

Proposed Changes

May 19, 2014

| | |
|---|-----|
| TG-1: Administration, Compliance, and Operation & Owner Education | 1 |
| Chapter 1: Scope and Administration..... | 1 |
| Chapter 2: Definitions..... | 3 |
| Chapter 3: Compliance Method..... | 7 |
| Chapter 10: Operation, Maintenance, and Building Owner Education..... | 8 |
| Appendix E: Accessory Structures..... | 13 |
| TG-2: Site and Lot Development..... | 14 |
| Chapter 4: Site Design and Development..... | 14 |
| Chapter 5: Lot Design, Preparation and Development..... | 29 |
| TG-3: Resource Efficiency and Indoor Air Quality..... | 43 |
| Chapter 6: Resource Efficiency | 43 |
| Chapter 9: Indoor Environmental Quality | 68 |
| Appendix B: Ducted Garage Exhaust Fan Sizing Criteria | 81 |
| TG-4: Water Efficiency | 82 |
| Chapter 8: Water Efficiency | 82 |
| TG-5: Energy Efficiency | 88 |
| Chapter 7: Energy Efficiency | 88 |
| TG-6: Multifamily Proposals | 125 |
| Chapter 3: 304 Green Multi-Unit Buildings | 125 |
| TG-7: Renovations and Additions | 126 |
| Chapter 3: 305 Green Remodeling | 126 |
| Chapter 11: Remodeling | 128 |
| Chapter 12: Remodeling of Functional Areas..... | 139 |

TG-3: Resource Efficiency and Indoor Air Quality

Chapter 6: Resource Efficiency

| Proposal ID TBD | LogID 755 | 601.1 Conditioned Floor Area |
|---|--|------------------------------|
| Submitter: | Derek Huetinck, BeaconCrest Homes | |
| Requested Action: | | |
| Proposed Change: | [No change from 2008 language.] | |
| Reason: | There is insufficient scientific data to demonstrate that the building of smaller homes leads to an overall decrease in energy efficiency. Smaller homes may house fewer people than larger homes, which could potentially result in more energy consumption per person than more people living in a larger home. It is inappropriate to penalize the building of larger homes without proper data to support the concept that they will lead to greater energy consumption. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5203 | 601.1 Conditioned floor area |
|---|---|------------------------------|
| Submitter: | Wes Sullens, StopWaste of Alameda County | |
| Requested Action: | Add new as follows | |
| Proposed Change: | 601.10. Design for Deconstruction. <u>Include construction techniques that allow for the deconstruction rather than demolition of building features.</u> | |
| Reason: | Interior walls, exterior wall systems, framing, fenestration, and mechanical systems can be built such that future renovations or tear-downs can be accomplished with a high degree of materials reuse or recycling. Designing for deconstruction is not common practice, but results in less waste to landfill and a higher and better use of materials sent for recycling from remodeling or demolition projects. They also allow for green jobs by employing trades to disassemble building elements, and can help reduce the cost of future upgrades. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5131 | 601.1 Conditioned floor area |
|---|--|------------------------------|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Revise as follows | |
| Proposed Change: | Multi-Unit Building Note: <i>For a multi-unit building, an weighted average of the individual unit sizes is used for this practice and calculated by dividing the total conditioned residential square footage (units plus common areas) in the building by the number of units in the building.</i> | |
| Reason: | Large common areas of multi-unit buildings take resources to construct, operate, and maintain. Those areas should be included in awarding the floor area points for the building. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5279 | 601.2 Material usage |
|---|--|----------------------|
| Submitter: | John Woestman, Kellen Company | |
| Requested Action: | Revise as follows | |
| Proposed Change: | 601.4 Framing and structural plans. <i>This requirement should be added to section 601.2 or section 601.4 should be deleted. Potential exists for double counting.</i> 601.6 Stacked stories. <i>This requirement should be added to section 601.2 or section 601.6 should be deleted. Potential exists for double counting.</i> | |
| Reason: | Reason: Section 601.2 Material usage, already takes into account optimized material usage of structural systems. Sections 601.4 Framing and structural plans, and 601.6 Stacked stories are already accounted for in the intent of 601.2 and should be deleted to avoid double counting. Alternatively adjustments could be made to section 601.2 to more clearly define the requirements of 601.4 and 601.6 within 601.2 if the committee feels it is needed. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5280 | 601.4 Framing and structural plans |
|---|--|------------------------------------|
| Submitter: | John Woestman, Kellen Company | |
| Requested Action: | Delete without substitution | |
| Proposed Change: | 601.4 Framing and structural plans. | |
| Reason: | Reason: Section 601.2 Material usage, already takes into account optimized material usage of structural systems. Sections 601.4 Framing and structural plans, and 601.6 Stacked stories are already accounted for in the intent of 601.2 and should be deleted to avoid double counting. Alternatively adjustments could be made to section 601.2 to more clearly define the requirements of 601.4 and 601.6 within 601.2 if the committee feels it is needed. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5281 | 601.6 Stacked stories |
|---|--|-----------------------|
| Submitter: | John Woestman, Kellen Company | |
| Requested Action: | Delete without substitution | |
| Proposed Change: | 601.6 Stacked stories. | |
| Reason: | Section 601.2 Material usage, already takes into account optimized material usage of structural systems. Sections 601.4 Framing and structural plans, and 601.6 Stacked stories are already accounted for in the intent of 601.2 and should be deleted to avoid double counting. Alternatively adjustments could be made to section 601.2 to more clearly define the requirements of 601.4 and 601.6 within 601.2 if the committee feels it is needed. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5282 | 601.7 Site-applied finishing materials |
|---|---|--|
| Submitter: | John Woestman, Kellen Company | |
| Requested Action: | Revise as follows | |
| Proposed Change: | 601.7 Site-applied finishing Prefinished materials. Prefinished building Building materials or assemblies listed below that do not require <u>have no</u> additional site-applied material for finishing <u>material</u> are installedincorporated in the building. <i>Remaining language is unchanged.</i> | |
| Reason: | Reason: Changes the title to more appropriately represent this section. Also, changes to the language have been made so that purchased prefinished materials do not get credit if additional finishing material is added to them. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5114 | 601.7 Site-applied finishing materials |
|---|--|--|
| Submitter: | Matthew Dobson, Vinyl Siding Institute | |
| Requested Action: | Revise as follows | |
| Proposed Change: | Delete 601.7(a) and (g) and replace with <u>(a) Interior or exterior finish floor systems not requiring paint or stain.</u> <u>(g) Interior or exterior finish ceiling systems not requiring paint or stain.</u> | |
| Reason: | This cleans up this section by making it more performance based and also adds in ceiling systems that could qualify for this credit. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 705 | 601.9 Above Grade Wall Systems |
|---|---|--------------------------------|
| Submitter: | Gladys Quinto Marrone, BIA Hawaii | |
| Requested Action: | | |
| Proposed Change: | 601.9 – Would like an additional ‘wall system’ for bamboo | |
| Reason: | Bamboo is starting to take hold and is good for our mild climate. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5283 | 601.9 Above-grade wall systems |
|---|--|--------------------------------|
| Submitter: | John Woestman, Kellen Company | |
| Requested Action: | Revise as follows | |
| Proposed Change: | 601.9 Above-grade <u>Mass</u> wall systems. One or more of the following above-grade <u>mass</u> wall systems that providesufficient <u>meet applicable</u> structural and thermal requirements <u>characteristics</u> are used for a minimum of 75 percent of the gross exterior wall area of the building: <i>Other text remains unchanged.</i> | |
| Reason: | Reason: This section specifically addresses mass wall systems and therefore the title was changed to more accurately reflect the section. Also, “sufficient” is subjective so edits were made to more clearly define the intent of the section. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5218 | 602.1.10 Exterior Doors |
|---|---|---|
| Submitter: | Eric DeVito, BBRS | |
| Requested Action: | Revise as follows | |
| Proposed Change: | <p>602.1.10 Exterior doors. Entries at exterior door assemblies, inclusive of side lights (if any), are covered by one of the following methods to protect the building from the effects of precipitation and solar radiation. <u>Either a storm door or a</u> projection factor of 0.375 minimum is provided. Eastern- and western-facing entries in Climate Zones 1, 2, and 3, as determined in accordance with Figure 6(1) or Appendix C, have <u>either a storm door or a</u> projection factor of 1.0 minimum, unless protected from direct solar radiation by other means (e.g., screen wall, vegetation).</p> <ul style="list-style-type: none"> (a) installing a porch roof or awning (b) extending the roof overhang (c) recessing the exterior door (d) <u>installing a storm door</u> | <p>2 per Exterior door</p> <p>6 Max</p> |
| Reason: | <p>This proposal expands the current credit for protecting exterior doors from precipitation and solar radiation to include the installation of storm doors. While recessing a door or installing awnings or overhangs may provide some protection for exterior doors against the elements, storm doors can provide the same or better protection. Moreover, because of design constraints or local conditions, overhangs or awnings may not be realistic options. This proposal would encourage the installation of storm doors to provide an additional protective barrier in projects that might otherwise leave exterior doors completely exposed to the elements. Although this proposal focuses on resource efficiency, and more specifically, moisture control for building penetrations, storm doors also provide a variety of other benefits. Storm doors with screens can be used to save energy or provide spot ventilation to improve indoor air quality if operated correctly. Although we are not proposing credits as part of this proposal for these other qualities, there are many good reasons to provide an incentive to install storm doors over exterior doors.</p> | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5135 | 602.1.12 Roof overhangs |
|---|---|-------------------------|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Revise as follows | |
| Proposed Change: | <p>602.1.12 Roof overhangs. Roof overhangs, in accordance with Table 602.2, are provided over a minimum of 90 percent of exterior walls to protect the building envelope.</p> <p>Table 602.2 Inches of Rainfall Precipitation⁽¹⁾</p> | |
| Reason: | <p>This will make the column heading consistent with the footnote and the figure. Unless the intent is to only be concerned with rainfall, then the footnote should be revised as well as the figure.</p> | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5054 | 602.1.12 Roof overhangs |
|---|--|-------------------------|
| Submitter: | Chuck Arnold, Home Innovation | |
| Requested Action: | Delete and substitute as follows | |
| Proposed Change: | Table 602.1.2 Inches of Rainfall Precipitation | |
| Reason: | The foot note (1) states precipitation and Figure 6(2) details annual precipitation which includes snow and hail, not just rainfall. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5286 | 602.1.13 Ice barrier |
|---|---|----------------------|
| Submitter: | John Woestman, Kellen Company | |
| Requested Action: | Revise as follows | |
| Proposed Change: | 602.1.13 Ice barrier. In areas where there has been a history of ice forming along the eaves causing a backup of water, an An ice barrier is installed in accordance with the ICC IRC or IBC at roof eaves of pitched roofs and extends a minimum of 24 inches (610 mm) inside the exterior wall line of the building. | |
| Reason: | Reason: This section applies to new construction where there is no history. Therefore the first portion of the sentence has been deleted. Also, since there is a reference to the IRC and IBC requirements there is no reason to restate requirements that could change and become out of sync therefore the last portion of the sentence is deleted. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5284 | 602.1.4.2 Conditioned crawlspace |
|---|---|----------------------------------|
| Submitter: | John Woestman, Kellen Company | |
| Requested Action: | Revise as follows | |
| Proposed Change: | 602.1.4.2 Crawlspace that is built as a conditioned area is sealed to prevent outside air infiltration and provided with conditioned air at a rate not less than 0.02 cfm (.009 L/s) per square foot of horizontal area and one of the following is implemented: (1) a concrete slab over 6 mil polyethylene or polystyrene sheeting lapped a minimum of 6 inches (152 mm) and taped at the seams or polystyrene insulation board stapled or otherwise sealed at the seams. (2) 6 mil polyethylene sheeting lapped a minimum of 6 inches (152 mm) and taped at the seams. | |
| Reason: | Reason: This language is currently flawed. Polyethylene sheeting and polystyrene insulation boards are different in nature and installation. This revised language corrects the flaws. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5309 | 602.1.5 Termite barrier |
|---|---|-------------------------|
| Submitter: | Lorraine Ross, L Ross Consulting Inc | |
| Requested Action: | Revise as follows | |
| Proposed Change: | <p>602.1.5 Termite barrier control system. <u>One of the following termite control systems is provided in geographical areas that have subterranean termite infestation potential that is moderate to heavy or very heavy in accordance with Figure 6(3):</u></p> <p>(1) A continuous physical foundation termite barrier used with no or a low toxicity treatment or with no chemical treatment is installed in geographical areas that have subterranean termite infestation potential determined in accordance with Figure 6(3).</p> <p><u>(1) A continuous physical foundation termite barrier used with no or a low toxicity treatment or with no chemical treatment is installed in geographical areas that have subterranean termite infestation potential determined in accordance with Figure 6(3).</u></p> <p><u>(2) A low toxicity bait and kill termite treatment plan is selected and implemented.</u></p> | |
| Reason: | Reason: There are innovative and very effective methods of mitigating termite infestation and damage. This proposal recognizes another environmentally friendly method. Bait and kill treatment plans do not inject large quantities of chemicals in the ground rather they use a small quantity of solid bait that either kills the termites that eat it or returns the termites to the colony to kill the entire population. Currently the language is not clear in regard to the level of probability that determines the need for compliance with this section. Additional clarification was added. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5323 | 602.1.7 |
|---|--|---------|
| Submitter: | Rob Brooks, Rob Brooks & Associates, LLC | |
| Requested Action: | Add new as follows | |
| Proposed Change: | <p><u>602.1.7.3 Moisture control and condensation potential of the building envelope that has been analyzed by hygrothermal study, practice or model representative of the local climatic conditions and building air exchange rate.</u></p> | |
| Reason: | This credit is designed to encourage builders to use assemblies that have been evaluated for their local climatic conditions. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5285 | 602.1.9 Flashing |
|---|--|------------------|
| Submitter: | John Woestman, Kellen Company | |
| Requested Action: | Revise as follows | |
| Proposed Change: | <p>602.1.9 Flashing. <i>Charging section remains unchanged.</i></p> <p>(1) <i>remains unchanged</i></p> <p>(2) All window Window and door head and jamb flashing is self-adhered flashing complying with AAMA 711-07 installed in accordance with fenestration and flashing manufacturer's installation instructions.</p> <p>(3) <i>through(7) remain unchanged</i></p> | |
| Reason: | This section currently limits product choice unnecessarily. There are new innovative products in the market that should not be disadvantaged. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5158 | 602.1.9 Flashing |
|---|--|------------------|
| Submitter: | Brett VanAkkeren, USEPA | |
| Requested Action: | Revise as follows | |
| Proposed Change: | Make part (6), "Through-wall flashing is installed at transitions between wall cladding materials or wall construction types," mandatory. | |
| Reason: | Transitions between materials are typically continuous and present a great opportunity to insert flashing to allow for water to drain out of the walls and prevent water damage. Providing through wall flashing at transitions between wall cladding materials is just good practice and should be mandatory. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5306 | 602.2 Roof surfaces |
|---|--|---------------------|
| Submitter: | Lorraine Ross, L Ross Consulting Inc | |
| Requested Action: | Revise as follows | |
| Proposed Change: | <p>602.2 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 <u>more</u> of the following:</p> <p><i>(1) and (2) remain unchanged</i></p> <p><u>(3) Minimum initial SRI of 78 for low-sloped roof (a slope less than or equal to 2:12) and a minimum initial SRI of 29 for a steep-sloped roof (a slope of more than 2:12). The SRI is calculated in accordance with ASTM E1980. Roof products are certified and labeled.</u></p> | |
| Reason: | Reason: Chapter 5 addresses lot design, preparation, and development. Cool roofing does not fit. Cool roofing is more appropriately addressed in Chapter 6. In fact cool roofing requirements can also be found in chapter 6 in the current version (potential double counting). Therefore we have relocated the one compliance option for cool roofing that is found in chapter 5 but not in chapter 6 to section 602.2. The requirement has not been changed only relocated. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5246 | 602.3 Roof water discharge |
|---|---|----------------------------|
| Submitter: | Jeremy Velasquez, US-EcoLogic | |
| Requested Action: | Revise as follows | |
| Proposed Change: | Remove or revise the 5' rule regarding downspout extensions. | |
| Reason: | This is a liability issue in MF. As they may extend to "right of way" areas. There is also potential for damage to downspouts or extensions that would reduce the designed flow rates for drainage from the downspout system. Just installing a standard G & DS system seems adequate to remove bulk water away from the buildings. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5055 | 602.4.1 Finished grade slope minimum 6 inches over 10 feet |
|---|---|--|
| Submitter: | John Schneider, City of Moundsville | |
| Requested Action: | Revise as follows | |
| Proposed Change: | Coordinate 2% slope requirements with the 2012 IRC R401.3. IRC allows a 2% slope only with impervious surfaces. NGBS indicates any surfaces can be a minimum of 2% slope in "tight spaces". | |
| Reason: | Coordinate with 2012 IRC R401.3 | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5159 | 603.2 Salvaged materials |
|---|---|--------------------------|
| Submitter: | Brett VanAkkeren, USEPA | |
| Requested Action: | Revise as follows | |
| Proposed Change: | Reclaimed and/or salvaged materials and components are used <u>consistent with the requirements of local building codes</u> . The total material value and labor cost of salvaged materials is equal to or exceeds 1 percent of the total construction cost. | |
| Reason: | Reuse is a high-priority for materials management, but materials have to be reused in a safe and protective manner. One caution is that potentially harmful materials that had historically circulated in the construction and maintenance of buildings could be reintroduced into the building stock. Another concern is that depending on the application, the structural and energy-efficiency performance of certain recovered materials may not meet the requirements of building codes. The standard should reiterate the importance of reusing salvaged materials and components meet local code requirements. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5136 | 604.1 Recycled content |
|---|---|------------------------|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Revise as follows | |
| Proposed Change: | revise by adding (Points awarded for only one pair of major components and one pair of minor components.) | |
| Reason: | It is too often assumed that this practice affords an unlimited number of points based on the number of pairs of products that a home contains. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5274 | 604.1 Recycled content |
|---|--|------------------------|
| Submitter: | Shelly Leonard, Green Space Consultants LLC | |
| Requested Action: | Add new as follows | |
| Proposed Change: | <p><u>Common minor elements include, but not limited to:</u></p> <ul style="list-style-type: none"> • <u>Doors: interior and exterior</u> • <u>Trim: interior and exterior</u> • <u>Railings: interior and exterior</u> • <u>Exterior decking</u> • <u>Exterior siding/materials (e.g. wood siding, masonry, stucco, etc)</u> • <u>Roof/attic insulation</u> • <u>HVAC equipment, ductwork and water heaters</u> • <u>Appliances</u> • <u>Cabinets</u> • <u>Plumbing fixtures and pipe</u> • <u>Electrical fixtures and wiring</u> • <u>Finished flooring (hardwood, tile), carpet and padding covering <50% of floor area.</u> • <u>Driveway and walkway: base and finished surface</u> <p><u>Common major elements include, but not limited to:</u></p> <ul style="list-style-type: none"> • <u>Footings, foundation & crawlspace</u> • <u>Slab and slab base</u> • <u>Floor system structure and/or floor decking</u> • <u>Roof structure and/or decking</u> • <u>Exterior wall system structure and/or exterior sheathing</u> • <u>Exterior wall coverings (siding, masonry, stucco, etc.)</u> • <u>Interior wall system structure</u> • <u>Finished flooring (hardwood, tile), carpet and padding covering >50% of floor area.</u> • <u>All insulation excluding roof/attic insulation</u> | |
| Reason: | Include major factors and provide as much clarity as possible in the practice description. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5318 | 604.1 Recycled content |
|---|--|------------------------|
| Submitter: | Craig Conner, Building Quality | |
| Requested Action: | Delete without substitution | |
| Proposed Change: | 604 | |
| Reason: | <p>This section is hard to fail. It recognizes individual products that are recycled. However, these products are in aggregate so common as to make it difficult to build without getting at least partial points from this section. For example, consider steel. Steel averaged 88% recycled content in 2012 (http://www.recyclesteel.org/Recycling%20Resources/~media/Files/SRI/Releases/003%20Steel%20Recycling%20Rates%20Graphs.pdf). Common steel products, such as rebar, include more than 95% recycled content. There are products that do deserve encouragement. Cellulose insulation includes a substantial recycled component. High fly ash concrete utilizes a substantial amount of what is otherwise a waste material. High recycled-glass content fiberglass uses waste glass that doesn't otherwise have much of a market. If not deleted this section should be reformatted to focus on products that could greatly increase the use of what is now usually a waste product.</p> | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 708 | 605.0 Intent (Recycled Construction Waste) |
|------------------------------------|--|--|
| Submitter: | Gladys Quinto Marrone, BIA Hawaii | |
| Requested Action: | | |
| Proposed Change: | 605 – accept builder photo documentation, or other proof, that material has been ‘donated’ for reuse or recycling rather than require proof from a certified recycler. | |
| Reason: | Hawaii’s recycling management is generally poor. Most builders simply “donate” to the bins at local schools for recycling, but have no receipts for doing so. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 629 | 605.0 Intent (Recycled Construction Waste) |
|------------------------------------|--|--|
| Submitter: | Kathleen Petrie, City of Seattle, Department of Planning and Development | |
| Requested Action: | | |
| Proposed Change: | RECYCLED CONSTRUCTION <u>and</u> DEMOLITION WASTE | |
| Reason: | The section 605 heading should be revised to include demolition. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 631 | 605.0 Intent (Recycled Construction Waste) |
|------------------------------------|---|--|
| Submitter: | Kathleen Petrie, City of Seattle, Department of Planning and Development | |
| Requested Action: | | |
| Proposed Change: | 605.0 Intent. <u>Nonhazardous</u> waste generated during construction <u>and demolition</u> is recycled or reused. All waste classified as hazardous shall be properly handled and disposed. (Points not awarded for hazardous waste removal.) | |
| Reason: | All nonhazardous waste should be recycled or reused, regardless of whether it is the result of construction or demolition activity. Should the term "hazardous" be defined? | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 638 | 605.0 Intent (Recycled Construction Waste) |
|------------------------------------|--|--|
| Submitter: | Kathleen Petrie, City of Seattle, Department of Planning and Development | |
| Requested Action: | | |
| Proposed Change: | None | |
| Reason: | General Comment: It would be good to see the waste diversion section further developed to include demolition and land-clearing diversion, higher percentages of diversion, the disallowance of alternative daily cover as diversion, and restrictions on percentage of diversion that can be used as fuel end markets. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 628 | 605.1 Construction Waste Management Plan |
|------------------------------------|--|--|
| Submitter: | Kathleen Petrie, City of Seattle, Department of Planning and Development | |
| Requested Action: | | |
| Proposed Change: | 605.1 Construction and demolition waste management plan. A construction <u>and demolition</u> waste management plan is developed, posted at the jobsite, and implemented with a goal of recycling or salvaging a minimum of 50 percent (by weight) of <u>nonhazardous construction and demolition</u> waste. | |
| Reason: | There should be an attempt to recycle or reuse all nonhazardous waste, whether it be construction or demolition. There should be an attempt to recycle or reuse all nonhazardous waste, whether it be construction or demolition. The State of California, draft IgCC, Portland, OR, Chicago, IL and Boulder, CO all have a diversion rates of 50%, or greater | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5287 | 605.1 Construction waste management plan |
|------------------------------------|--|--|
| Submitter: | John Woestman, Kellen Company | |
| Requested Action: | Revise as follows | |
| Proposed Change: | 605.1 Construction waste management plan. A construction waste management plan is developed, posted at the jobsite, and implemented with a goal of to recycle or salvage <u>recycling or salvaging</u> a minimum of 50 percent (by weight) of construction waste. | |
| Reason: | Reason: Having a "goal" is not appropriate for point attainment. This section was edited to clarify the requirement. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5160 | 605.1 Construction waste management plan |
|---|---|--|
| Submitter: | Brett VanAkkeren, USEPA | |
| Requested Action: | Revise as follows | |
| Proposed Change: | A construction waste management plan is developed, posted at the jobsite, and implemented with a goal of recycling or salvaging a minimum of 50 percent (by weight) of construction waste, <u>excluding land-clearing waste</u> . | |
| Reason: | Land-clearing waste should be excluded from the 50 percent calculation. Soil, vegetation, and rocks are heavy, bulky materials. When included in the total weight used to calculate the recycling rate, it can reduce the amount of higher-value materials, such as wood, concrete, and drywall, that is ultimately recycled. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5204 | 605.1 Construction waste management plan |
|---|---|--|
| Submitter: | Wes Sullens, StopWaste of Alameda County | |
| Requested Action: | Revise as follows | |
| Proposed Change: | A construction waste management plan is developed, posted at the jobsite, and implemented with a goal of recycling or salvaging a minimum of 50 percent (by weight) of construction waste. <u>Land clearing debris and materials that are processed for recycling but are used as alternative daily cover at landfills shall be excluded from the 50 percent requirement.</u> | |
| Reason: | Materials that result from land clearing activity are often heavy and can skew results for other types of higher-value recycling and salvaging. Additionally, these materials are typically not landfilled in practice because they are expensive to tip, and robust markets are available to accept and recycle those land clearing materials at a lower cost than landfilling. "Alternative Daily Cover" (ADC) is cover material other than earthen material placed on the surface of the active face of a municipal solid waste landfill at the end of each operating day to control vectors, fires, odors, blowing litter, and scavenging. The ADC materials that result from building are byproducts of construction and demolition waste processing facilities, yet they are not actually recycled (they do not re-enter the materials cycle) and are essentially deposited in landfills and stay there forever. Therefore, ADC should not be considered recycling in green building standards. ASHRAE 189.1, GreenPoint Rated, and LEEDv4 have all disallowed ADC to count as recycling, and so should this standard. Achieving 50% recycling by not including ADC and land clearing debris is widely available with jobsite best practices (source separation of materials on-site and sending those materials to specific recycling facilities), and by sending the remaining mixed-waste loads to facilities that sort offsite. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5161 | 605.3 Recycled construction materials |
|------------------------------------|--|---------------------------------------|
| Submitter: | Brett VanAkkeren, USEPA | |
| Requested Action: | Revise as follows | |
| Proposed Change: | Construction materials (e.g., wood, cardboard, metals, drywall, plastic, asphalt roofing shingles, or concrete) <u>that cannot be salvaged and reused onsite</u> are recycled offsite. | |
| Reason: | Onsite salvage and reuse is preferred to offsite recycling because of reduced hauling and transportation impacts; it should be emphasized that reuse is a higher priority. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5056 | 606.1 Biobased products |
|------------------------------------|--|-------------------------|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Revise as follows | |
| Proposed Change: | <p>606.1 Biobased products. The following biobased products are used:</p> <ul style="list-style-type: none"> (a) certified solid wood in accordance with Section 606.2 (b) engineered wood (c) bamboo (d) cotton (e) cork (f) straw (g) natural fiber products made from crops (soy-based, corn-based) (h) products with the minimum biobased contents of the USDA 7 CFR Part 2002 (i) other biobased materials with a minimum of 50 percent biobased content (by weight or volume) <ul style="list-style-type: none"> (1) Two types of biobased materials are used, each for more than 0.5 percent of the project's projected building material cost. (2) Two types of biobased materials are used, each for more than 1 percent of the project's projected building material cost. (3) For each additional biobased material used for more than 0.5 percent of the project's projected building material cost. | |
| Reason: | USDA biobased criteria is based only on the organic part of the material. Materials that are largely inorganic can qualify under the USDA as biobased when only a small fraction of the material is biobased. Items (a)-(g) are essentially 100% biobased and item (i) requires at least 50%. While it may be worth recognizing USDA biobased products they should not get the same number of points as something that is over 50% biobased. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5083 | 606.2 Wood-based products |
|---|--|---------------------------|
| Submitter: | Michael Martin, National Wood Flooring Association | |
| Requested Action: | Add new as follows | |
| Proposed Change: | <p>606.2 Wood-based products. Wood or wood-based products are certified to the requirements of one of the following recognized programs:</p> <ul style="list-style-type: none"> (a) American Forest Foundation's American Tree Farm System (ATFS) (b) Canadian Standards Association's <i>Sustainable Forest Management System Standards</i> (CSA Z809) (c) <i>Forest Stewardship Council</i> (FSC) (d) <i>Program for Endorsement of Forest Certification Systems</i> (PEFC) (e) <i>Sustainable Forestry Initiative Program</i> (SFI) (f) <u>National Wood Flooring Association's <i>Responsible Procurement Program</i> (RPP)</u> (g) other product programs mutually recognized by PEFC | |
| Reason: | <p>Products certified to the requirements of the NWFA's RPP program are domestic hardwood flooring products that are independently verified as originating from "U.S. Renewing Forests": U.S. states whose hardwood forests are in surplus, i.e. they are producing more timber than is being removed or lost through harvest and mortality. As wood flooring is a product used on home building, the RPP is designed such that all products that are verified as being from "U.S. Renewing Forests" must gradually transition to FSC certification over time. FSC is a forest certification program already recognized under the National Green Building Standard. For all of these reasons, we believe it makes sense to recognize the NWFA RPP as a program in section 606.2 of the standard.</p> <p>[SEE ATTACHMENTS TO PUBLIC COMMENTS FOR ADDITIONAL INFORMATION]</p> | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5221 | 606.2 Wood-based products | | | | | | | | | | | | | | | | |
|---|--|---------------------------|---|--|---|--|---|--|---|--|--|--|--|--|---|----------|--|----------|
| Submitter: | Eric DeVito, BBRS | | | | | | | | | | | | | | | | | |
| Requested Action: | Revise as follows | | | | | | | | | | | | | | | | | |
| Proposed Change: | <p>606.2 Wood-based products. Wood or wood-based products are certified to the requirements of one of the following recognized product programs:</p> <table border="1"> <tr> <td>(a) American Forest Foundation's <i>American Tree Farm System</i>[®] (ATFS)</td> <td></td> </tr> <tr> <td>(b) Canadian Standards Association's <i>Sustainable Forest management System Standards</i> (CSA Z809)</td> <td></td> </tr> <tr> <td>(c) <i>Forest Stewardship Council</i> (FSC)</td> <td></td> </tr> <tr> <td>(d) <i>Program for Endorsement of Forest Certification Systems</i> (PEFC)</td> <td></td> </tr> <tr> <td>(e) <i>Sustainable Forestry Initiative</i>[®] <i>Program</i> (SFI)</td> <td></td> </tr> <tr> <td>(f) Other product programs mutually recognized by PEFC</td> <td></td> </tr> <tr> <td>(1) A minimum of two certified wood-based products are used for minor elements of the building (e.g. all trim, cabinetry, windows, doors, or millwork).</td> <td style="text-align: center;">3</td> </tr> <tr> <td>(2) A minimum of two certified wood-based products are used in major elements of the building (e.g., walls, floors, roof).</td> <td style="text-align: center;">4</td> </tr> </table> | | (a) American Forest Foundation's <i>American Tree Farm System</i> [®] (ATFS) | | (b) Canadian Standards Association's <i>Sustainable Forest management System Standards</i> (CSA Z809) | | (c) <i>Forest Stewardship Council</i> (FSC) | | (d) <i>Program for Endorsement of Forest Certification Systems</i> (PEFC) | | (e) <i>Sustainable Forestry Initiative</i> [®] <i>Program</i> (SFI) | | (f) Other product programs mutually recognized by PEFC | | (1) A minimum of two certified wood-based products are used for minor elements of the building (e.g. all trim, cabinetry, windows, doors, or millwork). | 3 | (2) A minimum of two certified wood-based products are used in major elements of the building (e.g., walls, floors, roof). | 4 |
| (a) American Forest Foundation's <i>American Tree Farm System</i> [®] (ATFS) | | | | | | | | | | | | | | | | | | |
| (b) Canadian Standards Association's <i>Sustainable Forest management System Standards</i> (CSA Z809) | | | | | | | | | | | | | | | | | | |
| (c) <i>Forest Stewardship Council</i> (FSC) | | | | | | | | | | | | | | | | | | |
| (d) <i>Program for Endorsement of Forest Certification Systems</i> (PEFC) | | | | | | | | | | | | | | | | | | |
| (e) <i>Sustainable Forestry Initiative</i> [®] <i>Program</i> (SFI) | | | | | | | | | | | | | | | | | | |
| (f) Other product programs mutually recognized by PEFC | | | | | | | | | | | | | | | | | | |
| (1) A minimum of two certified wood-based products are used for minor elements of the building (e.g. all trim, cabinetry, windows, doors, or millwork). | 3 | | | | | | | | | | | | | | | | | |
| (2) A minimum of two certified wood-based products are used in major elements of the building (e.g., walls, floors, roof). | 4 | | | | | | | | | | | | | | | | | |
| Reason: | This proposal clarifies that wood-framed windows and wood doors may also receive credit for the use of certified wood. We believe that wood-framed windows and doors already qualify for credit under this section, but code officials may not be awarding credits, because windows and doors are not listed as examples under either minor or major elements. For now, we have proposed including them in the category of "minor elements" of the building, although a home with a high glazing area percentage could arguably fit into the "major elements" definition. At a minimum, the addition of these two examples will provide some direction for the code official. | | | | | | | | | | | | | | | | | |
| TG Recommendation (AS or AM or D): | | | | | | | | | | | | | | | | | | |
| Modification of Proposed Change: | | | | | | | | | | | | | | | | | | |
| TG Reason: | | | | | | | | | | | | | | | | | | |
| TG Vote: | | | | | | | | | | | | | | | | | | |

| Proposal ID TBD | LogID 5162 | 607.1 Recycling |
|---|---|-----------------|
| Submitter: | Brett VanAkkeren, USEPA | |
| Requested Action: | Revise as follows | |
| Proposed Change: | 607.1 Recycling and Composting. <u>Recycling and composting</u> is <u>are</u> facilitated by one or more of the following methods: | |
| Reason: | Composting is not considered the same thing as recycling. Since the intent of the section is to facilitate composting as well as recycling, composting should be referenced by name in Section 607.1. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5288 | 607.1 Recycling |
|------------------------------------|---|-----------------|
| Submitter: | John Woestman, Kellen Company | |
| Requested Action: | Revise as follows | |
| Proposed Change: | 607.1 Recycling. Recycling by the occupant is facilitated by one or more of the following methods: <i>Remaining text is unchanged.</i> | |
| Reason: | Reason: deleting the undefined term "occupant" as the use of the term does not help to clarify who the recycling requirement is intended to apply to. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5275 | 609.1 Regional materials |
|------------------------------------|---|--------------------------|
| Submitter: | Shelly Leonard, Green Space Consultants LLC | |
| Requested Action: | Revise as follows | |
| Proposed Change: | 609.1 Regional Materials. Regional materials are used for major elements or components of the building and include materials and components that originate within 500 miles of the construction site if transported by truck, or within 1,500 miles if transported by rail. | |
| Reason: | Include major factors and provide as much clarity as possible in a succinct practice description. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5319 | 609.1 Regional materials |
|------------------------------------|--|--------------------------|
| Submitter: | Craig Conner, Building Quality | |
| Requested Action: | Delete without substitution | |
| Proposed Change: | 609 | |
| Reason: | This is not well thought out. Consider a few cases. Concrete is typically 60% to 75% aggregate. (http://www.cement.org/cement-concrete-basics/how-concrete-is-made) The concrete aggregate, stone and sand, will always be local, certainly well within the 500 mile radius allowed for "regional" materials. Easy points. How about wood. I live a fairly treeless semi desert on the eastern and brown side of Washington state. Local trees occur in parks and landscape. However the 500 mile radius around me includes all the trees in Washington and Oregon, and most in Idaho. Most wood I would likely buy is regional? Better yet, I like the sand on the beaches of Northern California and southern British Columbia. Since those are within 1500 miles of me by boat, both are regional and I should get credit for importing them for use in local homes?? This does not make sense. In general the market will charge me for transportation and lead me to better decisions than this part of the NGBS. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5137 | 609.1 Regional materials |
|---|---|--------------------------|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Revise as follows | |
| Proposed Change: | Regional materials. Regional materials are used for major elements or components of the building. | |
| Reason: | There is no definition of a major element. It is not clear how an element differs from a component. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5051 | 610.1 Life cycle analysis |
|---|---|---------------------------|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Revise as follows | |
| Proposed Change: | A life cycle analysis (LCA) tool is used to select environmentally preferable products, or assemblies, or an LCA is conducted on the entire building designs. Points are awarded in accordance with Section 610.1.1 or 610.1.2. Only one method of analysis or tool may be utilized. The reference service life for the building is 60 years for any life cycle analysis tool. Results of the LCA are reported in the manual required in Section <u>1001.1</u> or 1003.1(1) of this Standard in terms of the environmental impacts listed in this practice and it is stated if operating energy was included in the LCA. | |
| Reason: | It does not seem reasonable to award 15 point for doing an LCA for an entire building when the LCA shows that that building is environmentally terrible. It seems like a comparison should be made to appropriate alternative designs as is required for products. 1003.1 is not applicable to single family homes. Adding the reference to 1001.1 allows SF homes to comply with this practice. A similar change should be made to the chapter 11 practice. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5317 | 610.1.2 Life cycle analysis for a product or assembly |
|---|--|---|
| Submitter: | Craig Conner, Building Quality | |
| Requested Action: | Delete and substitute as follows | |
| Proposed Change: | <p>610.1.2 610.1.2 A minimum of 10 different permanently installed materials or products shall include an environmental product declaration. The environmental product declaration shall be based on externally verified data. The environmental product declaration shall be certified by an approved agency or third party in accordance with CAN/CSA-ISO 14025 and ISO 21930.</p> <p>Add new definition as follows:</p> <p>ENVIRONMENTAL PRODUCT DECLARATION. A report for a product or material based on a product's life cycle and other relevant information relevant to its environmental impact.</p> <p>Add new standard(s) as follows:</p> <p>CSA CAN/CSA-ISO 14025-07(R2012) Environmental labels and declarations – Type III environmental declarations – Principles and procedures (Adopted ISO 14025:2006, first edition, 2006-07-01) ISO 21930-2007 Sustainability in building construction – Environmental declaration of building products</p> | |
| Reason: | <p>This change substitutes Environmental Product Declarations (EPDs) for LCAs. The concept is similar, but EPDs are better defined. EPDs are emerging as one way to compare the environmental performance of competing products, including impacts from manufacturing and ultimately disposal. EPDs would include all the product attributes in the existing section. The use of common metrics for a specific product type encourages manufacturers to reduce their environmental impacts by making it more likely that product buyers will compare competing products based on a well defined set of environmental attributes. Complying with the new section is simple. No new building level calculations are required. If there are 10 EPDs for products in the building, the criteria would be met. ANSI has begun an accreditation program for organizations that certify EPDs. As written, this is not doable or at least will yield a questionable verdict. It says to compare products. Do I get to pick the worst product I can find in a particular category and compare mine to that? That is not useful. There is no obvious base case as it is written.</p> | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5115 | 610.1.2.1 Product LCA |
|---|--|-----------------------|
| Submitter: | Matthew Dobson, Vinyl Siding Institute | |
| Requested Action: | Revise as follows | |
| Proposed Change: | Section should be reviewed and updated according to latest LCA accepted practices and possibly include the use of Environmental Product Declarations and Product Category Rules. | |
| Reason: | Since this was placed in the NGBS there has been substantial steps with this science. The standard should be cutting edge on this issue. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5163 | 610.1.2.1 Product LCA |
|---|--|-----------------------|
| Submitter: | Brett VanAkkeren, USEPA | |
| Requested Action: | Revise as follows | |
| Proposed Change: | Add two new impact categories: <u>(e) Material Use</u> and <u>(f) Waste</u> | |
| Reason: | Industry-wide efforts to promote the management of materials and products on a life-cycle basis are current. These life-cycle efforts ensure that materials are used more efficiently and effectively. To that end, the analyses need to provide us with adequate measures that capture material use and recovery. Using less material and recovering more is crucial to our economic and environmental future. Material use and waste are two additional impact categories that should be included. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5316 | 610.1.2.2 Building assembly LCA |
|---|--|---------------------------------|
| Submitter: | Craig Conner, Building Quality | |
| Requested Action: | Delete without substitution | |
| Proposed Change: | 610.1.2.2 | |
| Reason: | This section is vaguely defined, and lacks a minimum or a base case to compare the report to. The requirements or consequences do not go beyond preparing a complex report that has nothing to compare to. A assembly life cycle assessment is impractical. How is the end user going to demonstrate that the assembly improved without a clear base case? The standard that has been referenced, ISO 14044 states in its Section 1 (Scope) "This International Standard is not intended for contractual or regulatory purposes or registration and certification." A building code is a regulation. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5266 | 611.1 Manufacturer's environmental practices (Innovative Practices) |
|---|---|---|
| Submitter: | Matt Belcher, Verdatek Solutions | |
| Requested Action: | Add new as follows | |
| Proposed Change: | <p>611.4 Resilience Dwelling incorporates one or more of the following resilience options, as applicable. Points for items 1 through 4 shall be granted only where such products are not required per the applicable building code.</p> <ol style="list-style-type: none"> 1. <u>High-wind resistant or impact resistant entry doors or garage doors are installed.</u> <ol style="list-style-type: none"> 1. <u>Impact resistant glazing is installed.</u> 2. <u>High-wind resistant or impact resistant wall claddings are installed.</u> 3. <u>High-wind resistant or impact resistant roof coverings are installed.</u> 4. <u>The building is constructed in accordance with an approved above-code mitigation program (e.g. IBHS Fortified, Resilience Star or My Safe Florida Home).</u> <p>Lot incorporates one or more of the following resilience options, as applicable.</p> <ol style="list-style-type: none"> 5. <u>The entire building is constructed using flood resistant materials.</u> 6. <u>The building is constructed with its lowest floor at least one foot above the elevation required by the building code or adopted by the jurisdiction, whichever is higher.</u> 7. <u>The building is constructed with its lowest floor at least two feet above the elevation required by the building code or adopted by the jurisdiction, whichever is higher.</u> 8. <u>The building is constructed with its lowest floor at least three feet above the elevation required by the building code or adopted by the jurisdiction, whichever is higher.</u> 9. <u>The building is located in Zone A and constructed on an open foundation system (pile foundations or isolated piers).</u> 10. <u>The building is constructed in accordance with an approved above-code flood mitigation program (e.g. IBHS Fortified, etc.).</u> | |
| Reason: | With the focus on future enhancement of the model codes to provide for enhanced "Resilient" construction, It is an opportunity to include reference in this "above code" standard to incentivise innovative practices and process that will demonstrate best practices for eventual application into the model codes. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5073 | 611.2 Sustainable products |
|---|--|----------------------------|
| Submitter: | Josh Jacobs, UL | |
| Requested Action: | Revise as follows | |
| Proposed Change: | <p>(5) 50% or more of the gypsum board installed (by square feet) is certified to <u>UL 100</u> ULE ISR 100.</p> <p>(6) 50% or more of the door leafs installed (by number of door leafs) is certified to <u>UL 102</u> ULE ISR 102.</p> | |
| Reason: | This is an update to existing references. UL 100 and 102 were finalized and published shortly after final voting for the NAHB National Green Building Standard was completed. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5077 | 611.2 Sustainable products |
|---|--|----------------------------|
| Submitter: | Josh Jacobs, UL | |
| Requested Action: | Add new as follows | |
| Proposed Change: | <p><u>(8) All clothes washers installed prior to occupancy are certified to AHAM 7003-2013/CSA SPE 7003-13/UL 7003. Points 1</u></p> <p><u>(9) All refrigeration appliances installed prior to occupancy are certified to AHAM 7001-2012/CSA SPE-7001-12/UL 7001. Points 1</u></p> | |
| Reason: | This is an addition of two more types of multi-attribute product standards which can help to bring in more sustainable products to the home. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5310 | Other for Chapter 6 (include section number and title below) |
|---|--|--|
| Submitter: | aaron gary, US-EcoLogic | |
| Requested Action: | Add new as follows | |
| Proposed Change: | 605.4 Recycled Demolition Materials Demolition Materials (excluding Site clearing) are recycled off-site. | |
| Reason: | For projects (new construction or remodel) that are being built on Sites with existing structures substantial amounts of waste can be generated during the demolition phase of construction. Projects should be rewarded for dealing with this waste appropriately in the same way Construction Waste Diversion is rewarded. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5308 | Other for Chapter 6 (include section number and title below) |
|---|--|--|
| Submitter: | aaron gary, US-EcoLogic | |
| Requested Action: | Add new as follows | |
| Proposed Change: | 611.4 E-waste Diversion during demolishing | |
| Reason: | Electronic components (computers, circuit boards, HVAC controls, etc.) contain valuable precious metals as well contaminants such as lead, cadmium, beryllium, or brominated flame retardants. Such e-waste is not easily included as part of the traditional waste streams (trash or recycle) and projects should be rewarded for dealing with these products appropriately when they are encountered during demolition of existing structures (for new construction or remodel). | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5157 | Other for Chapter 6 (include section number and title below) |
|---|---|--|
| Submitter: | Brett VanAkkeren, USEPA | |
| Requested Action: | Add new as follows | |
| Proposed Change: | 601.10. Design for Disassembly. Incorporate in the design interior elements, such as non-load-bearing walls, partitions, lighting and electric systems, suspended ceilings, raised floors and interior air distribution systems that can be disassembled, re-configured, and reused. Utilize connections that allow disassembly, such as reversible connections (e.g. screws, bolts, nails, clips). | |
| Reason: | Reason Statement: The intent of 601 is to utilize design and construction practices that minimize the environmental impact of the building materials and to incorporate environmentally efficient building systems and materials. Employing design elements that can be disassembled, re-configured and reused, and utilizing connections that are reversible are important green building practices to ensuring buildings systems are environmentally efficient. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5151 | Other for Chapter 6 (include section number and title below) |
|---|--|--|
| Submitter: | Stephen J Holzer, eM8s, LLC | |
| Requested Action: | Add new as follows | |
| Proposed Change: | 611.4 Building Information Modeling(BIM) ProjectTeam uses BIM as primary means to coordinate planning, design, construction and operations for residential buildings in order reduce material waste and errors. | |
| Reason: | Building Information Modeling (BIM) is a computer generated model based process that simulates planning, design, construction and operations for buildings. It is a single repository for both three-dimensional, two-dimensional, and material properties information that allows data interoperability of all stakeholders to better inform design and construction decisions with the goal of producing the best product possible. This information technology will increase design and construction efficiencies and decrease costs for builders and end users. BIM may also facilitate better communication, collaboration and coordination among building industry professionals and trades working on the same project. Credit should be given to Builders utilizing the open industry standards as defined in the National Building Information Modeling Standard. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5078 | Other for Chapter 6 (include section number and title below) |
|---|--|--|
| Submitter: | Josh Jacobs, UL | |
| Requested Action: | Add new as follows | |
| Proposed Change: | <p>611.4 Product Declaration. A minimum of 10 different products installed in the building project, at the time of certificate of occupancy, shall comply with one of the following sub-sections: <u>Declarations, reports, and assessments shall be submitted to the AHJ and shall contain documentation of the critical peer review by an independent third party, results from the review, the reviewer's name, company name, contact information, and date of the review. Points 5</u></p> <p>611.4.1 Industry-wide Declaration. A Type III industry-wide environmental product declaration (EPD) shall be submitted for each product. Where the program operator explicitly recognizes the EPD as representative of the product group on a National level, it is considered industry-wide. In the case where an industry-wide EPD represents only a subset of an industry group, as opposed to being industry-wide, the manufacturer shall be explicitly recognized as a participant by the EPD program operator. All EPDs shall be consistent with ISO Standards 14025-and 21930 with at least a cradle-to-gate scope. Each product complying with this section shall be counted as one product for compliance with Section 611.4</p> <p>6.11.4.2 Product Specific Declaration. A product specific Type III EPD shall be submitted for each product. The product specific declaration shall be manufacturer specific for an individual product or product family. All Type III EPDs shall be certified as complying, at a minimum, with the goal and scope for the cradle-to-gate requirements in accordance with ISO Standards 14025 and 21930. Each product complying with this section shall be counted as two products for compliance with Section 611.4.</p> | |
| Reason: | The proposal allows for rewarding the builder when they use products that have been transparent about their environmental impact. Environmental product declarations (EPD) are a tool that is gaining acceptance in green design standards as an accepted way for a manufacturer to communicate the impacts that their products and their manufacturing have on the environment. The goal of EPDs is to provide designers, purchasers, and builders with data that will inform their purchasing decisions – much the way nutritional labels on food packaging does today. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5269 | 901.1.4 Gas fireplaces and direct heating equipment vented outdoors |
|---|---|---|
| Submitter: | Ted A. Williams, American Gas Association | |
| Requested Action: | Revise as follows | |
| Proposed Change: | <p>901.1.4 Gas-fired fireplaces and direct heating equipment is listed and is installed in accordance with the NFPA 54, ICC IFGC, or the applicable local gas appliance installation code. Gas-fired fireplaces and direct heating equipment are vented to the outdoors.</p> <p>[a duplicative proposed change on 11.901.1.4 is submitted.]</p> | |
| Reason: | <p>Banning unvented or "vent-free" fireplaces, the net effect of this "mandatory" requirement, have never been justified in terms of environmental criteria consistent with a "green" standard. During deliberations on the 2012 Edition, air pollutant emissions associated with use of such products were not documented or referenced in terms of concentrations or specific effects on the indoor environment or human health. Likewise, the ban does not address positive environmental benefits associated with virtual 100% thermal efficiency of heating in the installed space and reduced need for central heating from spot heating afforded by unvented combustion heating appliances, both of which reduce overall energy demand and externalities (including total air emissions) associated with less efficient heating approaches. These positive effects should be evaluated on balance with hypothesized negative effects associated with altered indoor air concentrations of the identified contaminants. No effort is made or documented to assess this balance. While points are proposed for use of these products, their banning from green building represents unbalanced and non-technical consideration of the net effects of their installation and use. The ban appears to appeal to simplistic views of environmental acceptability based on an "additive" impact on indoor air quality from operation of unvented combustion appliances. It ignores important design and product standardization considerations. For example, appliance sizing and, most directly, heat gain beyond tolerable limits in tight buildings impose a fundamental limit on the generation of combustion products. The tighter the installation location, the lower the firing rate and duration the appliance can be operated while avoiding intolerable temperatures. This principle has been applied to gas-fired residential cooking appliances since 1921 (ANSI Standard Z21.1), which associated combustion product loadings with the tightness of kitchens, emission factors from the appliances, and heat rise tolerances for occupants. A technical review in 1994, reviewed by U. S Consumer Product Safety Commission and considering modern air change rates, combustion product exposure criteria, and ASHRAE thermal comfort requirements confirmed the continued efficacy of this approach. Unvented fireplaces are design certified in the same manner. If unvented combustion appliances represent a public health or safety hazard, they should be prohibited from all occupancies (not just "green" buildings) because to do less would imply a toleration of unequal treatment of occupants with respect to health and safety. Standards development for "green" buildings would be better conducted on technically justified grounds and not focus on banning products based on heuristic arguments. It should be noted that proposed Addendum be to ASHRAE Standard 189.1, "Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings" would have imposed a similar ban of unvented fireplaces, but the Addendum has been returned to the 189.1 Standard Project Committee following public review and receipt of negative comments.</p> | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5252 | 901.1.4 Gas fireplaces and direct heating equipment vented outdoors |
|---|--|---|
| Submitter: | Frank A. Stanonik, AHRI | |
| Requested Action: | Revise as follows | |
| Proposed Change: | 901.1.4. Gas-fired fireplaces and direct heating equipment is listed and is installed in accordance with the NFPA 54, ICC IFGC, or the applicable local gas appliance installation code. Gas-fired fireplaces and direct heating equipment are vented to the outdoors. | |
| Reason: | 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. The last sentence as it applies to vented gas fireplaces and direct heating equipment is redundant. This deletion also removes the unjustified situation presented by the current standard that a home which has a gas-fired unvented or vent-free heater is automatically disqualified from carrying any level of "Green" designation regardless of any other aspects of the home's design or features. The provisions in Section 902.2, Building ventilation systems, and Appendix B, Whole Building Ventilation System Specifications, address several different ways to provide ventilation to a residence. It is a technical fact that some of those methods of providing ventilation to the residence will allow the operation of a gas-fired unvented heater with no detrimental effect on the air quality in the residence. This proposal does not promote the use of unvented gas heaters. Rather it allows the builder to decide whether to install such equipment and the corresponding ventilation system, as required to meet both the combustion and ventilation air requirements of the heaters installation instructions and the ventilation provisions of this Green Building Standard. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5211 | 901.10 Interior adhesives and sealants |
|---|--|--|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Revise as follows | |
| Proposed Change: | SCAQMD Rule 1168 in accordance with Table 901.10(3), excluding products that are sold in 16 ounce containers or less and are regulated by the California Air Resources Board (CARB) Consumer Products Regulations. | |
| Reason: | This practice is not clear regarding what is excluded. It seems like if the product does not comply with the emissions of Table 901.10(3) then it should not be excluded just because is sold in 16 oz or less containers. If the intent is to give points for 16 oz products that are CARB regulated then then "excluding" should be changed to "or". | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5212 | 901.12 Carbon monoxide alarms |
|---|--|-------------------------------|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Revise as follows | |
| Proposed Change: | 901.12 Carbon monoxide (CO) alarms. Where not required by local codes, a carbon monoxide (CO) alarm is installed in a central location outside of each separate sleeping area in the immediate vicinity of the bedrooms..... | |
| Reason: | We get lots of questions regarding why this practice only gets points when not required by local code. It seems inconsistent that the same house could achieve a different level simply because it is on one side of a jurisdictional boundary or the other side. Other confusion arises when the home is all electric and there is no fossil fuel combustion or attached garage. Perhaps the practice should be changed to mandatory when required by the IRC. Clarification on this practice would be helpful. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5143 | 901.2.1 Solid fuel-burning fireplaces, inserts, stoves, and heaters |
|---|--|---|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Revise as follows | |
| Proposed Change: | 901.2.1(2) Factory-built, wood-burning fireplaces are in accordance with the certification requirements of UL 127 and are EPA certified -Phase 2 <u>Qualified</u> . | |
| Reason: | The EPA does not certify wood burning fireplaces. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5254 | 901.2.1 Solid fuel-burning fireplaces, inserts, stoves, and heaters |
|---|---|---|
| Submitter: | Thomas Stroud, HPBA | |
| Requested Action: | Add new as follows | |
| Proposed Change: | “Factory-built wood-burning fireplaces are inaccordance with the certification requirements of UL 127 and are EPA certified <u>orqualified</u> .” The modification adds “orqualified.” | |
| Reason: | During the last revision of this code it was discussed that this language should be included. The difficulty was that this category had not been fully adopted by EPA. Now EPA has fully adopted this category and promotes it http://www.epa.gov/burnwise/fireplacelist.html . Fireplaces in the EPA’s Qualified program are specifically designed to operate as fireplaces rather than wood stoves (as are the EPA Certified Appliances). The certified products make sense for some regions that are seeking to heat with the fireplace. The EPA has created the Qualified program for new homes in warmer climates and for homes seeking just the ambiance of the fireplace, yet want to have that product clean-burning. Given that EPA has chosen not to regulate fireplaces in the current NSPS this classification will reinforce the use of cleaner burning EPA Qualified Fireplaces. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5251 | 901.2.1 Solid fuel-burning fireplaces, inserts, stoves, and heaters |
|---|--|---|
| Submitter: | Kat Benner, TexEnergy | |
| Requested Action: | Delete without substitution | |
| Proposed Change: | (2) Factory-built, wood-burning fireplaces are in accordance with the certification requirements of UL 127 and are EPA certified. | |
| Reason: | <p>• Removal of Mandatory 901.2.1(2) "EPA certified" fireplace requirement BACKGROUND: The way currently written allows no large multifamily property to afford the option of decorative wood burning fireplaces, very common in the South. Standard assumes all fireplaces are as sole heat-source of unit vs. decorative/supplemental. Traditionally, a decoration wood-burning fireplace would have no added 'Indoor Air Quality' measures-fire box flue and damper, that's it. A progressive step would be to mandate, outside combustion air and gasketed fireplace doors. (see cost comparison below). This would allow the fireplace to burn wood without using the conditioned indoor air for combustion and it would allow for the fireplace to no spill combustion byproducts into the conditioned space. EPA certification does not certify decoration wood burning fireplaces, It only certifies fireplaces that are to be used as a primary or sub-primary heat sources, for a home/dwelling; the certification is based on the ability of the fireplace to be loaded up with enough wood to burn efficiently for long hours (through the night). Moreover, the ideology for this certification is based less on 'Indoor Air Quality' as it is atmospheric or 'Outdoor Air Quality'-the more efficiently the wood burns the less byproduct exhausting up the flue. This also, seems to be misaligned with the basic principals of a green building program to be, incrementally better than a base code, with a progressive 'stair stepping' of more efficient(greener) practices. Requiring EPA certification, is not a incremental step, the market does not exist for fireplaces of this type on a multifamily production scale. I would venture to say that the market will never exist due the nature of mechanical systems typically being oversized for smaller dwelling units. The need for a primary or sub-primary wood burning fireplace heat source, in an apartment unit, is just not necessary – the most practical solution is to have the EPA certification for Decoration Fireplace (currently being lobbied by many fireplace manufacturers), but until this exists the requirement of an EPA certified wood burning fireplace will only add a design restriction associated with NGBS – No wood burning fireplaces in apartments. Traditional wood burning fireplace - \$150.00 per unit x 300 units = \$45,000.00 per project (progressive step) Indoor Air Quality appropriate wood burning fireplace with gasketed doors and outside combustion air - \$350.00-\$450.00 per unit x 300 units = \$105,000.00 - \$135,000.00 per project (unachievable requirement) EPA certified - \$750.00-\$1,000 per unit x 300 units = \$225,000.00 - \$300,000.00 per project</p> | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 714 | 901.3 Garages |
|---|---|---------------|
| Submitter: | Gladys Quinto Marrone, BIA Hawaii | |
| Requested Action: | | |
| Proposed Change: | Better definition of what constitutes a 'carport' is needed. For example, the amount of enclosed space and amount of ventilation for garages with open block walls and windows. | |
| Reason: | Better definition of what constitutes a 'carport' is needed. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5144 | 901.4 Wood materials |
|------------------------------------|--|----------------------|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Revise as follows | |
| Proposed Change: | <p>901.4 Wood materials. A minimum of 85 percent of material within a product group (i.e., wood structural panels, countertops, composite trim/doors, custom woodwork, and/or component closet shelving) is manufactured in accordance with the following:</p> <p>(1) Structural plywood used for floor, wall, and/or roof sheathing is compliant with DOC PS 1 and/or DOC PS 2. OSB used for floor, wall, and/or roof sheathing is compliant with DOC PS 2. The panels are made with moisture-resistant adhesives. The trademark indicates these adhesives as follows: Exposure 1 or Exterior for plywood, and Exposure 1 for OSB.</p> | |
| Reason: | Structural use panels are almost never used for countertops, woodwork, or shelving. Structural use panels are a different product type and should not be lumped together with the other types. All structural use panels should comply not just 85%. A new practice is needed to split the original one into two practices. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5145 | 901.4 Wood materials |
|------------------------------------|---|----------------------|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Add new as follows | |
| Proposed Change: | <p>901.5 Wood materials. A minimum of 85 percent of material within a product group (i.e., <u>countertops, composite trim/doors, custom woodwork, and/or component closet shelving</u>) is <u>manufactured in accordance with the following</u></p> <p>(1) <u>Particleboard and MDF (medium density fiberboard) is manufactured and labeled in accordance with CPA A208.1 and CPAA208.2, respectively. (Points awarded per product group.)</u></p> <p>(2) <u>Hardwood plywood in accordance with HPVAHP-1. (Points awarded per product group.)</u></p> <p>(3) <u>Particleboard, MDF, or hardwood plywood is in accordance with CPA 4. (Points awarded per product group.)</u></p> <p>(4) <u>Composite wood or agrifiber panel products contain no added urea-formaldehyde or are in accordance with the CARB Composite Wood Air Toxic Contaminant Measure Standard. (Points awarded per product group.)</u></p> <p><u>Non-emitting products. (Points awarded per product group.)</u></p> | |
| Reason: | The original 901.4 practice lumped structural use panels in with countertop, trim, and shelving materials. These are two significantly different materials and uses. The practice should be split. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5146 | 901.6 Carpets |
|---|---|---------------|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Revise as follows | |
| Proposed Change: | <p>901.6 Carpets. Carpets are in accordance with the following:</p> <p>(1) Wall-to-wall carpeting is not installed adjacent to water closets and bathing fixtures.</p> <p>(2) A minimum of 10 percent of the conditioned floor space has carpet and at least 85 percent of installed carpet area and/or carpet cushion (padding) are in accordance with the emission levels of CDPH/EHLB Standard Method v1.1 except footnote b in Table 4.1 does not apply (i.e., allowable maximum formaldehyde concentration is 16.5 µg/m³(13.5 ppb)). Product is tested by a laboratory with the CDPH/EHLB Standard Method v1.1 within the laboratory scope of accreditation to ISO/IEC 17025 and certified by a third-party program accredited to ISO Guide 65, such as, but not limited to, those in Appendix D.</p> | |
| Reason: | Another proposed change has been submitted addressing flooring materials in total that will incorporate the deleted portion of this practice. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5147 | 901.7 Hard-surface flooring |
|---|---|-----------------------------|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Revise as follows | |
| Proposed Change: | <p>901.7 Hard-surface flooring. Flooring Materials: The following types of finished flooring materials are used. The materials have emission levels in accordance with CDPH/EHLB Standard Method v1.1 except footnote b in Table 4.1 does not apply (i.e., allowable maximum formaldehyde concentration is 16.5 $\mu\text{g}/\text{m}^3$ (13.5 ppb)). Product is tested by a laboratory with the CDPH/EHLB Standard Method v1.1 within the laboratory scope of accreditation to ISO/IEC 17025 and certified by a third-party program accredited to ISO Guide 65, such as, but not limited to, those in Appendix D.</p> <p>(1) <u>Hard surface flooring: A minimum of 10 percent of the conditioned floor space has pre-finished hard-surface flooring installed and a minimum of 85 percent of all prefinished installed hard-surface flooring is in accordance with the emission concentration limits of CDPH/EHLB Standard Method v1.1 except footnote b in Table 4.1 does not apply (i.e., allowable maximum formaldehyde concentration is 16.5 $\mu\text{g}/\text{m}^3$ (13.5 ppb)). Emission levels are determined by a laboratory accredited to ISO/IEC 17025 and the CDPH/EHLB Standard Method v1.1 is in its scope of accreditation. The product is certified by a third-party program accredited to ISO Guide 65, such as, but not limited to, those found in Appendix D.</u></p> <p><u>Prefinished installed hard-surface flooring is installed. Where post-manufacture coatings or surface applications have not been applied, the following hard surface flooring types are deemed to comply with the emission requirements of this practice:...</u></p> <p><u>(2) Carpet.</u></p> <p><u>(Points are awarded for every 10% of conditioned floor space using one of the above materials. When carpet cushion meeting the emission limits of the practice is also installed, the percentage of compliant carpet area is calculated at 1.33 times the actual installed area).</u></p> | |
| Reason: | It seems more logical to treat all flooring materials in a similar and connected way and give more points for more compliant flooring that just the minimum of 10% of the conditioned floor space. More points should be awarded for a home with 100% of the floor space complying compared to one that only 10% complies. Suggested point level is 1 or 2 points per 10% of conditioned floor space. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5311 | 901.9 Interior architectural coatings |
|---|---|---------------------------------------|
| Submitter: | Lorraine Ross, L Ross Consulting Inc | |
| Requested Action: | Add new as follows | |
| Proposed Change: | <p>Add this exception to Section 901.9: <u>Exception: Interior architectural coatings that are formulated to remove formaldehyde and other aldehydes in indoor air and are tested and labeled in accordance with ISO 16000-23, "Indoor Air – Performance test for evaluating the reduction of formaldehyde concentrations by sorptive building materials".</u></p> | |
| Reason: | Reason: This proposal recognizes new technology for additives that have proven to abate, or remove, formaldehyde and other aldehydes when part of formulations for paints, coatings, acoustical ceilings and wall systems. The new proposed reference standard is the standard method used to assess the performance of these formulations. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5210 | 902.1.1 Spot Ventilation |
|------------------------------------|--|--------------------------|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Revise as follows | |
| Proposed Change: | (2) Clothes dryers <u>(including condensing dryers)</u> are vented to the outdoors. | |
| Reason: | We have had several requests to allow condensing dryers even though they are not vented to the outdoors. The argument is that the moisture is removed by the condensation process. But my concern is with possible out gassing from fabric softener sheets, detergents, etc. I don't know if this really is an IEQ issue or not but I wanted to raise the issue for consideration by others more knowledgeable than me. If it is not a concern please reject this proposed change. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5063 | 902.2.1 Whole building ventilation system |
|------------------------------------|--|---|
| Submitter: | Robert Hill, Home Innovation Research Labs | |
| Requested Action: | Revise as follows | |
| Proposed Change: | One of the following whole building ventilation systems is implemented and is in accordance with the specifications of Appendix B- <u>and an explanation of the operation and importance of the ventilation system is included in either 1001.1 or 1003.2.</u> | |
| Reason: | Proper ventilation is important especially in tight houses. 902.2.1(a)needs more explanation about operation and importance for the typical home owner. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5094 | 902.2.1 Whole building ventilation system |
|------------------------------------|--|---|
| Submitter: | Donald Prather, ACCA | |
| Requested Action: | Revise as follows | |
| Proposed Change: | Recommend the following additions be made: (3) Heat-recovery ventilator <u>(HRV)</u> (4) Energy- recovery ventilator <u>(ERV)</u> (5) <u>HRV or ERV is used as exhaust fan for one or more bathrooms or for a kitchen application</u> | |
| Reason: | This should be provided as a 9 or 10 point option because it saves up to 45% on the energy losses caused by simple negative air pressure exhaust only outside air /make up air designs. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5132 | 902.2.2 Whole building ventilation airflow is tested |
|---|---|--|
| Submitter: | Marie Nisson, TexEnergy/US-EcoLogic | |
| Requested Action: | Revise as follows | |
| Proposed Change: | 902.2.2 Ventilation airflow is tested to achieve the design fan airflow at point of exhaust in accordance with Section 902.2.1 | |
| Reason: | Exhaust ductwork is visually inspected during predrywall for NGBS and Code. Testing at point of exhaust is not safe nor practical for many multifamily and multiple story, single family homes. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5248 | 902.2.3 MERV 8 filters |
|---|--|------------------------|
| Submitter: | Jeremy Velasquez, US-EcoLogic | |
| Requested Action: | Revise as follows | |
| Proposed Change: | Measure should be mandatory at MERV 6 and award additional points for MERV 8+: (a) MERV Filters 6 are installed..... Mandatory (b) MERV Filters 8 are installed 3 pts (c) MERV Filter 11 or greater 6 pts | |
| Reason: | To address IAQ concerns, MERV filtration should be required for GREEN BUILDINGS. Many design teams will not choose this measure for MF, as it is not required, and so the indoor air quality suffers for most NGBS projects. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5304 | 902.3 Radon control |
|---|--|---------------------|
| Submitter: | aaron gary, US-EcoLogic | |
| Requested Action: | Revise as follows | |
| Proposed Change: | Radon control measures are in accordance with ICC IRC Appendix F or (insert appropriate IBC reference)... | |
| Reason: | Multifamily buildings are not built to the ICC IRC, they follow the ICC IBC. NGBS protocol should reflect the appropriate code requirements. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5095 | 904.2 Kitchen exhaust |
|------------------------------------|---|-----------------------|
| Submitter: | Donald Prather, ACCA | |
| Requested Action: | Revise as follows | |
| Proposed Change: | 904.2 Kitchen Exhaust. A kitchen exhaust unit(s) that equals or exceeds 400cfm (189 l/s) is installed and makeup air is provided <i>(1) ERV or HRV is installed to temper the outside air being brought in.</i> | |
| Reason: | Recommend making the makeup air requirement mandatory and awarding the 2 points for making it economical | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5079 | Other for Chapter 9 (include section number and title below) |
|------------------------------------|--|--|
| Submitter: | Josh Jacobs, UL | |
| Requested Action: | Revise as follows | |
| Proposed Change: | For Sections 901.6, 901.7, 901.8, 901.9, 901.10, & 901.11 A minimum.....in accordance with the emission levels of CDPH/EHLB Standard Method v1.1 except footnote b in table 4.1 does not apply (i.e., allowable maximum formaldehyde concentration is 16.5 ug/m3 (13.5 ppb))..... | |
| Reason: | Formaldehyde exposure in indoor environments is one of the most prevalent indoor environmental quality issues. The referenced standard, CDPH/EHLB Standard Method v1.1 set a new limit for formaldehyde on January 1, 2012. At the last revision of this standard the committee felt that it was not enough time to ask manufacturers to comply with the lowering of the levels. As of today, the marketplace has done a good job of adjusting their levels and many products show compliance to the lower required level. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5080 | Other for Chapter 9 (include section number and title below) |
|---|--|--|
| Submitter: | Josh Jacobs, UL | |
| Requested Action: | Add new as follows | |
| Proposed Change: | <p>904.3 Total Volatile Organic Compound Emission Limit. A minimum of 50% of all installed products that comply with Sections 901.6, 901.7, 901.8, 901.9.3, 901.10 (1), and 901.11 shall demonstrate a Total Volatile Organic Compounds (TVOC) emission limit of ≤ 500 ug/m³ per the CDPH/EHLB Standard Method v1.1. The emission levels are determined by a laboratory accredited to ISO/IEC 17025 and the CDPH/EHLB Standard Method v1.1 is in its cope of accreditation. Points 2</p> | |
| Reason: | <p>The existing product emission criteria in 901.6, 901.7, 901.8, 901.9, 901.10, & 901.11 only covers 35 individual chemicals. While this list covers some of our more well-known potentially harmful chemical, it does not cover the thousands of other chemicals that could be coming off products. With over 10,000 chemicals having been found to emit from man-made products there is a lot of uncovered area. This proposal helps us marry the coverage of the known concerns (the existing limits) with the coverage against the unknown.</p> | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5172 | Other for Chapter 9 (include section number and title below) |
|------------------------------------|---|--|
| Submitter: | Brett VanAkkeren, USEPA | |
| Requested Action: | Add new as follows | |
| Proposed Change: | <p><u>902.7 Pest Barriers</u></p> <p><u>1) Minimize Pathways for Pest Entry</u></p> <p><u>NOTE: Completion of the ENERGY STAR checklists now satisfies the following Indoor airPLUS requirements:</u></p> <p><u>.. Seal all penetrations and joints between the foundation and exterior wall assemblies (TES 5).</u></p> <p><u>.. Air seal all sump covers (WMS 1.7).</u></p> <p><u>No additional Indoor airPLUS Requirements</u></p> <p><u>. Advisories:</u></p> <p><u>1. When sealing larger gaps that provide potential points of entry for rodents, copper or stainless steel wool is recommended in addition to sealant.</u></p> <p><u>2. Additional precautions should be taken in areas classified as “Moderate to Heavy” termite infestation probability (as identified by 2009 IRC Figure 301.2 [6]):</u></p> <p><u>.. Foundation walls should be solid concrete or masonry with a top course of solid block, bond beam, or concrete-filled block.</u></p> <p><u>.. Interior concrete slabs should be constructed with 6 x 6 in. welded wire fabric, or the equivalent, and concrete walls should be constructed with reinforcing rods to reduce cracking.</u></p> <p><u>.. Sill plates should be made of metal or preservative-treated wood.</u></p> <p><u>3. Additional precautions should be taken in areas classified as “Very Heavy” termite infestation probability (as identified by 2009 IRC Figure 301.2[6]) i.e., Alabama, Florida, Georgia, Louisiana, Mississippi, South Carolina and parts of California and Texas:</u></p> <p><u>.. Foam plastic insulation should not be installed on the exterior face of below-grade foundation walls or under slabs.</u></p> <p><u>.. Foam plastic insulation installed on the exterior of above-grade foundation walls should be kept a minimum of 6 in. above the final grade and any landscape bedding materials and should be covered with moisture-resistant, pest-proof material (e.g., fiber cement board or galvanized insect screen at the bottom-edge of openings).</u></p> <p><u>.. Foam plastic insulation applied to the interior side of conditioned crawlspace walls should be kept a minimum of 3 in. below the sill plate.</u></p> <p><u>(2) Rodent/Bird Screens for Building Openings</u></p> <p><u>Indoor airPLUS Requirements:</u></p> <p><u>. Provide corrosion-proof rodent/bird screens (e.g., copper or stainless steel mesh) for all building openings that cannot be fully sealed and caulked (e.g., ventilation system intake/exhaust outlets and attic vent openings).</u></p> <p><u>. Exception: This requirement does not apply to clothes dryer vents.</u></p> | |
| Reason: | Pest barriers are important to preventing animal-related pollutant loading of the indoor environment. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |

| Proposal ID TBD | LogID 5229 | Other for Chapter 9 (include section number and title below) | |
|---|--|--|--|
| Submitter: | Eric DeVito, BBRs | | |
| Requested Action: | Add new as follows | | |
| Proposed Change: | 902.1 Spot ventilation | | |
| | 902.1.5 Fenestration in dwelling areas is designed for cross-ventilation in accordance with all of the following: | | |
| | <ul style="list-style-type: none"> <u>(1) Operable windows and sliding glass doors with a total area of at least 15 percent of the conditioned floor area are provided.</u> <u>(2) Insect screens are provided for all operable windows and sliding glass doors.</u> <u>(3) A minimum of two windows or sliding glass doors are placed in adjacent or opposite walls.</u> | 5 | |
| Reason: | <p>One often overlooked source of spot ventilation and potential energy efficiency is the proper installation of operable windows and sliding glass doors. Much of the debate over indoor environmental quality focuses on keeping outdoor air out, but a homeowner needs the flexibility to occasionally move a great deal of air through the home – whether to remove indoor air toxins or to simply take advantage of a favorable breeze in the spring or fall. The proposal above is designed to be a simple three-part design checklist that ultimately will enable homeowners to easily and quickly ventilate the main living areas of the home. While we could have designed a much more complicated set of criteria, this proposal catches the most essential elements. The three important elements are as follows:</p> <ul style="list-style-type: none"> • Enough operable windows or doors to air out the primary living areas: We have selected 15% as a reasonable amount, recognizing that not every window or door needs to be operable in a typical residential building. • Screens for each window or sliding glass door: A homeowner is much more likely to take advantage of the benefits of spot ventilation if insect screens are in place. • Windows and doors must create conditions for cross-ventilation: It is not as effective to place all operable fenestration on one side of the home. To take advantage of a favorable breeze or to efficiently ventilate a living area, windows should be located on adjacent or opposite walls. We note that although there is some likelihood of energy savings associated with proper cross-ventilation, this will depend on the user knowing when to operate the windows and doors. At least one state – Florida – provides an energy efficiency performance credit for cross ventilation, although the requirements are much more complicated than what we have proposed here. Because the energy efficiency benefit cannot be guaranteed, this proposal is probably best listed among other spot ventilation measures, such as exhaust fans, that depend on the user to operate properly. | | |
| TG Recommendation (AS or AM or D): | | | |
| Modification of Proposed Change: | | | |
| TG Reason: | | | |
| TG Vote: | | | |

Appendix B: Ducted Garage Exhaust Fan Sizing Criteria

| Proposal ID TBD | LogID 5113 | B200 Whole-building ventilation |
|---|---|---------------------------------|
| Submitter: | Donald Prather, ACCA | |
| Requested Action: | Delete and substitute as follows | |
| Proposed Change: | Update Information and Tables and equations to reflect 62.2 -2013 requirements | |
| Reason: | Tables and formulas have changed dramatically and there are different values in the table for Multifamily and single family residences. | |
| TG Recommendation (AS or AM or D): | | |
| Modification of Proposed Change: | | |
| TG Reason: | | |
| TG Vote: | | |