying the definition does not</p> | <p>Same as change between 2015 IBC and 2018 IBC</p> | <p>Flood provision</p> | | |

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| | | change how the term is used or the requirements applicable to the term. | | | | | | | | | | | | | | |
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| TAC Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> NO: <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | | <table border="1"> <thead> <tr> <th></th> <th>TAC</th> <th>Cmsn.</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> No Action Needed</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Overlapping provisions</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | TAC | Cmsn. | <input type="checkbox"/> No Action Needed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> | | | |
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| <input type="checkbox"/> No Action Needed | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | | | | |
| <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| G22-15 | 304.2, 308.2, 310.2, 402.2, 406.2, 410.2, 411.2, 412.2, 423.2, 502.1, 702.1, 802.1, 902.1, 1002.1, 1102.1, 1202.1, 1402.1, 1502.1, 1602, 1 602.1, 1609.2, 1612.2, 1613.2, 1615.2, 1702.1, 1802.1, 2102.1, 2202.1, 2302.1, 2402.1, 2502.1, | Revises sections 304.2, 308.2, 310.2, 402.2, 406.2, 410.2, 411.2, 412.2, 423.2, 502.1, 702.1, 802.1, 902.1, 1002.1, 1102.1, 1202.1, 1402.1, 1502.1, 1602, 1602.1, 1609.2, 1612.2, 1613.2, 1615.2, 1702.1, 1802.1, 2102.1, 2202.1, 2402.1, 2502.1, 2602.1, 3102.2, 3105.2, 3110.2, 404.1.1, 408.1.1, 722.1.1, [F] 307.2, [F] 415.2, [F] 421.2 “Definition” and revises section 2302.1 “General” to delete the definitions sections from all the chapters except Chapter 2. The code change was further modified by public comment to make sleeping accommodations a mandatory feature of a sleeping unit. Cost Impact: Will not increase the cost of construction. The proposal is purely editorial in nature and will have no impact on actual construction. | Same as change between 2015 IBC and 2018 IBC | | | | | | | | | | | | | |

Rule 61G20-2.002 2. Technical amendments needed to accommodate the specific needs of this state include but are not limited to amendments to the Florida Building Code that provide for the following:
 a. Establish minimum life safety construction requirements to protect buildings and their occupants from fire, wind, flood, and storm surge using the latest technical research and engineering standards for buildings and materials products. b. Provide for flood protection provisions that are consistent with the latest flood protection requirements of the National Flood Insurance Program. c. Maintain eligibility for federal funding and discounts from the National Flood Insurance Program, the Federal Emergency Management Agency, and the United States Department of Housing and Urban Development. d. Provide for energy efficiency standards for buildings that meet or exceed the national energy standards as mandated by Title III of the Energy Conservation and Protection Act. e. Maintain coordination with the Florida Fire Prevention Code. f. Provide for the latest industry standards and design

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| | 2602.1, 3102.2, 3105.2, 3110.2, 404.1.1, 408.1.1, 722.1.1, [F] 307.2, [F] 415.2, [F] 421.2 | | | |
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| TAC Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | | TAC | Cmsn. |
| | | <input type="checkbox"/> No Action Needed | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> |

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| G20-16 | 202; IEBC: 202, [BS] 606.2.4 (New) | Revises section 202 definition “[BS] Substantial structural damage,” and adds new section 606.2.4 “Substantial structural damage to snow load-carrying components” to correct an oversight in the current definition of substantial structural damage and add a new upgrade trigger for snow retrofit.. Cost Impact: Will increase the cost of construction. The cost of a substantial repair will be increased by the highly beneficial cost of roof framing retrofit. Probably a net savings over time. | Same as change between 2015 IBC and 2018 IBC | |
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| TAC Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | Commission Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain): <input type="text"/> | | TAC | Cmsn. |
| | | <input type="checkbox"/> No Action Needed | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> |

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|--------|--|--|--|--|
| G21-16 | IBC: 202; IEBC: 202, [BS] 606.2.4 (New) | Deletes without substitution section 202 definition “[BS] Substantial structural damage,” and revises section 202 definition in 2015 IEBC “Substantial structural damage” to make editorial revisions that | Same as change between 2015 IBC and 2018 IBC | |
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Rule 61G20-2.002 2. Technical amendments needed to accommodate the specific needs of this state include but are not limited to amendments to the Florida Building Code that provide for the following:

a. Establish minimum life safety construction requirements to protect buildings and their occupants from fire, wind, flood, and storm surge using the latest technical research and engineering standards for buildings and materials products. b. Provide for flood protection provisions that are consistent with the latest flood protection requirements of the National Flood Insurance Program. c. Maintain eligibility for federal funding and discounts from the National Flood Insurance Program, the Federal Emergency Management Agency, and the United States Department of Housing and Urban Development. d. Provide for energy efficiency standards for buildings that meet or exceed the national energy standards as mandated by Title III of the Energy Conservation and Protection Act. e. Maintain coordination with the Florida Fire Prevention Code. f. Provide for the latest industry standards and design

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| | | <p>clarify the intent of the definition and facilitate its implementation. For IBC - The term 'substantial structural damage' was used in Chapter 34. It should have been deleted from the IBC when Chapter 34 was removed. For IEBC - The edit changes "this code" to "the IBC." The current language is an obsolete holdover from the version of the definition that went with IBC Chapter 34.</p> <p>Cost Impact: Will not increase the cost of construction. This change is editorial and therefore will not change any construction requirements.</p> | | |
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| <p>TAC Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain):</p> | <p>Commission Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain):</p> | <p><input type="checkbox"/> No Action Needed</p> <p><input type="checkbox"/> Overlapping provisions</p> | <p>TAC</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> | <p>Cmsn.</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> |
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| G22-16 | IBC: 202; IEBC: 202 | <p>Adds section 202 definition “[BS] Substantial structural damage,” and revises section 202 definition in 2015 IEBC “Substantial structural damage” to clarifies the definition of "substantial structural damage" by replacing "supports" with "tributary area". This corrects a problem by substituting terminology that engineers have little trouble applying.</p> <p>Cost Impact: Will not increase the cost of construction. This is a clarification / editorial change. As such, this proposal has no implications on the cost of construction.</p> | Same as change between 2015 IBC and 2018 IBC | |
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| <p>TAC Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain):</p> | <p>Commission Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain):</p> | <p><input type="checkbox"/> No Action Needed</p> <p><input type="checkbox"/> Overlapping provisions</p> | <p>TAC</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> | <p>Cmsn.</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> |
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| G23-16 | 202 | Revises section 202 definition “Vapor permeable | Same as change | |
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Rule 61G20-2.002 2. Technical amendments needed to accommodate the specific needs of this state include but are not limited to amendments to the Florida Building Code that provide for the following:
a. Establish minimum life safety construction requirements to protect buildings and their occupants from fire, wind, flood, and storm surge using the latest technical research and engineering standards for buildings and materials products. b. Provide for flood protection provisions that are consistent with the latest flood protection requirements of the National Flood Insurance Program. c. Maintain eligibility for federal funding and discounts from the National Flood Insurance Program, the Federal Emergency Management Agency, and the United States Department of Housing and Urban Development. d. Provide for energy efficiency standards for buildings that meet or exceed the national energy standards as mandated by Title III of the Energy Conservation and Protection Act. e. Maintain coordination with the Florida Fire Prevention Code. f. Provide for the latest industry standards and design

| | | <p>membrane” to revise the defined term to "vapor permeable" is appropriate, since the definition is about the property, not the material.</p> <p>Cost Impact: Will not increase the cost of construction. This proposal makes not material change to the code or the definition that has cost implications.</p> | <p>between 2015 IBC and 2018 IBC</p> | | | | | | | | | | |
|--|---|--|---|--|--|-----|-------|---|--------------------------|--------------------------|---|--------------------------|--------------------------|
| <p>TAC Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain):</p> | | <p>Commission Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain):</p> | | <table border="1"> <thead> <tr> <th></th> <th>TAC</th> <th>Cmsn.</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> No Action Needed</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Overlapping provisions</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table> | | TAC | Cmsn. | <input type="checkbox"/> No Action Needed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> |
| | TAC | Cmsn. | | | | | | | | | | | |
| <input type="checkbox"/> No Action Needed | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | |
| <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | |
| G24-16 | 202 | <p>Revises section 202 definition “Vegetative roof” revise the definition of "vegetative roof" so that it correlates with ASTM D1079.</p> <p>Cost Impact: Will not increase the cost of construction. The proposed change is a clarification and does not change the stringency of existing code requirements so the cost of construction will be unchanged.</p> | <p>Same as change between 2015 IBC and 2018 IBC</p> | | | | | | | | | | |
| <p>TAC Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain):</p> | | <p>Commission Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> Others (Explain):</p> | | <table border="1"> <thead> <tr> <th></th> <th>TAC</th> <th>Cmsn.</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> No Action Needed</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Overlapping provisions</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table> | | TAC | Cmsn. | <input type="checkbox"/> No Action Needed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> |
| | TAC | Cmsn. | | | | | | | | | | | |
| <input type="checkbox"/> No Action Needed | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | |
| <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | | |
| G32-16 | 423.1, 423.1.1, 423.2, 423.3, 423.4, 1604.5 | <p>Revises section 423.1 “General,” revises section 423.1.1 “scope,” revises section 423.2 “Definitions,” revises section 423.3 “Critical emergency operations,” revises section 423.4 “Group E occupancies,” and revises section 1604.5 “Risk Category” to clarify the intent of the code. The code change was further modified by public comment. This public comment is intended to</p> | <p>This change is not similar to that of the FBC. The FBC provides for Florida specific changes to this section</p> | <p>Overlapping provision to be considered during step 2 of the code change process</p> | | | | | | | | | |

Rule 61G20-2.002 2. Technical amendments needed to accommodate the specific needs of this state include but are not limited to amendments to the Florida Building Code that provide for the following:

- Establish minimum life safety construction requirements to protect buildings and their occupants from fire, wind, flood, and storm surge using the latest technical research and engineering standards for buildings and materials products.
- Provide for flood protection provisions that are consistent with the latest flood protection requirements of the National Flood Insurance Program.
- Maintain eligibility for federal funding and discounts from the National Flood Insurance Program, the Federal Emergency Management Agency, and the United States Department of Housing and Urban Development.
- Provide for energy efficiency standards for buildings that meet or exceed the national energy standards as mandated by Title III of the Energy Conservation and Protection Act.
- Maintain coordination with the Florida Fire Prevention Code.
- Provide for the latest industry standards and design

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| | | <p>remove the reference to emergency management officials in Section 423.1 and instead install language in Section 423.1.1 that simply clarifies the scope of ICC500. In addition, in Section 423.3 the phrase "as a Risk Category IV structure" is added to clarify how this type of structure is required to comply with Table 1604.5.</p> <p>Cost Impact: Will not increase the cost of construction. As this is intended as a clarification only, the cost of construction will not be increased.</p> | | | | |
| <p>TAC Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> NO: <input type="checkbox"/> Others (Explain): <input type="text"/></p> | | <p>Commission Action Accommodate Florida Specific Need: YES (Select Criteria) <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> e. <input type="checkbox"/> f. <input type="checkbox"/> NO: <input type="checkbox"/> Others (Explain): <input type="text"/></p> | | | <p>TAC</p> | <p>Cmsn.</p> |
| | | | | <input type="checkbox"/> No Action Needed | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | <input type="checkbox"/> Overlapping provisions | <input type="checkbox"/> | <input type="checkbox"/> |

Rule 61G20-2.002 2. Technical amendments needed to accommodate the specific needs of this state include but are not limited to amendments to the Florida Building Code that provide for the following:
 a. Establish minimum life safety construction requirements to protect buildings and their occupants from fire, wind, flood, and storm surge using the latest technical research and engineering standards for buildings and materials products. b. Provide for flood protection provisions that are consistent with the latest flood protection requirements of the National Flood Insurance Program. c. Maintain eligibility for federal funding and discounts from the National Flood Insurance Program, the Federal Emergency Management Agency, and the United States Department of Housing and Urban Development. d. Provide for energy efficiency standards for buildings that meet or exceed the national energy standards as mandated by Title III of the Energy Conservation and Protection Act. e. Maintain coordination with the Florida Fire Prevention Code. f. Provide for the latest industry standards and design

Code Change No: **G22-15**

Original Proposal

Section(s): 304.2, 308.2, 310.2, 402.2, 406.2, 410.2, 411.2, 412.2, 423.2, 502.1, 702.1, 802.1, 902.1, 1002.1, 1102.1, 1202.1, 1402.1, 1502.1, 1602, 1602.1, 1609.2, 1612.2, 1613.2, 1615.2, 1702.1, 1802.1, 2102.1, 2202.1, 2302.1, 2402.1, 2502.1, 2602.1, 3102.2, 3105.2, 3110.2, 404.1.1, 408.1.1, 722.1.1, [F] 307.2, [F] 415.2, [F] 421.2

Proponent: Sarah Rice, Preview Group, representing Preview Group

Revise as follows:

304.2 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

**AMBULATORY CARE FACILITY.
CLINIC, OUTPATIENT.**

[F] 307.2 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:
(The lists of terms in this and subsequent sections would be deleted.)

308.2 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

310.2 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

402.2 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

404.1.1 Definition. ~~The following term is—~~Terms are defined in Chapter 2:

406.2 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

408.1.1 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

410.2 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

411.2 Definition. ~~The following term is—~~Terms are defined in Chapter 2:

412.2 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

[F] 415.2 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

[F] 421.2 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

423.2 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

502.1 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

702.1 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

722.1.1 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

802.1 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

902.1 Definitions. ~~The following terms—~~Terms are defined in Chapter 2:

1002.1 Definitions. ~~The following terms~~ Terms are defined in Chapter 2:

1102.1 Definitions. ~~The following terms~~ Terms are defined in Chapter 2:

1202.1 General. ~~The following terms~~ Terms are defined in Chapter 2:

1402.1 Definitions. ~~The following terms~~ Terms are defined in Chapter 2:

1502.1 Definitions. ~~The following terms~~ Terms are defined in Chapter 2:

1602.1 Definitions, and notations ~~The following terms~~ Terms are defined in Chapter 2, The following notations are used in this chapter:

1609.2 Definitions. ~~For the purposes of Section 1609 and as used elsewhere in this code, the following terms~~ Terms are defined in Chapter 2-

1612.2 Definitions. ~~The following terms~~ Terms are defined in Chapter 2:

1613.2 Definitions. ~~The following terms~~ Terms are defined in Chapter 2:

1615.2 Definitions. ~~The following words and terms~~ Terms are defined in Chapter 2:

1702.1 Definitions. ~~The following terms~~ Terms are defined in Chapter 2:

1802.1 Definitions. ~~The following words and terms~~ Terms are defined in Chapter 2:

2102.1 General. ~~The following terms~~ Terms are defined in Chapter 2, The following notations are used in the chapter:

2302.1 Definitions. ~~The following terms~~ Terms are defined in Chapter 2:

2402.1 Definitions. ~~The following terms~~ Terms are defined in Chapter 2:

2502.1 Definitions. ~~The following terms~~ Terms are defined in Chapter 2:

2602.1 Definitions. ~~The following terms~~ Terms are defined in Chapter 2:

3102.2 Definitions. ~~The following terms~~ Terms are defined in Chapter 2:

3105.2 Definition. ~~The following term is~~ Terms are defined in Chapter 2:

3110.2 Definition. ~~The following term is~~ Terms are defined in Chapter 2:

Reason: The intent of this proposal is to remove the definition list sections scattered about the code and the lists of defined terms included within each such section. Starting with the 2012 edition of the IBC all of the definitions were consolidated into Chapter 2. These sections are vestigages of historic organization of the code. In general when new terms are added to Chapter 2, they rarely find themselves being added to one of these lists. Terms can be removed from Chapter 2, but don't always get removed from these lists. Most of the ICC codes simply have a Chapter 2 of definitions, there are no lists scattered about the code. It is time to remove these lists. I see this as an editorial action. The proposal was not accepted by the Code Correlation Committee because of a concern that the language in each section implied that all terms were defined. I have revised that language to provide a simple reference for defined terms.

This proposal simply amends the sections to remove the lists and send the code users directly to Chapter 2. An alternative the committee might consider is to delete all of these sections (except the two that list notations). Deletion would force renumber of the balance of the sections in these chapters.

In two sections, these lists also contain a list of scientific notations used in the chapter. Those notations are not found in Chapter 2. Thus the current text is incorrect and needs to be addressed. The proposal retains Section 1602 and 2102, but only for the listed notations.

Cost Impact: Will not increase the cost of construction
 The proposal is purely editorial in nature and will have no impact on actual construction.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The proposal reduces redundancy in the code and simplifies the search for information. With each defined term italicized, the code user will go directly to Chapter 2 where the full definitions are found. The listings in front of the chapter provided no information for the code user. The intent of the committee was to change to the lists to a simple reference to Chapter 2 with the exception of those locations where the lists also included scientific notations. The notations would remain in the Chapters.

Assembly Action:

None

Public Comments

Public Comment 1:

Maureen Traxler, representing Seattle Dept of Planning & Development (maureen.traxler@seattle.gov) requests Approve as Modified by this Public Comment.

Modify as follows:

~~304.2 Definitions. Terms are defined in Chapter 2.~~

~~[F] 307.2 Definitions. Terms are defined in Chapter 2~~

~~308.2 Definitions. Terms are defined in Chapter 2~~

~~310.2 Definitions. Terms are defined in Chapter 2~~

~~402.2 Definitions. Terms are defined in Chapter 2~~

~~404.1.1 Definition. Terms are defined in Chapter 2:~~

~~406.2 Definitions. Terms are defined in Chapter 2~~

~~408.1.1 Definitions. Terms are defined in Chapter 2~~

~~410.2 Definitions. Terms are defined in Chapter 2~~

~~411.2 Definition. Terms are defined in Chapter 2~~

~~412.2 Definitions. Terms are defined in Chapter 2~~

~~[F] 415.2 Definitions. Terms are defined in Chapter 2~~

~~[F] 421.2 Definitions. Terms are defined in Chapter 2~~

~~423.2 Definitions. Terms are defined in Chapter 2~~

**SECTION 502
DEFINITIONS**

~~502.1 Definitions. Terms are defined in Chapter 2~~

**SECTION 702
DEFINITIONS**

~~702.1 Definitions. Terms are defined in Chapter 2~~

~~722.1.1 Definitions. Terms are defined in Chapter 2:~~

SECTION 802

DEFINITIONS**802.1 Definitions. Terms are defined in Chapter 2****SECTION 902
DEFINITIONS****902.1 Definitions. Terms are defined in Chapter 2****SECTION 1002
DEFINITIONS****1002.1 Definitions. Terms are defined in Chapter 2****SECTION 1102
DEFINITIONS****1102.1 Definitions. Terms are defined in Chapter 2:****SECTION 1202
DEFINITIONS****1202.1 General. Terms are defined in Chapter 2****SECTION 1402
DEFINITIONS****1402.1 Definitions. Terms are defined in Chapter 2****SECTION 1502
DEFINITIONS****1502.1 Definitions. Terms are defined in Chapter 2****SECTION 1602
DEFINITIONS AND NOTATIONS****1609.2 Definitions. Terms are defined in Chapter 2****1612.2 Definitions. Terms are defined in Chapter 2****1615.2 Definitions. Terms are defined in Chapter 2****1613.2 Definitions. Terms are defined in Chapter 2****SECTION 1702
-DEFINITIONS****1702.1 Definitions. Terms are defined in Chapter 2****SECTION 1802
DEFINITIONS****1802.1 Definitions. Terms are defined in Chapter 2****SECTION 2102
DEFINITIONS AND NOTATIONS****2102.1 General. Notations Terms are defined in Chapter 2. The following notations are used in the chapter:****SECTION 2202
DEFINITIONS****2202.1 Definitions. The following terms are defined in Chapter 2:****SECTION 2302
DEFINITIONS****2302.1 Definitions. Terms are defined in Chapter 2**

**SECTION 2402
DEFINITIONS**

~~2402.1 Definitions. Terms are defined in Chapter 2~~

**SECTION 2502
DEFINITIONS**

~~2502.1 Definitions. Terms are defined in Chapter 2~~

**SECTION 2602
DEFINITIONS**

~~2602.1 Definitions. Terms are defined in Chapter 2~~

~~3102.2 Definitions. Terms are defined in Chapter 2~~

~~3105.2 Definition. Terms are defined in Chapter 2~~

~~3110.2 Definition. Terms are defined in Chapter 2~~

Commenter's Reason: This comment deletes the definitions sections from all the chapters except Chapter 2. The original proposal deletes the lists of defined terms but leaves the statement "Terms are defined in Chapter 2." While we agree wholeheartedly with the spirit of the original proposal, we would like to take it to its logical conclusion and delete the entire sections. The text added in the original proposal doesn't add anything to the code; it's only purpose is to avoid renumbering the chapters. Everyone who has basic knowledge about the organization of the IBC, or who understands why terms are italicized knows that terms are defined in Chapter 2. For Sections 1602.1 and 2102.1, this comment lists the definitions that should be deleted in order to be very clear that the notations must remain in those sections.

Commenter's Reason: The essence of a sleeping unit is that it's a place where people sleep. In the original proposal, provisions for sleeping are optional--this comment makes sleeping accommodations a mandatory feature of a sleeping unit.

Final Hearing Results

G22-15

AMPC1

Code Change No: **G179-15**

Original Proposal

Section: 602.4, TABLE 602.4, 602.4.1, 602.4.2, 602.4.3, 602.4.4, 602.4.5, 602.4.9, 2304.11, 2304.11.1, TABLE 2304.11.1.1, 2304.11.2, 2304.11.3, 602.4.8, 602.4.8.2, 602.4.8.1, 602.4.6, 602.4.6.2, 602.4.6.1, 2304.11.4, 2304.11.5, 602.4.7, 2304.11.4.2 (New)

Proponent: Dennis Richardson, representing American Wood Council

Revise as follows:

602.4 Type IV. Type IV construction (~~Heavy Timber, HT~~) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid or laminated ~~wood~~ heavy timber (HT), without concealed spaces. The minimum dimensions for permitted materials including solid timber, glued-laminated timber, structural composite lumber (SCL), and cross laminated timber (CLT) and details of Type IV construction shall comply with the provisions of this section and Section 2304.11. Exterior walls complying with Section 602.4.1 or 602.4.2 shall be permitted. ~~Minimum solid sawn nominal dimensions are required for structures built using Type IV construction (HT). For glued laminated members Interior walls and structural composite lumber (SCL) members, the equivalent not finished width and depths corresponding to the minimum nominal width and depths partitions of solid sawn lumber are required as specified in Table 602.4 not less than one hour~~ Crossfire-resistance rating-laminated timber (CLT) dimensions used in this section are actual dimensions or heavy timber conforming with Section 2304.11.2.2 shall be permitted.

602.4.1 Fire-retardant-treated wood in exterior walls. *Fire-retardant-treated wood* framing complying with Section 2303.2 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less.

602.4.2 Cross-laminated timber in exterior walls. *Cross-laminated timber* complying with Section 2303.1.4 shall be permitted within exterior wall assemblies not less than 6 inches (152 mm) in thickness with a 2-hour rating or less, provided the exterior surface of the cross-laminated timber is protected by one the following:

1. *Fire-retardant-treated wood* sheathing complying with Section 2303.2 and not less than $1\frac{5}{32}$ inch (12 mm) thick;
2. *Gypsum board* not less than $\frac{1}{2}$ inch (12.7 mm) thick; or
3. A noncombustible material.

Delete without substitution:

602.4.3 Columns. ~~Wood columns shall be sawn or glued laminated and shall be not less than 8 inches (203 mm), nominal, in any dimension where supporting floor loads and not less than 6 inches (152 mm) nominal in width and not less than 8 inches (203 mm) nominal in depth where supporting roof and ceiling loads only. Columns shall be continuous or superimposed and connected in an approved manner. Protection in accordance with Section 704.2 is not required.~~

602.4.4 Floor framing. ~~Wood beams and girders shall be of sawn or glued laminated timber and shall be not less than 6 inches (152 mm) nominal in width and not less than 10 inches (254 mm) nominal in depth. Framed sawn or glued laminated timber arches, which spring from the floor line and support floor loads, shall be not less than 8 inches (203 mm) nominal in any dimension. Framed timber trusses supporting floor loads shall have members of not less than 8 inches (203 mm) nominal in any dimension.~~

602.4.5 Roof framing. Wood-frame or glued-laminated arches for roof construction, which spring from the floor line or from grade and do not support floor loads, shall have members not less than 6 inches (152 mm) nominal in width and have not less than 8 inches (203 mm) nominal in depth for the lower half of the height and not less than 6 inches (152 mm) nominal in depth for the upper half. Framed or glued-laminated arches for roof construction that spring from the top of walls or wall abutments, framed timber trusses and other roof framing, which do not support floor loads, shall have members not less than 4 inches (102 mm) nominal in width and not less than 6 inches (152 mm) nominal in depth. Spaced members shall be permitted to be composed of two or more pieces not less than 3 inches (76 mm) nominal in thickness where blocked solidly throughout their intervening spaces or where spaces are tightly closed by a continuous wood cover plate of not less than 2 inches (51 mm) nominal in thickness secured to the underside of the members. Splice plates shall be not less than 3 inches (76 mm) nominal in thickness. Where protected by approved automatic sprinklers under the roof deck, framing members shall be not less than 3 inches (76 mm) nominal in width.

Revise as follows:

602.4.3 Exterior structural members. Where a horizontal separation of 20 feet (6096 mm) or more is provided, wood columns and arches conforming to heavy timber sizes complying with 2304.11 shall be permitted to be used externally.

2304.11 Heavy timber construction. Where a structure or portion thereof is, or individual structural elements are required to be of Type IV construction heavy timber by other provisions of this code, the building elements therein shall comply with the applicable provisions of Sections 2304.11.1 through 2304.11.52304.11.4. Minimum dimensions of heavy timber shall comply as applicable in Table 2304.11 based on roofs or floors supported and the configuration of each structural element, or as applicable in Sections 2304.11.2 through 2304.11.4.

2304.11.1 ColumnsDetails of heavy timber structural members. Columns Heavy timber structural members shall be continuous or superimposed throughout all stories by means of reinforced concrete or metal caps detailed and constructed in accordance with brackets, or shall be connected by properly designed steel or iron caps, with pintles and base plates, or by timber splice plates affixed to the columns by metal connectors housed within the contact faces, or by their approved methods Sections 2304.11.1.1 through 2304.11.1.3.

2304.11.1.1 Column connectionsColumns. Minimum dimensions of columns shall be in accordance with Table 2304.11. Columns shall be continuous or superimposed throughout all stories and connected in an approved manner. Girders and beams at column connections shall be closely fitted around columns and adjoining ends shall be cross tied to each other, or intertied by caps or ties, to transfer horizontal loads across joints. Wood bolsters shall not be placed on tops of columns unless the columns support roof loads only. Where traditional heavy timber detailing is used, connections shall be permitted to be by means of reinforced concrete or metal caps with brackets, or shall be connected by properly designed steel or iron caps, with pintles and base plates, or by timber splice plates affixed to the columns by metal connectors housed within the contact faces, or by other approved methods.

2304.11.2 **2304.11.1.2 Floor framing.** Minimum dimensions of floor framing shall be in accordance with Table 2304.11. Approved wall plate boxes or hangers shall be provided where wood beams, girders or trusses rest on masonry or concrete walls. Where intermediate beams are used to support a floor, they shall rest on top of girders, or shall be supported by ledgers or blocks securely fastened to the sides of the girders, or they shall be supported by an approved metal hanger into which the ends of the beams shall be closely fitted. Where traditional heavy timber detailing is used, these connections shall be permitted to be supported by ledgers or blocks securely fastened to the sides of the girders.

2304.11.3 **2304.11.1.3 Roof framing.** Minimum dimensions of roof framing shall be in accordance with Table 2304.11. Every roof girder and at least every alternate roof beam shall be anchored to its supporting member; and every monitor and every sawtooth construction shall be anchored to the main

roof construction. Such anchors shall consist of steel or iron bolts of sufficient strength to resist vertical uplift of the roof forces as required in Chapter 16.

~~602.4.8-2304.11.2~~ Partitions and walls. Partitions and walls shall comply with Section ~~602.4.8.1-2304.11.2.1~~ or ~~602.4.8.2-2304.11.2.2~~.

~~602.4.8.2-2304.11.2.1~~ Exterior walls. Exterior walls shall ~~permitted to be~~ *Cross-laminated timber* meeting the requirements of ~~one of the following:~~ ~~Section 2303.1.4.~~

- ~~1. Noncombustible materials.~~
- ~~2. Not less than 6 inches (152 mm) in thickness and constructed of one of the following:~~
 - ~~2.1 Fire-retardant-treated wood in accordance with Section 2303.2 and complying with Section 602.4.1.~~
 - ~~2.2 Cross-laminated timber complying with Section 602.4.2.~~

~~602.4.8.1-2304.11.2.2~~ Interior walls and partitions. *No change to text.*

~~602.4.6-2304.11.3~~ Floors. Floors shall be without concealed spaces. Wood floors shall be constructed in accordance with Section ~~602.4.6.1-2304.11.3.1~~ or ~~602.4.6.2-2304.11.3.2~~.

~~602.4.6.2-2304.11.3.1~~ Cross-laminated timber floors. *Cross-laminated timber* shall be not less than 4 inches (102 mm) in actual thickness. *Cross-laminated timber* shall be continuous from support to support and mechanically fastened to one another. *Cross-laminated timber* shall be permitted to be connected to walls without a shrinkage gap providing swelling or shrinking is considered in the design. Corbelling of masonry walls under the floor shall be permitted to be used.

~~602.4.6.1-2304.11.3.2~~ Sawn or glued-laminated plank floors. Sawn or glued-laminated plank floors shall be one of the following:

1. Sawn or glued-laminated planks, splined or tongue-and-groove, of not less than 3 inches (76 mm) nominal in thickness covered with 1-inch (25 mm) nominal dimension tongue-and-groove flooring, laid crosswise or diagonally, ¹⁵/₃₂-inch (12 mm) wood structural panel or ¹/₂-inch (12.7 mm) particleboard.
2. Planks not less than 4 inches (102 mm) nominal in width set on edge close together and well spiked and covered with 1-inch (25 mm) nominal dimension flooring or ¹⁵/₃₂-inch (12 mm) wood structural panel or ¹/₂-inch (12.7 mm) particleboard.

The lumber shall be laid so that no continuous line of joints will occur except at points of support. Floors shall not extend closer than ¹/₂ inch (12.7 mm) to walls. Such ¹/₂-inch (12.7 mm) space shall be covered by a molding fastened to the wall and so arranged that it will not obstruct the swelling or shrinkage movements of the floor. Corbelling of masonry walls under the floor shall be permitted to be used in place of molding.

Delete without substitution:

~~2304.11.4 Floor decks.~~ ~~Floor decks and covering shall not extend closer than ¹/₂ inch (12.7 mm) to walls. Such ¹/₂-inch (12.7 mm) spaces shall be covered by a molding fastened to the wall either above or below the floor and arranged such that the molding will not obstruct the expansion or contraction movements of the floor. Corbelling of masonry walls under floors is permitted in place of such molding.~~

Revise as follows:

2304.11.5-2304.11.4 Roof decks. Roofs shall be without concealed spaces and roof decks shall be constructed in accordance with Section 2304.11.4.1 or 2304.11.4.2. Other types of decking shall be permitted to be used where equivalent fire resistance and structural properties are being provided. Where

supported by a wall, roof decks shall be anchored to walls to resist uplift forces determined in accordance with Chapter 16. Such anchors shall consist of steel bolts, lags, screws or iron bolts approved hardware of sufficient strength to resist vertical uplift of the roof prescribed forces.

602.4.7 2304.11.4.1 Roofs-Cross-laminated timber roofs. ~~Roofs shall be without concealed spaces and wood roof decks shall be sawn or glued laminated, splined or tongue-and-groove plank, not less than 2 inches (51 mm) nominal in thickness; 1 1/8-inch thick (32 mm) wood structural panel (exterior glue); planks not less than 3 inches (76 mm) nominal in width, set on edge close together and laid as required for floors; or of cross-laminated timber. Other types of decking shall be permitted to be used if providing equivalent fire resistance and structural properties.~~

Cross-laminated timber roofs shall be not less than 3 inches (76 mm) ~~nominal in actual~~ thickness and shall be continuous from support to support and mechanically fastened to one another.

Add new text as follows:

2304.11.4.2 Sawn, wood structural panel, or glued-laminated plank roofs. Sawn, wood structural panel, or glued-laminated plank roofs shall be one of the following:

1. Sawn or glued laminated, splined or tongue-and-groove plank, not less than 2 inches (51 mm) nominal in thickness;
2. 1 1/8-inch-thick (32 mm) wood structural panel (exterior glue);
3. Planks not less than 3 inches (76 mm) nominal in width, set on edge close together and laid as required for floors.

Revise as follows:

TABLE 602.4-2304.11 (2304.11)
WOOD-MEMBER SIZE EQUIVALENCIES-MINIMUM DIMENSIONS OF HEAVY TIMBER STRUCTURAL MEMBERS

| | | MINIMUM NOMINAL SOLID SAWN SIZE | | MINIMUM GLUED-LAMINATED NET SIZE | | MINIMUM STRUCTURAL COMPOSITE LUMBER NET SIZE | |
|--|--|---------------------------------|-------------|----------------------------------|-------------|--|-------------|
| | | Width, inch | Depth, inch | Width, inch | Depth, inch | Width, inch | Depth, inch |
| Supporting | Heavy Timber Structural Element | | | | | | |
| <u>Floor loads only or combined floor and roof loads</u> | <u>Columns:</u> <u>Framed sawn or glued-laminated timber arches which spring from the floor line:</u> <u>Framed timber trusses</u> | 8 | 8 | 6 3/4 | 8 1/4 | 7 | 7 1/2 |
| | <u>Wood beams and girders</u> | 6 | 10 | 5 | 10 1/2 | 5 1/4 | 9 1/2 |
| <u>Roof loads only</u> | <u>Columns (roof and ceiling loads):</u> <u>Lower half of: Wood-frame or glued-laminated arches which spring from the floor line or from grade</u> | 6 | 8 | 5 | 8 1/4 | 5 1/4 | 7 1/2 |
| | <u>Upper half of: Wood-frame or glued-laminated arches which spring from the floor line or from grade</u> | 6 | 6 | 5 | 6 | 5 1/4 | 5 1/2 |
| | <u>Framed timber trusses and other roof framing:</u> ^a <u>Framed or glued-laminated arches that spring from the top of walls or wall abutments</u> | 4 ^b | 6 | 3 ^b | 6 7/8 | 3 1/2 ^b | 5 1/2 |

For SI: 1 inch = 25.4 mm.

a Spaced members shall be permitted to be composed of two or more pieces not less than 3 inches (76 mm) nominal in thickness where blocked solidly throughout their intervening spaces or where spaces are tightly closed by a continuous wood

cover plate of not less than 2 inches (51 mm) nominal in thickness secured to the underside of the members. Splice lates shall be not less than 3 inches (76 mm) nominal in thickness.

- b Where protected by approved automatic sprinklers under the roof deck, framing members shall be not less than 3 inches (76 mm) nominal in width.

Reason: The cross laminated timber product standard was approved in the 2015 IBC in addition to a code change allowing this material to be utilized for the construction of 2 hour exterior walls in type IV-HT construction.

Cross Laminated Timber has been manufactured for over 30 years in Europe and has just recently caught hold on the American Continent where some major structures are under way in Canada and smaller buildings are being built in the US. In Europe buildings of 8 to 10 stories and above are regularly constructed. The following link gives examples of CLT buildings throughout the world. <http://www.rethinkwood.com/tall-wood-survey>

Because of the high level of carbon sequestration and low embodied energy, it is anticipated there will be a renewed interest in the use of type IV heavy timber as a type of construction. One bit of feedback American Wood Council received after CLT was approved in the 2015 IBC was the observation from one building department that the heavy timber and type IV provisions are confusing, sometimes redundant and spread across different sections of the building code.

This code change is an attempt to address that concern without making any change in the substance of the requirements. Currently type IV construction and heavy timber requirements are found in Sections 602.4 and 2304.11 of the IBC. The clean up and reorganization of those sections is part one of this effort. Part two is the identification and update of many references to type IV construction and heavy timber found throughout the code.

In order to pare down Section 602.4, only the provisions specific to type IV construction remain along with a list of the types of materials found in heavy timber and the reference to the requirements for those materials in Section 2304.11. Requirements specific to type IV remain in 602.4.

Section 2304.11 can best be described as "all things heavy timber". Heavy timber structural elements have long been referenced throughout other parts of the code where a specific heavy timber structural element is detailed for use incorporated in another type of construction. The most general example of this is table 601 footnote c allowing the use of heavy timber roof construction in place of one hour fire resistance rated roof construction in types IB, II, IIIA, and VA construction. The design professional may detail heavy timber as the roof structure and assembly for these different types of construction and they are treated as building elements but the type of construction for the overall structure does not change from the type IB, II, IIIA, or VA. Heavy timber requirements removed from Section 602.4 are combined and organized with the existing content of Section 2304. Table 602.4 is moved and renamed Table 2304.11. It is updated with information placing a description of the elements that are applicable for a given size timber element based on whether the element supports roof loads and floor loads or only roof loads. Specific footnotes about the size and protection of spaced truss elements and the reduction of roof beam width for sprinklers are noted where applicable.

The non-size related detailing provisions for framing members and connections (columns, floor framing and roof framing) are coalesced into Sections 2304.11.1.1, 2304.11.1.2 and 2304.11.1.3. All of the information in table 2304.11 and the following sections are organized so that the most pertinent information for most designs is found first.

Finally, some of the detailing provisions for traditional heavy timber are identified as such and relocated later in each section while some other information that is archaic and better replaced by reference is removed. A good example of this is the removal of the requirement for the anchorage of "every monitor and every sawtooth construction" to the main roof construction in Section 2304.11.3. New Section 2304.11.1.3 requires roof girders and alternate roof beams to be anchored to their supports as required by Chapter 16.

Finally, Sections 2304.11.2 through 2304.11.4 contain pertinent thickness and detailing requirements for walls, roof and floor deck construction.

The following table gives a more detailed description of where specific requirements are moved.

Since this change is intended not to create any new requirements or delete pertinent content, there are other code changes which contain specific code changes to this information. It is intended this code change will serve as a template for the relocation of those other specific changes through the correlation process should other specific changes be approved.

Part 2 of this effort follows with the change to specific code references to: Section 602.4, type IV construction, heavy timber and Section 2304.11.

The following link provides access to additional information regarding this or other code changes proposed by American Wood Council. <http://www.awc.org/Code-Officials/2015-IBC-Code-Changes/>

| Section in 2015 IBC | Location in proposed change | Comments |
|---|---|---|
| 602.4 Type IV | 602.4 (same location) | modified to direct users to news section on heavy timber details; retains essentials for Type IV construction |
| Table 602.4 | Table 2304.11 | additional content is added describing the thickness of structural elements based on loading and configuration from 602.4.3 through 602.4.5 |
| 602.4.1 Fire-retardant treated wood in exterior walls, and 602.4.2 Cross-laminated timber in exterior walls | 602.4.1 and 602.4.2 (same location) | thickness of wall assembly added from 602.4.8.2 item 2. |
| 602.4.3 Columns | 2304.11, Table 2304.11, and Section 2304.11.1.1 | requirements combined with existing 2304.11.1 Columns; dimensions in new Table 2304.11.1 |
| 602.4.4 Floor framing | 2304.11, Table 2304.11 | |
| 602.4.5 Roof framing | 2304.11, Table 2304.11 | |
| 602.4.6 Floors | 2304.11.3 | |
| 602.4.6.1 Sawn or glued-laminated plank floors | 2304.11.3.2 | the end of proposed Section 2304.11.3.2 comes from current 2304.11.2 |
| 602.4.6.2 Cross-laminated timber floors | 2304.11.3.1 | |
| 602.4.7 Roofs | 2304.11.4 and subsections 2304.11.4.1 and 2304.11.4.2 | the current provisions of current section 2304.11.5 are folded into these sections |
| 602.4.8 Partitions and walls and subsections 602.4.8.1 Interior walls and partitions and 602.4.8.2 Exterior walls | 602.for exterior wall thickness in type IV; heavy timber in 2304.11.2 2304.11.2.1 and 2304.11.2.2 | kept essentials for a Type IV building in 602.4; essentials for heavy timber in proposed section 2304.11.2 |
| 602.4.9 Exterior structural members | 602.4.3 | Unchanged but references proposed heavy timber section |
| 2304.11 Heavy timber construction | 2304.11 (same location) | Modified to become charging language for all heavy timber, not just Type IV construction; adds |

| | | |
|--------------------------------|-------------|---|
| | | charging language for proposed Table 2304.11 |
| 2304.11.1 Columns | 2304.11.1.1 | new section 2304.11.1.1 combines current sections 2304.11.1 and 2304.11.1.1; updates text to be more design focused; retains traditional details |
| 2304.11.1.1 Column connections | 2304.11.1.1 | incorporated in 2304.11.1 |
| 2304.11.2 Floor framing | 2304.11.1.2 | modifies text to make lesser-used methods a permitted option |
| 2304.11.3 Roof framing | 2304.11.1.3 | modifies text to refer to design for all forces, not just uplift, archaic language deleted |
| 2304.11.4 Floor decks | 2304.11.3.2 | current text appears at the end of the proposed section with hardware choices updated; this section incorporates requirements for floors moved from Chapter 6 |
| 2304.11.5 Roof decks | 2304.11.4 | current text appears at end of proposed section, and updates language to reflect current methods and to include consideration of all forces |

Cost Impact: Will not increase the cost of construction

Since this is a reorganization of existing requirements, not the creation of new requirements, this code change will not increase the cost of construction.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The proposal provides necessary consolidation and eliminates duplicative text between Chapters 6 and 23. The revised table is sorely needed to make help the users of the code. Moving the table to Chapter 23 is totally appropriate. The was comfort that with a detailed comparison this is a good clean up with no technical changes. As with any major revision, there remained concerns that all pieces have been maintained and there might be some unintended consequences. The new organization provides better logic for the requirements.

Assembly Action

None

Final Hearing Results

G179-15

AS

Code Change No: **G180-15**

Original Proposal

Section: 406.7.2, TABLE 601, 603.1, 705.2.3, 803.3, 803.13.3, 1406.3, [BG] 1510.2.5, [BG] 1510.3, 3105.3, D102.2.8, 803.1

Proponent: Dennis Richardson, American Wood Council, representing American Wood Council (drichardson@awc.org)

Revise as follows:

406.7.2 Canopies. Canopies under which fuels are dispensed shall have a clear, unobstructed height of not less than 13 feet 6 inches (4115 mm) to the lowest projecting element in the vehicle drive-through area. Canopies and their supports over pumps shall be of noncombustible materials, *fire-retardant-treated wood* complying with Chapter 23, ~~wood of Type IV sizes heavy timber complying with Section 2304.11~~ or of construction providing 1-hour *fire resistance*. Combustible materials used in or on a *canopy* shall comply with one of the following:

1. Shielded from the pumps by a noncombustible element of the *canopy*, or ~~wood of Type IV sizes heavy timber complying with Section 2304.11~~;
2. Plastics covered by aluminum facing having a thickness of not less than 0.010 inch (0.30 mm) or corrosion-resistant steel having a base metal thickness of not less than 0.016 inch (0.41 mm). The plastic shall have a *flame spread index* of 25 or less and a smoke developed index of 450 or less when tested in the form intended for use in accordance with ASTM E 84 or UL 723 and a self-ignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D 1929; or
3. Panels constructed of light-transmitting plastic materials shall be permitted to be installed in *canopies* erected over motor vehicle fuel-dispensing station fuel dispensers, provided the panels are located not less than 10 feet (3048 mm) from any building on the same *lot* and face *yards* or streets not less than 40 feet (12 192 mm) in width on the other sides. The aggregate areas of plastics shall be not greater than 1,000 square feet (93 m²). The maximum area of any individual panel shall be not greater than 100 square feet (9.3 m²).

TABLE 601 (601)
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)

| BUILDING ELEMENT | TYPE I | | TYPE II | | TYPE III | | TYPE IV | TYPE V | |
|---|---------------------------------|---------------------|-------------------|----------------|-------------------|--------|-------------------------------------|-------------------|--------|
| | A | B | A | B | A | B | | HT | A |
| Primary structural frame ^f (see Section 202) | 3 ^a | 2 ^a | 1 | 0 | 1 | 0 | HT | 1 | 0 |
| Bearing walls Exterior ^{e, f} Interior | 3 3 ^a | 2 2 ^a | 1 1 | 0 0 | 2 1 | 2 0 | 2 1/HT | 1 1 | 0 0 |
| Nonbearing walls and partitions Exterior | See Table 602 | | | | | | | | |
| Nonbearing walls and partitions Interior ^d | 0 | 0 | 0 | 0 | 0 | 0 | See Section 602.4.6 2304.11.2 | 0 | 0 |
| Floor construction and associated secondary members (see Section 202) | 2 | 2 | 1 | 0 | 1 | 0 | HT | 1 | 0 |
| Roof construction and associated secondary members (see Section 202) | 1 ¹ / 2 ^b | 1 ^{b, c} | 1 ^{b, c} | 0 ^c | 1 ^{b, c} | 0 | HT | 1 ^{b, c} | 0 |

For SI: 1 foot = 304.8 mm.

- a. Roof supports: Fire-resistance ratings of primary structural frame and bearing walls are permitted to be reduced by 1 hour where supporting a roof only.
- b. Except in Group F-1, H, M and S-1 occupancies, fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.
- c. In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.
- d. Not less than the fire-resistance rating required by other sections of this code.
- e. Not less than the fire-resistance rating based on fire separation distance (see Table 602).
- f. Not less than the fire-resistance rating as referenced in Section 704.10.

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:
 - 1.1 Nonbearing partitions where the required *fire-resistance rating* is 2 hours or less.
 - 1.2 Nonbearing *exterior walls* where fire-resistance-rated construction is not required.
 - 1.3 Roof construction, including girders, trusses, framing and decking.

Exception: In buildings of Type IA construction exceeding two *stories above grade plane*, *fire-retardant-treated wood* is not permitted in roof construction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).

2. Thermal and acoustical insulation, other than foam plastics, having a *flame spread index* of not more than 25.

Exceptions:

- 1 Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a *flame spread index* of not more than 100.
 - 2 Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a *flame spread index* of not more than 200.
3. Foam plastics in accordance with Chapter 26.
 4. Roof coverings that have an A, B or C classification.
 5. *Interior floor finish* and floor covering materials installed in accordance with Section 804.
 6. Millwork such as doors, door frames, window sashes and frames.
 7. *Interior wall and ceiling finishes* installed in accordance with Sections 801 and 803.
 8. *Trim* installed in accordance with Section 806.
 9. Where not installed greater than 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.
 10. Finish flooring installed in accordance with Section 805.
 11. Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a *corridor* serving an *occupant load* of 30 or more shall be permitted to be constructed of *fire-retardant-treated wood*, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.
 12. Stages and platforms constructed in accordance with Sections 410.3 and 410.4, respectively.
 13. Combustible *exterior wallcoverings*, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.
 14. Blocking such as for handrails, millwork, cabinets and window and door frames.
 15. Light-transmitting plastics as permitted by Chapter 26.
 16. Mastics and caulking materials applied to provide flexible seals between components of *exterior wall* construction.

17. Exterior plastic veneer installed in accordance with Section 2605.2.
18. Nailing or furring strips as permitted by Section 803.11.
19. Heavy timber as permitted by Note c to Table 601 and Sections ~~602.4.7~~602.4.3 and 1406.3.
20. Aggregates, component materials and admixtures as permitted by Section 703.2.2.
21. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of *fire resistance* tests in accordance with Section 703.2 and installed in accordance with Sections 1705.14 and 1705.15, respectively.
22. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 714.
23. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 715.
24. Materials allowed in the concealed spaces of buildings of Types I and II construction in accordance with Section 718.5.
25. Materials exposed within plenums complying with Section 602 of the *International Mechanical Code*.
26. Wall construction of freezers and coolers of less than 1,000 square feet (92.9 m²), in size, lined on both sides with noncombustible materials and the building is protected throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

705.2.3 Combustible projections. Combustible projections extending to within 5 feet (1524 mm) of the line used to determine the *fire separation distance* shall be of not less than 1-hour fire-resistance-rated construction, ~~Type IV heavy timber~~ construction complying with Section 2304.11, fire-retardant-treated wood or as required by Section 1406.3.

Exception: Type VB construction shall be allowed for combustible projections in Group R-3 and U occupancies with a fire separation distance greater than or equal to 5 feet (1524 mm).

803.3 Heavy timber exemption. Exposed portions of building elements complying with the requirements for buildings of ~~Type IV heavy timber~~ construction in Section 602.4 or Section 2304.11 shall not be subject to *interior finish* requirements.

803.13.3 Heavy timber construction. Wall and ceiling finishes of all classes as permitted in this chapter that are installed directly against the wood decking or planking of ~~Type IV heavy timber~~ construction in Sections 602.4.2 or 2304.11 or to wood furring strips applied directly to the wood decking or planking shall be fireblocked as specified in Section 803.13.1.1.

1406.3 Balconies and similar projections. Balconies and similar projections of combustible construction other than fire-retardant-treated wood shall be fire-resistance rated where required by Table 601 for floor construction or shall be of ~~Type IV heavy timber~~ construction in accordance with Section ~~602.4.2~~2304.11. The aggregate length of the projections shall not exceed 50 percent of the building's perimeter on each floor.

Exceptions:

1. On buildings of Type I and II construction, three stories or less above *grade plane*, *fire-retardant-treated wood* shall be permitted for balconies, porches, decks and exterior stairways not used as required exits.
2. Untreated wood is permitted for pickets and rails or similar guardrail devices that are limited to 42 inches (1067 mm) in height.
3. Balconies and similar projections on buildings of Type III, IV and V construction shall be permitted to be of Type V construction, and shall not be required to have a *fire-resistance rating* where sprinkler protection is extended to these areas.
4. Where sprinkler protection is extended to the balcony areas, the aggregate length of the balcony on each floor shall not be limited.

[BG] 1510.2.5 Type of construction. Penthouses shall be constructed with walls, floors and roofs as required for the type of construction of the building on which such penthouses are built.

Exceptions:

1. On buildings of Type I construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating. The exterior walls and roofs of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall not be required to have a fire-resistance rating.
2. On buildings of Type I construction two stories or less in height above grade plane or of Type II construction, the exterior walls and roofs of penthouses with a *fire separation distance* greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602 and be constructed of fire-retardant-treated wood. The exterior walls and roofs of penthouses with a *fire separation distance* of 20 feet (6096 mm) or greater shall be permitted to be constructed of fire-retardant-treated wood and shall not be required to have a fire-resistance rating. Interior framing and walls shall be permitted to be constructed of fire-retardant-treated wood.
3. On buildings of Type III, IV or V construction, the exterior walls of penthouses with a fire separation distance greater than 5 feet (1524 mm) and less than 20 feet (6096 mm) shall be permitted to have not less than a 1-hour fire-resistance rating or a lesser fire-resistance rating as required by Table 602. On buildings of Type III, IV or VA construction, the exterior walls of penthouses with a fire separation distance of 20 feet (6096 mm) or greater shall be permitted to be of Type IV heavy timber construction complying with Sections 602.4 and 2304.11 or noncombustible construction or fire-retardant-treated wood and shall not be required to have a fire-resistance rating.

[BG] 1510.3 Tanks. Tanks having a capacity of more than 500 gallons (1893 L) located on the roof deck of a building shall be supported on masonry, reinforced concrete, steel or Type IV heavy timber construction complying with Section 2304.11 provided that, where such supports are located in the building above the lowest story, the support shall be fire-resistance rated as required for Type IA construction.

3105.3 Design and construction. *Awnings* and *canopies* shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. *Awnings* shall have frames of noncombustible material, *fire-retardant-treated wood*, ~~wood of Type IV size heavy timber complying with Section 2304.11~~, or 1-hour construction with combustible or noncombustible covers and shall be either fixed, retractable, folding or collapsible.

D102.2.8 Permanent canopies. Permanent canopies are permitted to extend over adjacent open spaces provided all of the following are met:

1. The canopy and its supports shall be of noncombustible material, *fire-retardant-treated wood*, ~~Type IV construction heavy timber complying with Section 2304.11~~ or of 1-hour fire-resistance-rated construction.

Exception: Any textile covering for the canopy shall be flame resistant as determined by tests conducted in accordance with NFPA 701 after both accelerated water leaching and accelerated weathering.

2. Any canopy covering, other than textiles, shall have a *flame spread index* not greater than 25 when tested in accordance with ASTM E 84 or UL 723 in the form intended for use.
3. The canopy shall have at least one long side open.
4. The maximum horizontal width of the canopy shall not exceed 15 feet (4572 mm).

5. The *fire resistance of exterior walls* shall not be reduced.

2015 International Fire Code

Revise as follows:

803.1 General. The provisions of this section shall limit the allowable fire performance and smoke development of interior wall and ceiling finishes and interior wall and ceiling trim in existing buildings based on location and occupancy classification. Interior wall and ceiling finishes shall be classified in accordance with Section 803 of the *International Building Code*. Such materials shall be grouped in accordance with ASTM E 84, as indicated in Section 803.1.1, or in accordance with NFPA 286, as indicated in Section 803.1.2.

Exceptions:

1. Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls and ceilings.
2. Exposed portions of structural members complying with the requirements of ~~buildings of Type IV construction~~ heavy timber in accordance with the *International Building Code* shall not be subject to interior finish requirements.

Reason: This code change is part 2 of a proposal to reorganize Type IV Section 602.4 and heavy timber section 2304.11. This part of the change includes references found throughout the IBC to either: Type IV construction, Section 602.4, Section 2304.11, or "heavy timber". This change should follow directly after the 602.4 change and the reason for the change is included in that reason statement.

The references found in this part are generally changed to Type IV or Section 602.4 when the section of the code is referring to the type of construction associated with a structure. The references are generally changed to "heavy timber complying with Section 2304.11" when the code is referring to a heavy timber element found in a building of another type of construction. This change is a reorganization of two sections and is not intended to change the intent of the code.

Cost Impact: Will not increase the cost of construction

Since this is a reorganization of existing requirements, not the creation of new requirements, this code change will not increase the cost of construction.

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| Report of Committee Action Hearings |
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Committee Action:

Approved as Submitted

Committee Reason: This is a companion piece to G179-15. G179 reorganizes the heavy timber provisions. This change provides corrections to the various new section numbers resulting from G179-15.

Assembly Action

None

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| Final Hearing Results |
|------------------------------|

G180-15

AS

Code Change No: **G211-15**

Original Proposal

Section: 3101.1, 3111, 3111.1, 3111.1.1, 3111.1.1 (New), 3111.1.2 (New), 3111.2 (New), 3111.2.1 (New), 3111.3 (New), 3111.3.1 (New), 3111.3.2 (New), 3111.3.3 (New), 3111.3.4 (New), 3111.3.5 (New), 3111.3.5.1 (New)

Proponent: Edward Kulik, representing Building Code Action Committee (bcac@iccsafe.org)

Revise as follows:

3101.1 Scope. The provisions of this chapter shall govern special building construction including membrane structures, temporary structures, *pedestrian walkways* and tunnels, automatic *vehicular gates, awnings* and *canopies, marquees*, signs, ~~and towers and antennas,~~ swimming pool enclosures and safety devices, and solar energy systems.

SECTION 3111 PHOTOVOLTAIC PANELS AND MODULES SOLAR ENERGY SYSTEMS

3111.1 General. ~~Photovoltaic panels and modules~~ Solar energy systems shall comply with the requirements of this code ~~and the International Fire Code section.~~

Delete without substitution:

~~**3111.1.1 Rooftop-mounted photovoltaic panels and modules.** Photovoltaic panels and modules installed on a roof or as an integral part of a roof assembly shall comply with the requirements of Chapter 15 and the International Fire Code.~~

Add new text as follows:

3111.1.1 Wind resistance. Rooftop mounted photovoltaic panels and modules and solar thermal collectors shall be designed in accordance with Section 1609.

3111.1.2 Roof live load. Roof structures that provide support for solar energy systems shall be designed in accordance with Section 1607.12.5.

3111.1.3 Guards. Installations shall comply with Section 1015.6 prior to installation of solar thermal systems or photovoltaic solar energy systems.

3111.2 Solar thermal systems. Solar thermal systems shall be designed and installed in accordance with Section 2606.12, the *International Plumbing Code*, the *International Mechanical Code*, and the *International Fire Code*.

3111.2.1 Equipment listings. Solar thermal systems and components shall be listed and labeled in accordance with ICC 900/SRCC 300 and ICC 901/SRCC 100.

3111.3 Photovoltaic solar energy systems. Photovoltaic solar energy systems shall be designed and installed in accordance with this section, the *International Fire Code*, NFPA 70, and the manufacturer's installation instructions.

3111.3.1 Equipment listings. Photovoltaic panels and modules shall be listed and labeled in accordance with UL 1703. Inverters shall be listed and labeled in accordance with UL 1741. Systems connected to the utility grid shall use inverters listed for utility interaction.

3111.3.2 Fire classification. Roof-top-mounted photovoltaic systems shall have a fire classification in accordance with Section 1505.9. Building integrated photovoltaic systems shall have a fire classification in accordance with Section 1505.8.

3111.3.3 Building integrated photovoltaic systems. Building integrated photovoltaic systems that serve as roof coverings shall be designed and installed in accordance with Section 1507.17.

3111.3.4 Access and pathways. Roof access, pathways and spacing requirements shall be provided in accordance with Section 605.11 of the *International Fire Code*.

3111.3.5 Ground mounted photovoltaic systems. Ground mounted photovoltaic systems shall be designed and installed in accordance with Chapter 16 and the *International Fire Code*.

3111.3.5.1 Fire separation distances. Ground mounted photovoltaic systems shall be subject to the fire separation distance requirements determined by the local jurisdiction.

Add new standard(s) as follows:

ICC/SRCC

ICC 900/SRCC 300 Solar Thermal Systems

ICC 901/SRCC 100 Solar Thermal Collector

Reason: This public proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 13 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes and the public comments. Related documentation and reports are posted on the BCAC website at: <http://www.iccsafe.org/cs/BCAC/Pages/default.aspx>. Currently, provisions for solar energy systems, both solar thermal and photovoltaic, are scattered throughout the International Building Code, International Fire Code, International Plumbing Code, International Mechanical Code, and the National Electrical Code (NFPA 70). The intent of this proposed change is to do for these codes what was done in the 2015 International Residential Code through Proposal RM98-13. This proposed change consolidates and organizes all the requirements, with necessary section revisions and section additions, in an easily used format that assists the user to find all the applicable requirements – fire, electrical, structural, plumbing, and mechanical - related to solar thermal and photovoltaic systems.

Both of these systems are special building construction, and this proposal expands on the existing Section 3111 for photovoltaic panels and modules, providing clarity as to where specific requirements are located in the building and other codes. As with the new Section R324 in the International Residential Code, expanding Section 3111 will allow for easy inclusion of new solar energy system types and locations.

Several of the new sections proposed to Section 3111 are located in other parts of the code, and a follow-up proposal will be made in the Group B cycle to address those sections, which include:

- 1510.7.1 (proposed new Section 3111.1)
- 1510.7.3, 1510.7.4, and 1512.1 (proposed new Section 3111.3)
- 1510.7.4 (proposed new Section 3111.3.1)
- 1510.7 (proposed new Section 3111.3.2)

Also a new section will be proposed in Group B cycle to address the specific structural requirements for wind resistance in Chapter 16. These requirements will be coordinated with new provisions in ASCE 7-16.

The requirement for guards in Section 3111.1.3 is already in Section 1015.6.

The new standards developed by ICC/SRCC are referenced for solar thermal equipment and installations.

Cost Impact: Will not increase the cost of construction

This code change proposal will not increase the cost of construction. The proposal attempts to clarify the code, but does not make any technical changes to code requirements.

Analysis: A review of the standards proposed for inclusion in the code, ICC 900/SRCC 300 and ICC 901/SRCC 100, with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28) will be posted on the ICC website on or before April 2, 2015.

Report of Committee Action Hearings

Committee Action:

Approved as Modified

Modify as follows:

3111.1.3 Guards. Installations shall comply with Section 1015.6 prior to installation of solar thermal systems or photovoltaic solar energy systems.

Committee Reason: The change is a very good cleanup. Maintainable parts are covered in Section 1015. The modification removed a fatal flaw in the original proposal.

Assembly Action

None

Final Hearing Results

G211-15

AM

Code Change No: **G212-15**

Original Proposal

Section: 3102.1.1

Proponent: Jennifer Goupil, representing American Society of Civil Engineers (jgoupil@asce.org)

Revise as follows:

3102.1.1 Tensile membrane structures and air-supported structures. Tensile membrane structures and air-supported structures, including permanent and temporary structures, shall be designed and constructed in accordance with ASCE 55. The provisions in Sections 3102.3 through 3102.6 shall apply.

Reason: This change proposes to add the new referenced standard *ASCE 55 Tensile Membrane Structures*. This Standard provides minimum criteria for the design and performance of tensile membrane cable and rigid member structures, including frame structures, collectively known as tensile membrane structures, including permanent and temporary structures as defined herein. The requirements of this Standard shall apply whether the tensile membrane structure is independent of or attached to another structure. This Standard does apply to air-supported structures.

In addition to the scope and definitions, the Standard includes chapters on membrane materials, connections, design, fabrication and erection, as well as appendices for special provisions and a procedure for determining modulus of elasticity. ASCE/SEI 55 is published and maintained by the Structural Engineering Institute of the American Society of Civil Engineers (SEI/ASCE). The document is a nationally recognized consensus standard developed in full compliance with the ASCE *Rules for Standards Committees*. The ASCE standards process is fully accredited by the American National Standards Institute (ANSI). The document is designated ASCE/SEI 55-10 *Tensile Membrane Structures* and it is currently available for purchase from ASCE. Any person interested in obtaining a public comment copy of ASCE/SEI 55 may do so by contacting the proponent at jgoupil@asce.org. A copy of the standard has been submitted with this proposal.

Cost Impact: Will not increase the cost of construction

This proposal coordinates the provisions of the code with the provisions of the referenced standard and provides the correct pointer to ASCE 55.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The ASCE standard addresses both tensile and membrane/air supported structures, which is a good addition to the code.

Assembly Action

None

Final Hearing Results

G212-15

AS

Code Change No: **G222-15**

Original Proposal

Section: 3112 (New), 3112.1 (New), 3112.2 (New), 3112.3 (New), 3112.4 (New), 3112.5 (New), 3112.6 (New), 3112.6.1 (New)

Proponent: Vickie Lovell, InterCode Incorporated, representing National Greenhouse Manufacturers Association (vickie@intercodeinc.com)

Add new text as follows:

SECTION 3112 **GREENHOUSES**

3112.1 General. The provisions of this section shall apply to structures defined as greenhouses by this code that are designed and used for the cultivation, maintenance, or protection of plants.

3112.2 Accessibility. Greenhouses shall be accessible in accordance with Chapter 11.

3112.3 Structural design. Greenhouses shall comply with the structural design requirements for greenhouses in Chapter 16.

3112.4 Glass and glazing. Glass and glazing used in greenhouses shall comply with Section 2405.

3112.5 Light-transmitting plastics. Light-transmitting plastics shall be permitted in lieu of plain glass in greenhouses and shall comply with Section 2606.

3112.6 Membrane structures. Greenhouses that are considered membrane structures shall comply with Section 3102.

3112.6.1 Plastic film. Plastic films used in greenhouses shall comply with Section 3102.3.

Reason: The word "greenhouse" is used throughout the IBC and important requirements for greenhouses are scattered throughout the code. They are often formatted as exceptions in sections that are otherwise unrelated to greenhouses, and could be easily overlooked by designers and enforcers. Therefore, the purpose of this proposal is to relocate (and direct the code user to) the current and relevant code requirements for greenhouses to a new section in Chapter 31, Special Construction. The new section will consolidate all the relevant information in the code into a single location without any technical changes to current code language. The table below shows where the current code requirements are located in the 2015 IBC. The new section 3112 has pointers to these sections.

2015 IBC Section with Greenhouse Requirements
Chapter 312 Use Group U
Table 506.5 Group U Height and Area
1103.2.4 Accessibility Exception for Group U
Table 1604.3 Deflection Limits
1607.12.2.1 Ordinary roofs, awnings and canopies
1609.1.2 Structural design and protection of openings
2405.3 Exception 3 Screening
2606.11 Greenhouses. Light transmitting plastics
2607.4 Exception 3 Area limitation and separation
2609.4 Exception 3 Area limitations
3102.1 General. Membrane Structures
3102.3 Exception Type of Construction
3102.3.1 Exception - Membrane and interior liner material
Appendix C Group U Agricultural Buildings
Appendix D D105 Exceptions to Restrictions in Fire District

Appendix G G1001 Utility and miscellaneous Group U

There are numerous other Group U requirements that could apply to greenhouses.

This proposal, along with the other greenhouse proposals that modify the occupancies to include greenhouses, will assist the designers, other code users and code officials to more consistently apply the requirements for greenhouses. As greenhouse food production and scientific research becomes increasingly vital and sophisticated, a single code section on greenhouses will promote more consistent enforcement of current code text, and facilitate the introduction of new technology related to greenhouses in the future.

Cost Impact: Will not increase the cost of construction

There is no cost impact related to this proposal because this proposal only reorganizes and references existing code language into a new section.

Report of Committee Action Hearings

Committee Action:

Approved as Modified

Modify as follows:

3112.6 Membrane structures. Greenhouses that are considered membrane structures shall comply with Section 3102.

Committee Reason: The proposal provides a helpful collection of regulations which affect greenhouses. The proposal primarily references other provisions of the code, but the other locations are quite scattered and the provisions may be missed. The modification removed an unnecessary word in the provision.

Assembly Action

None

Final Hearing Results

G222-15

AM

Back

Code Change No: **G2-16 Part I**

Original Proposal

Section: 202

Proponent: David Tyree, American Wood Council, representing American Wood Council (dtyree@awc.org)

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC-STRUCTURAL CODE COMMITTEE. PART II WILL BE HEARD BY THE IRC-BUILDING CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

Revise as follows:

CONVENTIONAL LIGHT-FRAME CONSTRUCTION. A type method of construction whose primary structural elements are formed by a system of repetitive wood-framing members. See Section 2308 for conventional light-frame construction provisions.

LIGHT-FRAME CONSTRUCTION. A type method of construction whose vertical and horizontal structural elements are primarily formed by a system of repetitive wood or cold-formed steel framing members.

Reason: The wording of this definition has often caused confusion among code users when determining the type of construction of a building. Chapter 6 of the IBC describes and provides the requirements for the different types of construction ranging from Type IA to VB. Light wood frame is not considered a type of construction. This proposal simply revises the definition to state that Light-Frame is a "method" of construction and should not be confused with the different "Types of Construction" specified in Chapter 6. For a complete list of AWC code change proposals and additional information please go to <http://www.awc.org/Code-Officials/2015-IBC-Code-Changes>.

Cost Impact: Will not increase the cost of construction
There is no increase in the cost of construction due to this change as it is only intended to clarify the existing code provisions.

Report of Committee Action Hearings

Committee Action:

Approved as Modified

Modify as follows:

CONVENTIONAL LIGHT-FRAME CONSTRUCTION. A ~~method of construction~~ Construction whose primary structural elements are formed by a system of repetitive wood-framing members. See Section 2308 for conventional light-frame construction provisions.

LIGHT-FRAME CONSTRUCTION. A ~~method of construction~~ Construction whose vertical and horizontal structural elements are primarily formed by a system of repetitive wood or cold-formed steel framing members.

Committee Reason: The proposal removes references to "type of construction" that is a source of confusion in the definitions for "light frame construction". The modification further simplifies and clarifies the definitions by removing unnecessary wording.

Assembly Action

None

Final Action Results

G2-16 Part I

AM

Code Change No: **G2-16 Part II**

Original Proposal

Section: R202

Proponent: David Tyree, American Wood Council, representing American Wood Council (dtyree@awc.org)

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC-STRUCTURAL CODE COMMITTEE. PART II WILL BE HEARD BY THE IRC-BUILDING CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

Revise as follows:

[RB] LIGHT-FRAME CONSTRUCTION. A ~~type-method~~ of construction ~~with-whose~~ vertical and horizontal structural elements ~~that~~ are primarily formed by a system of repetitive wood or cold-formed steel framing members.

Reason: The wording of this definition has often caused confusion among code users when determining the type of construction of a building. Chapter 6 of the IBC describes and provides the requirements for the different types of construction ranging from Type IA to VB. Light wood frame is not considered a type of construction. This proposal simply revises the definition to state that Light-Frame is a "method" of construction and should not be confused with the different "Types of Construction" specified in Chapter 6. For a complete list of AWC code change proposals and additional information please go to <http://www.awc.org/Code-Officials/2015-IBC-Code-Changes>.

Cost Impact: Will not increase the cost of construction
There is no increase in the cost of construction due to this change as it is only intended to clarify the existing code provisions.

Report of Committee Action Hearings

Committee Action:

Approved as Modified

Modify as follows:

LIGHT-FRAME CONSTRUCTION. A ~~method of construction~~ Construction whose vertical and horizontal structural elements are primarily a system of repetitive wood or cold-formed steel framing members.

Committee Reason: The modification deleted "A method of" which was ambiguous and unnecessary language.

Assembly Action

None

Final Action Results

G2-16 Part II

AM

Code Change No: **G7-16**

Original Proposal

Section: 202 (New)

Proponent: Dale Biggers, P.E., representing GeoCoalition (dbiggers@bohbro.com); Lori Simpson, P.E., G.E., representing GeoCoalition; Daniel Stevenson, P.E., representing GeoCoalition; E. Anna Sellountou, PhD, PE, representing GeoCoalition; Woodward Vogt, Paradigm Consultants, Inc., representing GeoCoalition (woody@paradigmconsultants.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

Revise as follows:

[BS] DRILLED SHAFT. A cast-in-place deep foundation element, also referred to as caisson, drilled pier, and bored pile, constructed by drilling a hole (with or without permanent casing or drilling fluid) into soil or rock and filling it with fluid concrete after the drilling equipment is removed.

Socketed drilled shaft. A drilled shaft with a permanent pipe or tube casing that extends down to bedrock and an uncased socket drilled into the bedrock.

Reason: The purpose of the proposed code change is to distinguish it from augercast piles (reference to removing drilling equipment). Alternate names are included which are in common use in the industry. Drilling fluids (e.g. slurry) are often used in lieu of casing to stabilize the hole.

[Click here to view the members of the GeoCoalition who developed this proposal](#)

Cost Impact: Will not increase the cost of construction
The code change proposal will not change the cost of construction and is simply a clarification.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The committee agreed that the revision adds clarity to the definition of "drilled shaft."

Assembly Action

None

Final Action Results

G7-16

AS

Code Change No: **G9-16 Part I**

Original Proposal

Section: 202

Proponent: Julie Ruth, JRuth Code Consulting, representing American Architectural Manufacturers Association (julruth@aol.com)

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC-STRUCTURAL CODE COMMITTEE. PART II WILL BE HEARD BY THE IRC-BUILDING CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

Revise as follows:

FENESTRATION. ~~Skylights~~ Products classified as either vertical fenestration or skylights and sloped glazing, installed in such a manner as to preserve the weather resistant barrier of the wall or roof windows, vertical windows (fixed or moveable), opaque doors, glazed doors, glazed block and combination opaque/glazed doors in which they are installed. Fenestration includes products with ~~glass and nonglass glazing or other transparent or translucent materials.~~

Add new definition as follows:

FENESTRATION, VERTICAL. Windows that are fixed or movable, opaque doors, glazed doors, glazed block and combination opaque and glazed doors installed in a wall at less than 15 degrees from vertical.

Reason: The definition of fenestration, skylights, sloped glazing, unit skylights and tubular daylighting devices was revised and reformatted from the 2015 IBC to the 2015 IRC and 2015 IECC during the ICC Group A and B code change cycles in 2012 and 2013.

This proposal revises the definitions of fenestration and vertical fenestration in the IBC and IRC, for consistency with the IECC, and each other. It places the most distinguishing characteristics of fenestration in the main definition of that product type, and further distinguishes between vertical fenestration, and skylights and sloped glazing. The definition of skylights and sloped glazing is being addressed in a separate code change proposal.

Although fenestration is an opening in the building envelope, it is to be designed and installed in such a manner as to preserve the integrity of the building envelope component in which it is installed. Fenestration products typically consist of assemblies that are glazed with glass or other transparent or translucent materials. This proposal places both of these characteristics into the main definition of fenestration.

Although similar, the performance characteristics for skylights and sloped glazing are different than for vertical fenestration. This proposal maintains the measurement of 15 degrees from vertical as the point at which fenestration products go from being vertical fenestration installed in a wall, to skylights or sloped glazing. Although the 2015 IECC sets this threshold at 30 degrees from vertical, AAMA strongly feels that this is an erroneous point at which to draw this distinction. The design of products to be weather resistant, particularly with regards to water penetration and snow load, is quite different for products installed at any slope at all in comparison to products installed in a completely vertical position. 15 degrees from vertical has been the accepted threshold for this distinction for many years. It should not be increased.

We urge approval of this proposal, which places emphasis on the primary function of fenestration products.

Definitions as found in the IRC Energy Chapter (N1101.6) are as follows:

Fenestration. Products classified as either *vertical fenestration* or *skylights*.

Fenestration, vertical. Windows (fixed or moveable), opaque doors, glazed doors, glazed block and combination opaque/glazed doors composed of glass or other transparent or translucent glazing materials and installed at a slope of a least 60 degrees (1.05 rad) from horizontal.

Cost Impact: Will not increase the cost of construction

The proposal clarifies the characteristics of fenestration. It does not change the requirements for them, and will not increase the cost of construction.

**Report of Committee Action
Hearings**

Committee Action:

Approved as Submitted

Committee Reason: The committee believes the revisions to the definition of fenestration will make it clearer instead of referring to a "laundry list".

Assembly Action

None

Final Action Results

G9-16 Part I

AS

Code Change No: G9-16 Part II

Original Proposal

Section: 202

Proponent: Julie Ruth, JRuth Code Consulting, representing American Architectural Manufacturers Association (julruth@aol.com)

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC-STRUCTURAL CODE COMMITTEE. PART II WILL BE HEARD BY THE IRC-BUILDING CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

Revise as follows:

[RE] FENESTRATION. ~~Skylights. Products classified as either vertical fenestration or skylights and sloped glazing. installed in such a manner as to preserve the weather resistant barrier of the wall or roof windows, vertical windows (whether fixed in which they are installed. Fenestration includes products with glass or moveable); opaque doors; glazed doors; glass block; and combination opaque and glazed doors other transparent or translucent materials~~

For definition applicable in Chapter 11, see Section N1101.6.

Add new definition as follows:

FENESTRATION, VERTICAL. Windows that are fixed or moveable, opaque doors, glazed doors, glazed block and combination opaque and glazed doors installed in a wall at less than 15 degrees from vertical.

For definition applicable in Chapter 11, see Section N1101.6.

Reason: The definition of fenestration, skylights, sloped glazing, unit skylights and tubular daylighting devices was revised and reformatted from the 2015 IBC to the 2015 IRC and 2015 IECC during the ICC Group A and B code change cycles in 2012 and 2013.

This proposal revises the definitions of fenestration and vertical fenestration in the IBC and IRC, for consistency with the IECC, and each other. It places the most distinguishing characteristics of fenestration in the main definition of that product type, and further distinguishes between vertical fenestration, and skylights and sloped glazing. The definition of skylights and sloped glazing is being addressed in a separate code change proposal.

Although fenestration is an opening in the building envelope, it is to be designed and installed in such a manner as to preserve the integrity of the building envelope component in which it is installed. Fenestration products typically consist of assemblies that are glazed with glass or other transparent or translucent materials. This proposal places both of these characteristics into the main definition of fenestration.

Although similar, the performance characteristics for skylights and sloped glazing are different than for vertical fenestration. This proposal maintains the measurement of 15 degrees from vertical as the point at which fenestration products go from being vertical fenestration installed in a wall, to skylights or sloped glazing. Although the 2015 IECC sets this threshold at 30 degrees from vertical, AAMA strongly feels that this is an erroneous point at which to draw this distinction. The design of products to be weather resistant, particularly with regards to water penetration and snow load, is quite different for products installed at any slope at all in comparison to products installed in a completely vertical position. 15 degrees from vertical has been the accepted threshold for this distinction for many years. It should not be increased.

We urge approval of this proposal, which places emphasis on the primary function of fenestration products.

Definitions as found in the IRC Energy Chapter (N1101.6) are as follows:

Fenestration. Products classified as either *vertical fenestration* or *skylights*.

Fenestration, vertical. Windows (fixed or moveable), opaque doors, glazed doors, glazed block and combination opaque/glazed doors composed of glass or other transparent or translucent glazing materials and installed at a slope of a least 60 degrees (1.05 rad) from horizontal.

Cost Impact: Will not increase the cost of construction
The proposal clarifies the characteristics of fenestration. It does not change the requirements for them, and will not increase the cost of construction.

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: This is consistent with the International Building Code.

Assembly Action

None

Final Action Results

G9-16 Part II

AS

Back

Code Change No: **G10-16 Part I**

Original Proposal

Section: 202

Proponent: Julie Ruth, JRuth Code Consulting, representing American Architectural Manufacturers Association (julruth@aol.com)

THIS IS A 4 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC-STRUCTURAL CODE COMMITTEE. PART II WILL BE HEARD BY THE IECC-COMMERCIAL CODE COMMITTEE. PART III WILL BE HEARD BY THE IECC-RESIDENTIAL CODE COMMITTEE. PART IV WILL BE HEARD BY THE IRC-BUILDING CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

Revise as follows:

SECTION 202 DEFINITIONS

[BS] SKYLIGHTS AND SLOPED GLAZING. Glass or other transparent or translucent glazing material installed at a slope of 15 degrees (0.26 rad) or more from vertical. ~~Glazing material in Unit skylights, including unit skylights tubular daylighting devices, tubular daylighting devices, and glazing materials in solariums, sunrooms sunrooms, roofs and sloped walls,~~ are included in this definition.

Reason: This revision clarifies the types of products that are included in the category of "skylights" and brings the IECC more closely in alignment with the IRC.

Cost Impact: Will not increase the cost of construction

The proposal simply clarifies which products fall under the category of "skylight", and by default, which do not. It will not impact the cost of construction

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: The proposal improves the definition of "skylights and sloped glazing" and its approval is consistent with action taken by the IRC-B committee.

Assembly Action

None

Final Action Results

G10-16 Part I

AS

Back

Code Change No: **G10-16 Part II**

Original Proposal

Section: 202

Proponent: Julie Ruth, JRuth Code Consulting, representing American Architectural Manufacturers Association (julruth@aol.com)

THIS IS A 4 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC-STRUCTURAL CODE COMMITTEE. PART II WILL BE HEARD BY THE IECC-COMMERCIAL CODE COMMITTEE. PART III WILL BE HEARD BY THE IECC-RESIDENTIAL CODE COMMITTEE. PART IV WILL BE HEARD BY THE IRC-BUILDING CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

Revise as follows:

FENESTRATION. Products classified as either vertical fenestration or skylights.

Skylight. Glass or other transparent or translucent glazing material installed at a slope of less than 60 degrees (1.05 rad) from horizontal, including unit skylights, tubular daylighting devices, and glazing materials in solariums, sunrooms, roofs and sloped walls.

Vertical fenestration. Windows (fixed or moveable), opaque doors, glazed doors, glazed block and combination opaque/glazed doors composed of glass or other transparent or translucent glazing materials and installed at a slope of at least 60 degrees (1.05 rad) from horizontal.

Reason: This revision clarifies the types of products that are included in the category of "skylights" and brings the IECC more closely in alignment with the IRC.

Cost Impact: Will not increase the cost of construction

The proposal simply clarifies which products fall under the category of "skylight", and by default, which do not. It will not impact the cost of construction

Report of Committee Action Hearings

Committee Action:

Approved as Submitted

Committee Reason: Approval was based on the proponent's published reason statements.

Analysis: This code change proposal was initially placed on the ballot for an assembly motion. Upon further review, it was discovered that there was no motion made. Therefore the code change was removed from the assembly motion ballot.

Assembly Action

None

Final Action Results

G10-16 Part II

AS

Back

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| Code Change No: G12-16 |
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| Original Proposal |
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Section: 202

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

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

Revise as follows:

[BS] LOWEST FLOOR. The lowest floor of the lowest enclosed area, including *basement*, but excluding any unfinished or floodresistant enclosure, usable solely for vehicle parking, building access or limited storage provided that such enclosure is not built so as to render the structure in violation of Section 1612.

Reason: This proposal is editorial. It will make this definition consistent with the change to 2015 IRC R322.1.5 that was Approved as Submitted (RB182-13) to ensure consistency with the definition of the National Flood Insurance Program.

Cost Impact: Will not increase the cost of construction
Modifying the definition does not change how the term is used or the requirements applicable to the term.

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| Report of Committee Action Hearings |
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Committee Action:**Approved as Submitted**

Committee Reason: Committee's approval is based on this change to the definition of "lowest floor" providing consistency with requirements of the National Flood Insurance Program.

Assembly Action**None**

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| Final Action Results |
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G12-16**AS**

Code Change No: **G20-16**

Original Proposal

Section: 202; IEBC: 202, [BS] 606.2.4 (New)

Proponent: David Bonowitz, representing National Council of Structural Engineers Associations (dbonowitz@att.net)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

Revise as follows:

[BS] SUBSTANTIAL STRUCTURAL DAMAGE. A condition where ~~one or both~~ any of the following apply:

1. The vertical elements of the lateral force-resisting system have suffered damage such that the lateral load-carrying capacity of any *story* in any horizontal direction has been reduced by more than 33 percent from its predamage condition.
2. The capacity of any vertical component carrying gravity load, or any group of such components, that supports more than 30 percent of the total area of the structure's floors and roofs has been reduced more than 20 percent from its predamage condition and the remaining capacity of such affected elements, with respect to all dead and *live loads*, is less than 75 percent of that required by this code for new buildings of similar structure, purpose and location.
3. The capacity of any structural component carrying snow load, or any group of such components, that supports more than 30 percent of the roof area of similar construction, has been reduced more than 20 percent from its predamage condition, and the remaining capacity with respect to dead, live, and snow loads is less than 75 percent of that required by this code for new buildings of similar structure, purpose, and location.

2015 International Existing Building Code

Revise as follows:

[BS] SUBSTANTIAL STRUCTURAL DAMAGE. A condition where ~~one or both~~ any of the following apply:

1. The vertical elements of the lateral forceresisting system have suffered damage such that the lateral load-carrying capacity of any story in any horizontal direction has been reduced by more than 33 percent from its predamage condition.
2. The capacity of any vertical component carrying gravity load, or any group of such components, that supports more than 30 percent of the total area of the structure's floors and roofs has been reduced more than 20 percent from its predamage condition and the remaining capacity of such affected elements, with respect to all dead and live loads, is less than 75 percent of that required by this code for new buildings of similar structure, purpose and location.
3. The capacity of any structural component carrying snow load, or any group of such components, that supports more than 30 percent of the roof area of similar construction, has been reduced more than 20 percent from its predamage condition, and the remaining capacity with respect to dead, live, and snow loads is less than 75 percent of that required by the International Building Code for new buildings of similar structure, purpose, and location.

Add new text as follows:

606.2.4 Substantial structural damage to snow load-carrying components. Where substantial structural damage to any snow load-carrying components is caused by or related to snow load effects, any components required to carry snow loads on roof framing of similar construction shall be repaired, replaced, or retrofitted to satisfy the requirements of Section 1608 of the *International Building Code*.

Reason: This proposal corrects an oversight in the current definition of substantial structural damage and adds a new upgrade trigger for snow retrofit.

Recent winters have seen a wave of snow-related roof collapses, especially in the northeast. One might have expected that the IEBC's current provisions for substantial structural damage (SSD) to gravity components would have resulted in repair or retrofit better than the predamage condition. However, when only the roof collapses, in a multi-story building that often represents less than 30 percent of the total building area, so the current SSD trigger does not apply.

Therefore, this proposal adds a new type of SSD specifically related to snow damage patterns, together with a retrofit trigger for the repairs chapter.

- The new SSD type parallels the existing definition of gravity component SSD but considers only the elements carrying snow load (roof framing, columns, etc.) and compares them only to the roof area.
- Like the current SSD definitions, the new SSD type is independent of cause. The cause of damage is considered in the triggering provisions within Chapter 6.
- The proposed trigger in 606.2.4 applies only where the snow SSD was actually caused by snow (using the same wording currently in 606.2.3).
- "Of similar construction" recognizes that a building might have different roof areas of different construction. Thus, the damage is measured relative to the roof area with construction similar to the damaged area, and the retrofit applies only to this area of similar construction as well.

The proposal is meant to apply to all IEBC methods of compliance. It is written for Chapter 6 only, however, presuming that Group A EB 10 will stand as approved, so that current Chapter 6 will become the new Repairs chapter, and Prescriptive repair provisions will no longer exist. If that does not occur, and assuming this proposal is approved, we expect ICC staff and correlating committees will ensure that a matching provision is added to the Prescriptive method.

Cost Impact: Will increase the cost of construction

The cost of a substantial repair will be increased by the highly beneficial cost of roof framing retrofit. Probably a net savings over time.

Staff note: There is a published errata to IEBC for the definition of "substantial structural damage" that is reflected in this proposal.

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| Report of Committee Action Hearings |
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Committee Action:

Approved as Submitted

Committee Reason: Adding an item dealing with snow to the definition of "substantial structural damage" addresses a real issue in areas that have significant snow loads. In spite of possible short-comings, the committee felt it was important to have this provision added and it could be worked on later. While there is agreement that replacement members should conform to current IBC for new members, there was some concern of possible trickle down effects throughout the building leading to larger upgrade requirements.

Assembly Action

None

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| Final Action Results |
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G20-16

AS

Code Change No: **G21-16**

Original Proposal

Section: IBC: 202; IEBC: 202202; IEBC: 202, [BS] 606.2.4 (New)

Proponent: David Bonowitz, representing National Council of Structural Engineers Associations (dbonowitz@att.net)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

Delete without substitution:

~~**[BS] SUBSTANTIAL STRUCTURAL DAMAGE.** A condition where one or both of the following apply:~~

- ~~1. The vertical elements of the lateral force-resisting system have suffered damage such that the lateral load-carrying capacity of any story in any horizontal direction has been reduced by more than 33 percent from its predamage condition.~~
- ~~2. The capacity of any vertical component carrying gravity load, or any group of such components, that supports more than 30 percent of the total area of the structure's floors and roofs has been reduced more than 20 percent from its predamage condition and the remaining capacity of such affected elements, with respect to all dead and live loads, is less than 75 percent of that required by this code for new buildings of similar structure, purpose and location.~~

2015 International Existing Building Code

Revise as follows:

[BS] SUBSTANTIAL STRUCTURAL DAMAGE. A condition where one or both of the following apply:

1. The vertical elements of the lateral force-resisting system have suffered damage such that the lateral load-carrying capacity of any story in any horizontal direction has been reduced by more than 33 percent from its predamage condition.
2. The capacity of any vertical component carrying gravity load, or any group of such components, that supports more than 30 percent of the total area of the structure's floor(s) and roof(s) has been reduced more than 20 percent from its predamage condition and the remaining capacity of such affected elements, with respect to all dead and live loads, is less than 75 percent of that required by ~~this code~~ the *International Building Code* for new buildings of similar structure, purpose and location.

Reason: This proposal makes editorial revisions that clarify the intent of the definition and facilitate its implementation. For IBC - The term 'substantial structural damage' was used in Chapter 34. It should have been deleted from the IBC when Chapter 34 was removed.

For IEBC - The edit changes "this code" to "the IBC." The current language is an obsolete holdover from the version of the definition that went with IBC Chapter 34.

Cost Impact: Will not increase the cost of construction
This change is editorial and therefore will not change any construction requirements.

Staff note: There is a published errata in IEBC for the definition of "substantial structural damage" that is reflected in this proposal.

**Report of Committee Action
Hearings**

Committee Action:

Approved as Submitted

Committee Reason: The proposal removes an IBC definition that was associated with Chapter 34 and should have been deleted previously.

Assembly Action

None

Final Action Results

G21-16

AS

Code Change No: **G22-16**

Original Proposal

Section: IBC: 202; IEBC: 202

Proponent: Gwenyth Searer, Wiss, Janney, Elstner Associates, Inc.

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

Revise as follows:

[BS] SUBSTANTIAL STRUCTURAL DAMAGE. A condition where one or both of the following apply:

1. The vertical elements of the lateral ~~force-resisting~~force resisting system have suffered damage such that the lateral load-carrying capacity of any ~~story~~ in any horizontal direction has been reduced by more than 33 percent from its predamage condition.
2. The capacity of any vertical component carrying gravity load, or any group of such components, that ~~supports~~has a tributary area more than 30 percent of the total area of the structure's floors and roofs has been reduced more than 20 percent from its predamage condition and the remaining capacity of such affected elements, with respect to all dead and *live loads*, is less than 75 percent of that required by this code for new buildings of similar structure, purpose and location.

2015 International Existing Building Code

Revise as follows:

[BS] SUBSTANTIAL STRUCTURAL DAMAGE. A condition where one or both of the following apply:

1. The vertical elements of the lateral ~~forces~~resisting system have suffered damage such that the lateral load-carrying capacity of any story in any horizontal direction has been reduced by more than 33 percent from its predamage condition.
2. The capacity of any vertical component carrying gravity load, or any group of such components, that ~~supports~~has a tributary area more than 30 percent of the total area of the structure's floors and roofs has been reduced more than 20 percent from its predamage condition and the remaining capacity of such affected elements, with respect to all dead and live loads, is less than 75 percent of that required by this code for new buildings of similar structure, purpose and location.

Reason: There has been some debate among engineers regarding the meaning of the word "supports". Some argue that since the term "tributary area" is not used, the word "supports" can be interpreted as requiring postulation of a collapse mechanism (e.g., in a square structure with four columns, one at each corner, if you hypothetically removed a single column and half the structure would collapse, then that column "supports" half of the structure. Or if in the same structure, if you removed a single column and the entire structure would collapse, then that column "supports" 100 percent of the structure). Similarly, another interpretation is that if a load is placed somewhere on a structure, and any portion of the load is resisted by the element in question in any amount, then that element "supports" the area where the load was applied. Both these interpretations can result in the columns and walls at any given level of a structure supporting far more than 100 percent of the building.

Neither interpretation is the intent of the trigger, which was only ever intended to incorporate the concept of tributary area. Addition of the term "tributary area" will clarify the intent using a commonly understood technical term.

Cost Impact: Will not increase the cost of construction
This is a clarification / editorial change. As such, this proposal has no implications on the cost of construction.

Staff note: There is a published errata to the definition of 'substantial structural damage' in the IEBC. That errata is reflected in this proposal.

**Report of Committee Action
Hearings**

Committee Action:

Approved as Submitted

Committee Reason: The proposal clarifies the definition of "substantial structural damage" by replacing "supports" with "tributary area". This corrects a problem by substituting terminology that engineers have little trouble applying.

Assembly Action

None

Final Action Results

G22-16

AS

Back

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| Code Change No: G23-16 |
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| Original Proposal |
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Section: 202

Proponent: Jay Crandell, ARES Consulting, representing Foam Sheathing Committee of the American Chemistry Council

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

Revise as follows:

VAPOR PERMEABLE MEMBRANE. The property of having a moisture vapor permeance rating of 5 perms (2.9×10^{-10} kg/Pa \times s \times m²) or greater, when tested in accordance with the desiccant method using Procedure A of ASTM E 96. A vapor permeable material permits the passage of moisture vapor.

Reason: The word "membrane" is superfluous. The definition applies to the vapor permeance property of any material. It has no need to be limited to "membranes". The definition and the property are relevant to other materials such as sheathings, insulation, paint, drywall, etc. The term "vapor permeable membrane" is currently used only once in Section 702.1 and this proposal will have no effect on this usage since the term "vapor permeable" remains defined and the term "membrane" is well understood by its plain meaning. This will match IRC.

Cost Impact: Will not increase the cost of construction
This proposal makes not material change to the code or the definition that has cost implications.

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| Report of Committee Action Hearings |
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Committee Action:**Approved as Submitted**

Committee Reason: The proposal to revise the defined term to "vapor permeable" is appropriate, since the definition is about the property, not the material.

Assembly Action**None**

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| Final Action Results |
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G23-16**AS**

Back

Code Change No: **G24-16**

Original Proposal

Section: 202

Proponent: Jason Wilen AIA CDT RRO, National Roofing Contractors Association (NRCA), representing National Roofing Contractors Association (NRCA) (jwilen@nrca.net)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

Revise as follows:

VEGETATIVE ROOF. An assembly of interacting components designed to waterproof ~~and normally insulate~~ a building's top surface that includes, by design, vegetation and related landscape elements.

Reason: The purpose of this change is to address a concern raised during the IgCC code hearing last cycle. We have taken the change to ASTM and the updated definition for "Vegetative Roof" has been balloted with ASTM's D08 Committee and has received no negative votes. This change will therefore make the IBC definition consistent with the most up-to-date definition in ASTM D1079, "Standard Terminology Relating to Roofing and Waterproofing."

Cost Impact: Will not increase the cost of construction
The proposed change is a clarification and does not change the stringency of existing code requirements so the cost of construction will be unchanged.

Report of Committee Action
Hearings

Committee Action:

Approved as Submitted

Committee Reason: This proposal revises the definition of "vegetative roof" so that it correlates with ASTM D1079.

Assembly Action

None

Final Action Results

G24-16

AS

Code Change No: **G32-16**

Original Proposal

Section(s): 423.1, 423.1.1, 423.2, 423.3, 423.4, 1604.5

Proponent: Edward Kulik, representing Building Code Action Committee (bcac@iccsafe.org); Marc Levitan, National Institute of Standards and Technology (NIST) (marc.levitan@nist.gov); Andrew Herseith, representing Federal Emergency Management Agency (andrew.herseith@fema.dhs.gov)

THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL COMMITTEE. SEE THE HEARING ORDER FOR THIS COMMITTEE.

Revise as follows:

423.1 General. In addition to other applicable requirements in this code, *storm shelters* shall be constructed in accordance with ICC 500. Buildings or structures that are designated as emergency shelters by the emergency management official having jurisdiction shall also comply with Table 1604.5.

423.1.1 Scope. This section applies to the construction of storm shelters constructed as separate detached buildings or constructed as safe rooms within buildings for the purpose of providing safe refuge from storms that produce high winds, such as tornados and hurricanes. Such structures shall be designated to be hurricane shelters, tornado shelters, or combined hurricane and tornado shelters.

423.2 Definitions. The following terms are defined in Chapter 2:

STORM SHELTER.

Community storm shelter.

Residential storm shelter.

423.3 Critical emergency operations. In areas where the shelter design wind speed for tornados in accordance with Figure 304.2(1) of ICC 500 is 250 MPH, 911 call stations, emergency operation centers and fire, rescue, ambulance and police stations shall ~~have comply with Table 1604.5 and shall be provided with~~ a storm shelter constructed in accordance with ICC 500.

Exception: Buildings meeting the requirements for shelter design in ICC 500.

423.4 Group E occupancies. In areas where the shelter design wind speed for tornados is 250 MPH in accordance with Figure 304.2(1) of ICC 500, all Group E occupancies with an aggregate occupant load of 50 or more shall have a storm shelter constructed in accordance with ICC 500. The shelter shall be capable of housing the total occupant load of the Group E occupancy.

Exceptions:

1. Group E day care facilities.
2. Group E occupancies accessory to places of religious worship.
3. Buildings meeting the requirements for shelter design in ICC 500.

1604.5 Risk category. Each building and structure shall be assigned a risk category in accordance with Table 1604.5. Where a referenced standard specifies an occupancy category, the risk category shall not be taken as lower than the occupancy category specified therein. Where a referenced standard specifies

that the assignment of a risk category be in accordance with ASCE 7, Table 1.5-1, Table 1604.5 shall be used in lieu of ASCE 7, Table 1.5-1.

**TABLE 1604.5
RISK CATEGORY OF BUILDINGS AND OTHER STRUCTURES**

| RISK CATEGORY | NATURE OF OCCUPANCY |
|--|---|
| I | Buildings and other structures that represent a low hazard to human life in the event of failure, including but not limited to: |
| | • Agricultural facilities. |
| | • Certain temporary facilities. |
| | • Minor storage facilities. |
| II | Buildings and other structures except those listed in Risk Categories I, III and IV. |
| III | Buildings and other structures that represent a substantial hazard to human life in the event of failure, including but not limited to: |
| | • Buildings and other structures whose primary occupancy is public assembly with an occupant load greater than 300. |
| | • Buildings and other structures containing Group E occupancies with an occupant load greater than 250. |
| | • Buildings and other structures containing educational occupancies for students above the 12th grade with an occupant load greater than 500. |
| | • Group I-2 occupancies with an occupant load of 50 or more resident care recipients but not having surgery or emergency treatment facilities. |
| | • Group I-3 occupancies. |
| | • Any other occupancy with an occupant load greater than 5,000. ^a |
| | • Power-generating stations, water treatment facilities for potable water, wastewater treatment facilities and other public utility facilities not included in Risk Category IV. |
| | • Buildings and other structures not included in Risk Category IV containing quantities of toxic or explosive materials that: |
| | Exceed maximum allowable quantities per control area as given in Table 307.1(1) or 307.1(2) or per outdoor control area in accordance with the <i>International Fire Code</i> ; and Are sufficient to pose a threat to the public if released ^d |
| IV | Buildings and other structures designated as essential facilities, including but not limited to: |
| | • Group I-2 occupancies having surgery or emergency treatment facilities. |
| | • Fire, rescue, ambulance and police stations and emergency vehicle garages. |
| | • Designated ^e emergency shelters including earthquake or <i>community storm</i> , hurricane or other emergency shelters for use during and immediately after an event. |
| | • Designated ^e emergency preparedness, communications and operations centers and other facilities required for emergency response. |
| | • Power-generating stations and other public utility facilities required as emergency backup facilities for Risk Category IV structures. |
| | • Buildings and other structures containing quantities of highly toxic materials that: |
| | Exceed maximum allowable quantities per control area as given in Table 307.1(2) or per outdoor control area in accordance with the <i>International Fire Code</i> ; and Are sufficient to pose a threat to the public if released ^b |
| | • Aviation control towers, air traffic control centers and emergency aircraft hangars. |
| | • Buildings and other structures having critical national defense functions. |
| • Water storage facilities and pump structures required to maintain water pressure for fire suppression. | |

- a. For purposes of occupant load calculation, occupancies required by Table 1004.1.2 to use gross floor area calculations shall be permitted to use net floor areas to determine the total occupant load.
- b. Where approved by the building official, the classification of buildings and other structures as Risk Category III or IV based on their quantities of toxic, highly toxic or explosive materials is permitted to be reduced to Risk Category II, provided it can be

demonstrated by a hazard assessment in accordance with Section 1.5.3 of ASCE 7 that a release of the toxic, highly toxic or explosive materials is not sufficient to pose a threat to the public.

c. As designated by the emergency management official having jurisdiction.

Reason: The purpose of this code change is to clarify which types of shelters are required to be assigned to Risk Category IV per Table 1604.5 and who is responsible for providing the designation.

Risk categories are assigned to buildings to account for consequences and risks to human life (building occupants) in the event of a building failure. The intent is to assign higher risk categories, and hence higher design criteria, to buildings or structures that, if they experience a failure, would inhibit the availability of essential community services necessary to cope with an emergency situation and therefore have grave consequences to either the building occupants or the population around the building or structure that relies upon the provided services (such as a power station).

Table 1604.5 of the IBC, which was originally copied from Table 1.5-1 of ASCE 7 and has existed in the IBC since the 2000 edition, includes under Risk Category IV "Designated earthquake, hurricane or other emergency shelters". This item has always meant shelters that are used both during and immediately after an event. The item is amended to clarify that both uses apply. Additionally, with the introduction of ICC-500 Standard for the Design and Construction of Storm Shelters (ICC 500) in 2008, and subsequently in 2014, the term 'hurricane shelter' is now used in Section 423 of the IBC and throughout ICC 500. Without the clarification of the word 'community' proposed above, ALL hurricane shelters would have to be Risk Category IV, even residential hurricane shelters (shelters provided in dwelling units and having an occupant load not exceeding 16 persons), which does not meet the intent of Risk Category IV buildings.

Furthermore, with the introduction of ICC 500, the term 'storm shelter' has become a defined term and includes tornado shelters in addition to hurricane shelters, both of which are emergency shelters and as such meet the spirit and intent of being Risk Category IV structures.

The addition of footnote C is intended to provide clarification and meaning to the term 'designated' provided in the table; without this added footnote one may ask, 'designated by whom?' Another observed issue with the term 'designated', is that the designation often comes well after the building is designed and built, which is too late to incorporate the structural design provision of Risk Category IV. This clarification will lead to pre-design involvement of the emergency management official having jurisdiction, whom is typically the one that designates emergency shelters.

It is noted that, starting with the 2010 edition of ASCE 7, Table 1.5-1 no longer provides bulleted lists of the types of buildings that fall under each Risk Category. It was the decision of the ASCE 7 committee that Table 1.5-1 should only provide the general criteria, and that Table 1604.5 of the IBC should detail the specific occupancies or uses that fall under each Risk Category as decided on by the stakeholders and participants in the ICC code development process.

The ICC Building Code Action Committee (BCAC) is a co-proponent of this proposal. BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2014 and 2015 the BCAC has held 5 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: [BCAC](#)

Cost Impact: Will not increase the cost of construction

As this is intended as a clarification only, the cost of construction will not be increased.

Report of Committee Action Hearings

Committee Action:

Disapproved

Committee Reason: While there is support for the concept of clarifying the assignment of risk category to shelters, the proposed wording was felt to be confusing. The proposal would introduce undefined terms into the IBC, designating people to do things who are not under the control of the building official. The new wording proposed in Section 423.1 is problematic, naming an emergency management official and suggesting that only such buildings comply with Table 1604.5 when, in fact, all buildings need to comply. With respect to the building code the actual chain of command for emergency management in any locale is not known.

Assembly Action:

None

Public Comments

Public Comment 1:

Edward Kulik, representing Building Code Action Committee (bcac@iccsafe.org) requests Approve as Modified by this Public Comment.

Modify as follows:

423.1 General. In addition to other applicable requirements in this code, *storm shelters* shall be constructed in accordance with ICC 500. Buildings or structures that are also designated as emergency shelters ~~by the emergency management official having jurisdiction~~ shall also comply with Table 1604.5 as Risk Category IV structures.

423.1.1 Scope. This section applies to the construction of storm shelters constructed as separate detached buildings or constructed as safe rooms within buildings for the purpose of providing safe refuge from storms that produce high winds, such as tornados and hurricanes during the storm. Such structures shall be designated to be hurricane shelters, tornado shelters, or combined hurricane and tornado shelters. Design of facilities for use as emergency shelters after the storm are outside the scope of ICC 500 and shall comply with Table 1604.5 as a Risk Category IV Structure.

423.2 Definitions. The following terms are defined in Chapter 2:

STORM SHELTER.

Community storm shelter.

Residential storm shelter.

423.3 Critical emergency operations. In areas where the shelter design wind speed for tornados in accordance with Figure 304.2(1) of ICC 500 is 250 MPH, 911 call stations, emergency operation centers and fire, rescue, ambulance and police stations shall comply with Table 1604.5 as a Risk Category IV structure and shall be provided with a storm shelter constructed in accordance with ICC 500.

~~**Exception:** Buildings meeting the requirements for shelter design in ICC 500.~~

Commenter's Reason: The intent of the original code change proposal was to simply clarify that shelters built for protection during wind storms in accordance with ICC500-14 are not emergency shelters that are required to be designed as Risk Category IV structures in accordance with Section 1604.5. The committee disapproved this proposal because the proposed text introduced requirements for an emergency management official to designate an emergency shelter. It was not the intent of the BCAC to create requirements for emergency personnel and introduce some level of management for emergency shelters. Therefore, this public comment is intended to remove the reference to emergency management officials in Section 423.1 and instead install language in Section 423.1.1 that simply clarifies the scope of ICC500. In addition, in Section 423.3 the phrase "as a Risk Category IV structure" is added to clarify how this type of structure is required to comply with Table 1604.5.

This public comment is submitted by the ICC Building Code Action Committee (BCAC). BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance assigned International Codes or portions thereof. Between 2014 and 2016 the BCAC has held 8 open meetings. In addition, there were numerous Working Group meetings and conference calls for the current code development cycle, which included members of the committee as well as any interested party to discuss and debate the proposed public comments. Related documentation and reports are posted on the BCAC website at: [BCAC](#)

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| Final Action Results |
|-----------------------------|

G32-15

AMPC1

2018 IBC (General) Overlapping Provisions

G133-15

Table 1006.2.1 Space with one exist or exit access doorway. Revise as follow:

Change the “Maximum occupant load of space” for both “R-2” and “R-3” from “10” to “49”.

| OCCUPANCY | WITHOUT SPRINKLER SYSTEM (feet) | WITH SPRINKLER SYSTEM |
|---------------------|---------------------------------|-----------------------|
| A, E, F-1, M, R, S- | 200 | 250 ^b |
| S-1 | 200 | 400 ^b |

No change to the remaining text within the table and footnotes

G137-15

505.2.1 Area limitation. (No Change)

Exceptions:

1. – 2. (No Change)
3. In sprinklered Group S2 occupancies of Type III construction, the enclosed and unenclosed areas under mezzanines shall be allowed to be included when calculating the permissible size of mezzanines.

G138-15

505.2.1 Area limitation. (No Change)

Exceptions:

1. – 2. (No Change)
3. In sprinklered Group S2 occupancies of Type III construction, the enclosed and unenclosed areas under mezzanines shall be allowed to be included when calculating the permissible size of mezzanines.

G202-15

3007.6 Fire service access elevator lobby. The fire service access elevator shall open into a fire service access elevator lobby in accordance with Sections 3007.6.1 through 3007.6.5. Egress is permitted through the elevator lobby in accordance with Item 1 if Section 1016.2.

Exceptions:

1. Where a fire service access elevator has two entrances onto a floor, the second entrance shall be permitted to open into an elevator lobby in accordance with Section 3007.6.1.
2. Where a fire service access elevator is required, a 1-hour fire-rated fire service access elevator lobby with direct access from the fire service access elevator is not required if the fire service access elevator opens into an exit access corridor that is no less than 6 feet wide for its entire length and is at least 150 square feet with the exception of door openings, and has a minimum 1-hour fire rating with three- quarter hour fire and smoke rated openings; and during a fire event the fire service access elevator is pressurized and floor- to-floor smoke control is provided.

Exception: Where transient residential occupancies occur at floor levels more than 420 feet above the level of fire service access, a 1-hour fire-rated service access elevator lobby with direct access from the fire service access elevator is required.

3007.9.1 Access. The *exit* enclosure containing the standpipe shall have access to the floor without passing through the fire service access elevator lobby.

Exception: Group R1 and R2 occupancy buildings. Standpipes in high-rise buildings of Group R1 or R2 must be located in stairwells and are subject only to the requirements of the Florida Fire Prevention Code and NFPA 14, Standard for the Installation of Standpipes and Hose Systems, adopted by the State Fire Marshal.

G220-15

3105.3.4.1

Fabric used for awnings or fabric-covered frames shall meet the flame propagation performance criteria of NFPA 701 or have a *flame spread index* not greater than 25 when tested in accordance with ASTM E 84 or UL 723.

Exception: Awnings or fabric-covered frames used in conjunction with Group R-3 occupancies.

3105.3.4.2

Supports for fabric awnings and fabric-covered frame shall be of metal or similar durable material.

G223-15

SECTION 458
MANUFACTURED BUILDINGS

Change Section 458.1 to read as shown:

458.1 General. The following administrative requirements for inspection and plan review apply to manufactured buildings including factory-built schools. Additional technical requirements for factory-built schools can be found in Section 453.

Note: See Department of Business and Professional Regulation Rule 61-41 9B-4, *Florida Administrative Code* and Chapter 553, *Florida Statutes*.

G32-16 Back

TABLE 1604.5
RISK CATEGORY OF BUILDINGS AND OTHER STRUCTURES

| RISK CATEGORY | NATURE OF OCCUPANCY |
|------------------|---|
| I | Buildings and other structures that represent a low hazard to human life in the event of failure, including but not limited to: <ul style="list-style-type: none"> • Agricultural facilities. • Certain temporary facilities. • Minor storage facilities. • <u>Screen enclosures.</u> |
| II | Buildings and other structures except those listed in Risk Categories I, III and IV |
| III | Buildings and other structures that represent a substantial hazard to human life in the event of failure, including but not limited to: <ul style="list-style-type: none"> • Buildings and other structures whose primary occupancy is public assembly with an occupant load greater than 300. • Buildings and other structures containing Group E occupancies with an occupant load greater than 250. • Buildings and other structures containing educational occupancies for |

| | |
|----|--|
| | <p>students above the 12th grade with an occupant load greater than 500.</p> <ul style="list-style-type: none"> • Group I-2 occupancies with an occupant load of 50 or more resident care recipients but not having surgery or emergency treatment facilities. • Group I-3 occupancies. • Any other occupancy with an occupant load greater than 5,000a. • Power-generating stations, water treatment facilities for potable water, waste water treatment facilities and other public utility facilities not included in Risk Category IV. • Buildings and other structures not included in Risk Category IV containing quantities of toxic or explosive materials that: Exceed maximum allowable quantities per control area as given in Table 307.1(1) or 307.1(2) or per outdoor control area in accordance with the <i>International Florida Fire Prevention Code</i>; and Are sufficient to pose a threat to the public if releasedb. |
| IV | <p>Buildings and other structures designated as essential facilities, including but not limited to:</p> <ul style="list-style-type: none"> • Group I-2 occupancies having surgery or emergency treatment facilities. • Fire, rescue, ambulance and police stations and emergency vehicle garages. • Designated earthquake, hurricane or other emergency shelters. • Designated emergency preparedness, communications and operations centers and other facilities required for emergency response. • Power-generating stations and other public utility facilities required as emergency backup facilities for Risk Category IV structures. • Buildings and other structures containing quantities of highly toxic materials that: Exceed maximum allowable quantities per control area as given in Table 307.1(2) or per outdoor control area in accordance with the <i>International Florida Fire Prevention Code</i>; and |

Are sufficient to pose a threat to the public if releasedb.

- Aviation control towers, air traffic control centers and emergency aircraft hangars.
- Buildings and other structures having critical national defense functions.
- Water storage facilities and pump structures required to maintain water pressure for fire suppression.

a. For purposes of occupant load calculation, occupancies required by Table 1004.1.2 to use gross floor area calculations shall be permitted to use net floor areas to determine the total occupant load.

b. Where approved by the building official, the classification of buildings and other structures as Risk Category III or IV based on their quantities of toxic, highly toxic or explosive materials is permitted to be reduced to Risk Category II, provided it can be demonstrated by a hazard assessment in accordance with Section 1.5.3 of ASCE 7 that a release of the toxic, highly toxic or explosive materials is not sufficient to pose a threat to the public.