

# Additional TG Proposed Changes

June 7, 2017

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Coordination Task Group .....	2
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## Additional Proposed Changes Count

Task Group	Number of Changes
Coordination	6
2	27
3	22
4	33
5	22
6	7
7	9
Total	117

# Coordination Task Group

Proposal ID TBD	LogID 17-063	Chapter 1
<b>Submitter:</b>	Amy Schmidt, The Dow Chemical Company	
<b>Requested Action:</b>	Modify Chapter 1 language	
<b>Proposed Change:</b>	<p><b>Modify as follows:</b></p> <p><b>101.3 Intent.</b> The purpose of this Standard is to establish criteria for rating the environmental impact of design and construction practices to achieve conformance with specified performance levels for green residential buildings, renovation thereof, accessory structures, building sites, and subdivisions. This Standard is intended to provide flexibility to permit the use of innovative approaches and techniques. This Standard is not intended to abridge safety, health, or environmental requirements contained in other applicable laws, codes, or ordinances. <u>This Standard is intended for use by an Adopting Entity as a mandatory or permissive green building standard or as a stand-alone program for use by private parties seeking green building certification.</u></p> <p>...</p> <p><b>101.5 Appendices.</b> Where specifically required by a provision in this Standard, that appendix shall apply. Appendices not specifically <u>adopted by an Adopting Entity</u> or required by a provision of this Standard shall not apply <del>unless specifically adopted.</del></p> <p><b>102 CONFORMANCE</b></p> <p>...</p> <p><b>102.2 Conformance language.</b> <del>The green building provisions are</del> <u>This Standard contains provisions</u> written in mandatory language by way of using the verbs “to be”, “is”, “are”, etc. . . .</p> <p><b>102.3 Documentation.</b> Verification of conformance to <del>green building practices</del> <u>the provisions in this Standard</u> shall be the appropriate construction documents, architectural plans, site plans, specifications, builder certification and sign-off, inspection reports, <u>test reports</u>, or other data that demonstrates conformance to the as determined by the Adopting Entity <u>and/or program certifier</u>. Where specific documentation is required by a provision of <del>the</del> <u>this</u> Standard, that documentation is noted with that provision.</p> <p>...</p> <p><b>103.1 Administration.</b> <del>The An</del> <u>An</u> Adopting Entity shall specify <u>minimum</u> performance level(s) to be achieved as identified in Chapter 3 and shall provide a verification process to ensure compliance with this Standard.</p>	
<b>Reason:</b>	<ol style="list-style-type: none"> <li>1. It needs to be clear that this Standard can be used as a mandatory/permissive Standard when an adopting entity adopts it as well as by individuals voluntarily seeking green building certification via this Standard. Language is added to make this clarification.</li> <li>2. It is clear per 101.1 that the term “this Standard” is to be used when referring to this document. The term “green building practices” found in several locations is not defined nor does it describe the true intent of the section. “Provisions of this Standard” has been used to replace this ambiguity.</li> <li>3. Added “test reports” to Section 102.3 as it seems like an important omission to be corrected.</li> <li>4. Section 103.2 specifically addresses situations where this Standard is adopted by an Adopting Entity. Therefore, minimum compliance level(s) should be specified. This is standard practice when adopting a standard, code, etc.</li> </ol>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-002	Section 301.2 Awarding of points
<b>Submitter:</b>	Michelle Foster, Home Innovation Research Labs	
<b>Requested Action:</b>	Revise 301.2 Awarding of points	
<b>Proposed Change:</b>	<p>Points shall be awarded as follows:</p> <ol style="list-style-type: none"> <li>(1) The maximum number of points that can be awarded for each practice is noted with that practice.</li> <li>(2) Point allocation for multifamily buildings shall be as prescribed in Section 304.</li> <li>(3) The Adopting Entity shall allow the use of new and innovative products and practices deemed to meet the intent of this Standard. Points assigned for any new product or practice shall be determined by the Adopting Entity. A maximum of 20 points may be awarded at the discretion of the Adopting Entity. Innovative practices and products shall fall under Chapters 5-10 (Categories 1-6 in Table 303); <del>however, these points shall only be assigned under Category 7.</del> Point values shall be determined by comparing the innovative product or practice to a practice or product already described in the Standard. The applicant shall supply demonstrable, quantified data to support the innovative product or practice and to determine the practice's functional equivalent in the Standard for the points to be awarded.</li> </ol>	
<b>Reason:</b>	Points for new innovative practices should be awarded in the relevant category for the practice and not be relegated to Category 7.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-003	Section 202 Definitions and Entire Standard
<b>Submitter:</b>	Michelle Foster, Home Innovation Research Labs	
<b>Requested Action:</b>	Add new definition "sleeping unit"	
<b>Proposed Change:</b>	<p><b><u>Sleeping Unit:</u></b> A room or space in which people sleep, which can also include permanent provisions for living, eating, and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a <i>dwelling unit</i> are not sleeping units.</p> <p><i>See attached document of relevant changes to 75 specific NGBS practices.</i></p>	
<b>Reason:</b>	Allows for the NGBS to be relevant for certain R-3 uses and Institutional Uses that are residential in nature as defined by the revised NGBS scope	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-088	Section 202 Definitions and New for Chapter 9
<b>Submitter:</b>	Michael Jouaneh, Lutron Electronics	
<b>Requested Action:</b>	Add new provision as follows	
<b>Proposed Change:</b>	<p><b><u>Definitions</u></b>  <b><u>Living spaces:</u></b> conditioned spaces intended for people to occupy including but not limited to living rooms, breakfast/dining rooms, family rooms, studies, kitchens, bedrooms, hallways, dressing rooms, finished basements, recreation rooms, exercise rooms, play rooms, home theater/AV rooms and other spaces that are not used for storage or mechanical or electrical equipment.</p>	

	<table border="1"> <thead> <tr> <th><b>Nighttime (sleep-time) Light Control</b></th> <th>Points</th> </tr> </thead> <tbody> <tr> <td> <u>Lighting that has:</u> <ul style="list-style-type: none"> <li>For bedrooms and connected bathrooms include at least one preset lighting level set to a maximum of 10% of full light output; OR</li> <li>For bedrooms and connected bathrooms include a time-of-day based control that sets the light output to a maximum of 10% of full light output during typical sleeping hours with override capability that allows users to reach full light output; OR</li> <li>For all living spaces include a time-of-day based control that sets the light output to a maximum of 10% of full light output during typical sleeping hours with override capability that allows users to reach full light output.</li> </ul> </td> <td> 1 2 3 </td> </tr> <tr> <td> All bedroom windows shall have manually operable shading devised (e.g., shades, blinds, or other window treatments) <ul style="list-style-type: none"> <li>These shading devise shall have a maximum visible light transmittance of 20% or shall be opaque blinds.</li> <li>These shading devices shall utilize a time-of-day based control that closes the shades during nighttime (sleep-time) hours with override capability that allows users to open them.</li> </ul> </td> <td> Mandatory  1 additional 2 additional </td> </tr> </tbody> </table>	<b>Nighttime (sleep-time) Light Control</b>	Points	<u>Lighting that has:</u> <ul style="list-style-type: none"> <li>For bedrooms and connected bathrooms include at least one preset lighting level set to a maximum of 10% of full light output; OR</li> <li>For bedrooms and connected bathrooms include a time-of-day based control that sets the light output to a maximum of 10% of full light output during typical sleeping hours with override capability that allows users to reach full light output; OR</li> <li>For all living spaces include a time-of-day based control that sets the light output to a maximum of 10% of full light output during typical sleeping hours with override capability that allows users to reach full light output.</li> </ul>	1 2 3	All bedroom windows shall have manually operable shading devised (e.g., shades, blinds, or other window treatments) <ul style="list-style-type: none"> <li>These shading devise shall have a maximum visible light transmittance of 20% or shall be opaque blinds.</li> <li>These shading devices shall utilize a time-of-day based control that closes the shades during nighttime (sleep-time) hours with override capability that allows users to open them.</li> </ul>	Mandatory  1 additional 2 additional
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<b>Reason:</b>	<p>Improve lighting in homes to minimize sleep disruption when using light at night.</p> <p>Light dramatically affects sleep-wake cycles. Bright lights promote alertness, while dimmed lights signal the body to reduce energy expenditure and prepare for rest. Viewing bright lights during sleeping hours, causes sleep disruption and adverse health effects.</p>						
<b>TG Recommendation (AS or AM or D):</b>							
<b>Modification of Proposed Change:</b>							
<b>TG Reason:</b>							
<b>TG Vote:</b>							

Proposal ID TBD	LogID 17-069	New Chapter 13 Production Builders
<b>Submitter:</b>	Michelle Foster, Aaron Gary, Bill Sanderson, Matt Dobson, Jerud Martin, Matt Cooper	
<b>Requested Action:</b>	Add new chapter as follows	
<b>Proposed Change:</b>	See attached.	
<b>Reason:</b>	Add new chapter that provides a fifth path for compliance (“certified”) that can be used by larger volume production builders that generally don’t control land development (and therefore can’t earn many points for Lot Design), have a limited ability to incorporate many green practices, and have a need to streamline compliance over a wide range of home types and plans. This compliance path doesn’t have levels or points – all requirements within the Chapter must be met for compliance. This compliance path would be considered below Bronze, however, given that it has a broad applicability and desirability for the large production builders it has the potential to impart a far greater environmental benefit than even the higher certification levels.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-035	New Practice
<b>Submitter:</b>	Stephen Evanko, Dominion Due Diligence	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<p><b>Stairways.</b> In a multifamily building, a stairway where residents have access to and from all floors is provided. Signage is placed at the building entrance and corridor intersections to promote stairway use. <u>[XX points]</u></p> <ul style="list-style-type: none"> <li>(a) Stairway has daylighting. <u>[XX points]</u></li> <li>(b) Stairway design is welcoming to users and includes but is not limited to, artwork, signage, lighting, sound. <u>[XX points]</u></li> <li>(c) The stairway is accessible and visible from the main lobby. <u>[XX points]</u></li> </ul>	
<b>Reason:</b>	Reduced elevator use reduces a building's energy use with elevators.	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

TG-2: Site and Lot Development  
 Chapter 4: Site Design and Development

Proposal ID TBD	LogID 17-025	Section 403.6 and 503.5 Landscape plan								
Submitter:	Kent Sovocool									
Requested Action:	Revise as Follows									
Proposed Change:	<table border="1"> <tr> <td>(6) For landscaped vegetated areas the maximum percentage of all turf areas is:</td> <td></td> </tr> <tr> <td>(a) 0 percent</td> <td>-5-30</td> </tr> <tr> <td>(b) Greater than 0 percent to less than 20 percent</td> <td>-4-20</td> </tr> <tr> <td>(c) 20 percent to less than 40 percent</td> <td>-3-10</td> </tr> </table>		(6) For landscaped vegetated areas the maximum percentage of all turf areas is:		(a) 0 percent	-5-30	(b) Greater than 0 percent to less than 20 percent	-4-20	(c) 20 percent to less than 40 percent	-3-10
(6) For landscaped vegetated areas the maximum percentage of all turf areas is:										
(a) 0 percent	-5-30									
(b) Greater than 0 percent to less than 20 percent	-4-20									
(c) 20 percent to less than 40 percent	-3-10									
Reason:	Limitation of turf is perhaps the most effective site-related green consideration and one of the greatest modifications to standard practices that can be asked of a builder. Yet the reward is unconscionably weak. Even complete exclusion of turf from a home site results in merely 5 points. A builder that pursues this credit should be appropriately rewarded. The suggested modification puts turf limitation on more even footing with major measures in other parts of the standard.									
TG Recommendation (AS or AM or D):										
Modification of Proposed Change:										
TG Reason:										
TG Vote:										

Proposal ID TBD	LogID 17-026	Section 403.6 and 503.5 Landscape plan
Submitter:	Kent Sovocool	
Requested Action:	Add New as Follows	
Proposed Change:	<p><b>(18) Spray Irrigation:</b> <i>Submitter's note: would also appear as (13) under 503.5</i></p> <p><u>(a) Is not present on slopes steeper than 25% (i.e. where the land rises more than a foot vertically for every 4 feet horizontally). - 2pts</u></p> <p><u>(b) Has been tested in accordance with the ASABE/ICC 802, "Landscape Irrigation Sprinkler and Emitter Standard" protocol currently in effect and there is documentation of the sprinklers achieving a lower quarter distribution uniformity of at least 0.65. - 2 pts</u></p> <p><u>(c) Is installed in such a way as to eliminate low head/point drainage and runoff. - 2pts</u></p> <p><u>(d) Is not used. - 8 pts</u></p>	
Reason:	These types of provisions are common in various green codes and standards already and it is sensible to adapt these as credit opportunities here. Option (d) is to mitigate the common challenge in points-based standards to inadvertently promote more water using technologies by the nature of having provisions and thus points opportunities covering and trying to improve less efficient options.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 17-079	Section 405.1(4) Driveways and parking areas		
Submitter:	Greg Johnson for the Greenscapes Alliance			
Requested Action:	Delete Section 405.1 (4) and revise as follows			
Proposed Change:	<table border="1"> <tr> <td><u>403.5 Stormwater management.</u></td> <td></td> </tr> </table>		<u>403.5 Stormwater management.</u>	
<u>403.5 Stormwater management.</u>				



	(1) Permeable materials are used for driveways, parking areas, walkways and patios according to the following percentages:	
	(a) 10 percent to less than 25 percent (add 2 points for use of vegetative paving system)	2
	(b) 25-50 percent (add 4 points for use of vegetative paving system)	5
	(c) greater than 50 percent (add 6 points for use of vegetative paving system)	10

**Reason:** The point awards from Sec. 405.1 (4) are relocated here to eliminate double counting but also to reward the use of vegetative paving systems, which are environmentally superior durable surfaces.

A VPS sequesters carbon and produces oxygen. A VPS supports bacteria and other micro-organisms that mitigate hydrocarbon pollution; a likely problem on driving and parking surfaces. A VPS evapotranspires, returning moisture to the air and providing much more cooling than permeable hardscapes. A VPS filters dust and pollutants from the air. The trimmings from managed VPSs improve soil quality, either in situ or when removed for composting. A VPS is not subject to clogging where permeable hard surfaces are.

The carbon impacts alone of installing vegetation in an open cell grid or over a recycled plastic matrix are orders of magnitude less harmful than those of producing and providing concrete, asphalt, mined and crushed stone, mined and washed pea rock, or other inorganic materials.

A lower limit on qualifying area is added to respond to verifier concerns identified in TG discussions.

**TG Recommendation (AS or AM or D):**

**Modification of Proposed Change:**

**TG Reason:**

**TG Vote:**

Proposal ID TBD	LogID 17-006	Section 405.6 Multi-modal transportation
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**Submitter:** Robert Goo

**Requested Action:** Add new language

**Proposed Change:** A site is selected within a census block group that, compared to its region, has above-average transit access to employment as calculated using the Transit Access Measures within the USEPA's Smart Location Database:  
 (a) Access is within the top quartile for the region -- 10 points  
 (b) Access is within the second quartile for the region -- 4 points

**Reason:** The likelihood that a household will use transit is correlated with the number of jobs accessible by public transit. The Smart Location Database, <https://www.epa.gov/smartgrowth/smart-location-mapping#SLD>, is a geographic data resource for measuring location efficiency. It includes more than 90 attributes summarizing characteristics such as housing density, diversity of land use, neighborhood design, destination accessibility, transit service, employment, and demographics. If this database would be useful to Home Innovation as for the purposes of measuring components of location efficiency for any given building site, EPA can work with its partners to develop a simple interface that NGBS users could use to quickly gain feedback for any given address related to its transit access to employment, walkability, access to transit, or other factors known to reduce vehicle miles traveled and the environmental impacts of the use of private vehicles.

**TG Recommendation (AS or AM or D):**

**Modification of Proposed Change:**

**TG Reason:**

**TG Vote:**

Proposal ID TBD	LogID 17-007	Section 405.6 Multi-modal transportation
Submitter:	Robert Goo	
Requested Action:	Add new language	
Proposed Change:	<p>A site is selected within a census block group that, compared to its region, has above-average access to employment within a 45-minute drive as calculated using USEPA's Smart Location Database:</p> <p>(a) <u>Access is within the top quartile for the region -- 6 points</u></p> <p>(b) <u>Access is within the second quartile for the region – 2 points</u></p>	
Reason:	<p>Proximity to a total number of destinations, including jobs, is correlated with lower total driving by households. The Smart Location Database, <a href="https://www.epa.gov/smartgrowth/smart-location-mapping#SLD">https://www.epa.gov/smartgrowth/smart-location-mapping#SLD</a>, is a geographic data resource for measuring location efficiency. It includes more than 90 attributes summarizing characteristics such as housing density, diversity of land use, neighborhood design, destination accessibility, transit service, employment, and demographics. If this database would be useful to Home Innovation as for the purposes of measuring components of location efficiency for any given building site, EPA can work with its partners to develop a simple interface that NGBS users could use to quickly gain feedback for any given address related to its transit access to employment, walkability, access to transit, or other factors known to reduce vehicle miles traveled and the environmental impacts of the use of private vehicles.</p>	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 17-011	Section 405.6 Multi-modal transportation
Submitter:	Robert Goo	
Requested Action:	Revise 405.6(1) as follows	
Proposed Change:	<p>405.6(1) A site is selected with a boundary within one-half mile of pedestrian access to a mass transit system <del>or within five miles of a mass transit station with available parking.</del></p>	
Reason:	<p>Urban planning research does not indicate that this metric is environmentally effective. It not only is unclear that the residents of the subdivision would be likely to use the mass transit to any significant degree if it were located 5 miles from the border of the subdivision, but much of the air quality benefits of using transit are due to the avoidance of starting an automobile in the first place. Much of the air pollution associated with driving a vehicle occurs with the ignition and first several minutes of the drive.</p>	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 17-027	Section 405.9 Open space
Submitter:	Kent Sovocool	
Requested Action:	Revise as Follows	
Proposed Change:	<p><b>Open space.</b> <u>The community is situated within two miles of an area of accessible open space or Aa</u> portion of the gross area of the community is set aside as open space. <b>Points awarded for every 10 percent of the community set aside as open space or equivalencies.</b></p>	
Reason:	<p>The definition of community is vague and may restrict use of the credit. It would be silly to have a developer set aside open space in "their" community when the jurisdiction already has (or will have) open</p>	

	space that developers and builders have or will contribute to. In such progressive communities the credit should be available.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-071	Section 405.10 Community garden(s)
<b>Submitter:</b>	Greg Johnson for the Greenscapes Alliance	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	<p><del>405.10 Community garden(s). A portion of the lot is established as a community garden(s) for the residents of the site to provide local <u>Local</u> food production for residents or area consumers.</del></p> <p>(a) <u>A portion of the lot is established as community garden(s) for the residents of the site</u></p> <p>(b) <u>Composting area and physical provisions are provided for accumulating compost</u></p> <p>(c) <u>Signs designating the garden area are posted.</u></p>	<p><del>3</del></p> <p><u>3</u></p> <p><u>1</u></p> <p><u>1</u></p>
<b>Reason:</b>	The proposed additional measures will make community gardening more effective.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-073	New for Chapter 4
<b>Submitter:</b>	Greg Johnson for the Greenscapes Alliance	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<p><b>405.XX Access to Community Amenities.</b> The site is developed to minimize environmental impacts by offering one or more of the following:</p> <p>(1) <u>A system of walkways, bikeways, street crossings, or pathways designed to promote walking, jogging, skating, and biking is provided.</u></p> <p>(a) <u>All streets have sidewalks on each side of the street and marked crosswalks on each side of street intersections.</u></p> <p>(b) <u>All streets have a dedicated and marked bicycle lane in each direction of travel.</u></p> <p>(c) <u>Trails or pathways through natural areas of not less than 20 acres (80,940 m<sup>2</sup>) and which are protected by conservation easement are provided.</u></p> <p>(d) <u>Multi-station fitness trails are provided.</u></p> <p>(e) <u>Mileage or progress markers are posted on trails</u></p> <p>(2) <u>Facilities for active outdoor recreation are provided</u></p> <p>(a) <u>A community swimming pool with an automatic pool cover is provided.</u></p> <p>(b) <u>A community golf course is provided.</u></p> <p>(c) <u>Community athletic courts, such as tennis, basketball, volleyball, pickleball or similar are provided.</u></p>	<p><u>5</u></p> <p><u>5</u></p> <p><u>8</u></p> <p><u>1 point for 2 stations</u> <u>6 points max</u></p> <p><u>1</u></p> <p><u>7</u></p> <p><u>7</u></p> <p><u>1 point for each</u> <u>3 points max</u></p>

	(d) <u>Community softball/baseball or multi-sports fields are provided.</u>	<u>5 points each</u> <u>15 points max</u>
	(e) <u>Community playgrounds and equipment or open play area are provided.</u>	<u>3 points each</u> <u>9 points max</u>
	(3) <u>A fenced community off-leash dog park is provided.</u>	<u>5</u>
	(4) <u>Outdoor communal gathering places are provided</u>	
	(a) <u>Park space with seating and tables for picnicking is provided.</u>	<u>2 points per acre</u> <u>10 points max</u>
	(b) <u>A band-shell or stage for outdoor performance is provided</u>	<u>5</u>
	(c) <u>Picnic areas (2 tables and 1 barbecue grill)</u>	<u>1 point for each</u>
	(5) <u>Bench seating oriented toward scenic views or vistas such as mountains, skylines, or bodies of water is provided.</u>	<u>1 point per bench</u> <u>7 points max</u>
	(6) <u>A community lawn or town square is provided</u>	<u>5</u>
<b>Reason:</b>	Having nearby access to social and recreational amenities in a community not only supports good health, but it can save considerable transportation energy. It is preferable that members of a community be able to access these amenities without traveling by automobile or at worst by limited automobile travel. Additionally, these amenities are often associated with outdoor greenspaces which have many environmental benefits, such as stormwater control, atmospheric cleansing and cooling, oxygen production, and the capacity to support increased density in livable, desirable communities.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-077	New for Chapter 4
<b>Submitter:</b>	Greg Johnson for the Greenscapes Alliance	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<p>406.XX The site is designed to mitigate hazards from tick-borne disease</p> <p><b><u>(To acquire points the site must be documented to be at risk by an epidemiologist or qualified professional)</u></b></p> <p>(a) <u>Dense plant beds, shrubbery and woody plants are not planted within 5 feet (1.5 m) of occupied buildings</u></p> <p>(b) <u>(b) A minimum of a 5 foot (1.5 m) border of paving, mulch, bare earth, or turfgrass is provided between woods or weedy areas and people trafficked or occupied areas, including playgrounds and dog parks.</u></p> <p>(a) <u>Vegetation that is attractive to deer, as documented by a qualified professional, is not planted within 20 feet (6 m) of buildings</u></p> <p>(b) <u>Paths or trails maintained through natural or non-maintained areas are a minimum of 5 feet wide (1.5 m)</u></p>	<p><b><u>Points</u></b></p> <p><u>5</u></p> <p><u>5</u></p> <p><u>3</u></p> <p><u>3</u></p>
<b>Reason:</b>	In addition to the obvious health benefits, there are a number of environmental benefits associated with preventing the spread of the fifteen U.S tick borne diseases identified by the Centers for Disease Control and Prevention. Smart landscape design can forestall the use of pesticides to control ticks near human occupied area. Less obvious, but perhaps more significant, a report by the Johns Hopkins Bloomberg School of Public Health found that, on average, people with Lyme disease had 87 percent more visits to the doctor and 71 percent more visits to the emergency room within the year following diagnosis. This represents a tremendous cost in energy for transportation and for the share of materials and energy life	

	cycle costs embodied in treatment facilities, operationally and within the infrastructure. These environmental impacts can in part be avoided through site design.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

<b>Proposal ID TBD</b>	<b>LogID 17-078</b>	<b>New for Chapter 4</b>
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<b>Submitter:</b>	Greg Johnson for the Greenscapes Alliance	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<b>406.XX Smoking prohibitions.</b> Signs are provided prohibiting smoking at the following locations:	
	(a) <u>Smoking is prohibited within 25 feet (7.5 m) of all building exterior doors and operable windows or building air intakes within 15 (4.5 m) vertical feet of grade or a walking surface.</u>	<u>3</u>
	(b) <u>Smoking is prohibited on decks, balconies, patios and other occupied exterior spaces.</u>	<u>3</u>
	(c) <u>Smoking is prohibited at all parks, playgrounds, and community activity or recreational spaces.</u>	<u>3</u>
<b>Reason:</b>	Significant resources, with associated life cycle costs, are used to treat smoking related diseases. Similarly, discarded smoking materials are frequently to blame for exterior and structure fires which also need significant resources to control and which are sources of air pollution. Besides being an important health consideration, discouraging the outdoor air pollution related to smoking should be incentivized.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Chapter 5: Lot Design, Preparation and Development

Proposal ID TBD	LogID 17-008	Section 501.2 Multi-modal transportation
<b>Submitter:</b>	Robert Goo, US EPA	
<b>Requested Action:</b>	Add new language	
<b>Proposed Change:</b>	<p><u>A lot is selected within a census block group that, compared to its region, has above-average transit access to employment as calculated using the Transit Access Measures within the USEPA's Smart Location Database:</u></p> <p>(a) <u>Access is within the top quartile for the region -- 10 points</u>                      (b) <u>Access is within the second quartile for the region – 4 points</u></p>	
<b>Reason:</b>	<p>The likelihood that a household will use transit is correlated with the number of jobs accessible by public transit. The Smart Location Database, <a href="https://www.epa.gov/smartgrowth/smart-location-mapping#SLD">https://www.epa.gov/smartgrowth/smart-location-mapping#SLD</a>, is a geographic data resource for measuring location efficiency. It includes more than 90 attributes summarizing characteristics such as housing density, diversity of land use, neighborhood design, destination accessibility, transit service, employment, and demographics. If this database would be useful to Home Innovation as for the purposes of measuring components of location efficiency for any given building site, EPA can work with its partners to develop a simple interface that NGBS users could use to quickly gain feedback for any given address related to its transit access to employment, walkability, access to transit, or other factors known to reduce vehicle miles traveled and the environmental impacts of the use of private vehicles.</p>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-009	Section 501.2 Multi-modal transportation
<b>Submitter:</b>	Robert Goo, US EPA	
<b>Requested Action:</b>	Add new language	
<b>Proposed Change:</b>	<p><u>A lot is selected within a census block group that, compared to its region, has above-average access to employment within a 45-minute drive as calculated using USEPA's Smart Location Database:</u></p> <p>(a) <u>Access is within the top quartile for the region -- 6 points</u>                      (b) <u>Access is within the second quartile for the region – 2 points</u></p>	
<b>Reason:</b>	<p>Proximity to a total number of destinations, including jobs, is correlated with lower total driving by households. The Smart Location Database, <a href="https://www.epa.gov/smartgrowth/smart-location-mapping#SLD">https://www.epa.gov/smartgrowth/smart-location-mapping#SLD</a>, is a geographic data resource for measuring location efficiency. It includes more than 90 attributes summarizing characteristics such as housing density, diversity of land use, neighborhood design, destination accessibility, transit service, employment, and demographics. If this database would be useful to Home Innovation as for the purposes of measuring components of location efficiency for any given building site, EPA can work with its partners to develop a simple interface that NGBS users could use to quickly gain feedback for any given address related to its transit access to employment, walkability, access to transit, or other factors known to reduce vehicle miles traveled and the environmental impacts of the use of private vehicles.</p>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-010	Section 501.2 Multi-modal transportation
<b>Submitter:</b>	Robert Goo, US EPA	
<b>Requested Action:</b>	Add as an alternative to 501.2(4):	
<b>Proposed Change:</b>	<p>OR</p> <p><u>A lot is selected within a census block group that, compared to its region, has above-average neighborhood walkability using an index within the USEPA's Smart Location Database:</u></p> <p>(a) <u>Walkability is within the top quartile for the region -- 10 points</u></p> <p>(b) <u>Access is within the second quartile for the region – 4 points</u></p>	
<b>Reason:</b>	<p>The walkability index is based on an algorithm developed from a meta-analysis of neighborhood walking research. The Smart Location Database, <a href="https://www.epa.gov/smartgrowth/smart-location-mapping#SLD">https://www.epa.gov/smartgrowth/smart-location-mapping#SLD</a>, is a geographic data resource for measuring location efficiency. It includes more than 90 attributes summarizing characteristics such as housing density, diversity of land use, neighborhood design, destination accessibility, transit service, employment, and demographics. If this database would be useful to Home Innovation as for the purposes of measuring components of location efficiency for any given building site, EPA can work with its partners to develop a simple interface that NGBS users could use to quickly gain feedback for any given address related to its transit access to employment, walkability, access to transit, or other factors known to reduce vehicle miles traveled and the environmental impacts of the use of private vehicles.</p>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-012	Section 501.2 Multi-modal transportation
<b>Submitter:</b>	Robert Goo, US EPA	
<b>Requested Action:</b>	Delete as follows:	
<b>Proposed Change:</b>	<del>(2) A lot is selected within five miles of a mass transit station with provisions for parking.</del>	
<b>Reason:</b>	<p>Urban planning research does not indicate that this metric is environmentally effective. It not only is unclear that the residents of the lot would be likely to use the mass transit to any significant degree if the lot were located 5 miles from the transit station, but much of the air quality benefits of using transit are due to the avoidance of starting an automobile in the first place. Much of the air pollution associated with driving a vehicle occurs with the ignition and first several minutes of the drive.</p>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-080	Section 503.4 Stormwater management				
<b>Submitter:</b>	Greg Johnson for the Greenscapes Alliance					
<b>Requested Action:</b>	Delete Section 505.1 (4) and revise as follows					
<b>Proposed Change:</b>	<table border="1"> <tr> <td><u><b>503.4 Stormwater management.</b></u></td> <td></td> </tr> <tr> <td>(2) Permeable materials are used for driveways, parking areas, walkways and patios according to the following percentages:</td> <td></td> </tr> </table>		<u><b>503.4 Stormwater management.</b></u>		(2) Permeable materials are used for driveways, parking areas, walkways and patios according to the following percentages:	
<u><b>503.4 Stormwater management.</b></u>						
(2) Permeable materials are used for driveways, parking areas, walkways and patios according to the following percentages:						

	(d) <u>10 percent to less than 25 percent</u> <u>(add 2 points for use of vegetative paving system)</u> (e) <u>25-50 percent</u> <u>(add 4 points for use of vegetative paving system)</u> (f) <u>greater than 50 percent</u> <u>(add 6 points for use of vegetative paving system)</u>	2 5 10
<b>Reason:</b>	<p>The point awards from Sec. 405.1 (4) are relocated here to eliminate double counting but also to reward the use of vegetative paving systems, which are environmentally superior durable surfaces. A VPS sequesters carbon and produces oxygen. A VPS supports bacteria and other micro-organisms that mitigate hydrocarbon pollution; a likely problem on driving and parking surfaces. A VPS evapotranspires, returning moisture to the air and providing much more cooling than permeable hardscapes. A VPS filters dust and pollutants from the air. The trimmings from managed VPSs improve soil quality, either in situ or when removed for composting. A VPS is not subject to clogging where permeable hard surfaces are.</p> <p>The carbon impacts alone of installing vegetation in an open cell grid or over a recycled plastic matrix are orders of magnitude less harmful than those of producing and providing concrete, asphalt, mined and crushed stone, mined and washed pea rock, or other inorganic materials.</p> <p>A lower limit on qualifying area is added to respond to verifier concerns identified in TG discussions.</p>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-072	Section 505.5 Community garden(s)
<b>Submitter:</b>	Greg Johnson for the Greenscapes Alliance	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	<b>505.5 Community garden(s).</b> A portion of the lot is established as a community garden(s) for the residents of the site to provide local <u>Local</u> food production for residents or area consumers.	3
	(a) <u>A portion of the lot is established as community garden(s) for the residents of the site</u>	3
	(b) <u>Composting area and physical provisions are provided for accumulating compost</u>	1
	(c) <u>Signs designating the garden area are posted.</u>	1
<b>Reason:</b>	The proposed additional measures will make community gardening more effective.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-028	New for Chapter 5
<b>Submitter:</b>	Kent Sovocool	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<b>505.7 Reconnecting Humans with the Environment</b> <b>(1) Setting.</b> A portion of the lot of at least 400 square feet is set aside or developed as native or adapted landscaping for purposes of quiet contemplation, communing, or meditation. The Setting must be environmentally consistent with the region in which the community is located. <b>- 4pts</b> <b>(2) Creatures and Habitat.</b> At least one creature and habitat consistent with the native environment are present in the Setting or viewable from the Setting. <b>- 2pts</b>	



	<p><b>(3) Interpretation.</b> Signs or other media are used to identify and explain the organic and inorganic elements in the Setting and how they relate to the environment. – <b>2pts</b></p> <p><b>(4). The Human at Rest.</b> A bench, nook, “sitting rock”, or similar sitting area is provided to encourage and facilitate use of the Setting. The sitting place(s) shall blend with the Setting – <b>2pts.</b></p> <p><b>(a)</b> The area for resting is shaded – <b>2 pts.</b></p> <p><b>(b)</b> The area provides a water fountain or bottle filling station – <b>2 pts.</b></p> <p><b>(c)</b> Signage is present explaining smoking is prohibited – <b>2 pts.</b></p>
<b>Reason:</b>	Landscapes can act to relax and recharge while providing a connection to the environment. While visiting natural settings provides an ideal path to achieve this state, built environments can offer a degree of similar benefits. The key here is to weave in both organic and inorganic elements and thus the term “landscaping” rather than just plants. Additional points opportunities exist for adding appropriate creatures of interest, educational benefits, and resting areas.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-060	New for Chapter 5
<b>Submitter:</b>	Paul Cabot, American Gas Association	
<b>Requested Action:</b>	Add new section 505.7 as follows:	
<b>Proposed Change:</b>	<u>505.7 Multi-unit residential CNG vehicle fueling. CNG vehicle residential fueling appliances are provided for at least 1 percent of the parking stalls. The CNG fueling appliances shall be listed in accordance with ANSI/CSA NGV 5.1 and installed in accordance to the appliance manufacturer’s installation instructions.</u>	
<b>Reason:</b>	Add recognition for CNG residential fueling appliances as a green building practice. The new standard ANSI/CSA NGV 5.1 has been approved and all major model fuel gas installation codes have been updated to require that residential CNG fueling appliances be listed to that standard and installed in accordance with the manufacturer’s installation instructions. Home fueling using natural gas is a green practice since it taps into the efficient natural gas transmission and distribution system and avoids the systemic losses from converting crude oil into refined gasoline and diesel. Fueling at home also reduces vehicle mileage by reducing trips to gasoline stations for fueling. The proposed text is structured similar to coverage for electric vehicle charging stations.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-070	New for Chapter 5
<b>Submitter:</b>	Greg Johnson for the Greenscapes Alliance	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<u><b>505.7 Community activity (s).</b> A portion of the lot is established for physical activity or social interaction, available to residents of the lot for community recreation and interaction. 3 points</u>	
<b>Reason:</b>	Increased density is a worthwhile goal of the standard, but denser residential conditions drive a corresponding need for open space, preferably vegetated, suitable for physical activity or social gathering to enhance human health and well-being. Children in particular can benefit from healthy play area close to their residences. Regardless of the age of the occupants, having these facilities onsite saves energy by mitigating the need for travel, likely by motor vehicle, to the desired amenity.	
<b>TG Recommendation (AS or AM or D):</b>		

<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

<b>Proposal ID TBD</b>	<b>LogID 17-074</b>	<b>New for Chapter 5</b>
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<b>Submitter:</b>	Greg Johnson for the Greenscapes Alliance	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<b>505.X. The lot provides access to amenities</b>	<b>Points</b>
	(3) <u>Facilities for active outdoor recreation are provided</u>	
	(a) <u>A swimming pool with an automatic pool cover is provided.</u>	<u>3</u>
	(b) <u>A tennis, pickleball, basketball, volleyball, handball, or similar court is provided.</u>	<u>1 point per court</u> <u>3 points max</u>
	(c) <u>A playground and equipment are provided.</u>	<u>3</u>
	(d) <u>An informal play area is provided for children and pets.</u>	<u>3</u>
	(4) <u>The building is located within .5 mile (.8 km) of parks with playgrounds, exercise facilities, parks, trails, an accessible body of water, or other physical activity facilities open to the public.</u>	<u>5</u>
	(5) <u>Outdoor gathering places are provided</u>	
	(a) <u>Outdoor space with seating and tables for picnicking or socializing is provided.</u>	<u>1 point per space</u> <u>5 points max</u>
	(b) <u>Outdoor seating oriented toward scenic views or vistas such as mountains, skylines, or bodies of water is provided.</u>	<u>1 point per seating area</u> <u>5 points max</u>
(c) <u>A community lawn or town square is provided</u>	<u>5</u>	
<b>Reason:</b>	Having nearby access to social and recreational amenities in a community not only supports good health, but it can save considerable transportation energy. It is preferable that members of a community be able to access these amenities without traveling by automobile or at worst by limited automobile travel. Additionally, these amenities are often associated with outdoor greenspaces which have many environmental benefits, such as stormwater control, atmospheric cleansing and cooling, oxygen production, and the capacity to support increased density in livable, desirable communities.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

<b>Proposal ID TBD</b>	<b>LogID 17-075</b>	<b>New for Chapter 5</b>
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<b>Submitter:</b>	Greg Johnson for the Greenscapes Alliance	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<b>505.X Smoking prohibitions.</b> Signs are provided prohibiting smoking at the following locations:	
	(a) <u>Smoking is prohibited within 25 feet (7.5 m) of all building exterior doors and operable windows or building air intakes within 15 (4.5 m) vertical feet of grade or a walking surface.</u>	<u>3</u>
	(b) <u>Smoking is prohibited on decks, balconies, patios and other occupied exterior spaces.</u>	<u>3</u>

	(c) <u>Smoking is prohibited at all parks, playgrounds, and community activity or recreational spaces.</u>	<u>3</u>
<b>Reason:</b>	Significant resources, with associated life cycle costs, are used to treat smoking related diseases. Similarly, discarded smoking materials are frequently to blame for exterior and structure fires which also need significant resources to control and which are sources of air pollution. Besides being an important health consideration, discouraging the outdoor air pollution related to smoking should be incentivized.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

<b>Proposal ID TBD</b>	<b>LogID 17-076</b>	<b>New for Chapter 5</b>
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<b>Submitter:</b>	Greg Johnson for the Greenscapes Alliance											
<b>Requested Action:</b>	Add new as follows											
<b>Proposed Change:</b>	<table border="1"> <tr> <td>505.X The site is designed to mitigate hazards from tick-borne disease <b><u>(To acquire points the site must be documented to be at risk by an epidemiologist or qualified professional)</u></b></td> <td><b><u>Points</u></b></td> </tr> <tr> <td>(c) <u>Dense plant beds, shrubbery and woody plants are not planted within 5 feet (1.5 m) of occupied buildings</u></td> <td><u>6</u></td> </tr> <tr> <td>(d) <u>A minimum of a 5 foot (1.5 m) border of paving, mulch, bare earth, or turfgrass is provided between woods or weedy areas and people trafficked or occupied areas, including playgrounds and dog parks.</u></td> <td><u>5</u></td> </tr> <tr> <td>(d) <u>Vegetation that is attractive to deer, as documented by a qualified professional, is not planted within 20 feet (6 m) of buildings</u></td> <td><u>3</u></td> </tr> <tr> <td>(e) <u>Paths or trails maintained through natural or non-maintained areas are a minimum of 5 feet wide (1.5 m)</u></td> <td><u>3</u></td> </tr> </table>	505.X The site is designed to mitigate hazards from tick-borne disease <b><u>(To acquire points the site must be documented to be at risk by an epidemiologist or qualified professional)</u></b>	<b><u>Points</u></b>	(c) <u>Dense plant beds, shrubbery and woody plants are not planted within 5 feet (1.5 m) of occupied buildings</u>	<u>6</u>	(d) <u>A minimum of a 5 foot (1.5 m) border of paving, mulch, bare earth, or turfgrass is provided between woods or weedy areas and people trafficked or occupied areas, including playgrounds and dog parks.</u>	<u>5</u>	(d) <u>Vegetation that is attractive to deer, as documented by a qualified professional, is not planted within 20 feet (6 m) of buildings</u>	<u>3</u>	(e) <u>Paths or trails maintained through natural or non-maintained areas are a minimum of 5 feet wide (1.5 m)</u>	<u>3</u>	
505.X The site is designed to mitigate hazards from tick-borne disease <b><u>(To acquire points the site must be documented to be at risk by an epidemiologist or qualified professional)</u></b>	<b><u>Points</u></b>											
(c) <u>Dense plant beds, shrubbery and woody plants are not planted within 5 feet (1.5 m) of occupied buildings</u>	<u>6</u>											
(d) <u>A minimum of a 5 foot (1.5 m) border of paving, mulch, bare earth, or turfgrass is provided between woods or weedy areas and people trafficked or occupied areas, including playgrounds and dog parks.</u>	<u>5</u>											
(d) <u>Vegetation that is attractive to deer, as documented by a qualified professional, is not planted within 20 feet (6 m) of buildings</u>	<u>3</u>											
(e) <u>Paths or trails maintained through natural or non-maintained areas are a minimum of 5 feet wide (1.5 m)</u>	<u>3</u>											
<b>Reason:</b>	In addition to the obvious health benefits, there are a number of environmental benefits associated with preventing the spread of the fifteen U.S tick borne diseases identified by the Centers for Disease Control and Prevention. Smart landscape design can forestall the use of pesticides to control ticks near human occupied area. Less obvious, but perhaps more significant, a report by the Johns Hopkins Bloomberg School of Public Health found that, on average, people with Lyme disease had 87 percent more visits to the doctor and 71 percent more visits to the emergency room within the year following diagnosis. This represents a tremendous cost in energy for transportation and for the share of materials and energy life cycle costs embodied in treatment facilities, operationally and within the infrastructure. These environmental impacts can in part be avoided through site design.											
<b>TG Recommendation (AS or AM or D):</b>												
<b>Modification of Proposed Change:</b>												
<b>TG Reason:</b>												
<b>TG Vote:</b>												

Proposal ID TBD	LogID 17-045	New for Chapter 5
<b>Submitter:</b>	Michelle Foster, Home Innovation Research Labs	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<p><u>For multifamily buildings, on-site dedicated recreation space for exercise or play opportunities for adults and/or children open and accessible to residents is provided.</u></p> <ol style="list-style-type: none"> <li>(1) <u>A dedicated area of at least 400 square feet is provided inside the building with adult exercise and/or children's play equipment. [XX points]</u></li> <li>(2) <u>A courtyard, garden, terrace, or roof space at least 10% of the lot area that can serve as outdoor space for children's play and /or adult activities is provided. [XX points]</u></li> <li>(3) <u>Active play/recreation areas are illuminated at night to extend opportunities for physical activity into the evening. [XX points]</u></li> </ol> <p><u>For single family homes, outdoor recreation space for adults and/or children is provided within 1 mile. [XX points]</u></p>	
<b>Reason:</b>		
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Others Assigned to TG-2

Proposal ID TBD	LogID 17-064	Chapter 3 Compliance Method
<b>Submitter:</b>	Matthew Dobson, Vinyl Siding Institute, TG3 Member	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<p><u>301.1.2 Site design and development obtaining thresholds in Table 302 may be verified, certified, and marketed as such prior to the verification of green buildings.</u></p> <p><u>301.1.2.1 Developments may market green subdivision, Developer must provide clear explanation that the rating only applies to the development and not buildings.</u></p> <p><u>303</u></p> <p><u>Exception: Where the builder is unable control a majority of items in Chapter 5 due to timing and lack of relationship to the Lot Design, Preparation, and Development, green ratings on the home maybe still be obtained by eliminating rating requirements and points from Chapter 5. Rating thresholds requirements may be adjusted accordingly. Builder must provide evidence of this impossibility and provide disclaimer statement on marketing materials when this occurs.</u></p> <p><i>Should the designations in Table 302 be the same as Table 303, instead of stars use bronze, silver, gold, emerald?</i></p>	
<b>Reason:</b>	<p>Ultimately we want developments to be built and certified from beginning to end, but we know this is not always practical.</p> <p>In some cases developers will sell off developed lots that have reached certain Green Subdivision levels in Section 302 of the standard but the builder may or may not build homes certified green at that point. We should give developers a better ability to certify those lots and encourage the builder to also go for certification to the standard.</p> <p>In other cases a builder may buy lots that the developer did not develop green but we should still enable the builder to be able to at least certify the homes are green even if the development was not.</p> <p>Although we don't want to encourage this practice, and I think the language provided is clear on that, we should at least try to address and allow it when necessary.</p>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-085	Chapter 3 Compliance Method
<b>Submitter:</b>	Craig Conner, Building Quality	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	For all levels, add all of the required points for site development into the "other" category. Retain the same number of total points for the building.	
<b>Reason:</b>	Some builders don't get to design their site. Let them get the same number of points in other categories that they control. Usage of the NGBS has shown site development to be a problem for some builders.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-059	Section 202 Definitions
<b>Submitter:</b>	Paul Cabot, American Gas Association	
<b>Requested Action:</b>	Add new definition to section 202 as follows:	
<b>Proposed Change:</b>	<u>CNG vehicle residential fueling appliance. A residential appliance that supplies compressed natural gas into a CNG vehicle.</u>	
<b>Reason:</b>	Add recognition for CNG residential fueling appliances as a green building practice. The new standard ANSI/CSA NGV 5.1 has been approved and all major model fuel gas installation codes have been updated to require that residential CNG fueling appliances be listed to that standard and installed in accordance with the manufacturer's installation instructions. Home fueling using natural gas is a green practice since it taps into the efficient natural gas transmission and distribution system and avoids the systemic losses from converting crude oil into refined gasoline and diesel. Fueling at home also reduces vehicle mileage by reducing trips to gasoline stations for fueling. The proposed text is structured similar to coverage for electric vehicle charging stations.	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-5 (Energy Efficiency) due to a similar proposal submitted to Chapter 7.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

# TG-3: Resource Efficiency and Indoor Environmental Quality

## Chapter 6: Resource Efficiency

Proposal ID TBD	LogID 17-001	Section 602 Enhanced durability and reduced maintenance
<b>Submitter:</b>	Chuck Arnold, KCMA	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<u>602.1.15 – Kitchen and vanity cabinets. All kitchen and vanity cabinets are certified in accordance with the ANSI/KCMA A161.1 performance standard. 2 points.</u>	
<b>Reason:</b>	Certification of kitchen and bathroom cabinets is not mandated by the model building codes, it is voluntary. Cabinets that are certified in accordance with the ANSI/KCMA A161.1 performance standard are more durable compared to cabinets that are not certified, and therefore will need repair/replacing on a less frequent basis. Section 602 is titled Enhanced Durability and Reduced Maintenance and the stated intent is: design and construction practices are implemented that enhance the durability of materials and reduce in-service maintenance. ANSI/KCMA A161.1 certified cabinets meet this intent.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-043	Section 602.1.7 Moisture Control Measures
<b>Submitter:</b>	Michelle Foster, Home Innovation Research Labs	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<u>WATER DAMAGE MANAGEMENT. To prevent building materials from being damaged by water during construction, store and protect susceptible materials and finishes. [XX points]</u>	
<b>Reason:</b>	Protecting building materials from water and moisture can prevent the growth of mold and other water damage.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-034	Section 605.1 Construction waste management plan
<b>Submitter:</b>	Chris Schwarzkopf, Energy Diagnostics	
<b>Requested Action:</b>	Change language for 605.1 (Construction waste management plan paragraph number 2)	
<b>Proposed Change:</b>	<del>For remodeling projects or demolition of an existing facility</del> <u>For buildings following the new construction path that also have a renovation component</u> , the waste management plan includes the recycling of 95 percent of electronic waste components (such as printed circuit boards from computers, building automation systems, HVAC, fire and security boards) by an EPA certified E-Waste recycling facility.	
<b>Reason:</b>	Chapter 6 is for new construction, remodel and renovation projects have Chapter 11	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		

<b>TG Vote:</b>	
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<b>Proposal ID TBD</b>	<b>LogID 17-013</b>	<b>Section 611.2 Sustainable products</b>
<b>Submitter:</b>	Robert De Vries, Nu Wool Co	
<b>Requested Action:</b>	Remove reference to a proprietary certification program	
<b>Proposed Change:</b>	Remove reference to a proprietary certification program	
<b>Reason:</b>	Codes and Standards should not be using proprietary, non ANSI supported certification bodies to substantiate products that already have had the required testing done by third party lab following ANSI standards and test methods. In this case, specifically the EcoLogo document hasn't been revised since 2005	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

<b>Proposal ID TBD</b>	<b>LogID 17-089</b>	<b>Section 611.3 and 11.611.3 Universal design elements</b>
<b>Submitter:</b>	Michael Jouaneh, Lutron Electronics	
<b>Requested Action:</b>	Add and modify as follows	
<b>Proposed Change:</b>	<p>Modify number 9 so that for lighting at least permanently installed luminaires can be controlled with a wireless device or occupancy/vacancy sensors. And add all window treatments (e.g. shades, blinds, drapes) to the list of systems that can controlled with wireless device or are automated based on time schedule or sky conditions. Lastly, the home should get an additional points for each system that complies. So, they can get 1 point for lighting, an additional point for HVAC, and additional one for controllable shades.</p> <p>Add a number 10 for an additional point if the same systems/products in number 9 plus window treatments that can be controlled from voice-activated assistants such as Alexa or Google Home. And additional points for each system that can be controlled with voice assistants like mentioned above</p>	
<b>Reason:</b>	<p>The modification is so that it is clear and not gameable to get the point if a home simply has one light fixture controlled with a wireless device. Adding window treatments as controllable window treatments or automated ones are a key universal design feature just as controllable or automated lighting is.</p> <p>Adding additional points for each item that complies provide incentive to have more universal design elements in the home.</p> <p>The addition of number 10 brings the Standard up to date with the latest tech which helps with universal design.</p>	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-7 (Renovations and Additions) as Section 11.611.3 falls under their direct purview.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		



## Chapter 9: Indoor Environmental Quality

Proposal ID TBD	LogID 17-050	Section 901.1.4 Gas-fired fireplaces and direct heating equipment
<b>Submitter:</b>	Frank Stanonik, AHRI	
<b>Requested Action:</b>	Revise Section 901.1.4.as follows.	
<b>Proposed Change:</b>	<u>Vented</u> gas-fired fireplaces and <u>vented</u> direct heating equipment is listed and is installed in accordance with the NFPA 54, ICC IFGC or the applicable local gas appliance installation code. <del>Gas-fired fireplaces within dwelling units and direct heating equipment are vented to the outdoors.</del>	
<b>Reason:</b>	This section prohibits the installation of listed gas-fired unvented heaters and creates the situation where the installation of a single unvented gas-fired heater in a home disqualifies it from being considered a green building regardless of all the other features addressed in the standard which may be incorporated into the building. This is unjustified and irrational. It ignores the other requirements in the standard, such as the required use of CO alarms and the rigorous ventilation requirements, which in combination with the existing product safety standards and Fuel Gas Codes promote the safe installation and use of unfired gas-fired heaters. Millions of these heaters are in use without causing adverse indoor air quality situations in homes. The change would make the standard neutral on the use of these products.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-058	Section 901.1.4 Gas-fired fireplaces and direct heating equipment
<b>Submitter:</b>	Paul Cabot, American Gas Association	
<b>Requested Action:</b>	Revise Section 901.1.4.as follows.	
<b>Proposed Change:</b>	<u>Vented</u> gas-fired fireplaces and <u>vented</u> direct heating equipment is listed and is installed in accordance with the <u>ANSI Z223.1 / NFPA 54, ICC International Fuel Gas Code (IFGC)</u> , or the applicable local gas appliance installation code. <del>Gas-fired fireplaces within dwelling units and direct heating equipment are vented to the outdoors.</del>	
<b>Reason:</b>	This section prohibits the installation of listed gas-fired unvented heaters and results in a home being disqualified when a single unvented gas-fired heater is installed. The NGBS should not punish builders who desire to construct a green building to the standard just because of one feature. The NGBS is designed to encourage green construction by offering incentives. Millions of unvented space heaters are installed use without causing adverse indoor air quality situations in homes. The change would make the standard silent on the use of these products. The other changes adds the correct designation of the National Fuel Gas Code and spells out the IFGC.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-049	Section 901.14 Non-smoking areas
<b>Submitter:</b>	Michelle Foster, Home innovation Research Labs	
<b>Requested Action:</b>	Revise as follows:	
<b>Proposed Change:</b>	<p>901.14 <b>Non-smoking areas.</b> Environmental tobacco smoke is minimized by one or more of the following:</p> <p>(1) All interior common areas of a multifamily building are designated as non-smoking areas with posted signage.</p>	

	<ul style="list-style-type: none"> <li>(2) Exterior smoking areas of a multifamily building are designated with posted signage and located a minimum of 25 feet from entries, outdoor air intakes, and operable windows.</li> <li>(3) <u>Smoking is prohibited entirely in the building.</u></li> <li>(4) <u>Smoking is prohibited within 25 feet of the exterior of the building and No Smoking signs are posted around the building.</u></li> </ul>
<b>Reason:</b>	Second-hand smoke is detrimental to residents and building owners that prohibit smoking anywhere inside or near the building are reducing the environmental impacts of the building.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-056	Section 902.2.1 Building ventilation systems
<b>Submitter:</b>	Aaron Gary, Tempo Partners	
<b>Requested Action:</b>	Revise 902.2.1 as follows	
<b>Proposed Change:</b>	902.2.1 One of the following whole building ventilation systems is implemented and is in accordance with the specifications of Appendix B and an explanation of the operation and importance of the ventilation system is included in either 1001.1 or 1002.2. <ul style="list-style-type: none"> <li>(1) exhaust or supply fan(s) ready for continuous operation and with appropriately labeled controls</li> <li>(2) balanced exhaust and supply fans with supply intakes located in accordance with the manufacturer's guidelines so as to not introduce polluted air back into the building</li> <li>(3) heat-recovery ventilator</li> <li>(4) energy-recovery ventilator</li> <li>(5) <u>Ventilation air is preconditioned by a method not specified above, or is supplemented</u></li> </ul>	
<b>Reason:</b>	Pre-conditioning ventilation air saves energy and improves occupant comfort.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-037	902.4 HVAC system protection
<b>Submitter:</b>	Bob Thompson	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	902.4 HVAC system protection. One of the following HVAC system protection measures is performed. <ul style="list-style-type: none"> <li>(1) HVAC supply registers (boots), return grilles, and rough-ins are covered during construction activities to prevent dust and other pollutants from entering the system.</li> <li>(2) Prior to owner occupancy, HVAC supply registers (boots), return grilles, and duct terminations are inspected and vacuumed. In addition, the coils are inspected and cleaned and the filter is replaced if necessary.</li> <li>(3) <u>During construction, all return grilles have a temporary MERV 8 or higher filter installed in a manner ensuring no leakage around the filter. [xx points]</u></li> </ul>	
<b>Reason:</b>	Using air filters during construction can protect HVAC equipment from construction that can shorten equipment life and result in higher operational costs. Proper containment of particulates can reduce the need to use energy to flush a building pre-occupancy.	
<b>TG Recommendation (AS or AM or D):</b>		

<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-057	New for Chapter 9
<b>Submitter:</b>	Aaron Gary, Tempo Partners	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<p><b>Ventilation for multifamily common spaces.</b> Systems are implemented and are in accordance with the specifications of ASHRAE 62.1 and an explanation of the operation and importance of the ventilation system is included in either 1002.1 and 1002.2</p> <ol style="list-style-type: none"> <li>(1) <u>exhaust or supply fan(s) ready for continuous operation and with appropriately labeled controls</u></li> <li>(2) <u>balanced exhaust and supply fans with supply intakes located in accordance with the manufacturer's guidelines so as to not introduce polluted air back into the building</u></li> <li>(3) <u>heat-recovery ventilator</u></li> <li>(4) <u>energy-recovery ventilator</u></li> <li>(5) <u>Ventilation air is preconditioned by a method not specified above, or is supplemented</u></li> </ol>	
<b>Reason:</b>	Pre-conditioning ventilation air saves energy and improves occupant comfort.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-036	New for Chapter 9
<b>Submitter:</b>	Karla Butterfield, Steven Winter Associates	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<p><b>Relative Humidity.</b> A system is installed with the capability to maintain relative humidity in occupied/occupiable space between 40% to 60% at all times by adding or removing moisture from the air. [XX points]</p>	
<b>Reason:</b>	Maintaining proper humidity levels in the building improves the overall IAQ for the building and can improve the durability of the building. Maintaining proper humidity without the use of AC can also save energy.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-040	New for Chapter 9
<b>Submitter:</b>	Michelle Foster, Home Innovation Research Labs	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<p><u>A building air flush is performed while maintaining an indoor temperature of at least 15 °C [59 °F] and relative humidity below 60%, at one of the following volumes:</u></p> <ol style="list-style-type: none"> <li>(1) <u>A total air volume of 4500 m<sup>3</sup> of outdoor air per m<sup>2</sup> of floor area [14,000 ft<sup>3</sup> per ft<sup>2</sup> of floor area] prior to occupancy. [XX points]</u></li> <li>(2) <u>A total air volume of 1000 m<sup>3</sup> of outdoor air per m<sup>2</sup> of floor area [3500 ft<sup>3</sup> per ft<sup>2</sup> of floor area] prior to occupancy, followed by a second flush of 3500 m<sup>3</sup> of outdoor air per m<sup>2</sup> of floor area</u></li> </ol>	

	<u>[10,500 ft<sup>3</sup> per ft<sup>2</sup> of floor area] post-occupancy. While the post-occupancy flush is taking place, the ventilation system must consistently provide at least 0.1 m<sup>3</sup> per minute of outdoor air per m<sup>2</sup> of floor area [0.3 CFM fresh air per ft<sup>2</sup> floor area]. [XX points]</u>
<b>Reason:</b>	A building flush is a process to force air through a building just prior to occupancy to remove some of the pollutants, such as formaldehyde and other volatile organic compounds (VOC's), that seep from newly installed components, fresh paint, materials, finishes and furnishings. These include flooring and flooring adhesives, paints and finishes, caulks and sealants, and cabinets and work surfaces made from composite lumber products. The flush out process aims to improve indoor air quality (IAQ) by limiting occupants' exposure to the most intense period of contamination, and minimizing the cross-contamination between materials.
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.</i>
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-041	New for Chapter 9
<b>Submitter:</b>	Michelle Foster, Home Innovation Research Labs	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<b>Furniture and Furnishings.</b> <u>In a multifamily building, the VOC content of all furniture and furnishings in the common areas meets limits set by the following, as applicable: ANSI/BIFMA e3-2011 Furniture Sustainability Standard sections 7.6.1 and 7.6.2, tested in accordance with ANSI/BIFMA Standard Method M7.1-2011. [XX points]</u>	
<b>Reason:</b>	As building envelopes get tighter it is more important that the pollutants brought into the living area are minimized to improve indoor environmental quality for the residents.	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-042	New for Chapter 9
<b>Submitter:</b>	Karla Butterfield, Steven Winter Associates	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<u>VOC ABSORPTION MANAGEMENT. To protect building materials from VOCs emitted by other (source) materials during construction, the following requirements are met:</u> (1) <u>Absorptive materials, such as finishes and furnishings, are atmospherically segregated during storage before installation. [XX points]</u> (2) <u>Absorptive materials that would not benefit from off-gassing are sealed in original packing materials or other protective covering and stored in designated secure area until they are installed. [XX points]</u>	
<b>Reason:</b>	As building envelopes get tighter it is more important that the pollutants brought into the living area are minimized to improve indoor environmental quality for the residents. It is especially important to try to make sure that building materials that can absorb VOCs are not contaminated with other building materials that may off-gas.	

<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-046	New for Chapter 9
<b>Submitter:</b>	Michelle Foster, Home innovation Research Labs	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<u>EVAPORATIVE COIL MOLD PREVENTION. For buildings with a mechanical system for cooling, the following method of suppressing mold growth is installed:</u> (1) <u>Ultraviolet lamps are installed on the cooling coils and drain pans of the mechanical system supplies. [XX points]</u> (2) <u>Lamps produce ultraviolet radiation at a wavelength of 254 b. nm so as not to generate ozone.</u> (3) <u>Lamps have ballasts housed in a NEMA-rated enclosure.</u>	
<b>Reason:</b>		
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-047	New for Chapter 9
<b>Submitter:</b>	Aaron Gary, Tempo Partners	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<u>ENVIRONMENTAL MEASURES DISPLAY. Real-time information is provided to residents on at least one of the following indoor environmental parameters: [1 point for each]</u> (a.) <u>Carbon dioxide concentration.</u> (b.) <u>Particles pm 2.5</u> (c.) <u>Total VOCs</u>  (1) <u>In the common area of the building [1 point for each]</u> (2) <u>In units [1 point for each]</u>	
<b>Reason:</b>	Resident access to information about the indoor environmental quality can help residents take action to improve less than ideal conditions as well as understand what actions have a negative impact on indoor air quality.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-048	New for Chapter 9
<b>Submitter:</b>	Jeremy Velasquez, US-EcoLogic	
<b>Requested Action:</b>	Add news as follows for remodeling:	
<b>Proposed Change:</b>	<p><b><u>Microbial Growth &amp; Moisture Inspection and Remediation.</u></b> A visual inspection is performed to confirm the following:</p> <p>(1) <u>Verify that no visible signs of discoloration and microbial growth on ceilings, walls or floors, or other building assemblies. [XX points]</u></p> <p><b><u>Notes:</u></b> If minor microbial growth is observed (less than 25 square feet) in homes or multifamily buildings, reference EPA Document 402-K-02-003 (A Brief Guide to Mold, Moisture, and Your Home) for guidance on how to properly remediate the issue. If microbial growth is observed, on a larger scale in homes or multifamily buildings (greater than 25 sq ft), reference EPA document 402-k-01-001 (Mold Remediation in Schools and Commercial Buildings) for guidance on how to properly remediate the issue. [<a href="https://www.epa.gov/sites/production/files/2016-10/documents/moldguide12.pdf">https://www.epa.gov/sites/production/files/2016-10/documents/moldguide12.pdf</a>]</p> <p>(2) <u>Verify that there are no visible signs of water damage or pooling. [XX points] [Revision 11.602.1.7.1].</u> If signs of water damage or pooling are observed, verify that the source of the leak has been repaired, and that damaged materials are either properly dried or replaced as needed.</p> <p><b><u>[Points can only be awarded if no signs or mold are present, or if the mold that was encountered has been properly cleaned or remediated.]</u></b></p>	
<b>Reason:</b>	The presence of mold can negatively impact indoor environmental quality. Remediating existing mold can improve indoor environmental quality.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Others Assigned to TG-3

Proposal ID TBD	LogID 17-004	Index
<b>Submitter:</b>	John Forbes, National Wood Flooring Association	
<b>Requested Action:</b>	Revise as Follows	
<b>Proposed Change:</b>	Floor Material.....606.2, 901.7, 11.901.7, 12.1.901.7	
<b>Reason:</b>	Revision would help specifiers find flooring products made by participants of NWFA's RPP, as well as encourage the exploration of wood flooring products certified by others on the list.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-014	Appendix D Examples of Third-Party Programs for Indoor Environmental Quality
<b>Submitter:</b>	Robert De Vries, Nu Wool Co	
<b>Requested Action:</b>	Remove reference to a proprietary certification program	
<b>Proposed Change:</b>	Remove reference to a proprietary certification program	
<b>Reason:</b>	Codes and Standards should not be using proprietary, non ANSI supported certification bodies to substantiate products that already have had the required testing done by third party lab following ANSI standards and test methods. Specifically Underwrites Laboratory is the owner of GreenGuard AND a testing lab. This can require an entity looking for certification to have UL conduct duplicate testing to satisfy the GreenGuard component when product tests for other conformance (Certification of Use) has been done elsewhere. I would think the NAHB would frown on such a monopoly.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-021	Section 202 Definitions
<b>Submitter:</b>	James M Williams, AE Urbia	
<b>Requested Action:</b>	Add a definition for Resilient Construction	
<b>Proposed Change:</b>	SECTION 202 DEFINITIONS <b>RESILIENT CONSTRUCTION.</b> Resilient Construction is a structure, component, or system that has been <u>designed and constructed in accordance with applicable adopted building codes and standards to withstand forces generated by; flooding, snow, wind or seismic (or other natural or manmade disasters as applicable) for a given site.</u>	
<b>Reason:</b>	A new section <b>11.1101 Resilient Construction</b> has been proposed. If adopted, the term, "Resilient Construction," should be defined.	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-7 (Remodeling) because of a proposed new section in Chapter 11 for Resilient Construction as it applies to remodeling.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		

TG Reason:	
TG Vote:	

<b>Proposal ID TBD</b>	<b>LogID 17-023</b>	<b>New Chapter 13 Resilient Construction</b>
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<b>Submitter:</b>	James M Williams, AE URBIA
<b>Requested Action:</b>	Add a new Section <b>13.1101 RESILIENT CONSTRUCTION</b> (for new construction). Move current <b>CHAPTER 13, Referenced Documents</b> to new chapter 14.
<b>Proposed Change:</b>	<p><b><u>13.1101 RESILIENT CONSTRUCTION</u></b></p> <p><b><u>13.1101.0 Intent.</u></b> Design and construction practices are implemented that enhance the resilience and durability of the structure (above building code minimum design loads) so the structure can better withstand forces generated by; flooding, snow, wind or seismic (as applicable) and reduce the potential for the loss of life and property.</p> <p><b><u>13.1101.1 Minimum structural requirements (base design).</u></b> The design and construction of the structure, components and systems shall comply with the minimum; structural requirements, loads, and forces, as described in the applicable adopted ICC IRC and ICC IBC for a given site. (Mandatory)</p> <p><b><u>13.1101.2 Enhanced resilience – 10% above base design.</u></b> Design and construction practices are implemented that enhance the resilience and durability of the structure by designing and building to forces generated by; flooding, snow, wind or seismic (as applicable) that are 10% higher than the base design. (3 points)</p> <p><b><u>13.1101.2 Enhanced resilience – 20% above base design.</u></b> Design and construction practices are implemented that enhance the resilience and durability of the structure by designing and building to forces generated by; flooding, snow, wind or seismic (as applicable) that are 20% higher than the base design. (5 points)</p> <p><b><u>13.1101.2 Enhanced resilience – 30% above base design.</u></b> Design and construction practices are implemented that enhance the resilience and durability of the structure by designing and building to forces generated by; flooding, snow, wind or seismic (as applicable) that are 30% higher than the base design. (10 points)</p> <p><b><u>13.1101.2 Enhanced resilience – 40% above base design.</u></b> Design and construction practices are implemented that enhance the resilience and durability of the structure by designing and building to forces generated by; flooding, snow, wind or seismic (as applicable) that are 40% higher than the base design. (12 points)</p> <p><b><u>13.1101.2 Enhanced resilience – 50% above base design.</u></b> Design and construction practices are implemented that enhance the resilience and durability of the structure by designing and building to forces generated by; flooding, snow, wind or seismic (as applicable) that are 50% higher than the base design. (15 points)</p>
<b>Reason:</b>	<p>Resilient and durable design and construction of the structure reduce the potential for the loss of life and property which result from natural (and manmade) disasters and are sustainable practices which should be recognized and rewarded.</p> <p>Future subsections could include emergency power, emergency water, etc</p>
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	



## TG-4: Water Efficiency, Operation & Owner Education

### Chapter 8: Water Efficiency

Proposal ID TBD	LogID 17-092	Section 801.1 Indoor hot water usage
<b>Submitter:</b>	Thomas Pape, BMP	
<b>Requested Action:</b>	Modify points 801.1 Indoor Hot Water Usage, Item (4)	
<b>Proposed Change:</b>	Item (4) Points <del>35</del> <u>24</u>	
<b>Reason:</b>	Points assigned to hot water represent a quantity disproportionate to value of other water efficiency measures.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-093	Section 801.1 Indoor hot water usage
<b>Submitter:</b>	Thomas Pape, BMP	
<b>Requested Action:</b>	Modify points 801.1 Indoor Hot Water Usage, Item (1)	
<b>Proposed Change:</b>	801.1(1) The maximum volume from the water heater to the termination of the fixture supply at furthest fixture is 129 ounces (1 gallon or 3.78 liters). Points <del>44</del> <u>8</u>	
<b>Reason:</b>	Points assigned to hot water represent a quantity disproportionate to the value of other water efficiency measures.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-094	Section 801.1 Indoor hot water usage
<b>Submitter:</b>	Thomas Pape, BMP	
<b>Requested Action:</b>	Modify points 801.1 Indoor Hot Water Usage, Item (2)	
<b>Proposed Change:</b>	801.1(2) The maximum volume from the water heater to the termination of the fixture supply at furthest fixture is 64 ounces (0.5 gallon or 1.89 liters). Points <del>47</del> <u>12</u>	
<b>Reason:</b>	Points assigned to hot water represent a quantity disproportionate to value of other water efficiency measures.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-095	Section 801.1 Indoor hot water usage
Submitter:	Thomas Pape, BMP	
Requested Action:	Modify points 801.1 Indoor Hot Water Usage, Item (3)	
Proposed Change:	Item (3) 801.1(3) The maximum volume from the water heater to the termination of the fixture supply at furthest fixture is 32 ounces (0.25 gallon or 0.945 liters). Points <del>29</del> <u>20</u>	
Reason:	Points assigned to hot water represent a quantity disproportionate to the value of other water efficiency measures.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 17-096	Section 801.1 Indoor hot water usage
Submitter:	Thomas Pape, BMP	
Requested Action:	Modify points 801.1 Indoor Hot Water Usage, Item (6)	
Proposed Change:	Item (6) 801.1(6) Tankless water heaters with at least 0.5 gallon (1.89 liters) of storage are installed, or a tankless water heater that ramps up to at least 110F within 5 seconds is installed. The storage may be internal or external to the tankless water heater. Points <del>4</del> <u>1</u>	
Reason:	Points assigned to hot water represent a quantity disproportionate to the value of other water efficiency measures. On-demand water heaters are known through research to increase water use and energy use in a typical home.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 17-097	Section 801.2 Water conserving appliances
Submitter:	Thomas Pape, BMP	
Requested Action:	Delete without substitution, re-number remaining subtopics	
Proposed Change:	<u>801.2 Water-conserving appliances. ENERGY STAR or equivalent water-conserving appliances are installed.</u> <del>(1) Dishwasher</del> <del>2 pts</del> <del>(2) (1) washing machine, or</del> <del>13 pts</del> <del>(3) (2) washing machine with a water factor of 4.0 or less</del> <del>24 pts</del>	
Reason:	There is ample evidence from the Residential End Use Studies there is no water savings when comparing Energy Star (ES) dishwashers with non-ES dishwashers.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 17-098	Section 801.2 Water conserving appliances
Submitter:	Thomas Pape, BMP	
Requested Action:	Modify as follows	
Proposed Change:	(2) <del>washing machine</del> <u>clothes washer</u> , or Points <del>43</del> <u>20</u>	
Reason:	Energy Star uses the term “clothes washer” Energy Star clothes washers are now required to not exceed an Integrated Water Factor of 4.3. This is more proportional to the next proposed change of making the next level an IWF of 3.8 or less.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 17-099	Section 801.2 Water conserving appliances
Submitter:	Thomas Pape, BMP	
Requested Action:	Modify as follows	
Proposed Change:	(3) <del>washing machine</del> <u>clothes washer</u> with an <u>Integrated</u> Water Factor of <del>4.0</del> <u>3.8</u> or less Points 24	
Reason:	Energy Star uses the term “clothes washer”. Also, ES now uses the term “Integrated Water Factor” (IWF). Energy Star clothes washers are now required to not exceed an Integrated Water Factor of 4.3; suggesting we need to increase the stringency of this tier.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 17-100	Section 801.3 Showerheads
Submitter:	Thomas Pape, BMP	
Requested Action:	Modify as follows	
Proposed Change:	(1) The total maximum combined flow rate of all showerheads controlled by a single valve at any point in time in a shower compartment is <del>4.6 to</del> <u>equal or less than 2.5 gpm</u> . Maximum of <del>two</del> <u>one</u> <u>mixing valves</u> <del>are</del> <u>is</u> installed per shower compartment <u>with a floor area less than 2600 square inches</u> . <u>One additional mixing valve is allowed for every 1300 square inches greater than 2600 square inches of shower compartment floor area.</u> <del>The flow rate is tested at 80 psi (552 kPa) in accordance with ASME A112.18.1.</del> Showerheads shall comply with ASME A112.18.1/CSA B125.1. Showerheads are served by an automatic compensating valve that complies with ASSE 1016/ASME A112.1016/CSA B125.16 or ASME A112.18.1/CSA B125.1 and specifically designed to provide thermal shock and scald protection at the flow rate of the showerhead.	
Reason:	It is an embarrassment to this Standard and the integrity of this process and the color green in general that points are awarded for shower compartments with multiple showerheads installed to make a mockery of the Federal Requirements for showerheads. Installing multiple showerheads might be legal, but it is not water efficient and it is not “green”.  “ <u>Mixing valve</u> ” distinguishes from diverter valves.  This amendment incorporates all of the proposed amendments of LogID 6367 previously approved by TG4.	

	This amendment allows for multi-user showers by allowing more valves and heads where there is adequate space in the shower compartment for multiple shower users. The size of 1300 square inches is based on prison regulations that require at least 1296 square inches of shower floor area for each axe-murdered, grave robber, cannibal, etc. using multi-user showers. I presume that law-abiding citizens ought to get more shower space than convicts, other committee members might have a different opinion.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-101	Section 801.6 Irrigation systems
<b>Submitter:</b>	Thomas Pape, BMP	
<b>Requested Action:</b>	Modify as follows	
<b>Proposed Change:</b>	801.6.3 1 Irrigation sprinkler nozzles have a maximum precipitation rate of 1.20 inches per hour for turf or landscaping. shall have a minimum precipitation rate of 1.80 inches per hour and shall be tested according to ANSI standard ASABE/ICC 802-2014 Landscape Irrigation Sprinkler and Emitter Standard. Nozzle performance is tested by an accredited third party laboratory and results are published on manufacturer's posted on Smart Water Application Technologies website or similar.	
<b>Reason:</b>	At the last TG meeting, representatives from irrigation equipment manufacturers testified that low precipitation rate nozzles (1.20 inches/hr or less precipitation rate) cause water waste due to excessive evaporation. If they gave truthful testimony, we have an obligation to thwart this waste by not awarding points for these wasteful nozzles. The 1.80 inches precipitation rate is 50% greater than the water wasting 1.20 inches nozzles to assure the standard does not reward water wasting nozzles.  This proposal includes the TG action on prior proposal of LogID 6366.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-104	Section 801.6.4 Irrigation systems
<b>Submitter:</b>	Rob Starr, The Toro Company	
<b>Requested Action:</b>	Delete without substitution	
<b>Proposed Change:</b>	801.6.4 The irrigation system(s) is controlled by a smart controller or no irrigation is installed (Points are not additive) (1) Evapotranspiration (ET) based irrigation controller with a rain sensor or soil moisture sensor based irrigation controller. 8 points (2) Irrigation controllers are labeled by EPA WaterSense program. 10 points (3) No irrigation is installed and a landscape plan is developed in accordance with Section 503.5, as applicable. 15 points	
<b>Reason:</b>	ET based controllers and/or soil moisture sensor systems that <b>do not</b> possess the EPA WaterSense label should be not be eligible to receive any NGBS points in this category. Any company can just claim their product is an ET Controller and/or soil moisture system but there needs to be validation by any recognized authority such as the EPA that these type products meet certain industry performance criteria. Re-number items (2) and (3) to (1) and (2), respectively.	
<b>TG Recommendation (AS or AM or D):</b>		

<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

<b>Proposal ID TBD</b>	<b>LogID 17-111</b>	<b>Section 802.3 Automatic shutoff water devices</b>
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<b>Submitter:</b>	Michael Cudahy, PPFA
<b>Requested Action:</b>	Revise as follows
<b>Proposed Change:</b>	<p>802.3 Automatic <del>leak shutoff</del> <u>leak shutoff detection and control</u> water devices. One of the following <del>automatic shutoff water supply</del> devices is installed.</p> <p>Where a fire sprinkler system is present, <del>installer is to ensure</del> the device will <u>be installed to</u> not interfere with the operation of the fire sprinkler system.</p> <p>(1) automatic water leak detection and control devices</p> <p>(2) automatic water leak detection and shut-off devices</p> <p><del>(1) excess water flow automatic shutoff</del></p> <p><del>(2) leak detection system with automatic shutoff</del></p> <p>2 points</p>
<b>Reason:</b>	Clarify language – these appear to be the correct terms for the devices.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

<b>Proposal ID TBD</b>	<b>LogID 17-087</b>	<b>New for Chapter 8</b>
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<b>Submitter:</b>	Craig Conner, Building Quality
<b>Requested Action:</b>	Incorporate a Water Rating Index as an option.
<b>Proposed Change:</b>	<p>Include the attached text as a new appendix for calculating a Water Rating Index.</p> <p>Insert into the water chapter the option of allowing a WRI to equal the specific levels as is shown below.</p> <p>70 = Bronze</p> <p>60 = Silver</p> <p>50 = Gold</p> <p>30 = Emerald</p>
<b>Reason:</b>	
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

<b>Proposal ID TBD</b>	<b>LogID 17-102</b>	<b>New for Chapter 8</b>
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<b>Submitter:</b>	Thomas Pape, BMP
<b>Requested Action:</b>	Add new as follows
<b>Proposed Change:</b>	<b>801.9 Water Treatment Devices</b>

	<p><b>801.9.1</b> Water Softeners shall not be installed where the supplied water hardness is less than 8.0 grains per gallon measured as total calcium carbonate equivalents. Water softeners shall be listed to NSF 44 and a rated salt efficiency of 3400 grains of total hardness per 1.0 pound of salt based on sodium chloride equivalency. Devices shall not discharge more than 4.0 gallons of water per 1000 grains of hardness removed during the service or recharge cycle.</p> <p>(1) No water softener = 10 points  (2) Water softener installed to supply softened water only to domestic water heater = 5 points</p> <p><b>801.9.2</b> Reverse Osmosis (R/O) water treatment systems shall be listed to NSF 58 and shall include automatic shut-off valve to prevent water discharge when storage tank is full.</p> <p>(1) No R/O system = 6 points  (2) Combined capacity of all R/O systems does not exceed 0.75 gallon = 3 points</p>
<b>Reason:</b>	Water treatment devices are often installed where the water quality does not warrant. The devices often discharge excessive water as part of the cycling process.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-103	New for Chapter 8
<b>Submitter:</b>	Thomas Pape, BMP	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<p><b>801.10 Pools and Spas</b>  801.10.1 Pools and Spas with water surface area greater than 36 square feet and connected to a water supply shall have a dedicated meter to measure the amount of water supplied to the pool or spa.</p> <p>(1) No pool or spa = 5 points</p> <p>(2) Automated motorized non-permeable pool cover that covers the entire pool surface installed on pools with water surface area greater than 500 square feet. = 10 points</p> <p>(3) Pools with surface area greater than 1000 square feet without automated motorized non-permeable pool cover = negative 20 points</p> <p>(4) Pools with surface area greater than 750 square feet and less than or equal to 1000 square feet without automated motorized non-permeable pool cover = negative 15 points</p> <p>(5) Pools with surface area of 750 square feet or less without automated motorized non-permeable pool cover = negative 10 points</p>	
<b>Reason:</b>	Pools and spas are a source of significant water loss due to evaporation and leaks. The loss is often more than twice that of turf evapo-transpiration. The meter can help indicate to the owner when a leak is occurring. Studies have proven that the only type of pool cover used regularly is the type that has a motorized closing feature.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-105	New for Chapter 8
<b>Submitter:</b>	Rob Starr, The Toro Company	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	801.6.5 Commissioning and Water Use Reduction for Irrigation Systems ( <b>Points are additive, per each practice</b> ) 801.6.5 (1) All irrigation zones utilize pressure regulation so emission devices (sprinklers and drip emitters) operate at manufacturer's recommended operating pressure. 3 pts	
<b>Reason:</b>	With the addition of other sub-topics to 801.6.5, it's necessary to develop a general topic description and then number all individual subtopics.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-106	New for Chapter 8
<b>Submitter:</b>	Rob Starr, The Toro Company	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	801.6.5 (1) <u>To assure long-term reliability using dripline tubing, a filter of appropriate mesh size should be installed on all drip zones. 3 pts</u>	
<b>Reason:</b>	Having an appropriate filter added immediately after the valve and between a pressure regulator protects against any minute contaminate that could potentially clog the output the of the tubing emitter. (This addition can provide additional points as well.)	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-107	New for Chapter 8
<b>Submitter:</b>	Rob Starr, The Toro Company	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	801.6.5 (2) <u>To assure long-term reliability in subsurface drip tubing installations, utilize tubing that provides an internal root intrusion protection scheme comprised of either as trifluralin, pendamethalin or copper. 3 pts</u>	
<b>Reason:</b>	Pre-emergent material is either impregnated into the drip emitters or molded into the drip tubing which then creates a "force field" effect around the emitter outlet(s) diverting root growth and assuring long-term reliability of root intrusion and/or blockage. (This addition could provide additional points as well.)	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-108	New for Chapter 8
<b>Submitter:</b>	Rob Starr, The Toro Company	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<u>801.6.5 (4) Utilize spray bodies that incorporate an in-stem flow shut-off device. 3 pts</u>	
<b>Reason:</b>	Up to 40 gallons of water per minute can escape through a spray head that has a missing or damaged nozzle. This wasted water can lead to landscape erosion, property damage, or unsafe conditions due to wet hardscapes. The in-stem flow shut-off device should hold back over 99% of the water that could be otherwise wasted in cases where the nozzle has been compromised through unintentional accidents or vandalism	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-109	New for Chapter 8
<b>Submitter:</b>	Rob Starr, The Toro Company	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<u>801.6.5 (1) For irrigation systems installed on sloped sites, either an in-stem or external check valve is utilized for each spray body. 3 pts</u>	
<b>Reason:</b>	Low head drainage can be seen in an elevation change of fewer than 6 inches. The resulting runoff and water waste can lead to landscape erosion, unsafe conditions on hardscapes and sidewalks, and pooling around spray heads. By the utilization of a check valves either incorporated within a spray body component and/or as an external add-on component to a spray head body, the check valve saves water and eliminates runoff by immediately sealing the spray head at its connection point and the end of the irrigation cycle, thereby preventing the draining of lateral lines through the lowest-lying heads. The device should also be capable of compensating for elevation changes in a zone at a minimum of 7 feet. Additional points should be provided for use of these type products. 3 pts	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-110	New for Chapter 8
<b>Submitter:</b>	Rob Starr, The Toro Company	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<u>801.6.5 (2) Where an irrigation system is installed, a flow sensing device is installed to monitor &amp; alert the controller when flows are outside design range. 3 pts</u>	
<b>Reason:</b>	When connected to an irrigation controller that can interpret a flow sensor's generated information, the utilization of a flow monitoring device (flow sensor) provides reliable flow information to aid in the detection of and response to the irrigation system issues like piping breaks, non-closing valves, broken spray bodies, etc. Additional points shall be provided for use of this type product in the installation of an irrigation system.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		



TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 17-112	New for Chapter 8
Submitter:	Hope Medina, Cherry Hills Village	
Requested Action:	Add New	
Proposed Change:	<p><b>801.2 Water usage metering.</b> <u>Installation of a meter for water consumed from any source associated with the building or building site. Installation of the water meter shall be installed in accordance with the requirements of the International Residential Code or International Plumbing Code. Each meter shall be capable of communicating water consumption data remotely and be capable of providing daily data with electronic data storage and reporting capability that can produce reports for daily, monthly, and yearly water consumption. (Fire sprinkler systems are not required to be metered)</u></p> <p><b>801.2.1 Individual water usage metering.</b> <u>Each dwelling unit in a multifamily building has the installation of a meter for water consumed from any source associated with the dwelling unit. Installation of the water meter shall be installed in accordance with the requirements of the International Residential Code or International Plumbing Code. Each meter shall be capable of communicating water consumption data remotely for the dwelling unit occupant and be capable of providing daily data with electronic data storage and reporting capability that can produce reports for daily, monthly, and yearly water consumption. (Fire sprinkler systems are not required to be metered)</u></p> <p>Renumber the remaining sections</p>	
Reason:	The intent of this proposal is to provide valuable information for the occupant to know if the daily usage of water is truly being efficient or conservative. It provide the capability to monitor the consumption of water, and determine possible leaks or problems within the plumbing systems in a timelier manner.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 17-113	New for Chapter 8
Submitter:	Hope Medina, Cherry Hills Village	
Requested Action:	Add New	
Proposed Change:	<p><b>801.1.1 Water heating efficiency design.</b> <u>The length of piping from the source of the heating of water to the furthest fixture in accordance with one of the following:</u></p> <p><u>(1) 40 feet from heating source</u>  <u>(2) 30 feet from heating source</u>  <u>(3) 20 feet from heating source</u></p> <p><u>If multiple heating sources are utilized points are awarded for the system that qualifies for the minimum points</u></p>	
Reason:		
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Chapter 10: Operation, Maintenance, and Building Owner Education

Proposal ID TBD	LogID 17-117	1001.1 Homeowner's manual
<b>Submitter:</b>	Suzanne Boxman, US EPA	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	<p><b>1001.1 Homeowner's manual.</b> A homeowner's manual is provided and stored in a permanent location in the dwelling that includes the following, as available and applicable...</p> <p>...</p> <p>(24) Retrofit energy calculator that provides baseline for future energy retrofits.</p> <p><u>(25) Information on deconstruction and disassembly services</u></p> <p><u>(26) For houses designed for disassembly, a plan with as-built drawings and information are provided about: 1) the method of disassembly for major components; and, 2) suitability of the selected materials for recycling or reuse.</u></p>	
<b>Reason:</b>	<p>Deconstruction is beneficial because it maximizes the potential for materials reuse and prevents valuable resources from being landfilled unnecessarily. Including proper deconstruction resources will streamline the deconstruction process for houses which are being remodeled, retrofitted, or are at the end of their useful lifespan.</p> <p>Design for disassembly can reduce materials waste and extend a building's useful life, providing economic and environmental benefits for builders, owners, occupants, and the communities. The homeowner's manual should include the information necessary to facilitate disassembly and realize the intended benefits for all homes that are designed for disassembly.</p>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-066	1001.2 Training of initial homeowners
<b>Submitter:</b>	Aaron Gary, Tempo Partners	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	<p><b>1001.2 Training of initial homeowners.</b></p> <p><u>(8) Whole-dwelling ventilation systems.</u></p> <p><b>1002.4 Training of building owners.</b></p> <p><u>(8) Whole-dwelling ventilation systems.</u></p>	
<b>Reason:</b>	Most homeowners do not understand how to operate or maintain the mechanical ventilation systems that are installed in their homes or apartments, or even the intent of such a system. Providing and recognizing training on these important systems would be beneficial.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-116	1001.2 Training of initial homeowners
<b>Submitter:</b>	Suzanne Boxman, US EPA	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	<p><b>1001.2 Training of initial homeowners.</b> Initial homeowners are familiarized with <u>their role and</u> the role of occupants in achieving green goals. Training is provided to the responsible party(ies) regarding</p>	

	<p><u>equipment building operation and maintenance, including equipment operation and building material replacement, and regarding occupant actions that will improve the environmental performance of the building. These include, as applicable...</u></p> <p>...</p> <p>(7) Recycling and composting practices.</p> <p><u>(8) Benefits of deconstruction and resources available to deconstruct the building or its parts.</u></p>
<b>Reason:</b>	Deconstruction is beneficial because it maximizes the potential for materials reuse and prevents valuable resources from being landfilled unnecessarily. Training the homeowners about the benefits of deconstruction will ensure they are aware of the value of materials included in their buildings and position them to take advantage of the fact that their properties are environmental and economic resources.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

<b>Proposal ID TBD</b>	<b>LogID 17-114</b>	<b>1002.1 Building construction manual</b>
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<b>Submitter:</b>	Suzanne Boxman, US EPA
<b>Requested Action:</b>	Revise as follows
<b>Proposed Change:</b>	<p><b>1002.1 Building construction manual.</b> A building construction manual, including five or more of the following, is compiled and distributed...</p> <p>...</p> <p>(8) A photo record of framing with utilities installed. Photos are taken prior to installing insulation and clearly labeled.</p> <p><u>(9) Information on deconstruction and disassembly services</u></p> <p><u>(10) For houses designed for disassembly, a plan with as-built drawings and information are provided about: 1) the method of disassembly for major components; and, 2) suitability of the selected materials for recycling or reuse.</u></p>
<b>Reason:</b>	<p>Deconstruction is beneficial because it maximizes the potential for materials reuse and prevents valuable resources from being landfilled unnecessarily. Including proper deconstruction resources will streamline the deconstruction process for houses which are being remodeled, retrofitted, or are at the end of their useful lifespan.</p> <p>Design for disassembly can reduce materials waste and extend a building's useful life, providing economic and environmental benefits for builders, owners, occupants, and the communities. The homeowner's manual should include the information necessary to facilitate disassembly and realize the intended benefits for all homes that are designed for disassembly.</p>
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

<b>Proposal ID TBD</b>	<b>LogID 17-039</b>	<b>1002.3 Maintenance manual</b>
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<b>Submitter:</b>	Michelle Foster, Home Innovation Research Labs
<b>Requested Action:</b>	Revise as follows
<b>Proposed Change:</b>	<p><b>1002.3 Maintenance manual.</b> Maintenance manuals are created and distributed to the responsible parties in accordance with Section 1002.0. Between all of the maintenance manuals, five or more of the following options are included.</p> <p>(Points awarded per two items. Points awarded for non-mandatory items.)</p> <p>(1) A narrative detailing the importance of maintaining a green building. This narrative is included in all responsible parties' manuals.</p>

	<p>(2) A list of local service providers that offer regularly scheduled service and maintenance contracts to ensure proper performance of equipment and the structure (e.g., HVAC, water-heating equipment, sealants, caulks, gutter and downspout system, shower and/or tub surrounds, irrigation system).</p> <p>(3) User-friendly maintenance checklist that includes:</p> <ul style="list-style-type: none"> <li>(a) HVAC filters</li> <li>(b) thermostat operation and programming</li> <li>(c) lighting controls</li> <li>(d) appliances and settings</li> <li>(e) water heater settings</li> <li>(f) fan controls</li> </ul> <p>(4) List of common hazardous materials often used around the building and instructions for proper handling and disposal of these materials.</p> <p>(5) Information on organic pest control, fertilizers, deicers, and cleaning products.</p> <p>(6) Instructions for maintaining gutters and downspouts and the importance of diverting water a minimum of 5 feet away from foundation.</p> <p>(7) Instructions for inspecting the building for termite infestation.</p> <p>(8) A procedure for rental tenant occupancy turnover that preserves the green features.</p> <p>(9) An outline of a formal green building training program for maintenance staff.</p> <p>(10) A green cleaning plan which includes guidance on sustainable cleaning products.</p> <p><u>(11) A maintenance plan for active recreation and play spaces (e.g., playgrounds, ground markings, exercise equipment) for adults, youth and children.</u></p>
<b>Reason:</b>	Including a provision in the maintenance manual on the recreation space will ensure that the space remains available to residents for recreation.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-115	1002.4 Training of building owners
<b>Submitter:</b>	Suzanne Boxman, US EPA	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	<p><b>1002.4 Training of building owners.</b> Building owners are familiarized with the <u>roles of operations and maintenance staff and occupants</u> in achieving green goals. On-site training is provided to the responsible party(ies) regarding <del>equipment</del> <u>building operation and maintenance, including equipment operation, control systems and building material replacement</u> and <u>regarding</u> occupant actions that will improve the environmental performance of the building. These include, <u>as applicable</u>...</p> <p>...</p> <p>(7) Recycling and composting practices.</p> <p><u>(8) Benefits of deconstruction and resources available to deconstruct the building or its parts.</u></p>	
<b>Reason:</b>	Deconstruction is beneficial because it maximizes the potential for materials reuse and prevents valuable resources from being landfilled unnecessarily. Training the homeowners about the benefits of deconstruction will ensure they are aware of the value of materials included in their buildings and position them to take advantage of the fact that their properties are environmental and economic resources.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-005	1004.2 Verification system
<b>Submitter:</b>	Stephen Evanko, Dominion Due Diligence	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	<p>1004.1 Verification System  A verification system plan is provided in the building owner's manual (Sections (1001 or 1002). The verification system provides methods for demonstrating continued energy and water savings that are determined from the building's initial year of occupancy of water and energy consumption as compared to annualized consumption at least every four years  (1) Verification Plan is developed to monitor post-occupancy energy and water use and is provided in the building owner's manual [1 point ]  (3) Verification system is installed in the building to monitor post-occupancy energy and water use [3 points ]  <u>1004.2 Commitment for Annual Energy Benchmarking (NEW)</u>  <u>1) Commitment for annual Energy Benchmarking: Multifamily property commits to benchmark annual energy performance using Energy Star Portfolio Manager. Owner commits to maintain a benchmark score of 75 or better and to share the energy star benchmark score with the Adopting Entity. [3 points ]</u></p>	
<b>Reason:</b>	<p>Benefits: Numerous studies have shown that continuous benchmarking leads to an ongoing reduction energy consumption of at least 2-3% per year  <a href="http://www.imt.org/uploads/resources/files/PCC_Benefits_of_Benchmarking.pdf">http://www.imt.org/uploads/resources/files/PCC_Benefits_of_Benchmarking.pdf</a>  <a href="https://www.energystar.gov/sites/default/files/buildings/tools/DataTrends_Savings_20121002.pdf">https://www.energystar.gov/sites/default/files/buildings/tools/DataTrends_Savings_20121002.pdf</a></p> <p>Owners should receive green points for committing to this proven energy efficient practice. The practice in 1004.1 is good but doesn't benchmark against comparable properties. Offering a minimum performance target rather than just comparing to past performance drives improved performance.</p> <p>Why only Multifamily? Energy Star Portfolio Manager currently only supports benchmarking on Multifamily properties.</p> <p>Verification: Like many other NGBS practices, this benchmarking process provides the framework for ongoing green building operation. I would suggest that for verification,</p> <ul style="list-style-type: none"> <li>• We honor documentation that the property is being underwritten through a green financing program which has a benchmarking requirement or through evidence that the site will need to comply with a local municipal benchmarking requirement</li> <li>• Owner produces a Signed Energy Data Benchmarking Plan showing how the property owner intends to secure the energy data (including tenant data) and benchmark the property</li> </ul> <p>Why sharing with Adopting Entity?: This could provide additional data to demonstrate the value of the NGBS certification. This is common with other green building programs. This practice is also encouraged by some green financial products (Fannie Mae Green Rewards, HUD Green Mortgage Insurance Premium Reduction and some progressive municipalities are pushing for benchmarking</p>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-019	New for Chapter 10
<b>Submitter:</b>	Phil LaRocque, LaRocque Business Management Services	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<p><u>1005.1 Appraisals. One or more of the following is implemented.</u></p> <p><u>(1) Energy rating or usage data is posted by submitting rating or data to the RESNET registry, affixing the HERS or ERI data to a sticker in an appropriate location in the home, or an equivalent posting so that an appraiser can access the energy data for an energy efficiency property valuation.-2 POINTS</u></p>	

	<p>(2) An Appraisal Institute Form 820.05 "Residential Green and Energy Addendum" or Form 821 "Commercial Green and energy Efficient Addendum" that consider NGBS, LEED, ENERGY STAR certifications and equivalent programs, is completed for the appraiser by a qualified professional or builder to use in performing the valuation of the property.-2 POINTS</p> <p>(3) NGBS certification information or one of the Appraisal Institute Forms cited in (2) above is uploaded to a multiple listing service (MLS) or equivalent database so that appraisers can access it to compare property valuations.-2 POINTS</p>
<b>Reason:</b>	Increasing demand for NGBS and other certification programs requires getting the certification and data information on these high-performance homes to appraisals so they can recognize the added value of the green certified home or apartment above that of a code-built home.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-067	Section 202 Definitions
<b>Submitter:</b>	Michelle Foster, Home Innovation Research Labs	
<b>Requested Action:</b>	Define "Reclaimed water"	
<b>Proposed Change:</b>	Reclaimed water is wastewater that is used more than one time before it passes back into the natural water cycle.	
<b>Reason:</b>	Not defined in the NGBS but used in practices,	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

# TG-5: Energy Efficiency

## Chapter 7: Energy Efficiency

Proposal ID TBD	LogID 17-068	702.2.1 ICC IECC analysis
<b>Submitter:</b>	Jerry Phelan, Covestro	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	<p><del>702.2.1 ICC IECC analysis</del> <b>702.2.1 Total Building Energy Performance Paths.</b> Energy efficiency features are implemented to achieve energy cost or source energy performance <del>that meets the ICC IECC</del> <u>using a simulation program in accordance with one of the following established compliance criteria:</u></p> <ol style="list-style-type: none"> <li>1. <u>For a residential building, as defined in the ICC IECC Section R202, in accordance with ICC IECC Section R405.</u></li> <li>2. <u>For a commercial building, as defined in the ICC IECC Section C202, in accordance with ICC IECC Section C407.</u></li> <li>3. <u>For a new building not excluded by ASHRAE 90.1-2016 Section 2.2, in accordance with the Performance Rating Method of Normative Appendix G and demonstrating a Performance Cost Index that is less than or equal to the Performance Cost Index Target as calculated in Section 4.2.1.1</u></li> </ol> <p>(Strike the second sentence in 702.2.1 in its entirety.)</p> <p><u>Where a building of 3 stories or less includes residential occupancy and less than or equal to 10% of the floor area is commercial occupancy, Path 1 must be utilized for the Total Building Energy Performance analysis. Where a building of 3 stories or less includes residential occupancy and greater than 10% of the floor area is commercial occupancy, Path 1 must be utilized for the Total Building Energy Performance analysis of the residential portion of the building and Path 2 must be utilized for the Total Building Energy Performance analysis of the commercial portion of the building. Where a building of more than 3 stories includes both residential and commercial occupancy either Path 2 or 3 must be utilized for the Total Building Energy Performance analysis of the whole building.</u></p> <p><b>702.2.2 Energy performance analysis.</b> Energy savings levels <del>above the ICC IECC</del> are determined through <del>an</del> <u>the building performance analysis that includes improvements</u> of the energy efficiency measures associated with the systems and loads specified in the ICC IECC Section R405.1 for Path 1 and the ICC IECC C407.1 for Path 2 and with the regulated energy used for building systems and components as defined in Section 3.2 of ASHRAE 90.1-2016 for Path 3. Points are assigned using the following formulas:</p> $\text{Points} = 30 + (\text{percent above ICC IECC 2015}) * 2$ <ol style="list-style-type: none"> <li>1. <u>Points = 30 + (percent energy savings versus the annual energy cost of the standard reference design) * 3.</u></li> <li>2. <u>Points = 30 + (percent energy savings versus the annual energy cost of the standard reference design) * 2.</u></li> <li>3. <u>Points = 30 + (Performance Cost Index points below the Performance Cost Index Target) * 3.</u></li> </ol> <p><u>Where both Path 1 and Path 2 are utilized in the analysis the points shall be combined.</u></p>	
<b>Reason:</b>	<p>The current provision language does not recognize the drastic differences between the residential and commercial performance path in the IECC. These differences include the system performance and loads that are used for the analysis, the specifications or rule sets established for the proposed and reference buildings, the calculation software tool requirements and more. Therefore, the current language does not insure uniformity in deriving meaningful results. The proposed language provides explicit instructions for establishing consistent execution of performance path analysis. It also provides the user synergistic use of established performance paths for demonstration of minimum compliance as well as conformance with specified green building performance levels of the NGBS. In addition, where the current language is particularly problematic given the proposed scope change in the NGBS, the proposed language incorporates the definition needed to facilitate this scope expansion. Lastly, the addition of 90.1 Appendix G provides the user with additional flexibility for conformance with NGBS as well as provide potential market expansion for the use of the NGBS given both the broad use of Appendix G and the expanded scope of the NGBS.</p>	

	Given the various scales associated with the 3 paths, I have developed the proposed point formulas for consideration.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-081	703.3 HVAC equipment efficiency
<b>Submitter:</b>	Craig Conner, Building Quality	
<b>Requested Action:</b>	Update equipment efficiency ranges in the energy chapter to reflect the range of efficiency in the current market.	
<b>Proposed Change:</b>	Update the current points tables on the high end to reflect the improving equipment efficiencies in the market. Consider adding ductless mini splits.	
<b>Reason:</b>	To give points for the exceptionally efficient equipment.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-051	703.3.3 Heat Pump Heating Efficiency
<b>Submitter:</b>	Steven Rosenstock, Edison Electric Institute	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	Tables 703.3.3(1) and 703.3.3(2), Footnote a:  Equipment <del>shall be</del> designed to operate in cold climates <del>is recommended to minimize use of resistance heat when installed installing a heat pump</del> in Zones 6-8.	
<b>Reason:</b>	The current language with the phrase “is recommended” is vague and not enforceable. The modified language improves the footnote and removes unnecessary language.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-052	703.3.3 Heat Pump Heating Efficiency
<b>Submitter:</b>	Steven Rosenstock, Edison Electric Institute	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	Tables 703.3.3(3)  <b>Climate Zone</b> 1 2 3 4 5 6-8 <sup>a</sup>	



	a. Equipment shall be designed to operate in cold climates when installed in Zones 6-8.
<b>Reason:</b>	As shown in the attached ORNL report, the efficiency of gas engine-driven heat pumps drops off significantly at lower temperatures (see Table 3 in the attached report located at <a href="http://info.ornl.gov/sites/publications/files/Pub60271.pdf">http://info.ornl.gov/sites/publications/files/Pub60271.pdf</a> ). Also, other reports show the same trend. See <a href="http://www.sciencedirect.com/science/article/pii/S0140700716300603">http://www.sciencedirect.com/science/article/pii/S0140700716300603</a> . Here is a quote from the abstract: "The average COP unit of these systems varied from 0.15 to 0.85 during field operation. The gas engines were found to operate at significantly lower loads than their design capacity, and therefore, produced overall lower efficiencies."  The new footnote will ensure higher efficiency at lower temperatures, and is consistent with the footnotes for other air-source heat pump systems.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-053	703.3.3 Heat Pump Heating Efficiency
<b>Submitter:</b>	Steven Rosenstock, Edison Electric Institute	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	Add new rows (and point values) for higher HSPF units in Table 703.3.3(2)  <ul style="list-style-type: none"> <li>➤ 9.5 HSPF</li> <li>➤ 10.0 HSPF</li> <li>➤ 11.0 HSPF</li> <li>➤ 12.0 HSPF</li> <li>➤ 13.0 HSPF</li> </ul>	
<b>Reason:</b>	According to the CEE/AHRI Directory of Certified Products for variable-speed min-split and multi-split heat pumps, located at <a href="https://www.ahridirectory.org/ahridirectory/pages/vsmshp/cee/defaultSearch.aspx">https://www.ahridirectory.org/ahridirectory/pages/vsmshp/cee/defaultSearch.aspx</a> , there are many models that have heating efficiencies higher than 8.5 HSPF (over 1700 that are $\geq 10.0$ HSPF, for example). As with other tables in Chapter 7, there should be a tiered approach for assigning points, based on the efficiency. Higher efficiency units will save more energy and should be awarded more points. In addition, in multi-family units, these products provide zoned heating, which enables further savings during periods of no occupancy.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-054	703.3.4 Cooling Efficiency
<b>Submitter:</b>	Steven Rosenstock, Edison Electric Institute	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	Add new rows (and point values) for higher SEER units in Table 703.3.4(1), or a separate table for variable speed mini-split and multi-split heat pumps.  <ul style="list-style-type: none"> <li>➤ 23.0 SEER</li> <li>➤ 25.0 SEER</li> <li>➤ 27.0 SEER</li> <li>➤ 29.0 SEER</li> </ul>	

<b>Reason:</b>	According to the CEE/AHRI Directory of Certified Products for variable-speed min-split and multi-split heat pumps, located at <a href="https://www.ahridirectory.org/ahridirectory/pages/vsmshp/cee/defaultSearch.aspx">https://www.ahridirectory.org/ahridirectory/pages/vsmshp/cee/defaultSearch.aspx</a> , there are many models that have cooling efficiencies higher than 23.0 SEER (over 160 models that are $\geq$ 25.0 SEER, for example). As with other tables in Chapter 7, there should be a tiered approach for assigning points, based on the efficiency. Higher efficiency units will save more energy and should be awarded more points. In addition, in multi-family units, these products provide zoned cooling, which enables further savings during periods of no occupancy.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-024	704.2 Point calculation
<b>Submitter:</b>	Aaron Gary, Tempo Partners	
<b>Requested Action:</b>	Revise as follows	
<b>Proposed Change:</b>	<p><b>704.2 Point Calculation.</b> Points for Section 704 shall be computed based on Steps “1a” through “11d” of the EPA HERS Index Target Procedure. Points shall be computed individually for each building s follows:</p> <p><math>30 + (\text{percent Number of HERS Index Points less than ENERGY STAR HERS Index Target for than building}) * 2</math></p>	
<b>Reason:</b>	To clarify and simplify the equation. Once HERS Index Point represents one percentage point under the HERS and ERI methodologies already. Stating the equation this way simplifies the implementation of this practice for project teams and NGBS Verifiers.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-031	703.4.3 Ductwork																																		
<b>Submitter:</b>	Rachel Della Valle, Southern Energy Management																																			
<b>Requested Action:</b>	Revise as follows.																																			
<b>Proposed Change:</b>	<p>Add a column showing the percentage of ducts/mechanical equipment that are in compliance with 703.4.3. In the upper points row, add an option for 100% ducts/mechanical equipment in compliance which would utilize the current point allocation. In the lower points row add an option for 75%+ ducts/mechanical equipment in compliance which would utilize half of the current point allocation (IE: 4 points for climate zone 4).</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">% of Ducts in Compliance</th> <th colspan="6">Climate Zone</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6-8</th> </tr> </thead> <tbody> <tr> <td></td> <td colspan="6">Points</td> </tr> <tr> <td>100%</td> <td>8</td> <td>10</td> <td>8</td> <td>8</td> <td>8</td> <td>4</td> </tr> <tr> <td>75%</td> <td>4</td> <td>5</td> <td>4</td> <td>4</td> <td>4</td> <td>2</td> </tr> </tbody> </table>		% of Ducts in Compliance	Climate Zone						1	2	3	4	5	6-8		Points						100%	8	10	8	8	8	4	75%	4	5	4	4	4	2
% of Ducts in Compliance	Climate Zone																																			
	1	2	3	4	5	6-8																														
	Points																																			
100%	8	10	8	8	8	4																														
75%	4	5	4	4	4	2																														
<b>Reason:</b>	Give credit where credit is due for projects that can put most of the ductwork/equipment inside the building envelope. Many single family homes and multifamily buildings can't get 100% inside the thermal envelope but can do the majority (more than 50% but not 100%).																																			
<b>TG Recommendation (AS or AM or D):</b>																																				

<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-032	703.4.3 Ductwork																											
<b>Submitter:</b>	Rachel Della Valle, Southern Energy Management																												
<b>Requested Action:</b>	Revise as follows.																												
<b>Proposed Change:</b>	Award the same amount of points for all climate zones in credit 703.4.3. "8" points should be awarded no matter the climate zone, be it one extreme or another (Climate Zone 1 or Climate Zone 8).																												
	<table border="1"> <thead> <tr> <th colspan="6">Climate Zone</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6-8</th> </tr> <tr> <th colspan="6">Points</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>10</td> <td>8</td> <td>8</td> <td>8</td> <td>4</td> </tr> </tbody> </table>					Climate Zone						1	2	3	4	5	6-8	Points						8	10	8	8	8	4
Climate Zone																													
1	2	3	4	5	6-8																								
Points																													
8	10	8	8	8	4																								
<b>Reason:</b>	Why would hvac equipment inside the thermal envelope in Climate Zone 2 be awarded 10 points but hvac equipment inside the thermal envelope in Climate Zone 6 be awarded 4 points? Both are fairly extreme climate zones: 2 is a cooling climate and 6 is a heating climate. I suggest we level the playing field here by awarding the same amount of points no matter the climate zone (IE: 8 points).																												
<b>TG Recommendation (AS or AM or D):</b>																													
<b>Modification of Proposed Change:</b>																													
<b>TG Reason:</b>																													
<b>TG Vote:</b>																													

Proposal ID TBD	LogID 17-033	703.4.3 Ductwork			
<b>Submitter:</b>	Rachel Della Valle, Southern Energy Management				
<b>Requested Action:</b>	Delete without substitution				
<b>Proposed Change:</b>	Remove note in parentheses under Table 703.4.3: " <del>(No points awarded for multifamily buildings four or more stories in height.)</del> "				
<b>Reason:</b>	Not all buildings four or more stories high with flat roofs will automatically comply with 703.4.3. Some buildings four or more stories have vented 'attics', some have batts at the ceiling level (drywall), some have pitched roofs and are more garden style. There are many different situations/building types and I think we should incentivize all buildings/homes to put mechanical equipment within the thermal envelope.				
<b>TG Recommendation (AS or AM or D):</b>					
<b>Modification of Proposed Change:</b>					
<b>TG Reason:</b>					
<b>TG Vote:</b>					

Proposal ID TBD	LogID 17-030	703.4.3 (2) Ductwork			
<b>Submitter:</b>	Rachel Della Valle, Southern Energy Management				
<b>Requested Action:</b>	Revise as follows.				
<b>Proposed Change:</b>	Heating and cooling ducts and mechanical equipment are installed within the <del>conditioned building space</del> <u>building thermal envelope</u> .				
<b>Reason:</b>	Currently 703.4.3 (2) awards credit to the hvac ducts and equipment within the conditioned building space. This has been interpreted by the Home Innovation Research Labs to mean 'directly or indirectly				

	conditioned building space'. I suggest a language update in 703.4.3 (2) to better describe the current conditions. I believe it is more descriptive of what is actually happening in the program to award credit for hvac ducts and equipment within the building thermal envelope.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

<b>Proposal ID TBD</b>	<b>LogID 17-065</b>	<b>703.6.1 Hard-wired lighting</b>
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<b>Submitter:</b>	Lynn Nacewicz, Home Innovation Research Labs
<b>Requested Action:</b>	703.6.1 Hard Wired Lighting – Add DesignLights Consortium (DLC) as an equivalent to Energy Star (ES) for lighting fixtures.
<b>Proposed Change:</b>	(1) A minimum percent of the total hard-wired interior luminaires or lamps qualify as Energy Star (ES), DesignLights Consortium (DLC) or applicable equivalent..
<b>Reason:</b>	As the scope of NGBS has changed to include a portion of the building can be used as Commercial space, we need a commercial lighting product rating equivalent to ES for residential lighting. See DLC Technical Requirements Version 4.2
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

<b>Proposal ID TBD</b>	<b>LogID 17-090</b>	<b>705.2.3 Lighting outlets</b>
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<b>Submitter:</b>	Michael Jouaneh, Lutron Electronics
<b>Requested Action:</b>	Modify as follows
<b>Proposed Change:</b>	Add dimmers or fan-speed controls in addition to occupancy sensors.
<b>Reason:</b>	If the lighting outlet will get a fan with a light, it should be controlled with fan-speed control. And dimmer is another energy-saving lighting control that can be used
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

<b>Proposal ID TBD</b>	<b>LogID 17-016</b>	<b>New for Chapter 7</b>
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<b>Submitter:</b>	Carl Seville, SK Collaborative
<b>Requested Action:</b>	Add new as follows:
<b>Proposed Change:</b>	<b><u>Electrical Energy Monitoring System.</u></b> For single family homes and townhouses, an electrical energy monitoring system is installed meeting the following requirements: (1) <u>displays energy use in minimum increments of 2 hours</u> (2) <u>separately tracks a minimum of 6 different electricity uses</u> (3) <u>installed in visible location or be accessible via internet</u>

	(4) <u>allows data to be shared with a third-party energy management program that provides reports of usage on demand or at a minimum of twice monthly of energy use.</u>
<b>Reason:</b>	Residents that are aware of real-time energy use are more likely to conserve energy and/or take actions to use less energy when possible.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-017	New for Chapter 7
<b>Submitter:</b>	Carl Seville, SK Collaborative	
<b>Requested Action:</b>	Add new as follow:	
<b>Proposed Change:</b>	<p><b><u>Interval Data Monitoring System.</u></b> For multifamily buildings, an interval data monitoring system is installed.</p> <p>(1) <u>A common space or whole building electrical monitoring system that measures use in minimum 2 hour increments is installed in a location visible to management on a display or via internet. [XX POINTS]</u></p> <p>(2) <u>A common space or whole building gas monitoring system that measures energy use in minimum increments of 2 hours is installed. [XX POINTS]</u></p> <p>(3) <u>A whole-building monitoring system that measures water use in minimum increments of 2 hours is installed. [XX POINTS]</u></p> <p>(4) <u>An interval data monitoring system that measures in-unit electricity and/or natural gas use in minimum 2 hour increments is installed in a location visible to occupants or available via internet. [XX POINTS]</u></p>	
<b>Reason:</b>	Building managers that are aware of real-time energy use are more likely to conserve energy and/or take actions to use less energy when possible.	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-018	New for Chapter 7
<b>Submitter:</b>	Carl Seville, SK Collaborative	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<p><b><u>Third-Party Utility Benchmarking Service.</u></b> For a multifamily building, the owner has contracted with a third-party utility benchmarking service with at least five (5) years of experience in utility data management and analysis to perform a monthly analysis of whole-building energy and water consumption. [XX POINTS]</p> <p>(1) <u>The building owner commits to reporting energy data using U.S. Environmental Protection Agency's ENERGY STAR Portfolio Manager for a minimum of three years [XX POINTS]</u></p>	
<b>Reason:</b>	Building and managers that have better information about energy and water use can make better decisions to reduce consumption as well as try to determine which green practices are most effective in saving energy and water.	
<b>TG Recommendation (AS or AM or D):</b>		

<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-061	New for Chapter 7
<b>Submitter:</b>	Paul Cabot, American Gas Association	
<b>Requested Action:</b>	Add new section 706.9 as follows:	
<b>Proposed Change:</b>	<u>706.9 CNG vehicle fueling station. A CNG vehicle residential fueling appliance is installed on the building site. The CNG fueling appliances shall be listed in accordance with ANSI/CSA NGV 5.1 and installed in accordance to the appliance manufacturer's installation instructions. (Note: The fueling appliance shall not be included in the building energy consumption.)</u>	
<b>Reason:</b>	Add recognition for CNG residential fueling appliances as a green building practice. The new standard ANSI/CSA NGV 5.1 has been approved and all major model fuel gas installation codes have been updated to require that residential CNG fueling appliances be listed to that standard and installed in accordance with the manufacturer's installation instructions. Home fueling using natural gas is a green practice since it taps into the efficient natural gas transmission and distribution system and avoids the systemic losses from converting crude oil into refined gasoline and diesel. Fueling at home also reduces vehicle mileage by reducing trips to gasoline stations for fueling. The proposed text is structured similar to coverage for electric vehicle charging stations.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-038	New for Chapter 7
<b>Submitter:</b>	Jeremy Velasquez, US-EcoLogic	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<u>ENTRYWAY AIR SEAL. For multifamily buildings, to slow the movement of unconditioned air from outdoors to indoors at the main building entrance, the following is installed:</u> (1) <u>Building entry vestibule. [XX points]</u> (2) <u>Revolving entrance doors. [XX points]</u>	
<b>Reason:</b>	Reducing the flow of unconditioned air from outside to inside can reduce energy used for the building.	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-082	New for Chapter 7
<b>Submitter:</b>	Craig Conner, Building Quality	
<b>Requested Action:</b>	Give points for houses that include outdoor living spaces.	
<b>Proposed Change:</b>	Define an outdoor living space and give points when it is a significant part of the living space for a dwelling. Give points for portions of a dwelling that do not have cooling, or do not have heating.	

<b>Reason:</b>	Living outdoors when the climate is favorable means living in an unconditioned space. If part of the conditioned space is replaced by a non-conditioned living space the heating and cooling go almost to zero. Perhaps there will be a fan, shading, ..., but this is much less energy use than conditioning a space. In some climates the proper design can mean no need for AC. In moderate climates AC, such as the marine climates, AC is not always even needed. The proponent of this change grew up in a comfortable house in the Seattle area that did not have AC.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

<b>Proposal ID TBD</b>	<b>LogID 17-084</b>	<b>New for Chapter 7</b>
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<b>Submitter:</b>	Craig Conner, Building Quality
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<b>Requested Action:</b>	Add new table
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<b>Proposed Change:</b>	Place limited limits on tradeoffs																																																																																								
	<u>MINIMUM INSULATION R-VALUES FOR ENVELOPE COMPONENTS WHEN TRADE-OFFS ARE USED</u>																																																																																								
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<b>Reason:</b>	<p>Some think limits on tradeoffs are needed. Some say they think insulation levels are being traded to near or at zero R-value. I am doubtful that there are tradeoffs down to zero insulation, or even really low R-values. Economics quickly limit the tradeoffs, if the change is must be energy neutral. Proposed limits that include values ("backstops") that are at current code levels are not least helpful, and look more like attempts to keep competing products from taking market share.</p> <p>Health and safety limits are justified. Energy neutral tradeoffs should otherwise be allow.</p> <p>This table is modeled after what is done in the Georgia Energy Code. These may or may not be the right levels, but saying no tradeoffs, or very limited tradeoffs, is an unreasonable restriction on a designer who may be producing a house that is well above code. Let designers figure out how to get really energy efficient with out artificial restrictions.</p>
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<b>TG Recommendation (AS or AM or D):</b>	
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<b>Modification of Proposed Change:</b>	
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<b>TG Reason:</b>	
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<b>TG Vote:</b>	
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Others Assigned to TG-5

Proposal ID TBD	LogID 17-059	Section 202 Definitions
<b>Submitter:</b>	Paul Cabot, American Gas Association	
<b>Requested Action:</b>	Add new definition to section 202 as follows:	
<b>Proposed Change:</b>	<u>CNG vehicle residential fueling appliance. A residential appliance that supplies compressed natural gas into a CNG vehicle.</u>	
<b>Reason:</b>	Add recognition for CNG residential fueling appliances as a green building practice. The new standard ANSI/CSA NGV 5.1 has been approved and all major model fuel gas installation codes have been updated to require that residential CNG fueling appliances be listed to that standard and installed in accordance with the manufacturer's installation instructions. Home fueling using natural gas is a green practice since it taps into the efficient natural gas transmission and distribution system and avoids the systemic losses from converting crude oil into refined gasoline and diesel. Fueling at home also reduces vehicle mileage by reducing trips to gasoline stations for fueling. The proposed text is structured similar to coverage for electric vehicle charging stations.	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-2 (Site and Lot Development) due to a similar proposal submitted to Chapter 5.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-055	305.3.5 Energy Efficiency
<b>Submitter:</b>	Chris Schwarzkopf, Energy Diagnostics	
<b>Requested Action:</b>	Modify as follows	
<b>Proposed Change:</b>	<p>Modify Section 305.3 to create a path for Remodel Certification that does not penalize properties that have recently been renovated. For instance, if a MF property recently upgraded all the fixtures to water-efficient fixtures, then it will be extremely difficult, if not economically unfeasible, to reach an incremental 20% improvement.</p> <p>305.3.5 Energy efficiency. <u>The project must meet one of the following options from 305.3.5.1 or 305.3.5.2:</u></p> <p><u>305.3.5.1 Energy Consumption Reduction. The energy efficiency rating level shall be based on the reduction in energy consumption resulting from the remodel in accordance with Table 305.3.5.</u> [Table 305.3.5 – No Change] [no change to existing text from 1 --- The reduction in energy consumption resulting from the remodel shall be based ... entire building including all dwelling units and common areas.] <u>If project can demonstrate through invoices and/or permits that the renovation started earlier and has been a phased investment, the energy baseline can be measured up to 3 years before project registration.</u></p> <p><u>305.3.5.2 Alternative Performance Paths: Project must select option a or b</u></p> <p><u>a. Bronze/Silver Path: Follow the 704.1 HERS index target compliance. Worst case units must achieve HERS [70] or lower</u></p> <p><u>b. Exceed the minimum building code requirement at the time of last substantial remodel by +15%, +25%, +35%, 45%? (Verify by permit date the time of, if any, last substantial remodel) (Adaptive reuse projects must use as designed units to the minimum 1980 code defaults)</u></p> <p>305.3.6 Water efficiency. <u>The project must meet one of the following options from 305.3.6.1 or 305.3.6.2:</u></p> <p><u>305.3.6.1 Water Consumption Reduction. The water efficiency rating level shall be based on the reduction in water consumption resulting from the remodel in accordance with Table 305.3.6.</u> [Table 305.3.6 – No Change] [no change to existing text from 305.3.6.1 --- Water consumption shall be based on the estimated annual use ... entire building including all dwelling units and common areas.] <u>If project can demonstrate through invoices and/or permits that the renovation started earlier and has been a phased investment, the water baseline can be measured up to 3 years before project registration.</u></p>	



	<p>305.3.6.2 b. <u>Alternative Prescriptive-based: (Bronze Only) Must meet requirements from</u></p> <ul style="list-style-type: none"> <li>• <u>801.2 At least one appliance meets (1) (2) or (3)</u></li> <li>• <u>801.3 (1) and 801.3 (2) a or b</u></li> <li>• <u>801.4 (1) and (2)</u></li> <li>• <u>801.5 (2) and (3)</u></li> <li>• <u>If property has newly installed irrigation system, the irrigation system must be installed and designed by a certified professional per 801.6.3 (Mandatory Practice)</u></li> </ul> <p>No change to section 305.3.7</p>
<b>Reason:</b>	<p>We believe this proposal will expand the market of project that may pursue the Remodel certification. In Chapter 11's original form properties that have recently upgraded energy or water systems may find achieving the energy or water reductions extremely difficult.</p> <p>For instance, if a Multifamily project upgraded the water fixtures to the latest flow rates two years ago, they would find it especially difficult to generate an additional 20% savings. By offering two new paths, we can make the program more accessible while still maintaining a high bar. The first option would be to recognize WEM that were installed within 3 years of the project registration. The second option (305.6.2) offers a prescriptive path to demonstrate that the building is already above code and meeting NGBS water requirements.</p>
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-7 (Renovations and Additions) as Section 305 falls under their direct purview.</i>
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

## TG-6: Multifamily

Proposal ID TBD	LogID 17-086	Entire Standard
<b>Submitter:</b>	Craig Conner, Building Quality	
<b>Requested Action:</b>	Incorporate requirements for non-residential buildings into the NGBS.	
<b>Proposed Change:</b>	Include the attached text as a new two new chapters for non-residential portion of an NGBS building.	
<b>Reason:</b>	<p>NGBS needs some criteria that address non-residential spaces. Attached is a draft for both new and existing non-residential which is no more than 50% of a project.</p> <p>Some constraints as I see it.</p> <p>The non-res requirements need to fit the needs of ICC 700. It should not add special experts. It should recognize the ICC 700 verifiers are residential experts, but not commercial experts. If it required verifiers to become familiar with all aspects of commercial buildings that would be a non-starter.</p> <p>I think using points for the non-res maybe too complex. The non-res is usually a smaller part of the bigger building. The non-res should be produce a building that is better than most and just inherit the green level (bronze, silver, ...) of the residential.</p> <p>This should be focused on what will be the most common situation, non-res space at the street level. With such a restricted scope most of the complexities of commercial green programs are not needed and would needlessly complicate ICC 700.</p> <p>Simply referencing existing programs or standards might take only one or two sentences in ICC 700, but brings in all the complexity of the reference programs/standards.</p> <p>There are many special situations that it needs to handle. The commercial space is not finished, but there are people living in the residential space. The specific use of the non-res space may be unknown for years, and could change every few years as the businesses change. Both the res and non-res may share the same parking, landscaping, bike parking, ...</p> <p>I am not silly enough to think the attached would survive unchanged by the committee or task groups or working groups. Maybe it will be a source of ideas, in which case it is useful.</p>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-045	New for Chapter 5
<b>Submitter:</b>	Michelle Foster, Home Innovation Research Labs	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<p>For multifamily buildings, on-site dedicated recreation space for exercise or play opportunities for adults and/or children open and accessible to residents is provided.</p> <ul style="list-style-type: none"> <li>(4) A dedicated area of at least 400 square feet is provided inside the building with adult exercise and/or children's play equipment. <u>[XX points]</u></li> <li>(5) A courtyard, garden, terrace, or roof space at least 10% of the lot area that can serve as outdoor space for children's play and /or adult activities is provided. <u>[XX points]</u></li> <li>(6) Active play/recreation areas are illuminated at night to extend opportunities for physical activity into the evening. <u>[XX points]</u></li> </ul> <p>For single family homes, outdoor recreation space for adults and/or children is provided within 1 mile. <u>[XX points]</u></p>	
<b>Reason:</b>		

<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-2 (Site &amp; Lot Development) as Chapter 5 falls under their direct purview.</i>
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-035	New for Chapter 7
<b>Submitter:</b>	Stephen Evanko, Dominion Due Diligence	
<b>Requested Action:</b>	Add new as follows	
<b>Proposed Change:</b>	<p><b>Stairways.</b> In a multifamily building, a stairway where residents have access to and from all floors is provided. Signage is placed at the building entrance and corridor intersections to promote stairway use. [XX points]</p> <ul style="list-style-type: none"> <li>(a) Stairway has daylighting. [XX points]</li> <li>(b) Stairway design is welcoming to users and includes but is not limited to, artwork, signage, lighting, sound. [XX points]</li> <li>(c) The stairway is accessible and visible from the main lobby. [XX points]</li> </ul>	
<b>Reason:</b>	Reduced elevator use reduces a building's energy use with elevators.	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by Coordination Task Group.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-038	New for Chapter 7
<b>Submitter:</b>	Jeremy Velasquez, US-EcoLogic	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<p><u>ENTRYWAY AIR SEAL.</u> For multifamily buildings, to slow the movement of unconditioned air from outdoors to indoors at the main building entrance, the following is installed:</p> <ul style="list-style-type: none"> <li>(1) <u>Building entry vestibule.</u> [XX points]</li> <li>(2) <u>Revolving entrance doors.</u> [XX points]</li> </ul>	
<b>Reason:</b>	Reducing the flow of unconditioned air from outside to inside can reduce energy used for the building.	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-5 (Energy Efficiency) as Chapter 7 falls under their direct purview.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-017	New for Chapter 7
<b>Submitter:</b>	Carl Seville, SK Collaborative	
<b>Requested Action:</b>	Add new as follow:	
<b>Proposed Change:</b>	<p><b>Interval Data Monitoring System.</b> For multifamily buildings, an interval data monitoring system is installed.</p> <ol style="list-style-type: none"> <li>(1) <u>A common space or whole building electrical monitoring system that measures use in minimum 2 hour increments is installed in a location visible to management on a display or via internet. [XX POINTS]</u></li> <li>(2) <u>A common space or whole building gas monitoring system that measures energy use in minimum increments of 2 hours is installed. [XX POINTS]</u></li> <li>(3) <u>A whole-building monitoring system that measures water use in minimum increments of 2 hours is installed. [XX POINTS]</u></li> <li>(4) <u>An interval data monitoring system that measures in-unit electricity and/or natural gas use in minimum 2 hour increments is installed in a location visible to occupants or available via internet. [XX POINTS]</u></li> </ol>	
<b>Reason:</b>	Building managers that are aware of real-time energy use are more likely to conserve energy and/or take actions to use less energy when possible.	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-5 (Energy Efficiency) as Chapter 7 falls under their direct purview.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-040	New for Chapter 9
<b>Submitter:</b>	Michelle Foster, Home Innovation Research Labs	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<p><u>A building air flush is performed while maintaining an indoor temperature of at least 15 °C [59 °F] and relative humidity below 60%, at one of the following volumes:</u></p> <ol style="list-style-type: none"> <li>(1) <u>A total air volume of 4500 m<sup>3</sup> of outdoor air per m<sup>2</sup> of floor area [14,000 ft<sup>3</sup> per ft<sup>2</sup> of floor area] prior to occupancy. [XX points]</u></li> <li>(2) <u>A total air volume of 1000 m<sup>3</sup> of outdoor air per m<sup>2</sup> of floor area [3500 ft<sup>3</sup> per ft<sup>2</sup> of floor area] prior to occupancy, followed by a second flush of 3500 m<sup>3</sup> of outdoor air per m<sup>2</sup> of floor area [10,500 ft<sup>3</sup> per ft<sup>2</sup> of floor area] post-occupancy. While the post-occupancy flush is taking place, the ventilation system must consistently provide at least 0.1 m<sup>3</sup> per minute of outdoor air per m<sup>2</sup> of floor area [0.3 CFM fresh air per ft<sup>2</sup> floor area]. [XX points]</u></li> </ol>	
<b>Reason:</b>	A building flush is a process to force air through a building just prior to occupancy to remove some of the pollutants, such as formaldehyde and other volatile organic compounds (VOC's), that seep from newly installed components, fresh paint, materials, finishes and furnishings. These include flooring and flooring adhesives, paints and finishes, caulks and sealants, and cabinets and work surfaces made from composite lumber products. The flush out process aims to improve indoor air quality (IAQ) by limiting occupants' exposure to the most intense period of contamination, and minimizing the cross-contamination between materials.	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-3 (Resource Efficiency &amp; Indoor Environmental Quality) as Chapter 9 falls under their direct purview.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-041	New for Chapter 9
<b>Submitter:</b>	Michelle Foster, Home Innovation Research Labs	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<b>Furniture and Furnishings.</b> <u>In a multifamily building, the VOC content of all furniture and furnishings in the common areas meets limits set by the following, as applicable: ANSI/BIFMA e3-2011 Furniture Sustainability Standard sections 7.6.1 and 7.6.2, tested in accordance with ANSI/BIFMA Standard Method M7.1-2011. [XX points]</u>	
<b>Reason:</b>	As building envelopes get tighter it is more important that the pollutants brought into the living area are minimized to improve indoor environmental quality for the residents.	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-3 (Resource Efficiency &amp; Indoor Environmental Quality) as Chapter 9 falls under their direct purview.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

# TG-7: Renovations and Additions

## Chapter 3: 305 Green Remodeling

Proposal ID TBD	LogID 17-055	305.3.5 Energy Efficiency
<b>Submitter:</b>	Chris Schwarzkopf, Energy Diagnostics	
<b>Requested Action:</b>	Modify as follows	
<b>Proposed Change:</b>	<p>Modify Section 305.3 to create a path for Remodel Certification that does not penalize properties that have recently been renovated. For instance, if a MF property recently upgraded all the fixtures to water-efficient fixtures, then it will be extremely difficult, if not economically unfeasible, to reach an incremental 20% improvement.</p> <p>305.3.5 Energy efficiency. <u>The project must meet one of the following options from 305.3.5.1 or 305.3.5.2:</u></p> <p><u>305.3.5.1 Energy Consumption Reduction. The energy efficiency rating level shall be based on the reduction in energy consumption resulting from the remodel in accordance with Table 305.3.5. [Table 305.3.5 – No Change]</u>                      [no change to existing text from 1 --- The reduction in energy consumption resulting from the remodel shall be based ... entire building including all dwelling units and common areas.]  <u>If project can demonstrate through invoices and/or permits that the renovation started earlier and has been a phased investment, the energy baseline can be measured up to 3 years before project registration.</u></p> <p><u>305.3.5.2 Alternative Performance Paths: Project must select option a or b</u></p> <p><u>a. Bronze/Silver Path: Follow the 704.1 HERS index target compliance. Worst case units must achieve HERS [70] or lower</u></p> <p><u>b. Exceed the minimum building code requirement at the time of last substantial remodel by +15%, +25%, +35%, 45%? (Verify by permit date the time of, if any, last substantial remodel) (Adaptive reuse projects must use as designed units to the minimum 1980 code defaults)</u></p> <p><u>305.3.6 Water efficiency. The project must meet one of the following options from 305.3.6.1 or 305.3.6.2:</u></p> <p><u>305.3.6.1 Water Consumption Reduction. The water efficiency rating level shall be based on the reduction in water consumption resulting from the remodel in accordance with Table 305.3.6. [Table 305.3.6 – No Change]</u>                      [no change to existing text from 305.3.6.1 --- Water consumption shall be based on the estimated annual use ... entire building including all dwelling units and common areas.]  <u>If project can demonstrate through invoices and/or permits that the renovation started earlier and has been a phased investment, the water baseline can be measured up to 3 years before project registration.</u></p> <p><u>305.3.6.2 b. Alternative Prescriptive-based: (Bronze Only) Must meet requirements from</u></p> <ul style="list-style-type: none"> <li>• <u>801.2 At least one appliance meets (1) (2) or (3)</u></li> <li>• <u>801.3 (1) and 801.3 (2) a or b</u></li> <li>• <u>801.4 (1) and (2)</u></li> <li>• <u>801.5 (2) and (3)</u></li> <li>• <u>If property has newly installed irrigation system, the irrigation system must be installed and designed by a certified professional per 801.6.3 (Mandatory Practice)</u></li> </ul> <p>No change to section 305.3.7</p>	
<b>Reason:</b>	<p>We believe this proposal will expand the market of project that may pursue the Remodel certification. In Chapter 11's original form properties that have recently upgraded energy or water systems may find achieving the energy or water reductions extremely difficult.</p> <p>For instance, if a Multifamily project upgraded the water fixtures to the latest flow rates two years ago, they would find it especially difficult to generate an additional 20% savings. By offering two new paths, we can make the program more accessible while still maintaining a high bar. The first option would be to recognize WEM that were installed within 3 years of the project registration. The second option (305.6.2) offers a prescriptive path to demonstrate that the building is already above code and meeting NGBS water requirements.</p>	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-5 (Energy Efficiency) as the proposal deals with the energy efficiency rating level.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		

TG Reason:	
TG Vote:	

<b>Proposal ID TBD</b>	<b>LogID 17-029</b>	<b>305.4 Criteria for remodeled functional areas of buildings</b>
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<b>Submitter:</b>	Paul Gay, US-EcoLogic (with John Barrows, Chris Schwarzkopf, Stephen Evanko)
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<b>Requested Action:</b>	Modify as follows
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<b>Proposed Change:</b>	<p><del><b>305.4 Criteria for remodeled functional areas of buildings</b></del></p> <p><del><b>305.4.1 Applicability.</b> The provisions of Section 305.4 shall apply to remodeling of one or more of the following functional areas of the existing building as follows:</del></p> <p style="padding-left: 40px;"><del>1. Addition, kitchen, bathroom, or basement in buildings other than multifamily buildings.</del></p> <p style="padding-left: 40px;"><del>2. Kitchen or bathroom of an individual dwelling unit in a multifamily building.</del></p> <p><del><b>305.4.1.1 Additions.</b> The total above-grade conditioned area added during a remodel shall not exceed 400 square feet.</del></p> <p><del><b>305.4.2 Compliant.</b> Projects that meet all applicable requirements of Chapter 12 for that functional area shall be designated as <i>compliant</i>.</del></p> <p><del><b>305.4.3 Designation.</b> The designation achieved under Section 305.4 applies only to the specific functional area of the existing building. The existing building may have more than one <i>compliant</i> functional area.</del></p> <p><del><b>305.4.4 Additions.</b> A bathroom(s), kitchen, or finished basement included in an addition shall comply with all criteria specifically applicable to those functional areas in accordance with the provisions of Chapter 12.</del></p> <p><del><b>305.4.5 Mandatory.</b> Projects shall satisfy all applicable practices designated as mandatory in Chapter 12.</del></p> <p><del><b>305.4.6 Existing attributes.</b> The attributes of the existing building that were in compliance with the applicable provisions of Chapter 12 prior to the remodel and remain in compliance after the remodel shall be eligible for contributing to demonstration of compliance under Section 305.4.</del></p> <p><b>Delete entire Chapter 12</b></p> <p>Replace with:</p> <p><b><u>305.4 Criteria for Phased Remodeling of Apartment Units and or Functional Areas, and Building Systems</u></b></p> <p><b><u>305.4.1 Applicability:</u></b> Provide for a phased remodeling path that leads to certification for the whole single family residence or multi-family building.</p> <p><b><u>305.4.1.1 Remodeling of Apartment Units and or functional areas (or rooms) such as kitchens, baths, individual rooms, additions of less than 400 SF.</u></b></p> <p><b><u>305.4.1.2 Remodeling of building systems such as building envelope, individual HVAC components centralized systems, indoor environment, and water conservation practices</u></b></p> <p><b><u>305.4.2 Compliance:</u></b> Functional areas and systems are provided with a certification of compliance when the applicable Chapter 11 prescriptive practices are achieved.</p> <p><b><u>305.4.2.1 Single Family Compliance:</u></b></p> <p><u>(a) Single Family functional areas are provided with certification of compliance</u></p> <p><u>(b) Single Family building systems are provided with a certification of compliance when practices as outlined in a pre-project evaluation are met. Pre-project evaluation can take the form of a NGBS pre-score, Energy Audit, or other recognized program that provides recommended and prioritized list of practices</u></p> <p><u>(c) Full certification to NGBS Chapter 11 is provided when point threshold levels of all certifications total the target level for certification to Chapter 11</u></p> <p><b><u>305.4.2.2 Multifamily Compliance</u></b></p> <p><b><u>305.4.2.2.1 Individual Multifamily Units: Individual multifamily units with their own and separate energy source and water source:</u></b></p> <p><u>(a) Single Unit functional areas are provided with certification of compliance</u></p> <p><u>(b) Single unit building systems are provided with a certification of compliance when practices as outlined in a pre-project evaluation are met. Pre-project evaluation can take the form of a NGBS pre-score, Energy Audit, or other recognized program that provides recommended and prioritized list of practices</u></p> <p><u>(c) Full certification to NGBS Chapter 11 is provided when point threshold levels of all certifications total the target level for certification to Chapter 11</u></p> <p><b><u>305.4.2.2.1 Centralized Multifamily Units: Multifamily units with their centralized energy source and water source:</u></b></p> <p><u>(a) Single Unit functional areas are provided with certification of compliance</u></p>
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	<p><u>(b) Single unit building systems are provided with a certification of compliance when practices as outlined in a pre-project evaluation are met. Pre-project evaluation can take the form of a NGBS pre-score, Energy Audit, or other recognized program that provides recommended and prioritized list of practices</u></p> <p><u>(c) Full certification to NGBS Chapter 11 is provided for the entire building when point threshold levels of all certifications total the target level for certification to Chapter 11 for the entire building.</u></p>
<b>Reason:</b>	<p>The existing Functional Area Remodeling Certification is a starting point and NGBS should promote and recognize practices that lead to full building certification. Many remodeling projects start with a goal in mind and are phased in over time for budget or convenience reasons. Providing certification to functional areas and building systems will promote such efforts if accomplished within ___ yrs. Remodeling of Functional Areas will require a minimum of points from the applicable practices in Chapter 11. Remodeling and upgrading building systems will require a pre-project evaluation to determine the priorities that ensure that upon completion all systems comply with the practices of Chapter 11</p>
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

<b>Proposal ID TBD</b>	<b>LogID 17-015</b>	<b>305.4.1.1 Additions</b>
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<b>Submitter:</b>	James M Williams, AE URBIA
<b>Requested Action:</b>	Delete section 305.4.1.1
<b>Proposed Change:</b>	<del>305.4.1.1 Additions. The total above-grade conditioned area added during a remodel shall not exceed 400 square feet.</del>
<b>Reason:</b>	It does not make any sense to limit the size of an addition to 400 square feet.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	



## Chapter 11: Remodeling

Proposal ID TBD	LogID 17-091	11.701 Minimum energy efficiency requirements
<b>Submitter:</b>	Michael Jouaneh, Lutron Electronics	
<b>Requested Action:</b>	Modify chap 11 as follows	
<b>Proposed Change:</b>	Add 705.2 and 706 to remodeling chapter too for points.	
<b>Reason:</b>	These sections (705.2 and 706) apply to existing home remodeling too.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-062	New for Chapter 11
<b>Submitter:</b>	Paul Cabot, American Gas Association	
<b>Requested Action:</b>	Add new section 11.505.7 as follows:	
<b>Proposed Change:</b>	<u>11.505.7 Multi-unit residential CNG vehicle fueling. CNG vehicle residential fueling appliances are provided for at least 1 percent of the parking stalls. The CNG fueling appliances shall be listed in accordance with ANSI/CSA NGV 5.1 and installed in accordance to the appliance manufacturer's installation instructions.</u>	
<b>Reason:</b>	Add recognition for CNG residential fueling appliances as a green building practice. The new standard ANSI/CSA NGV 5.1 has been approved and all major model fuel gas installation codes have been updated to require that residential CNG fueling appliances be listed to that standard and installed in accordance with the manufacturer's installation instructions. Home fueling using natural gas is a green practice since it taps into the efficient natural gas transmission and distribution system and avoids the systemic losses from converting crude oil into refined gasoline and diesel. Fueling at home also reduces vehicle mileage by reducing trips to gasoline stations for fueling. The proposed text is structured similar to coverage for electric vehicle charging stations.	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-020	New for Chapter 11
<b>Submitter:</b>	James M Williams, AE URBIA	
<b>Requested Action:</b>	Add a new Section <b>11.1101 RESILIENT CONSTRUCTION</b>	
<b>Proposed Change:</b>	<p><b><u>11.1101 RESILIENT CONSTRUCTION</u></b></p> <p><b><u>11.1101.0 Intent.</u></b> <u>Design and construction practices are implemented that enhance the resilience and durability of the structure (above building code minimum design loads) so the structure can better withstand forces generated by; flooding, snow, wind or seismic (as applicable) and reduce the potential for the loss of life and property.</u></p> <p><b><u>11.1101.1 Minimum structural requirements (base design).</u></b> <u>The design and construction of the structure, components and systems shall comply with the minimum: structural requirements, loads, and forces, as described in the applicable adopted ICC IRC and ICC IBC for a given site. (Mandatory)</u></p>	

	<p><b>11.1101.2 Enhanced resilience – 10% above base design.</b> Design and construction practices are implemented that enhance the resilience and durability of the structure by designing and building to forces generated by; flooding, snow, wind or seismic (as applicable) that are 10% higher than the base design. (3 points)</p> <p><b>11.1101.2 Enhanced resilience – 20% above base design.</b> Design and construction practices are implemented that enhance the resilience and durability of the structure by designing and building to forces generated by; flooding, snow, wind or seismic (as applicable) that are 20% higher than the base design. (5 points)</p> <p><b>11.1101.2 Enhanced resilience – 30% above base design.</b> Design and construction practices are implemented that enhance the resilience and durability of the structure by designing and building to forces generated by; flooding, snow, wind or seismic (as applicable) that are 30% higher than the base design. (10 points)</p> <p><b>11.1101.2 Enhanced resilience – 40% above base design.</b> Design and construction practices are implemented that enhance the resilience and durability of the structure by designing and building to forces generated by; flooding, snow, wind or seismic (as applicable) that are 40% higher than the base design. (12 points)</p> <p><b>11.1101.2 Enhanced resilience – 50% above base design.</b> Design and construction practices are implemented that enhance the resilience and durability of the structure by designing and building to forces generated by; flooding, snow, wind or seismic (as applicable) that are 50% higher than the base design. (15 points)</p>
<b>Reason:</b>	Resilient and durable design and construction of the structure reduce the potential for the loss of life and property which result from natural (and manmade) disasters and are sustainable practices which should be recognized and rewarded.
<b>TG Recommendation (AS or AM or D):</b>	
<b>Modification of Proposed Change:</b>	
<b>TG Reason:</b>	
<b>TG Vote:</b>	

Proposal ID TBD	LogID 17-044	New for Chapter 11
<b>Submitter:</b>	Michelle Foster, Home Innovation Research Labs	
<b>Requested Action:</b>	Add new as follows:	
<b>Proposed Change:</b>	<u>For renovation of buildings constructed prior to 1978, where not required by code, a qualified party has certified any necessary abatement have been conducted.</u>	
<b>Reason:</b>		
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Others Assigned to TG-7

Proposal ID TBD	LogID 17-021	Section 202 Definitions
<b>Submitter:</b>	James M Williams, AE Urbia	
<b>Requested Action:</b>	Add a definition for Resilient Construction	
<b>Proposed Change:</b>	SECTION 202 DEFINITIONS <b>RESILIENT CONSTRUCTION.</b> Resilient Construction is a structure, component, or system that has been designed and constructed in accordance with applicable adopted building codes and standards to withstand forces generated by; flooding, snow, wind or seismic (or other natural or manmade disasters as applicable) for a given site.	
<b>Reason:</b>	A new section <b>11.1101 Resilient Construction</b> has been proposed. If adopted, the term, "Resilient Construction," should be defined.	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-3 (Resource Efficiency and IEQ) because of a proposed new Chapter 13 for Resilient Construction as it applies to new construction.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		

Proposal ID TBD	LogID 17-089	Section 611.3 and 11.611.3 Universal design elements
<b>Submitter:</b>	Michael Jouaneh, Lutron Electronics	
<b>Requested Action:</b>	Add and modify as follows	
<b>Proposed Change:</b>	Modify number 9 so that for lighting at least permanently installed luminaires can be controlled with a wireless device or occupancy/vacancy sensors. And add all window treatments (e.g. shades, blinds, drapes) to the list of systems that can controlled with wireless device or are automated based on time schedule or sky conditions. Lastly, the home should get an additional points for each system that complies. So, they can get 1 point for lighting, an additional point for HVAC, and additional one for controllable shades. Add a number 10 for an additional point if the same systems/products in number 9 plus window treatments that can be controlled from voice-activated assistants such as Alexa or Google Home. And additional points for each system that can be controlled with voice assistants like mentioned above	
<b>Reason:</b>	The modification is so that it is clear and not gameable to get the point if a home simply has one light fixture controlled with a wireless device. Adding window treatments as controllable window treatments or automated ones are a key universal design feature just as controllable or automated lighting is.  Adding additional points for each item that complies provide incentive to have more universal design elements in the home.  The addition of number 10 brings the Standard up to date with the latest tech which helps with universal design.	
<b>Concurrent Review Staff Note:</b>	<i>This proposal is also being reviewed by TG-3 (Resource Efficiency and IEQ) as Section 611.3 falls under their direct purview.</i>	
<b>TG Recommendation (AS or AM or D):</b>		
<b>Modification of Proposed Change:</b>		
<b>TG Reason:</b>		
<b>TG Vote:</b>		