2012 Update - National Green Building Standard™
New Task Group Proposed Changes to 2008 NGBS (TG 1-6 ONLY)
May 10, 2011

Table of Contents page

TG-1 NEW PROPOSED CHANGES

ID	Name Company Entity Represented	Section Number And Requested Action	Proposed Change	Reason	Task Group Action	Reason for TG action
TG1-1	Matt Dobson, Vinyl Siding Institute	202 Add new as follows	**Minor Component:** Building materials or systems that are typically applied as a part of up to 50% of a foundation, wall, floor, ceiling or roof assemblies. **Major Component:** Structural members and systems and/or building materials or systems that are typically applied with over 50% of the foundation, wall, floor, ceiling, or roof assembly. **Minor Component:** Building materials or systems that ~~are typically applied as a part of up~~ make up or are used to provide an exterior or interior surface for 3 % to 50% of either a foundation, wall, floor, ceiling or roof assemblies. **Major Component:** Structural members and systems and/or building materials or systems that are ~~typically applied with~~ make up or are used to provide an exterior or interior surface for over 50% of either the foundation, wall, floor, ceiling, or roof assembly.	These definitions are necessary to support section 604.1 and possibly other sections. Impacts 604.1, 606.3.		

TG-2 NEW PROPOSED CHANGES

ID	Name Company Entity Represented	Section Number And Requested Action	Proposed Change	Reason	Task Group Action	Reason for TG action
TG2-1	Bruce Boncke NAHB	Section 202	"Common Area(s)" – Areas within a Site or Lot, Common Area(s) are predominantly open spaces which may contain non-residential structures , and consist of landscaping, recreational facilities, roadways and walkways, which are owned and maintained by an incorporated or chartered entity such as a homeowner's association or governmental jurisdiction.	The term common area is used throughout Chapter 4 and a definition for such was deemed required for the sake of clarity.		
TG2-2	Bruce Boncke NAHB	Section 202	"Existing Subdivision" – is an area of land defined as "Site" in this Chapter, that has received all development approvals and has been platted and all infrastructure is complete at time of application to the NGBS.	This was in response to comment 561 by Robert Hill. Defining "Existing Subdivision" will address his concern and will allow development that have been in some state of completion in the recent past to participate in the program, with a limit.		
TG2-3	Bruce Boncke NAHB	Section 202	"High Efficiency Lighting" - Compact fluorescent lamps, LED, T-8 or smaller diameter linear fluorescent lamps, or lamps with a minimum efficacy of: 1) 60 lumens per watt for lamps over 40 watts; 2) 50 lumens per watt for lamps over 15 watts to 40 watts; and 3) 40 lumens per watt for lamps 15 watts or less."	Added to define activity in Section 405 and 505 where points are awarded for outdoor energy efficient lighting.		
TG2-4	Bruce Boncke NAHB	Section 202	"Infill" ~~Site~~ – is a location including vacant or underutilized land that may apply to either a Site or a Lot ~~that includes two or more of the following: road, electrical power, sewer or water~~ and is located in an area served by existing infrastructure ~~and must include~~ such as centralized water and sewer connections, roads, drainage, etc., and the site boundaries should be adjacent to existing development on at least one side.	The current definition includes the term "site" which was confusing because Chapter 4 refers to Site and Chapter 5 refers to Lot Design. This term is meant to apply in both Chapters, so the term "location" is clearer. Also, the language has become more descriptive to create a stronger and more rigorous definition for an infill location.		
TG2-5	Bruce Boncke NAHB	Section 202	"Open Space" is an area of land or water that either remains in its natural state, is used for	This new definition was added by the Task Group in order to accept a proposal to add a criteria for "Open Space" in Chapter 4		

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			agriculture, or is otherwise free from intensive development.			
TG2-6	Bruce Boncke NAHB	Section 202	"Red Field" - is real property, the expansion, redevelopment, or reuse of which may be complicated by financial and/or physical distress. A red field site may include brownfields, abandoned sites, underutilized sites, financially under-performing (underwater) sites, and foreclosed real estate. Red field sites can be publicly or privately owned.	A redfield is an economically distressed property that may be eligible for assistance through federal programs, and has been defined as such by the Federal Government. Priority for sustainability should be given to such sites and developers should be awarded accordingly.		
TG2-7	Bruce Boncke NAHB	Section 202	"SWPPP" A Stormwater Pollution Prevention Plan is a site specific, written document report to identify required features specifically represented in the NPDES (National Pollutant Discharge Elimination System) Construction General Permit. The plan describes practices used to prevent stormwater pollution, including erosion and sediment controls and other good housekeeping practices, conservation techniques, and infiltration practices (where appropriate) and identifies procedures the operator implements to comply with all regulations in the construction general permit. This plan also includes mandatory inspection reports and may require additional guidelines or requirements depending on the state and local jurisdiction. Reports and plans must be assembled by a qualified individual.	SWPPPs plans are the primary type of storm water plan required by regulators and are the primary tool from which to implement storm water management techniques.		
TG2-8	Bruce Boncke NAHB	Section 202	"Urban" Can be defined as areas within a census designated census tract of 1,000 people per square mile or located within a Metropolitan Statistical Area primary city, as designated by the U.S. Census Bureau.	This definition is necessary as there is a criterion proposed for selecting lots in urban locales.		
TG2-9	Bruce Boncke NAHB	401.4	**401.4** A Red Field site is selected	A redfield is an economically distressed property that may be eligible for assistance through federal programs, and has been defined as such by the Federal Government. Priority for sustainability should be given to such sites and developers should be awarded accordingly.		
TG2-10	Bruce Boncke NAHB	401.5	**401.5** A site was an average slope calculation of less than 15% is selected	This proposal awards developer's that choose relatively flat sites, because these sites have less ecological impact on their surrounding areas due to their lack of topography, when developed.		
TG2-11	Bruce Boncke NAHB	403.3	**403.3 Slope Disturbance.** Slope Disturbance is minimized by one or more or the following: ~~(points awarded only if there are developable steep slopes in the project area)~~ ~~1) All or a percentage of development on steep slopes is avoided:~~ ~~a. Less than 25 percent~~ ~~b. 25 percent to 75 percent~~ ~~c. Greater than 75 percent~~ (1) ~~(2)~~ Hydrological/soil suitability study ~~for steep slopes~~ is completed and used to guide the design of all buildings on site. (2) ~~(3)~~ All or a percentage of roads are aligned with natural topography to reduce cut and fill. a. Less than 25 percent b. 25 percent to 75 percent c. Greater than 75 percent	This section has been re-worked to de-emphasize the steep slopes issue, while maintaining the integrity of practices that minimize soil disturbance. The issue of over emphasis on steep slopes created unforeseen and possibly unbalanced challenges for those developers owning flat, previously graded and infill sites that were seeking higher levels of green certification.		

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			(3) ~~(4)~~ Long term erosion effects are reduced by the use of clustering, terracing, retaining walls, landscaping, and restabilization techniques.			
TG2-12	Bruce Boncke NAHB	403.4	**403.4 Soil disturbance and erosion**. ~~Soil disturbance and erosion are minimized by one or more of the following: (See also section 404)~~: A site Stormwater Pollution Prevention plan is developed in accordance with applicable stormwater construction general permits. The plan will include one or more of the following: (3) Limits of clearing and grading are demarcated. ~~In the plan~~	It is worth specifying the Stormwater Pollution Prevention Plan as the plan of record as this is what is commonly used to specify stormwater management design and implementation.		
TG2-13	Bruce Boncke NAHB	403.5	**403.5 Stormwater Management.** Storm water management design will include ~~Storm water is managed using~~ one or more of the following low impact development techniques: (2) ~~A stormwater management plan is developed to minimize concentrated flows and simulate flows found in natural hydrology by the u~~Use of vegetative swales, French drains, wetlands, drywells, rain gardens, and similar infiltration features. (4) Storm water management features/structures should be designed for the reduction of nitrogen, phosphorus and sediment.	This language places emphasis on the design aspect of stormwater management, to avoid confusion with implementation in Section 404. Also included is language proposed by Steve Orlowski-NAHB Comment 218 for subsection (4)		
TG2-14	Bruce Boncke NAHB	403.11	**403.11 Environmentally Sensitive Areas**: Environmentally Sensitive Areas, including steep slopes, prime farmland, critical habitats, and wetlands are avoided as follows: a. 25% or less of site undeveloped b. 25% - 75% of site undeveloped c. 75% greater of site undeveloped	The intent to is to emphasize that there should be minimized development on sites with all kinds of Environmentally Sensitive areas, not just steep slopes.		
TG2-15	Bruce Boncke NAHB	404.3	**404.3 Soil disturbance and erosion.** On-site soil disturbance and erosion are minimized by implementation of one or more of the following:	The proposed language emphasizes the implantation, consistent with Section 404 - Construction		
TG2-16	Bruce Boncke NAHB	405.1	**405.1 Driveways and parking areas.** driveways or parking areas are shared. ~~In a multi-unit project, parking capacity is not to exceed the local minimum requirements~~ An environmental and green approach to shared parking and driveways is achieved through the removal of driveways, and utilization of on-street parking and the use of alleys (shared common area driveways) for rear-loaded garages.	This definition has been revised to add additional descriptors.		
TG2-17	Bruce Boncke NAHB	405.2	**405.2 Street Widths.** (1) Street pavement widths are ~~the~~ minimized per local code and are in accordance with Table 405.2 (2) A waiver was secured by the developer from the local jurisdiction to allow for construction of streets below minimum width requirement.	Although a developer may not achieve the minimum widths required for points, it is worth awarding points for those that still received waivers from jurisdictions to build below minimum street width standards.		

ID	Name Company Entity Represented	Section Number And Requested Action	Proposed Change	Reason	Task Group Action	Reason for TG action
TG2-18	Bruce Boncke NAHB	405.4	**405.4 (2)** Density Bonus. An increase to the permissible density, area, height, use or other provisions of a local zoning law for a defined green benefit.	This section has been completely re-written with more recognizable language so that the concept, which remains the same as the existing standard language, is more readily understood.		
TG2-19	Bruce Boncke NAHB	405.4	**405.4 (3)** Place-based Amenities such as plazas, squares, and attached greens, located around civic, commercial, and mixed-use property are accessible by sidewalks, on-street parking, or provides for bike racks, for the purpose of promoting higher density living.	This language adds descriptors, emphasizes place rather than community, and also deletes the confusing language about density beyond code requirement.		
TG2-20	Bruce Boncke NAHB	405.6	**405.6 ~~Mass~~ Multi-Modal ~~Transit~~ Transportation** (2) A site is selected where all lots within the site is located within one-half mile (805 m) of pedestrian access to a mass transit system.	There was concern by the Task Group that a site with a boundary within x distance to transit could still leave residential units much further from transit due to the distance between site boundary and actual units/lots. Therefore, higher points for developers locating actual lots within the distance requirements should be awarded.		
TG2-21	Bruce Boncke NAHB	405.7	**405.7 ~~403.12~~ Density.** The average density on a net developable area basis is: (1) … (2) … (3) …	Density is more applicable in the Innovative Practices section		
TG2-22	Bruce Boncke NAHB	405.10	**405.10 Open Space** A portion of the gross area of the community has been set aside as ~~green~~/open space: 1 point for every 10% of the community set aside as ~~green~~/open space, beyond local code requirement.	Additional points for Open Space, above code requirement should be awarded, given that often times open space requirements in itself create fairly green environments. Going above and beyond code should be awarded, if it can be demonstrated to the verifier.		
TG2-23	Bruce Boncke NAHB	405.11	**405.11 Local Food Production** A portion of the site is established as a community gardens, accessible to all residents of the site, to provide for local food production to residents or area consumers.	Local food production is becoming a growing demand as interest in organic food grows. It also is a popular amenity and lessens demand for mass agricultural products that may be grown using less than optimal environmental practices and reduces food transportation impacts as well.		
TG2-24	Bruce Boncke NAHB	501	**501 (4):** A Redfield lot is selected	A redfield is an economically distressed property that may be eligible for assistance through federal programs, and has been defined as such by the Federal Government. Priority for sustainability should be given to such sites and developers should be awarded accordingly.		
TG2-25	Bruce Boncke NAHB	501	**501 (5):** A lot with an average slope calculation of less than 15% is selected	This proposal awards developer's that choose relatively flat sites, because these sites have less ecological impact on their surrounding areas due to their lack of topography, when developed.		
TG2-26	Bruce Boncke NAHB	503.2	**503.2 Slope Disturbance.** Slope Disturbance is minimized by the use of terrain adaptive architecture including terracing, retaining walls, landscaping, and other re-stabilization techniques. ~~one or more or the following:~~	This section has been re-worked to de-emphasize the steep slopes issue, while maintaining the integrity of practices that minimize soil disturbance. The issue of over emphasis on steep slopes created unforeseen and possibly unbalanced challenges for those developers owning flat, previously graded and infill sites that were seeking higher levels of green certification.		

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			~~(points awarded only if there are developable steep slopes in the project area)~~ ~~d. All or a percentage of development on steep slopes is avoided:~~ ~~a. Less than 25 percent~~ ~~b. 25 percent to 75 percent~~ ~~c. Greater than 75 percent~~ (1) ~~(2)~~ Hydrological/soil suitability study ~~for steep slopes~~ is completed and used to guide the design of all buildings on site. (2) ~~(3)~~ All or a percentage of ~~roads~~ driveways are aligned with natural topography to reduce cut and fill. a. Less than 25 percent b. 25 percent to 75 percent ~~c.~~ Greater than 75 percent			
TG2-27	Bruce Boncke NAHB	503.4	**503.4 Storm water Management:** A Storm water management design will include ~~Storm water is managed using~~ one or more of the following low impact development techniques: (2) ~~A stormwater management plan is developed to minimize concentrated flows and simulate flows found in natural hydrology by the~~ Facilities that minimize concentrated flows and simulate flows found in natural hydrology by the use of vegetative swales, French drains, wetlands, drywells, rain gardens, and similar infiltration features.	It is worth specifying the Stormwater Pollution Prevention Plan as the plan of record as this is what is commonly used to specify stormwater management design and implementation.		
TG2-28	Bruce Boncke NAHB	504.3	**504.3 ~~Soil Disturbance and Erosion.~~ Soil disturbance and erosion implementation**. On-site soil disturbance and erosion are minimized by one or more of the following in accordance with the SWPPP or applicable plan: ~~(3)~~ (1) Sediment and erosion controls are installed and maintained in accordance with the stormwater pollution prevention plan, where required. (9) Inspection reports of stormwater BMPs are available.	This language places emphasis on the implementation aspect of stormwater management, to avoid confusion with implementation in Section 404. Also, it is worth specifying the Stormwater Pollution Prevention Plan as the plan of record as this is what is commonly used to specify stormwater management design and implementation.		
TG2-29	Bruce Boncke NAHB	505.2	**505.2 (3) Roofs:** Not less than 75 percent of the surface of the roof shall meet one or a combination of the following methods. a) Minimum initial Solar Reflectance Index of 78 for a low-sloped roof (a slope less than or equal to 2:12) and a minimum initial Solar Reflectance Index of 29 for a steep-sloped roof (a slope of more than 2:12) b) Vegetated roof capable of withstanding the climate conditions of the jurisdiction and the micro climate conditions of the building site. Invasive plant species shall not be permitted and selected plants shall not add to the potential for fire hazard in the event of severe drought.	Green Roofs can also assist in reducing heat island mitigation		
TG2-30	Bruce Boncke NAHB	505.3	**505.3 (5)** The installation of ~~energy efficient~~ high efficiency lighting located on the exterior of the home or within the lot.	Language is consistent with Section 405 criteria		
TG2-31	Bruce Boncke NAHB	505.4	**505.4 ~~503.9~~ Density** . The average density on a net developable area is …	This practice is more applicable in the Innovative Practices Section 504..		
TG2-32	Bruce Boncke	505.5	**505.5 ~~503.7~~** Mixed Use. Mixed Use Development is incorporated.	This practice is more applicable in Innovative Practices, and would be		

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	NAHB			consistent with Mixed-Use language location in Chapter 4.		
TG2-33	Bruce Boncke NAHB	505.6	**505.6 Local Food Production** A portion of the site is established as community gardens, accessible to all resident(s) of the lot, to provide for local food production to resident(s) or area consumers.	Local food production is becoming a growing demand as interest in organic food grows. It also is a popular amenity and lessens demand for mass agricultural products that may be grown using less than optimal environmental practices and reduces food transportation impacts as well.		

TG-3 NEW PROPOSED CHANGES

ID	Name Company Entity Represented	Section Number And Requested Action	Proposed Change	Reason	Task Group Action	Reason for TG action
TG3-1	Randy Melvin	901.1.3	Replace ‘and’ with ‘or’ Include ‘all’ in front of ‘direct’, ‘boiler’, ‘water heaters’	Clarification of the intent		
TG3-2	Frank	901.12 CO Alarms Revise as follows	Insert in front of the provision ‘Where not required by local codes,’….- the rest of language stays the same	To address recent code changes that require CO alarms. Points should only be awarded where CO alarms are not required.		
TG3-3	Robert De Vries Nu Wool Company	202 Definitions Replace existing	**RECYCLED CONTENT** ~~Resources containing post-consumer or pre-consumer (post-industial0 recycled content.~~ **POST-CONSUMER RECYCLED CONTENT.** The proportion of recycled material in a product generated by households or by commercial, industrial, and institutional facilities in their role as end users of the product that can no longer be used for its intended purpose. This includes returns of material from the distribution chain. **PRE-CONSUMER (POST-INDUSTRIAL) RECYCLED CONTENT.** The proportion of recycled material in a product diverted from the waste stream during the manufacturing process. Pre-consumer recycled content does not include reutilization of material such as rework, regrind, or scrap generated in a process and capable of being reclaimed within the same process that generated it	These definitions are from the IGCC and go into further detail of the different types of recycled content.		
TG3-4	Robert De Vries Nu Wool Company	604.1	**Recycled content**. Building materials with post-consumer recycled content are used for two minor and / or two major components of the building. Alternately pre-consumer (post-industrial) recycled content materials shall be allowed however the percent shall be halved for the purpose of determining points from table 604.1 Table 604.1 remains intact	The NAHB GBS commentary references the FTC Part 260 but does not clearly define recycled content. Example one prevents a current misuse of the term “recycled” content. e) ***Recycled content*****:** A recycled content claim may be made only for materials that have been recovered or otherwise diverted from the solid waste stream, either during the manufacturing process (pre-consumer), or after consumer use (post-consumer). To the extent the source of recycled content includes pre-consumer material, the manufacturer or advertiser must have substantiation for concluding that the pre-consumer material would otherwise have entered the solid waste stream. In asserting a recycled content claim, distinctions may be made between pre-consumer and post-consumer materials. Where such distinctions are asserted, any express or implied claim about the specific pre-consumer or post-consumer content of a product or package must be substantiated. It is deceptive to misrepresent, directly or by implication, that a product or package is made of recycled material, which includes recycled raw material, as well as used,[5] reconditioned and remanufactured components. Unqualified claims of recycled content may be made if the entire product or package, excluding minor, incidental components, is made from recycled material. For products or packages that are only partially made of recycled material, a recycled claim should be adequately qualified to avoid consumer deception about the amount, by weight, of recycled content in the finished product or package. Additionally, for products that contain used, reconditioned or remanufactured components, a recycled claim should be adequately qualified to avoid consumer deception about the nature of such components. No such qualification would be necessary in cases where it would be clear to consumers from the context that a product's recycled content consists of used, reconditioned or remanufactured components. **Example 1:** A manufacturer routinely collects spilled raw material and scraps left over from the original manufacturing process. After a minimal amount of reprocessing, the manufacturer combines the spills and scraps with virgin material for use in further production of the same product. A claim that the product contains recycled material is deceptive since the spills and scraps to which the claim refers are		

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Action</th><th><u>Proposed Change</u></th><th>Reason</th><th>Task Group
Action</th><th>Reason for TG action</th></tr>
<tr><td></td><td></td><td></td><td></td><td>normally reused by industry within the original manufacturing process, and would not normally have entered the waste stream.</td><td></td><td></td></tr>
<tr><td>TG3-5</td><td>Bill Freeman
Resilient Floor Covering Institute</td><td>610.2 (new section)</td><td>Building product has received third party certification in accordance with a published ANSI sustainability assessment standard. Standards including ANSI/NSF 140 Sustainable Carpet Assessment and ANSI/NSF 332 Sustainability Assessment for Resilient Floor Coverings provide thorough communication of information that is verifiable, accurate and not misleading about the environmental and social aspects associated with the production and use of building materials.</td><td>The addition of Section 610.2 would provide points for building materials which have received third party certification under an ANSI consensus based sustainability standard. These standards have been developed after several years of development and large investment. Following ANSI guidelines to insure balanced representation in the development of sustainability assessment standards, these committees contained representatives from federal and state agencies in addition to users and producers. As a result of the publication of these sustainability standards several state and federal agencies are currently developing plans to use certification to these standards as a requirement in their purchasing requirements.

Incorporating an opportunity for points in the National Green Building Standard under Innovative Practices for third party certification of ANSI sustainability standards would enhance the standard's credibility and provide an incentive for building products manufacturers to undergo a sustainability assessment of building materials used in the construction of new residential homes.</td><td></td><td></td></tr>
<tr><td>TG3-6</td><td>Maribeth Rizzuto
Steel Framing Alliance</td><td>609.1</td><td>Delete the entire section.
~~609.1 – Life cycle analysis. A more environmentally preferable product or assembly is selected for an application based upon the use of a Life Cycle Assessment (LCA) tool compliant with ISO 14044 or other recognized standards that compare the environmental impact of building materials, assemblies, or the whole building.~~</td><td>Life cycle assessment is a complicated methodology that involves subjective parameters governed by the persons conducting the assessment. The necessary input data is unreliable and often consists of assumptions that are rarely assembled in a consistent manner. The data itself relies on industry averages and overlooks local and regional circumstances. While LCA was originally developed for internal use by product manufacturers to make improvements on specific internal processes it has morphed into a process to attempt to compare products and processes that are far from comparable.</td><td></td><td></td></tr>
<tr><td>TG3-7</td><td>Maribeth Rizzuto
Steel Framing Alliance</td><td>609.1</td><td>609.1 – ~~Life cycle analysis. A more environmentally preferable product or assembly is selected for an application based upon the use of a~~ Conduct a Life Cycle Assessment ~~(LCA) tool Conduct a Life Cycle Assessment~~ compliant with ISO 14044~~. or other recognized standards that compare the environmental impact of building materials, assemblies, or~~ for the whole building.

~~(1) per product/system comparison 3 points~~
(2) whole building LCA analysis ~~15~~
3</td><td>Conduct a whole building LCA and delete products and assemblies.

Remove the points for products and assemblies comparison and reduce the points for the whole building LCA from 15 to 3.

Materials and assemblies represent a small fraction of the total environmental impact of that building. The building as a whole, its disposal, reuse, and the energy used during the life of that building should be considered.</td><td></td><td></td></tr>
<tr><td>TG3-8</td><td>Theresa Weston, DuPont Building Innovations</td><td>Sections 602 and 903</td><td>Reorganize existing sections as follows:
<table><tr><th>New Section #</th><th>Title</th><th>Current Section #</th><th>Title</th></tr><tr><td>602</td><td>Enhanced Durability and Reduced Maintenance</td><td>602</td><td>Enhanced Durability and Reduced Maintenance</td></tr><tr><td>602.00</td><td>Intent</td><td>602.00</td><td>Intent</td></tr><tr><td>602.01</td><td>Moisture Management - Building Envelope</td><td></td><td></td></tr><tr><td>602.01.01</td><td>Capillary Breaks</td><td>903.02</td><td>Capillary Breaks</td></tr><tr><td>602.01.02</td><td>Foundation Waterproofing</td><td>602.11</td><td>Foundation Waterproofing</td></tr><tr><td>602.01.03</td><td>Foundation Drainage</td><td>602.03</td><td>Foundation Drainage</td></tr></table></td><td>This reorganization is provided to improve clarity. It creates a single area in the standard for building envelope water management provisions. Additionally, water management provisions are organized from the base of the building to the top of the building – in the order is which they are usually constructed.</td><td></td><td></td></tr>
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			<table><tr><td>602.01.04</td><td>Crawlspaces</td><td>903.03</td><td>Crawlspaces</td></tr><tr><td>602.01.05</td><td>Termite Barrier</td><td>602.07</td><td>Termite Barrier</td></tr><tr><td>602.01.06</td><td>Termite-resistant materials</td><td>602.08</td><td>Termite-resistant materials</td></tr><tr><td>602.01.07</td><td>Moisture Control Measures</td><td>903.04</td><td>Moisture Control Measures</td></tr><tr><td>602.01.08</td><td>Water-Resistive Barrier</td><td>602.09</td><td>Water-Resistive Barrier</td></tr><tr><td>602.01.09</td><td>Flashing</td><td>602.12</td><td>Flashing</td></tr><tr><td>602.01.10</td><td>Exterior Doors</td><td>602.01</td><td>Exterior Doors</td></tr><tr><td>602.01.11</td><td>Tile Backing Materials</td><td>903.01</td><td>Tile Backing Materials</td></tr><tr><td>602.01.12</td><td>Roof Overhangs</td><td>602.02</td><td>Roof Overhangs</td></tr><tr><td>602.01.13</td><td>Drip Edge</td><td>602.04</td><td>Drip Edge</td></tr><tr><td>602.01.14</td><td>Ice Barrier</td><td>602.10</td><td>Ice Barrier</td></tr><tr><td>602.02</td><td>Roof Surfaces</td><td>602.13</td><td>Roof Surfaces</td></tr><tr><td>602.03</td><td>Roof Water Discharge</td><td>602.05</td><td>Roof Water Discharge</td></tr><tr><td>602.04</td><td>Finished Grade</td><td>602.06</td><td>Finished Grade</td></tr><tr><td>602.05</td><td>Recycling</td><td>602.14</td><td>Recycling</td></tr><tr><td>903</td><td>Moisture Management: Systems & Operation</td><td>903</td><td>Moisture Management: Vapor, Rainwater, Plumbing, HVAC</td></tr><tr><td>903.00</td><td>Intent</td><td>903.00</td><td>Intent</td></tr><tr><td>903.01</td><td>Plumbing</td><td>903.05</td><td>Plumbing</td></tr><tr><td>903.02</td><td>Duct Insulation</td><td>903.06</td><td>Duct Insulation</td></tr><tr><td>903.03</td><td>Relative Humidity</td><td>903.07</td><td>Relative Humidity</td></tr></table>			
TG3-9	Dennis Pitts American Wood Council	606.1 Revise as shown	606.1 Biobased products (no change) 606.1(1) ~~Two types of~~ biobased materials are used, each for more than 0.5 percent of project's projected building material cost. ~~3~~ 1 point 606.1(2) ~~Two types of~~ biobased materials are used, each for more than 1 percent of the project's projected building cost. ~~6~~ 3 points ~~606.1(3) For each additional biobased material used for more than 0.5 percent of the project's projected building material cost. 1 2 Points Max.~~	It seems illogical to always mandate the use of two biobased materials before any points are awarded. The use of a substantial amount of a single biobased material gains the designer nothing. This awards that situation. The points being proposed for 606.1(1) are open for discussion, but the idea is to award points per material. The points awarded in 606.1(2) is half of the 6 points awarded for the two materials currently required. 606.1(3) is deleted because each material used would gain some credit, with the maximum awarded for the section being 8 points as cited in 606.1.		
TG3-10	Frank Stanonik AHRI AHRI	704.6.2.1 Building envelope leakage rate… Revise as follows	704.6.2.1 Building envelope leakage rate is demonstrated by blower door test. In addition to the test, the following practices are required: 1. Whole building ventilation is provided in accordance with 902.2. ~~2. Fossil fuel furnace and water heater is sealed combustion or power vented in accordance with 901.1.~~ 3. Fireplaces ~~and Fuel Burning Appliances~~ are in accordance with 901.2. The maximum leakage rate is in accordance with: **(a)** 5 ACH50 **(b)** 4 ACH50 **(c)** 3 ACH50 **(d)** 2 ACH50	This set of proposed changes separates the requirements for fossil fuel burning equipment from those for solid fuel burning equipment and clarify the requirements for each. The requirements addressing the installation of gas and oil fired appliances are inconsistent and unnecessarily restrict such installations based on unjustified, indoor air quality concerns. Also the standard incorrectly extends its coverage to areas already covered by both the National Fuel Gas Code and the International Fuel Gas Code. Additional technical changes are proposed, as described. Section 704.6.2.1, which addresses envelope air leakage, requires fossil fuel furnaces and water heaters to be either sealed		Referred to TG-5

ID	Name Company Entity Represented	Section Number And Requested Action	Proposed Change	Reason	Task Group Action	Reason for TG action
			(e) 1 ACH50	combustion or power vented in accordance with 901.1. This creates a contradiction. While section 704.6.2.1 states "the following practices are required," section 901.1 does not mandate that gas or oil furnaces and water heaters be direct vent (sealed combustion) or power vented. Section 901.1.1 specifically addresses the installation of natural draft space heating and water heating equipment, which is only a subset of all the types of fossil fuel furnaces and water heaters. The deletion of "2." Is proposed because of this contradiction and because this provision does not directly relate to the building envelop leakage rate. The change to "3." reflects the reorganization mentioned above.		
TG3-11	Frank Stanonik AHRI AHRI	901.1.1 Natural draft space heating…. Revise as follows	901.1.1 ~~Natural draft space heating or water heater~~ing ~~equipment is not located in conditioned spaces, including conditioned crawl spaces.~~ Natural draft furnaces, boilers and water heaters are ~~equipment is permitted to be~~ installed ~~within the conditioned spaces if located~~ in a mechanical room within the conditioned spaces that has an outdoor air source, and is otherwise sealed and insulated to separate it from the conditioned space(s). *Addition Note: Section 901.1.1 applies to additions that include the use of natural draft furnaces, boilers ~~space heating~~ or water heaters.~~ing equipment.~~* *Renovation Note: Section 901.1.1 applies to renovations that include areas where a natural draft furnace, boiler or water heater ~~space heating or water heating equipment~~ is located.* *Renovation Note: Additional points are available for any renovation that modifies all the existing building's natural draft furnaces, boilers ~~space heating~~ or water heaters ~~ing are equipment~~ in accordance with Section 901.1.1*	Section 901.1.1 prohibits the installation of natural draft space heating and water heating equipment in the conditioned space. This is an unjustified restriction on the installation of these appliances and inappropriate for a non-mandatory provision. Furthermore, it does not recognize that direct heating equipment (e.g. room heaters and wall furnaces) must be installed in the conditioned space. This change clarifies that this section covers only furnaces, boilers and water heaters and just describes the practice that qualifies for the 5 points. Direct heating equipment is covered in proposed new 901.1.4		
TG3-12	Frank Stanonik AHRI AHRI	901.1.3 The following combustion… Revise as follows	901.1.3 The following combustion space heating and water heating equipment is installed within conditioned space. (1) (a) Direct vent furnace or boiler (b) Power vent furnace or boiler (2) (a) Power vent water heater (b) Direct vent water heater *Renovation Note: Section 901.1.3 applies to renovations that replace existing central space heating and water heating combustion equipment that meet the new construction standard.*	Section 901.1.3 allows power vented water heaters to be installed in the conditioned space but not a power vented boiler or furnace. There is no technical reason for this inconsistency. The note is clarified to reflect the equipment listed in (1)		
TG3-13	Frank Stanonik AHRI AHRI	901.1 Space and water heating options Add as follows	901.1.4 Gas-fired fireplaces and direct heating equipment shall be listed and shall be installed in accordance with the National Fuel Gas Code or the applicable local gas appliance installation code. (Mandatory)	This is current 901.2.1 relocated and revised to specifically address gas-fired fireplaces and direct heating equipment. Reference to the applicable installation code covers all aspects of the safe and proper installation of gas appliances, including provisions for combustion and ventilation air supply and venting. Also it removes the unjustified position that a home which has a gas-fired vent-free heater is automatically		

ID	Name Company Entity Represented	Section Number And Requested Action	Proposed Change	Reason	Task Group Action	Reason for TG action
				disqualified from carrying any level of "Green" designation regardless of any other aspects of the home's design or features.		
TG3-14	Frank Stanonik AHRI AHRI	901.1 Space and water heating options Relocate 901.2.1 (1) as shown 901.1.4 becomes 901.1.6	901.1.5 Natural gas and propane fireplaces that are power vented or direct vented shall have permanently fixed glass fronts or gasketed doors, and comply with ANSI Z21.88/CSA 2.33 or ANSI Z21.50/CSA 2.22.	This is current 901.2.1 (1) relocated.		
TG3-15	Frank Stanonik AHRI AHRI	901.2. Fireplaces and…. Revise as follows	901.2 ~~Fireplaces and~~ Solid Fuel Burning Appliances ~~(except cooking appliances, clothes dryers, water heaters, and furnaces) located in conditioned space shall be in accordance with the following:~~ 901.2.1 ~~Fireplaces or natural draft fuel-burning appliances shall be code compliant, vented to the outdoors, and have adequate combustion and ventilation air provided to minimize spillage or "backdrafting. Compliance shall be achieved by meeting requirements as detailed below:~~ ~~(1) Natural gas and propane fireplaces which are power vented or direct vented shall have permanently fixed glass fronts or gasketed doors, and comply with ANSI Z21.88/CSA 2.33 or ANSI Z21.50/CSA 2.22.~~ ~~(2)~~ Solid fuel burning fireplaces, inserts, stoves and heaters shall be code compliant and ~~appliances~~ shall meet the following requirements: (a) Site built masonry wood-burning fireplaces are equipped with ~~gasketed doors designed to operate with doors closed,~~ outside combustion air, and a means of sealing the flue and the combustion air outlets to minimize interior air (heat) loss when not in operation. (b) Factory-built, wood-burning fireplaces are in accordance with the certification requirements of UL 127 and shall be EPA Certified. (c) Wood stove and fireplace inserts, as defined in UL 1482 Section 3.8, are in accordance with the certification requirements of UL 1482 and are in accordance with the emission requirements of the EPA Certification and the State of Washington WAC 173-433-100(3). (d) Pellet (biomass) stoves and furnaces are in accordance with the requirements of ASTM E1509 or shall be EPA Certified. (e) Masonry heaters are in accordance with the definitions in ASTM E1602 and ICC, IBC, Section 2112.1. Renovation Note: Removal of or rendering permanently unusable an existing solid ~~fireplace and/or other~~ fuel-burning appliances~~s~~ that does not meet the requirements of Section 901.2.1. Renovation Note: Additional points are awarded for the replacement of each existing solid fuel-burning fireplace that is not in accordance with Section 901.2.1 with a fireplace that meets Section 901.2.1 or Section 901.1.4.	This section is revised to address only solid fuel burning appliances. Coverage for natural draft burning appliances has been moved to proposed 901.1 or deleted as described herein. The exception in current Section 901.2 is deleted as inconsistent (it mentioned for furnaces and water heaters but not boilers) and no longer necessary.		

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			Renovation Note: Additional points are available for removing or rendering permanently unusable each existing wood-burning fireplace that does not meet Section 901.2.1(a)~~(2a)~~ in areas other than the main renovation area.			
TG3-16	Steve Easley		**Add a section 6.XXX Water Managed Design:** Architectural features that increase the potential for the water intrusion are avoided: 1. No Roof configurations that create horizontal valleys in roof design. 2pts 2. No Recessed windows and architectural features that trap water on horizontal surfaces. 2pts 3. All horizontal ledgers are sloped away to provide gravity drainage as appropriate for the application. Mandatory **Add section 602.2 roof overhang section here….** **Replace existing NGBS Section 602.12 with the following:** **602.12 Flashing.** Flashing is provided to minimize water entry into wall and roof assemblies and to direct water to exterior surfaces or exterior water-resistive barriers for drainage. Flashing details are provided in the construction documents and are in accordance with the fenestration manufacturer's instructions, the flashing manufacturer's instructions, or as detailed by a registered design professional. **(1)** Flashing are installed at all of the following locations, as applicable: **(a)** around exterior fenestrations, skylights and doors **(b)** at roof valleys **(c)** at deck, balcony, porch or stair to building intersections **(d)** at roof-to-wall intersections, at roof-to-chimney intersections, at wall-to-chimney intersections, and at parapets. **(e)** at ends of and under masonry, wood, or metal copings and sills **(f)** above projecting wood trim **(g)** at built-in roof gutters **(H)** ~~**602.4 Drip edge.**~~ drip edge is installed at eaves~~.~~ and ~~gable roof~~ rake edges. **(2)** All window head and jamb flashing are self-adhered flashing complying with AAMA 711-07. **(3)** Pan flashing is installed at sills of all exterior windows and doors **(4~~3~~)** Seamless, preformed kickout flashing, or prefabricated metal with soldered seams is provided at all roof-to-wall intersections. The type and thickness of the material used for roof flashing including but not limited kickout and step flashing is commensurate with the anticipated service life of the roofing material. **(5~~4~~)** A rainscreen wall design is used for exterior wall assemblies (a) a system designed with minimum ¼"~~3/16~~ inch air space exterior to the water-	**Reason:** The purpose of this change is to revise and improve the flashing provisions in the NGBS. This change has four primary components. First, the existing list of flashing locations in NGBS Section 602.12 is revised to match the locations where flashing is currently required by IRC Section 703.8 and IBC Section 1507.8. Since the updated NGBS will be using the 2009 I-Codes as a baseline, the requirement to provide flashing in these specified locations becomes mandatory. Second, the charging language is expanded to provide more details on how flashing is to be installed, the sources where the builder should be obtaining flashing details from, and where the details should be provided for the verifier to approve. This language is in part adapted from the existing 2009 IRC language for both wall and roof flashing, and from language approved for the 2012 IRC. Third, five above-code practices are identified as qualifying for points. Two of these (self-adhered flashing and drip caps) are existing practices in the NGBS. The reference to AAMA 711 for self-adhered flashing is added to match the IRC. Three additional practices are added: premolded or premanufactured kickout diverters at roof-to-wall intersections, through-wall flashing at cladding transitions, and rainscreen wall construction. It is noted that the 2012 IRC will contain a requirement for kickout flashing at roof-to-wall intersections. However, the IRC will permit kickouts to be field-fabricated or field-bent from standard roof flashing materials. The NGBS provision, if approved, will require prefabricated or premolded kickout diverters. Rainscreen walls are recommended when absorptive wall claddings are used on a building. Details for such walls can be found in the NAHB Research Center's December 2008 report "Improving Drainage and Drying Features in Certain Conditions: Rain Screen Designs for Absorptive Claddings". Through-wall flashing is currently required in the IRC for wood panel and horizontal lap siding, but its use is expanded here to all cladding transitions. Finally, an Addition Note and a Renovation Note are provided so these activities can qualify for points when an addition is constructed or a renovation is done. Note: Drip edges moved from 602.4		

ID	Name Company Entity Represented	Section Number And Requested Action	Proposed Change	Reason	Task Group Action	Reason for TG action
			resistive barrier, vented to the exterior at top and bottom of the wall and integrated with flashing details. OR (b) either a cladding material or a water-resistive barrier with enhanced drainage, meeting 75% drainage efficiency requirement of ASTM E2273. **(6 ~~5~~)** A drip cap is provided above windows and doors that are not flashed or protected by covering in accordance with Section 602.1 **(7 ~~6~~)** Through wall flashing is installed at transitions between wall cladding materials, or wall construction types. **(8)** Flashing is installed at expansion joints in stucco walls ***Addition Note**: Section 602.12 applies to the new construction portion of additions.* ***Renovation Note**: Section 602.12 applies to renovations that involve removal and replacement of roof or wall cladding, addition or removal and replacement of windows, doors or skylights, and demolition/reconfiguration of exterior walls.*	**1** **2** **2** **2** ***0 Additional Points*** ***0 Additional Points***		
TG3-17	Josh Jacobs GREENGUARD Environmental Institute	610.1 (addition to existing section)	**610.1 Manufacturer's environmental management system concepts.** (a) Product manufacturer's operations and business practices include environmental management system concepts, and the production facility is ISO 14001 certified or equivalent. The aggregate value of building products from ISO 14001 certified or equivalent production facilities is 1 percent or more of the estimated total building materials cost. (1 point awarded per percent.) (b) The aggregate value of building products used in the building that is from ULE 880 certified manufacturers is 1 percent or more of the estimated total building materials cost. (1 point awarded per percent)	The proposed standard is aligned with the overall tenants of the existing 610.1. The standard is in consensus development and is available to the public. The standard touches on the following areas of sustainability for a product manufacturer: • **Sustainability Governance:** including sustainability strategic planning, board oversight, internal stakeholder engagement, ethics policies, and creating the infrastructure and fostering the behaviors that create a culture of sustainability • **Environment:** including product stewardship, sustainable resource use, environmental management systems, energy efficiency and carbon management, materials optimization, facilities and land use, habitat restoration, and waste prevention • **Work Force:** including professional development, workplace integrity, employee satisfaction and retention, workplace safety, and employee health and well-being • **Customers and Suppliers:** including fair marketing practices, product safety, customer support and complaint resolution, and sustainable supply chain management, monitoring and improvement • **Community Engagement and Human Rights:** including community impact assessment, community investment, and human rights issues Each domain includes prerequisites, core indicators, and leadership indicators, for a total of 1,000 possible points across all domains. Additional innovation points are available to recognize exceptional performance beyond these requirements.		
TG3-18	Josh Jacobs GREENGUARD Environmental Institute	610.2 (new section)	**610 .2 Overall Sustainable Products Utilized in Building – 15 Points Max** 610.2 (a) 25% or more of carpet installed in the home (by square feet) is certified to the Platinum level of NSF 140 – 5 points 610.2 (b) 50% or more of carpet installed in the home (by square feet) is certified to the Gold level of NSF 140 – 5 points	Single attribute traits allow us to see valuable snapshots of a products impact on certain areas of the environment and they bring value to a building standard such as this one, but many product manufacturers and sustainability purchasers/experts are looking to multi-attribute standards as a way to show that a product, in total, addresses the triple bottom line of sustainability. Referencing these standards and awarding points would allow the homes built to this standard to show that some of the products chosen to build the building have been looked at in terms of their overall sustainable impact. The		

ID	Name Company Entity Represented	Section Number And Requested Action	Proposed Change	Reason	Task Group Action	Reason for TG action
			610.2 (c) 15% or more of resilient flooring installed in the home (by square feet) is certified to the Platinum level of NSF 332 – 5 points 610.2 (d) 25% or more of resilient flooring installed in the home (by square feet) is certified to the Gold level of NSF 332 – 5 points 610.2 (e) 50% or more of resilient flooring installed in the home (by square feet) is certified to the Silver level of NSF 332 – 5 points 610.2 (c) 15% or more of gypsum board installed in the home (by square feet) is certified to the Platinum level of ULE 100– 5 points 610.2 (f) 25% or more of gypsum board installed in the home (by square feet) is certified to the Silver level of ULE 100 – 5 points 610.2 (g) 50% or more of gypsum board installed in the home (by square feet) is certified to the gold level of ULE 100 – 5 points 610.2 (h) 15% or more of the doors installed in the home (by count of doors) is certified to the Platinum level of ULE 102– 5 points 610.2 (i) 25% or more of doors installed in the home (by count of doors) is certified to the Silver level of ULE 102 – 5 points 610.2 (j) 50% or more of doors installed in the home (by count of doors) is certified to the gold level of ULE 102 – 5 points 610.2 (k) 50% or more of the insulation installed in the home (by square foot) is certified to EcoLogo CCD-016 and meets the requirements of 901.11– 5 points	different levels and percentage represent the growing level of sustainable impacts – therefore the higher the achievement the less of the material that is needed to achieve the points. As of right now, these are the available standards which have been developed or are being developed in a consensus manner and are available to the public. As more of these standards come on-line, the NAHB Committee should look at each and assess their validity for this standard.		
TG3-19	Jeff Carrier Carpet and Rug Inst Carpet and Rug Inst	610.1 Man. Environmental Management Systems Concepts	Recognition of ANSI accredited sustainability standards to achieve this credit. Standards such as NSF/ANSI 140 (Sustainability Assessment for Carpet) and NSF/ANSI 332 (Sustainability Assessment for Resilient Floor Coverings) provide easy recognition of the most sustainable floorcoverings. They are verifiable, accurate and broad-based standards developed in a consensus process	Ease of implementation, verifiable and accurate. The most strict and comprehensive assessment of floorcoverings in use today. It is credible, third-party verified, and simple to locate in the market.		
TG3-20	Jeff Carrier Carpet and Rug Inst Carpet and Rug Inst	901.5 Carpet	Carpets- a minimum of 85% of the installed carpet and adhesives must be certified by the Carpet and Rug Institute, Inc. Green Label Plus Program- a California Section 01350 V 1.1 Compliant program. A minimum of 85% of the carpet padding (cushion) must be certified by the Green Label Program.	Carpets and accessories complying with the GLP and GL programs are among the most preferable building materials available. Carpet is a responsible and effective choice for building a green home. Builders and owners should not be limited to a single option when determining how their home will be finished.		
TG3-21	Randy Melvin Winchester Homes Inc.	New Section Universal Design Elements 6XX.1	Dwelling incorporates one or more of the following universal design elements. **10 Points Max** Any no-step entrance into the dwelling which is accessible from a substantially level parking or drop-off area via a accessible path which has no vertical jumps or other obstruction of more than 1-1/2” in height, whose pitch does not exceed 1 in 12 and which provides a minimum 32” wide clearance into the dwelling. **3 Points** Minimum 36” wide accessible route from the no-step entrance into at least one visiting room in the dwelling and into at least one full or half bathroom which has a minimum 32” clear door width and a 30”X48” clear area inside the bathroom including clearance from the door swing. **3 Points** Minimum 36” wide accessible route from the no-step entrance into at least one bedroom which has a minimum 32” clear door width. **3 Points**	Dwellings incorporating elements of universal design are less likely to require renovations/modification as they age in place thereby conserving resources		

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			Blocking or equivalent installed in the accessible bathroom walls for future installation of grab bars at commode and bathing fixture, if applicable. **1 Point** Note: Allowance for reasonable construction tolerances shall be provided			

TG-4 NEW PROPOSED CHANGES

<table>
<tr><th>ID</th><th>Name
Company
Entity
Represented</th><th>Section Number
And Requested
Action</th><th>Proposed Change</th><th>Reason</th><th>Task Group
Action</th><th>Reason for TG action</th></tr>
<tr><td>TG4-1</td><td>Michael William Cudahy
Plastic Pipe and Fittings Association</td><td>801.8 redo</td><td>
<table>
<tr><td colspan="3">801.8.1 Rainwater is used for irrigation in the following way:</td><td></td></tr>
<tr><td colspan="4"></td></tr>
<tr><td>(1)</td><td colspan="2">Rainwater diverted for landscape irrigation without impermeable water storage OR</td><td>5</td></tr>
<tr><td>(2)</td><td colspan="2">Rainwater diverted for landscape irrigation with impermeable water storage.</td><td></td></tr>
<tr><td></td><td>(a)</td><td>50 - 499 gallon storage capacity OR</td><td>5</td></tr>
<tr><td></td><td>(b)</td><td>500 - 2499 gallon storage capacity OR</td><td>10</td></tr>
<tr><td></td><td>(c)</td><td>2500 gallon or larger storage capacity (system is designed by a professional certified by The American Rainwater Catchment Systems Association or equivalent) OR</td><td>15</td></tr>
<tr><td></td><td>(d)</td><td>All irrigation demands are met by rainwater capture. Documentation demonstrating water needs of landscape shall be provide. (system is designed by a professional certified by The American Rainwater Catchment Systems Association or equivalent).</td><td>25</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="3">801.8.2 Rainwater is used for interior use in the following way (system is designed by a professional certified by The American Rainwater Catchment Systems Association or equivalent) :</td><td></td></tr>
<tr><td colspan="4"></td></tr>
<tr><td>(1)</td><td colspan="2">Rainwater provides for partial domestic demand (any locally approved uses) OR</td><td>5</td></tr>
<tr><td></td><td colspan="2">(points awarded per fixture, maximum of 20 points)</td><td></td></tr>
<tr><td>(2)</td><td colspan="2">Rainwater provides for total domestic demand</td><td>25</td></tr>
</table>
</td><td>Incentivize based on the value of the system involved.</td><td></td><td></td></tr>
<tr><td>TG4-2</td><td>Jamie Hager</td><td>802.1(1) adjust to compare to new 801.8.2(1)</td><td>802.1 ~~Gray water.~~ Reclaimed, gray or recycled water. ~~Gray water, as specified in ICC IRC, Appendix O, is separated and reused, as permitted by local building code.~~ Reclaimed, gray, or recycled water is used as permitted by applicable code.
802.1 (1)…~~reclaimed or recycled water.~~ Reclaimed, gray, or recycled water. ~~4~~ 5 (Points awarded per fixture. Maximum 20 points)
802.1 (2)…~~reclaimed or recycled water.~~ Reclaimed, gray, or recycled water.
802.1 Addition and Renovation Note: (1)…~~reclaimed or recycled water.~~ Reclaimed, gray, or recycled water.
(2)…~~reclaimed or recycled water.~~ Reclaimed, gray, or recycled water.</td><td>Clarify the practice.</td><td></td><td></td></tr>
<tr><td>TG4-3</td><td>Doug Hensel</td><td>801.9 clarification</td><td>801.9 ~~Water~~ Sediment Filters. Water filter is installed to ~~improve water quality~~ reduce sediment and protect plumbing fixtures for the whole building or dwelling unit.</td><td>To realign this section with prolonging the life of fixtures and preventing leaks by reducing sediment instead of improving water quality.</td><td></td><td></td></tr>
<tr><td>TG4-4</td><td>Doug Hensel</td><td>801.4

replace first part as follows:</td><td>
<table>
<tr><td colspan="3">801.4 Showerheads. Showerheads are in accordance with the following:</td><td></td></tr>
<tr><td colspan="4"></td></tr>
<tr><td>(1)</td><td colspan="2">The ~~total showerhead~~ maximum combined flow rate of all shower heads controlled by a single valve at any point in time in ~~each~~ a shower compartment is 1.6 to less than 2.5 gpm. Maximum of two valves per shower compartment. The ~~total~~ flow rate ~~is~~ shall be tested at 80 psi (552 kPa) in accordance with ASME A112.18.1. ~~Showers are equipped with~~ Showerheads shall be served by an automatic compensation valve that complies with ASSE 1016 or ASME A112.18.1 and specifically designed to provide thermal shock and scald protection at the flow rate of the showerhead.
(Points awarded per ~~showerhead~~ shower compartment)</td><td>1
3 Points Max</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td>(2)</td><td colspan="2">All showerheads shall meet the requirements of 801.4(1). ~~In addition, all showerheads are in compliance with either 801.4(2)(a) or 801.4(2)(b).~~
(Points awarded per shower compartment based on 801.4(2)(a) or 801.4(2)(b).)</td><td></td></tr>
<tr><td></td><td>(a)</td><td>2.0 to less than 2.5 gpm</td><td>1 Additional Point</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td></td><td>(b)</td><td>1.6 to less than 2.0 gpm</td><td>2 Additional Points</td></tr>
</table>
</td><td>To clarify how points should be awarded.</td><td></td><td></td></tr>
<tr><td>TG4-5</td><td>Pete Fusaro and</td><td>801.6 Redo</td><td>801.6 Water Closets and urinals. Water closets and urinals are in</td><td>To add points for using water closets or urinals that use less than</td><td></td><td></td></tr>
</table>

ID	Name Company Entity Represented	Section Number And Requested Action	Proposed Change	Reason	Task Group Action	Reason for TG action
	Steve Hale	(removing 802.2)	accordance with the following: **(1)** Gold and Emerald levels. All water closets and urinals are in accordance with Section 801.6 — **Mandatory** **(2)** A water closet is installed with an effective flush volume of 1.28 gallons (4.85L) or less when tested in accordance with ASME A112.19.2 (all water closets) and ASME A112.19.14 (all dual flush water closets). And is in accordance with EPA Water sense Tank-Type High Efficiency Toilet. OR **(Points awarded per fixture)** — **6 18 points Max** **(3)** All water closets are installed with an effective flush volume of 1.28 gallons (4.85L) or less when tested in accordance with ASME A112.19.2 (all water closets) and ASME A112.19.14 (all dual flush water closets). And is in accordance with EPA Water sense Tank-Type High Efficiency Toilet. — **24** **(a)** Dual flush (or other) toilets are used that have a flush volume of 1.2 gallons or less and comply with 801.6 (2) **(Points awarded per toilet)** — **2 Additional Points 4 points max** **(b)** One or more urinals are installed with a flush volume of 0.5 gallons (1.9L) or less when tested in accordance with ASME A112.19.2 and all other water closets comply with 801.6 (2) — **2 Additional Points** **(c)** One or more composting or waterless toilets and/or urinals are installed and all other water closets comply with 801.6 (2) — **8 Additional Points**	1.28 Gallons but restrict additional points such that ALL other water closets must comply. Also equalize points for a smaller home that has only 2 water closets with a larger home that has 3 or more water closets.		
TG4-6	Steve Hale	801.7 Delete items (1-6) under 801.7.1, 801.7.2, 801.7.3 and replace. (Renumber 801.7.4)	**801.7 Irrigation Systems** **801.7.1** High- Distribution Uniformity (DU) rotating spray heads are installed in lieu of spray heads for turf or no turf is installed — **6** **801.7.2** Drip Irrigation installed for each landscape type (except turf is per 801.7.1). — **8** **801.7.3** Landscape Plan & Implementation is installed by a certified Water Sense Professional or equivalent as approved by adopting entity. — **5 Additional Points** **801.7.4** Drip Irrigation Zones Implemented show plant type by name and water use or need for each emitter. — **5 Additional Points**	Tying lot design to water savings is important so chapter 5 must have similar working to work with chapter 801.7.1 as written allows many points for the drip system without any thought (for example; add a bubbler on a line and get 4 extra points) This allows points for doing practices that reduce water use for exterior		
TG4-7	Darren Port, State of New Jersey	New Section in 802	**802.X** An Engineered Biological System or Intensive Bioremediation System is installed either on an individual building basis, a group of individual buildings, multifamily building or on a community scale. Design and implementation must be approved by appropriate regional authority. — **20**	Engineered biological systems or intensive bioremediation systems (living machines) are similar to a waste water treatment system. These systems can create cleansed water that is ready for reuse on site—for tasks such as irrigation and toilet flushing. These systems require no public infrastructure and use no chemicals instead aquatic and wetland plants, bacteria, algae, and living organisms (protozoa, plankton, snails, clams, and fish) and other organisms are used in the system to provide specific cleansing or trophic functions. Engineered biological systems or intensive bioremediation systems also treat and up cycle organic waste into value-added products, such as food, fuel, or biomaterials. Up to 95% of the water entering into the system can be recovered. Water and energy savings have been demonstrated compared to conventional systems.		
TG4-8	Michael William Cudahy Plastic Pipe and Fittings Association	Entire chapter points re-do	**Computing Maximum Possible Points (for Calibration)** **Indoor Water Points Due to Savings** Points / Hot Water Energy Points (Proportional to Percent Hot Water) Toilets: 5 / 0 Showers: 5 / 16 Faucets: 4 / 15	We are aware that the points for energy were scaled to roughly reflect their overall energy impact. This same principle should be applied to the water points. We understand that this is difficult and requires assumptions. There are many cases in the current language where the points allocated to water related improvements are clearly not related to their impact. A specific example: “801.1 Indoor hot water usage.” This assigns points based on the volume of water in the piping between the water heater and the fixtures, which is the key to actually getting the benefits. One method, structured plumbing, allows 4 cups to the fixtures and gets 6 points. Central core plumbing, allows 6 cups, but gets 8 points. Engineered parallel piping, allows 17.5 cups to each fixture, but also gets 6 points. Points are not proportional to their impact on water waste. If they were, engineered parallel piping would		

ID	Name Company Entity Represented	Section Number And Requested Action	Proposed Change	Reason	Task Group Action	Reason for TG action
			Dishwasher 0 1 Washing Machine 10 12 Hot Water Distribution 8 16 32 60 Metering and Monitoring 8 **Indoor Total-Savings** 40 60 **Innovation Points-Indoor** Composting Toilet 12 Gray water for Toilets 10 Rainwater-50% 20 Rainwater-100% 40 **Innovation Points Total** 82 **Outdoor Water Points Due to Savings** Plants 5 Design 1 Zones-Plants 2 Zones-Slope 2 Weather Controls 2 Installation 4 Verification 5 21 Metering and Monitoring 8 **Outdoor Total-Savings** 29 **Innovation Points-Outdoor** Gray water for Irrigation 10 Rainwater-50% 10 Rainwater-100% 20 Irrigate with municipal reclaim 5 No outdoor irrigation 10 **Innovation Points Total** 55 **Total Possible Points** 206 60	get say 3 points, central core plumbing would get 9 points and structured plumbing would get 13 points.		
TG4-9	Darren Port, State of New Jersey	802 Innovative Practices	One hundred percent of occupants' water use must come from captured precipitation or closed loop water systems (recirculating water back to its source for eventual re-draw/re-use), that account for downstream ecosystem impacts and that are appropriately purified without the use of chemicals. Closed loop systems may include best management practices (including but not limited to site storm water collection) and technologies for catchment and use of rainwater, on-site reuse of greywater and onsite treatment of sewage or blackwater. System selection or the combination of systems selected to be determined by the project team with consideration towards local zoning, codes and heath standards. Regulatory: The incorporation of decentralized strategies for water supply, on-site treatment and reuse requires a major shift in the mindset of how buildings are conceived, designed, regulated, built and operated. Many forms of decentralized systems have long proved to be effective for improving water (and energy) system performance but recognition of this potential has been slow to gain ground. Regulatory guidance exists for various water systems from the International Code Council, IAMPO, and CSA Standards.	North American communities face significant water-related challenges. Growing populations demand expanded water and wastewater services, while aging water supply and wastewater treatment infrastructure, most of which was designed and built in the late 19th and early 20th centuries, approaches end-of-life or is in need of major overhaul. This growing crisis is further exacerbated by unsustainable water use patterns. Every day, we use potable water within our buildings for non-potable functions such as washing clothes or flushing toilets, all with little or no attempt at reuse. Further, alterations in local and global climate patterns pose additional risks to the health and resilience of our water systems. A widespread adoption of more integrated systems that include supply, treatment and reuse of water at the building and neighborhood scale is an important strategy for increasing the resiliency of our water systems.		

ID	Name Company Entity Represented	Section Number And Requested Action	Proposed Change	Reason	Task Group Action	Reason for TG action
			Net zero water buildings are currently in operation in New York State, Hawaii, Oregon and throughout Europe and Asia. Exceptions: Exception made for water that must be from potable sources because of local health regulations. However, due diligence must be demonstrated through filing appeals with appropriate agencies that offer solutions and protect the health, welfare and safety of the public. Exception may also be made for purchased water that is used for start up of systems.			

TG-5 NEW PROPOSED CHANGES

<table>
<tr><th>ID</th><th>Name
Company
Entity Represented</th><th>Section Number
And Requested
Action</th><th>Proposed Change</th><th>Reason</th><th>Task Group
Action</th><th>Reason for TG
action</th></tr>
<tr><td>TG5-1</td><td>Christine Phillips</td><td>703.2.1 - Revise wording and make mandatory</td><td>703.2.1 - Revise wording and make mandatory

This section should now read "Insulation and air sealing is installed in accordance with all of the following and shall be tested with a blower door at a pressure of 50 Pa and air leakage shall be 7 ach50 or less." Items (1) and (2) should be removed along with the associated points.</td><td>The 2009 IECC requires either a blower door test or an extensive visual inspection of the home. The blower door test is the path generally enforced by municipalities and easier to enforce.</td><td></td><td></td></tr>
<tr><td>TG5-2</td><td>Christine Phillips</td><td>703.5.4.2 - Remove points and make mandatory.</td><td>703.5.4.2 - Remove points and make mandatory.

Currently builder's get 1 point for insulating boiler supply piping in unconditioned space.</td><td>The 2009 IECC requires this piping to be insulated (Section 403.3). Since 2009 IECC is the baseline for this program it should be mandatory.</td><td></td><td></td></tr>
<tr><td>TG5-3</td><td>Christine Phillips</td><td>704.2.1 - Revise wording and make mandatory</td><td>704.2.1 - Revise wording and make mandatory – Move this section to 701

Change (1) to read "A minimum of 50 percent of the total hard-wired lighting fixtures, or the bulbs in those fixtures, qualify as high efficacy or equivalent." Also change the points from 4 to "Mandatory".</td><td>The 2009 IECC requires a minimum 50% high efficacy lights.</td><td></td><td></td></tr>
<tr><td>TG5-4</td><td>Christine Phillips</td><td>704.4.1 - Revise wording, make mandatory, and relocate to section 701.4.2.</td><td>704.4.1 - Revise wording, make mandatory, and relocate to section 701.4.2.

Revise to read "Duct system is sized and designed in accordance with ACCA Manual D or equivalent". Currently this gives 5 points. Make it "Mandatory" and move to 701.4.2.</td><td>The 2009 IRC, Section M1601 requires ducts to be sized and designed to ACCA Manual D or equivalent.</td><td></td><td></td></tr>
<tr><td>TG5-5</td><td>Christine Phillips</td><td>704.5.1 Delete this section, move to 701.4.1.1 & revise wording</td><td>704.5.1 Delete this from 704.5.1. Move to 701.4.1.1. & revised as noted in the TG5 6 proposal below.

~~This section gives 1 point for using ACCA Manual S to select heating or cooling equipment~~

701.4.1.1 Revise wording.

Add a reference to ACCA Manual S. This section should now read "Space heating and cooling system is sized according to heating and cooling loads calculated using ACCA Manual J or equivalent. Equipment is selected using ACCA Manual S or equivalent.</td><td>The 2009 IRC, Section M1401.3 requires that all equipment be selected per ACCA Manual S.</td><td></td><td></td></tr>
<tr><td>TG5-6</td><td>Christine Phillips</td><td>703.1</td><td>703.1.1 The ~~actual~~ total building thermal envelope UA (sum of U-factor times assembly area) is less than or equal to the total UA resulting from the U-factors ~~values~~ contained in Table 703.1.1. When a total UA improvement of greater than 5% ~~or greater~~ is demonstrated, the provisions of Table 703.1.2 shall apply. Where insulation is used to achieve the percentages, a third-party grading of the installation as achieving Grade 1 is required. ~~A documented analysis is performed using REScheck version 4.4.1 or later, or equivalent that demonstrates the UA resulting from Table 703.1.1 and the actual UA for the building.~~ Total UA shall be documented using REScheck or equivalent report and supplied to verify baseline and additional efficiency compliance.

Table 703.1.1
Equivalent U-Factors[a]

(2009 IECC Table 402.1.3)
<table><tr><th>CLIMATE ZONE</th><th>FENESTRATION U-FACTOR</th><th>SKYLIGHT U-FACTOR</th><th>CEILING U-FACTOR</th><th>FRAME WALL U-FACTOR</th><th>MASS WALL U-FACTOR[b]</th><th>FLOOR U-FACTOR</th><th>BASEMENT WALL U-FACTOR</th><th>CRAWL SPACE WALL U-FACTOR[c]</th></tr><tr><td>1</td><td>1.2</td><td>0.75</td><td>0.035</td><td>0.082</td><td>0.197</td><td>0.064</td><td>0.36</td><td>0.477</td></tr><tr><td>2</td><td>0.65</td><td>0.75</td><td>0.035</td><td>0.082</td><td>0.165</td><td>0.064</td><td>0.36</td><td>0.477</td></tr><tr><td>3</td><td>.50</td><td>0.65</td><td>0.035</td><td>0.082</td><td>0.141</td><td>0.047</td><td>0.91</td><td>0.136</td></tr><tr><td>4 except Marine</td><td>.35</td><td>0.60</td><td>0.030</td><td>0.082</td><td>0.141</td><td>0.047</td><td>0.059</td><td>0.065</td></tr><tr><td>5 and Marine 4</td><td>.35</td><td>0.60</td><td>0.030</td><td>0.057</td><td>0.082</td><td>0.033</td><td>0.059</td><td>0.065</td></tr><tr><td>6</td><td>.35</td><td>0.60</td><td>0.026</td><td>0.057</td><td>0.060</td><td>0.033</td><td>0.050</td><td>0.065</td></tr><tr><td>7 and 9</td><td>.35</td><td>0.60</td><td>0.026</td><td>0.057</td><td>0.057</td><td>0.028</td><td>0.050</td><td>0.065</td></tr></table>a. Nonfenestration U-factors shall be obtained from measurement, calculation or an approved source.
b. When more the half the insulation is on the interior, the mass wall U-factors shall be a maximum of 0.17 in Zone 1, 0.14 in Zone 2, 0.12 in Xone3, 0.10 in Zone 4 except in Marine, and the same as the frame wall U-factor in Marine Zone 4 and Zones 5 through 8
c. Basement wall U-factor of 0.360 in warm-humid locations.

Table 703.1.2
Improvement in Total Building
Thermal Envelope UA
<table><tr><td>UA Improvement</td><td>Climate Zone</td></tr></table></td><td>Reason: Insulation and air sealing is a mandatory requirement in the 2009 IECC and not restricted to the prescriptive path.</td><td></td><td></td></tr>
</table>

<table>
<tr><td></td><td></td><td></td><td>
<table>
<tr><td></td><td>1-2</td><td>3</td><td>4</td><td>5 -6</td><td>7-8</td></tr>
<tr><td></td><td colspan="5">Points</td></tr>
<tr><td>0 to 5%</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>< 5% to 10%</td><td>10</td><td>12</td><td>14</td><td>16</td><td>18</td></tr>
<tr><td>< 10% to 15%</td><td>15</td><td>18</td><td>21</td><td>24</td><td>27</td></tr>
<tr><td><15% to 20%</td><td>20</td><td>24</td><td>28</td><td>32</td><td>36</td></tr>
</table>
</td><td></td><td></td><td></td></tr>
<tr><td>TG5-7</td><td>Christine Phillips</td><td>703.2</td><td>Section 703.2 Insulation and Air Sealing would be deleted from the prescriptive path. Delete 701.4.3 Insulation and Air Sealing in its entirety and replace with the following. Reason: Insulation and air sealing is a mandatory requirement in the 2009 IECC and not restricted to the prescriptive path.

701.4.3 Insulation and air sealing

701.4.3.1 Building Thermal Envelope – (IECC 402.4.1) The building thermal envelope shall be durably sealed to limit infiltration. The sealing methods between dissimilar materials shall allow for differential expansion and contraction. The following shall be caulked, gasketed, weather-stripped or otherwise sealed with an air barrier material, suitable film or solid material:

1. All joints, seams and penetrations.
2. Site-built windows, doors and skylights
3. Openings between window and door assemblies and their respective jambs and framing.
4. Utility penetrations.
5. Dropped ceilings or chases adjacent to the thermal envelope.
6. Knee walls.
7. Walls and ceilings separating a garage from conditioned spaces.
8. Behind tubs and showers on exterior walls.
9. Common walls between dwelling units.
10. Attic access openings.
11. Rim joist junction.
12. Other sources of infiltration.

701.4.3.2 – Air sealing and insulation Building envelope air tightness and insulation installation shall be demonstrated to comply with one of the following options given below.
(1) Testing option. Building envelope tightness and insulation installation shall be considered acceptable when tested air leakage is less than seven air changes per hour (ACH) when tested with a blower door at a pressure of 33.5 psf (50 Pa). Testing shall occur after rough in and after installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation and combustion appliances.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed;
2. Dampers shall be closed, but not sealed, including exhaust, intake, makeup air, backdraft and flue dampers;
3. Interior doors shall be open;
4. Exterior openings for continuous ventilation systems and heat recovery ventilators shall be closed and sealed;
5. Heating and cooling system(s) shall be turned off;
6. HVAC ducts shall not be sealed; and
7. Supply and return registers shall not be sealed.

(2) Visual inspection option Building envelope tightness and insulation installation shall be considered acceptable when the items listed in 701.4.3.6 applicable to the method of construction, are field verified.

701.4.3.3 – Fireplaces – New wood-burning fireplaces shall have gasketed doors and outdoor combustion air.

701.4.3.4 – Fenestration air leakage – Windows, skylights and sliding glass doors shall have an air infiltration rate of no more than 0.3 cfm per square foot (1.5 L/s/m^2), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/ m^2), when tested according to NFRC 400 or AAMA/WDMA/CSA 101/I.S.2/A440 by an accredited, independent laboratory and listed and labeled by the manufacturer.
Exceptions: Site built windows, skylights and doors

701.4.3.5 – Recessed lighting - Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be IC-rated and labeled as meeting ASTM E 283 when tested at 1.57 psf (75 Pa) pressure differential with no more than 2.0 cfm (0.944 L/s) of air movement from the conditioned space to the ceiling cavity. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.

701.4.3.6 – Table – reprint of Table 402.4.2 from the IECC.</td><td>Reason: Insulation and air sealing is a mandatory requirement in the 2009 IECC and not restricted to the prescriptive path.</td><td></td><td></td></tr>
<tr><td>TG5-8</td><td>Christine Phillips</td><td>704.6.2</td><td>704.6.2 – Third-party testing is conducted to verify performance.</td><td>Reason: This section referred to items that are</td><td></td><td></td></tr>
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<td>Re-write 704.6.2 as shown below.

704.6.2 – Testing above mandatory requirements is conducted to verify performance

704.6.2.1 – Building envelope leakage
(1) Both a blower door test and visual inspection are performed as described in 701.4.3. Points: 5*
(2) Third party verification is completed. Points: 5*
(3) The maximum leakage rate is in accordance with:
a. 5 ACH50
b. 4 ACH50
c. 3 ACH50
d. 2 ACH50
e. 1 ACH50

704.6.2.2 - The entire central HVAC duct system, including air handlers and register boot, is tested <u>by a third party</u> for leakage at a pressure differential of 0.1 inches w.g. (25 Pa). The maximum leakage as a percent of the system design flow rate is in accordance with the following:

704.6.2.3 - Balanced HVAC airflows are demonstrated by flow hood or other acceptable flow measurement tool <u>by a third party</u>. Test results are in accordance with both of the following:</td>
<td>referenced in Chapter 9 and are not related to points for third-party testing and air sealing. In addition, it more clearly defines what is above and beyond the mandatory requirements of this standard.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TG5-9</td>
<td>Craig Conner</td>
<td>703.5.4.1</td>
<td>Strike 703.5.4.1and get points for this item and place in section 704 (as appropriate for the Chapter 7 format).

Hot water pipe insulation. Insulation with a minimum thermal resistance (R-value) of at least R-3 shall be applied to the following:

1. piping larger than 3/4 in. outside diameter
2. piping serving more than one dwelling unit
3. piping branches serving kitchen sinks
4. piping located outside the conditioned space
5. piping from the water heater to a distribution manifold
6. piping located under a floor slab
7. buried piping
8. piping in recirculation systems other than demand recirculation systems

All remaining piping shall be insulated to at least R-3 or meet the length requirements of Table

TABLE Maximum Run Length (feet)[1]
<table><tr><td>Nominal Pipe Diameter of largest pipe in run (in.)</td><td>3/8</td><td>1/2</td><td>3/4</td><td></td></tr><tr><td>Maximum pipe length</td><td>30</td><td>20</td><td>10</td><td></td></tr></table>1. Total length of all piping from the distribution manifold or the recirculation loop to a point of use.</td>
<td>This updates the method for getting points for appropriate hot water pipe insulation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TG5-10</td>
<td>Amy Schmidt</td>
<td>701.1.3</td>
<td>701.1.3 Alternative bronze level compliance. As an alternative, any building that qualifies as an ENERGY STAR Qualified Home or <s>equivalent</s> <u>demonstrates compliance</u> using RESCHECK or equivalent <u>with the 2012 IECC</u> achieves the bronze level for Chapter 7.</td>
<td>Reason: The addition of the 2012 IECC as an acceptable compliance option for energy efficiency makes sense for several reasons:
1. States adopting the 2012 IECC as the mandatory statewide energy code will not have two conflicting sets of energy requirements for buildings.
2. ICC codes should be consistent. The 2012 IBC and IRC both use the 2012 IECC as the energy requirements, the draft IGCC uses the 2012 IECC as its baseline, and the draft ICC-400 standard for log homes also incorporates the energy efficiency requirements of the 2012 IECC. These codes will all be published before ICC-700 2012.
3. The 2012 IECC is comparable to, or better than, Energy Star v. 3.0 in many ways. The 2012 IECC is widely accepted as being 15% more efficient than the 2009 IECC. The inclusion of the national model energy code – the IECC -- will add the most widely recognized and nationally vetted energy code.</td>
<td></td>
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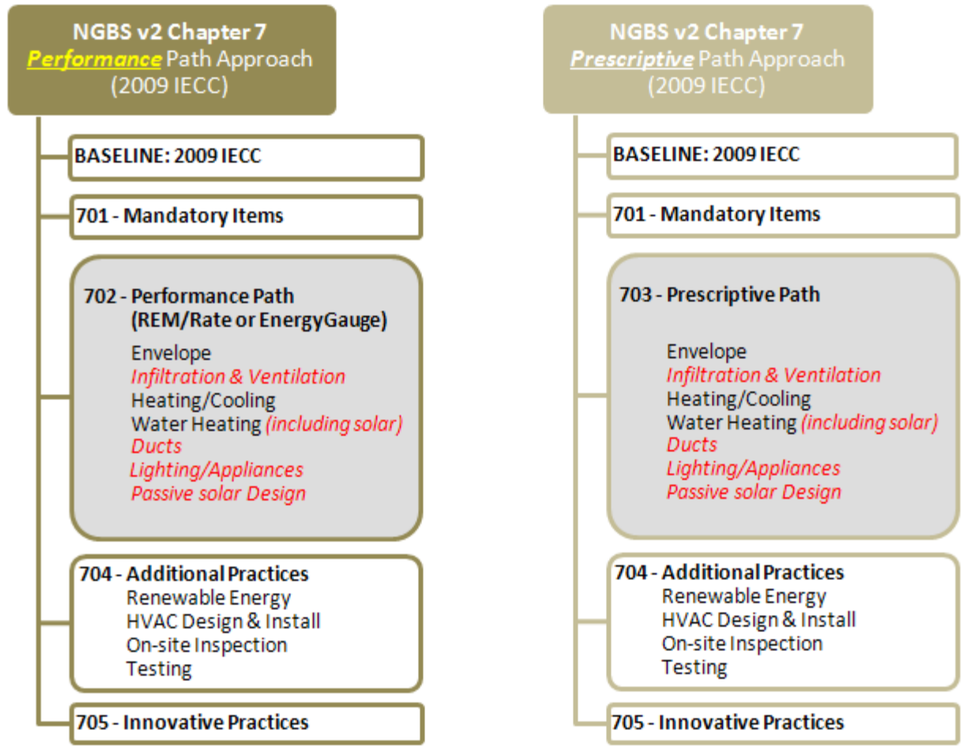
</table>

TG5-11	Amy Schmidt	705.2	I propose the deletion of section 705.2	Renewable energy service plan in its entirety. The enforcement of this section is post occupancy and outside of the authority of the code official. There are plenty of other options for obtaining points this is a very weak section.		
TG5-12	Amy Schmidt	701.4.3.6 – add wording to mandatory section	701.4.3.6 - Rim/Band Joists. Rim/Band joists are insulated to the same level as above grade walls.	Reason: This is currently implied in the code but not clarified. As a result many rim/band joists are under insulated in the field. This clarification to the "green" standard is needed in order to bring additional clarity and integrity to its intent.		
TG5-13	Don Prather	701.4.1.1	**Recommendation 1** 701.4.1.1 Space heating and cooling system/equipment is sized according to heating and cooling loads calculated using ACCA Manual J, or equivalent~~.~~ , and installed in accordance with the ANSI/ACCA 5 QI-2010 (HVAC Quality Installation Specification).	Reason for addition: When the NGBS was first developed this standard was being developed on a parallel time track. The ANSI/ACCA 5 QI-2010 is now an HVAC industry recognized minimum standard for the design and installation of HVAC equipment and as such should be the minimum standard for any higher than minimum requirements in the National Green Building Standard. ANSI/ACCA 5 QI-2007 was first released in 2007 and has been successfully implement in numerous utility sponsored programs.		
TG5-14	Don Prather	701.4.1.2	**Recommendation 2** 701.4.1.2 Where installed as a primary heat source in the building, radiant or hydronic space heating system is designed using industry-approved guidelines and Standards (e.g., ACCA Manual J, ~~GAMA H22~~ AHRI I=B=R, ANSI/ACCA 5 QI-2010, or an accredited design professional's and manufacturer's recommendations)	Reason: AHRI I=B=R has replaced GAMA H22 which is no longer available. ANSI/ACCA 5 QI-2010 has requirements for the design and installation of hydronic systems in it.		
TG5-15	Don Prather	704.5.2	**Recommendation 3** 704.5.2 HVAC contractor and service technician are certified are certified by a nationally or regionally recognized program (e.g. North American Technician Excellence, Inc. (NATE) Air Conditioning Contractors of Americas Quality Assured Program (ACCA / QA), Residential Energy Services Network (RESNET), Building Performance Institute (BPI), Radiant Panel Association, or manufacturers' training program)	Reason for addition: Add RESNET (equivalent to BPI for rating and performance), and ACCA's new QA contractor program because membership in the program is a requirement for all Energy Star homes completed after 31 Dec 2011.		
TG5-16	Don Prather	704.5.3	**Recommendation 4** 704.5.3 Performance of the heating and/or cooling system is verified by HVAC contractor in accordance with: 1) Start-up procedure is performed in accordance with the manufacturer's instructions ~~2) Refrigerant Charge is verified by the super-heat and/or sub-cooling method~~ ~~3) Burner is set to fire at input level listed on nameplate~~ ~~4) Air handler setting/fan speed is set in accordance with manufacturer's instructions~~ ~~5)~~ 2) Total airflow is within 10% of design flow ~~6) Total external system static does not exceed equipment capability at rated airflow~~.	Recommend deleting the parts struck out because the items listed are part of the mandatory minimum requirements in the HVAC Quality Installation Specification.		
TG5-17	Don Prather	Chapter 7 Organization	Propose to update the organization of Chapter 7 so that the Performance and Prescriptive Paths include all energy savings features as outlined below. Note that this requires first meeting the 2009 IECC baseline and then going beyond to reach the various savings levels in Chapter 7.	This organization allows points for Chapter 7 to reflect whole house energy efficiency by placing all energy savings measures in either Section 702 for the performance path or Section 703 for the prescriptive path. Additional background information provided.		

Proposed Performance Path "2009 IECC + Whole-House" Approach – NGBS v2 EE Chapter 7



2012 Performance Path Whole-House Approach
STEP 1: Meet NGBS v2 Chapter 7 Mandatory Requirements
STEP 2: Choose NGBS v2 Performance (702) Approach
STEP 3: Perform 2 energy simulations to over the 2009 IECC:
1. ensure compliance to the 2009 IECC
2. calculate whole-house energy savings

STEP 4: Choose additional practices (704) as desired

Corresponding Prescriptive Path Approach
STEP 1: Meet NGBS v2 Chapter 7 Mandatory Requirements
STEP 2: Choose NGBS v2 Prescriptive (703) Approach
STEP 3: Select desired measures in Section 703
STEP 4: Choose additional practices (704) as desired

TG5-18	Matt Williams Association of Home Appliance Manufacturers	Add Section 704.2.6 AHAM certified Smart Appliances	**704.2.6** Smart Appliances installed:		Demand response, augmented by the smart grid and smart appliances, will result in energy savings and reductions in costs. According to EIA's Electric Power Annual 2008 (Table 9.2) utilities reported for every 1kW of peak load reduction there is a corresponding 139 kWh of energy saved. The benefits in the PNNL study being considered are distinct from those arising due to traditional machine enhancements that enable operational efficiencies. The benefits include estimates of the production cost savings to utilities and the extent to which smart appliances can provide ancillary services to facilitate greater penetration of renewable generation sources (wind and solar in particular).		
				Points		
			(1) Refrigerator	6		
			(2) Freezer	6		
			(3) Dishwasher	5		
			(4) Clothes Dryer	7		
			(5) Clothes Washer	5		
			(6) Room Air Conditioner	8		
			Addition and Renovation Note: Section 704.2.6 applies as follows:			
			(1) Replace existing refrigerator	3 additional points		
			(2) Replace existing dishwasher	2 additional points		

			(3) Replace existing clothes dryer — 2 additional points (4) Replace existing clothes washer — 2 additional points	See provided document for additional supporting information.		
TG5-19	Frank Stanonik AHRI AHRI	704.6.2.1 Building envelope leakage rate… Revise as follows	704.6.2.1 Building envelope leakage rate is demonstrated by blower door test. In addition to the test, the following practices are required: 1. Whole building ventilation is provided in accordance with 902.2. ~~2. Fossil fuel furnace and water heater is sealed combustion or power vented in accordance with 901.1.~~ 3. Fireplaces ~~and Fuel Burning Appliances~~ are in accordance with 901.2. The maximum leakage rate is in accordance with: **(a)** 5 ACH50 **(b)** 4 ACH50 **(c)** 3 ACH50 **(d)** 2 ACH50 **(e)** 1 ACH50	This set of proposed changes separates the requirements for fossil fuel burning equipment from those for solid fuel burning equipment and clarify the requirements for each. The requirements addressing the installation of gas and oil fired appliances are inconsistent and unnecessarily restrict such installations based on unjustified, indoor air quality concerns. Also the standard incorrectly extends its coverage to areas already covered by both the National Fuel Gas Code and the International Fuel Gas Code. Additional technical changes are proposed, as described. Section 704.6.2.1, which addresses envelope air leakage, requires fossil fuel furnaces and water heaters to be either sealed combustion or power vented in accordance with 901.1. This creates a contradiction. While section 704.6.2.1 states "the following practices are required," section 901.1 does not mandate that gas or oil furnaces and water heaters be direct vent (sealed combustion) or power vented. Section 901.1.1 specifically addresses the installation of natural draft space heating and water heating equipment, which is only a subset of all the types of fossil fuel furnaces and water heaters. The deletion of "2." Is proposed because of this contradiction and because this provision does not directly relate to the building envelop leakage rate. The change to "3." reflects the reorganization mentioned above.		
TG5-20	Fenestration & Lighting WG Proposal		~~**701.4.4.1**~~ **703.3.1** NFRC-certified U-factor and SHGC of windows, exterior doors, skylights, and tubular daylighting devices (TDDs) ~~are in~~ shall not exceed the values listed in ~~accordance with ENERGY STAR, or equivalent, or~~ Table ~~701.4.4.1~~703.3.1. Decorative fenestration elements with a combined total maximum area of 15 square feet (1.39 m^2) or 10 percent of the total glazing area, whichever is less, are not required to comply with this practice. ***Mandatory – 0 Additional Points*** [ ] **Renovation Note:** Section ~~701.4.4.1~~ 703.3.1 is mandatory for both additions and renovations where new windows are installed. **Enhanced Fenestration Specifications Table 703.3.1(~~a~~b)** Climate Zones | U-Factor: Windows and Exterior Doors (maximum certified ratings) | SHGC 1 and 2 | ~~0.45~~ 0.60 | ~~0.30~~ 0.27 3 | 0.35 | 0.30 4 | 0.32 | 0.40 ~~4~~ 5 to 8 | 0.30 | Any Skylights and TDDs (maximum certified ratings)	This proposal reflects the collective TG action on proposals 307, 346 & 138 to : ▪ Amend the language in 701.4.4.1 and add the new renovation note. ▪ Base the mandatory minimum requirements on the 2009 IECC prescriptive requirements from IECC Table 402.1 ▪ Moving section 701.4.4.1 to section 703. ▪ Establish ENERGY STAR 5.0 as the "1st Tier" enhanced values in Table 703.3.1(a) Notes: Addition and renovation note should be amended to replace "windows" with "fenestration" Language to 703.3.1 needs to be amended further to reference enhanced tables.		

			1 ~~to 3~~and 2 | 0.~~55~~70 | 0.~~35~~30 3 | 0.~~55~~57 | 0.~~35~~30 4 | 0.55 | 0.40 5-8 | 0.55 | Any **Points** **Zones 1-3** | **TBD** **Zones 4-5** | **TBD** **Zones 6-8** | **TBD**			
TG5-21	Fenestration & Lighting WG Proposal Table 703.3.1 alternative		**Table ~~701.4.6~~ 703.3.1** **Fenestration Specifications** Climate Zones | U-Factor Windows and Exterior Doors (maximum certified ratings) | SHGC Windows and Exterior Doors (maximum certified ratings) 1 ~~and 2~~ | 0.65 ~~1.20~~ | ~~0.40~~ 0.30 2 | 0.65 | 0.30 3 | 0.40 ~~0.50~~ | ~~0.40~~ 0.30 4 to 8 | ~~0.35~~ 0.35 | Any Skylights and TDDs (maximum certified ratings) 1 ~~to 3~~ & 2 | 0.75 | ~~0.40~~ 0.30 3 | 0.65 | 0.30 4 to 8 | 0.60 | Any	Concerns were raised by members of the WG that basing all fenestration values on 2009 IECC Table 402.1 prescriptive requirements results in window and door U-factor requirements in Zone 1 & 3 that are less stringent than the current requirements in the 2008 edition. The WG group felt that this should be reconsidered by the TG. This proposal addresses that concern by preserving the 2008 window and door U-factor requirements for Zones 1 & 3. All other values remain amended to be consistent with the 2009 IECC Table 402.1 as decided by the TG.		
TG5-22	Fenestration & Lighting WG Proposal "Tier 2" options		*Option 1:* **Enhanced Fenestration Specifications Table 703.3.1(~~b~~ c)** Climate Zones | U-Factor Windows and Exterior Doors (maximum certified ratings) | SHGC | Points 1 and 2 | 0.~~45~~40 | 0.25 3 | 0.~~35~~30 | 0.25 4 | 0.28 | 0.40 4 ~~to 8~~ | 0.25 | ~~Any~~0.40 5 to 8 | 0.25 | Any 5 to 8 | 0.~~25~~22 | Any Skylights and TDDs (maximum certified ratings) 1~~to 3~~ & 2 | 0.50 | 0.~~35~~30 3 | 0.50 | 0.35 4 | 0.50 | ~~Any~~0.40 4 5 to 8 | 0.50 | Any	The WG did not reach agreement on proposed window and door U-factor requirements for Zones 4-8. This proposal therefore offers two options for TG consideration for the "tier 2" enhanced fenestration requirements. The options present the different window and door U-factors discussed for Zones 4-8. All other values in the two options are otherwise the same. The WG will discuss both options with the TG.		
TG5-23	Fenestration & Lighting WG Proposal Minimum requirements alternative		Amended Versions of Fenestration Proposals ***Alternative proposal 307 – Matches the thermal building envelope mandatory requirements from Energy Star Homes v. 3.0.*** **701.4.4 ~~Fenestration~~ Thermal Building Envelope** **701.4.4.1** **Prescriptive Path:** NFRC-certified ~~U-factor and SHGC~~ windows, exterior doors, skylights, and tubular daylighting devices (TDDs) ~~are in accordance with~~ shall meet or exceed the requirements of ENERGY STAR for windows version 5.0, or Table 402.1.1 of the 2012 IECC~~equivalent, or Table 701.4.4.1~~. Decorative fenestration elements with a combined total maximum area of 15 square feet (1.39 m^2) or 10 percent of the total glazing area, whichever is less, are not required to comply with this practice. **Performance Path:** NFRC-certified windows, exterior doors, skylights, and tubular daylighting devices (TDDs) shall meet or exceed the requirements of Table 402.1.1 of the 2009 IECC. Decorative fenestration elements with a combined total maximum area of 15 square feet (1.39 m^2) or 10 percent of the total glazing area, whichever is less, are not required to comply with this practice.	Additional concerns were by some members of the WG that mandatory fenestration requirements based on the 2009 IECC are inadequate. This proposal is an alternative to proposal 307 for TG consideration to make the minimum fenestration requirements consistent with ES Homes v. 3.0 that the WG is presented for TG consideration. Additional discussion to be provided by WG members.		

<table>
<tr><td></td><td></td><td></td><td>701.4.4.2
Prescriptive and Performance Path: Ceiling, floor, and wall insulation levels shall meet or exceed 2009 IECC levels.</td><td></td><td></td><td></td></tr>
<tr><td>TG5-24</td><td>Fenestration & Lighting WG Proposal

“Tier 1” enhanced fenestration alternative</td><td></td><td>Alternative proposal 141 – Tier 1 (Table 703.3.1(a)) meets or exceeds Energy Star Windows (v5.0) or 2012 IECC, whichever is greater)
Table 703.3.1(a)
<table>
<tr><td rowspan="2">Climate Zones</td><td>U-Factor</td><td>SHGC</td></tr>
<tr><td colspan="2">Windows and Exterior Doors (maximum certified ratings)</td></tr>
<tr><td>1</td><td>0.50</td><td>0.25</td></tr>
<tr><td>~~1 and~~ 2</td><td>~~0.65~~ 0.40</td><td>~~0.40~~ 0.25</td></tr>
<tr><td>3</td><td>~~0.40~~ 0.35</td><td>~~0.40~~ 0.25</td></tr>
<tr><td>4~~ to 8~~</td><td>~~0.35~~ 0.32</td><td>~~Any~~ 0.40</td></tr>
<tr><td>5 to 8</td><td>0.30</td><td>Any</td></tr>
<tr><td></td><td colspan="2">Skylights and TDDs (maximum certified ratings)</td></tr>
<tr><td>1 ~~to 3~~</td><td>~~0.75~~ 0.70</td><td>~~0.40~~ 0.30</td></tr>
<tr><td>2</td><td>0.65</td><td>0.30</td></tr>
<tr><td>3 ~~4 to 8~~</td><td>~~0.60~~ 0.55</td><td>~~Any~~ 0.30</td></tr>
<tr><td>4</td><td>0.55</td><td>0.40</td></tr>
<tr><td>5 to 8</td><td>0.55</td><td>Any</td></tr>
</table></td><td>Additional concerns were raised by some members of the WG that “tier 1” fenestration requirements based solely on ES v. 5.0 are inadequate.

This proposal is an alternative to proposal 141 for TG consideration that would make “tier 1” fenestration requirements for each zone equivalent to the more stringent requirement from ES v. 5.0 or the 2012 IECC (respectively).

Additional discussion to be provided by WG members.</td><td></td><td></td></tr>
<tr><td>TG5-25</td><td>Craig Conner</td><td>703.1.2.3</td><td>703.1.2.3 Grade 2 insulation is permitted only for bronze level buildings. Grade 2 insulation is in accordance with the following:
(1) Surfaces with grade 2 insulation include insulated sheathing with a minimum R-3 in climate zones 1 to 4, and a minimum R-5 in climate zones 5 to 8. Insulated sheathing is continuous or tightly fitted at joints.
…. rest of 703.1.2.3 is unchanged.</td><td></td><td></td><td></td></tr>
<tr><td>TG5-26</td><td>Ken Bland</td><td></td><td>703.1 Building envelope. Points shall be awarded based on either 703.1.1 or 703.1.2.
703.1.1 (NOTE: As proposed by the Mandatory Working Group)
703.1.2 The total building thermal envelope UA is less than the Total Building Thermal Envelope UA Index in Table 703.1.2 times the building conditioned floor area. A documented analysis is performed using RESCheck version 4.0.1 or later, or equivalent.

Table 703.1.2 Total Building Thermal Envelope UA Index
<table>
<tr><td colspan="2"></td><td colspan="7">Climate Zone</td></tr>
<tr><td colspan="2"></td><td>Zone 1</td><td>Zone 2</td><td>Zone 3</td><td>Zone 4</td><td>Zone 5</td><td>Zone 6</td><td>Zones 7-8</td></tr>
<tr><td colspan="2">CFA Index (Total UA/CFA)</td><td>0.37</td><td>0.29</td><td>0.25</td><td>0.22</td><td>0.18</td><td>0.18</td><td>0.17</td></tr>
<tr><td>Envelope Energy Improvement</td><td>ICC-700 Points</td><td colspan="7">Total UA (per sq.ft of Conditioned Floor Area)</td></tr>
<tr><td>0%</td><td>0</td><td>0.37 & above</td><td>0.29 & above</td><td>0.25 & above</td><td>0.22 & above</td><td>0.18 & above</td><td>0.18 & above</td><td>0.17 & above</td></tr>
<tr><td>5%</td><td>10</td><td>0.35</td><td>0.27</td><td>0.24</td><td>0.21</td><td>0.17</td><td>0.17</td><td>0.16</td></tr>
<tr><td>10%</td><td>20</td><td>0.33</td><td>0.26</td><td>0.22</td><td>0.20</td><td>0.16</td><td>0.16</td><td>0.15</td></tr>
<tr><td>15%</td><td>30</td><td>0.31</td><td>0.24</td><td>0.21</td><td>0.19</td><td>0.15</td><td>0.15</td><td>0.14</td></tr>
<tr><td>20%</td><td>40</td><td>0.30</td><td>0.23</td><td>0.20</td><td>0.18</td><td>0.14</td><td>0.14</td><td>0.14</td></tr>
<tr><td>25%</td><td>50</td><td>0.28</td><td>0.22</td><td>0.19</td><td>0.17</td><td>0.13</td><td>0.13</td><td>0.13</td></tr>
<tr><td>30%</td><td>60</td><td>0.26</td><td>0.20</td><td>0.17</td><td>0.15</td><td>0.13</td><td>0.12</td><td>0.12</td></tr>
</table></td><td>Reason:
Current provisions of the 2006, 2009, and 2012 IECC Chapter 4 permit a wide range of building envelope performance. As currently written, the IECC effectively allows the fenestration areas to range from 10 to 90% of the total wall area in residential buildings. As a result, the total energy loss on a UA basis for any given conditioned floor area can vary by as much as 300%. Since the energy performance and requirements of opaque walls, ceilings, and floors are relatively high, further energy improvements based on changes to these assemblies is not feasible.

While one method of improving building envelope energy performance would be a restrictive prescriptive limit on fenestration areas, it is anticipated that this limit would be neither acceptable nor warranted. This change provides a performance method for achieving equivalent energy loss (on a UA basis) for a given conditioned floor area (CFA). In effect, the baseline “index” for each Climate Zone is the Total UA divided by the CFA. This indexing will allow “points” to be assigned for specific improvements to building envelope energy performance rather than prescriptive points assigned to improvements on individual components or assemblies in the building envelope which may have little impact on the energy performance of the total building envelope.

The tabular index values provided above are based on a one-story building with a CFA of 1000 sq.ft. and 15% fenestration area. To develop the index for each climate zone, the “baseline” building was then “normalized” by</td><td></td><td></td></tr>
</table>

				dividing the total energy loss by the CFA. While this baseline structure appears to match current construction practice reasonably well, other baselines could be used. In addition, the points assigned in the table above are only for illustrative purposes and would be varied based on input from other Subcommittees. Provided in the attached table is a summary of the "baseline" Total UA energy loss and fenestration area for each climate zone and various building conditioned floor areas based on the assumption that current 2009 IECC inputs remain constant. Improvements that reduce the total energy loss below these limits would be recognized in the point system.		

TG-6 NEW PROPOSED CHANGES

ID	Name Company Entity Represented	Section Number And Requested Action	Proposed Change	Reason	Task Group Action	Reason for TG action
TG6-1	Paula Cino National Multi Housing Council	202 – Definitions Add new text.	**Common Space, Interior or Exterior** - Areas of a multi-unit building that are outside the boundaries of a dwelling unit and are shared among or serve the dwelling units; including, but not limited to, hallways, amenity and resident services areas, parking areas, property management offices, mechanical rooms and laundry rooms.	A definition of common space is currently lacking from the Standard and is necessary to clarify compliance requirements for multi-unit buildings.		
TG6-2	Karen Welsh UpStreet Architects	202 – Definitions Revise as follows.	**Mixed-Use Building:** A building that incorporates a mixture of uses (e.g. residential, retail, commercial) in a single structure. **Mixed Use Development:** A project that incorporates a mixture of uses (e.g. residential, retail, commercial) ~~in a single structure or~~ on the same site.	The separation of mixed-use development from mixed-use building establishes the framework necessary to specify compliance requirements for mixed-use buildings.		
TG6- 3	Paula Cino National Multi Housing Council	304.1 – Multi-Unit Buildings Revise as follows.	**304.1 Multi-unit buildings.** All residential portions of a building shall meet the requirements of this Standard and partial compliance is not allowed. Unless otherwise noted, all units and residential common spaces within a multi-unit building shall: 1) meet all mandatory requirements; and 2) achieve the threshold number of points required for the chosen environmental performance level in accordance with Table 303; and 3) achieve the same environmental performance level. For multi-unit buildings, points for the green building practices that apply to multiple units shall be credited once for the entire building. Where points are credited, practices shall be implemented in all units, as applicable. Where application of a prescribed practice allows for a different number of points for different units in a multi-unit building, the fewer number of points shall be awarded.	This language clarifies the compliance requirements for multi-unit buildings, and explains that dwelling units and common areas must meet the same environmental performance requirements. This aligns the Standard with other well-established green building programs and standards (such as LEED, Green Communities and ASHRAE 189.1), which do not provide for separate treatment of residential common spaces. The limited cases where different compliance methods are necessary for common space and dwellings are best dealt with through notation in individual provisions.		
TG6-4	Adrian Rusty Ashley C.F. Evans & Co.	405.1 and 505.1 – Driveways and parking areas Revise as follows.	**405.1 Driveways and parking areas.** Driveways and parking areas are minimized by one or more of the following: (1) Driveways or parking areas are shared. In a multi-unit project, parking capacity is not to exceed the local minimum requirements. 5 Points (2) Multi-level parking garages are utilized to reduce the footprint of parking areas: (a) by 75 percent 4 Points (b) by 50 percent 2 Points **505.1 Driveways and parking areas.** Driveways and parking areas are minimized by one or more of the following: (1) Driveways or parking areas are shared. Waivers or variances from local development regulations are obtained to implement such practices, as applicable. In a multi-unit project, parking capacity is not to exceed the local minimum requirements. 4 Points (2) Multi-level parking garages are utilized to reduce the footprint of parking areas: (a) by 75 percent 4 Points (b) by 50 percent 2 Points	Multi-level parking promotes an efficient use of land, while minimizing site and soil disruption, reducing impervious surface areas and limiting non-roof heat island effect. They also encourage greater pedestrian activity compared to surface parking lots, which can create gaps or barriers between buildings and street access.		
TG6-5	Adrian Rusty	601.7 - Site	**601.7 Site applied finishing materials.** Building material or assemblies are utilized that do not require additional site-applied	This proposal clarifies the		

	Ashley C.F. Evans & Co.	applied finishing materials Revise as follows.	material for finishing. (1) 90 percent or more of the installed building material or assembly listed below: (Points awarded for each material of assembly.) 5 Points. (2) 50 percent to less than 90 percent of the installed building material or assembly listed below: (Points awarded for each material of assembly.) 2 Points. (3) In a multi-unit project, 50 percent to less than 90 percent of the installed building material or assembly listed below: (Points awarded for each material of assembly.) 3 Points. (4) In a multi-unit project, 35 percent to less than 50 percent of the installed building material or assembly listed below: (Points awarded for each material of assembly.) 2 Points. (a) Pigmented, stamped, decorative, or final finish concrete or masonry (b) Interior trim not requiring paint or stain (c) Exterior trim, siding, or panels not requiring paint or stain (d) Window, skylight, and door assemblies not requiring paint or stain on exterior ~~and/or interior~~ surfaces (e) Window, skylight, and door assemblies not requiring paint or stain on interior surfaces (f) Interior wall coverings or systems not requiring paint or stain or other type of finishing application (g) Exterior wall coverings or systems not requiring paint or stain or other types of finishing application (h) Pre-finished hardwood flooring.	eligibility of various materials and assemblies, and better aligns the provision for use in multifamily projects. The inclusion of additional tiers for multi-unit compliance reflects certain design and structural characteristics in multifamily projects that make higher installation percentages unworkable or significantly more costly. For example, other code requirements limit how high brick veneer may be used on a building without the use of additional structural support.		
TG6-6	Paula Cino National Multi Housing Council	602.13 – Roof surfaces Revise as follows.	**602.13 Roof surfaces.** A minimum of 90 percent of roof surfaces, not used for roof penetrations and associated equipment, on-site renewable energy systems such as photovoltaics or solar thermal energy collectors, or rooftop decks, amenities and walkways, are constructed of one or both of the following: (1) products that are in accordance with the ENERGY STAR cool roof certification or equivalent (2) a green (landscaped) roof system	This proposed change clarifies that common roof obstructions and renewable energy features are not part of the roof surfaces calculation. This addition brings this provision in line with other green building metrics, like ASHRAE 189.1, which acknowledge that portions of the roof area may not be suitable or available for green features.		
TG6-7	Paula Cino National Multi Housing Council	705.3 – Parking garage efficiency Add new section.	**705.3 Parking garage efficiency.** Multi-level parking garages are designed to require no mechanical ventilation for fresh air requirements. 2 Points	This proposal promotes sustainability goals by minimizing the energy usage of parking garages.		
TG6-8	Karen Welsh UpStreet Architects	801.1.1 – Indoor Hot Water Usage Revise as follows.	801.1.1 Indoor hot water usage is reduced by one of the following practices: (1) All hot water piping that runs to the plumbing fixtures in both the kitchen and bathrooms is 40 feet (12,192 mm) or less in length from the water heater or multi-unit building's recirculating loop and is sized in accordance with the code for the specified application. (2) All hot water piping that runs to the plumbing fixtures in both the kitchen and bathrooms is 30 feet (9144 mm) or less in length from the water heater or multi-unit building's recirculating loop and is sized in accordance with the code for the specified application. (3) One of the following piping system designs is implemented: (d) central hot water recirculation system in multi-unit buildings in which the hot water line distance from the recirculating loop to the engineered parallel piping system (i.e. manifold system) is less than 30 feet (9144 mm) and the parallel piping to the fixture fittings contains a maximum of 8 cups (1.89 liters) (115.50 cubic inches) (0.50 gallons).	All of the current water circulation systems described in a, b and c apply to systems serving one dwelling unit. In multi-family dwellings, such as affordable housing, there is often a central hot water source and a distribution system consisting of an insulated recirculating hot water loop and a supply pipe to a manifold in each unit, and from there distribution to each fixture. This is an efficient distribution system because the distance from the hot water source to the manifold is the same intent of the system described in (b).		

				Pipe insulation for the distribution loop is covered in 703.5.4.1 and is a part of the Energy Chapter and not the Water Conservation Chapter. It is understood that the Water Efficiency Task Group is reviewing the measurement standard for the piping.		
TG6-9	Adrian Rusty Ashley C.F. Evans & Co.	801.5.1 – Faucets Revise as follows.	**801.5.1** Water-efficient lavatory faucets with 1.5 gpm (5.68 L/m) or less maximum flow rate when tested at 60 psi (414 kPa) in accordance with ASME A112.18.1 are installed: (1) ~~a~~ at all faucet locations within a bathroom (3) all building common space faucets 2 additional points	This proposal clarifies faucet installation in multifamily buildings and recognizes that the use of high-efficiency faucets in common spaces can result in significant water savings. In addition, many bathrooms have double bowls and current reading can be interrupted only one of the faucets within the bathroom has to comply for points.		