Proposed Changes

April 12, 2017

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Standard Scope

A PINS has been submitted to ANSI to expand the scope of the NGBS to address (1) multifamily buildings that include limited commercial space and (2) certain types of institutional occupancies. This change is a reflection of the types of buildings that have become very common in the market place and would benefit greatly from a one-stop certification using the NGBS. Note that changes to the scope of the Standard are outside of the purview of the consensus committee. We will dedicate time at the April meeting to discuss the implications of the new scope on the Standard.

Revised Scope:
The provisions of this Standard shall apply to design and construction of buildings containing ~~the~~ residential portion~~(s)~~ which constitute not less than 75 percent of the total square footage of the building~~(s) of any building, not classified as an institutional use, in all climate zones~~. This Standard shall also apply to subdivisions, building sites, building lots, accessory structures, and ~~the residential portions of~~ building's alterations, additions, and renovations~~, mixed-use buildings, and historic buildings~~. For the purpose of this standard, assisted living facilities, group homes, and residential board and care facilities are considered residential.

Three proposed changes related to the scope of the Standard were received. Because the scope of the Standard is outside the purview of the consensus committee, these proposed changes will not be submitted to the consensus committee for consideration or vote. The proposed changes are provided below as a courtesy copy.

	LogID 6219 101.2 Scope
Submitter:	Janice Romanosky, Pando Alliance
Requested Action:	Add new as follows
Proposed Change:	In mixed use buildings where all practices for the residential portions of the project have been implemented in commercial leased spaces where applicable, the entire building will be considered to have earned the certification. In cases where leasable space is still vacant at the time of certification, a green fit-out guide shall be created to inform the incoming tenant(s) of green practices to be incorporated into their fit-out.
Reason:	A LEED for Homes certification covers the entire building by using a mechanism similar to that described in this proposal. As is, the comm/retail exclusion could, in some jurisdictions, force a mixed use project to use a separate green compliance path for the comm/retail spaces in order to achieve certification for the entire building. Alternately, a team might instead choose a rating system that covers the entire building.
Secretariat Note:	Changes in the scope of the Standard are outside of the purview of the consensus committee. The proposed change is included for the benefit of the committee.

	LogID 6218 101.2 Scope
Submitter:	Janice Romanosky, Pando Alliance
Requested Action:	Delete without substitution
Proposed Change:	The provisions of this Standard shall apply to the design and construction of the residential portion(s) of any building, ~~not classified as institutional use,~~ in all climate zones.
Reason:	This change will allow for the application of this Standard to assisted living facilities, which serve as the primary residence for an increasingly significant population of retired and aging individuals.
Secretariat Note:	Changes in the scope of the Standard are outside of the purview of the consensus committee. The proposed change is included for the benefit of the committee.

	LogID 6490 303.1 Green building
Submitter:	Steven Armstrong, ESG Energy
Requested Action:	Add new as follows
Proposed Change:	Consider allowing for inclusion of Assisted Living facilities
Reason:	Similar to dorms and currently accepted fire house properties.
Secretariat Note:	Changes in the scope of the Standard are outside of the purview of the consensus committee. The proposed change is included for the benefit of the committee.

Ad Hoc TGs

Special Issues

Proposal ID TBD	LogID 6227	101.2 Scope
Submitter:	Josh Jacobs, UL	
Requested Action:	Revise as follows	
Proposed Change:	This change is a whole document change or addition. While this change is not to this specific section, it seemed to be the best section to propose it. NAHB should put a task group together that can take the new document and develop a truly code level document for use by authorities having jurisdiction. They should not create new requirements, but simply take appropriate existing requirements, turn them into code language, and publish as a true residential green code. NAHB would then have a rating system that can be utilized by anyone that wants to communicate the sustainable qualifications of a residential project and a code that could be given to jurisdictions that are looking to develop a baseline.	
Reason:	While the NAHB National Green Building Standard is a good document, it is not a code. Authorities having jurisdiction have shown a willingness to work with existing green codes in the marketplace, but have done a lot of editing. Taking a rating system with a point system such as this, is probably asking too much for a local jurisdiction to take on. Let's make it easier for them so that we can get more local adoptions of what could be a different transformative document.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6499	102.4 Alternative compliance methods
Submitter:	John Barrows, P3 Builder Group	
Requested Action:	Add new as follows	
Proposed Change:	**Green Practice Area Recognition-** Offer recognition for meeting specific areas of NGBS without receiving certification to the NGBS as a whole. 1. Energy 2. Water Efficiency 3. Indoor Environmental Quality/ Wellness	
Reason:	Comment: Given the rise of focused programs, such as Energy Star and the Water Efficiency Rating Score (WERS), it may be valuable to consider allowing projects to earn recognition in specific green practice areas (such as energy efficiency or water efficiency), without requiring them to achieve entire NGBS certification.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6497	102.4 Alternative compliance methods
Submitter:	John Barrows, P3 Builder Group	
Requested Action:	Add new as follows	
Proposed Change:	Medallion of Recognition: along with the certification to NGBS a recognition of performance that corresponds with another program can be awarded.	

	1. Resiliency 2. Wellness
Reason:	Comment: It may be beneficial in the current marketplace to award a “Medallion of Recognition” (or similar) for projects going above and beyond by achieving practices related to a specific topic, such a “resiliency” and “wellness”. Practices within the 2018 NGBS related to resiliency, as identified by Consensus Committee, would be denoted with a symbol. Achievement of a certain percentage of those specific practices could award a project added recognition in “resiliency”, in addition to achieving NGBS certification. Additional practices currently not identified within the 2015 NGBS related to resiliency for respective climate zones/locations (Examples: flood-plain avoidance, forest-fire vegetation setback, etc.) could be added as mandatory or optional practices for achievement of the “Resiliency Medallion.” Practices currently within the 2015 NGBS identified as having the possibility of being resiliency related are attached.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6277** **303.1 Green buildings**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Revise as follows
Proposed Change:	**Table 303** **Threshold Point Ratings for Green Buildings**

Green Building Categories			**Rating Level Points** [a] [b]			
			~~BRONZE~~CERTIFIED	**SILVER**	**GOLD**	**EMERALD**
1.	**Chapter 5**	Lot Design, Preparation, and Development	**50**	**64**	**93**	**121**
2.	**Chapter 6**	Resource Efficiency	**43**	**59**	**89**	**119**
3.	**Chapter 7**	Energy Efficiency	**30**	**45**	**60**	**70**
4.	**Chapter 8**	Water Efficiency	**25**	**39**	**67**	**92**
5.	**Chapter 9**	Indoor Environmental Quality	**25**	**42**	**69**	**97**
6.	**Chapter 10**	Operation, Maintenance, and Building Owner Education	**8**	**10**	**11**	**12**
7.		Additional Points from Any Category	**50**	**75**	**100**	**100**
		Total Points:	**231**	**334**	**489**	**611**

Reason:	"Bronze" Certification is not as effective as it Could or should be as a "mark of distinction" for a green home or apartment. For many reasons, the marketplace has come to value silver and gold. Emerald is a rare distinction. Bronze, when awarded often feels to recipients like third place rather than the rarified Olympian step up on the platform. This proposal suggest that our protocol switch to "certified " as the

	entry level of performance for green certification. This is a subtle but important step to improve the acceptance and marketplace support for the program.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6446**	**303.1 Green buildings**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Add new as follows	
Proposed Change:	303.2 Compliance with some of the categories, but not all of the categories shall be permitted. Energy Efficiency, Water Efficiency and Additional Points from Any Category shall still be required. Signage and certification shall promptly indicate which categories complied and differentiate these residences from residences that comply will all categories. The lowest level achieved in categories compiled with shall determine the rating level achieved.	
Reason:	This proposed change is meant to start a discussion. Does it make sense to allow some homes to meet most of the categories, but not all of them? For example, should a house that otherwise meets NGBS, but was too far along to meet Lot Design, Preparation and Development be allowed to be certified to meet the rest of NGBS? Or does the "mostly green" house damage the NGBS brand? Most consider Energy and Water to be the core of green, so these categories would always apply.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6426**	**Other for Chapter 3 (include section number and title below)**
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Add new as follows	
Proposed Change:	307 HEALTH AND WELL BEING OPTIONAL DESIGNATION (see each chapter as relevant)	
Reason:	To include a new sub-section and Designation within the Protocol to address health and well being issues that are interconnected to the overall Green certification, but independent/optional, not required. This opens the program to reach lifestyle and living for overall occupant health. Proposing each Chapter would include a new section for "Health and Well Being", as relevant. Suggest including new subsection at end of each chapter, immediately preceding Innovative Practices.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6278**	**305.3.5 Energy efficiency**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	

Proposed Change:	**305.3.5Energy efficiency.** The energy efficiency rating level shall be based on the reduction in energy consumption resulting from the remodel in accordance with Table 305.3.5. **Table 305.3.5** **Energy Rating Level Thresholds** **Rating Level** **~~BRONZE~~ CERTIFIED** | **SILVER** | **GOLD** | **EMERALD** **Reduction in energy consumption** | **15%** | **25%** | **35%** | **45%**
Reason:	"Bronze" Certification is not as effective as it Could or should be as a "mark of distinction" for a green home or apartment. For many reasons, the marketplace has come to value silver and gold. Emerald is a rare distinction. Bronze, when awarded often feels to recipients like third place rather than the rarified Olympian step up on the platform. This proposal suggest that our protocol switch to "certified " as the entry level of performance for green certification. This is a subtle but important step to improve the acceptance and marketplace support for the program.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6279** **305.3.6 Water efficiency**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Revise as follows
Proposed Change:	**305.3.6 Water efficiency.** The water efficiency rating level shall be based on the reduction in water consumption resulting from the remodel in accordance with Table 305.3.6. **Table 305.3.6** **Water Rating Level Thresholds** **Rating Level** **~~BRONZE~~ CERTIFIED** | **SILVER** | **GOLD** | **EMERALD** **Reduction in energy consumption** | **20%** | **30%** | **40%** | **50%**
Reason:	“Bronze" Certification is not as effective as it Could or should be as a "mark of distinction" for a green home or apartment. For many reasons, the marketplace has come to value silver and gold. Emerald is a rare distinction. Bronze, when awarded often feels to recipients like third place rather than the rarified Olympian step up on the platform. This proposal suggest that our protocol switch to "certified " as the entry level of performance for green certification. This is a subtle but important step to improve the acceptance and marketplace support for the program.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6280** **305.3.7 Prescriptive practices**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Revise as follows
Proposed Change:	**305.3.7 Prescriptive practices**. The point thresholds for the environmental rating levels based on compliance with the Chapter 11 prescriptive practices shall be in accordance with Table 305.3.7. Any practice listed in Chapter 11 shall be eligible for contributing points to the prescriptive threshold ratings. The attributes of the existing building that were in compliance with the prescriptive practices of Chapter 11 prior to the remodel and remain incompliance after the remodel shall be eligible for contributing points to the prescriptive threshold ratings. **Table 305.3.6** **Prescriptive Threshold Point Ratings**

	Rating Level			
	~~**BRONZE**~~ **CERTIFIED**	**SILVER**	**GOLD**	**EMERALD**
Reduction in energy consumption	**88**	**125**	**181**	**225**

Reason:	"Bronze" Certification is not as effective as it Could or should be as a "mark of distinction" for a green home or apartment. For many reasons, the marketplace has come to value silver and gold. Emerald is a rare distinction. Bronze, when awarded often feels to recipients like third place rather than the rarified Olympian step up on the platform. This proposal suggest that our protocol switch to "certified " as the entry level of performance for green certification. This is a subtle but important step to improve the acceptance and marketplace support for the program.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6445**	**1302 Referenced Documents**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Revise as follow	
Proposed Change:	IBC ~~2015~~ 2018 IECC ~~2015~~ 2018 IFGC ~~2015~~ 2018 IMC ~~2015~~ 2018 IRC ~~2015~~ 2018	
Reason:	I-codes should be updated to the new 2018 version to be consistent with the I-family. Include Howard Wiig, from Hawaii, representing self as a co-proponent	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6517**	**1302 Referenced Documents**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	

Proposed Change:	Update references to ICC IBC, ICC IECC, ICC IFGC, ICC IMC, and ICC IRC to the 2018 edition.
Reason:	The 2018 edition of these codes are now finalized.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6472**	**1302 Referenced Documents**
Submitter:	Ben Edwards, Spindale NC	
Requested Action:	Revise as follows	
Proposed Change:	Update referenced I-Codes to current, 2018 version.	
Reason:	Capture improvements from most recent codes cycle. Align with other proposed changes.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

TG-2: Site and Lot Development

Chapter 4: Site Design and Development

Proposal ID TBD	LogID 1501	400.0 Intent (Site Design and Development)
Submitter:	David S. Collins, FAIA	
Requested Action:	Revise as follows	
Proposed Change:	Sites located within 100-year floor plains shall not be permitted to use this rating system.	
Reason:	What about eliminating eligibility of sites located within 100-year flood plains? Add the following text. Disagreement with previous committee action: Committee should reconsider and vote for approval. Rationale: Construction in a flood plain may undermine the performance of the building altogether and place the ability to meet other site and community resource credits, among many other credits, at risk. Consider the risk associated with the life of the building. Responsible site selection should be a precursor to every green building program.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6460	401.0 Intent (Site Selection)
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Add new as follows	
Proposed Change:	**401.4 Wildland-Urban Area Site Avoided.** A site in the wildland-urban interface is not selected. - **(Only applicable where the legislative Authority Having Jurisdiction has declared a wildland-urban interface area in accordance with the International Wildland-Urban Interface Code).**	6
Reason:	There are seriously negative environmental impacts from the spread of fire between buildings and wildlands. If it is known that a site is in a wildland-urban interface area (declared by the AHJ, avoiding building on that site mitigates an environmental risk.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6147	403.0 Intent (Site Design)
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Revise as follows	
Proposed Change:	**403.0 Intent.** The project is designed to avoid detrimental environmental impacts, minimize any unavoidable impacts, and mitigate for those impacts that do occur. The project is designed to minimize environmental impacts and to protect, restore, and enhance the natural features and environmental quality of the site. The project is designed to increase human health and well-being.	

Reason:	"Urban green spaces provide environmental benefits through their effects on negating urban heat, offsetting greenhouse gas emissions, and attenuating storm water. They also have direct health benefits by providing urban residents spaces for physical activity and social interaction, and allowing psychological restoration to take place." Abstract: Value of urban green spaces in promoting healthy living and wellbeing: prospects for planning; Lee, Jordan, & Horsley; Risk Management and Healthcare Policy 2015:8 131-137 Obesity and mental illness are increasing in developed countries around the world. Our built exterior environments; our green spaces and public open spaces, can and should help mitigate these threats to human well-being. The standard already recognizes the value of open space in Sec. 405.9. The intent of Section 403 should explicitly state that human health and well-being benefits are goals of the standard.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6462**	**403.1 Natural resources**
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Add new as follows	
Proposed Change:	**(7)** Developer has a plan to design and construct the site in accordance with the International Wildland-Urban Interface Code (IWUIC). - **(Only applicable where the AHJ has not declared a wildland-urban interface area, but a fire protection engineer, certified fire marshal, or other qualified party has determined and documented the site as hazarded per the IWUIC).**	6
Reason:	It is unrealistic to believe that building will not occur on sites that could qualify as hazarded by the International Wildland-Urban Interface Code, but that have not been legally identified as such by the AHJ. Good environmental policy on those sites is to develop according to the provisions of the IWUIC to mitigate the negative consequences of fire spread between wildlands and buildings. (see documentation- a letter from the International Association of Fire Chiefs Life Safety Section). Requiring a qualified party to establish whether a site qualifies as hazarded keeps this provision from being a points giveaway.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 1514**	**403.5 Stormwater management**
Submitter:	Heather Dylla, National Asphalt Pavement Association	
Requested Action:	Delete without substitution	
Proposed Change:	~~Permeable materials are used for driveways, parking areas, walkways and patios according to the following percentages:~~ ~~(a) less than 25 percent 2~~ ~~(b) 25 – 50 percent 5~~ ~~(c) Greater than 50 percent 10~~	
Reason:	Giving points specifically to permeable materials may encourage their use where they are not practical or not even the best solution for stormwater management. Their efficacy depends on site limitations such as soil permeability, depth to impermeable layers and water table, and topography. It is recommended that	

	permeable materials are evaluated together with all other low impact development practices (question 2) to encourage the best stormwater management solution.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6297**	**403.10 Existing and recycled materials**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	Existing pavements, curbs, and aggregates are salvaged and reincorporated into the development or recycled asphalt or concrete materials are used ~~as follows~~. (~~Points awarded for every 10 percent of total materials used for pavement, curb and aggregate that met the criteria of this practice.~~ One point is awarded for every 10% of existing pavements, curbs or aggregates reincorporated into the development above the threshold amount of50%. Additional point is awarded for every 10% of recycled asphalt or concrete with at least 50% recycled content utilized in the project above the threshold amount of 50%. The percentage is consistently calculated on a weight, volume, or cost basis.) 50%of ~~E~~ existing pavements, curbs, and aggregates are reincorporated into the development. 3 50%of ~~R~~ recycled asphalt or concrete with at least 50 percent recycled content is utilized in the project. 2	
Reason:	If some threshold amount is not established and a number of points for that threshold amount limited, even practices that achieve a relatively modest reuse of asphalt and concrete road materials and aggregates will be awarded a considerable number of points. For example, reincorporating 50% of existing pavements, curbs and aggregates into the development will achieve the maximum 15 points, or incorporating 30% of existing existing pavements, curbs and aggregates into the development and utilizing recycled-content asphalt or concrete for 30% of the new materials will achieve the maximum 15 points. High reuse rates for asphalt, concrete and aggregates are readily achievable, and the point system should at this time, foremost incentivize practices that yield benefits beyond those commonly attained. Maintain the 15-point maximum, but clarify that the available 3+2 points are awarded to projects that incorporate: a) some threshold amount of existing pavements (3 points); and, b) some threshold amount of pavement materials with recycled content (2 points); while additional points are awarded for incremental increases above those threshold amounts.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6547**	**403.4 Soil disturbance and erosion**
Submitter:	Ben Edwards, Spindale NC	
Requested Action:	Delete without substitution	
Proposed Change:	Delete only item (3) from section 403.4 ~~Limits of clearing and grading are staked out prior to construction.~~	
Reason:	This comment is intended to highlight a larger issue in this document: double counting. 404.3(1) awards 5 points for flagging the site under Site Development and Construction. 403.4(3) awards 4 points for the same action under Site Design (points are awarded when "the intent of the design is implemented." While flagging a site is important, does the committee believe 9 points should be awarded for a fundamental	

	construction practice? Further, 5 more points are awarded in 404.1 On-site Supervision and Coordination if someone watches the flagged clearing and grading. The potential for 14 points for a standard practice is not appropriate in an above-code document. Points should be awarded based on outcome, and should clearly indicate the relative weight in compliance. Note: Similar issues are found in Chapters 5 and 11, and the topic of soil disturbance is illustrative. Philosophically, if points are to be awarded for planning, construction, and verification, the greatest weight should be on verification.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6571** **403.6 Landscape plan**

Submitter:	Jack Karlin, Turfgrass Water Conservation Alliance
Requested Action:	Revise as follows
Proposed Change:	

GREEN BUILDING PRACTICES	POINTS
403.6 Landscape plan. A landscape plan is developed to limit water and energy use in common areas while preserving or enhancing the natural environment utilizing one or more of the following:	
(4) EPA WaterSense Water Budget Tool or equivalent is used when implementing ~~the maximum~~ any percentage of turf areas.	~~2~~ 5
(5) For landscaped vegetated areas in landscape areas receiving less than twelve (12) inches precipitation per year, the maximum percentage of all turf areas is:	
(a) 0 percent	5
(b) Greater than 0 percent to less than 20 percent	4
(c) Greater than 0 percent to less than 20 percent using third party qualified water efficient grasses	3
(d) 20 percent to less than 40 percent	3
(e) 20 percent to less than 40 percent using third party qualified water efficient grasses	3
(f) 40 percent to 60 percent	2
(g) 40 percent to 60 percent using third party qualified water efficient grasses	3

Reason:

The Turfgrass Water Conservation Alliance® (TWCA®) is a 501c3 nonprofit committed to water conservation and preserving the ecological services provided by turfgrass in the managed environment. Representing 93 members around the world in academia, government, and private sector, TWCA's coalition reaches beyond our industry members. TWCA® provides education based on scientific information which contradicts many of the opinions and much of the misinformation about turfgrass. Further, the TWCA® recognizes that water and plants are necessary to sustain life, and strive to protect the environment in which we live. Destruction of the environment by the removal of plant materials, including turfgrass is detrimental to the health and wellbeing of our society. Turf serves as an important sink for Carbon; nationwide, single family detached homes with yards sequester enough carbon to take 44,000 cars off the road each year1. That is the same as every person in Coachella CA not driving for a year. Turf filters fine particulate and dust out of the air2 improving air quality, reduces noise and glare3 and cools the air to help mitigate the heat island effect caused by the ever-expanding blanket of hard, impervious surfaces covering large swathes of the United States. Green spaces in general, and turf in particular, are linked to large scale improvements in the physical and mental health of the population4 as well as attenuating the health gaps between the richest and poorest citizens of communities5. The removal of plant matter from any environment, managed or natural, should be considered long and with great care. Decisions made today to remove or limit turf may conserve water in the short term. It may take years or decades, even, for the long term negative consequences to be felt. However, when the consequences are felt it will be in the form of higher cooling costs, louder, dirtier cities, and shorter, less healthy, less happy lives. Further, to treat turf as a monolith is to ignore the broad spectrum of genetic diversity represented by this classification of plants and discounts decades of research that have gone into reducing the water needs of turfgrasses6,7. TWCA's third party, peer review process has identified over 80 varieties that have demonstrated statistically significant water efficiencies over conventional varieties of the same species. The key to long term outdoor water savings in residential development is education and engagement. Awarding points for the use of a Water Budgeting Tools (WBT) encourages

	contractors and end-users to learn more about their landscapes and engage with both the design and maintenance processes. TWCA proposes raising the awarded points for using a Water Budgeting Tool to incentivize engagement with and understanding of the landscaped areas surrounding houses. We believe this engagement and understanding will significantly contribute to water savings over the life of the development. Incentivizing the use of literally any other landscape plant for vegetated areas does not ensure responsible landscaping or water conservation and could result in an increase of the water requirements for a landscape depending on the landscape plants used. This system also ignores the broad range of demonstrated water efficiencies available in turfgrasses today. Finally, given the significant advances made in the development of drought tolerant, rewarding the elimination of turf is rewarding the elimination of well adapted plants through most of climates in the United States. TWCA believes it is most prudent to limit the award of points for prescriptive turf limits to those areas receiving less than twelve (12) inches or precipitation per year. An alternative point system endorsed by the TWCA uses the following scheme: For vegetated areas in landscape areas receiving less than twelve (12) inches precipitation per year, the maximum percentage of all turf areas is: GREEN BUILDING PRACTICES POINTS 403.6 Landscape plan. A landscape plan is developed to limit water and energy use in common areas while preserving or enhancing the natural environment utilizing one or more of the following: (4) EPA WaterSense Water Budget Tool or equivalent is used when implementing the maximum any percentage of turf areas. 2 5 (5) For landscaped vegetated areas in landscape areas receiving less than twelve (12) inches precipitation per year, the maximum percentage of all turf areas is: (a) 0 percent 5 (b) Greater than 0 percent to less than 20 percent 4 (c) Greater than 0 percent to less than 20 percent using third party qualified water efficient grasses 3 (d) 20 percent to less than 40 percent 3 (e) 20 percent to less than 40 percent using third party qualified water efficient grasses 3 (f) 40 percent to 60 percent 2 (g) 40 percent to 60 percent using third party qualified water efficient grasses 3 Using such a point award scheme maintains the incentive to use turf in landscapes responsibly while incentivizing the selection of improved water efficient varieties and encouraging a real engagement with the plant selection process. This point system also eliminates the unfounded demonization of turf. References: 1) R. Lal and B. Augustin (eds.) Carbon Sequestration in Urban Ecosystems, DOI 10.1007/978-94-007-2366-5_14 © Springer Science+Business Media B.V. 2012 2) Water Quality and Quantity Issues for Turfgrasses in Urban Landscapes, Council for Agricultural Science and Technology (CAST), Special Publication 27, 2006,Ch2. 3) Beard, J. B. and R. L. Green. 1994. The role of turfgrasses in environmental protection and their benefits to humans. J Environ Qual 23(9):452–460. 4) Jolanda Maas, Robert A Verheij, Sjerp de Vries, Peter Spreeuwenberg, Francois G Schellevis, Peter P Groenewegen. "Morbidity is related to a green living environment." J Epidemial Community Health. Published Online 15 October 2009. DOI:10.1136/jech.2008.079038 5) Richard Mitchell, Frank Popham “Effect of exposure to natural environment on health inequalities: an observational population study” Lancet 2008; 372: 1655-60 6) Karcher, D.E., Richardson, M.D., Hignight, K., and Rush, D. “Drought Tolerance of Tall Fescue Populations Selected for High Root/Shoot Ratios and Summer Survival” Crop Science 2008; v48 n2: 771-777 7) Karcher, D., M. Richardson and J. Landreth. 2008. Drought tolerance of tall fescue and bluegrass cultivars. Arkansas Turfgrass Report 2007, Ark. Ag. Exp. Stn. Res. Ser. 557:17-20.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6165**	**403.6 Landscape plan**
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Revise as follows	
Proposed Change:	(4) EPA WaterSense Water Budget Tool or equivalent is used when implementing the maximum percentage of turf areas. ~~2~~ 10 ~~(5) For landscaped vegetated areas, the maximum percentage of all turf areas is:~~ ~~(a) 0 percent 5~~ ~~(b) Greater than 0 percent to less than 20 percent 4~~ ~~(c) 20 percent to less than 40 percent 3~~ ~~(d) 40 percent to 60 percent 2~~	
Reason:	Turf area limits make no sense at the master community or subdevelopment scale, particularly given the many low water using native and improved species of turfgrass. Given the complexity of large scale	

	landscape water budgeting it is proposed that a more significant point award be given for use of a WBT to match turf area to water availability.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6163**	**403.6 Landscape plan**
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Revise as follows	
Proposed Change:	**(5)** For landscaped vegetated areas <u>in locations with less than 12 inches of annual precipitation</u>, the maximum percentage of all turf areas is:	
Reason:	Where water supplies are sufficient, turf disincentives are disincentives to healthy communities. See the separate technical substantiation.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6347**	**403.6 Landscape plan**
Submitter:	Brent Mecham, Irrigation Association	
Requested Action:	Revise as follows	
Proposed Change:	4) EPA WaterSense Water Budget Tool <u>or ANSI/ASABE S623.1 Jan2017 Determining Landscape Plant Water Demands standard</u> or equivalent is used when ~~implementing~~ determining the ~~maximum~~ percentage of turf areas.	
Reason:	As a published document, this ANSI standard provides the necessary equations, plant factors and instructions to create a landscape water budget and determine the water requirement to maintain the landscape. As a national standard it is equivalent to EPA WaterSense Water Budget Tool but perhaps has an advantage in the fact that the plant factors take into account the climate.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6465**	**403.7 Wildlife habitat**
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Revise as follows	
Proposed Change:	**403.7 Wildlife habitat.**	**6**
	<u>(1)</u> Measures are planned that will support wildlife habitat.	
	<u>(2)</u> The site is adjacent to a wildlife corridor, fish and game park, or preserved areas and is designed with regard for this relationship.	**<u>3</u>**

	(3) Outdoor lighting techniques are utilized with regard for wildlife.	**3**
	(4) Areas of lawn are integrated with maintenance tolerant, non-invasive flowering herbaceous plants in an amount to achieve not less than 20% of the groundcover. Plants should typically flower at less than 4 inches in height. Signs are provided indicating the purpose of the flowering lawn for habitat and prohibiting treatment with pesticides. **(Consult a local agricultural extension service or university or for appropriate plants)**	**3**
Reason:	Items 2 & 3 are duplicated from Chapter 5; benefits provided there are equally applicable at the site scale. Item 4 provides a method of supporting habitat in areas of lawn. Significant research has identified the potential of lawns to serve as bee habitat when integrated with flowering plants.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6296**	**403.9 Existing buildings**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	Following mitigation of any harmful materials, ~~E~~ existing building(s) and structure(s) is/are preserved and reused, ~~modified~~ adapted, or disassembled for reuse or recycling of building materials. 1. Building reuse. 12 2. Adaptation for building reuse preserving more than 75% of major components, OR, disassembly for reuse/recycling of more than 85% of major components. 10 3. Building reuse preserving not less than 50% of major components. 6 4. Adaptation for building reuse preserving more than 40% of major components, OR, disassembly for reuse/recycling of more than 50% of major components. 5	
Reason:	Building reuse avoids expenditure of resources for new construction and prevents waste generation. Building disassembly maximizes the recovery of construction and demolition (C&D) materials and creates economic opportunities in local communities. These non-trivial efforts are of the highest priority on the waste management hierarchy, and their implementation requires a meaningful incentive. Building reuse, adaptation and disassembly are all high on the waste management hierarchy, but building reuse is a source reduction measure that has the potential to carry the greatest overall benefit. The credit, as written, makes no mention of the need to mitigate any harmful materials prior to building reuse or adaptation. As written, the credit does not distinguish between partial and full-building reuse, adaptation or disassembly. To address these issues, we recommend the following: ? Increase the maximum number of points available for building reuse, adaptation and disassembly from 8 to 12. ? Allocate the maximum points to the reuse of a building, and a slightly lesser number of points to adaptation and disassembly. ? Bring attention to the need to mitigate any harmful materials prior to building reuse or adaptation. ? Allocate partial number of points to partial building reuse, adaptation or disassembly.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6145**	**405.1 Driveways and parking areas**
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Revise as follows	

Proposed Change:	**(4)** ~~Water permeable surfaces, including v~~ Vegetative paving systems, are utilized to reduce the footprint of impervious surface driveways, fire lanes, streets or parking areas.
Reason:	Sec. 403.5 (4) already awards points for stormwater management by using permeable materials for driveways and parking areas. Accepting any water permeable surface to earn points for 405.1 (4) allows double counting for the same material installation. It robs the standard of credibility, particularly when the point awards are relatively high. Is using concrete pavers, with the associated carbon impacts, really worth up to 16 points? More importantly, allowing any permeable material to be awarded the same points as a vegetative paving system (VPS) implies that they have equivalent environmental benefit which is simply not true. A VPS sequesters carbon and produces oxygen. A VPS supports bacteria and other micro-organisms that mitigate hydrocarbon pollution; a likely problem on driving and parking surfaces. A VPS evapotranspires, returning moisture to the air and providing much more cooling than permeable hardscapes. A VPS filters dust and pollutants from the air. The trimmings from managed VPSs improve soil quality, either in situ or when removed for composting. A VPS is not subject to clogging while permeable hard surfaces are. The carbon impacts alone of installing vegetation in an open cell grid or over a recycled plastic matrix are orders of magnitude less harmful than those of producing and providing concrete, asphalt, mined and crushed stone, mined and washed pea rock, or other inorganic materials. The committee is encouraged to return to the language originally proposed in the previous cycle of the NGBS and reserve these innovative practice points for enhanced environmental performance as intended in Sec. 405.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6453**	**405.10 Community garden(s)**
Submitter:	Michael Cudahy, PPFA	
Requested Action:	Revise as follows	
Proposed Change:	Community garden(s). ~~A~~ portions of the site of at least 250 sq feet ~~is~~ are established as a community garden(s) for the residents of the site to provide local food production for residents or area consumers. One point awarded per 250 sq feet. Maximum 3 points.	
Reason:	To establish a minimum size for the gardens and allow for point tier discussion. The committee or task group can discuss and determine if a minimum size is necessary. Some regions may use vertical gardens and not need much land area, but some regions my best be served by multiple fruit trees, or even palms. Also allows for a discussion of tiered points. A project would have more flexibility with a point tier allocation.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6452**	**405.5 Wetlands**
Submitter:	Michael Cudahy	
Requested Action:	Revise as follows	
Proposed Change:	405.5 Wetlands. Constructed or natural wetlands or other natural innovative wastewater or stormwater treatment technologies are used on site.	
Reason:	Rewording for clarity, allowing for constructed or natural wetlands to be used on site. Alternatively, if the intent is only constructed wetlands, the committee can modify.	

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6158**	**405.9 Open space**
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Revise as follows	
Proposed Change:	**405.9 Open space.** A portion of the gross area of the community is set aside as open space. ~~**1**~~ **2** **(Points awarded for every 10 percent of the community set aside as open space**	
Reason:	1 point per 10% of gross community area is far too low. The World Health Organization recommends a minimum of 9 square meters (roughly 100 square feet) of green space per person for a healthy city. Given the multiple environmental and human health benefits that open green space can offer it only makes sense to create strong incentives for open design.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6458**	**Other for Chapter 4 (include section number and title below)**
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Add new as follows	
Proposed Change:	406 Human Health and Wellbeing 406.0Intent. Site design, preparation and development practices are used to foster human health and wellbeing.	

406.1. The site is designed to encourage physical activity	-
(1) A system of walkways, bikeways, street crossings, or pathways designed to promote walking, jogging, skating, and biking is provided.	-
(a) All streets have sidewalks on each side of the street and marked crosswalks on each side of street intersections.	5
(b) All streets have a dedicated and marked bicycle lane in each direction of travel.	5
(c) Trails or pathways through natural areas of not less than 20 acres (80,940 m^2) and which are protected by conservation easement are provided.	8
(d) Multi-station fitness trails are provided.	1 point for 2 stations 6 points max
(e) Mileage or progress markers are posted on trails	1
(2) Facilities for active outdoor recreation are provided	-

(a) A community swimming pool with an automatic pool cover is provided.	7
(b) A community golf course is provided.	7
(c) Community tennis or basketball courts are provided.	I point for each 3 points max
(d) Community pickleball or handball courts are provided.	I point for each 3 points max
(e) Community softball/baseball or multi-sports fields are provided.	5 points each 15 points max
(f) Community playgrounds and equipment or open play area are provided.	3 points each 9 points max
(3) A fenced community off-leash dog park is provided.	5
-	-
406.2 The site is designed to promote social interaction or outdoor respite	-
(1) Outdoor communal gathering places are provided	-
(a) Park space with seating and tables for picnicking is provided.	2 points per acre 10 points max
(b) A band-shell or stage for outdoor performance is provided	5
(c) Picnic areas (2 tables and 1 barbecue grill)	1 point for each
(2) Bench seating oriented toward scenic views or vistas such as mountains, skylines, or bodies of water is provided.	1 point per bench 7 points max
(3) A community lawn or town square is provided	5
-	-
406.3 Community garden(s). A portion of the site is established as a community garden(s) for the residents of the site to provide local food production for residents or area consumers.	5
Composting area and physical provisions are provided for accumulating compost	1
Signs designating the garden area are posted.	1
406.4. Tick-borne disease. The site is designed to mitigate hazards from tick-borne disease **(To acquire points the site must be documented to be at risk by an epidemiologist or qualified professional)**	**Points**
(1) Dense plant beds, shrubbery and woody plants are not planted within 5 feet (1.5 m) of occupied buildings	5 -
(2) A minimum of a 5 foot (1.5 m) border of paving, mulch, bare earth, or turfgrass is provided between woods or weedy areas and people trafficked or occupied areas, including playgrounds and dog parks.	5
(3) Vegetation that is attractive to deer, as documented by a qualified professional, is not planted within 20 feet (6 m) of buildings	3
(4) Paths or trails maintained through natural or non-maintained areas are a minimum of 5 feet wide (1.5 m)	3
-	-

	406.5 Outdoor smoking prohibition. — **Points** Signs are provided prohibiting smoking at the following locations: — (a) Smoking is prohibited within 25 feet (7.5 m) of all building exterior doors and operable windows or building air intakes within 15 (4.5 m) vertical feet of grade or a walking surface. — 5 (b) Smoking is prohibited on decks, balconies, patios and other occupied exterior spaces. — 5 (c) Smoking is prohibited at all parks, playgrounds, and community activity or recreational spaces. — 5
Reason:	Human health and wellness considerations are an important part of green and sustainable design and building. LEED addresses this subject matter as does the WELL Building Standard (submitted as substantiation). Much of health and wellness design for exteriors is best done at the development scale. There some elements of overlap with existing provisions for multimodal travel, but those provisions focus on whether a function is provided, not how it is provided for healthy intent.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6551**	**Other for Chapter 4 (include section number and title below)**
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Add new as follows	
Proposed Change:	405 HEALTH AND WELL BEING (...prior to INNOVATIVE PRACTICES)	
Reason:	To include a new sub-section within each chapter of the Protocol, as relevant, immediately preceding (or after) Innovative Practices section, to address health and well being issues that are interconnected to the overall Green certification, but independent/optional, not required. This opens the program to reach lifestyle and living for overall occupant health.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6461	501.1 Lot (Lot selection)
Submitter:	Greg Johnson, Power Equipment Institute	
Requested Action:	Add new as follows	
Proposed Change:	**(4) Wildland-Urban Area Site Avoided.** A site in the wildland-urban interface is not selected. **(Only applicable where the Authority Having Jurisdiction has declared a wildland-urban interface area in accordance with the International Wildland-Urban Interface Code).**	6
Reason:	There are seriously negative environmental impacts from the spread of fire between buildings and wildlands. If it is known that a lot is in a wildland-urban interface area (declared by the AHJ, avoiding building on that site mitigates an environmental risk.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6454	501.2 Multi-model transportation
Submitter:	Michael Cudahy, PPFA	
Requested Action:	Add new as follows	
Proposed Change:	(6) (d) Bicycle enclosed storage is provided or parking spaces are covered or otherwise protected from the elements. 2 Additional points per (a)-(c)	
Reason:	Providing protection from the weather of a parked bicycle is an additional cost to the builder and should be rewarded as it makes the use of bicycles more likely. It's also not inconceivable that a builder could provide a small enclosed space with a door for residents which should also be rewarded.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6320	501.2 Multi-model transportation
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**(7)** Provide infrastructure to facilitate shared vehicle usage such as carpool drop-off areas, car-share services, and shuttle services to mass transit. - 5 **POINTS**	
Reason:	Communities that provide for share vehicle usage should be rewarded as this reduces the production of green-house gases in the same way as mass transit or bicycle use.	

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6323** **501.2 Multi-modal transportation**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	ADD NEW IN 501.2 (8) Lot is within a community that has a Bike sharing program and where facilities for bike sharing are planned for and constructed. **- 5 points** (9) Lot is within a community that has a Car sharing program and where facilities for car sharing are planned for and constructed. **- 5 points**
Reason:	Based on existing practice in NGBS 2015 (405.6) and applied to a single lot versus entire land development.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6173** **501.2 Multi-model transportation**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	ADD NEW OPTION TO 501.2 (7) Employment Access: A site is selected in an area with a measured Jobs per Sq. Mi. of: a) 10,000 - less than 25,000 - 3 POINTS b) 25,000 to less than 50,000 - 4 POINTS c) 50,000 to less than 100,000 - 5 POINTS d) 100,000 or more - 6 POINTS
Reason:	Travel to and from work is a major source of carbon emissions. Locating housing near employment will significantly reduce the vehicle miles traveled of the average occupant. The Proposed metric can be easily found using http://htaindex.cnt.org/
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6148** **503.0 Intent (Lot Design)**

Submitter:	Greg Johnson, Outdoor Power Equipment Institute

Requested Action:	Revise as follows
Proposed Change:	**503.0 Intent.** The lot is designed to avoid detrimental environmental impacts first, to minimize any unavoidable impacts, and to mitigate for those impacts that do occur. The project is designed to minimize environmental impacts and to protect, restore, and enhance the natural features and environmental quality of the lot. <u>The lot is designed to enhance human health and well-being.</u>
Reason:	People's living environments should support healthy lifestyles. Sec. 505.5 recognizes this by awarding points for community gardens; a healthy outdoor activity, providing both exercise and better nutrition.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6463** **503.1 Natural resources**

Submitter:	Greg Johnson, Outdoor Power Equipment Institute
Requested Action:	Add new as follows
Proposed Change:	**<u>(8)</u>** <u>Developer has a plan to design and construct the lot in accordance with the International Wildland-Urban Interface Code (IWUIC).</u> **<u>(Only applicable where the AHJ has not declared a wildland-urban interface area, but a fire protection engineer, certified fire marshal, or other qualified party has determined and documented the site as hazarded per the IWUIC).</u>** <u>6</u>
Reason:	It is unrealistic to believe that building will not occur on lots that could qualify as hazarded by the International Wildland-Urban Interface Code, but that have not been legally identified as such by the AHJ. Good environmental policy on those sites is to develop according to the provisions of the IWUIC to mitigate the negative consequences of fire spread between wildlands and buildings. (see documentation- a letter from the International Association of Fire Chiefs Life Safety Section). Requiring a qualified party to establish whether a lot qualifies as hazarded keeps this provision from being a points giveaway.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6546** **503.3 Soil disturbance and erosion**

Submitter:	Ben Edwards, Spindale NC
Requested Action:	Delete without substitution
Proposed Change:	Delete on item (3) from section 503.3 ~~Limits of clearing and grading are demarcated on the lot plan.~~
Reason:	This comment is intended to bring attention a larger issue in this document: double counting. 504.3(2) awards 5 points for flagging the site under Lot Construction. 503.3(3) awards 5 points for planning the same action under Lot Design (points are awarded when "the intent of the design is implemented." While flagging a site is important, the potential for 10 points for a standard practice is not appropriate in an above-code document. Points should be awarded based on outcome, and should clearly indicate the relative weight in compliance. Note: Similar issues are found in Chapters 4 and 11, and the topic of soil disturbance is illustrative. Philosophically, if points are to be awarded for planning, construction, and verification, the greatest weight should be in verification.

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6223** **503.4 Stormwater management**

Submitter:	Paul Gay, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	Instal Permanent or Maintained/Managed Post Construction Sewer/Street drain protection
Reason:	protect sewer system and water ways from ongoing post construction pollutants
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6322** **503.4 Stormwater management**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	**(5)** Complete gutter and downspout system directs storm water away from foundation to landscaping or catchment system - **8 points**
Reason:	To direct rainwater away from the structure to prevent erosion and to protect the structure itself, and/or for rainwater capture
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 1515** **503.4 Stormwater management**

Submitter:	Heather Dylla, National Asphalt Pavement Association
Requested Action:	Delete without substitution
Proposed Change:	~~Permeable materials are used for driveways, parking areas, walkways and patios according to the following percentages:~~ ~~(d) less than 25 percent 2~~ ~~(e) 25 – 50 percent 5~~ ~~Greater than 50 percent 10~~
Reason:	Giving points specifically to permeable materials may encourage their use where they are not practical or not even the best solution for Stormwater management. Their efficacy depends on site limitations such as soil permeability, depth to impermeable layers and water table, and topography. It is recommended

	that permeable materials are evaluated together with all other low impact development practices (question 3) to encourage the best stormwater management solution.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD LogID 6164 503.5 Landscape plan

Submitter:	Greg Johnson, Outdoor Power Equipment Institute
Requested Action:	Revise as follows
Proposed Change:	(4) For sites receiving more than 12 inches of average annual precipitation the EPA WaterSense Water Budget Tool or equivalent is used when implementing the maximum percentage of turf areas. ~~2~~ 5 (5) For landscaped vegetated areas on sites receiving 12 or less inches of average annual precipitation, the maximum percentage of turf area is:
Reason:	To address concerns with water use for turfgrass in arid climates, where there is no existing turf limitation ordinance, it is proposed that points for turf limitations be awarded only where annual precipitation averages 12 or less inches per year and that the use of a WBT be used to establish turf limits for sites that average more than 12 inches of precipitation per year. It is also also proposed that the maximum points for a 100% turf limitation be equal to the points awarded for use of a WBT. See the additional substantiation for the complete reason
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD LogID 6342 503.5 Landscape plan

Submitter:	Brent Mecham, Irrigation Association
Requested Action:	Revise as follows
Proposed Change:	4) EPA WaterSense Water Budget Tool or ANSI/ASABE S623.1 Jan2017 Determining Landscape Plant Water Demands standard or equivalent is used when ~~implementing the maximum~~ determining the percentage of turf areas.
Reason:	As a published document, this ANSI standard provides the necessary equations, plant factors and instructions to create a landscape water budget and determine the water requirement to maintain the landscape. As a national standard it is equivalent to EPA WaterSense Water Budget Tool but perhaps has an advantage in the fact that the plant factors take into account the climate.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6222	503.5 Landscape plan

Submitter:	Greg Johnson, Outdoor Power Equipment Institute
Requested Action:	Revise as follows
Proposed Change:	503.5 Landscape plan. A plan for the lot is developed to limit water and energy use while preserving or enhancing the natural environment or human health and well-being.
Reason:	Human health and well-being are key objectives of green, high-performing buildings and sites. "Our nation is in the midst of a lively public policy debate on how best to enable individuals and communities to make healthier choices. In recent years, with the rapid advance of green building practices, the connection between green building and its promotion of human health has become increasingly clear: Done right, the built environment can have profound positive effects on health, both human and environmental. At their worst, our building materials and designs, and our choices about location, building construction, operation and maintenance, contribute to some of the key public health concerns of modern society, from asthma to cancer to obesity. At their best, our buildings and communities can be powerful protectors and promoters of health and well-being. We must shift practice such that our definitions of sustainable building include the well-being of the people in the buildings and the community around them as a matter of course – not an incidental byproduct. In the new paradigm, human performance must be seen as important as energy performance; health conservation equal to water conservation; health management on par with waste management." Health is a Human Right, Green Building Can Help; USGBC January 2013
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6240	503.5 Landscape plan

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Revise as follows
Proposed Change:	**503.5 Landscape ~~plan.~~** ~~A plan for t~~The lot is developed to limit water and energy use while preserving or enhancing the natural environment. (Where "front" only or "rear" only ~~plan~~ is implemented, only half of the points (rounding down to a whole number) are awarded for Items (1)-(8)
Reason:	For projects that use a design/build methodology which often skips the development of a formal plan during design credit should still be available. While this may not be best practice, the resulting verified installation can still achieve many of the goals of this credit without the currently stipulated plan. As such, giving a project full credit for the items they can accomplish (i.e. 2-3,5-9) while not awarding points for the items they can't only makes sense.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6572	503.5 Landscape plan

Submitter:	Jack Karlin, Turfgrass Water Conservation Alliance
Requested Action:	Revise as follows

Proposed Change:

GREEN BUILDING PRACTICES	POINTS
403.6 Landscape plan. A landscape plan is developed to limit water and energy use in common areas while preserving or enhancing the natural environment utilizing one or more of the following:	
(4) EPA WaterSense Water Budget Tool or equivalent is used when implementing ~~the maximum~~ any percentage of turf areas.	~~2~~ 5
(5) For landscaped vegetated areas in landscape areas receiving less than twelve (12) inches precipitation per year, the maximum percentage of all turf areas is:	
(a) 0 percent	5
(b) Greater than 0 percent to less than 20 percent	4
(c) Greater than 0 percent to less than 20 percent using third party qualified water efficient grasses	3
(d) 20 percent to less than 40 percent	3
(e) 20 percent to less than 40 percent using third party qualified water efficient grasses	3
(f) 40 percent to 60 percent	2
(g) 40 percent to 60 percent using third party qualified water efficient grasses	3

Reason:

The Turfgrass Water Conservation Alliance® (TWCA®) is a 501c3 nonprofit committed to water conservation and preserving the ecological services provided by turfgrass in the managed environment. Representing 93 members around the world in academia, government, and private sector, TWCA's coalition reaches beyond our industry members. TWCA® provides education based on scientific information which contradicts many of the opinions and much of the misinformation about turfgrass. Further, the TWCA® recognizes that water and plants are necessary to sustain life, and strive to protect the environment in which we live. Destruction of the environment by the removal of plant materials, including turfgrass is detrimental to the health and wellbeing of our society. Turf serves as an important sink for Carbon; nationwide, single family detached homes with yards sequester enough carbon to take 44,000 cars off the road each year1. That is the same as every person in Coachella CA not driving for a year. Turf filters fine particulate and dust out of the air2 improving air quality, reduces noise and glare3 and cools the air to help mitigate the heat island effect caused by the ever-expanding blanket of hard, impervious surfaces covering large swathes of the United States. Green spaces in general, and turf in particular, are linked to large scale improvements in the physical and mental health of the population4 as well as attenuating the health gaps between the richest and poorest citizens of communities5. The removal of plant matter from any environment, managed or natural, should be considered long and with great care. Decisions made today to remove or limit turf may conserve water in the short term. It may take years or decades, even, for the long term negative consequences to be felt. However, when the consequences are felt it will be in the form of higher cooling costs, louder, dirtier cities, and shorter, less healthy, less happy lives. Further, to treat turf as a monolith is to ignore the broad spectrum of genetic diversity represented by this classification of plants and discounts decades of research that have gone into reducing the water needs of turfgrasses6,7. TWCA's third party, peer review process has identified over 80 varieties that have demonstrated statistically significant water efficiencies over conventional varieties of the same species. The key to long term outdoor water savings in residential development is education and engagement. Awarding points for the use of a Water Budgeting Tools (WBT) encourages contractors and end-users to learn more about their landscapes and engage with both the design and maintenance processes. TWCA proposes raising the awarded points for using a Water Budgeting Tool to incentivize engagement with and understanding of the landscaped areas surrounding houses. We believe this engagement and understanding will significantly contribute to water savings over the life of the development. Incentivizing the use of literally any other landscape plant for vegetated areas does not ensure responsible landscaping or water conservation and could result in an increase of the water requirements for a landscape depending on the landscape plants used. This system also ignores the broad range of demonstrated water efficiencies available in turfgrasses today. Finally, given the significant advances made in the development of drought tolerant, rewarding the elimination of turf is rewarding the elimination of well adapted plants through most of climates in the United States. TWCA believes it is most prudent to limit the award of points for prescriptive turf limits to those areas receiving less than twelve (12) inches or precipitation per year. An alternative point system endorsed by the TWCA uses the following scheme: For vegetated areas in landscape areas receiving less than twelve (12) inches precipitation per year, the maximum percentage of all turf areas is: GREEN BUILDING PRACTICES POINTS 403.6 Landscape plan. A landscape plan is developed to limit water and energy use in common areas while preserving or enhancing the natural environment utilizing one or more of the following: (4) EPA WaterSense Water Budget Tool or equivalent is used when implementing the maximum any percentage of turf areas. 2 5 (5) For landscaped vegetated areas in landscape areas receiving less than twelve (12) inches precipitation per year, the maximum percentage of all turf areas is: (a) 0 percent 5 (b) Greater than 0 percent to less than 20 percent 4 (c) Greater than 0 percent to less than 20 percent using third party qualified water efficient grasses 3 (d) 20 percent to less than 40 percent 3 (e) 20 percent to less than 40 percent using third party qualified water efficient grasses 3 (f) 40 percent to 60 percent 2 (g) 40 percent to 60 percent using third party qualified water efficient grasses 3 Using

	such a point award scheme maintains the incentive to use turf in landscapes responsibly while incentivizing the selection of improved water efficient varieties and encouraging a real engagement with the plant selection process. This point system also eliminates the unfounded demonization of turf. References: 1) R. Lal and B. Augustin (eds.) Carbon Sequestration in Urban Ecosystems, DOI 10.1007/978-94-007-2366-5_14 © Springer Science+Business Media B.V. 2012 2) Water Quality and Quantity Issues for Turfgrasses in Urban Landscapes, Council for Agricultural Science and Technology (CAST), Special Publication 27, 2006,Ch2. 3) Beard, J. B. and R. L. Green. 1994. The role of turfgrasses in environmental protection and their benefits to humans. J Environ Qual 23(9):452–460. 4) Jolanda Maas, Robert A Verheij, Sjerp de Vries, Peter Spreeuwenberg, Francois G Schellevis, Peter P Groenewegen. "Morbidity is related to a green living environment." J Epidemial Community Health. Published Online 15 October 2009. DOI:10.1136/jech.2008.079038 5) Richard Mitchell, Frank Popham "Effect of exposure to natural environment on health inequalities: an observational population study" Lancet 2008; 372: 1655-60 6) Karcher, D.E., Richardson, M.D., Hignight, K., and Rush, D. "Drought Tolerance of Tall Fescue Populations Selected for High Root/Shoot Ratios and Summer Survival" Crop Science 2008; v48 n2: 771-777 7) Karcher, D., M. Richardson and J. Landreth. 2008. Drought tolerance of tall fescue and bluegrass cultivars. Arkansas Turfgrass Report 2007, Ark. Ag. Exp. Stn. Res. Ser. 557:17-20.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD LogID 6484 503.5 Landscape plan

Submitter:	Jeremy Velasquez, TexEnergy Solutions
Requested Action:	Add new as follows
Proposed Change:	Add: <u>Alternative compliance path for design & build landscapes: Points would only be allowed to be taken if the landscaping contractor is made aware of the requirements in 503.5 before installation & the measures are installed & verified to comply with the various options in 503.5.</u>
Reason:	Based on various factors, some residential developments do not have the opportunity for a landscape architect to design all of the landscaping and submit plans to the contractor. Some landscaping contractors are capable of installing efficient landscape without printed plans as long as the verifier can communicate the intent of the design ahead of time.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD LogID 6565 503.6 Wildlife habitat

Submitter:	Craig Conner, Building Quality
Requested Action:	Add new as follows
Proposed Change:	503.7 Bee friendly habitat is provided by landscaping. A minimum of 500 sq ft of landscaping provides bees with a food source in spring, summer and fall. Water is available. The landscape is planned such that no pesticides will be used. Points 10

Reason:	Natural bee habitat is being destroyed. Native bee populations are in decline. Landscape can help provide for native bees.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD LogID 6466 503.6 Wildlife habitat

Submitter:	Greg Johnson, Outdoor Power Equipment Institute
Requested Action:	Add new as follows
Proposed Change:	**(5)** Areas of lawn are integrated with maintenance tolerant, non-invasive flowering herbaceous plants in an amount to achieve not less than 20% of the groundcover. Plants should typically flower at less than 4 inches in height. **(Consult a local agricultural extension service or university or for appropriate plants)** **3**
Reason:	Ample evidence exists that incorporating maintenance tolerant flowering plants in lawns supports bee and other arthropod habitat. Encouraging new ways of providing and maintaining landscaping in managed environments can reconcile human needs for durable groundcovers and habitat needs for bees.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD LogID 6146 505.1 Driveways and parking areas

Submitter:	Greg Johnson, Outdoor Power Equipment Institute
Requested Action:	Revise as follows
Proposed Change:	**(4)** ~~Water permeable surfaces, including v~~ Vegetative paving systems, are utilized to reduce the footprint of impervious surface driveways, fire lanes, streets or parking areas.
Reason:	Sec. 503.4 (4) already awards points for stormwater management by using permeable materials for driveways and parking areas. Accepting any water permeable surface to earn points for 505.1 (4) allows double counting for the same material installation. It robs the standard of credibility, particularly when the point awards are relatively high. Is using concrete pavers, with the associated carbon impacts, really worth up to 16 points? This question is particularly true at lot scale, where a driveway could easily represent more than 75% of impervious area. More importantly, allowing any permeable material to be awarded the same points as a vegetative paving system (VPS) implies that they have equivalent environmental benefit which is simply not true. A VPS sequesters carbon and produces oxygen. A VPS supports bacteria and other micro-organisms that mitigate hydrocarbon pollution; a likely problem on driving and parking surfaces. A VPS evapotranspires, returning moisture to the air and providing much more cooling than permeable hardscapes. A VPS filters dust and pollutants from the air. The trimmings from managed VPSs improve soil quality, either in situ or when removed for composting. A VPS is not subject to clogging where permeable hard surfaces are. The carbon impacts alone of installing vegetation in an open cell grid or over a recycled plastic matrix are orders of magnitude less harmful than those of producing and providing concrete, asphalt, mined and crushed stone, mined and washed pea rock, or other inorganic materials. The committee is encouraged to return to the language originally proposed in the previous cycle of the NGBS and reserve these innovative practice points for enhanced environmental performance as intended in Sec. 505.

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6174** **505.4 Mixed-use development**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Revise as follows
Proposed Change:	Mixed Use Development: (1) The lot contains a mixed use building (2) Lot is part of a residential community that contains a mixed use building.
Reason:	Allows single family mixed use communities to be recognized for achieving the same goal.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6192** **505.5 Community garden(s)**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Revise as follows
Proposed Change:	**505.5 Community garden(s).** Provide local food production for residents or area consumers through one of the following: (1) A portion of the lot is established as a community garden(s), available to residents of the lot~~, to provide for local food production to residents or area consumers~~. (2) Locate the project within a 0.5-mile walk distance of an existing or planned farmers market that is open or will operate at least once a week for at least five months of the year.
Reason:	Access to fresh produce offers healthy food options for residents, and purchase of fresh produce directly from farmers demystifies the cycle of food production. This measure also supports local economic development that increases the economic value and production of farmlands and community gardens. This revision creates a path for sites where the community garden is not feasible but the end-goal can still be met through site-selection.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6455** **505.5 Community garden(s)**

Submitter:	Michael Cudahy, PPFA
Requested Action:	Revise as follows

Proposed Change:	Community garden(s). ~~A~~ portions of the site of at least 250 sq feet ~~is~~ are established as a community garden(s) for the residents of the site to provide local food production for residents or area consumers. One point awarded per 250 sq feet. Maximum 3 points.
Reason:	To establish a minimum size for the gardens and allow for point tier discussion. The committee or task group can discuss and determine if a minimum size is necessary. Some regions may use vertical gardens and not need much land area, but some regions my best be served by multiple fruit trees, or even palms. Also allows for a discussion of tiered points. A project would have more flexibility with a point tier allocation.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD LogID 6151 505.6 Multi-unit plug-in electric vehicle charging

Submitter:	Steven Rosenstock, Edison Electric Institute
Requested Action:	Revise as follows
Proposed Change:	**505.6 Multi-unit plug-in electric vehicle charging.** Plug-in electric vehicle charging capability is provided for at least ~~1~~ 2 percent of parking stalls. Fractional values shall be rounded up to the nearest whole number. Electrical capacity....
Reason:	There are now over 577,000 plug-in electric vehicles (plug-in hybrids or battery electric vehicles) being driven in the US. All major manufacturers offer the vehicles for sale, and there are federal tax incentives, as well as state incentives, for their use. As of early 2016, there were over 12,200 public EV charging stations in the US. This proposal increases the percentage requirement from 1 to 2 percent (the original proposal that was discussed during the last NGBS revision was 5 percent), and adds clarify language if the calculation yields a value like 1.4 (in which case, they would have to install 2 EV charging stations).
Concurrent Review Staff Note:	This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD LogID 6156 503.6 Multi-unit plug-in electric vehicle charging

Submitter:	Steven Rosenstock, Edison Electric Institute
Requested Action:	Revise as follows
Proposed Change:	...(208/240V-~~40~~ 80 amp).... (208-240V/~~40~~ 80A)
Reason:	This proposal updates the specification match the current SAE information, as shown on the following web site and below: http://www.sae.org/smartgrid/chargingprimer.pdf "AC Level 2 Charging* – 208 –240 AC charging up to 80 amps, on-board vehicle charger (~19kw)"
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.*
TG Recommendation (AS or AM or D):	

Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6535**	**505.6 Multi-unit plug-in electric vehicle charging**

Submitter:	Craig Conner, Building Quality
Requested Action:	Revise as follows
Proposed Change:	505.6 Multi-unit plug-in electric vehicle charging. Plug-in electric vehicle charging capability is provided for at least ~~1~~ 2 percent of parking stalls. The number of charging stations is rounded to the nearest even number, with no points for zero chargers and odd number rounded up. Electrical capacity in main electric panels supports Level 2 charging (208/240V-40 amp). Each stall is provided with conduit and wiring infrastructure from the electric panel to support Level 2 charging (208/240V-40 amp) service to the designated stalls, and stalls are equipped with either Level 2 charging AC grounded outlets (208/240V-40 amp) or Level 2 charging stations (240V/40A) by a third party charging station. Charging stations and electrical service is in accordance with the NEC Article 625.
Reason:	More economical chargers have two chargers on one post. Rounding simply allows the use of these chargers. The National Electric Code (NEC) specifies how chargers and electrical supply are connected in Article 625.
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6537**	**505.6 Multi-unit plug-in electric vehicle charging**

Submitter:	Chuck Foster, Charles R. Foster Associates
Requested Action:	Revise as follows
Proposed Change:	Plug-in electric vehicle charging capability is provided for at least ~~1~~ 3 percent of parking stalls.
Reason:	There are now over 577,000 plug-in electric vehicles (plug-in hybrids or battery electric vehicles) being driven in the US. All major manufacturers offer the vehicles for sale, and there are federal tax incentives, as well as state incentives, for their use. As of early 2016, there were over 12,200 public EV charging stations in the US. This proposal increases the percentage requirement from 1 to 3 percent (the original proposal that was discussed during the last NGBS revision was 5 percent), and adds clarify language if the calculation yields a value like 1.4 (in which case, they would have to install 2 EV charging stations).
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6552**	**Other for Chapter 5 (include section number and title below)**

Submitter:	Kat Benner, US-EcoLogic / TexEnergy
Requested Action:	Add new as follows
Proposed Change:	505 HEALTH AND WELL BEING (…prior to INNOVATIVE PRACTICES)
Reason:	To include a new sub-section within each chapter of the Protocol, as relevant, immediately preceding (or after) Innovative Practices section, to address health and well being issues that are interconnected to the overall Green certification, but independent/optional, not required. This opens the program to reach lifestyle and living for overall occupant health.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6241** **Other for Chapter 5 (include section number and title below)**

Submitter:	Paul Gay, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	505.X Pre Construction Durability Assessment Assess Project lot and Building risks associated with lot location, develop strategies to address specified risks. Include measures in plans
Reason:	assess and address site / location specific risks eg Pests/UV/Excessive thermal considerations (Hot/Cold/ Humidity) Moisture/Soil/Terrain/Landscape and include measures to address in plans
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6162** **Other for Chapter 5 (include section number and title below)**

Submitter:	Greg Johnson, Outdoor Power Equipment Institute
Requested Action:	Add new as follows
Proposed Change:	**505.7 Open green open space.** Provide not less than 150 square feet (14 m^2) of open green space per sleeping room on the lot. **3 points**
Reason:	The World Health Organization (WHO) has suggested that every city should have a minimum of 9 square meters (100 ft2) of green space per person. 1.5 people per sleeping room is a common metric used for municipal zoning and planning purposes, so providing 150 sf2 approximates the WHO recommendation. http://www.baharash.com/liveable-cities-how-much-green-space-does-your-city-have/
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6482	Other for Chapter 5 (include section number and title below)

Submitter:	Jeremy Velasquez, TexEnergy Solutions
Requested Action:	Add new as follows
Proposed Change:	New Section **Section 506.1** - Exterior Activity Space - Provide an exterior space as part of the overall development that is intended for physical activity to promote health and wellness.
Reason:	Many subdivisions and multifamily projects lack a dedicated space outside where people can exercise or participate in other physical activities.
Concurrent Review Staff Note:	This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6459	Other for Chapter 5 (include section number and title below)

Submitter:	Greg Johnson, Outdoor Power Equipment Institute
Requested Action:	Add new as follows
Proposed Change:	**506** **Human Health and Wellbeing** **506.0 Intent. Site design, preparation and development practices are used to foster human health and wellbeing.**

506.1. The site is designed to encourage physical activity	**Points**
(1) Facilities for active outdoor recreation are provided	
(a) A swimming pool with an automatic pool cover is provided.	3
(b) A tennis, pickleball, basketball or handball court is provided.	1 point per court 3 points max
(c) A playground and equipment are provided.	3
(d) An informal play area is provided for children and pets.	3
(2) The building is located within .5 mile (.8 km) of parks with playgrounds, exercise facilities, parks, trails, an accessible body of water, or other physical activity facilities open to the public.	5
506.2 The site is designed to promote social interaction or outdoor respite	**Points**
(1) Outdoor gathering places are provided	
(a) Outdoor space with seating and tables for picnicking or socializing is provided.	1 point per space 5 points max
(b) Outdoor seating oriented toward scenic views or vistas such as mountains, skylines, or bodies of water is provided.	1 point per seating area 5 points max

(2) A community lawn or town square is provided	5
506.3 Community garden(s). A portion of the site is established as a community garden(s) for the residents of the site to provide local food production for residents or area consumers.	3
Composting area and physical provisions are provided for accumulating compost	1
Signs designating the garden area are posted.	1
506.4. Tick-borne disease. The site is designed to mitigate hazards from tick-borne disease **(To acquire points the site must be documented to be at risk by an epidemiologist or qualified professional)**	**Points**
(1) Dense plant beds, shrubbery and woody plants are not planted within 5 feet (1.5 m) of occupied buildings	2 points per building
(2) A minimum of a 5 foot (1.5 m) border of paving, mulch, gravel, or turfgrass is provided between woods or weedy areas and people trafficked or occupied areas.	3
(3) Vegetation that is attractive to deer, as documented by a qualified professional, is not planted within 20 (6 m) feet of buildings.	3
406.5 Outdoor smoking prohibition.	**Points**
Signs are provided prohibiting smoking at the following locations:	
(a) Smoking is prohibited within 25 feet (7.5 m) of all building exterior doors and operable windows or building air intakes within 15 (4.5 m) vertical feet of grade or a walking surface.	5
(b) Smoking is prohibited on decks, balconies, patios and other occupied exterior spaces.	5
(c) Smoking is prohibited at all parks, playgrounds, and community activity or recreational spaces.	5

Reason: Human health and wellness are important considerations in green and sustainable design and building. Outdoor areas offer important health and wellness benefits when designed and installed appropriately. General substantiation for health and wellness was submitted with a parallel proposal to Chapter 4. This proposal is accompanied by substantiation of the need for design to mitigate tick hazards to human health. Tick-borne diseases are at epidemic levels in North America and much of the world, are

	expanding rapidly, and are projected to worsen with climate change. Managed landscape are an important tool to mitigate tick hazards.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6324**	**Other for Chapter 5 (include section number and title below)**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	**505.X Building Orientation.** Lot is part of a community where a minimum if 75% of the building sites are designed with the longer dimension of the structure to face within 20 degrees of south. - **6 points**
Reason:	Takes existing NGBS 2015 practice, 403.2, and applies it to a lot.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6321**	**Other for Chapter 5 (include section number and title below)**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	ADD NEW SECTION **505.13 Community Design for Cross Ventilation:** Lot is within a community located in a hot, humid climate where 75% of streets are within 20-30 degrees wither direction of parallel to the prevailing wind - **5 POINTS**
Reason:	In hot, humid climate good ventilation is necessary to remove excess heat from streets and open spaces and to provide cross-ventilation in buildings. Streets parallel to the prevailing wind have the highest velocity while streets perpendicular to the prevailing wind yield lower velocity and more turbulent wind in the streets.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6345**	**Other for Chapter 5 (include section number and title below)**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	**505.X Street Network:**

	Locate the project in an area of high intersection density. - **5 POINTS** **INSERT definition in Section 201.** Area of High Intersection Density. An area whose existing streets and sidewalks create at least 90 intersections per square mile (35 intersections per square kilometer). **INSERT into Verifier Resource Guide…** When determining the number of intersections, include the following: intersections within a ¼ mile (400 meter) radius of project boundary; streets and sidewalks that are available for general public use and not gated; sidewalk intersections provided they are a unique right of way (i.e., a sidewalk through a city park); and publicly accessible alleys.
Reason:	This credit encourages health and well being of home owners and tenants on by encouraging daily physical activity. It has the added benefits of promoting projects that are well connected to the community at large as well as encourage development within existing communities that minimizes vehicle miles traveled.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6350**	**Other for Chapter 5 (include section number and title below)**

Submitter:	Jeremy Velasquez, TexEnergy Solutions
Requested Action:	Add new as follows
Proposed Change:	**Section 506** - Add a new section as relevant for Health and Well-being credits.
Reason:	As sustainability protocols evolve, the natural progression is to include measures that have a positive benefit on occupant health and well-being.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6326**	**Other for Chapter 5 (include section number and title below)**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	ADD NEW SECTION **505.9 Community Recycling Program:** Lot is within a community that has a recycling program. - **5 POINTS**
Reason:	Promotes recycling on a community level as a means to align with practice 607 which does the same on the house level. Being able to collect recycling in a homes when you have no place to take it is aspirational but not particularly effective.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	

TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6247**	**Other for Chapter 5 (include section number and title below)**

Submitter:	Paul Gay, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	505.XX Project has emergency plan in place to address relevant Natural Disasters
Reason:	to ensure project is protected against relevant potential impact from natural hazards e.g.Floods/Earthquakes/Landslides/Hurricanes/Tornadoes/Dust Storms/Wildfires
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6178**	**Other for Chapter 5 (include section number and title below)**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	ADD NEW SECTION **505.10 District Heating and Cooling:** Lot is within a community that has a district heating and/or cooling system.
Reason:	District cooling and heating can be very efficient as it removes the need for building specific space heating systems, space cooling systems, and/or domestic water heating systems.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6179**	**Other for Chapter 5 (include section number and title below)**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	ADD NEW SECTION **505.12 Local Economic Development and Community Wealth Creation:** (1) Demonstrate that local preference for construction employment and subcontractor hiring was part of your bidding process **- 3 POINTS** (2) Demonstrate that you achieved at least 20% local employment - **4 POINTS** (3) Provide physical space for small business, nonprofits, and/or skills and workforce education. **- 5 POINTS**
Reason:	Housing often has the opportunity to act as an economic catalyst within a neighborhood and community. Housing projects offer opportunities to directly enhance the lives of residents when they include physical

	space that can accommodate various programs for learning, job skill development and other social interactions. Numerous studies have documented the ways in which affordable housing projects have positive economic impacts on their surrounding neighborhoods.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6177**	**Other for Chapter 5 (include section number and title below)**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	ADD NEW SECTION **505.8 Open Space:** Lot is within a community that has 1 acre or greater set aside as open space
Reason:	Based on NGBS 2015 405.9 and applied to a single lot versus entire land development
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6154**	**Other for Chapter 5 (include section number and title below)**

Submitter:	Greg Johnson, Outdoor Power Equipment Institute
Requested Action:	Add new as follows
Proposed Change:	**505.7 Community activity(s).** A portion of the lot is established for physical activity or social interaction, available to residents of the lot for community recreation and interaction. 3 points
Reason:	Increased density is a worthwhile goal of the standard, but denser residential conditions drive a corresponding need for open space, preferably vegetated, suitable for physical activity or social gathering to enhance human health and well-being. Children in particular can benefit from healthy play area close to their residences.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Others Assigned to TG-2

Proposal ID TBD	LogID 6467	1302 Referenced Documents
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Add new as follows	
Proposed Change:	International Code Council: International Wildland-Urban Interface Code 2018	
Reason:	This supports proposed changes in Chapter 4 & 5.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

TG-3: Resource Efficiency and Indoor Environmental Quality

Chapter 6: Resource Efficiency

Proposal ID TBD	LogID 6457	601.9 Above-grade wall systems
Submitter:	Ben Edwards, Spindale NC	
Requested Action:	Delete without substitution	
Proposed Change:	~~601.9~~	
Reason:	A green building standard should not promote the use of carbon-/energy-dense building materials without more guidance. Sections 610 (LCA) and 611.4 (EPD) already are the appropriate locations for the many benefits of mass walls to be considered in a holistic context.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6214	602.0 Intent (Enhanced Durability and Reduced Maintenance)
Submitter:	Eric Skare, Uponor	
Requested Action:	Add new as follows	
Proposed Change:	602.5 Fire Sprinkler Systems. An automatic fire sprinkler system is installed in accordance with NFPA or ICC installation standards, or equivalent. 4 points	
Reason:	Fire sprinkler systems provide significant benefits from a building durability standpoint, and drastically reduce the environmental impact of a fire in several ways. The primary justification for adding credit for fire sprinkler systems comes from the FM Global Research Technical Report titled Environmental Impact of Automatic Fire Sprinkler Systems. A link to this document is provided (http://www.iccsafe.org/gr/Documents/AdoptionToolkit/FM-Global-EnvironmenmtalImpactAutomaticFireSprinklers.pdf) and the document will be e-mailed as well.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6226	602.1.8 Water-resistive barrier
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	Have 3rd Party Water Barrier / Window Leakage Test conducted and Passed per Industry standards	
Reason:	passing a performance test will help ensure weather barrier is installed as intended /per design.....potentially heading off potential moisture /intrusion problems and associated costs	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		

TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6449**	**602.3 Roof water discharge**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Revise as follows	
Proposed Change:	602.3 Roof water discharge. A gutter and downspout system or splash blocks and effective grading are provided to carry water a minimum of 5feet (1524 mm) away from perimeter foundation walls and directed onto landscaping or other permeable surface.	
Reason:	This change more clearly states how roof water discharge should be directed. This change should be under only the name of “Howard C. Wiig, State of Hawaii, representing self”	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6298**	**603.1 Reuse of existing building**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	Major elements or components of existing buildings and structures are reused, modified, or deconstructed for later use. (AP points is awarded for every 200 square feet (18.5m^2) of floor area. 8% of major elements or components of existing building reused and every 10% of major elements or components of existing building adapted or deconstructed. The percentage is consistently calculated on a weight, volume, or cost basis.)	
Reason:	Depending on the floor plan and floor height, the reuse of the same 200 square-foot floor area may result in a reuse of different amounts of materials. A 200 square-foot floor area in one case may be unfinished and support a limited number of short, interior-type partitions. In another case, a 200 square-foot floor area may be fully finished and fully surrounded by heavier, exterior and/or load-bearing walls, while also incorporating tall interior partitions. The amount of material reused in the two cases would be distinctly different. While building reuse, adaptation and disassembly are all high on the waste management hierarchy, building reuse is a source reduction measure that has the potential to carry the greatest overall benefit. Award points based on comparable amounts of material reused; to that end, use percentages of materials affected, based on the weight, volume or cost of materials, and not the floor area. To reflect the greater benefit afforded by building reuse, allocate the maximum number of points to the reuse of major elements or components by awarding a point to every 8% reused, amounting to the total of 12 available points for this credit in the case of the reuse of 96% of major elements. Allocate a slightly lesser number of points to adaptation and disassembly of major elements or components by awarding a point to every 10% adapted or disassembled, amounting to the total of 10 points for the adaptation or disassembly of a 100% of major elements.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6346**	**604.1 Recycled content (Recycled-content building materials)**
Submitter:	Cambria McLeod, Kohler	

Requested Action:	Delete without substitution
Proposed Change:	~~604.1 Recycled content. Building materials with recycled content are used for two minor and/or two major components of the buildings.~~
Reason:	To increase use of the standard, reduce the complexity and remove these calculations. Recycled content is captured through EPDs, which are easier for the end user to locate and provide a much better indicator as they focus on the outcome of the various inputs. Individually, single-attributes have little bearing on the final impact and are becoming antiquated, so they are being replaced with EPDs. Because EPDs are already a part of this standard, the available points that would be removed with this section could be added into the Product Declarations, Section 611.4, if the Standard was to keep the same number of threshold points.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6299**	**605.1 Construction waste management plan**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	**605.0 Intent.** Waste generated during construction is recycled. All waste classified as hazardous is properly handled and disposed of. **~~(Points not awarded for hazardous waste removal.)~~** **605.1 Hazardous Waste.** The construction and waste management plan shall include information on the proper handling and disposal of hazardous waste. All hazardous waste is properly handled. **Mandatory** **605.~~1~~2 Construction waste management plan.** **605.~~2~~3 On-site recycling.** **605.~~3~~4 Recycled construction materials.**	
Reason:	The text that states points are not awarded for hazardous waste removal is ambiguous and can be misunderstood. An important subsection with the mandatory requirement that the construction waste management plan include information on the proper handling and disposal of hazardous waste is missing. (Do note that correcting the above issues in Chapter 6 will make the chapter consistent with the corresponding Chapter 11, Section 11.605.) To address these issues, delete from Subsection 605.0 Intent, the ambiguous text stating points are not awarded for hazardous waste removal. Add Subsection 605.1 Hazardous Waste. Reorder the current subsections of Section 605.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6300**	**605.1 Construction waste management plan**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	

Proposed Change:	**605.~~1~~2Construction waste management plan.** …diverting, through methods such as reuse, salvage, recycling or manufacturer reclamation, a minimum of 50 percent (by weight) of nonhazardous construction and demolition ~~waste~~ materials from disposal in landfills and combustion, excluding energy and material recovery. For this practice, land clearing debris is not considered a construction and demolition material and is excluded from the calculation ~~waste~~. Materials used as alternative daily cover are considered construction waste and do not count toward recycling or salvaging. For remodeling projects or demolition of an existing facility, the waste management plan includes the recycling of 95 percent of electronic waste components (such as printed circuit boards from computers, building automation systems, HVAC, fire and security control boards) by ~~an EPA~~ third-party certified E-Waste recycling facility. **Exceptions:** ~~Waste materials generated from land clearing, soil and sub-grade excavation and all manner of vegetative debris shall not be in the calculations.~~ A recycling facility (traditional or E-Waste) offering material receipt documentation is not available within 50 miles of the jobsite.
Reason:	The section instructs stakeholders to divert construction and demolition materials from disposal. Commonly, such language would clarify that the materials should be diverted from disposal in landfills and combustion, excluding energy and material recovery. (note that we are referring to "combustion" rather than "incineration;" although frequently misunderstood, combustion is a broader activity that does include energy and material recovery, but incineration is done so as to treat or resize waste for the purpose of disposal and does not include energy or material recovery; because of the common misunderstanding, we do recommend acknowledging energy recovery, but including it under the broader, correct activity, i.e., combustion.) The C&D debris that gets diverted is a resource (material) and not waste and should be referred to accordingly. It is unclear what is intended by an "EPA-certified" e-waste recycling facility; EPA does not "certify" e-waste recycling facilities. Currently, the Responsible Recycling Standard (R2) and the e-Stewards standard are the two available e-waste certification programs to which facilities may be certified. See: http://www.sustainableelectronics.org/ and http://e-stewards.org/ Finally, if the intent of the "Exceptions" section is to indicate specific circumstances when the practice does not apply, or to acknowledge situations when it cannot be met by the project team seeking the points, then it is unclear why the first item is listed. How is stating "Waste materials generated from land clearing, soil and sub-grade excavation and all manner of vegetative debris shall not be in the calculations," an Exception? (We would argue this is an exclusion from the calculation, not an exception from the practice - due to some imposed practical difficulties - and as such, it is most appropriately addressed in the language of the credit.) To address these issues, introduce that materials should be diverted from disposal in landfills and combustion, excluding energy and material recovery. Refer to construction and demolition materials and not waste. Replace "EPA-certified" e-waste recycling facility with "third-party certified" e-waste recycling facility. Delete the first item listed under Exceptions.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6327**	**606.2 Wood-based products**
Submitter:	Rob Brooks, Rob Brooks & Associates	
Requested Action:	Delete and substitute as follows	
Proposed Change:	**606.2 Wood-based products.** Wood or wood-based products shall be derived from a manufacturers' fiber procurement system that has been audited by an *approved agency* as compliant with the provisions of: (a) ASTM D7612 as a responsible or certified source. Government or tribal forestlands whose water protection programs have been evaluated by an *approved agency* as compliant with the responsible source designation of ASTM D7612 are exempt from auditing in the manufacturers' fiber procurement system. (b) National Wood Flooring Association's Responsible Procurement Program (RPP)	

Reason:	• This proposed change related to the acceptance of forest products is vital to the use of ICC-700 in states where forest product production is an important source of revenue, such as Oregon. Neighboring states, such as Washington, Idaho and California also rely upon forest product production and support the use of sustainable forestry and best management practices to maintain (among other objectives) water quality. • The IgCC, USGBC Pilot Credit and the USDA BioPreferred Program currently recognize ASTM D7612 responsible and certified sources. The 2012 ICC-700 recognizes responsible sources through the SFI Fiber Sourcing program. Alternatively, SFI Chain of Custody is a certified source. (see attached table). All of the existing forest certification programs listing in ICC-700 are recognized by ASTM D7612. • ASTM D7612 provides a means to specify sustainable forestry via the certified sources designation without the reference to proprietary standards such as SFI, FSC, ATFS, etc. The American National Standards Institute's (ANSI) Essential Requirements for Due Process, excludes specifying ecolabels—FSC, PEFC, SFI—that is, their brand name—because that would run afoul of ANSI's prohibition on the use of commercial terms. It says in part, "[t]he appearance that a standard endorses any particular products, services or companies must be avoided." Previously, there was no method to generically specify these ecolabels, but with the advent of the ASTM D7612, the generic reference is available, which should replace the proprietary ecolabel. The USGBC Pilot Credit recognizes this advantage and avoids comparison between proprietary systems to avoid improper commercial endorsement. • ASTM D7612 provides a means to specify enforcement of best management practices by governmental agencies that have authority to protect water quality on both certified and non-certified forestlands via the responsible source designation. For Oregon, enforcement is achieved through the Oregon Forest Practices Act (OFPA), regardless of whether the forestland is certified to sustainable forestry standards, or not. o Enforcement is defined as having authority, staffing, budget, proof of citations and the ability to adapt the rules to improve the system. Oregon forestlands subject to the OFPA have been independently audited and found compliant to the responsible source designation by PFS Corporation. o The emphasis on water quality for government or tribal forestlands is due to the existing rules already in place tp protect forests (see https://cfpub.epa.gov/watertrain/moduleFrame.cfm?parent_object_id=1517 The degree to which these rules are enforced by each state has been evaluation by the National Association of State Foresters http://www.stateforesters.org/state-forestry-agency-best-management-practices-protecting-water#sthash.7VDEx3y6.dpbs The three tiers of enforcement are non-regulatory, quasi-regulatory and regulatory in order of increasing compliance. ASTM D76712 recognizes those states having quasi-regulatory and regulatory compliance under the responsible source designation. o The strength of the responsible sources program is the ability to issue citations (fines) for noncompliance to water quality rules and to reward states/jurisdictions that fund enforcement. Citations are issued to operators on both certified and non-certified forests. In some states, such as Oregon, the OFPA rules extend beyond water quality. Oregon producers want recognition of their compliance to OFPA, but not at the same tier as certified sources to avoid market confusion that responsible and certified sources are equivalent. o Manufacturers are required to trace fiber procurement under both the responsible and certified sources designation. Further information can be provided to the ICC-700 committee upon request. o The strength of the certified sources program is to write rules that extend beyond issues related to water quality. When damage to the forest happens from non-compliance, certified source programs can de-certify clients, they cannot issue citations or stop-work orders to remediate damage. o Thus, the responsible source program is an important enforcement component (and partner) to a certified source program. It will provide recognition for those states who actively monitor, enforce and punish offenders not in compliance with the law. It encourages states to enforce their water quality rules through inspection, documentation and citation, which is complementary to the voluntary sustainable forestry standards, or certified sources. It supports the "boots on the ground", actively monitoring harvest operations on both public and private lands. o ASTM D7612 not only supports the expanded enforcement of existing water quality rules (aka best management practices), but also recognizes voluntary compliance to those sustainable forestry practices above and beyond state water quality rules. • In Oregon, the OFPA applies to approximately 10 million acres; of which approximately 4 million acres are certified forests. If the responsible source designation were also applied to federal and tribal lands, the designation would apply to approximately 30 million acres of forestland in Oregon. The fiscal implication of the responsible source designation is significant to the increased value of building products derived from private and public lands, which is why the state of Oregon is presenting this request. The responsible source designation provides states recognition of best management practice enforcement on public lands without the controversial decision and cost to convert to the certified source designation. Further information about ASTM D7612 is found at https://www.astm.org/standardization-news/?q=features/green-greener-greenest-ma17.html.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	

TG Vote:	

Proposal ID TBD	**LogID 6348**	**606.3 Manufacturing energy**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Delete without substitution	
Proposed Change:	Delete without substitution.	
Reason:	Use of the word 'materials' is does not promote use of this section for final products which could have multiple materials or assemblies and could be from various locations. An effective way to capture this information for products, or materials, would be through EPDs. EPDs are more widely recognized in the industry and easier for Standard user to obtain. Individually, these single-attributes have little bearing on the final impact and are becoming antiquated, so they are being replaced with EPDs. Because EPDs are already a part of this standard, the available 6 points that would be removed with this section could be added into the Product Declarations, Section 611.4, if the Standard was to keep the same number of threshold points.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 1502**	**606.3 Manufacturing energy**
Submitter:	Todd Jones, Center for Resource Solutions	
Requested Action:	Revise as follows	
Proposed Change:	Materials manufactured using renewable energy for a minimum of 33 percent of the primary manufacturing process energy. Non-electric energy used in manufacturing materials must be derived from (1) renewable sources, or (2) combustible waste sources~~, or (3) renewable energy credits (RECs) are used for major components of the building.~~ Electricity used in manufacturing materials must be paired with renewable energy certificates (RECs), which must be retired. The building may purchase RECs on behalf of the building material supplier where the supplier has not purchased/used renewable electricity, with RECs, for manufacturing of building materials. Green-e certification (or equivalent) is required [or recommended] for renewable electricity purchases and materials manufactured using renewable electricity.	
Reason:	This requirement refers to renewable energy use in manufacturing of building materials, and therefore may refer to use of both electricity and non-electric energy in manufacturing. Currently, the options 1-3 are not differentiated as apply to either electricity or non-electric energy use. However, since RECs are required to claim use of renewable electricity in all cases, including from on-site renewable generation equipment, we suggest differentiating between electricity used in manufacturing, in which case RECs are required, and non-electricity energy used in manufacturing. It is also not clear that in option 3, RECs are being purchased by the building to be applied to the building materials, i.e. its supply chain, and not to the building's own electricity usage, and that RECs/RE may also be purchased or used by the supplier of the building materials. Finally, we recommend that Green-e certification be required, or at least recommended, to ensure that use of renewable electricity has been properly verified.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6301**	**607.1 Recycling and composting (Recycling and waste reduction)**

Submitter:	Susan Gitlin, US Environmental Protection Agency
Requested Action:	Revise as follows
Proposed Change:	The section instructs stakeholders to divert construction and demolition materials from disposal. Commonly, such language would clarify that the materials should be diverted from disposal in landfills and combustion, excluding energy and material recovery. (note that we are referring to “combustion” rather than “incineration;” although frequently misunderstood, combustion is a broader activity that *does* include energy and material recovery, but incineration is done so as to treat or resize waste for the purpose of disposal and *does not* include energy or material recovery; because of the common misunderstanding, we do recommend acknowledging energy recovery, but including it under the broader, correct activity, i.e., combustion.) The C&D debris that gets diverted is a resource (material) and not waste and should be referred to accordingly. It is unclear what is intended by an “EPA-certified” e-waste recycling facility; EPA does not “certify” e-waste recycling facilities. Currently, the Responsible Recycling Standard (R2) and the e-Stewards standard are the two available e-waste certification programs to which facilities may be certified. See: http://www.sustainableelectronics.org/ and http://e-stewards.org/ Finally, if the intent of the “Exceptions” section is to indicate specific circumstances when the practice does not apply, or to acknowledge situations when it cannot be met by the project team seeking the points, then it is unclear why the first item is listed. How is stating “Waste materials generated from land clearing, soil and sub-grade excavation and all manner of vegetative debris shall not be in the calculations,” an Exception? (We would argue this is an *exclusion from the calculation*, not an *exception from the practice*- due to some imposed practical difficulties - and as such, it is most appropriately addressed in the language of the credit.) To address these issues, introduce that materials should be diverted from disposal in landfills and combustion, excluding energy and material recovery. Refer to construction and demolition *materials* and not *waste.* Replace “EPA-certified” e-waste recycling facility with “third-party certified” e-waste recycling facility. Delete the first item listed under Exceptions.
Reason:	The spatial requirements to facilitate the recycling and composting of operational waste are vague. Typically, they would include the following criteria: • The dedicated spaces for the collection and storage of recyclables are accessible to both waste haulers and building occupants. • The dedicated spaces are of appropriate size and capacity to accommodate the collection and storage of recyclables and compostables for the entire building. • The recyclables and compostables for which to plan the collection and storage at a minimum include mixed paper, corrugated cardboard, glass, plastics, metals, green waste, food, and food soiled paper. • Food recovery is a top EPA priority. Organic materials make up the largest protion of the municipal solid waste stream and collection programs are expanding across the nation. Even if programs do not currently exist to manage these materials streams, dedicated collection space for future collection should be allocated. We therefore recommend clarifying the spatial requirements to facilitate the recycling and composting of operational waste.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6234**	**607.1 Recycling and composting (Recycling and waste reduction)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	Multi Family Alternative to built in collection space - Management provides "blue box" recycling container or "blue Bins" and has designated recycling dumpsters onsite and /or contract with offsite sorting Recycling Facility	
Reason:	provide alternative opportunity to encourage recycling to projects/tenants where space will prevent the built in option	

Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 11 – Proposal LogID 6235. The parallel proposal is being reviewed by TG-6.*
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6303**	**608.1 Resource-efficient materials**
Submitter:	Susan Gitlan, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	**608.1Resource-efficient materials.** Products containing fewer materials are used to achieve same end-use requirements as conventional products, including but not limited to: ~~(1) Lighter, thinner brick with depth less than 3 inches and/or brick with coring of more that 25 percent~~ ~~(2)~~ (1) Engineered wood or engineered steel products ~~(3)~~ (2) Roof or floor trusses	
Reason:	Since engineered wood, engineered steel products and roof or floor trusses are incorporated intermittently in the façade, and/or entirely in the interior, their dematerialization is not likely to jeopardize the structure's overall energy efficiency. In fact, filling with insulation those spots in the exterior walls where the unneeded mass of structural elements would otherwise have been, reduces the thermal bridging associated with structural elements in exterior walls and improves the structure's energy efficiency. Conversely, the continuous dematerialization of a façade material, such as brick, may require an addition of more insulation to compensate for the loss of volume all along the perimeter, just to achieve comparable energy efficiency. A more accurate assessment of the benefits of the dematerialization of façade materials can possibly be made and if there are benefits, points can be captured through Life Cycle Assessments (610.1.1 and 610.1.2) that apply a material consumption impact category in addition to categories measuring energy-consumption impacts through the manufacturing, construction and use life-cycle stages.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6337**	**609.1 Regional materials**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Delete without substitution	
Proposed Change:	~~Regional materials. Regional materials are used for major and/or minor components of the building. For a component to comply with this practice, a minimum of 75% of all products in that component category must be sourced regionally, e.g.; stone veneer category – 75 percent or more of the stone veneer on a project must be sourced regionally.~~	
Reason:	To increase use of the standard, reduce the complexity and remove these calculations. Regional material impacts are captured through EPDs, which are easier for the end user to locate and provide a much better indicator as they focus on the outcome of the various inputs. Individually, single-attributes have little bearing on the final impact so they are being replaced with EPDs. Because EPDs are already a part of this standard, the 10 points removed with this section could be added into the Product Declarations, Section 611.4, if the Standard was to keep the same number of threshold points.	

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6304**	**610.1 Life cycle assesment**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	**610.1.1Whole-building life cycle assessment.** A whole-building LCA is performed in conformance with ASTM E2921 using ISO14044compliant life cycle assessment. Execute LCA at the whole-building level through a comparative analysis between the final and reference building designs as set forth under Standard Practice, ASTM E2921. The assessment criteria includes the following environmental impact categories: a. Primary energy use b. Global warming potential c. Acidification potential d. Eutrophication potential e. Ozone depletion potential f. Smog potential g. Material Use h. Waste i. Water Use j. Pollution Discharges to Water … Execute full LCA, including resource extraction or harvesting, manufacturing, construction, use and end-of-life phases~~,~~. For the use phase, calculate ~~through calculation of~~ operating energy impacts (c) – (f) using local or regional emissions factors from energy supplier, utility or EPA. For the use phase, also include impacts associated with material replacements. **610.1.2.1Product LCA.** A product with improved environmental impact measures compared to another product(s) intended for the same use is selected. The environmental impact measures used in the assessment are selected from the following: a. Primary energy use b. Global warming potential c. Acidification potential d. Eutrophication potential e. Ozone depletion potential f. Smog potential g. Material Use h. Waste i. Water Use j. Pollution Discharges to water **610.1.2.2 Building Assembly LCA.** Abuilding assembly with improved environmental impact measures compared to an alternative assembly of the same function is selected… **…**The environmental impact measures used in the assessment are selected from the following: a. Primary energy use b. Global warming potential c. Acidification potential d. Eutrophication potential e. Ozone depletion potential f. Smog potential g. Material Use h. Waste i. Water Use	

	j. Pollution Discharges to Water
Reason:	Using less material and recovering more is crucial to our economic and environmental future. Material use and waste generation over the life cycle of a building should be modeled. In addition, the "full" life cycle assessment should include all life cycle phases, including extraction and harvesting, manufacturing, construction, use and end-of-life phases. While the NGBS-proposed language for whole-building life cycle assessment emphasizes that the assessment should include the use phase, it omits mentioning the other important phases. Finally, the language for the whole-building use phase indicates that impacts related to energy use should be evaluated, but remains silent on the need to evaluate impacts associated with the replacement of materials. To address these issues, we recommend adding the material use and waste impact categories to the assessment criteria. Emphasize that the boundary of the assessment should include the manufacturing, construction and end-of-life phases. Emphasize that the assessment of the use phase should include the analysis of impacts associated with the replacement of materials.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6357**	**610.1.2 Life cycle analysis for a product or assembly**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Delete without substitution	
Proposed Change:	~~610.1.2 Life cycle assessment for a product or assembly. An environmentally preferable product or assembly is selected for an application based upon the sue of an LCA tool that incorporates data methods compliant with ISO 14044 or other recognized standards that compare the environmental impact of products or assemblies.~~	
Reason:	This is one of two removals of this grouping: 610.1.2 and 610.1.2.1. Asking a contractor or other Standard user to find an LCA tool and use it to select various inputs is not user-friendly, nor is it an effective way to understand the burden of that product. Essentially they would be guessing as to the inputs whereas the use of an EPD allows the manufacturer to utilize specific inputs, removing the guesswork. In general, many EPD's reference LCA so the Standard is essentially giving points twice for this category.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6358**	**610.1.2.1 Product LCA**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Delete without substitution	
Proposed Change:	~~610.1.2.1 Product LCA. A product with improved environmental impact measure compared to another product(s) intended for the same use is selected. The environmental impact measures used in the assessment are selected from the following:~~ ~~(a) primary energy use~~ ~~(b) Global warming potential~~ ~~(c) Acidification potential~~ ~~(d) Eutrophication potential~~ ~~(e) Ozone depletion potential~~ ~~(f) Smog Potential~~	
Reason:	This is one of two removals of this grouping: 610.1.2 and 610.1.2.1. Asking a contractor or other Standard user to find an LCA tool and use it to select various inputs is not user-friendly, nor is it an	

	effective way to understand the burden of that product. Essentially they would be guessing as to the inputs whereas the use of an EPD allows the manufacturer to utilize specific inputs, removing the guesswork. In general, many EPD's reference LCA so the Standard is essentially giving points twice for this category.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD (Innovative Practices)	**LogID 6360**	**611.1 Manufacturer's environmental management system concepts**

Submitter:	Cambria McLeod, Kohler
Requested Action:	Revise as follows
Proposed Change:	~~Manufacturer's environmental managementsystem concepts. Product manufacturer's operations and business practicesinclude environmental management system concepts, and the production facilityis registered to ISO 14001 or equivalent. The aggregate value of buildingproducts from registered ISO 14001 or equivalent production facilities is 1percent or more of the estimated total building materials cost.~~ Product Specific Declaration Improvements. Utilizing aType III environmental product declaration (EPD), demonstrate an improvement overprior EPDs for the same product. (1 point awarded per improved product.)
Reason:	The use of ISO 14001 adds minimal value and is not widely used because a facility could be ISO 14001 compliant and have negative impacts. Proving that a product's impacts, throughout its lifecycle, are improving over time is a more effective way to demonstrate innovation. Comparing a product's EPD from one year to the next can demonstrate improvement in environmental management systems, regardless of the type of facility registration.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6318**	**611.2 Sustainable products**

Submitter:	Susan Gitlin, US Environmental Protection Agency
Requested Action:	Revise as follows
Proposed Change:	**611.2 Sustainable Products.** One or more of the following products are used for at least 30% of the floor or wall area of the entire dwelling unit, as applicable. Products are certified by a third-party agency accredited to ISO 17065. 50%or more of carpet installed (by square feet) is certified to NSF 140 or applicable standard/ ecolabel as stated in EPA's Recommendations of Standards and Ecolabels. 50%or more of resilient flooring installed (by square feet) is certified to NSF332 or applicable standard/ ecolabel as stated in EPA's Recommendations of Standards and Ecolabels. 50%or more of the insulation installed (by square feet) is certified to EcoLogoCCD-016 or applicable standard/ ecolabel as stated in EPA's Recommendations of Standards and Ecolabels. 50%or more of interior wall coverings installed (by square feet) is certified to NSF 342. 50%or more of the gypsum board installed (by square feet) is certified to UL 100 or applicable standard/ ecolabel as stated in EPA's Recommendations of Standards and Ecolabels. 50%or more fo the door leafs installed (by number of door leafs) is certified to UL 102. (7) 50%or more of the tile installed (by square feet) is certified to ANSI ~~TCNA~~A138.1 Specifications for Sustainable Ceramic Tiles, Glass Tiles and Tile Installation Materials or applicable standard/ ecolabel as stated in EPA's Recommendations of Standards and Ecolabels.

Reason:	We would like to suggest NGBS to expand their list to include other standards and ecolabels recommended by EPA for use in federal purchasing. EPA conducted an assessment of Ecolabels and Standards for federal procurement in the furniture, flooring, and paints & coatings categories. The assessment focuses on four sections: The process for developing standards, environmental effectiveness of the standard, conformity assessment, and management of ecolabeling programs. See EPA's Recommendations of Standards and Ecolabels (https://www.epa.gov/greenerproducts/recommendations-specifications-standards-and-ecolabels-federal-purchasing) for applicable standards/ ecolabels in construction product category. Please note, (4) and (6) are not product categories covered in the EPA Recommendations and therefore the additional language around using EPA Recommended Standards and Ecolabels was not added here. NSF 140, NSF 332, and TCNA A38.1 are currently included in the EPA Recommendations so the inclusion of the other applicable EPA Recommended standards and ecolabels into the NGBS standard would provide a wider range of sustainability standards that can be used for purchasing sustainable products. Also, please note that the correct title of the standard A138.1 is ANSI A138.1-2011 Green Squared Sustainable Tile and Installation Materials Specifications.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6195**	**611.3 Universal design elements**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	611.3 Universal design elements. Dwelling incorporates one or more of the following universal design elements. Conventional industry construction tolerances are permitted. (1) High visibility address numbers at entrance to dwelling unit (2) Movement sensor light at entrance into dwelling unit (3) A sidelight or a peephole at 42 and 60 inches above the floor at entrance to dwelling unit **RENUMBER SUBSEQUENT ITEMS**	
Reason:	Provide good overall lighting and house number for nighttime security and ease-of-use. Additional lowered peephole for seated or short adults and children. (Based on NC State University publication of universal design elements for residences.)	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6363**	**611.3 Universal design elements**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Revise as follows	
Proposed Change:	(6) All sink ~~faucet controls are single-handle controls of both volume and temperature,~~ lavatory and showering controls shall have cross or lever handles.	
Reason:	The current language is design-limiting and also excludes other functional areas which could utilize universal design elements such as lavatories and showering areas. Cross and lever controls for all faucets and bathing/showering trim provide greater accessibility than controls with knob shapes. ADA and A117.1 allow center set, widespread and single handle controls.	
TG Recommendation (AS or AM or D):		

Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6228**	**611.4 Product declarations**
Submitter:	Josh Jacobs, UL	
Requested Action:	Revise as follows	
Proposed Change:	611.~~4~~ Product declarations	
Reason:	The Innovative Practices section should be for things that are new to the marketplace. There are thousands of products in the marketplace that have Environmental Product Declarations. From bathroom products, ceiling systems, doors, flooring, hardware, HVAC, insulation, paints, to many more. While this concept may be new concept to some, it is not new to the marketplace in general, therefore it should be moved from the innovative practices section and into its own stand alone section of the Resource Efficiency Chapter.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6302**	**Other for Chapter 6 (include section number and title below)**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Add new as follows	
Proposed Change:	**608.2Design for Adaptation and Disassembly.** For siding, windows, mechanical/electrical/plumbing (MEP) systems, wall paneling and flooring materials, incorporate three or more of the following measures, as applicable: Use reusable/recyclable materials. For example: o Use materials and fixtures for which take-back or reuse/recycling programs are established. o Use high-quality materials that exceed minimum performance standards. o Avoid use of coatings or adhesives that prevent reuse and recycling. Promote disentanglement of building components. For example: o To limit the destruction of the surrounding materials, incorporate installation details that permit easy removal and replacement of components. o Consolidate placement of MEP components in building floorplans and cross-sections. Provide access to and use reversible connections, such as screws, bolts, or clips. Provide disassembly and reuse information to owner.	
Reason:	Section 608 currently includes a single subsection encouraging the dematerialization of building components. Design for Adaptation and Disassembly is similarly an upstream strategy to improve resource efficiency and therefore, fits with the upstream, resource-efficiency focus of this section. Design for Adaptation and Disassembly involves the utilization of recyclable/reusable building materials and preserves resources by maximizing their recovery and ensuring their continuous reutilization.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6351	Other for Chapter 6 (include section number and title below)
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	**Section 612** - Add a new section as relevant for Health and Well-being credits.	
Reason:	As sustainability protocols evolve, the natural progression is to include measures that have a positive benefit on occupant health and well-being.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6442	Other for Chapter 6 (include section number and title below)
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW SECTION **611.X Resilient Construction.** Buildings are designed to withstand sever weather per Table 611.X Table 611.3 Fortified Home Technical Requirements Level	
Reason:	Rebuilding homes after severe weather is costly in terms of time, money, and materials. This green building standard should recognize projects that build resiliently.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

	Points for Bronze	Points for Silver	Points for Gold
(1) Fortified Home Hurricane Technical Requirements	X	X	X
(2) Fortified Home High Wind Technical Requirements	X	X	X
(3) Fortified Home High Wind & Hail Bronze Technical Requirements	X	X	X

Proposal ID TBD	LogID 6229	Other for Chapter 6 (include section number and title below)
Submitter:	Josh Jacobs, UL	
Requested Action:	Add new as follows	
Proposed Change:	611.5 Chemical Transparency. A minimum of 10 different products installed in the building project, at the time of certificate of occupancy, comply with one of the following programs down to at least 0.1% (1000ppm) of the stated product: GreenScreen v1.2, Health Product Declaration, Cradle to Cradle v2 Basic level (or greater), Declare, or UL Product Lens.	
Reason:	With more and more of the public becoming interested in the chemicals around them, designers, architects, and builders are choosing products based on the chemical contents within it. This optional credit language will allow a residence that has taken this valuable information into account to get credit for taking this extra step in its transparency and product selection.	

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6225**	**Other for Chapter 6 (include section number and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	Conduct "TBD" hours of documented onsite trades training. Documentation shows date /duration /trade and reason	
Reason:	setting / showing expectations of the credit requirement is an ongoing process....one and done = none. Verifier and Contractor teamwork is the trick,with visual and hands on learning the best way to ensure thing pass early and often	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6243**	**Other for Chapter 6 (include section number and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	611.XX Conduct 3rd party Air Seal/ Compartmentalization Plan evaluation with pre and during construction Trades training.	
Reason:	ensure air seal /compartmentalize measures are in plans and in scope of work.conduct training and provide guidance for correct/timely install practices early and as often as necessary	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6553**	**Other for Chapter 6 (include section number and title below)**
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Add new as follows	
Proposed Change:	611 HEALTH AND WELL BEING (…prior to INNOVATIVE PRACTICES)	
Reason:	To include a new sub-section within each chapter of the Protocol, as relevant, immediately preceding (or after) Innovative Practices section, to address health and well being issues that are interconnected to the overall Green certification, but independent/optional, not required. This opens the program to reach lifestyle and living for overall occupant health.	
TG Recommendation (AS or AM or D):		

Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6215	901.0 Intent (Pollutant Source Control)
Submitter:	Max Sherman, Lawrence Berkeley National Laboratory	
Requested Action:	Revise as follows	
Proposed Change:	Require compliance with ANSI/ASHRAE 62.2-2016	
Reason:	62.2-2016 is the only American National Standard for minimum acceptable indoor air quality. 1) Any home that wishes to be green must at least meet this requirement. 2) Establishing a lower requirement would be in violation of ANSI rules. 3) No other version of 62.2 (or any other ventilation standard) exists and the current (i.e. 2016) version needs to be used.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6570	901.1.4 Gas fireplaces and direct heating equipment vented outdoors
Submitter:	Craig Conner, Building Quality	
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 within dwelling units and direct heating equipment are vented to the outdoors. Alcohol burning devices and kerosene heaters are vented to the outdoors.	
Reason:	Recently there are have been efforts to include alcohol and kerosene bring devices as allowed in residences. These devices have no place in a green home without ventilation to the exterior.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6561	901.2.1 Solid fuel-burning fireplace, inserts, stoves, and heaters
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Revise as follows	
Proposed Change:	(2) Factory-built, wood-burning fireplaces are in accordance with the certification requirements of UL 127 and are ~~EPA certified or Phase 2 Qualified~~ insulated, fire-blocked, sealed and gasketed.	
Reason:	Mandating "EPA certified or Phase 2 Qualified" is extremely cost-prohibitive and thus nearly impossible. Recommend keeping the points and removing the Mandatory OR simply strike "EPA certified or Phase 2 Qualified". If the unit is insulated, fire-blocked, sealed and gasketed, this would be a reasonable requirement.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6203	901.2.1 Solid fuel-burning fireplaces, inserts, stoves, and heaters
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	(2) Factory-built, wood-burning fireplaces are in accordance with the certification requirements of UL 127 ~~and are EPA certified or Phase 2 Qualified~~. - **~~6~~ 4 Points**	
Reason:	The EPA does not certify factory-built wood burning fireplaces so this reference is nonsensical. Very few fireplaces meet the EPA Phase 2 Qualified requirements and thus they are exorbitantly priced compared to other similar fireplaces. This Mandatory measures represents undue burden for projects and should be removed. Leaving it in-place as a Mandatory basically mandates no wood-burning fireplaces in all but the most custom of homes.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6270	901.3 Garages
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	901.3. X Install CO detector/Monitor within 10 ft of Garage door (interior side)	
Reason:	Points for going above Mandatory requirement. Easy / inexpensive health and safety measure	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6275	901.6 Carpets
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	(1) ~~Wall-to-wall~~ No carpeting is ~~not~~ installed ~~adjacent to water closets and bathing fixtures~~ in half/full bathrooms, kitchens, utility/laundry rooms or within 3 ft of entries.	
Reason:	Who wants soggy socks...or moisture issues. language needs to be more precise and in line with building best practice	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6496	902.1.5 Fenestration cross-ventilation

Submitter:	John Barrows, P3 Builder Group
Requested Action:	Revise as follows
Proposed Change:	**902.1.5 (a):** "Operable windows, operable skylights, or sliding glass doors with a total area of at least 15 percent of the ventilated conditioned floor area are provided.
Reason:	Clarification to this practice is required. It is unclear in 902.1.5(a) as to how the compliance with this practice is calculated. Is this determined as a whole house? (Example: "Operable windows, operable skylights, or sliding glass doors with a total area of at least 15 percent of the entire home's conditioned floor area are provided.") Or is this calculated room-by-room? (Example: "Operable windows, operable skylights, or sliding glass doors are provided within each regularly occupied space, with a total area of at least 15 percent of each respective space's conditioned floor area"). Also, a definition of "cross ventilation" and "stack effect" may be helpful.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6206**	**902.2.1 Whole building ventilation system**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**902.2.1** One of the following whole building ventilation systems is implemented and is in accordance with the specifications of ~~Appendix B~~ ASHRAE 62.2 and an explanation of the operation and importance of the ventilation system is included in either 1001.1 or 1002.2. **DELETE APPENDIX B**	
Reason:	As demonstrated during the NGBS 2015 Development Committee discussions, Appendix B, which includes only an excerpt of ASHRAE 62.2, does not adequately capture the depth or breadth of the Standard. Excerpting some of the calculations from 62.2 while leaving other out along with various exceptions results in more air being required to be delivered compared to if the whole Standard had been adopted.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6207**	**902.2.1 Whole building ventilation system**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**902.2.1** One of the following whole building ventilation systems is implemented and is in accordance with the specifications of Appendix B and an explanation of the operation and importance of the ventilation system is included in either 1001.1 or 1002.2. **(1)** exhaust or supply fan(s) ready for continuous operation and with appropriately labeled controls - **3 Points** **(2)** exhaust or supply fan(s) with automatic smart ventilation controls to limit ventilation during periods of extreme temperature and extreme humidity. - **6 Points** **~~(2)~~(3)** balanced exhaust and supply fans with supply intakes located in accordance with the manufacturer's guidelines so as to not introduce polluted air back into the building **- 6 Points** **~~(3)~~(4)** heat-recovery ventilator **- 7 Points**	

	(5) balanced exhaust or supply fan(s) with automatic smart ventilation controls to limit ventilation during periods of extreme temperature and extreme humidity, and with intakes located in accordance with the manufacturer's guidelines so as to not introduce polluted air back in to the building - **8 Points** ~~(4)~~(6) energy-recovery ventilator - **8 Points**
Reason:	Initial research in this area, funded by the U.S. Department of Energy (U.S. DOE), investigated the proof-of-concept for smart ventilation and estimated typical ventilation energy savings of 40% (Turner and Walker 2012) or about 15% of total heating and cooling load, with savings increasing to more than 50% on average for economizer-equipped homes.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6205**	**902.2.2 Whole building ventilation airflow tested**
Submitter:	Aaron Gary, 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 ANSI/RESNET/ICC 380 and Section 902.2.1	
Reason:	Not all ventilation systems can be tested at the point of exhaust and for many doing so while possible is not accurate. ANSI/RESNET/ICC 380 is an ICC approved Standard that includes guidelines for testing ventilation airflow at multiple locations, including the point of exhaust, so that the most appropriate and accurate means can be selected by the 3rd party verifier.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6541**	**902.3 Radon control**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Add new as follows	
Proposed Change:	**902.3.3 Radon testing.** Radon testing is Mandatory for Zone 1. **Exception:** testing is not mandatory where the authority having jurisdiction has defined the radon zone as Zone 2 or 3. **902.3.3.1 Testing specification.** Testing is performed as specified in (a) though (j). Points 8 (a) Testing is performed after the residence passes its airtightness test. (b) Testing is performed at the lowest level which will be occupied, even if the space is not finished. (c) Testing is not performed in a closet, hallway, stairway, laundry room, furnace room or bathroom. (d) Testing is performed with a commercially available test kit or with a radon monitor. Testing shall be in accordance with the manufacturer's instructions. (e) Testing can be performed by the builder or a third party. (f) Testing shall extend at least 48 hours or to the minimum specified by the manufacturer, which ever is longer. This initial testing can extend past occupancy. (g) Test results shall be provided directly to the homeowner by the test lab or testing party. The test results are not required to be delivered before occupancy. (h) An additional pre-paid test kit shall be provided to the homeowner to use when they choose. The test kit shall include mailing, or emailing the results from the testing lab to the homeowner. The homebuilder may also receive the test results. (i) This section does not require a specific test result, rather it requires the test be performed and the	

	results provided to the homeowner. (i) The homeowner shall be informed prior to occupancy and in writing that “A radon test result of 4 pCi/L or above is the ‘action level’ set by EPA.” **902.3.3.3 Testing results.** A radon test done in accordance with902.3.3.1 and completed before occupancy receives a result of 2 pCi/L or less. 6 points
Reason:	Individual homes can vary significantly in a specific home has higher levels of radon. Testing is the only practical way to know if a radon reduction system works. Add Jani Palmer, Physical Scientist, EPA, Indoor Environments Division as a co-proponent
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6540**	**902.3 Radon control**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Delete and substitute as follows	
Proposed Change:	**902.3 Radon reduction measures.** Radon reduction measures are in accordance with ICC IRC Appendix F or 902.3.2.Zones are as defined in Figure 9(1). **902.3.1** Radon reduction measures are Mandatory for Zone 1. Exception: radon reduction is not mandatory where the authority having jurisdiction has defined the radon zone as Zone 2 or 3. (a) a passive radon system is installed 6 points (b) an active radon system with a fan is installed. A fan-failure warning light or audible alarm shall be provided in the occupied space. The fan shall include a minimum of a five-year manufacturer’s warranty. 12 points **902.3.2 Radon reduction option** This option requires sections 902.3.2.1 through 902.3.2.6. **902.3.2.1 Soil-gas barriers and base course.** A base course in accordance with Section 506.2.2 of the IRC shall be installed below slabs and foundations. There shall be a continuous gas-permeable base course under each soil-gas retarder that is separated by foundation walls or footings. Between slabs and the base course, damp proofing or water proofing shall be installed in accordance with Section 406 of the IRC. Punctures, tears and gaps around penetrations of the soil-gas retarder shall be repaired or covered with an additional soil-gas retarder. The soil-gas retarder shall be a continuous6-mil (0.15 mm) polyethylene or an approved equivalent. **902.3.2.2 Soil gas collection.** There shall be an unobstructed path for soil gas flow between the void space installed in the base course and the vent through the roof. Soil gases below the foundation shall be collected by a perforated pipe with a diameter of not less than 4 inches (10 cm) and not less than 5 feet (1.5 m) in total length. A tee fitting or equivalent method shall provide two horizontal openings to the radon collection. The tee fitting shall be designed to prevent clogging of the radon collection path. Alternately the soil gas collection shall be by approved radon collection mats or an equivalent approved method. **902.3.2.3 Soil gas entry routes.** Openings in slabs, soil-gas retarders, and joints such as, but not limited to, plumbing, ground water control systems, soil-gas vent pipes, piping and structural supports, shall be sealed against air leakage at the penetrations. The sealant shall be a polyurethane caulk, expanding foam or other approved method. Foundation walls shall comply with Section 103.2.3 of the IRC. Sumps shall be sealed in accordance with Section 103.2.2 of the IRC. Sump pits and sump lids intended for ground water control shall not be connected to the sub-slab soil-gas exhaust system. **902.3.2.4 Soil gas vent.** A gas-tight pipe vent shall extend from the soil gas permeable layer though the roof. The vent pipe size shall not be reduced at any location as it goes from gas collection to the roof. Exposed and visible interior vent pipes shall be identified with not less than one label reading “Radon Reduction System” on each floor and in habitable attics.	

902.3.2.5 Vent pipe diameter. The minimum vent pipe diameter shall be as specified in Table **902.3.2.5**.

TABLE 902.3.2.5 MAXIMUMVENTED FOUNDATION AREA

Maximum area vented	Nominal pipe diameter
2,500 ft^2 (232 m^2)	3 inch (7.6 cm)
4,000 ft^2 (372 m^2)	4 inch (10 cm)
Unlimited	6 inch (15.2 cm)

902.3.2.6 Multiple vented areas. In dwellings where interior footings or other barriers separate the soil-gas permeable layer, each area shall be fitted with an individual vent pipe. Vent pipes shall connect to a single vent that terminates above the roof or each individual vent pipe shall terminate separately above the roof.

902.3.2.6 Fan. Each sub-slab soil-gas exhaust system shall include a fan, or dedicated space for the post-construction installation of a fan. The electrical supply for the fan shall be located within 6 feet (1.8 m) of the fan.

Reason:	This change adds a more readable and understandable radon reduction option. Elements of radon reduction are already required by the IRC, so those requirements are not repeated here. The result is simple and understandable radon text that will not require the NGBS to go to another document. The points for radon reduction systems with fans, called active systems, are increased relative to the passive systems, because the active system are muxh more effective. “Fan-powered radon reduction systems can apply 50 times more suction pressure at the suction points than passive systems. The chief advantage of a fan-powered radon system is that it always achieves a greater and more reliable radon reduction than passive systems.” (Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings ASTM E1465-07a Section 6.5.5.1)
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6542**	**902.3 Radon control**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Add new as follows	
Proposed Change:	**902.3.3.4 Side venting.** Side venting, rather than roof venting, of radon shall be permitted in radon reduction provided (a) through {e) are satisfied. (a) the side venting is active with a fan installed. A fan-failure warning light or audible alarm shall be provided in the occupied space. The fan shall include a minimum of five year manufacturer’s warranty. (b) the side vent is a minimum of 5 feet from an operable opening into the residence and 2 feet from the rim joist. The side vent exhaust is not directed at an operable opening within 10 feet of the vent. The rim joists are air sealed and the home meets the air tightness requirements of the IRC/IECC. (c) the side vent will not collect rainwater. (d) the residence is tested in accordance 902.3.3.1 (e) the homebuilder provides a commitment for radon reduction after occupancy to below the action level if the initial test result comes back at the “action level” of 4 pCi/L or above. Radon reduction to less than 4 pCi/L shall meet this commitment. The homebuilder may retest the home using a third party at the homebuilder’s expense. The retest shall override the initial test. Where the authority having jurisdiction has certified parties for radon reduction the third-party tester shall be so certified.	
Reason:	Side venting provides an additional option that may be more practical in some cases. A side vent would not have the suction power provided by a passive through the roof vent, therefor a fan is required.	

	Because some are skeptical of side venting, and this option is not included in existing standards, this option requires a test and a builder commitment to correct it if the "action level" is exceeded.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6543**	**902.3 Radon control**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Add new as follows	
Proposed Change:	**902.3.1Testing.** Radon testing shall be in accordance with the following. Mandatory. **(a) Approved testing devices** Devices used for measuring radon shall be listed and labeled as having met minimum requirements established by the National Radon Proficiency Program (NRPP) or the National Radon Safety Board (NRSB) if the jurisdiction has no program for evaluating or approving devices where the testing is conducted. **(b) Device instructions** Detectors and devices shall be used in compliance with device-specific instructions provided by the manufacturer. **(c) Device types** a) Passive Devices refers to those that do not provide hourly readings; and b) Continuous Monitors are monitors that can integrate, record and produce reviewable readings in time increments of one hour. If a device is not capable of these functions or is not set to record readings each hour, it is functioning as a passive device and is not considered a continuous monitor. **(d) Testing Strategies** Conduct Simultaneous Testing, Continuous Monitor Testing or any combination of the two. a) Simultaneous Testing is defined two short-term tests at the same time at each location. b) Continuous Monitor Testing is testing using a continuous monitor at each location. **(e) Mitigation Decisions** If the average of 2 short-term tests or a Continuous Monitor meets or exceeds the World Health Organization's action level of 2.7 pCi/L, then install and activate a fan to the sub-slab soil gas exhaust system and test again. Provide test results to the homebuilder and homebuyer.	
Reason:	This change provides guidance on testing and testing devices. The only proponent of this change is Jani Palmer, Physical Scientist, EPA, Indoor Environments Division	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6209**	**902.6 Living space contaminants**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**902.6 Living space contaminants** TC"902.6Living space contaminants"\f C \l "3" **.** Indoor contaminants are limited through the following: **(1)** The living space is sealed in accordance with Section701.4.3.1 to prevent unwanted contaminants.- **MANDATORY** **(2)** A permanent shoe removal and storage space is implemented near the primary entryway. This space may not have wall-to-wall carpeting. - **3 POINTS**	

Reason:	A majority of the dirt and dust in homes is tracked in by occupants. One of the most effective ways to reducing these indoor contaminants therefore is to encourage occupants and visitors to remove shoes at the door.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6268**	**902.6 Living space contaminants**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	902.6.X MF Compartmentalization Breaks or Joints thru the residential unit envelope shall be sealed includes but not limited to HVAC boots sealed to sheetrock / sub floor, Fan casings	
Reason:	new credit awards points to Encourage additional air sealing/compartmentalization	
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.*	
Parallel Proposal Staff Note:	*Parallel proposal was submitted by the same proponent for the corresponding sections in Chapter 11 – Proposal LogID 6267 and Chapter 12 – Proposal LogID 6266. The parallel proposals are being reviewed by TG-7 as Chapters 11 and 12 fall under their direct purview.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6294**	**904.0 Intent (IAQ)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**904.3 Indoor Air Quality Metric.** Dwelling receives a IAQ score using the DOE IAQ Metric of X. (threshold TBD)	
Reason:	Recognize and encourage the adoption of the new DOE sponsored IAQ metric for indoor air quality.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6556**	**Other for Chapter 9 (include section number and title below)**
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Add new as follows	
Proposed Change:	905 HEALTH AND WELL BEING (...prior to INNOVATIVE PRACTICES)	

Reason:	To include a new sub-section within each chapter of the Protocol, as relevant, immediately preceding (or after) Innovative Practices section, to address health and well being issues that are interconnected to the overall Green certification, but independent/optional, not required. This opens the program to reach lifestyle and living for overall occupant health.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6479**	**Other for Chapter 9 (include section number and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	New Section **Section 906.7** - Air Quality Testing. The quality of the air within conditioned space is verified before occupancy by performing one or more of the following tests: (1) Formaldehyde level testing. (2) Total VOC level testing. (3) Carbon Monoxide level testing. (4) PM 10 & PM 2.5 (Particulates) testing. (5) Ozone level testing. (6) Radon level testing.	
Reason:	Indoor pollutants can cause a variety of health issues and conditions. Testing can verify that living spaces are free of high concentrations of specific VOC's or other irritants.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6473**	**Other for Chapter 9 (include section number and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	New Section **Section 906.1 -** Enhanced Air Filtration - Meet one of the following two options: (1) Design for Secondary Filter Rack Space for Carbon Filters. (2) Install a Permanent Stand Alone Air Purification System that is appropriately sized for the home or dwelling unit.	
Reason:	Secondary filtration provides a higher assurance of consistent air quality throughout the year. Standard filters cleanse the air, but there is still opportunity for further air purification.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6474	Other for Chapter 9 (include section number and title below)
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	New Section **Section 906.2** - Anti-microbial high-touch surfaces - Abrasion-resistant, non-leaching surfaces with antimicrobial properties are installed. (high tough surfaces: kitchen and bathroom counter tops, doorknobs, electrical switches)	
Reason:	This measure reduces risk for spread of bacteria and other harmful microbes and therefore reduces the risk of future infections, which contributes to overall occupant health.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6475	Other for Chapter 9 (include section number and title below)
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	New Section **Section 906.3** - Documented plan for dedicated exercise/fitness space - Minimum 3% of Conditioned Square Footage of the home is dedicated to an exercise area. For multifamily projects: 250 square feet or more of common area must be dedicated to exercise space.	
Reason:	Permanent exercise space contributes to a lower risk of health concerns and promotes exercise and fitness.	
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6576	Other for Chapter 9 (include section number and title below)
Submitter:	Craig Conner, Building Quality	
Requested Action:	Add new as follows	
Proposed Change:	Simplified IAQ compliance. Compliance with the items below constitutes compliance with this chapter. at the silver level. Combustion appliances get combustion air and vent to the outdoors. Balanced ventilation is used in the home. A radon reduction system or a radon test below at or below 2 pCi/L	
Reason:	This is a simple compliance method for the IAQ requirements which can otherwise be complicate.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		

TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6418**	**Other for Chapter 9 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**902.2.5** Whole building ventilation system in installed with a automatic notification device to communicate performance degradation or failure. - **6 points**	
Reason:	2015 FSEC study (FSEC-CR-2002-15) showed a wide disconnect between the perceived and actual effectiveness of whole building ventilation systems in homes. The study found that of the homes surveyed only 5% of homes had a whole building ventilation system that was actually delivering the expected air as found while at the same time 48% of these same homeowners said they were happy with the performance of their whole building ventilation system. Existing and emerging technologies that can help address this disconnect should be well rewarded. The installation of non-performing ventilation systems both wastes resources and degrades the value of green building in the marketplace.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6355**	**Other for Chapter 9 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**905.X Access to daylight.** To promote health and well being of occupants the following measures are implemented: (1) 75% of regularly occupiable spaces have windows, skylights, or glass doors. - **3 POINTS** (2) 75% of regularly occupiable spaces have direct line of sight views to the outdoors. - **3 POINTS**	
Reason:	Studies have shown that access to outdoor light and views increase health and productivity of building occupants.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6477**	**Other for Chapter 9 (include section number and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	New Section **Section 906.5** - Isolation of Contamination Sources - Meet all of the following: (1) Cleaning Products are stored in negatively pressurized space. (2) Household storage (paints, sealants, adhesives, etc) are stored outside of conditioned space or are stored in negatively pressurized space.	
Reason:	Chemicals and other household materials containing VOC's stored in living space can off-gas and cause various irritations including nausea or headaches. Odorless living space contributes to occupant health and well-being.	

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6478**	**Other for Chapter 9 (include section number and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	New Section **Section 906.6** - Sound Barriers - Minimize sound transfer between public & private space with proper wall construction methods. Proper wall construction includes proper acoustical sealing and continuous sound insulation batts separting sleeping areas from other functional spaces within a home or dwelling unit.	
Reason:	Noise transfer from public living space can be disturbing to occupants seeking rest or peaceful relaxation in sleeping areas. Acoustic comfort contributes to tenant well-being.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6427**	**Other for Chapter 9 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**905.X Outdoor Living.** Meet any or all of the following: **(1)** Built-in outdoor kitchen **(4 points)** **(2)** Built-in outdoor fireplace (no indoor fireplace installed) **(3 points)** **(3)** Plumbed outdoor shower **(3 points)** **(4)** Covered, usable front porch protecting entry door Minimum depth: 6'; minimum area: 100 sq. ft. **(3 points)** **(5)** Covered, usable porch other than front porch Minimum side dimension: 6'; minimum area 100 sq. ft. One of the above porches fully screened **(2 points)** **(6)** Uncovered patio Minimum side dimension: 6'; minimum area: 100 sq. ft. **(1 point)**	
Reason:	To reduce sources of indoor heat and humidity and associated indoor air quality issues by encouraging occupants to take advantage of outdoor living. Could fit in with other Health and Wellness credits to form a new section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6476**	**Other for Chapter 9 (include section number and title below)**

Submitter:	Jeremy Velasquez, TexEnergy Solutions
Requested Action:	Add new as follows
Proposed Change:	New Section **Section 906.4 -** Exterior Noise Intrusion - Meet one of the following two options: (1)Average Sound pressure level from outside noise does not exceed 50 DBA when measured. (2)All exterior wall assemblies are design to meet an STC rating of 55. Reference: HUD Chapter 4 Supplement - Sound Transmission Class Guidance.
Reason:	Prolonged exterior noise can contribute to occupant stress, which can trigger other health issues.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6419**	**Other for Chapter 9 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**902.2.X** All HVAC filter locations are designed such that they are easily accessible to the occupant. - **3 POINTS**	
Reason:	HVAC filters do not get changed when they are not accessible reducing the air quality and energy efficiency of the HVAC system and eventually leading to system failure.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6429**	**Other for Chapter 9 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW SECTION **902.2.3** Factory-built, wood-burning fireplaces are EPA Phase 2 Qualified. - **6 points**	
Reason:	Very few fireplaces meet the EPA Phase 2 Qualified requirements and thus they are exorbitantly priced compared to other similar fireplaces. This measure should be moved from being a Mandatory items to an optional credit.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6397**	**Other for Chapter 9 (include section number and title below)**

Submitter:	Eric DeVito, SMXB Law
Requested Action:	Add new as follows
Proposed Change:	**905.3 Fenestration sensors.** All operable windows, operable skylights, and doors shall have one or more of the following: **2** **(1)** Interconnected or interlocking electronic devices or sensors that signal whether the windows, skylights, or doors are open or closed; or **(2)** Mechanical or electronic self-closing mechanisms.
Reason:	Today's smart homes are incorporating an increasing number of monitors and systems that provide a variety of benefits. This proposal would create an "innovative practices" credit by awarding points for the installation of signaling sensors or self-closing mechanisms on operable windows, doors, and skylights. Interlocking devices or sensors may be placed on windows, doors, and skylights for numerous reasons, including HVAC operation, improved energy efficiency, ventilation, or security. In fact, a single device may provide several different benefits now and in the future. The value of interconnected building components is already recognized in ASHRAE Standard 90.1-2013 and California Title 24, which both include requirements for interlocking electronic devices on windows and doors that send a signal to the thermostat when the windows or doors are opened. Green homes will continue to trend in the direction of more monitoring and sensor-based operation. Rather than parse out individual points for specific features, we recommend providing two points (or more, if the Committee prefers) for the range of innovative devices that may be installed on windows, doors, and skylights. ICC-700 should encourage "future-proofing" green homes by giving innovative practices credit for devices and practices that make the home smarter.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6424**	**Other for Chapter 9 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**ADD SECTION** **902.2.7 Preoccupancy flush.** Dwelling is flushed with outdoor air for 48 hours prior to occupancy. - **3 POINTS**	
Reason:	During the construction process dwellings become contaminated with dust, debris and off-gassing from materials. Flushing the dwelling with outdoor air prior to occupancy helps remove these potentially harmful pollutants from the space.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6356**	**Other for Chapter 9 (include section number and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	**Section 906** - Add a new section as relevant for Health & Well-being credits.	
Reason:	As sustainability protocols evolve, the natural progression is to include measures that have a positive benefit on occupant health and well-being.	

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Others Assigned to TG-3

Proposal ID TBD	LogID 6383	202 Definitions
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Revise as follows	
Proposed Change:	LCA (Life Cycle Analysis/Assessment). A~~n accounting and evaluation of~~ process to evaluate the potential environmental ~~aspects and potential impacts~~ burdens of ~~materials~~, products, ~~assemblies~~, services or buildings throughout their life(from raw material acquisition through manufacturing, construction, use, operation, demolition, and disposal).	
Reason:	LCA is about understanding the burdens and burden differences between different methods to achieve the same useful outcome. It is not the product that is the most important focus but rather the benefit that results from the evaluations. The terms aspects and impacts are difficult for many to differentiate and should be replaced with the word 'burden' which is clear and also used by the SETAC (Society of Environmental Toxicology and Chemistry) in their definition. The term 'assemblies' is not defined and could have multiple meanings. Utilizing products and services covers the intent and industry use of LCA processes.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6336	202 Definitions
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Delete without substitution	
Proposed Change:	~~REGIONAL MATERIAL. Material that originates, is produced, grows naturally, or occurs naturally within: (1) 500 miles (804.7 km) of the construction site if transported by truck, or (2) 1,500 miles (2,414 km) of the construction site if transported for not less than 80 percent of the total transport distance by rain or water. Products that are assembled or produced from multiple raw materials are considered regional materials if the weighted average (by weight or volume) of the distance the raw materials have been transported meet the distance criteria.~~	
Reason:	To increase use of the standard, reduce the complexity, remove these calculations from the body of the Standard and therefore there is no need for the definition. Regional material impacts are captured through EPDs, which are easier for the end user to locate and provide a much better indicator as they focus on the outcome of the various inputs. Individually, single-attributes have little bearing on the final impact so they are being replaced with EPDs. Because EPDs are already a part of this standard, any points removed with this section could be reconfigured into the Product Declarations, Section 611.4.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD Specifications)	LogID 6563	B100 Scope and applicability (Whole Building Ventilation System
Submitter:	Craig Conner, Building Quality	
Requested Action:	Delete and substitute as follows	
Proposed Change:	Replace whole Appendix with: The ventilation rate shall be as defined in IRC section M1507.3.3as equation 15-1 (shown below)	

	Ventilation rate in cubic feet per minute = (0.01 x total square foot area of house) + [7.5x (number of bedrooms + 1)] * coefficient Where coefficient are as follows: Balanced/Distributed/Mixed Coefficient0.75 Example; HRV's/ERV's/ or supply linked with exhaust fan with forced air (furnace/AC) run time Unbalanced/Distributed/Mixed Coefficient1.0 Example; Exhaust fan or supply fan or supply air duct to air handler with forced air (furnace/AC) run time Unbalanced/Distributed/Not Mixed Coefficient1.25 Example; Multi point exhaust fan without a forced air system Unbalanced/Not Distributed/Not Mixed Coefficient 1.5 Example; Single point exhaust fan without a forced air system Retain and renumber: Tables TABLE B201.1a&bVentilation Air Requirements, cfm, which are taken from the IRC 1507.3.3(1) Balanced air flow is supply and exhaust within 20%. Points 10 B201.1.2Alternative Ventilation. Other methods may be used to provide the required ventilation rates when approved by a licensed design professional. B201.3Airflow Measurement. The airflow required by this section is the quantity of outdoor ventilation air supplied and/or indoor air exhausted by the ventilation system as installed and shall be measured using a flow hood, flow grid, or other airflow measuring device. Ventilation airflow of systems with multiple operating modes shall be tested in all modes designed to meet this section.
Reason:	The ASHRAE 62.2 ventilation rate has gotten too high. This removes the reference to ASHRAE. The NGBS should use the IRC ventilation rate in M1507.3.3. This adds consideration of ventilation quality. Balanced ventilation performs the best, hence less ventilation is needed.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

TG-4: Water Efficiency, Operation & Owner Education

Chapter 8: Water Efficiency

Proposal ID TBD	LogID 6483	801.0 Intent (Indoor and Outdoor Water Use)
Submitter:	Michael Cudahy, PPFA	
Requested Action:	Add new as follows	
Proposed Change:	801.0 Intent. Measures that reduce indoor and outdoor water usage are implemented, measures that include collection and use of alternative sources of water are implemented, and measures that treat water on site are implemented.	
Reason:	Chapter 8 includes saving potable water through a number of items encouraging water efficiency, but also a number; 801.7, 802.1, 802.2 on alternate water collection/usage and several on site water treatment; 802.4, 802.6. The intent should reflect the full content of the chapter.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6367	801.3 Showerheads
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Revise as follows	
Proposed Change:	(1) The total maximum combined flow rate of all showerheads controlled by a single valve at any point in time in a shower compartment is 1.6 to less than 2.5 gpm. Maximum of two valves are installed per shower compartment. ~~The flow rate is tested at 80 psi (552 kPa) in accordance with ASME A112.18.1.~~ Showerheads shall comply with ASMEA112.18.1/CSA B125.1. Showerheads are served by an automatic compensating valve that complies with ASSE 1016/ASMEA112.1016/CSA B125.16 or ASME A112.18.1/CSA B125.1 and specifically designed to provide thermal shock and scald protection at the flow rate of the showerhead.	
Reason:	The language needs to be updated to reflect the harmonized standards. Including the pressure values is repetitive because they are included in the product standard requirements.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6372	801.4.1 Water-efficient (Lavatory faucets)
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Revise as follows	
Proposed Change:	801.4.1 Install water efficient lavatory faucets with a maximum flow rate of 1.5 gpm (5.68 L/m), ~~at 60 psi(414 kPa)~~ in ~~accordance~~ compliance with ASME A112.18.1/CSAB125.1, and certified to the performance criteria of the U.S. EPA WaterSense High-Efficiency Lavatory Faucet Specification ~~are installed~~:	
Reason:	The ASME and CSA standards are harmonized standards. They are recognized in the industry as ASME A112.18.1/CSA B125.1 and should be referenced as such. The EPA Water Sense program is a well-recognized program and products carrying a WaterSense label demonstrate that they not only save water, but they have been third-party certified to meet performance criteria. This allows consumers to	

	easily identify water-efficient products that also perform. This program has widespread support and there are over 12,000 bathroom faucets/accessories currently labeled with WaterSense.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6380**	**801.5 Water closets and urinals**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Revise as follows	
Proposed Change:	801.5 (4)(c) One or more composting or waterless toilets and/or nonwater urinals. Nonwater urinals shall be in tested in accordance with ASME A112.19.19/B45.1.	
Reason:	Waterless urinal is a proprietary name and should not be referenced. Because other standards have been referenced throughout the document, the nonwater urinal standard should also be referenced here	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6378**	**801.5 Water closets and urinals**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Revise as follows	
Proposed Change:	801.5 (4)(b) One or more urinals with a flush volume of 0.5gallons (1.9L) or less when tested in accordance with ASME A112.19.2/CSAB45.1.	
Reason:	Update the referenced standard to the correct name.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6377**	**801.5 Water closets and urinals**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Revise as follows	
Proposed Change:	801.5 (2) A water closet is installed with an effective flush volume of 1.28 gallons (4.85 L) or less ~~and meets the flush performance criteria when tested in accordance~~ ,in compliance with ASME A112.19.2/CSA B45.1 or ASME A112.19.14 as applicable. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-Type Toilets.	
Reason:	If a product is in compliance with the product standard, it therefore meets the standard's performance criteria and stating such is repetitive. The EPA Water Sense program is a well-recognized program and products carrying a WaterSense label demonstrate that they not only save water, but they have been third-party certified to meet performance criteria. This allows consumers to easily identify water-efficient	

	products that also perform. This program has widespread support and there are over 2,800 tank-type toilets currently labeled with WaterSense.
TG Recommendation (AS or AM or D):	Revise as follows
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6366**	**801.6.1 Multi-stream rotating nozzles (Irrigation systems)**
Submitter:	Brent Mecham, Irrigation Association	
Requested Action:	Revise as follows	
Proposed Change:	801.6.~~3~~ 1 Sprinkler nozzles ~~have a maximum precipitation rate of 1.20 inches per hour for turf or landscaping.~~ shall be tested according to ANSI standard ASABE/ICC 802-2014 Landscape Irrigation Sprinkler and Emitter Standard ~~Nozzle performance is tested~~ by an accredited third party laboratory and results are published on manufacturer's ~~posted on Smart Water Application Technologies~~ website or similar.	
Reason:	This paragraph should renumbered to follow the mandatory requirements of having a plan. Since there is now an ANSI standard for testing and reporting nozzle performance this can replace the maximum precipitation rate requirement. This practice is already being implemented in California where this standard has been adopted into the CalGreen building code and manufacturer's are complying if they are selling their products in California. Adopting this into the NGBS would be used in jurisdictions outside of California.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6354**	**801.6.3 Irrigation plan and implementation**
Submitter:	Brent Mecham, Irrigation Association	
Requested Action:	Revise as follows	
Proposed Change:	801.6.~~3~~31 Where an irrigation system is installed an irrigation plan.....as approved by Adopting Entity.	
Reason:	The language of this paragraph shall remain the same, but renumber this section from 801.6.3 to be the first paragraph 801.6.1 since this is a mandatory requirement. The following paragraphs that award points should then follow that contain the provisions that are part of the irrigation plan	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6486**	**801.6.3 Irrigation plan and implementation**
Submitter:	Steven Armstrong, ESG Energy	
Requested Action:	Revise as follows	
Proposed Change:	Remove 'WaterSense labeled program or equivalent program' as a mandatory practice.	

Reason:	Difficult to find these professionals
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6201**	**801.6.3 Irrigation plan and implementation**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	When an irrigation system is installed, an irrigation plan and implementation are executed by a qualified professional certified by a WaterSense labeled program or equivalent program as approved by Adopting Entity. - ~~Mandatory~~ **5 POINTS**	
Reason:	While it makes sense for the Standard to incentivize the use of WaterSense certified professionals, there are currently not enough WaterSense professionals in most cities and regions to support this as a mandatory requirement. For example, in Dallas, TX there are zero WaterSense Irrigation System Design professionals and only one WaterSense Irrigation System Installation and Maintenance professional. Returning this to be worth 5 points as in NGBS 2012 only makes sense.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6550**	**801.6.3 Irrigation plan and implementation**
Submitter:	Rachel Della Valle, Southern Energy Management	
Requested Action:	Revise as follows	
Proposed Change:	Where an irrigation system is installed, an irrigation plan and implementation are executed by a qualified professional ~~certified by a WaterSense labeled program or equivalent program as approved by Adopting Entity~~.	
Reason:	1.) In some areas of the country WaterSense irrigation professionals cannot be found. 2.) No other trade/subcontractor have a mandatory requirement of a professional certification. I believe if a the professional certification is recognized it should be recognized in a point credit item, not a mandatory item.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6562**	**801.6.3 Irrigation plan and implementation**
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Revise as follows	
Proposed Change:	~~Mandatory~~ 6 points	

Reason:	Requiring WaterSense labeling, plan, and certified staff to install is impossible in many areas of the country, especially those further from large metropolitan areas, as WaterSense certified professionals are simply not available nor within any range to install or implement materials. Thus, also cost-prohibitive or simply impossible. Additionally, no equivalent program currently exists. Suggest removing Mandatory and instead leave measure, but suggest with 6 points awarded vs. Mandatory.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6549**	**801.8 Sediment filters**

Submitter:	Craig Conner, Building Quality
Requested Action:	Add new as follows
Proposed Change:	801.9 Alternative water compliance. Compliance with this chapter based on the WERS computed as in Appendix F is as shown in Table 801.9. WERS Level Points (from NGBS) 80 Bronze 25 70 Silver 39 60 Gold 67 50 Emerald 92 Appendix F This appendix is part of the standard. The WERS calculation shall be in accordance with this appendix. **INDOORUSE** **Indoor Calculations** Variables: a. $T_{(x)}$- toilet use in gpd with sub x corresponding to (a) actual/proposed or (e)baseline [$(FF_{(t)}*QTi)*(OCC*UF_{(t)})$] b. $S_{(x)}$- shower use in gpd with sub x corresponding to (a) actual/proposed or (e)baseline [$(FF_{(s)}*QTi)*(DF_{(s)}*RF)*(OCC*UF_{(s)})$] c. $B_{(x)}$- bathtub use in gpd with sub x corresponding to (a) actual/proposed or (e)baseline [$(FF_{(b)}*QTi)*(OCC*UF_{(b)})$] d. $L_{(x)}$ -lavatory use in gpd with sub x corresponding to (a) actual/proposed or (e)baseline [$(FF_{(L)}*QTi)*DF_{(L)}*(OCC*UF_{(L)})$] e. $F_{(x)}$ -kitchen faucet use in gpd with sub x corresponding to (a) actual/proposed or(e) baseline [$(FF_{(f)}*QTi)*DF_{(f)}*(OCC*UF_{(f)})$] f. $D_{(x)}$- dishwasher use in gpd with sub x corresponding to (a) actual/proposed or (e)baseline [$(FF_{(d)}*QTi)*(OCC*UF_{(d)})$] g. $CW_{(x)}$- clothes washer use in gpd with sub x corresponding to (a) actual/proposed or (e) baseline [$(FF_{(cw)}*QTi)*(OCC*UF_{(cw)})*CF_{(cw)}$] h. $SW_{(x)}$- structural waste in gpd with sub x corresponding to (a) actual/proposed or(e) baseline [$(VOL*QTi)*(OCC*UF_{(sw)})$] i. $WF_{(x)}$- other water fixture use in gpd with sub x corresponding to (a)actual/proposed or (e) baseline [$(FF_{(wf)}*QTi)$] j. $Reuse_{(a)}$- sub x corresponding to (a) actual/proposed or (e) baseline of WERS_CAPTURE_INDOOR_USE k. VOL - Calculated water volume in DHW pipe supplying the furthest fixture worst case scenario. This factor is replaced with the actual field measured volume for a verified rating. Factors & Multipliers a. $CF_{(x)}$- Cubic feet with sub x corresponding to the specific water using item b. $DF_{(x)}$- Duration Factor with sub x corresponding to the specific water using item c. $FF_{(x)}$- Fixture Factor with sub x corresponding to the specific water using item d. OCC - Occupancy Factor e. QTi - Quantity multiplier inclusion

f. RF - reduction factor
g. $UF_{(x)}$- Use Factor with sub x corresponding to the specific water using item

Indoor Use Calculation:

$$WERS\_INDOOR\_USE_{(gpd)} = [T_{(a)} + S_{(a)} + B_{(a)} + L_{(a)} + F_{(a)} + D_{(a)} + CW_{(a)} + SW_{(a)} + WF_{(a)}] - Reuse_{(a)}$$

$$WERS\_INDOOR\_BASELINE_{(gpd)} = [T_{(e)} + S_{(e)} + B_{(e)} + L_{(e)} + F_{(e)} + D_{(e)} + CW_{(e)} + SW_{(e)} + WF_{(e)}]$$

CAPTUREAND USAGE

Reuse Calculations

Variables:

a. $RSF_{(x)}$- Rainwater Square feet with sub x corresponding to the specific capture sf for rainwater with (r) roof or (s) site
b. $SS_{(x)}$- Site surface texture with sub x corresponding to (a) actual/proposed or (e) baseline
c. $RS_{(x)}$- Roof surface texture with sub x corresponding to (a) actual/proposed or (e) baseline
d. $RC_{(x)}$- Rainwater capture in gpmth with sub x corresponding to (a) actual/proposed or (e) baseline $[(RSF_{(r)} * CUr * RS_{(x)}) + (RSF_{(s)} * CUr * SS_{(x)})]$
e. $GC_{(x)}$- Greywater capture in gpmth with sub x corresponding to (a) actual/proposed or (e) baseline $[(S_{(x)} * UF_{(s)} * cUF_{(s)}) + (B_{(x)} * UF_{(b)} * cUF_{(b)}) + (L_{(x)} * UF_{(L)} * cUF_{(L)}) + (CW_{(x)} * UF_{(CW)} * cUF_{(cw)})]$
f. $BC_{(x)}$- Blackwater capture in gpmth with sub x corresponding to (a) actual/proposed or (e) baseline $[(T_{(x)} * UF_{(t)} * cUF_{(t)}) + (F_{(x)} * UF_{(f)} * cUF_{(f)})]$
g. $RT_{(x)}$- Rainwater tank sizing with sub x corresponding to (a) actual/proposed or (e) baseline $[Cs_{(r)}.* (RUi + RUo) * TSF_{(r)}]$
h. $GT_{(x)}$- Greywater tank sizing with sub x corresponding to (a) actual/proposed or (e) baseline $[Cs_{(g)}.* (GUi + GUo) * TSF_{(g)}]$
i. $BT_{(x)}$- Blackwater tank sizing with sub x corresponding to (a) actual/proposed or (e) baseline $[Cs_{(bw)}.* (BUi + BUo) * TSF_{(bw)}]$
j. $RUi_{(x)}$- Rainwater usage INDOOR in gpmth with sub x corresponding to (a) actual/proposed or (e) baseline $[(S_{(x)} * UF_{(s)} * cUF_{(s)}) + (B_{(x)} * UF_{(b)} * cUF_{(b)}) + (L_{(x)} * UF_{(L)} * cUF_{(L)}) + (CW_{(x)} * UF_{(CW)} * cUF_{(cw)}) + (T_{(x)} * UF_{(t)} * cUF_{(t)}) + (F_{(x)} * UF_{(f)} * cUF_{(f)}) + (D_{(x)} * UF_{(d)} * cUF_{(d)})]$
k. $GUi_{(x)}$- Greywater usage INDOOR in gpmth with sub x corresponding to (a) actual/proposed or (e) baseline $[(S_{(x)} * UF_{(s)} * cUF_{(s)}) + (B_{(x)} * UF_{(b)} * cUF_{(b)}) + (L_{(x)} * UF_{(L)} * cUF_{(L)}) + (CW_{(x)} * UF_{(CW)} * cUF_{(cw)}) + (T_{(x)} * UF_{(t)} * cUF_{(t)}) + (F_{(x)} * UF_{(f)} * cUF_{(f)}) + (D_{(x)} * UF_{(d)} * cUF_{(d)})]$
l. $BUi_{(x)}$- Blackwater usage INDOOR in gpmth with sub x corresponding to (a) actual/proposed or (e) baseline [FUTURE]
m. $RUo_{(x)}$- Rainwater usage OUTDOOR in gpmth with sub x corresponding to (a) actual/proposed or (e) baseline $[RR_{(x)} - ((OUTRirr_{(x)} * cUF_{(OUTRirr)}) + (OUTRdi_{(x)} * cUF_{(OUTRdi)}))]$
n. $GUo_{(x)}$- Greywater usage OUTDOOR in gpmth with sub x corresponding to (a) actual/proposed or (e) baseline $[GR_{(x)} - (OUTGirr_{(x)} * cUF_{(OUTGirr)}) + (OUTGdi_{(x)} * cUF_{(OUTGdi)})]$
o. $BUo_{(x)}$- Blackwater usage OUTDOOR in gpmth with sub x corresponding to (a) actual/proposed or (e) baseline $[BR_{(x)} - (OUTBdi_{(x)} * cUF_{(OUTBdi)})]$
p. $RR_{(x)}$- Rainwater remaining/available for outdoor usage in gpmth with sub x corresponding to (a) actual/proposed or (e)[(RC - RUi)]
q. $GR_{(x)}$- Greywater remaining/available for outdoor usage in gpmth with sub x corresponding to (a) actual/proposed or (e)[(GC - GUi)]
r. $BR_{(x)}$- Blackwater remaining/available for outdoor usage in gpmth with sub x corresponding to (a) actual/proposed or (e)[FUTURE]
s. $T_{(x)}$- toilet use in gpd from the indoor water use calculations
t. $S_{(x)}$- shower use in gpd from the indoor water use calculations
u. $B_{(x)}$- bathtub use in gpd from the indoor water use calculations
v. $L_{(x)}$ -lavatory use in gpd from the indoor water use calculations
w. $F_{(x)}$ -kitchen faucet use in gpd from the indoor water use calculations
x. $CW_{(x)}$- clothes washer use in gpd from the indoor water use calculations
y. $OUTRirr_{(x)}$- Rainwater outdoor use as surface irrigation
z. $OUTRdi_{(x)}$- Rainwater outdoor use as sub-surface irrigation

aa. $OUTGirr_{(x)}$ - Greywater outdoor use as surface irrigation
bb. $OUTGdi_{(x)}$ - Greywater outdoor use as sub-surface irrigation
cc. $OUTBdi_{(x)}$- Blackwater outdoor use as sub-surface irrigation

Factors & Multipliers

a. CUr -Conversion unit for 1" of rainfall volume in one square foot of area
b. QTu - Quantity multiplier for use / inclusion
c. $TSF_{(x)}$ - Tank safety factor with sub x corresponding to (r) rainwater or (g) greywater or (bw) blackwater
d. $UF_{(x)}$- Use Factor with sub x corresponding to the specific water using item from the indoor water calculations
e. $CUF_{(x)}$- Capture Use Factor with sub x corresponding to the specific water using item
f. $Cs_{(x)}$ - Capture Systems (qualified) with sub x corresponding to (r) rainwater or (g) greywater or (bw) blackwater

Capture Calculations:

$$WERS\_CAPTURE\_INDOOR\_USE = [(((RUi_{(x)} + GUi_{(x)} + BUi_{(x)})*12)/365)\ ]$$

$$WERS\_CAPTURE\_OUTDOOR\_USE = [(RUo_{(x)} + GUo_{(x)} + BUo_{(x)})\ ]$$

The above calculations are limited by the final tank size and qualified capture system for each type of alternative water source system.

EXTERIORUSE

Outdoor Calculations

Variables:

a. $MAX\_ALLOW\_LANDSCAPING_{(x)}$ - in area with sub x corresponding to (a)actual/proposed or (e) baseline
b. $MEM_{(x)}$- Maximum ETo Monthly with sub x corresponding to month
c. $OUTReuse_{(a)}$- sub x corresponding to (a) actual/proposed or (e) baseline of WERS_CAPTURE_OUTDOOR_USE
d. $ZSF_{(x)}$- zone square footage area with sub x corresponding to (a) actual/proposed or(e) baseline
e. $UF_{(x)}$- Use Factor with sub x corresponding to (a) actual/proposed or (e) baseline
f. $LWR_{(x)}$ - Landscape watering requirement with sub x corresponding to the line item entry

$$LWR_{(x)} = \{[(1/IF_{(a)})*((MEM_{(jan)}*WD)-ARF_{(a)})*ZSF_{(a)}*CU_{(a)})\ UF_{(a)})] + [(1/IF_{(a)})*((MEM_{(feb)}*WD)-ARF_{(a)})*ZSF_{(a)}*CU_{(a)})\ UF_{(a)})] + [(1/IF_{(a)})*((MEM_{(mar)}*WD)-ARF_{(a)})*ZSF_{(a)}*CU_{(a)})\ UF_{(a)})] + [(1/IF_{(a)})*((MEM_{(apr)}*WD)-ARF_{(a)})*ZSF_{(a)}*CU_{(a)})\ UF_{(a)})] + [(1/IF_{(a)})*((MEM_{(may)}*WD)-ARF_{(a)})*ZSF_{(a)}*CU_{(a)})\ UF_{(a)})] + [(1/IF_{(a)})*((MEM_{(jun)}*WD)-ARF_{(a)})*ZSF_{(a)}*CU_{(a)})\ UF_{(a)})] + [(1/IF_{(a)})*((MEM_{(jul)}*WD)-ARF_{(a)})*ZSF_{(a)}*CU_{(a)})\ UF_{(a)})] + [(1/IF_{(a)})*((MEM_{(aug)}*WD)-ARF_{(a)})*ZSF_{(a)}*CU_{(a)})\ UF_{(a)})] + [(1/IF_{(a)})*((MEM_{(sep)}*WD)-ARF_{(a)})*ZSF_{(a)}*CU_{(a)})\ UF_{(a)})] + [(1/IF_{(a)})*((MEM_{(oct)}*WD)-ARF_{(a)})*ZSF_{(a)}*CU_{(a)})\ UF_{(a)})] + [(1/IF_{(a)})*((MEM_{(nov)}*WD)-ARF_{(a)})*ZSF_{(a)}*CU_{(a)})\ UF_{(a)})] + [(1/IF_{(a)})*((MEM_{(dec)}*WD)-ARF_{(a)})*ZSF_{(a)}*CU_{(a)})\ UF_{(a)})]\}$$

Factors & Multipliers

a. $CU_{(x)}$- Conversion unit with sub x corresponding to (a) actual/proposed or(e) baseline
b. $IF_{(x)}$- irrigation factor with sub x corresponding to (a) actual/proposed or (e)baseline
c. $WD_{(x)}$- water demand with sub x corresponding to (a) actual/proposed or (e) baseline
d. QTm - Quantity multiplier for month
e. $ARF_{(x)}$- Average Reduction Factor with sub x corresponding to (a)actual/proposed or (e) baseline

Indoor Use Calculation:

$$WERS\_OUTDOOR\_USE_{(gpy)} = [n=150LWR(n)] - OUTReuse_{(a)}$$

$$WERS\_OUTDOOR\_BASELINE_{(gpy)} = [(MEM_{(jan)}*MAX\_ALLOW\_LANDSCAPING*QTm*CU) + (MEM_{(feb)}*MAX\_ALLOW\_LANDSCAPING*QTm*CU) + (MEM_{(mar)}*MAX\_ALLOW\_LANDSCAPING*QTm*CU) + (MEM_{(apr)}*MAX\_ALLOW\_LANDSCAPING*QTm*CU) + (MEM_{(may)}*MAX\_ALLOW\_LANDSCAPING*QTm*CU) + (MEM_{(jun)}*MAX\_ALLOW\_LANDSCAPING*QTm*CU) + (MEM_{(jul)}*MAX\_ALLOW\_LANDSCAPING*QTm*CU) + (MEM_{(aug)}*MAX\_ALLOW\_LANDSCAPING*QTm*CU) + (MEM_{(sep)}*MAX\_ALLOW\_LANDSCAPING*QTm*CU) + (MEM_{(oct)}*MAX\_ALLOW\_LANDSCAPING*QTm*CU) + (MEM_{(nov)}*MAX\_ALLOW\_LANDSCAPING*QTm*CU) + (MEM_{(dec)}*MAX\_ALLOW\_LANDSCAPING*QTm*CU)\ ]$$

	WERSREPORT **Water Efficiency Rating Score Calculations** Variables: a. none Factors & Multipliers a. QTy - Quantity multiplier for year Calculation: WERS = [((WERS_INDOOR_USE *(gpd)* *QTy) + WERS_OUTDOOR_USE *(gpy)*)/((WERS_INDOOR_BASELINE *(gpd)* *QTy) + WERS_OUTDOOR_BASELINE *(gpy)*)]*100
Reason:	This change proposes an option for meeting the water requirements in the NGBS. Water is a critical element of a green program. We would like the WERS methodology to be in the NGBS and to expose the methodology to the discussion that is inherent in the NGBS development process. Over time, it became clear to us that a method of comparing and promoting water efficiency was needed. This proposal takes advantage of 3 years of dedicated work from a core group of 9 individuals from diverse backgrounds. The Water Efficiency Rating Score (WERS®), the homebuilding industry's first performance-based water efficiency program, is being used in the marketplace. WERS® is a water use modeling tool which creates a score between zero and 100, with a lower score indicating greater efficiency. It takes into account indoor and outdoor water usage, including rainwater, stormwater, greywater and blackwater. This metric allows for the comparison of properties, similar to an energy rating. It also projects the property's daily, monthly and yearly water usage and water costs. Water is one of the greatest limiting factors to growth in the West. In its most extreme form, such as Whatcom County, WA, permits have recently been denied due to uncertain water supply for new development. The Santa Fe Area Home Builders Association foresaw this potential threat over 3 years ago, and set out to create a water rating system that would retain design flexibility and freedom of product choice, while still driving down overall water usage. The WERS® Program is a water efficiency tool that jurisdictions can use, and are already using. In the words of Christine Chavez, Water Conservation Manager for the City of Santa Fe, "The WERS® Program provides another tool to assist the City of Santa Fe Water Conservation Office to meet our goal of managing and reducing customer demands to protect natural resources and to ensure that we can provide the community with a safe, reliable and sustainable water supply." The WERS® Program is also cited as a water efficiency compliance path for the State of New Mexico's Sustainable Building Tax Credit. Add ref to NAHB policy As our discussions on water have reached national levels, we have seen common elements in the water issues across the country. Adding another option to NGBS would strengthen NGBS and allow this tool to see much broader use. Add proponents as follow: Kim Shanahan - Santa Fe Area Home Builders Association Laureen Blissard - LTLB Envirotecture
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 1512**	**802.4 Engineered biological system or intensive bioremediation system**
Submitter:	Jennifer Cisneros, Bio-Microbics, Inc.	
Requested Action:		
Proposed Change:		
Reason:	What/why is the difference between these two sections: 802.4 Engineered biological or intensive bioremediation system. An engineered biological system or intensive bioremediation system is installed and the treated water is used on site. Design and implementation are approved by appropriate regional authority. 802.6 Advanced wastewater treatment system. Advanced wastewater (aerobic) treatment system is installed and treated water is used on site. And, what was the reason to put "a Humidifier" description (802.5 Recirculating humidifier) between these two sections? Seems like an odd place and confusing.	
TG Recommendation (AS or AM or D):		

Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6200**	**Other for Chapter 8 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW SECTION **801.4.3** Water-efficient kitchen faucets with a maximum flow rate of 1.5 gpm (5.68 L/m), tested as 60 psi (414 kPa) in accordance with ASME A112.18.1, are installed. - **3 POINTS**	
Reason:	Whether kitchen faucets are being used for washing hands or washing dishes, reducing the amount of water used during that activity is as beneficial here as it is in the lavatory.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6289**	**Other for Chapter 8 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**802.1 Water Reduction Calculation.** The water efficiency rating level shall be based on the reduction in water consumption over standard practice in accordance with Table 802.1.1	

Table 802.1.1
Water Rating Level Thresholds

	Rating Level			
	BRONZE	SILVER	GOLD	EMERALD
Reduction in water consumption	10%	20%	30%	40%

Outdoor water use reduction shall be calculated by using the EPA WaterSense Water Budget Tool.

Indoor water use reduction shall be calculated using the Water Reduction Calculator to determine the average flush or flow rate for each fixture type and the estimated daily usage.
The baselines for indoor water consumption are shown in Table 802.1.2.

Table 802.1.2. Indoor water baseline consumption (per person per day)

Fixture	Baseline flush or flowrate		Estimated fixture usage	Estimated water usage	
Shower (per compartment)	2.5 gpm	9.5 lpm	6.15 minutes	15.4 gallons	58.4 liters
Lavatory, kitchen faucet	2.2 gpm	8.3 lpm	5.0 minutes	11 gallons	41.5 liters
Toilet	1.6 gpf	6 lpf	5.05 flushes	8 gallons	30.3 liters
Clothes washer	9.5 WF	9.5 WF	0.37 cycles @ 3.5 ft3 (@0.1m3)	15.1 gallons	57.1 liters
Dishwasher	6.5 gpc	24 lpc	0.1 cycles	0.7 gallons	2.4 liters

	gpm = gallons per minute gpf = gallons per flush WF = water factor gpc = gallons per cycle lpf = liters per flush lpm = liters per minute lpc = liters per cycle **802.2 Alternative compliance.** Total water reduction that complies with Table 802.1.1 calculated using the WER Index shall be an acceptable alternative. **RENUMBER SUBSEQUENT SECTIONS**
Reason:	Adding an alternative performance calculation methodology to water efficiency will make the Standard more flexible and support the adoption of new innovative practices that come to market between Standard development cycles.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6491**	**Other for Chapter 8 (include section number and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	New Section Section 803.2 - An activated carbon filter is installed to treat all of the water intended for consumption and for showers/baths. 2	
Reason:	This measure provides a higher level of assurance for consistent water quality and improves the overall quality of the water.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6488**	**Other for Chapter 8 (include section number and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	New Section **Section 803.1 -** Water Quality Testing. Meet one or more of the following options: (1) Sediment level testing. 1 (2) Microorganisms level testing. 1 (3) Dissolved Metals level testing. 1 (4) Organic Contaminants level testing. 1 (5) Herbicides, Pesticides and Fertilizers level testing. 1 (6) Public Water Additives level testing. 1	
Reason:	As we have seen in Michigan and other areas around the country. Testing the quality of the water is important to project residents from harm. Some people are not aware that they could be damaging their health by drinking public water.	

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6492**	**Other for Chapter 8 (include section number and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	New Section **Section 803.3** - Water Sanitation. A UVGI water sanitation device is installed to treat all of the water intended for consumption and for showers/baths. 2	
Reason:	This measure provides a higher level of assurance for consistent water quality and improves the overall quality of the water.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6353**	**Other for Chapter 8 (include section number and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	**Section 803** - Add a new section as relevant for Health & Well-being credits.	
Reason:	As sustainability protocols evolve, the natural progression is to include measures that have a positive benefit on occupant health and well-being.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6500**	**Other for Chapter 8 (include section number and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	New Section Section 801.9 - Water Heater installation quality assurance - Meet all of the following: (1) Proper water pressure is verified per manufacturer's recommendations by the installing contractor. (2) Verify water supply line connections are secure. (3) Verify drain pan and drain line are installed when required by code. (4) For gas water heaters, verify the the flue vent is properly sized and installed properly. (5) For gas water heaters, verify the gas supply line is properly secured and has an accessible shut-off. 2	

Reason:	Having an extra set of eyes to verify that the water heater was installed properly is good practice. This measure may require that the verifier familiarize themselves with proper water heater installation techniques.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6555**	**Other for Chapter 8 (include section number and title below)**
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Add new as follows	
Proposed Change:	802 HEALTH AND WELL BEING (...prior to INNOVATIVE PRACTICES)	
Reason:	To include a new sub-section within each chapter of the Protocol, as relevant, immediately preceding (or after) Innovative Practices section, to address health and well being issues that are interconnected to the overall Green certification, but independent/optional, not required. This opens the program to reach lifestyle and living for overall occupant health.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6568**	**Other for Chapter 8 (include section number and title below)**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Add new as follows	
Proposed Change:	Alternative water requirements. This chapter is met by using all of the following: high MEF and EF Clothes Washer decreased toilet water use water supply within 10 ft of entrance to water using rooms, max pipe diameter 1/2 inch, 3/4 for master bath outdoor plants are low water gray water use does not contribute to water budget outdoor soils are amended and loosened to allow plant roots to go deeper only low water grasses are used. Silver level water.	
Reason:	This recipe provides for minimum use of water is the new home.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6432	1001.2 Training of initial homeowners
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**Training of initial homeowners.** Initial homeowners are familiarized with the role of occupants in achieving green goals. Training is provided to the responsible party(ies) regarding equipment operation and maintenance, control systems, and occupant actions that will improve the environmental performance of the building. These include... - **MANDATORY 8 POINTS**	
Reason:	Aligns with Measure 11.1001.2; In the development of the 2015 NGBS this measure was changed from being worth 8 point to being Mandatory. While making this mandatory is good, the loss of 8 points in Chapter 10 makes it extremely difficult for projects to achieve Gold or Emerald Certification.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6559	1001.2 Training of initial homeowners
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Revise as follows	
Proposed Change:	(Points) Mandatory 8 points	
Reason:	Achieving required minimums of 8 points for this Chapter is not possible without inclusion of points for this mandatory measure. Previous points were removed during prior update 2012, likely inadvertently.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6232	1002.0 Intent (Construction, Operation, and Maintenance Manuals and Training for Multifamily Buildings)
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	Host an annual group event that provides opportunity for discussion / input to better the suggestions in the OMBOE manual.	
Reason:	topics include recycling tips/energy / water saving tips and opens up discussion on these and related topics	
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		

TG Vote:	

Proposal ID TBD	**LogID 1508**	**1002.2 Operations manual**
Submitter:	Todd Jones, Center for Resource Solutions	
Requested Action:	Revise as follows	
Proposed Change:	(4) Information on opportunities to purchase Green-ecertified (or equivalent) renewable energy from local utilities or national green power providers and information on utility and tax incentives for the installation of on-site renewable energy systems.	
Reason:	(4) We recommend that information be provided specifically about Green-e certified utility and national green power products, to ensure that they are high quality and independently verified. The Green-e website is a good resource for finding local and national green power options.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6433**	**1002.4 Training of building owners**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**1002.4 Training of building owners.** Building owners are familiarized with the role of occupants in achieving green goals. On-site training is provided to the responsible party(ies) regarding equipment operation and maintenance, control systems, and occupant actions that will improve the environmental performance of the building. These include: **Mandatory** **8 POINTS**	
Reason:	Aligns with Measure 11.1001.2; In the development of the 2015 NGBS this measure was changed from being worth 8 point to being Mandatory. While making this mandatory is good, the loss of 8 points in Chapter 10 makes it extremely difficult for projects to achieve Gold or Emerald Certification.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6560**	**1002.4 Training of building owners**
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Revise as follows	
Proposed Change:	(Points) Mandatory 8 points	
Reason:	Achieving required minimums of 8 points for this Chapter is not possible without inclusion of points for this mandatory measure. Previous points were removed during prior update 2012, likely inadvertently.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		

TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6291**	**1005.1 Reserved – To Be Determined**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**1005.1 Appraisals.** One or more of the following is implemented. (1) Energy rating data is posted to publicly accessible database so that appraisers can access it for performing "green" property valuations. - 2 **POINTS** (2) Green certification data is provided so that appraisers can access it for performing "green" property valuations. - 2 **POINTS**	
Reason:	The real key to increasing demand for high-performance homes is getting the information to home appraisers in such a way that they can recognize the increased value of the green certified home above that of a conventionally built home.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6359**	**Other for Chapter 10 (include section number and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	**Section 1006** - Add new section as relevant for Health & Well-being awareness credits.	
Reason:	As sustainability protocols evolve, the natural progression is to include measures that have a positive benefit on occupant health and well-being.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6557**	**Other for Chapter 10 (include section number and title below)**
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Add new as follows	
Proposed Change:	1005 HEALTH AND WELL BEING (...prior to INNOVATIVE PRACTICES)	
Reason:	To include a new sub-section within each chapter of the Protocol, as relevant, immediately preceding (or after) Innovative Practices section, to address health and well being issues that are interconnected to the overall Green certification, but independent/optional, not required. This opens the program to reach lifestyle and living for overall occupant health.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		

TG Vote:	

Proposal ID TBD	**LogID 6307**	**Other for Chapter 10 (include section number and title below)**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	**1001.1Homeowner's manual.** A homeowner's manual is provided and stored in a permanent location in the dwelling that includes the following, as available and applicable… … (24) Retrofit energy calculator that provides baseline for future energy retrofits. (25) Disassembly plan with as-built drawings and information about the method of disassembly for major components; and material selection for recycling/reuse. **1001.2Training of initial homeowners.** Initial homeowners are familiarized with their role and the role of occupants in achieving green goals. Training is provided to the responsible party(ies) regarding ~~equipment~~ building operation and maintenance, including equipment operation and building material replacement, and regarding occupant actions that will improve the environmental performance of the building. These include, as applicable… … (7) Recycling and composting practices. (8) Disassembly methods for building components, material suitability for recycling and reuse, replacement with other recyclable/reusable materials.	
Reason:	Design for Adaptation and Disassembly involves the utilization of recyclable/reusable building materials and preserves resources by maximizing building-material recovery. A disassembly plan and building-owner training on the disassembly methods and reuse/recycling properties of the major building components, facilitate disassembly and appropriate material management, and help realize the intent and benefits of the Design for Adaptation and Disassembly measures. Solution: Add Disassembly Plan as an additional item to be provided to homeowner, as applicable. Include training on disassembly methods and building material reuse/recycling properties as an additional training for parties responsible for building maintenance and operation, including replacement of building materials.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6308**	**Other for Chapter 10 (include section number and title below)**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	**1002.1Building construction manual.** A building construction manual, including five or more of the following, is compiled and distributed… … (8) A photo record of framing with utilities installed. Photos are taken prior to installing insulation and clearly labeled. (9) Disassembly plan with as-built drawings and information about the method of disassembly for major components; and material selection for recycling/reuse. **1002.3Maintenance manual.** Maintenance manuals are created and distributed to the responsible parties in accordance with Section 1002.0.Between all of the maintenance manuals, five or more of the following options are included… … (10) A green cleaning plan which includes guidance on sustainable cleaning products. (11) For use during building component maintenance and replacement, a disassembly plan with as-built drawings and information about the method of disassembly for major components; and material selection for recycling/reuse.	

	1002.4Training of building owners. Building owners are familiarized with the roles of operations and maintenance staff and occupants in achieving green goals. On-site training is provided to the responsible party(ies) regarding ~~equipment~~ building operation and maintenance, including equipment operation, control systems and building material replacement and regarding occupant actions that will improve the environmental performance of the building. These include, as applicable… … (7) Recycling and composting practices. (8) Disassembly methods for building components, material suitability for recycling and reuse, replacement with other recyclable/reusable materials.
Reason:	Design for Adaptation and Disassembly involves the utilization of recyclable/reusable building materials and preserves resources by maximizing building-material recovery. A disassembly plan and building-owner training on the disassembly methods and reuse/recycling properties of the major building components, facilitate disassembly and appropriate material management, and help realize the intent and benefits of the Design for Adaptation and Disassembly measures. Solution: Add Disassembly Plan as an additional item to be provided to building owners and parties responsible for operations and maintenance. Include training on disassembly methods and building material reuse/recycling properties as an additional training for parties responsible for building maintenance and operation, including replacement of building materials.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6480**	**Other for Chapter 10 (include section number and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	New Section Section 1006.1 - Material Transparency - All relevant declare labels, health product declarations, building product disclosures are provided to the occupant.	
Reason:	Homeowners and building occupants have the right to know what products are being installed in the building. Raise awareness about the possible toxicity of building materials supports changes in the industry for healthier products.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 1513**	**Other for Chapter 10 (include section number and title below)**
Submitter:	Carl Seville, SK Collaborative	
Requested Action:	Revise as follows	
Proposed Change:	1002 – Combine operations and maintenance manual for Multifamily buildings into a single document. Add a separate tenant/occupant manual for occupants of multifamily buildings to provide them with reference and training materials to properly manage their apartment or condo unit.	
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-4 (Water Efficiency, Operation & Owner Education) as the proposal will affect multifamily buildings.*	

Reason:	
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Others Assigned to TG-4

Proposal ID TBD	LogID 6335	202 Definitions
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Revise as follows	
Proposed Change:	**Plumbing Fixture:** A receptor or device that requires ~~both~~ a water-supply connection ~~and~~ or a discharge to the drainage system or both, such as water closets, lavatories, bathtubs, and sinks.	
Reason:	The current definition excludes non-water urinals although they are considered a plumbing fixture by both the industry and recognized codes and standards. Note the definition in the International Plumbing code and Uniform Plumbing Codes - IPC: A receptacle or device that is connected to a water supply system or discharges to a drainage system or both. Such receptacles or devices require a supply of water; or discharge liquid waste or liquid-borne solid waste; or require a supply of water and discharge waste to a drainage system. UPC: An approved-type installed receptacle, device, or appliance that is supplied with water or that receives liquid or liquid-borne wastes and discharges such wastes into the drainage system to which it may be directly or indirectly connected. Industrial or commercial tanks, vats, and similar processing equipment are not plumbing fixtures, but may be connected to or discharged into approved traps or plumbing fixtures where and as otherwise provided for elsewhere in this code.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

TG-5: Energy Efficiency

Chapter 7: Energy Efficiency

Proposal ID TBD	LogID 6503	701.1 Mandatory requirements (Energy Efficiency)
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**701.1 Mandatory requirements.** The building shall comply with Section 702 (Performance Path), Section 703(Prescriptive Path), or Section 704 (HERS Index Target Path). Items listed as "mandatory" in Section 701.4 apply to all Paths. Unless otherwise noted, buildings in the Tropical Climate Zone shall comply with Climate Zone 1 requirements. Exceptions: A building that qualifies as an ENERGY STAR Version 3.0 Certified Home or ENERGY STAR Multifamily High Rise Version 1.0Rev. 03 building achieves the bronze level for Chapter 7. A building that qualifies as an ENERGY STAR Version3.1 Certified Home or ENERGY STAR Multifamily High Rise Version 1.0 Rev. 03(with the baseline at ASHRAE 90.1-2010) building achieves the silver level for Chapter 7. In the Tropical Climate Zone, a building that meets all of the requirements in IECC Section R401.2.1 (Tropical Zone) achieves the silver level for Chapter 7. A building achieving compliance under Section701.1.4 is not eligible for achieving a rating level above silver. ~~**701.1.4 Alternative bronze and silver level compliance**. As an alternative, any building that qualifies as an ENERGY STAR Version 3.0 Certified Home or ENERGY STAR Multifamily High Rise Version 1.0 Rev. 03 building achieves the bronze level for Chapter 7. As an alternative, any building that qualifies as an ENERGY STAR Version 3.1 Certified Home or ENERGY STAR Multifamily High Rise Version 1.0Rev. 03 (with the baseline at ASHRAE 90.1-2010) building achieves the silver level for Chapter 7. As an alternative in the Tropical Climate Zone, any building that meets all of the requirements in IECC Section R401.2.1 (Tropical Zone) achieves the silver level for Chapter 7. The buildings achieving compliance under Section 701.1.4 are not eligible for achieving a rating level above silver.~~	
Reason:	If analysis shows these alternatives are equivalent or more conservative compared to the requirements in 701.1.1, 701.1.2, and 701.1.3, then revise the charging language of 701.1 to include these "alternatives" as compliance paths.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6393	701.1 Mandatory requirements (Energy Efficiency)
Submitter:	Eric Lacey, RECA	
Requested Action:	Revise as follows	
Proposed Change:	**701.1 Mandatory requirements.** The building shall comply with Section 702 (Performance Path), Section 703 (Prescriptive Path), or Section 704 (HERS Index Target Path). The building shall also comply with all provisions ~~Items~~ listed as "mandatory" in the 2018 IECC and in Section 701.4 ~~apply to all Paths~~. Unless otherwise noted, buildings in the Tropical Climate Zone shall comply with Climate Zone 1 requirements.	
Reason:	This proposal is intended to revise and clarify the requirements regarding mandatory requirements/measures. As revised, this section will improve the quality and consistency of homes built to ICC-700 by requiring compliance, under all compliance options, with: • all mandatory requirements in ICC-700; and • all mandatory provisions of the 2018 IECC. First, ICC-700 includes a set of minimum mandatory requirements for prescriptive-based compliance. These are carefully-selected requirements that should be met irrespective of the number of points achieved for other efficiency measures. Minimum requirements for components and assemblies in a building – such as the air barrier, HVAC system sizing, and minimal thermal envelope efficiencies – should be met whether the home complies via prescriptive,	

	performance, or the HERS Index Target path. Second, the vast majority of states have adopted the IECC for residential and commercial construction. Like ICC-700, the IECC contains its own limited list of mandatory requirements, most of which are similar to the mandatory requirements of ICC-700. In the IECC, the mandatory requirements already apply across all compliance paths – prescriptive, performance, and ERI, and they apply to all "above code" programs under IECC Section R102.1.1. Because of this, a home cannot be built in these states without complying with at least this shortlist of minimum features. If these mandatory measures are mandatory for all homes to comply with the ICC's minimum energy efficiency code, they should also be mandatory for the ICC's green construction code. In order for ICC-700 to continue to gain market acceptance and be recognized as a legitimate green code, it is important that ICC-700 not be seen as a "workaround" to avoid the IECC's requirements. While we would prefer that every home that complies with ICC-700 to first demonstrate compliance with the complete IECC, we recommend at least establishing compliance with the mandatory requirements of the IECC. This will help builders avoid the pitfall of designing a home that meets ICC-700, but fails the minimum energy code requirements in that state or jurisdiction. The 2018 IECC mandatory requirements are an appropriate reference point. We expect that the 2018 ICC-700 will build upon the efficiencies of the 2018 IECC, and by the time ICC-700 is published, the compliance software available (such as DOE's REScheck) will be based on the 2018 IECC.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6501**	**701.1.1 Minimum Performance Path requirements**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**701.1.1 Minimum Performance Path requirements.** A building complying with Section 70 shall ~~include a minimum of two practices~~ obtain a minimum of 4 points from Section 705. **701.1.2 Minimum Prescriptive Path requirements.** A building complying with Section 703 shall obtain a minimum of 30points from Section 703 and shall ~~include a minimum of two practices~~ obtaina minimum of 4 points from Section 705. **701.1.3 HERS Index Target Path requirements.** A building complying with Section 704 shall obtain a minimum of 30points from Section 704 and shall ~~include a minimum of two practices~~ obtain minimum of 4 points from Section 705.	
Reason:	The term "two practices" is ambiguous. Suggest the term be revised to specify a minimum number of points to be attained from Section 705.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6157**	**701.1.1 Minimum Performance Path requirements**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	701.1.1 Minimum Performance Path Requirements. A building complying with Section 702 shall include a minimum of ~~two~~ three practices from Section 705, or a minimum of two practices from Section 705 and a minimum of one practice from Section 706.	
Reason:	This revision will allow for more flexibility to choose more options, while requiring three instead of two practices.	

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6159**	**701.1.2 Minimum Prescriptive Path requirements**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	**701.1.2 Minimum Prescriptive Path requirements.** A building complying with Section 703 shall obtain a minimum of 30 points from Section 703 and shall include a minimum of ~~two~~ three practices from Section 705, or a minimum of two practices from Section 705 and a minimum of one practice from Section 706.	
Reason:	This revision will allow for more flexibility to choose more options, while requiring three instead of two practices.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6404**	**701.1.3 HERS Index Target Path requirements**
Submitter:	Eric Lacey, RECA	
Requested Action:	Revise as follows	
Proposed Change:	**701.1.3 Energy Rating ~~HERS~~ Index ~~Target~~ Path requirements.** A building complying with Section 704 shall meet the requirements of ~~obtain a minimum of 30 points from~~ Section 704 and shall include a minimum of two practices from Section 705.	

704 ENERGY RATING ~~HERS~~ INDEX ~~TARGET~~ PATH

704.1 ERI ~~HERS index target~~ compliance. The project complies with Section R406 of the 2018 IECC, and the ERI for the project is less than or equal to the Energy Rating Index Scores as detailed in Table 704.2 for the corresponding climate zone and rating level. ~~Compliance with the energy chapter shall be permitted to be based on the EPA HERS Index Target Procedure for Energy Star Qualified Homes. Points from Section 704 (HERS Index Target) shall not be combined with points from Section 702 (Performance Path) or Section 703 (Prescriptive Path).~~

Table 704.2 ERI ~~Point calculation~~ score thresholds[a]. ~~Points for Section 704 shall be computed based on Steps "1a" through "1d" of the EPA HERS Index Target Procedure. Points shall be computed individually for each building as follows:~~

~~30 + (percent less than EnergyStar HERS Index Target for that building) * 2.~~

Climate Zone	Bronze	Silver	Gold	Emerald
1	57	52	47	42
2	57	52	47	42
3	57	52	47	42
4	62	57	52	47
5	61	56	51	46
6	61	56	51	46
7	58	53	48	43
8	58	53	48	43

	a. When on-site renewable energy is included for compliance using the ERI analysis per Section 704.1, the building shall meet the mandatory requirements in 2018 IECC Section R406.2 and the building thermal envelope shall be greater than or equal to levels of efficiency and Solar Heat Gain Coefficient in Table R402.1.2 or Table R402.1.4 of the 2015 IECC.
Reason:	This proposal revises the HERS Index-based compliance option in Section 704 to be more consistent with the IECC's Energy Rating Index. The current Section 704 uses only part of the Energy Star HERS Index Target Procedure, even though Section 701.1.4 already provides a compliance alternative for homes rated to Energy Star. Given the number of states that have now adopted the IECC Energy Rating Index, we see an opportunity to increase the usability and reach of ICC-700 by incorporating an ERI-based compliance option directly in ICC-700. We believe this will greatly benefit builders and energy raters who are trying to certify new homes and multifamily dwellings to multiple code and above-code programs, while providing a good testing ground for future improvements to the IECC ERI. As revised, ICC-700 Section 704 would require compliance with the Energy Rating Index section of the 2018 IECC for a bronze rating. For each rating above bronze, we have proposed an additional 5 point ERI index improvement. As an alternative, we could support a reasonable percentage improvement for each level instead of the 5-point increments, or a reference to another outside standard (such as the draft ASHRAE Standard 90.2, which is very close to the Emerald level numbers). In any case, this approach is intended to serve at least as a starting point for discussion. The 2018 IECC slightly increased the required ERI scores (making them less stringent than the 2015 IECC) as part of a broader compromise that included more stringent thermal envelope requirements for homes that incorporate renewable on-site power production into the ERI calculation. Consistent with that compromise, this proposal includes the higher 2018 ERI scores, along with the new footnote "a" in Table 704.2 as we believe it will appear in the 2018 IECC.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6160**	**701.1.3 HERS Index Target Path requirements**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	**701.1.3 HERS Index Target Path requirements.** A building complying with Section 704 shall obtain a minimum of 30 points from Section 704 and shall include a minimum of ~~two~~ three practices from Section 705, or a minimum of two practices from Section 705 and a minimum of one practice from Section 706.	
Reason:	This revision will allow for more flexibility to choose more options, while requiring three instead of two practices.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6292**	**701.1.4 Alternative bronze and silver level compliance**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**701.1.4 Alternative bronze and silver level compliance**. As an alternative, any building that qualifies as an ENERGY STAR Version 3.0 Certified Home or ENERGY STAR Multifamily High Rise Version1.0 Rev. 03 building or demonstrates compliance with the 2018 IECC or Chapter 11 of the 2018 IRC achieves the bronze level for Chapter 7. As an alternative, any building that qualifies as an ENERGY STAR Version 3.1Certified Home or ENERGY STAR Multifamily High Rise Version 1.0 Rev. 03 (with the baseline at ASHRAE 90.1-2010) building achieves the silver level for Chapter 7. As an alternative in the	

	Tropical Climate Zone, any building that meets all of the requirements in IECC Section R401.2.1 (Tropical Zone) achieves the silver level for Chapter 7. The buildings achieving compliance under Section 701.1.4 are not eligible for achieving a rating level above silver.
Reason:	Recognizing the 2018 IECC as an alternative makes sense.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6451**	**701.1.4 Alternative bronze and silver level compliance**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Revise as follows	
Proposed Change:	701.1.4 Alternative ~~bronze and silver l~~evels of compliance. As an alternative, any building that qualifies as an ENERGY STAR Version 3.0Certified Home or ENERGY STAR Multifamily High Rise Version 1.0 Rev. 03building achieves the bronze level for Chapter 7. As an alternative, any building that qualifies as an ENERGY STAR Version 3.1 Certified Home or ENERGYSTAR Multifamily High Rise Version 1.0 Rev. 03 (with the baseline at ASHRAE90.1-2010) building achieves the silver level for Chapter 7. As an alternative in the Tropical Climate Zone, any building that meets all of the requirements in IECC Section R401.2.1 (Tropical Zone) achieves the ~~silver~~ gold level for Chapter 7. ~~The~~ Buildings achieving compliance under Section 701.1.4 are not eligible for achieving ~~a~~ rating levels above ~~silver~~ those in this section.	
Reason:	This change gives the Tropical Home a Gold level of compliance based on energy savings well above Gold. Each point in energy is a 1/2 % of the energy savings. The difference between Bronze and Gold is 30 points or 15% of the energy cost. The PNNL report on the impact of the 2018 IECC (link below) gives the costs by energy end use for 2018 IECC (Table 11 of the PNNL report). The costs for each end use are below with last column giving the Tropical home impact on the end uses. End Use $$ 2018 IECC & % Tropical Home Impact Heating $7.09	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6392**	**701.1.4 Alternative bronze and silver level compliance**
Submitter:	Eric Lacey, RECA	
Requested Action:	Revise as follows	
Proposed Change:	**701.1.4 Alternative ~~bronze and~~ silver level compliance**. As an alternative, any building that qualifies as an ~~ENERGY STAR Version 3.0 Certified Home or ENERGY STAR Multifamily High Rise Version 1.0 Rev. 03 building achieves the bronze level for Chapter 7. As an alternative, any building that qualifies as an~~ ENERGY STAR Version 3.1 Rev. 08 Certified Home or ENERGY STAR Multifamily High Rise Version 1.0 Rev. 03 (with the baseline at ASHRAE ~~90.1-2010~~ 90.1-2013) building achieves the silver level for Chapter 7. ~~As an alternative in the Tropical Climate Zone, any building that meets all of the requirements in IECC Section R401.2.1 (Tropical Zone) achieves the silver level for Chapter 7.~~ The buildings achieving compliance under Section 701.1.4 are not eligible for achieving a rating level above silver.	
Reason:	This proposal is intended to update the Energy Star compliance option for single-family and multifamily buildings. For single-family homes (and low-rise multifamily homes), the proposal retains and updates (by citing the most recent version) the option to demonstrate silver-level compliance using Energy Star Version 3.1, but eliminates Energy Star Version 3.0 for bronze-level compliance. For mid- and high-rise multifamily buildings, the proposal updates the reference baseline from ASHRAE 90.1-2010 to 90.1-2013. We believe that the 2018 ICC-700 should build upon the efficiency of the most recent edition of the IECC	

	and ASHRAE. For single-family and low-rise multifamily buildings, Energy Star Version 3.0 was developed to correspond with the 2009 IECC, but is now outdated, since a good number of efficiency improvements have been incorporated into the IECC since then. It does not make sense to continue to allow alternative compliance with Version 3.0 in the national model green code, even for bronze-level compliance. We support an Energy Star alternative, but ICC-700 should require the most recent version of the Energy Star program that most closely corresponds with the 2018 IECC. This proposal is consistent with U.S. EPA's policy of rolling out Energy Star Version 3.1. Simply put, where a state adopts the 2012 or 2015 IECC as its mandatory statewide code, EPA updates the state's Energy Star program requirements to Version 3.1, twelve months after the effective date. As such, Energy Star Version 3.0 is phased out and is no longer available in such states. Likewise, for mid- and high-rise multifamily homes in states that have adopted the 2012 or 2015 IECC or ASHRAE 90.1-2010 or 2013, U.S. EPA has also updated the baseline that applies to the multifamily standard to a 15% improvement over a baseline of ASHRAE 90.1-2013. More and more states are adopting the 2012 IECC or more recent versions; since ICC-700 is the national model green code, it should reflect this fact. Similarly, given that the ICC has published a 2015 IECC (and will soon publish a 2018 version) and ASHRAE has published Standard 90.1-2013, it makes sense that the newest version of ICC-700 reflect the version of Energy Star that most closely corresponds with the most recent version of the IECC and ASHRAE 90.1. Allowing compliance with Version 3.0 or Standard 90.1-2010 may result in buildings that would not even comply with the version of the IECC or ASHRAE 90.1 that applies for statewide construction. This is particularly important when it is considered that the version of ICC-700 that will be published as a result of this process will be in effect more than a decade after the 2009 IECC and ASHRAE 90.1-2010 were published and after they has been superseded by two or three more recent editions. As a result, we recommend setting a single Energy Star standard – the most recent standard, and the one that most closely corresponds with the most recently published IECC or ASHRAE – as the single option for alternative compliance under Section 701.1.4.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6502**	**701.1.4 Alternative Bronze and silver level compliance**
Submitter:	John Woestman	
Requested Action:	Delete without substitution	
Proposed Change:	~~**701.1.4 Alternative bronze and silver level compliance**. As an alternative, any building that qualifies as an ENERGY STAR Version 3.0 Certified Home or ENERGY STAR Multifamily High Rise Version 1.0 Rev. 03 building achieves the bronze level for Chapter 7. As an alternative, any building that qualifies as an ENERGY STAR Version 3.1 Certified Home or ENERGY STAR Multifamily High Rise Version 1.0Rev. 03 (with the baseline at ASHRAE 90.1-2010) building achieves the silver level for Chapter 7. As an alternative in the Tropical Climate Zone, any building that meets all of the requirements in IECC Section R401.2.1 (Tropical Zone) achieves the silver level for Chapter 7. The buildings achieving compliance under Section 701.1.4 are not eligible for achieving a rating level above silver.~~	
Reason:	Recommend deleting these alternatives unless analysis is available which indicates these defined alternatives are equivalent or more conservative compared to the requirements of this standard.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6504**	**701.2 Emerald level points**
Submitter:	John Woestman	
Requested Action:	Revise as follows	

Proposed Change:	**701.2 Emerald level points.** The Performance Path shall be the only path used to achieve the emerald level.
Reason:	We think this is consistent with the intent. If so, this may help with understanding.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6573**	**701.2 Emerald level points**

Submitter:	Craig Conner, Building Quality
Requested Action:	Add new as follows
Proposed Change:	701.3 **Simplified Equivalent Compliance Alternative.** 701.3.1 Equivalent building option. Dwellings that meet both of the following criteria shall be deemed in compliance with the thermal envelop requirements of this chapter. 1. The ratio of the air-conditioning capacity to conditioned space is less than or equal to 1.5 tons per 1000square feet. 2. The ratio of the heating system capacity to floor area of conditioned space is less than or equal to 10,000 Bth/h per 1000 square feet for zone 2 15,000 Bth/h per 1000 square feet for zone 3 18,000 Bth/h per 1000 square feet for zone 4 5 20,000 Bth/h per 1000 square feet for zone 6 & 7. 25,000 Bth/h per 1000 square feet for zone 8 701.3.2 Equivalent hot water. The horizontal distance from the hot water supply outlet to the hot water entry to a room where hot water is used shall be no more than 10ft. This shall apply to the kitchens, bathrooms with showers or tub, and rooms with a clothes washer. 701.3.3 Equivalent lighting. Dwellings in compliance with at least one of the following requirements shall be deemed in compliance with the lighting requirements: 1. Lamps over 15 watts shall be CFL, LED, or have an efficacy not less than 70 lumens per watt, or. 2. At least 90% of the lamps or fixtures shall have an efficacy not less than 75 lumens per watt. Where compliance is based on efficacy the efficacy shall be on a manufacturer designation of efficacy on the lamp or fixture; or the lighting efficacy shall be on the construction plans. 701.3.4 Compliance with all three items above plus the mandatory portion of this chapter shall be deemed compliance with the NGBS energy requirements at the silver level.
Reason:	This prescribes a simple way to show NGBS energy compliance
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6068**	**701.4 Mandatory practices**

Submitter:	Michelle Foster, Home Innovation Research Labs
Requested Action:	Revise as follows
Proposed Change:	Clarify that the mandatory items are applicable to the method of construction being verified.

Reason:	The mandatory items are designed to ensure that the code provisions are complied with, however, code varies if the building is SF or MF. The proposed change would clarify that the mandatory practices are relevant depending on the specific method of construction.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6394** **701.4.3.1 Building Thermal Envelop Air Sealing**

Submitter:	Eric Lacey, RECA
Requested Action:	Add new as follows
Proposed Change:	**701.4.3.X Minimum Thermal Envelope Efficiency.** For all compliance paths, the minimum R-values, maximum U-factors, and maximum SHGC meet or exceed the efficiency level specified in Table 701.4.3.X.

Table 701.4.3.X
Minimum Thermal Envelope Efficiency

CLIMATE ZONE	FENES-TRATION U-FACTOR	SKY-LIGHT U-FACTOR	GLAZED FENEST-RATION SHGC	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB R-VALUE & DEPTH	CRAWL SPACE WALL R-VALUE
1	1.20	0.75	0.30	30	13	3/4	13	0	0	0
2	0.65	0.75	0.30	30	13	4/6	13	0	0	0
3	0.50	0.65	0.30	30	13	5/8	19	5 / 13	0	5 / 13
4 except Marine	0.35	0.60	NR	38	13	5/10	19	10 / 13	10, 2ft	10 / 13
5 and Marine 4	0.35	0.60	NR	38	20 or 13+5	13/17	30	10 / 13	10, 2ft	10 / 13
6	0.35	0.60	NR	49	20 or 13+5	15/19	30	15 / 19	10, 4ft	10 / 13
7 and 8	0.35	0.60	NR	49	21	19/21	38	15 / 19	10, 4ft	10 / 13

Reason:	This proposal would require that, for all projects, the efficiency levels of the building thermal envelope components meet or exceed the prescriptive thermal envelope efficiency required by the 2009 IECC. There are several reasons why this backstop should be implemented in the 2018 ICC-700: • The 2009 IECC already serves as the trade-off backstop for the 2015 and 2018 IECC Energy Rating Index. Every state that has adopted the 2015 IECC ERI so far has maintained or improved upon this backstop. • The 2009 IECC (or more stringent code) has been adopted in over three-quarters of the states. • The 2009 IECC is the foundation for the 2009 American Recovery and Reinvestment Act (ARRA), which distributed $3.4 billion in incentive funding to states that committed to adopt the 2009 IECC for residential construction. • Nationwide, new homes must show compliance with the 2009 IECC in order to be eligible for federally-insured mortgages. Effective building trade-off options need reasonable minimum-level mandatory backstops. It would strain the credibility of the 2018 ICC-700 as an “above-code program” to allow homes to be built with extremely weak thermal envelopes with an efficiency level below the 2009 IECC. The proposed backstop still permits significant trade-off flexibility, considering the improvements made to the IECC between 2009 and 2018, as well as additional efficiency requirements imposed by ICC-700. But this proposal helps builders avoid a scenario in which the green building’s thermal envelope may fail compliance with a state or

	local code (or a federal requirement) based on the 2009 IECC. We do not expect that this will be any burden to today's green builders.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6505**	**701.4.3.1 Building Thermal Envelope Air Sealing**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**701.4.3.1 Building Thermal Envelope Air Sealing.** The building thermal envelope is durably sealed to limit infiltration. The sealing methods between dissimilar materials allow for differential expansion and contraction. The following are caulked, gasketed, weather-stripped or otherwise sealed with an air barrier material, suitable film, or solid material: **(g)** Walls, ~~and~~ ceilings, and floors separating ~~a garage from~~ conditioned space~~s~~ from unconditioned space. **(k)** ~~Rim joist junction.~~ Joints of framing members at rim joists. **(l)** Top and bottom plates. **(m)** Other sources of infiltration.	
Reason:	Suggest revising several of the items in the list to more thoroughly identify the locations where air sealing is required.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6507**	**701.4.3.2 Air sealing and insulation**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**701.4.3.2 Air barrier, air sealing, building envelope testing, and insulation.** ~~Grade II and III insulation installation is not permitted.~~ Building envelope air barrier, air sealing, envelope tightness, and insulation installation is verified to be in accordance with this Section ~~701.4.3.2(1) and 701.4.3.2(2)~~ and Section 701.4.3.2.1. **701.4.3.2.1** ~~Grade I insulation installations are~~ **Insulation installation.** Field-installed insulation products to ceilings, walls, floors, band joists, rim joists, conditioned attics, basements, and crawlspaces, except as specifically noted, are verified by a third-party in accordance with the following: ~~**(1)** Grading applies to field-installed insulation products.~~ ~~**(2)** Grading applies to ceilings, walls, floors, band joists, rim joists, conditioned attics basements and crawlspaces, except as specifically noted.~~ Re-number items(3) through (11), and revise item (11) **(11)** Where properly installed, ICFs, SIPs, and other wall systems that provide integral insulation are deemed incompliance with ~~the Grade 1 insulation installation requirements~~ this section.	

	703.2.1 UA improvement. The total building thermal envelope UA is less than or equal to the total UA resulting from the U-factors provided in Table 703.2.1(a) or IECC Tables C402.1.4 and C402.4, as applicable. Where insulation is used to achieve the UA improvement, the insulation installation is in accordance ~~with Grade1 requirements as graded~~ Section 701.4.3.2.1 as verified by a third-party. Total UA is documented using a RESCheck, COMCheck, or equivalent report to verify the baseline and the UA improvement.
Reason:	Removing all mentions of "Grade" pertaining to insulation installation, as Grade is not defined or described in the standard. Also revising 701.4.3.2.1 to move the "what" and "where" specifics of the first two items into the charging language. Also, adding requirement insulation installation is verified by a third-party consistent either requirement in 703.2.1.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6506**	**701.4.3.2 Air sealing and insulation**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**701.4.3.2 Air barrier, air sealing, building envelope testing, and insulation.** ~~Grade II and III insulation installation is not permitted.~~ Building envelope air barrier, air sealing, envelope tightness, and insulation installation is verified to be in accordance with this Section ~~701.4.3.2(1) and 701.4.3.2(2)~~ and Section 701.4.3.2.1. Insulation installation other than Grade 1 is not permitted. **701.4.3.2.1** ~~Grade I i~~ Insulation installations are in accordance with the following:	
Reason:	Removing the phrase regarding "Grade II and III" insulation installation as these are not defined, described, or referenced in the standard, and instead refer to "Grade I" which has requirements described in the standard. Revising the text to add explicit requirement to comply with the insulation installation requirements in Section 701.4.3.2.1.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 1517**	**701.4.3.2 Air sealing and insulation**
Submitter:	Rachel Della Valle, Southern Energy Management	
Requested Action:	Revise as follows	
Proposed Change:	I suggest using the language: "Air sealing and insulation. Grade II and III insulation installation is not permitted. Building envelope air tightness and insulation installation is verified to be in accordance with Section 701.4.3.2(1) ~~and~~ or 701.4.3.2(2)."	
Reason:	701.4.3.2: "Air sealing and insulation. Grade II and III insulation installation is not permitted. Building envelope air tightness and insulation installation is verified to be in accordance with Section 701.4.3.2(1) and 701.4.3.2(2)." I noticed this item requires 701.4.3.2(1) and 701.4.3.2(2) whereas the 2012 Standard required 701.4.3.2(1) or 701.4.3.2(2). Is this accurate? I believe the first draft had the 'or'. The 2012 NGBS was definitely 'or'.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		

TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6396**	**701.4.3.4 Fenestration air leakage**
Submitter:	Eric Lacey, RECA	
Requested Action:	Add new as follows	
Proposed Change:	**701.4.3.X Fenestration U-factor and SHGC.** U-factors of fenestration products (windows, doors and skylights) are determined in accordance with NFRC 100 by an accredited, independent laboratory, and labeled and certified by the manufacturer. The solar heat gain coefficient (SHGC) of glazed fenestration products (windows, glazed doors, and skylights) are determined in accordance with NFRC 200 by an accredited, independent laboratory, and labeled and certified by the manufacturer.	**Mandatory** **703.2.5.1** NFRC-certified ~~(or equivalent)~~ U-factor and SHGC of windows, exterior doors, skylights, and tubular daylighting devices (TDDs) on an area-weighted average basis do not exceed the values in Table 703.2.5.1. Area weighted averages are calculated separately for the categories of 1) windows and exterior doors and 2) skylights and tubular daylighting devices (TDDs). Decorative fenestration elements with a combined total maximum area of 15 square feet (1.39 m2) or 10 percent of the total glazing area, whichever is less, are not required to comply with this practice.
Reason:	This proposal clarifies that fenestration U-factors and SHGCs should be determined in accordance with NFRC certified ratings, consistent with the requirements of the IECC and the Energy Star Windows program. This has been a requirement in the IECC since the mid-1990s, and it is a requirement in nearly every state for residential construction. The vast majority of residential windows, doors, and skylights are already certified and labeled according to NFRC standards, so we do not expect this requirement to create any issues or any added cost. Requiring uniform, objectively-determined ratings for fenestration will help to ensure the expected performance and quality of green homes and will simplify certification for green raters.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 1503**	**701.4.3.4 Fenestration air leakage**
Submitter:	Roger LeBrun, VELUX America Inc.	
Requested Action:	Revise as follows	
Proposed Change:	701.4.3 701.4.3.4 Fenestration air leakage. Windows, skylights and sliding glass doors have an air infiltration rate of no more than 0.3 cfm per square foot (1.5 L/s/m2), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/m2), when tested in accordance with NFRC 400 or AAMA/WDMA/CSA 101/I.S.2/A440 by an accredited, independent laboratory and listed and labeled. ~~This practice does not apply to site-built windows, skylights, and doors.~~	
Reason:	A green code should not leave a gaping hole by exempting “site-built” windows, skylights and doors. Only rated products meeting the mandatory requirements are acceptable, no matter how they are built, otherwise what does mandatory really mean?	
TG Recommendation (AS or AM or D):		

Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 1504**	**701.4.3.4 Fenestration air leakage**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Revise as follows	
Proposed Change:	701.4.3.4 Fenestration air leakage. Jalousie windows shall have an air infiltration rate of no more than 1.3 cfm per square foot.	
Reason:	Jalousie windows are tropical windows made to admit breezes. Sealing them tight is expensive and nonsensical.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6508**	**701.4.3.5 Recessed lighting**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**701.4.3.5 ~~Recessed lighting~~ Lighting in building thermal envelope.** ~~Recessed l~~Luminaires installed in the building thermal envelope are sealed to limit air leakage between conditioned and unconditioned spaces. All ~~recessed~~ luminaires in the building thermal envelope are IC-rated and labeled as meeting ASTM E283when tested at 1.57 psf (75 Pa) pressure differential with no more than 2.0 cfm(0.944 L/s) of air movement from the conditioned space to the ceiling cavity. All ~~recessed~~ luminaires in the building thermal envelope are sealed with a gasket or caulk between the housing and the interior of the wall or ceiling covering.	
Reason:	The vast majority of lighting luminaires are recessed in the building thermal envelope. However, the scope of the requirements of this section should apply to all lighting luminaires in the building thermal envelope, not just recessed lighting. With fast changing lighting technology, it's possible lighting luminaires will penetrate the building thermal envelope but not be considered recessed lighting. The revisions would apply to all lighting luminaires "in" the building thermal envelope, but would not apply to luminaires "on" the building thermal envelope. Consider, for example, ½" thick LED lighting panels which are installed in place of ½" drywall on the ceiling. These panels may not be considered recessed but clearly should be included in the requirements of this section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6509**	**701.4.5 Boiler supply piping**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**701.4.5 Boiler supply piping.** Boiler ~~supply~~ piping in unconditioned space supplying or returning heated water or steam is insulated.	

Reason:	It seems this more clearly describes the intent of the requirements of this section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6395**	**702.2.1 ICC IECC analysis (Energy performance levels)**
Submitter:	Eric Lacey, RECA	
Requested Action:	Revise as follows	
Proposed Change:	**702.2.1 ICC IECC analysis.** The building complies with Section R405 or Section C407 of the 2018 IECC, the IECC Simulated Performance Alternative, using either the ~~Energy efficiency features are implemented to achieve~~ energy cost or source energy performance option. ~~that meets the ICC IECC. A documented analysis using software in accordance with ICC IECC, Section R405, or ICC IECC Section C407.2 through C407.5, applied as defined in the ICC IECC, is required~~.	
Reason:	This proposal will simplify and clean up the language for the performance compliance option in Section 702.2.1, but should not materially change the requirements of that section. While 702.2.1 already requires compliance with the IECC's Simulated Performance Alternative, it does so in an ambiguous and confusing way. We propose a very simple solution: clarify that compliance with the IECC performance path is required to comply under this option. This could easily be accomplished by deleting the confusing language and replacing it with simple references to Sections R405 and C407. These two sections contain all of the assumptions, references, and documentation requirements necessary to complete a full simulated performance analysis. This would also eliminate the separate requirement for documentation in the second sentence, since that documentation is included in Sections R405.4 and C407.4.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6485**	**702.2.1 ICC IECC analysis (Energy performance levels)**
Submitter:	Steven Armstrong, ESG Energy	
Requested Action:	Add new as follows	
Proposed Change:	Leave current IECC code as is for 2018 Standard	
Reason:	Need to consider not changing the current IECC code level for the 2018 Standard. Fear is that we are going to code ourselves out of work. At present many areas do not subscribe to the 2015 IECC and or some derivation of the code.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6470**	**702.2.1 ICC IECC analysis (Energy performance levels)**
Submitter:	Chuck Foster, Charles R. Foster Associates	

Requested Action:	Revise as follows
Proposed Change:	Energy efficiency features are implemented to achieve energy cost ~~or source energy~~ performance that meets the ICC IECC.
Reason:	Source energy is an unstable metric for estimating energy performance, especially in a time of rapidly changing electric generation fleets. In addition, source energy overtly discriminates against the use of renewable energy sources, thereby putting it at tension with the goals and purpose of the NGBS.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6172**	**702.2.1 ICC IECC analysis (Energy performance levels)**
Submitter:	Keith Dennis, NRECA	
Requested Action:	Revise as follows	
Proposed Change:	**702.2.1 ICC IECC Analysis.** Energy efficiency features are implemented to achieve energy cost or <u>site energy or</u> source energy performance that meets the ICC IECC.	
Reason:	The source energy calculations contain flaws, which is why DOE recently underwent a process to adjust them. Some of the issues are that source energy for renewable energy treats that energy as if it were from a fossil fuel plant and multiplies it by about 3, creating a counterproductive result. Similarly, nuclear energy, which makes up 20% of our national fuel mix and generates no emissions, is treated worse than fossil fuel because nuclear reactions are hot. This has little to do with CO2 emissions goals or energy efficiency. Using site and source energy provides flexibility.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6150**	**702.2.1 ICC IECC analysis (Energy performance levels)**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	702.2.1 ICC IECC Analysis. Energy efficiency features are implemented to achieve energy cost or ~~source~~ <u>site</u> energy performance that meets the ICC IECC.	
Reason:	Site energy is measurable, verifiable, and is directly correlated to energy costs in a remodeled building. Source energy estimates are widely variable and can be easily used to "game" the system. In addition, source energy proponents claim that grid-based renewables have the highest "source" factors, penalizing builders and customers that use renewable forms of electricity. Site energy is also consistent with the equipment energy efficiency metrics shown in this chapter. ASHRAE has also stated that site energy is the preferred choice when looking at "net zero" energy buildings or energy comparisons.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6329	702.2.1 ICC IECC analysis (Energy performance levels)
Submitter:	Neil Leslie, Gas Technology Institute	
Requested Action:	Revise as follows	
Proposed Change:	**702.2.1 ICC IECC analysis.** Energy efficiency features are implemented to achieve energy cost or source energy performance that meets the ICC IECC. A documented analysis using software in accordance with ICC IECC, Section R405~~, or ICC IECC Section C407.2 throughC407.5,~~ applied as defined in the ICC IECC, is required. For heating systems, the standard reference design shall be an air source heat pump. For service water heating, the standard reference design shall be an electric resistance storage water heater. For cooling systems, the standard reference design shall be an air cooled split system air conditioner.	
Reason:	A single technology-blind baseline performance requirement is critical for a uniform and consistent implementation of the Standard 700 primary intent. Shifting to a single baseline design provides an equitable credit to all technologies that have lower annual costs compared to the single baseline level irrespective of energy form or technology design. It establishes fixed reference home performance requirements BEFORE making the technology and energy choices for the rated home. A single reference design methodology creates a level playing field for all technology and energy forms and provides equitable treatment of advanced renewable, waste heat recovery, hybrid, and multi-fuel technology options. It is especially important for equitable and consistent evaluation of on-site power generation and combined heat and power systems.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6510	702.2.2 Energy performance analysis
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**702.2.2 Energy performance analysis.** Energy savings levels above the ICC IECC are determined through an analysis that includes improvements in building envelope, air infiltration, heating system efficiencies, cooling system efficiencies, duct sealing, water heating system efficiencies, lighting, and appliances. Points are assigned using the following formula: **Points = 30 + (percent above ICC IECC 2015)* 2** **~~Multifamily Building Note:~~** ~~Modeling~~ **702.2.2.1 Multifamily buildings.** Multifamily building energy performance analysis is completed building-wide using one of the following methods: whole building energy modeling, a unit-by-unit energy modeling approach, or a building average of a unit-by-unit energy modeling approach.	
Reason:	This non-mandatory Note appears to be a mandatory requirement. Revising the language as such. Also, the requirements may be better stated with “Modeling” revised out of the first part of the sentence.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6533	702.2.2 Energy performance analysis
Submitter:	Craig Conner, Building Quality	
Requested Action:	Revise as follows	

Proposed Change:	2.2.2 Energy performance analysis. Energy savings levels above the ICC IECC are determined through an analysis that includes improvements in building envelope, air infiltration, heating system efficiencies, cooling system efficiencies, duct sealing, water heating system efficiencies, lighting, ~~and~~ appliances, and on-site renewable energy. Points are assigned using the following formula:
Reason:	On-site renewable energy reduces the net energy used by the residence. Use of on-site renewables lowers the use of non-renewable fossil fuels. On-site renewables are almost essential to highly efficient homes and sometimes the only practical way to get to zero or near zero energy homes.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6512**	**703.1.1 UA Compliance**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**703.1.1 ~~UA~~ Building thermal envelope ~~C~~ compliance.** The building thermal envelope is incompliance with Section 703.1.1.1 or 703.1.1.2. **Exception:** Section 703.1.1 is not required for Tropical Climate Zone.	
Reason:	UA is one of the two options for compliance required by 703.1.1. The other is compliance via prescriptive R-values and prescriptive fenestration requirements – but no UA calculation is required.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6398**	**703.1.1.1 Maximum UA**
Submitter:	Eric Lacey, RECA	
Requested Action:	Revise as follows	
Proposed Change:	**703.1.1.1 Maximum UA and SHGC.** For IECC residential buildings, the total building UA is less than or equal to the total maximum UA as computed by 2018 ~~2015~~ IECC Section R402.1.5. The SHGC requirements for fenestration in Table R402.1.2 are also met. For IECC commercial buildings, the total UA is less than or equal to the sum of the UA for 2018 ~~2015~~ IECC Tables C402.1.4 and C402.4, including the U-factor times the area and C-factor or F-factor times the perimeter. The SHGC requirements for fenestration in Table C402.4 are also met. The total UA proposed and baseline calculations are documented. REScheck or COMcheck is deemed to provide UA calculation documentation.	
Reason:	This proposal clarifies that the fenestration SHGC requirements from the IECC have to be met whether the user chooses the UA compliance method (section 703.1.1.1) or the prescriptive-components compliance method (section 703.1.1.2). It also updates the referenced IECC from the 2015 to the 2018 Edition. The current prescriptive component compliance option (section 703.1.1.2) already recognizes that SHGC requirements also need to be met, but this requirement was inadvertently not mentioned in the Maximum UA option (section 703.1.1.1), potentially creating confusion. This proposal corrects this issue. SHGC requirements are a critical part of the thermal envelope and must be met regardless of how U-factor compliance is determined.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		

TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6399**	**703.1.1.2 Prescriptive R-values and fenestration requirements**
Submitter:	Eric Lacey, RECA	
Requested Action:	Revise as follows	
Proposed Change:	**703.1.1.2 Prescriptive R-values and fenestration requirements.** The building thermal envelope is in accordance with the insulation ~~and fenestration~~ requirements of 2018 ~~2015~~ IECC Table R402.1.2 ~~R402.1.1~~ or Table~~s~~ C402.1.3. The fenestration U-factors and SHGCs are in accordance with Table 703.2.5.1 ~~and~~ or 2018 IECC Table C402.4. ~~The SHGC is in accordance with the 2015 IECC requirements.~~	
Reason:	The next Edition of ICC-700 should correspond with, and build upon the efficiency of, the 2018 IECC. While we expect that generic references to the IECC will be updated to the 2018 Edition in the Chapter 13 Referenced Standards, wherever there is a reference to a specific IECC Edition in the text (and particularly where there is a citation to a specific table or section), we generally support updating the reference to the 2018 IECC. This proposal applies the 2018 IECC prescriptive table as the prescriptive baseline for insulation requirements in the 2018 ICC-700. It also references ICC-700 Table 703.2.5.1 for fenestration U-factor and SHGC, which we expect will be updated to correspond with the 2018 IECC in a separate proposal. Not only will this replace an external reference with an internal reference, but it will also eliminate any conflicts between fenestration requirements in ICC-700 and the IECC. The combination of this proposal and a separate proposal to adopt the 2018 IECC fenestration requirements will result in a small improvement in efficiency in most climate zones because of improvements to fenestration U-factors, and will not result in any rollbacks in efficiency in ICC-700. We also note that the section reference in the 2015 ICC-700 to the 2015 IECC prescriptive table is incorrect – it should be Table R402.1.2. (We recommend that Staff correct this in the 2015 ICC-700 in future printings.) However, because we do not yet have a published version of the 2018 IECC, we ask that Staff ensure that the section numbers are consistent for the 2018 editions of the IECC and ICC-700.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6511**	**703.1.1.2 Prescriptive R-values and fenestration requirements**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**703.1.1.2 Prescriptive R-values and fenestration requirements.** The building thermal envelope is in accordance with the insulation and fenestration requirements of ~~2015~~ ICC IECC Table R402.1.1 or Tables C402.1.3 and C402.4. The SHGC is in accordance with the~~2015~~ ICC IECC requirements. **703.1.2 Building Envelope Leakage.** The building thermal envelope is in accordance with ~~2015~~ ICC IECC R402.4.1.2or C402.5 as applicable. **Exception:** Section 703.1.2 is not required for Tropical Climate Zone. **703.1.3 Duct Testing.** The duct system is in accordance with ~~2015~~ ICC IECC R403.3.2 through R403.3.5 as applicable. **705.6.2.1 Air leakage validation of building or dwelling units.** A visual inspection is performed as described in701.4.3.2(2) and air leakage testing is performed in accordance with ASTM E779or ASTM E1827. **(Points awarded only for buildings where building envelope leakage testing is not required by ~~2015~~ICC IECC.)** **(Points not awarded if points are taken under Section 703.2.4)**	

Reason:	Suggesting the reference to ICC IECC be consistent throughout the document. There are currently references to “International Energy Conservation Code”, “IECC”, “2015 IECC”, and “ICC IECC”. Our recommendation is “ICC IECC” should be used consistently in the standard.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 1518**	**703.1.3 Duct Testing**
Submitter:	Rachel Della Valle, Southern Energy Management	
Requested Action:		
Proposed Change:		
Reason:	703.1.3 Duct Testing. Requires duct testing per 2015 IECC unless ducts and hvac system are within the building thermal envelope. Correct?	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6513**	**703.2.1 UA improvement**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**703.2.1 UA improvement.** The total building thermal envelope UA is less than or equal to the baseline total UA resulting from the U-factors provided in Table 703.2.1(a) or ICC IECC Tables C402.1.4 Group R and C402.4, as applicable. Where insulation is used to achieve the UA improvement, the insulation installation is in accordance with ~~Grade 1 requirements as graded~~ Section 701.4.3.2.1 as verified by a third-party. Total UA is documented using a RESCheck, COMCheck, or equivalent report to verify the baseline and the UA improvement. **Table 703.2.1(a)** **~~Equivalent~~ Baseline U-Factors[a]** **Table 703.2.1(b)** **Points for Improvement in Total Building Thermal Envelope UA Compared to Baseline UA** Exception: For the Tropical Climate Zone~~,~~: crawl space, basement, and floor u-factors are ~~not applicable~~ excluded from the total building thermal envelope UA improvement calculation.	
Reason:	Primarily, attempting to clarify the baseline UA and that the points attained for improving the total building thermal envelope UA are compared to the baseline determined from the U-factors in Table 703.2.1(a). Also, replacing the reference to Grade I with reference to Section 701.4.3.2.1, as the term “Grade 1” is based on requirements not defined, described, or referenced in the standard. And, revising the text of the Exception to Table 703.2.1(b) to what we surmise is the intent of the exception.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		

TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6514**	**703.2.4 Building envelope leakage**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**703.2.4 Building envelope leakage**. The maximum building envelope leakage rate is verified by a third-party in accordance with Table 703.2.4 and whole building ventilation is provided in accordance with Section 902.2.1.	
Reason:	Considering points are being awarded for this practice, it is important the building envelope leakage is verified by a third-party.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 1519**	**703.2.5 Building envelope leakage**
Submitter:	Carl Seville, SK Collaborative	
Requested Action:	Revise as follows	
Proposed Change:	Add an alternative leakage measurement of CFM per Square foot of building envelope at 50 PA (ELR50) in addition to ACH50 for points in this section. I recommend adding an additional column to table 703.2.4 as noted below: Max Env Leakage Climate Zone Rate ELR50 ACH50 Balance of table remains the same .28 4 .23 3 .18 2 .13 1	
Reason:	A recent study by CARB has determined that ACH50 is an inaccurate measurement for small multifamily apartment and unfairly penalizes units that are only measured via ACH50.	
Concurrent Review Staff Note:	This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6066**	**703.2.5.1 Fenestration Specifications**
Submitter:	Thomas Culp, Aluminum Extruders Council	
Requested Action:	Revise as follows	
Proposed Change:	**703.2.5.1** NFRC-certified (or equivalent) U-factor and SHGC of windows, exterior doors, skylights, and tubular daylighting devices (TDDs) on an area-weighted average basis do not exceed the values in Table 703.2.6.1 or IECC Table C402.4 where applicable. (rest of section unchanged)	
Reason:	While sections 703.2.6.1 and 703.2.6.2 are very appropriate for low-rise residential, they are still incorrect for high-rise residential. In fact, by referring to U-factors that originate from the residential chapter of the IECC and the Energy Star program for Windows, they are already inconsistent with Sections 703.1.1.1, 703.1.1.2, and 703.2.1 which properly refer to 2015 IECC able C402.4 as the baseline for windows in buildings that fall under the commercial IECC, including multifamily four stories and above. (Note: The	

	Energy Star program for Windows is applicable only to windows in residential buildings three stories or less in height, and specifically excludes windows intended to be installed in buildings four stories or higher – see attached "Energy Star Product Specification Residential Windows, Doors, and Skylights, Eligibility Criteria Version 6.0", sections 2A, 2B, and 1M.) Corrections have been made to other parts of Section 703 to accommodate high-rise multifamily, but not here yet. To avoid a technical inconsistency with 703.1.1.2, Section 703.2.5.1 also needs to be revised as shown with the reference to IECC Table C402.4, either using the phrase "as applicable" or specifically stating for residential buildings four stories or higher above grade. Additionally, the main criteria in sections 703.2.5.1 and enhanced criteria in 703.2.5.2 will presumably be reviewed in accordance with changes to the 2018 IECC. As such, this would be an appropriate time to establish new fenestration criteria for buildings four stories and higher based on the correct baseline from the commercial IECC, similar to how requirements for mid and high-rise multifamily buildings were addressed in other sections last cycle (air leakage, radiant barriers, HVAC efficiency, water heating). I will gladly assist in this process. Not only will this improve technical consistency and usability of the NGBS for high-rise residential (think 10, 20, 30 stories, not just 4), but it will also make it more attractive for adoption into standards such as ASHRAE 189.1.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6400**	**703.2.5.1 Fenestration Specifications**
Submitter:	Eric Lacey, RECA	
Requested Action:	Revise as follows	

Proposed Change:

703.2.5 Fenestration	
703.2.5.1 NFRC-certified (or equivalent) U-factor and SHGC of windows, exterior doors, skylights, and tubular daylighting devices (TDDs) on an area-weighted average basis do not exceed the values in Table 703.2.5.1. Area weighted averages are calculated separately for the categories of 1) windows and exterior doors and 2) skylights and tubular daylighting devices (TDDs). Decorative fenestration elements with a combined total maximum area of 15 square feet (1.39 m2) or 10 percent of the total glazing area, whichever is less, are not required to comply with this practice.	**Mandatory for Section 703**
~~**703.2.5.1.1 Dynamic glazing.** Dynamic glazing is permitted to satisfy the SHGC requirements of Table 703.2.5.1 provided the ratio of the higher to lower labeled SHGC is greater than or equal to 2.4 and the dynamic glazing is automatically controlled to modulate the amount of solar gain into the space in multiple steps. Fenestration with dynamic glazing is considered separately from other fenestration and area-weighted averaging with fenestration that does not use dynamic glazing is not permitted. Dynamic glazing is not required to be automatically controlled or comply with minimum SHGC ratio when both the lower and higher labeled SHGC already comply with the requirements of Table 703.2.5.1.~~ **Table 703.2.5.1** **Fenestration Specifications** **[No Change to Table]**	**Mandatory for Section 703**
703.2.5.1.1 Dynamic glazing. Dynamic glazing is permitted to satisfy the SHGC requirements of Table 703.2.5.1 provided the ratio of the higher to lower labeled SHGC is greater than or equal to 2.4 and the dynamic glazing is automatically controlled to modulate the amount of solar gain into the space in multiple steps. Fenestration with dynamic glazing is considered separately from other fenestration and area-weighted averaging with fenestration that does not use dynamic glazing is not permitted. Dynamic glazing is not required to be automatically controlled or comply with minimum SHGC ratio when both the lower and higher labeled SHGC already comply with the requirements of Table 703.2.5.1.	

	703.2.5.2 The NFRC-certified (or equivalent) U-factor and SHGC of windows, exterior doors, skylights, and tubular daylighting devices (TDDs) are in accordance with Table 703.2.5.2(a), (b), or (c). Decorative fenestration elements with a combined total maximum area of 15 square feet (1.39 m2) or 10 percent of the total glazing area, whichever is less, are not required to comply with this practice.	**Per Table 703.2.5.2(a) or Table 703.2.5.2(b) or Table 703.2.5.2(c)**
	~~**703.2.5.2.1 Dynamic glazing.** Dynamic glazing is permitted to satisfy the SHGC requirements of Tables 703.2.5.2(a), 703.2.5.2(b), and 703.2.5.2(c) provided the ratio of the higher to lower labeled SHGC is greater than or equal to 2.4, and the dynamic glazing is automatically controlled to modulate the amount of solar gain into the space in multiple steps. Fenestration with dynamic glazing is considered separately from other fenestration, and area-weighted averaging with fenestration that does not use dynamic glazing is not permitted. Dynamic glazing is not required to be automatically controlled or comply with minimum SHGC ratio when both the lower and higher labeled SHGC already comply with the requirements of Tables 703.2.5.2(a), 703.2.5.2(b), and 703.2.5.2(c).~~	
	703.2.5.2(a) and (b) and (c) [No changes to tables]	
	703.2.5.2.1 Dynamic glazing. Dynamic glazing is permitted to satisfy the SHGC requirements of Tables 703.2.5.2(a), 703.2.5.2(b), and 703.2.5.2(c) provided the ratio of the higher to lower labeled SHGC is greater than or equal to 2.4, and the dynamic glazing is automatically controlled to modulate the amount of solar gain into the space in multiple steps. Fenestration with dynamic glazing is considered separately from other fenestration, and area-weighted averaging with fenestration that does not use dynamic glazing is not permitted. Dynamic glazing is not required to be automatically controlled or comply with minimum SHGC ratio when both the lower and higher labeled SHGC already comply with the requirements of Tables 703.2.5.2(a), 703.2.5.2(b), and 703.2.5.2(c).	

Reason:	This proposal is purely editorial, but critical for proper application of the fenestration requirements of ICC-700. As Section 703.2.5.1 is currently presented in the published ICC-700, it is confusing, and we are concerned that code users may misinterpret the requirements. Likewise, Section 703.2.5.2 and its accompanying tables are similarly formatted and should also be fixed to better match the intent of the sections. Section 703.2.5.1 is the charging section that implements mandatory requirements for fenestration in the prescriptive path. These requirements are pulled directly from the 2015 IECC prescriptive table, which is reproduced in part as Table 703.2.5.1. An exception that applies only to dynamic glazing was added in the 2015 Edition, but it is just that – an exception to the table requirements. However, because of a page break and text formatting, Table 703.2.5.1 (mandatory fenestration requirements) appears to be a subsection of the dynamic glazing exception (Section 703.2.5.1.1). In addition, the designation of “mandatory” appears on page 58 with the charging language, but does not appear on page 59 alongside the fenestration requirements. It should be clearer to the user that both the charging language and table are mandatory for the prescriptive path. This proposal presents the fenestration table as intended: Table 703.2.5.1 should directly follow the charging language of Section 703.2.5.1, and it should be clearly noted as “mandatory.” This section and table should be followed by the exception dealing with dynamic glazing. We ask Staff to make this very clear through formatting and numbering. Similarly, we recommend moving Tables 703.2.5.2(a) through (c) to directly follow the charging language, Section 703.2.5.2. The dynamic glazing exception to the tables should be placed at the end of the tables so that the user is not confused about the application of these options.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6401**	**703.2.5.1 Fenestration Specifications**
Submitter:	Eric Lacey, RECA	
Requested Action:	Revise as follows	
Proposed Change:	**Table 703.2.5.1**	

	Fenestration Specifications **Climate Zone** / **U-factor** / **SHGC** **Windows and Exterior Doors (maximum certified ratings)** **1** .50 .25 **2** .40 .25 **3** ~~.35~~ **0.32** .25 **4** ~~.35~~ **0.32** .40 **5 to 8** ~~.32~~ **0.30*** Any **Skylights and TDDs (maximum certified ratings)** **1** .75 .30 **2** .65 .30 **3** .55 .30 **4** .55 .40 **5 to 8** .55 Any *** Exception**: A maximum U-factor of 0.32 shall apply in climate zones 5 – 8 to vertical fenestration products installed in buildings located: (i) above 4000 feet in elevation above sea level or (ii) in windborne debris regions where protection of openings is required under IRC section R301.2.1.2.
Reason:	This proposal does two things. First, it incorporates the improvements to fenestration U-factors in climate zones 3-8 approved for the 2018 IECC. Second, it adopts a limited exception to these U-factors for climate zones 5-8 for fenestration products installed in buildings located in high-altitude areas or windborne debris regions, and permits fenestration in those locations to comply with the current U-factor requirement for the 2015 ICC-700 (0.32). To be clear, we support improving fenestration U-factors in the 2018 ICC-700 consistent with improvements in the 2018 IECC, with or without the limited exception that we propose. The lower 2018 U-factors will bring about a significant improvement in comfort and energy performance in buildings from climate zones 3-8. This improvement was widely supported in the process that established the 2018 IECC by homebuilders, energy efficiency advocates, and the U.S. DOE. As noted in the supporting documents for several of these proposals, the vast majority of residential fenestration available in these climate zones meets or exceeds these efficiency levels, and U.S. DOE has found these improved U-factors to be clearly cost-effective. We also believe, however, that there are certain efficiency disadvantages for fenestration installed in high-altitude or wind-borne debris regions. In high-altitude areas, a breather tube is often installed in the insulating unit, which eliminates the use of argon fill and slightly increases the overall U-factor. In wind-borne debris regions, the use of laminated glass can reduce the gap width in an insulating unit, again resulting in a slight U-factor increase. In climate zones 5-8 (where the updated U-factor requirement would be 0.30), for fenestration installed in high-altitude regions (over 4,000 feet) or where fenestration is required to be impact-resistant, we recommend an exception that would continue to allow a 0.32 U-factor, which is the current requirement in the 2015 IECC and the 2015 ICC-700 for these climate zones. We note that this exception, which was contained in Proposal RE19-16 for the 2018 IECC, had more than 2/3 support among Governmental Member Voting Representatives at the Public Comment Hearing for the 2018 IECC, but it narrowly missed the required 2/3 majority in the online CDPAccess voting. Regardless, we believe this exception will be welcomed by builders and developers in both coastal and high-altitude regions, and it should be a part of ICC-700.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6402**	**703.2.5.2 Enhanced Fenestration Specifications**
Submitter:	Eric Lacey, RECA	
Requested Action:	Revise as follows	
Proposed Change:	**Table 703.2.5.2(a)** **Enhanced Fenestration Specifications** Climate Zones / U-Factor Windows & Exterior Doors / SHGC Windows & Exterior Doors / U-factor Skylights & TDDs / SHGC Skylights & TDDs / POINTS	

1	0.40	0.25	0.60	0.28	1
2	0.40	0.25	0.60	0.28	1
3	0.30	0.25	0.53	0.28	2
4	0.30	0.40	0.53	0.35	3
5	0.27[a]	Any	0.50	Any	3
6	0.27[a]	Any	0.50	Any	4
7	0.27[a]	Any	0.50	Any	4
8	0.27[a]	Any	0.50	Any	4

Exception: For Sun-tempered designs meeting the requirements of Section 703.7.1, the SHGC is permitted to be
0.40 or higher on south facing glass.
~~a. An equivalent energy performance is permitted based on fenestration meeting the requirements of Section B.~~
~~Equivalent Energy Performance in ENERGY STAR Product Specification Residential Windows, Doors, and~~
~~Skylights, Eligibility Criteria Version 6.0.~~

Reason:	This proposal is intended to remove a high SHGC trade-off (footnote a) from this prescriptive option as unnecessary and potentially inefficient in this context. This type of trade-off is not permitted by the IECC and has been rejected many times. Whether high SHGC fenestration can be beneficial in some northern climates is very dependent on window orientation, overhangs and other factors. Typically, high SHGC is problematic particularly on eastern and western orientations, where it causes problems with comfort, cooling system design and other issues, but it may be beneficial on southern orientations, particularly with overhangs. This fact is already recognized in the sun-tempered design section of ICC-700 (Section 703.7.1), which establishes a specific compliance option for this type of design tailored to these considerations. By contrast, the trade-off in footnote a allows a less efficient U-factor without any regard to these issues. Section 703.7.1 is the appropriate approach to this issue. A continued exception (in footnote a) that does not reflect these important considerations is a bad idea. The exception trades a lower U-factor (which guarantees energy savings) for a higher SHGC (which may or may not produce savings, or could even raise costs), which illustrates why it has been consistently rejected for the IECC. The current SHGC exception is particularly problematic now that the IECC prescriptive U-factor requirements for 2018 are already set at 0.30 for climate zones 5-8. Table 703.2.5.2(a) should represent at least a small step in U-factor above the prescriptive requirements that will apply in states adopting the 2018 IECC.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6067**	**703.2.5.2 Enhanced Fenestration Specifications**
Submitter:	Thomas Culp, Aluminum Extruders Council	
Requested Action:	Add new as follows	
Proposed Change:	Also see comment ID 6066 on Section 703.2.5.1. Need to add parallel fenestration criteria for multifamily buildings four stories and higher based on the correct commercial IECC baseline. Alternately, it could simply reference the 2018 IgCC as follows (proper section number to be added following development of 2018 IgCC): **703.2.5.2** The NFRC-certified (or equivalent) U-factor and SHGC of windows, exterior doors, skylights, and tubular daylighting devices (TDDs) are in accordance with Table 703.2.5.2(a), (b), or (c). Decorative fenestration elements with a combined total maximum area of 15 square feet (1.39 m^2) or 10 percent of the total glazing area, whichever is less, are not required to comply with this practice. <u>Fenestration in multifamily buildings four or more stories in height shall be considered incompliance with Table 703.2.5.2(a) if the U-factor and SHGC are in accordance with the prescriptive fenestration requirements of the *International Green Construction Code*.</u>	
Reason:	Also see comment #6066 on Section 703.2.5.1. While sections 703.2.6.1 and 703.2.6.2 are very appropriate for low-rise residential, they are still incorrect for high-rise residential. In fact, by referring to U-factors that originate from the residential chapter of the IECC and the Energy Star program for	

	Windows, they are already inconsistent with Sections 703.1.1.1, 703.1.1.2, and 703.2.1 which properly refer to 2015 IECC able C402.4 as the baseline for windows in buildings that fall under the commercial IECC, including multifamily four stories and above. (Note: The Energy Star program for Windows is applicable only to windows in residential buildings three stories or less in height, and specifically excludes windows intended to be installed in buildings four stories or higher – see attached “Energy Star Product Specification Residential Windows, Doors, and Skylights, Eligibility Criteria Version 6.0”, sections 2A, 2B, and 1M.) Corrections have been made to other sections to accommodate high-rise multifamily (air leakage, radiant barriers, HVAC efficiency, water heating), but not here yet. The main criteria in sections 703.2.5.1 and enhanced criteria in 703.2.5.2 will presumably be reviewed in accordance with changes to the 2018 IECC. As such, this would be an appropriate time to establish new fenestration criteria for buildings four stories and higher based on the correct baseline from the commercial IECC, similar to how requirements for mid and high-rise multifamily buildings were addressed in other sections last cycle. I will gladly assist in this process. Not only will this improve technical consistency and usability of the NGBS for high-rise residential (think 10, 20, 30 stories, not just 4), but it will also make it more attractive for adoption into standards such as ASHRAE 189.1.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6161**	**703.3.3 Heat pump heating efficiency**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Delete without substitution	
Proposed Change:	~~a. Equipment designed to operate in cold climates is recommended to minimize use of resistance heat when installing a heat pump in Zones 6-8.~~	
Reason:	This footnote is not needed, as the minimum code requires heat pump supplemental heating control in all climate zones, not just 6-8. See IECC Section R403.1.2 "Heat Pump supplementary heat (Mandatory)". Also, the language discusses the installation of the heat pump, not the operation. The installation may be for one day, while the operation is going to be for 15+ years.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6168**	**703.3.3 Heat pump heating efficiency**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	Table 703.3.3(3) Gas Engine-Driven Heat Pump Heating Efficiency Climate Zone 1 2 3 4 5 6-8 > 1.3 COP at 47F ~~2~~ 0 ~~7~~ 1 ~~11~~ 1 ~~14~~ 2 ~~16~~ 2 ~~18~~ 2	
Reason:	Gas engine-driven heat pumps have much lower efficiency than electric heat pumps at 47 F (2-3 times less efficient), yet are given more points. They are even given points in climate zone 1 when electric products get no points. This revision equalizes the points, so that the standard does not promote the use of very low efficiency products. In addition, field performance shows even lower efficiency. See http://www.sciencedirect.com/science/article/pii/S0140700716300603. Here is a quote from the abstract: "The average COP unit of these systems varied from 0.15 to 0.85 during field operation. The gas engines were found to operate at significantly lower loads than their design capacity, and therefore, produced	

	overall lower efficiencies." In addition, research by ORNL shows the drop-off in efficiency at lower temperatures. See Table 3 in the report that can be found at http://info.ornl.gov/sites/publications/files/Pub60271.pdf
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6065**	**703.3.6 Ground source heat pump installation**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	Table 703.3.6 Ground Source Heat Pump Climate Zone 5-~~6~~8	
Reason:	Ground Source Heat Pump have been installed and used successfully in Alaska and Sweden and should receive credit in a green building code. It is estimated that 20% of homes in Sweden use ground source heat pumps. See the following links for information: http://www.adn.com/energy/article/habitat-humanitys-geothermal-home-paying/2013/07/22/ http://www.cchrc.org/sites/default/files/docs/GSHP_YearTwoUpdate_0.pdf https://pangea.stanford.edu/ERE/db/WGC/papers/WGC/2015/01021.pdf	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6064**	**703.3.6 Ground source heat pump installation**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	Table 703.3.6 Ground Source Heat Pump Efficiency ≥ 16.0 EER, ≥ 3.6 COP ≥ 24.0 EER, ≥ 4.3 COP ≥ 28.0 EER, ≥ 4.8 COP	
Reason:	This will make the requirements for the minimum efficiency consistent with other tables (such as 703.3.4 and 703.3.5, which include the > symbol). Please note that the symbols to be used are "greater than or equal to", not "greater than".	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6468	703.4.4 Duct Leakage
Submitter:	Greg Johnson, Outdoor Power Equipment Institute	
Requested Action:	Revise as follows	
Proposed Change:	**703.4.4 <u>Aboveground</u> Duct Leakage.** The entire central HVAC duct system, including air handlers and register boots, is tested by a third party for total leakage at a pressure differential of 0.1 inches w.g. (25 Pa) and maximum air leakage is equal to or less than 6 percent of the system design flow rate or 4 cubic feet per minute per 100 square feet of conditioned floor area. **<u>703.4.5 Buried Duct Leakage</u>**. <u>Prior to backfill the entire central HVAC buried duct system and register boots, is tested by a third party for total leakage at a pressure differential of 2 inches w.g. (500 Pa) and maximum air leakage is equal to or less than 0.1 percent of the system design flow rate or 0.5 cubic feet per minute per 100 square feet of conditioned floor area.</u> **<u>6</u>**	
Reason:	Buried ducts are capable of much better performance than above grade ducts, particularly with regard to leakage. It is also important for buried ducts to be water tight. In addition to there being lower temperature differentials between the interior and exterior sides of buried ducts versus above ground ducts, buried duct systems with smooth interiors provide less friction in air handling which reduces fan power requirements. Providing a superior ducting system merits a high point award.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6166	703.5.1 Water heater Energy Factor (Water heating system)
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	All tables and point values need to be revised to account for the different standards for storage water heaters (<u>≤</u> 55 gallons or above 55 gallons) as well as the Uniform Energy Factors which are based on 4 draw patterns.	
Reason:	Below is the table of Uniform Energy Factors from the Code of Federal Regulations: (d) Water heaters. The uniform energy factor of water heaters shall not be less than the following: Product class Rated storage volume and input rating (if applicable) Draw pattern Uniform energy factor Gas-fired Storage Water Heater =20 gal and =55 gal Very Small 0.3456 - (0.0020 × Vr) Low 0.5982 - (0.0019 × Vr) Medium 0.6483 - (0.0017 × Vr) High 0.6920 - (0.0013 × Vr) >55 gal and =100 gal Very Small 0.6470 - (0.0006 × Vr) Low 0.7689 - (0.0005 × Vr) Medium 0.7897 - (0.0004 × Vr) High 0.8072 - (0.0003 × Vr) Oil-fired Storage Water Heater =50 gal Very Small 0.2509 - (0.0012 × Vr) Low 0.5330 - (0.0016 × Vr) Medium 0.6078 - (0.0016 × Vr) High 0.6815 - (0.0014 × Vr) Electric Storage Water Heaters =20 gal and =55 gal Very Small 0.8808 - (0.0008 × Vr) Low 0.9254 - (0.0003 × Vr) Medium 0.9307 - (0.0002 × Vr) High 0.9349 - (0.0001 × Vr) >55 gal and =120 gal Very Small 1.9236 - (0.0011 × Vr) Low 2.0440 - (0.0011 × Vr) Medium 2.1171 - (0.0011 × Vr) High 2.2418 - (0.0011 × Vr) Tabletop Water Heater =20 gal and =120 gal Very Small 0.6323 - (0.0058 × Vr) Low 0.9188 - (0.0031 × Vr) Medium 0.9577 - (0.0023 × Vr) High 0.9884 - (0.0016 × Vr) Instantaneous Gas-fired Water Heater 50,000 Btu/h Very Small Low 0.80 0.81 Medium 0.81 High 0.81 Instantaneous Electric Water Heater 75 gal Very Small 1.0136 - (0.0028 × Vr) Low 0.9984 - (0.0014 × Vr) Medium 0.9853 - (0.0010 × Vr) High 0.9720 - (0.0007 × Vr) *Vr is the Rated Storage Volume (in gallons), as determined pursuant to 10 CFR 429.17.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		

TG Vote:	

Proposal ID TBD	**LogID 6167**	**703.5.5 Solar water heater**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	The table and point values need to be revised to account for the different standards for storage water heaters (≤ 55 gallons or above 55 gallons) as well as the Uniform Energy Factors which are based on 4 draw patterns.	
Reason:	Below are the Uniform Energy Factors for residential water heaters from the US Code of Federal Regulations at http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=ecde6ad3165e6b6f8e74dade3b102976&mc=true&n=pt10.3.430&r=PART&ty=HTML#se10.3.430_132 (d) Water heaters. The uniform energy factor of water heaters shall not be less than the following: Product class Rated storage volume and input rating (if applicable) Draw pattern Uniform energy factor Gas-fired Storage Water Heater =20 gal and =55 gal Very Small 0.3456 - (0.0020 × Vr) Low 0.5982 - (0.0019 × Vr) Medium 0.6483 - (0.0017 × Vr) High 0.6920 - (0.0013 × Vr) >55 gal and =100 gal Very Small 0.6470 - (0.0006 × Vr) Low 0.7689 - (0.0005 × Vr) Medium 0.7897 - (0.0004 × Vr) High 0.8072 - (0.0003 × Vr) Oil-fired Storage Water Heater =50 gal Very Small 0.2509 - (0.0012 × Vr) Low 0.5330 - (0.0016 × Vr) Medium 0.6078 - (0.0016 × Vr) High 0.6815 - (0.0014 × Vr) Electric Storage Water Heaters =20 gal and =55 gal Very Small 0.8808 - (0.0008 × Vr) Low 0.9254 - (0.0003 × Vr) Medium 0.9307 - (0.0002 × Vr) High 0.9349 - (0.0001 × Vr) >55 gal and =120 gal Very Small 1.9236 - (0.0011 × Vr) Low 2.0440 - (0.0011 × Vr) Medium 2.1171 - (0.0011 × Vr) High 2.2418 - (0.0011 × Vr) Tabletop Water Heater =20 gal and =120 gal Very Small 0.6323 - (0.0058 × Vr) Low 0.9188 - (0.0031 × Vr) Medium 0.9577 - (0.0023 × Vr) High 0.9884 - (0.0016 × Vr) Instantaneous Gas-fired Water Heater 50,000 Btu/h Very Small Low 0.80 0.81 Medium 0.81 High 0.81 Instantaneous Electric Water Heater 75 gal Very Small 1.0136 - (0.0028 × Vr) Low 0.9984 - (0.0014 × Vr) Medium 0.9853 - (0.0010 × Vr) High 0.9720 - (0.0007 × Vr) *Vr is the Rated Storage Volume (in gallons), as determined pursuant to 10 CFR 429.17.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6447**	**703.5.5 Solar water heater**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Revise as follows	
Proposed Change:	703.5.5 Solar water heater. SRCC (Solar Rating &Certification Corporation) OG 300 rated, or equivalent, solar domestic waterheating system is installed. Solar Energy Factor (SEF) as defined by SRCC is inaccordance with Table ~~703.4.5~~ 703.5.5.	
Reason:	Correct the reference to the table. It is editorial. Change should be only under the name of Howard C. Wiig, State of Hawaii, representing self	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6169**	**703.6.1 Hard-wired lighting (Lighting and appliances)**
Submitter:	Steven Rosenstock, Edison Electric Institute	

Requested Action:	Revise as follows
Proposed Change:	**(2)** A minimum of 80 percent of the exterior lighting wattage has a minimum efficiency ~~40~~ 45 lumens per watt or is solar-powered.
Reason:	Lighting technologies continue to advance in terms of efficacy, and certain interior lighting has to have an efficacy of 50 or 60 lumens per watt. In addition, at this level, there is a choice of multiple technologies that can be used (LED, compact fluorescent, or metal halide).
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6216**	**703.6.1 Hard-wired lighting (Lighting and appliances**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	**703.6.1 Hard-wired lighting.** Hard-wired lighting is in accordance with one of the following: **(Points shall not be awarded if at least one gas lighting fixture is used)**	
Reason:	In many codes, gas lighting is exempt from any requirements and is extremely inefficient. A typical gas lighting fixture uses 2,500 Btu's (733 Watts) to put out the same amount of light as a 43-Watt halogen lamp, a 13-Watt CFL, or a 9-Watt LED lamp. In other words, a gas lamp will use 81 times more energy than an LED lamp. In addition, many gas lamps have continuously burning pilot lights, so they use 2,500 Btu's even when no light is produced. As a result, one gas lamp rated at 2,500 Btu/hour with a continuously burning pilot light will use more energy than a gas water heater.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6403**	**703.7.1 Sun-tempered design (Passive solar design)**
Submitter:	Eric Lacey, RECA	
Requested Action:	Revise as follows	
Proposed Change:	**703.7.1 Sun-tempered design.** Building orientation, sizing of glazing, and design of overhangs are in accordance with all of the following: **(1)** The long side (or one side if of equal length) of the building faces within 20 degrees of true south. **(2)** Vertical glazing area is between 5 and 7 percent of the gross conditioned floor area on the south face [also see Section 703.7.1(8)] and glazing U-factors meet Table 703.2.5.2(a). **(3)** Vertical glazing area is less than 2 percent of the gross conditioned floor area on the west face, and glazing meets Table 703.2.5.2(a) ~~is ENERGY STAR compliant or equivalent~~. **(4)** Vertical glazing area is less than 4 percent of the gross conditioned floor area on the east face, and glazing meets Table 703.2.5.2(a) ~~is ENERGY STAR compliant or equivalent~~. **(5)** Vertical glazing area is less than 8 percent of the gross conditioned floor area on the north face, and glazing meets Table 703.2.5.2(a) ~~is ENERGY STAR compliant or equivalent~~. **(6)** Skylights, where installed, are in accordance with the following: **(a)** shades and insulated wells are used, and all glazing meets Table 703.2.5.2(a)	

	(b) horizontal skylights are less than 0.5 percent of finished ceiling area **(c)** sloped skylights on slopes facing within 45 degrees of true south, east, or west are less than 1.5 percent of the finished ceiling area **(7)** Overhangs or adjustable canopies or awnings or trellises provide shading on south-facing glass for the appropriate climate zone in accordance with Table 703.6.1(7): **Table 703.7.1(7)** **South-Facing Window Overhang Depth** **[No Change to Table]** **(8)** The south face windows have a SHGC of 0.40 or higher. **(9)** Return air or transfer grilles/ducts are in accordance with Section 705.4.
Reason:	This proposal corrects what appears to be an oversight in the current ICC-700 language as it relates to fenestration requirements in the sun-tempered design option of Section 703.7.1. An exception to ICC-700's low-SHGC requirement was carved out for south-facing glazing in a passive-solar designed home, but the U-factor requirement was inadvertently omitted. Low U-factor windows will not interfere with passive solar design – in fact, a passive solar home should have an extremely efficient thermal envelope in order to work properly, and that would include low U-factor windows. We do not believe it was the intent of ICC-700 to allow unrestricted U-factors on south-facing glazing, since that would more than reverse all of the benefits of a passive-solar designed home. This proposal simply applies the same U-factor requirement that applies to all other fenestration used in the passive solar home, while preserving the SHGC exception in item #8. In addition, for glazing under this option, we propose to substitute compliance with Table 703.2.5.2(a) for "Energy Star compliant or equivalent." Since the values in Table 703.2.5.2(a) are similar to current Energy Star requirements, we believe that it would be better for ICC 700 to reference an internal table rather than external Energy Star requirements, which may change in the future.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6448**	**703.7.3 Passive cooling design**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Revise as follows	
Proposed Change:	(c) covered porches <u>and lanais</u>	
Reason:	As evinced by the attached article, lanais are incorporated into Florida's (and perhaps beyond) architecture. The word "lanai" evokes a more comfortable and desirable setting than "covered porch" and encourages spaces designed for prolonged, leisurely outdoor living. Lanais may be equipped with lighting and ceiling fans to accommodate gatherings while using very little energy. This change should be under only the name of "Howard C. Wiig, State of Hawaii, representing self"	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 1505**	**703.7.3 Passive cooling design**
Submitter:	Roger L. LeBrun, VELUX America Inc.	

Requested Action:	Revise as follows
Proposed Change:	703.7.3(3) Windows and/or venting skylights are located to facilitate cross and stack effect ventilation.
Reason:	The Standard should mention stack effect ventilation. It is more efficient than a whole house fan, particularly in two story dwellings.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 1506**	**703.7.4 Passive solar heating design**
Submitter:	Roger L. LeBrun, VELUX America Inc.	
Requested Action:	Revise as follows	
Proposed Change:	Additional glazing, no greater than 12 percent, is permitted on the south wall. This additional glazing is in accordance with the requirements of Section 703.7.1. For every square foot of roof glazing on the south-facing roof slope, three square feet of allowed wall glazing is omitted.	
Reason:	Skylights are more efficient solar heaters than windows.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6290**	**704.2 Point calculation**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**NOTE:** Dwellings must use Confirmed Ratings uploaded to the RESNET National Registry, or equivalent as approved by the Adopting Entity, for calculating points under this Section.	
Reason:	Requiring Confirmed Ratings ensures that homes following the HERS Path actually go through the full RESNET Quality Assurance Process. ENERGY STAR does not explicitly require confirmed ratings and thus some Raters exploit this loophole to submit unconfirmed, unsubstantiated energy models with no oversight.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6217**	**705.2.1 Lighting controls**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	**705.2.1 Lighting controls (Points shall not be awarded if at least one gas lighting fixture is installed)**	

Reason:	In many codes, gas lighting is exempt from any requirements and is extremely inefficient. A typical gas lighting fixture uses 2,500 Btu's (733 Watts) to put out the same amount of light as a 43-Watt halogen lamp, a 13-Watt CFL, or a 9-Watt LED lamp. In other words, a gas lamp will use 81 times more energy than an LED lamp. In addition, many gas lamps have continuously burning pilot lights, so they use 2,500 Btu's even when no light is produced. As a result, one gas lamp rated at 2,500 Btu/hour with a continuously burning pilot light will use more energy than a gas water heater.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6295**	**705.5.1 Installer Certification (HVAC design and installation)**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Revise as follows
Proposed Change:	**705.5.1** Meet one of the following: (1) HVAC contractor ~~and service technician are~~ is certified by a nationally or regionally recognized program (e.g., ~~North American Technician Excellence, Inc. (NATE),~~ Air Conditioning Contractors of Americas Quality Assured Program (ACCA/QA), EPA-recognized HVAC Quality Installation Training and Oversight Organization (H-QUITO), Building Performance Institute (BPI),Radiant Panel Association, or a manufacturer's training program). - 1 Point (2) HVAC service technician is certified by a nationally or regionally recognized program (e.g., North American Technician Excellence, Inc. (NATE), Air Conditioning Contractors of Americas Quality Assured Program (ACCA/QA), Building Performance Institute (BPI), Radiant Panel Association, or a manufacturer's training program). - 2 Points
Reason:	This aligns with ENERGY STAR for Homes program with the certification of HVAC contractors while preserving and encouraging the direct certification of the installation technician. In practice the certification of the contractor is difficult enough with the certification of the installation technician being rare enough to make this credit its current form next to impossible to legitimately claim.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6251**	**705.6.2.1 Air leakage validation of building or dwelling units**

Submitter:	Carl Seville, SK Collaborative
Requested Action:	Add new as follows
Proposed Change:	Provide alternate envelope leakage measurement of ELR (CFM50 per SF of building envelope) in addition to ACH50.
Reason:	Small home and multifamily units are penalized in regards to ACH50 measurements, which favor larger building volumes. The ELR may vary based on unit/house size per the attached chart.
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	

TG Vote:	

Proposal ID TBD	**LogID 6333**	**705.6.2.2 HVAC airflow testing**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**705.6.2.2 HVAC airflow testing.** Balanced HVAC airflows are demonstrated by flow hood or other acceptable flow measurement tool by a third party. Test results are in accordance with ~~both of~~ the following:	~~5~~
	Measured flow at each supply and return register meets or exceeds the requirements in ACCA 5 QI-2010, Section 5.2.	**5**
	Total airflow meets or exceeds the requirements in ACCA 5 QI-2010, Section 5.2.	**3**
Reason:	HVAC Airflow can be measured multiple ways and measuring Total airflow doesn't necessarily require measuring airflow at individual registers. California Title 24, arguable the most progressive energy standard being applied today on a mass scale recognizes the value of just doing 3rd party Total Airflow measurement. RESNET and the EPA are also working to recognize the value of this as part of the HVAC Grade 1 initiative. NGBS should similarly recognize its stand-alone value instead of tying to the more problematic airflow verification of individual registers.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD (multifamily)	**LogID 6306**	**705.6.4.2 Portable hot water demand re-circulation system**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	Potable hot water demand re-circulation system is installed in a unit within a multifamily building in place of a standard circulation pump and control.	
Reason:	Specify that system needs to be present within each unit.	
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6456**	**705.7 Submetering system**
Submitter:	Michael Cudahy, PPFA	
Requested Action:	Revise as follows	

Proposed Change:	705.7 Submetering system. In multifamily buildings, and advanced electric ~~and~~ or fossil fuel submetering system is installed to monitor electricity ~~and~~ or fossil fuel consumption for each unit. The device provides consumption information on a minimum monthly ~~or~~ to ~~near~~ real time basis. The information is accessible or available to the occupants at a minimum on a monthly basis.
Reason:	Some homes are electric only and have no fossil fuel use. Data could be accessed directly by users. The minimum data rate would be monthly, so I suppose any other rate up to real time is acceptable.
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6284** **706.1 Energy consumption control (Innovative Practices)**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	**706.1 Energy consumption control.** A whole-building or whole-dwelling unit device or system is installed that controls or monitors energy consumption. — **3 Max** **(1)** programmable communicating thermostat with the capability to be controlled remotely — **1** **(2)** energy-monitoring device or system — **1** **(3)** energy management control system — **3** **(4)** programmable thermostat with control capability based on occupant presence or usage pattern — **1** **(5)** lighting control system — **1** **(6)** ENERGY STAR qualified thermostat — **1**
Reason:	ENERGY STAR has started certifying thermostats again after a several year hiatus as on January 1, 2017. The Standard should recognize this ENERGY STAR product similar to all of the other it already references.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 1507** **706.2 Renewable energy service plan**

Submitter:	Todd Jones, Center for Resource Solutions
Requested Action:	Revise as follows
Proposed Change:	(1) Builder selects a renewable energy service plan provided by the local electrical utility for interim (temporary) electric service, or purchases renewable energy certificates (RECs) to cover electricity used. The builder's local administrative office has renewable energy service or has

	otherwise been paired with RECs. Green-ecertified (or equivalent) is required [or recommended] for renewable electricity purchases.
Reason:	(1) Depending on the location of the building site, the local electric utility may not offer a renewable energy service product/option/plan, or may not offer one for interim (temporary) electric service. Therefore, we suggest allowing the builder to procure renewable energy certificates (RECs), which are available everywhere, to meet this requirement. We also recommend that Green-e certification be required, or at least recommended, to ensure that use of renewable electricity has been properly verified. Utility green power programs/products, competitive electricity products, and stand-alone REC products can all be Green-e certified.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6481**	**706.3 Smart appliances and systems**
Submitter:	Michael Cudahy, PPFA	
Requested Action:	Add new as follows	
Proposed Change:	Smart appliances and systems: add definition/footnote.	
Reason:	This section could use a definition in chapter two, or a footnote, to describe what counts as a Smart appliance or system. Currently, it seems wide open. Is it a Smart appliance if it has internet or blue tooth connectivity only? If it contains programs that help conserve energy or water based on loads? Occupancy sensors?	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6254**	**706.5 On-site renewable energy system**
Submitter:	Todd Jones, Center for Resource Solutions	
Requested Action:	Revise as follows	
Proposed Change:	An on-site renewable energy system(s) is installed on the property, and the renewable energy certificates (RECs) are retained and retired on-site for the building's own consumption.	
Reason:	If the intent of this requirement is that buildings use/consume the renewable electricity from an onsite system (as opposed to installing an onsite system and generating green power for other grid consumers, or which the utility could potentially use to meet a state requirement), then the building must retain and retire the renewable energy certificates (RECs) associated with the electricity generated onsite. The previous response to this comment that this change "may not be available in all areas and would add significant record keeping/administrative burden especially for single family construction" is not accurate. RECs are always required for renewable energy claims in the U.S. and are produced in association with all renewable energy generation in all states. Even where a renewable energy system is not registered in an electronic tracking system, the ownership of RECs or environmental attributes can and should be specified in a contract. Retention of the RECs and environmental attributes at the building adds no significant administrative burden or record keeping. It merely needs to be specified in the ownership, lease, or PPA agreement.	
TG Recommendation (AS or AM or D):		

Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6153**	**706.8 Electrical vehicle charging station**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	**706.8 Electrical vehicle charging station.** A Level 2 (208/240V-80 amp) or Level 3 electric vehicle charging station....	
Reason:	This proposal makes an editorial change and includes the specification for Level 2 charging station based on SAE information. In other parts of NGBS, it says 40 amps for Level 2 charging stations. For some battery electric vehicles, a faster charging rate is possible with Level 2 system. The following link has more information: http://www.sae.org/smartgrid/chargingprimer.pdf	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6471**	**706.8 Electrical vehicle charging station**
Submitter:	Chuck Foster, Charles R. Foster Associates	
Requested Action:	Revise as follows	
Proposed Change:	2 3 points	
Reason:	Electric vehicles are well recognized as an energy efficient and environmentally friendly means of transportation. An impediment to even greater use for EV's, however, is insufficient charging infrastructure. This proposal attempts to incent builders to install more charging stations.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6534**	**706.8 Electrical vehicle charging station**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Revise as follows	
Proposed Change:	706.8 Electrical vehicle charging station. A Level 2 (208/240V 40 amp) or Level 3 electric vehicle charging station is installed on the building site. The charging station shall be in accordance with the NEC (National Electrical Code) Article 625. (Note: Charging station shall not be included in the building energy consumption.)	
Reason:	This more completely specifies an EV charging station. The NEC (National Electric Code) has specifications for connections to EV chargers in Article 625.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		

TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6554**	**Other for Chapter 7 (include section number and title below)**
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Add new as follows	
Proposed Change:	706 HEALTH AND WELL BEING (...prior to INNOVATIVE PRACTICES)	
Reason:	To include a new sub-section within each chapter of the Protocol, as relevant, immediately preceding (or after) Innovative Practices section, to address health and well being issues that are interconnected to the overall Green certification, but independent/optional, not required. This opens the program to reach lifestyle and living for overall occupant health.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6539**	**Other for Chapter 7 (include section number and title below)**
Submitter:	Chuck Foster, Charles R. Foster Associates	
Requested Action:	Add new as follows	
Proposed Change:	New section 706.10 as follows: 706.10 Battery storage. A battery storage system is installed with controls to allow charging and discharging in accordance with signals provided by the local serving electric utility. 1 point	
Reason:	Energy storage is an important and necessary component of the overall energy infrastructure as renewable energy supplies a larger and larger share of consumer needs. This proposal provides a small incentive to reward those who invest in that infrastructure.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6515**	**Other for Chapter 7 (include section number and title below)**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Add new as follows	
Proposed Change:	**706.X Ducts in conditioned space.** In climate zones1-4, heating system and cooling system ducts are located in conditioned space. Points= TBD	
Reason:	In cooling dominated climate zones, where basements or crawl spaces are rarely constructed, moving or placing heating and cooling system ducts within (insulated) conditioned space improves the efficiency of the heating / cooling system.	
TG Recommendation (AS or AM or D):		

Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6516**	**Other for Chapter 7 (include section number and title below)**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Add new as follows	
Proposed Change:	**706.X Ducts in conditioned space.** Heating system and cooling system ducts are located entirely in conditioned space.	

Table 706.X
Ducts in Conditioned Space

Ducts	Climate Zone							
	1	2	3	4	5	6	7	8
	Points							
Ducts entirely in Conditioned Space	5	4	3	2	2	1	1	1

Reason:	Option 2. In all climate zones, ducts in conditioned space improve the efficiency of the heating and cooling systems. In cooling dominated climate zones, where basements or crawl spaces are rarely constructed, moving or placing heating and cooling system ducts within (insulated) conditioned space improves the efficiency of the heating / cooling system.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6185**	**Other for Chapter 7 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW SECTION **706.10 Solar Ready Design.** (1) PV-ready design. Home shall meet ALL of the following: (i) Location, based on zip code has at least 5 kWh/m2/day average daily solar radiation based on annual solar insolation using PVWatts online tool: http://gisatnrel.nrel.gov/PVWatts_Viewer/index.html AND; (ii) Location does not have significant natural shading (e.g., trees, tall buildings on the south-facing roof, AND; (iii) Home as designed has adequate roof area free from obstruction within +/-45° of true south as noted in the table below. Conditioned Floor Area of the House (sq. ft.) Minimum Roof Area within +/- 45? of True South for PV-Ready Checklist to Apply (ft2) < 2000 110 < 4000 220 < 6000 330 > 6000 440 AND; (iv) The structural design loads for roof dead load and roof live load shall be adequate to support an additional 6 lbs./sq.. ft. for future solar system, AND; (v) Install and label a 4' x 4' plywood panel area for mounting an inverter and balance of system components, AND;	

	(vi) Install a 1" metal conduit for the DC wire run from the designated array location to the designated inverter location (cap and label both ends), AND; (vii) Install a 1" metal conduit from designated inverter location to electrical service panel (cap and label both ends), AND; (viii) Install and label a 70-amp dual pole circuit breaker in the electrical service panel for use by the PV system (label the service panel).. - 5 POINTS (2) Solar water heating ready design. Home shall meet ALL of the following: (i) Location, based on zip code has at least 5 kWh/m2/day average daily solar radiation based on annual solar insolation using PVWatts online tool: http://gisatnrel.nrel.gov/PVWatts Viewer/index.html AND; (ii) Location does not have significant natural shading (e.g., trees, tall buildings on the south facing roof, AND; (iii) Home as designed has adequate roof area free from obstructions within +/-45° of true south as noted in the table below. Conditioned Floor Area of the House (sq. ft.) Minimum Roof Area within +/- 45? of True South for Solar Hot Water-Ready Checklist to Apply (ft2) < 2000 40 < 4000 60 < 6000 80 > 6000 100, AND; (iv) The structural design loads for roof dead load and roof live load shall be adequate to support an additional 6 lbs./sq.. ft. for future solar system, AND; (v) 3' x 3' x 7'area in the utility room adjacent to the existing water heater for a solar hot water tank, AND: (vi) 3' x 2' plywood panel area adjacent to the solar hot water tank for the balance of system components/pumping package, AND: (vii) Install an electrical outlet within 6' of the designated wall area, AND: (viii) Install a solar bypass valve on the cold water feed of the water heater (cap and label both ends), AND: (ix) Install a single 4" chase or 2–2"chases from utility room to the attic space below designated array location (cap and label both ends). - 5 POINTS (where points awarded in Section 706.5, points shall not be awarded in 706.10)
Reason:	Projects that can not afford to install an active on-site renewable energy system should still be able to gain recognition for installing the infrastructure for such a system to be installed in the future. The listed requirements are borrowed from the DOE ZERH guidelines.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6293**	**Other for Chapter 7 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	706.X Alternative Refrigerant. Use of the following in space cooling systems for dwellings. (1) Use alternative refrigerant with a GWP < 1000 (2) Do not use refrigerants	
Reason:	To recognize newer refrigerant technology with better for the environment.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6220**	**Other for Chapter 7 (include section number and title below)**

Submitter:	Steven Rosenstock, Edison Electric Institute
Requested Action:	Add new as follows
Proposed Change:	**706.10 Battery Storage System.** A battery storage system is installed that stores electric energy from an on-site renewable electric generation system or is grid-interactive or can perform both functions.
Reason:	As more electric grids and homes install renewable and variable electric generation systems, there is more need for energy storage. In Hawaii, there are now special electric rates for customers that can store electricity from on-site PV systems. This new section will allow more storage technologies to receive credit in the NGBS. Information on Hawaii rates: https://www.hawaiianelectric.com/clean-energy-hawaii/producing-clean-energy/customer-self-supply-and-grid-supply-programs Information on different battery storage technologies: https://cleantechnica.com/2015/05/07/tesla-powerwall-price-vs-battery-storage-competitor-prices-residential-utility-scale/ https://cleantechnica.com/2015/05/09/tesla-powerwall-powerblocks-per-kwh-lifetime-prices-vs-aquion-energy-eos-energy-imergy/ http://www.solarpowerworldonline.com/2016/05/comparison-residential-solar-batteries/
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6574**	**Other for Chapter 7 (include section number and title below)**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Add new as follows	
Proposed Change:	701.1.5 Energy recipe based compliance. Compliance as specified in Appendix F shall be compliance for the climate zone and level indicated in Appendix F. Appendix F This appendix includes complete descriptions for homes that meet the NGBS for the climate zone and level listed. Mandatory items in Chapter 7 still apply. Climate zone 6, silver AFUE 94 or HSPF 9.5 HSPF or greater SEER 17 or greater water heating EF .95 or greater hot water source is no more than 10 ft from entrance to rooms using hot water tested ACH50 2.5 or greater Insulation levels within 90% of those in the IECC Window U-factor no more than 0.28 On site renewables supply at least 4% of the annual energy	
Reason:	This will be a series of recipes that will will meet the requirements for the zone and level indicated. One example is shown.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6334**	**Other for Chapter 7 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	705.5.3 HVAC Design is verified by 3rd Party as follows: (1) The ENERGY STAR HVAC Design and Rater Design Review Checklists are completed without	

	correction needed. - **5 POINTS** (2) HVAC Installation is inspected and conforms to HVAC design documents and plans. - **5 POINTS**
Reason:	RESNET and the EPA are in the process of developing a ANSI Standard for the design and installation of Grade 1 HVAC systems. The Standard will not complete the ANSI process until 2018. Since the ANSI Standard they are developing will not be approved in time for NGBS 2018 to recognize, we propose recognizing some of the practices it will be proposing.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6199**	**Other for Chapter 7 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW SECTION **Smart Ventilation.** A whole building ventilation systems is installed with automatic smart ventilation controls to limit ventilation during periods of extreme temperature, extreme humidity, and/or during times of peak utility loads and is in accordance with the specifications of Appendix B.	
Reason:	Initial research in this area, funded by the U.S. Department of Energy (U.S. DOE), investigated the proof-of-concept for smart ventilation and estimated typical ventilation energy savings of 40% (Turner and Walker 2012) or about 15% of total heating and cooling load, with savings increasing to more than 50% on average for economizer-equipped homes. Traditional energy modeling software employed by NGBS Verifiers can not account for this energy savings.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6198**	**Other for Chapter 7 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW SECTION **706.11 District Heating and Cooling:** Lot is within a community that has a district heating and/or cooling system.	
Reason:	District cooling and heating can be very efficient as it removes the need for building specific space heating systems, space cooling systems, and/or domestic water heating systems. This energy can be difficult to model effectively using residential software however.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6352	Other for Chapter 7 (include section number and title below)
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	**Section 707** - Add a new section as relevant for Health & Well-being credits.	
Reason:	As sustainability protocols evolve, the natural progression is to include measures that have a positive benefit on occupant health and well-being.	
TG Recommendation (AS or AM or D):	Add new as follows	
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Others Assigned to TG-5

Proposal ID TBD	LogID 6170	202 Definitions
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	**GROUND SOURCE HEAT PUMP.** ~~Where the earth is used as a heat sink in air conditioning or heat source in heating systems. This also applies to systems utilizing subsurface water.~~ A system that uses the earth or subsurface water as a heat sink for air conditioning and as a heat source for heating.	
Reason:	This is a suggested editorial change to clarify and shorten the definition.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6281	303.1 Green buildings
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**Table 303** **Threshold Point Ratings for Green Buildings**	

Green Building Categories			Rating Level Points [a] [b]			
			BRONZE	SILVER	GOLD	EMERALD
1.	Chapter 5	Lot Design, Preparation, and Development	50	64	93	121
2.	Chapter 6	Resource Efficiency	43	59	89	119
3.	Chapter 7	Energy Efficiency	~~30~~33	~~45~~48	60	70
4.	Chapter 8	Water Efficiency	25	39	67	92
5.	Chapter 9	Indoor Environmental Quality	25	42	69	97
6.	Chapter 10	Operation, Maintenance, and Building Owner Education	8	10	11	12
7.		Additional Points from Any Category	50	75	100	100
		Total Points:	231	334	489	611

	(a) In addition to the threshold number of points in each category, all mandatory provisions of each category shall be implemented. (b) For dwelling units greater than 4,000 square feet (372 m^2), the number of points in Category 7 (Additional Points from Any Category) shall be increased in accordance with Section 601.1. The "Total Points" shall be increased by the same number of points.
Reason:	Due to the delay in implementation of NGBS 2015 by HIRL and the slow rate of adoption of the 2015 IECC around the country the 2018 NGBS Standard should not adjust the baseline in Chapter 7 to anything beyond the 2015 IECC but instead adjust the required points up for Certification by 10%. This strategy has the virtue of pushing projects to adopt additional energy related practices while not increasing the already high barrier of entry. I believe the same adjustment does not need to be implemented at the highest levels of certification (Gold and Emerald) as projects who are performing at that level are already well beyond the baseline.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6405** **1302 Referenced Documents**

Submitter:	Eric Lacey, RECA
Requested Action:	Revise as follows
Proposed Change:	**1302 REFERENCED DOCUMENTS** **ICC** — *International Code Council* *500 New Jersey Ave, NW, 6th Floor* *Washington, DC 20001* *www.iccsafe.org* *(888) 422-7233* IECC — ~~2015~~ 2018 — International Energy Conservation Code — 610.1.1(2), 701.1.4, 701.4.3.3, 702.2.1, 702.2.2, 702.2.3, 703.1.1.1, 703.1.1.2, 703.1.2, 703.1.3, 703.2.1, 705.6.2.1, 705.6.2.3(1), 705.6.2.3(2), 705.6.3, 11.610.1.1(2), 11.701.4.0, 11.701.4.3.3, 12.1.610.1.1(2), 12.1.701.4.0
Reason:	This proposal updates the references in ICC-700 from the 2015 IECC to the 2018 IECC. As with previous editions of ICC-700, we think it is most appropriate for the 2018 ICC-700 to build upon the efficiencies of the most recent national model energy code, the 2018 IECC. This will also be consistent with the practice of all International Codes cross-referencing the most recent edition of each code. In terms of energy efficiency, this update will result in a slight overall improvement in efficiency, but there are no significant changes in terms of formatting.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	

TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6518**	**C300 International Climate Zones**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	Add description ordefinition of Tropical Climate Zone.	
Reason:	“Tropical” climate zone is used in numerous locations in standard, but not identified, defined, or described in Appendix C, or anywhere else in the standard.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6575**	**New Section**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Revise as follows	
Proposed Change:	Throughout the NGBS Energy Star requirements for devices should be modified to give the key requirements instead of the Energy Star lable.	
Reason:	Energy Star is not a consensus program. Energy Star changes over time. The NGBS should use the key measure of the device, not reference the Energy Star name. Some Energy Star requirements have changed and will continue to change.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6171**	**305.3.5.1 Energy consumption reduction**
Submitter:	Keith Dennis, NRECA	
Requested Action:	Revise as follows	
Proposed Change:	The reduction in energy consumption resulting from the remodel shall be based on the estimated annual energy cost savings or <u>site energy savings or</u> source energy savings as determined by	
Reason:	The source energy calculations contain flaws, which is why DOE recently underwent a process to adjust them. Some of the issues are that source energy for renewable energy treat that energy as if it were from a fossil fuel plant and multiplies it by about 3, creating a counterproductive result. Similarly, nuclear energy, which makes up 20% of our national fuel mix and generates no emissions is treated worse than fossil fuel because nuclear reactions are hot. This has little to do with CO2 emissions goals or energy efficiency. Using site and source energy provides flexibility.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		

TG Vote:	

Proposal ID TBD	**LogID 6149**	**305.3.5.1 Energy consumption reduction**

Submitter:	Steven Rosenstock, Edison Electric Institute
Requested Action:	Revise as follows
Proposed Change:	305.3.5.1 Energy consumption reduction. The reduction in energy consumption resulting from the remodel shall be based on the estimated annual energy cost savings or ~~source~~ site energy savings as determined by....
Reason:	Site energy is measurable, verifiable, and is directly correlated to energy costs in a remodeled building. Source energy estimates are widely variable and can be easily used to "game" the system. In addition, source energy proponents claim that grid-based renewables have the highest "source" factors, penalizing builders and customers that use renewable forms of electricity. Site energy is also consistent with the equipment energy efficiency metrics shown in Chapter 7. ASHRAE has also stated that site energy is the preferred choice when looking at "net zero" energy buildings or energy comparisons.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6464**	**305.3.5.1 Energy consumption reduction**

Submitter:	Chuck Foster, Charles R. Foster Associates
Requested Action:	Revise as follows
Proposed Change:	The reduction in energy consumption resulting from the remodel shall be based on the estimated annual energy cost savings ~~or source energy savings~~ as determined by a third-party energy audit and analysis or utility consumption data.
Reason:	Source energy is an unstable metric for estimating energy performance, especially in a time of rapidly changing electric generation fleets. In addition, source energy overtly discriminates against the use of renewable energy sources, thereby putting it at tension with the goals and purpose of the NGBS.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6520**	**11.701.4.3.1 Building Thermal Envelope Air Sealing**

Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)
Requested Action:	Revise as follows
Proposed Change:	**11.701.4.3.1 Building thermal envelope air sealing.** The building thermal envelope exposed or created during the remodel is durably sealed to limit infiltration. The sealing methods between dissimilar materials allow for differential expansion and contraction. The following are caulked, gasketed, weather-stripped or otherwise sealed with an air barrier material, suitable film or solid material: **(g)** Walls, ~~and~~ ceilings, and floors separating ~~a garage from~~ conditioned space~~s~~ from unconditioned space. **(k)** ~~Rim joist junction.~~ Joints of framing members at rim joists.

	(l) Top and bottom plates. **(m)** Other sources of infiltration.
Reason:	Suggest revising several of the items in the list to more thoroughly identify the locations where air sealing is required.
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 7 – Proposal LogID 6505.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6522**	**11.701.4.3.2 Air sealing and insulation**

Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)
Requested Action:	Revise as follows
Proposed Change:	**11.701.4.3.2 Air barrier, air sealing, building envelope testing, and insulation.** ~~Grade II and III insulation installation is not permitted.~~ Building envelope air barrier, air sealing, envelope tightness and insulation installation is verified to be in accordance with this Section ~~11.701.4.3.2(1) and 11.701.4.3.2(2).~~ and Section 11.701.4.3.2.1. **11.701.4.3.2.1** ~~Grade I insulation installations are~~ **Insulation installation.** Field-installed insulation products to ceilings, walls, floors, band joists, rim joists, conditioned attics, basements, and crawlspaces, except as specifically noted, are verified by a third-party in accordance with the following: **~~(1)~~** ~~Grading applies to field-installed insulation products.~~ **~~(2)~~** ~~Grading applies to ceilings, walls, floors, band joists, rim joists, conditioned attics basements and crawlspaces, except as specifically noted.~~ Re-number items(3) through (11), and revise item (11) **(11)** Where properly installed, ICFs, SIPs, and other wall systems that provide integral insulation are deemed in compliance with ~~the Grade 1 insulation installation requirements~~ this section.
Reason:	Removing all mentions of “Grade” pertaining to insulation installation, as Grade is not defined or described in the standard. Also revising 11.701.4.3.2.1 to move the “what” and “where” specifics of the first two items into the charging language. Also, adding requirement insulation installation is verified by a third-party.
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 7 – Proposal LogID 6507.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6521**	**11.701.4.3.2 Air sealing and insulation**

Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)
Requested Action:	Revise as follows
Proposed Change:	**11.701.4.3.2 Air barrier, air sealing, building envelope testing, and insulation.** ~~Grade II and III insulation installation is not permitted.~~ Building envelope air barrier, air sealing, envelope tightness and insulation installation is verified to be in accordance with this Section ~~11.701.4.3.2(1) and 11.701.4.3.2(2).~~ and Section 11.701.4.3.2.1. Insulation installation other than Grade 1 is not permitted.

Reason:	Removing the phrase regarding “Grade II and III” insulation installation as these are not defined, described, or referenced in the standard, and instead refer to “Grade I” which has requirements described in the standard. Revising the text to add explicit requirement to comply with the insulation installation requirements in Section 11.701.4.3.2.1.
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 7 – Proposal LogID 6506.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6524**	**11.701.4.5 Boiler supply piping**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**11.701.4.5 Boiler supply piping.** Boiler ~~supply~~ piping in unconditioned space supplying or returning heated water or steam that is accessible during the remodel is insulated.	
Reason:	It seems this more clearly describes the intent of the requirements of this section.	
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 7 – Proposal LogID 6509.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6523**	**11.701.4.3.5 Recessed lighting**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**11.701.4.3.5 ~~Recessed lighting~~ Lighting in building thermal envelope.** Newly installed ~~recessed~~ luminaires installed in the building thermal envelope are sealed to limit air leakage between conditioned and unconditioned spaces. All ~~recessed~~ luminaires in the building thermal envelope are IC-rated and labeled as meeting ASTM E283when tested at 1.57 psf (75 Pa) pressure differential with no more than 2.0 cfm(0.944 L/s) of air movement from the conditioned space to the ceiling cavity. All ~~recessed~~ luminaires in the building envelope are sealed with a gasket or caulk between the housing and the interior of the wall or ceiling covering.	
Reason:	The vast majority of lighting luminaires are recessed in the building thermal envelope. However, the scope of the requirements of this section should apply to all lighting luminaires in the building thermal envelope, not just recessed lighting. With fast changing lighting technology, it’s possible lighting luminaires will penetrate the building thermal envelope but not be considered recessed lighting. The revisions would apply to all lighting luminaires “in” the building thermal envelope, but would not apply to luminaires “on” the building thermal envelope. Consider, for example, ½” thick LED lighting panels which are installed in place of ½” drywall on the ceiling. These panels may not be considered recessed but clearly should be included in the requirements of this section	
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 7 – Proposal LogID 6508.*	
TG Recommendation (AS or AM or D):		

Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6527**	**12.1.701.4.3.4 Building thermal envelope air sealing**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**12.1.701.4.3.1 Building thermal envelope air sealing.** The portions of the building thermal envelope that are exposed or created during the remodel are durably sealed to limit infiltration. The sealing methods between dissimilar materials allow for differential expansion and contraction. The following are caulked, gasketed, weather-stripped, or otherwise sealed with an air barrier material, suitable film, or solid material: **(g)** Walls, ~~and~~ ceilings, and floors separating ~~a garage from~~ conditioned space~~s~~ from unconditioned space. **(k)** ~~Rim joist junction.~~ Joints of framing members at rim joists. **(l)** Top and bottom plates. **(m)** Other sources of infiltration.	
Reason:	Suggest revising several of the items in the list to more thoroughly identify the locations where air sealing is required.	
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6505.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6529**	**12.1.701.4.3.2 Air sealing and insulation**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**12.1.701.4.3.2 Air barrier, air sealing, and insulation.** ~~Grade II and III installation is not permitted for newly installed insulation~~. For the portions of the building envelope that are exposed or created during the remodel, air barrier, air sealing, and insulation is third-party verified as installed in accordance with Section 12.701.4.3.2.1 and items listed in Table 12.1.701.4.3.2(2) are field verified via visual inspection. **12.701.4.3.2.1** ~~Grade I insulation installations are~~ **Insulation installation.** Field-installed insulation products to ceilings, walls, floors, band joists, rim joists, conditioned attics, basements, and crawlspaces, except as specifically noted, are verified by a third-party in accordance with the following: ~~**(1)** Grading applies to field-installed insulation products.~~ ~~**(2)** Grading applies to ceilings, walls, floors, band joists, rim joists, conditioned attics basements and crawlspaces, except as specifically noted.~~ Re-number items(3) through (11), and revise item (11) **(11)** Where properly installed, ICFs, SIPs, and other wall systems that provide integral insulation are deemed in compliance with ~~the Grade 1 insulation installation requirements~~ this section.	
Reason:	Removing all mentions of “Grade” pertaining to insulation installation, as Grade is not defined or described in the standard. Also revising 11.701.4.3.2.1 to move the “what” and “where” specifics of the	

	first two items into the charging language. Also, adding requirement insulation installation is verified by a third-party.
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 7 – Proposal LogID 6507.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6528**	**12.1.701.4.3.2 Air sealing and insulation**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**12.1.701.4.3.2 Air barrier, air sealing, and insulation.** ~~Grade II and III installation is not permitted for newly installed insulation~~. For the portions of the building envelope that are exposed or created during the remodel, air barrier, air sealing, and insulation is third-party verified as installed in accordance with Section 12.701.4.3.2.1 and items listed in Table 12.1.701.4.3.2(2) are field verified via visual inspection. Insulation installation other than Grade 1 is not permitted.	
Reason:	Removing the phrase regarding “Grade II and III” insulation installation as these are not defined, described, or referenced in the standard, and instead refer to “Grade I” which has requirements described in the standard. Revising the text to add explicit requirement to comply with the insulation installation requirements in Section 12.701.4.3.2.1.	
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 7 – Proposal LogID 6506.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6531**	**12.1.701.4.5 Boiler supply piping**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**12.1.701.4.5 Boiler supply piping.** Insulate all newly installed boiler ~~supply~~ piping in unconditioned space supplying or returning heated water or steam and insulate existing boiler ~~supply~~ piping in unconditioned space supplying or returning heated water or steam where accessible.	
Reason:	It seems this more clearly describes the intent of the requirements of this section.	
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 7 – Proposal LogID 6509.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6530**	**12.1.701.4.3.5 Recessed lighting**

Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)
Requested Action:	Revise as follows
Proposed Change:	**12.701.4.3.5 ~~Recessed lighting~~ Lighting in building thermal envelope.** Newly installed ~~recessed~~ luminaires installed in the building thermal envelope are sealed to limit air leakage between conditioned and unconditioned spaces. All ~~recessed~~ luminaires in the building thermal envelope are IC-rated and labeled as meeting ASTM E283when tested at 1.57 psf (75 Pa) pressure differential with no more than 2.0 cfm (0.944 L/s) of air movement from the conditioned space to the ceiling cavity. All ~~recessed~~ luminaires in the building envelope are sealed with a gasket or caulk between the housing and the interior of the wall or ceiling covering.
Reason:	The vast majority of lighting luminaires are recessed in the building thermal envelope. However, the scope of the requirements of this section should apply to all lighting luminaires in the building thermal envelope, not just recessed lighting. With fast changing lighting technology, it's possible lighting luminaires will penetrate the building thermal envelope but not be considered recessed lighting. The revisions would apply to all lighting luminaires "in" the building thermal envelope, but would not apply to luminaires "on" the building thermal envelope. Consider, for example, ½" thick LED lighting panels which are installed in place of ½" drywall on the ceiling. These panels may not be considered recessed but clearly should be included in the requirements of this section.
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 7 – Proposal LogID 6508.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

TG-6: Multifamily

Chapter 3: 304 Green Multifamily Buildings

Proposal ID TBD	LogID 6489	304.1 Multifamily buildings
Submitter:	Steven Armstrong, ESG Energy	
Requested Action:	Add new as follows	
Proposed Change:	Consider a separate multifamily path for scoring tool	
Reason:	Many of the single family practices found in the current scoring tool do not apply to multifamily thus allowing for confusion when presenting to multifamily contractors, engineers and architects.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6439	305.3.3 Mandatory practices
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**305.3.3 Mandatory practices.** The building, including any additions and common areas, shall satisfy all practices designated as mandatory in Chapter 11 <u>for One- and Two- Family Dwellings and Chapter X for Multifamily Buildings</u> . **305.3.4 NO CHANGE** **305.3.5 NO CHANGE** **305.3.6 NO CHANGE** **305.3.7 Prescriptive practices.** The point thresholds for the environmental rating levels based on compliance with the Chapter 11 <u>for One- and Two- Family Dwellings and Chapter X for Multifamily Buildings</u> prescriptive practices shall be in accordance with Table 305.3.7. Any practice listed in Chapter 11 <u>for One- and Two- Family Dwellings and Chapter X for Multifamily Buildings</u> shall be eligible for contributing points to the prescriptive threshold ratings. The attributes of the existing building that were in compliance with the prescriptive practices of Chapter 11 <u>for One- and Two- Family Dwellings and Chapter X for Multifamily Buildings</u> prior to the remodel and remain in compliance after the remodel shall be eligible for contributing points to the prescriptive threshold ratings.	
Reason:	The remodeling of single family homes and multifamily buildings are endeavors of very different scope. Chapter 11 currently does a so-so job of responding to the difference but this could be greatly improved by creating a standalone chapter.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6438	305.4.1 Applicability (Criteria for remodeled function areas of buildings)

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	**305.4.1 Applicability.** The provisions of Section 305.4 shall apply to remodeling of one or more of the following functional areas of the existing building as follows: 1. Addition, kitchen, bathroom, or basement in buildings other than multifamily buildings. 2. ~~Kitchen or bathroom of a~~ An individual dwelling unit or residential common area in a multifamily building. **305.4.1.1 Additions.** The total above-grade conditioned area added during a remodel shall not exceed 400 square feet per functional area. **305.4.2 NO CHANGE** **305.4.3 NO CHANGE** **305.4.5 NO CHANGE** **305.4.6Existing attributes**. The attributes of the existing building that were in compliance with the applicable provisions of Chapter 12 for One- and Two-family Dwellings and Chapter X for Multifamily Buildings prior to the remodel and remain incompliance after the remodel shall be eligible for contributing to demonstration of compliance under Section 305.4.
Reason:	The remodeling of single family homes and multifamily buildings are endeavors of vastly different proportions. The functional areas of importance in multifamily buildings are not bathrooms or kitchens but whole dwelling units and common spaces. Creating a new Chapter of the Standard to address this would greatly strengthen the use-case for existing multifamily buildings
Concurrent Review Staff Note:	This proposal is also being reviewed by TG-7 (Renovations and Additions) as Section 305 falls under their direct purview.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6151	505.6 Multi-unit plug-in electric vehicle charging

Submitter:	Steven Rosenstock, Edison Electric Institute
Requested Action:	Revise as follows
Proposed Change:	**505.6 Multi-unit plug-in electric vehicle charging.** Plug-in electric vehicle charging capability is provided for at least ~~1~~ 2 percent of parking stalls. Fractional values shall be rounded up to the nearest whole number. Electrical capacity....
Reason:	There are now over 577,000 plug-in electric vehicles (plug-in hybrids or battery electric vehicles) being driven in the US. All major manufacturers offer the vehicles for sale, and there are federal tax incentives, as well as state incentives, for their use. As of early 2016, there were over 12,200 public EV charging stations in the US. This proposal increases the percentage requirement from 1 to 2 percent (the original proposal that was discussed during the last NGBS revision was 5 percent), and adds clarify language if the calculation yields a value like 1.4 (in which case, they would have to install 2 EV charging stations).
Concurrent Review Staff Note:	This proposal is also being reviewed by TG-2 (Site and Lot Development) as Chapter 5 falls under their direct purview.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	

TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6156**	**505.6 Multi-unit plug-in electric vehicle charging**

Submitter:	Steven Rosenstock, Edison Electric Institute
Requested Action:	Revise as follows
Proposed Change:	...(208/240V-~~40~~ 80 amp).... (208-240V/~~40~~ 80A)
Reason:	This proposal updates the specification match the current SAE information, as shown on the following web site and below: http://www.sae.org/smartgrid/chargingprimer.pdf "AC Level 2 Charging* – 208 –240 AC charging up to 80 amps, on-board vehicle charger (~19kw)"
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-2 (Site and Lot Development) as Chapter 5 falls under their direct purview.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6535**	**505.6 Multi-unit plug-in electric vehicle charging**

Submitter:	Craig Conner, Building Quality
Requested Action:	Revise as follows
Proposed Change:	505.6 Multi-unit plug-in electric vehicle charging. Plug-in electric vehicle charging capability is provided for at least ~~1~~ 2 percent of parking stalls. The number of charging stations is rounded to the nearest even number, with no points for zero chargers and odd number rounded up. Electrical capacity in main electric panels supports Level 2 charging (208/240V-40 amp). Each stall is provided with conduit and wiring infrastructure from the electric panel to support Level 2 charging (208/240V-40 amp) service to the designated stalls, and stalls are equipped with either Level 2 charging AC grounded outlets (208/240V-40 amp) or Level 2 charging stations (240V/40A) by a third party charging station. Charging stations and electrical service is in accordance with the NEC Article 625.
Reason:	More economical chargers have two chargers on one post. Rounding simply allows the use of these chargers. The National Electric Code (NEC) specifies how chargers and electrical supply are connected in Article 625.
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-2 (Site and Lot Development) as Chapter 5 falls under their direct purview.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6537**	**505.6 Multi-unit plug-in electric vehicle charging**

Submitter:	Chuck Foster, Charles R. Foster Associates
Requested Action:	Revise as follows
Proposed Change:	Plug-in electric vehicle charging capability is provided for at least ~~1~~ 3 percent of parking stalls.

Reason:	There are now over 577,000 plug-in electric vehicles (plug-in hybrids or battery electric vehicles) being driven in the US. All major manufacturers offer the vehicles for sale, and there are federal tax incentives, as well as state incentives, for their use. As of early 2016, there were over 12,200 public EV charging stations in the US. This proposal increases the percentage requirement from 1 to 3 percent (the original proposal that was discussed during the last NGBS revision was 5 percent), and adds clarify language if the calculation yields a value like 1.4 (in which case, they would have to install 2 EV charging stations).
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-2 (Site and Lot Development) as Chapter 5 falls under their direct purview.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6482** **Other for Chapter 5 (include section number and title below)**

Submitter:	Jeremy Velasquez, TexEnergy Solutions
Requested Action:	Add new as follows
Proposed Change:	New Section **Section 506.1** - Exterior Activity Space - Provide an exterior space as part of the overall development that is intended for physical activity to promote health and wellness.
Reason:	Many subdivisions and multifamily projects lack a dedicated space outside where people can exercise or participate in other physical activities.
Concurrent Review Staff Note:	This proposal is also being reviewed by TG-2 (Site and Lot Development) as Chapter 5 falls under their direct purview.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6234** **607.1 Recycling and composting (Recycling and waste reduction)**

Submitter:	Paul Gay, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	Multi Family Alternative to built in collection space - Management provides "blue box" recycling container or "blue Bins" and has designated recycling dumpsters onsite and /or contract with offsite sorting Recycling Facility
Reason:	provide alternative opportunity to encourage recycling to projects/tenants where space will prevent the built in option
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-3 (Resource Efficiency and Indoor Environmental Quality) as Chapter 6 falls under their direct purview.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6268	902.6 Living space contaminants
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	902.6.X MF Compartmentalization Breaks or Joints thru the residential unit envelope shall be sealed includes but not limited to HVAC boots sealed to sheetrock / sub floor, Fan casings	
Reason:	new credit awards points to Encourage additional air sealing/compartmentalization	
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-3 (Resource Efficiency and Indoor Environmental Quality) as Chapter 9 falls under their direct purview.*	
Parallel Proposal Staff Note:	*Parallel proposals were submitted by the same proponent for the corresponding sections in Chapter 11 – Proposal LogID 6267 and Chapter 12 – Proposal LogID 6266. The parallel proposals are being reviewed by TG-7 as Chapters 11 and 12 fall under their direct purview.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6475	Other for Chapter 9 (include section number and title below)
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	New Section **Section 906.3** - Documented plan for dedicated exercise/fitness space - Minimum 3% of Conditioned Square Footage of the home is dedicated to an exercise area. For multifamily projects: 250 square feet or more of common area must be dedicated to exercise space.	
Reason:	Permanent exercise space contributes to a lower risk of health concerns and promotes exercise and fitness.	
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-3 (Resource Efficiency and Indoor Environmental Quality) as Chapter 9 falls under their direct purview.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6232	1002.0 Intent (Construction, Operation, and Maintenance Manuals and Training for Multifamily Buildings)
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	Host an annual group event that provides opportunity for discussion / input to better the suggestions in the OMBOE manual.	
Reason:	topics include recycling tips/energy / water saving tips and opens up discussion on these and related topics	

Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-4 (Water Efficiency, Operation & Owner Education) as Chapter 10 falls under their direct purview.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 1513**	**Other for Chapter 10 (include section number and title below)**
Submitter:	Carl Seville, SK Collaborative	
Requested Action:	Revise as follows	
Proposed Change:	1002 – Combine operations and maintenance manual for Multifamily buildings into a single document. Add a separate tenant/occupant manual for occupants of multifamily buildings to provide them with reference and training materials to properly manage their apartment or condo unit.	
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.*	
Reason:		
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 1519**	**703.2.5 Building envelope leakage**
Submitter:	Carl Seville, SK Collaborative	
Requested Action:	Revise as follows	
Proposed Change:	Add an alternative leakage measurement of CFM per Square foot of building envelope at 50 PA (ELR50) in addition to ACH50 for points in this section. I recommend adding an additional column to table 703.2.4 as noted below: Max Env Leakage Climate Zone Rate ELR50 ACH50 Balance of table remains the same .28 4 .23 3 .18 2 .13 1	
Reason:	A recent study by CARB has determined that ACH50 is an inaccurate measurement for small multifamily apartment and unfairly penalizes units that are only measured via ACH50.	
Concurrent Review Staff Note:	This proposal is also being reviewed by TG-5 (Energy Efficiency) as Chapter 7 falls under their direct purview.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6251**	**705.6.2.1 Air leakage validation of building or dwelling units**
Submitter:	Carl Seville, SK Collaborative	
Requested Action:	Add new as follows	

Proposed Change:	Provide alternate envelope leakage measurement of ELR (CFM50 per SF of building envelope) in addition to ACH50.
Reason:	Small home and multifamily units are penalized in regards to ACH50 measurements, which favor larger building volumes. The ELR may vary based on unit/house size per the attached chart.
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-5 (Energy Efficiency) as Chapter 7 falls under their direct purview.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD (multifamily)	**LogID 6306**	**705.6.4.2 Portable hot water demand re-circulation system**

Submitter:	Susan Gitlin, US Environmental Protection Agency
Requested Action:	Revise as follows
Proposed Change:	Potable hot water demand re-circulation system is installed <u>in a unit within a multifamily building</u> in place of a standard circulation pump and control.
Reason:	Specify that system needs to be present within each unit.
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-5 (Energy Efficiency) as Chapter 7 falls under their direct purview.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6456**	**705.7 Submetering system**

Submitter:	Michael Cudahy, PPFA
Requested Action:	Revise as follows
Proposed Change:	705.7 Submetering system. In multifamily buildings, and advanced electric ~~and~~ <u>or</u> fossil fuel submetering system is installed to monitor electricity ~~and~~ or fossil fuel consumption for each unit. The device provides consumption information on a <u>minimum</u> monthly ~~or~~ <u>to</u> ~~near~~ real time basis. The information is <u>accessible or</u> available to the occupants at a minimum on a monthly basis.
Reason:	Some homes are electric only and have no fossil fuel use. Data could be accessed directly by users. The minimum data rate would be monthly, so I suppose any other rate up to real time is acceptable.
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-5 (Energy Efficiency) as Chapter 7 falls under their direct purview.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6233	11.1003.1 Public Education (Signage, Certification Plaques, Education)
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	Host an annual group event that provides opportunity for discussion / input to better the suggestions in the OMBOE manual.	
Reason:	topics include recycling tips/energy / water saving tips and opens up discussion on these and related topics	
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 10 – Proposal LogID 6232. The parallel proposal is being reviewed by this Task Group and TG-4 as Chapter 10 falls under their direct purview.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6538	11.505.6 Multi-unit plug-in electric vehicle charging
Submitter:	Chuck Foster, Charles R. Foster Associates	
Requested Action:	Revise as follows	
Proposed Change:	Plug-in electric vehicle charging capability is provided for at least ~~1~~ 3 percent of parking stalls.	
Reason:	There are now over 577,000 plug-in electric vehicles (plug-in hybrids or battery electric vehicles) being driven in the US. All major manufacturers offer the vehicles for sale, and there are federal tax incentives, as well as state incentives, for their use. As of early 2016, there were over 12,200 public EV charging stations in the US. This proposal increases the percentage requirement from 1 to 3 percent (the original proposal that was discussed during the last NGBS revision was 5 percent), and adds clarify language if the calculation yields a value like 1.4 (in which case, they would have to install 2 EV charging stations).	
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6537. The parallel proposal is being reviewed by this Task Group and TG-2 as Chapter 5 falls under their direct purview.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6536	11.505.6 Multi-unit plug-in electric vehicle charging
Submitter:	Craig Conner, Building Quality	
Requested Action:	Revise as follows	
Proposed Change:	11.505.6 Multi-unit plug-in electric vehicle charging. Plug-in electric vehicle charging capability is provided for at least ~~1~~ 2 percent of parking stalls. The number shall be rounded to the nearest even number, with odd numbers rounded up. Zero shall not earn points. Electrical capacity in main electric panels supports Level 2 charging (208/240V-40 amp). Each stall is provided with conduit and wiring infrastructure from the electric panel to support Level 2 charging (208/240V-40 amp) service to the designated stalls, and stalls are equipped with either Level 2 charging AC grounded outlets (208/240V-40 amp) or Level 2 charging stations (240V/40A) by a third party charging station. Charging stations and infrastructure shall be in accordance with Article 625 of the National Electrical Code.	

Reason:	The number of stations is rounded to an even number because having 2 charging stations on a single post is often more economical. Article 625 of the NEC covers EV charging stations and their connection to the electrical supply.
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6535. The parallel proposal is being reviewed by this Task Group and TG-2 as Chapter 5 falls under their direct purview.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6152**	**11.505.6 Multi-unit plug-in electric vehicle charging**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	**11.505.6 Multi-unit plug-in electric vehicle charging.** Plug-in electric vehicle charging capability is provided for at least ~~1~~ 2 percent of parking stalls. Fractional values shall be rounded up to the nearest whole number. Electrical capacity....	
Reason:	There are now over 577,000 plug-in electric vehicles (plug-in hybrids or battery electric vehicles) being driven in the US. All major manufacturers offer the vehicles for sale, and there are federal tax incentives, as well as state incentives, for their use. As of early 2016, there were over 12,200 public EV charging stations in the US. This proposal increases the percentage requirement from 1 to 2 percent (the original proposal that was discussed during the last NGBS revision was 5 percent), and adds clarifying language if the calculation yields a value like 1.4 (in which case, they would have to install 2 EV charging stations).	
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6151. The parallel proposal is being reviewed by this Task Group and TG-2 as Chapter 5 falls under their direct purview.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6155**	**11.505.6 Multi-unit plug-in electric vehicle charging**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Revise as follows	
Proposed Change:	...(208/240V-~~40~~ 80 amp).... (208-240V/~~40~~ 80A)	
Reason:	This proposal updates the specification match the current SAE information, as shown on the following web site and below: http://www.sae.org/smartgrid/chargingprimer.pdf "AC Level 2 Charging* – 208 –240 AC charging up to 80 amps, on-board vehicle charger (~19kw)"	
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6156. The parallel proposal is being reviewed by this Task Group and TG-2 as Chapter 5 falls under their direct purview.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		

TG Vote:	

Proposal ID TBD	**LogID 6235**	**11.605.3 On-site recycling**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	Multi Family Alternative to built in collection space - Management provides "blue box" recycling container or "blue Bins" and has designated recycling dumpsters onsite and /or contract with offsite sorting Recycling Facility	
Reason:	provide alternative opportunity to encourage recycling to projects/tenants where space will prevent the built in option	
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6234. The parallel proposal is being review by this Task Group and TG-3 Chapter 6 falls under their direct purview.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6267**	**Other for Chapter 11 (include section and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	11 .902.6.X MF Compartmentalization Breaks or Joints thru the residential unit envelope shall be sealed includes but not limited to HVAC boots sealed to sheetrock / sub floor, Fan casings	
Reason:	new credit awards points to Encourage additional air sealing/compartmentalization	
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6268. The parallel proposal is being reviewed by TG-3 as Chapter 9 falls under their direct purview and by TG-6 as the proposal will affect multifamily buildings.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6249**	**Other for Chapter 11 (include section and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	11.10XX.XX or 1X.XXX.XX (Existing Multi Family) Management has contract with Cleaning Company that enforces Green Cleaning Practices / has written Green Cleaning protocols established or Management Has written/enforcable In House Green Cleaning	

	protocols in place and 48 hour Pre Occupancy Flush is conducted prior to tenant move in
Reason:	Prior to move in Units are cleaned using Green Cleaning Practices (carpets etc) and or flushed
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-7 (Renovations and Additions) as Chapter 11 falls under their direct purview.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6266**	**Other for Chapter 12 (include section number and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	12 .902.6.X MF Compartmentalization Breaks or Joints thru the residential unit envelope shall be sealed includes but not limited to HVAC boots sealed to sheetrock / sub floor, Fan casings	
Reason:	new credit awards points to Encourage additional air sealing/compartmentalization	
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6268. The parallel proposal is being reviewed by TG-3 as Chapter 9 falls under their direct purview and by TG-6 as the proposal will affect multifamily buildings.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6274**	**Other for Chapter 12 (include section number and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	NEW MF PHASES UNIT SECTION OR CHAPTER (1) No Carpeting is installed in half/full bathrooms, kitchens, utility/laundry rooms or within 3 ft of entries.	
Reason:	Mandatory for unit by unit upgrade/ Retrofit	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6487**	**11.500.0 Intent (Remodeling: Lot design, preparation, and development)**
Submitter:	Steven Armstrong, ESG Energy	
Requested Action:	Add new as follows	

Proposed Change:	Consider separate chapter for multifamily remodeling
Reason:	Brings more clarity to the verification process due to unique nature of multifamily remodel.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6332**	**Other for Chapter 11 (include section and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	Create a new and separate Multi Family Remodel Chapter	
Reason:	Create a Phased Existing Building pathway to certification e.g a Project is undergoing a phased unit by unit remodel	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6259**	**Other for Chapter 11 (include section and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	Create an entire new chapter for MF Units ..... Where applicable remove all restrictive i.e "all units" language	
Reason:	basis for new MF unit section or chapter is to provide a building with a gradual ...phased.... pathway toward certification. removing "all Units" or similar language will avoid confusion if some units are certified ahead of other units not yet retrofitted	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6253**	**Other for Chapter 12 (include section number and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	Create a new and separate Multi Family Remodel Chapter	
Reason:	Create a Phased Existing Building pathway to certification e.g a Project is undergoing a phased unit by unit remodel	
TG Recommendation (AS or AM or D):		

Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6258**	**Other for Chapter 12 (include section number and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	Create a new section in chapter 12 or entire new chapter for MF Units ..... Where applicable remove all restrictive i.e "all units" language	
Reason:	basis for new MF unit section or chapter is to provide a building with a gradual ...phased.... pathway toward certification. removing "all Units" or similar language will avoid confusion if some units are certified ahead of other units not yet retrofitted	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6387**	**Other for Chapter 12 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW FUNCTIONAL AREA DESIGNATIONS FOR MULTIFAMILY BUILDINGS OR CREATE NEW MULTIFAMILY SPECIFIC REMODEL CHAPTER... **12.7 Multifamily Common Areas** **12.7.0 Applicability.** In addition to the practices listed in Section 12.1, the following practices are mandatory for all multifamily residenitally associated common area remodels. **12.7.1 Kitchen.** When the common area remodel includes a kitchen, the remodel shall also comply with the practices in Section 12.2. **12.7.2 Bathroom.** When the common area remodel includes a bathroom, the remodel shall also comply with the practices in Section 12.3. **RENUMBER SUBSEQUENT SECTIONS**	
Reason:	The current version of the Standard does not adequately address the remodeling of multifamily buildings. For a multifamily building it is not kitchens, bathrooms, or basements that define a functional area but the dwelling units and the residenital associated common areas.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6388**	**Other for Chapter 12 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	

Requested Action:	Add new as follows
Proposed Change:	ADD NEW FUNCTIONAL AREA DESIGNATIONS FOR MULTIFAMILY BUILDINGS OR CREATE NEW MULTIFAMILY SPECIFIC REMODEL CHAPTER **12.6 Multifamily Dwelling Units** **12.6.0 Applicability.** In addition to the practices listed in Section 12.1, the following practices are mandatory for all multifamily dwelling unit remodels. **12.6.1 Kitchen.** When the dwelling unit remodel includes a kitchen, the remodel shall also comply with the practices in Section 12.2. **12.6.2 Bathroom.** When the dwelling unit remodel includes a bathroom, the remodel shall also comply with the practices in Section 12.3. **RENUMBER SUBSEQUENT SECTIONS**
Reason:	The current version of the Standard does not adequately address the remodeling of multifamily buildings. For a multifamily building it is not kitchens, bathrooms, or basements that define a functional area but the dwelling units and the residential associated common areas.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	

Proposal ID TBD	**LogID 6386**	**Other for Chapter 12 (include section number and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW FUNCTIONAL AREA DESIGNATIONS FOR MULTIFAMILY BUILDINGS OR CREATE NEW MULTIFAMILY SPECIFIC REMODEL CHAPTER **12.6 Multifamily Dwelling Units** **12.6.0 Applicability.** In addition to the practices listed in Section 12.1, the following practices are mandatory for all multifamily dwelling unit remodels. **12.6.1 Kitchen.** When the basement remodel includes a kitchen, the remodel shall also comply with the practices in Section 12.2. **12.6.2 Bathroom.** When the basement remodel includes a bathroom, the remodel shall also comply with the practices in Section 12.3. **RENUMBER SUBSEQUENT SECTIONS**	
Reason:	The current version of the Standard does not adequately address the remodeling of multifamily buildings. For a multifamily building it is not kitchens, bathrooms, or basements that define a functional area but the dwelling units and the residenital associated common areas.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6286**	**New Section**
Submitter:	Aaron Gary, US-EcoLogic	

Requested Action:	Add new as follows
Proposed Change:	CHAPTER 14 REMODELING OF FUNCTIONAL AREAS OF MULTIFAMILY BUILDINGS Bring forward Chapter 12 sections and modify as needed.
Reason:	The remodeling of single family homes and multifamily buildings are endeavors of vastly different proportions. The functional areas of importance in multifamily buildings are not bathrooms or kitchens but whole dwelling units and common spaces. Creating a new Chapter of the Standard to address this would greatly strengthen the use-case for existing multifamily buildings.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6287**	**New Section**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	Chapter 12 Multifamily Remodeling **Copy and edit Chapter 11 sections to be multifamily specific.**	
Reason:	The remodeling of single family homes and multifamily buildings are endeavors of very different scope. Chapter 11 currently does a so-so job of responding to the difference but this could be greatly improved by creating a standalone chapter	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6250**	**New Section**
Submitter:	Carl Seville, SK Collaborative	
Requested Action:	Add new as follows	
Proposed Change:	Create new chapter or chapters exclusively for multifamily new construction, separate from core standard.	
Reason:	The standard was originally designed for single family construction, and as a significant portion of the certifications under the program are multifamily projects, there are many measures that are distinctly single family that rarely if ever apply to a multifamily project. Creating a separate path for multifamily projects, both new and renovation, wopeluld streamline the process and allow for there to be a path that is more directly related to this construction type	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6438	305.4.1 Applicability (Criteria for remodeled function areas of buildings)

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	**305.4.1 Applicability.** The provisions of Section 305.4 shall apply to remodeling of one or more of the following functional areas of the existing building as follows: 1. Addition, kitchen, bathroom, or basement in buildings other than multifamily buildings. 2.~~Kitchen or bathroom of a~~ An individual dwelling unit or residential common area in a multifamily building. **305.4.1.1 Additions.** The total above-grade conditioned area added during a remodel shall not exceed 400 square feet per functional area. **305.4.2 NO CHANGE** **305.4.3 NO CHANGE** **305.4.5 NO CHANGE** **305.4.6Existing attributes**. The attributes of the existing building that were in compliance with the applicable provisions of Chapter 12 for One- and Two-family Dwellings and Chapter X for Multifamily Buildings prior to the remodel and remain incompliance after the remodel shall be eligible for contributing to demonstration of compliance under Section 305.4.
Reason:	The remodeling of single family homes and multifamily buildings are endeavors of vastly different proportions. The functional areas of importance in multifamily buildings are not bathrooms or kitchens but whole dwelling units and common spaces. Creating a new Chapter of the Standard to address this would greatly strengthen the use-case for existing multifamily buildings
Concurrent Review Staff Note:	This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 1509	11.1001.1 Building owner's manual is provided
Submitter:	Todd Jones, Center for Resource Solutions	
Requested Action:	Revise as follows	
Proposed Change:	Information on local available Green-ecertified (or equivalent) utility green power programs or renewable electricity products, as well as information on how to find other certified renewable energy products using the Green-e website ~~utility programs that purchase a portion of energy from renewable energy providers~~.	
Reason:	(6) Many utilities will purchase a portion of energy of renewable energy providers. We recommend clarification of this requirement such that information is related to utility programs/products that deliver renewable energy to customers. We also recommend strengthening this requirement by requiring that this be information about renewable energy products/options available to the building, either from the local utility (e.g., differentiated renewable electricity/green power products/options) or competitive electricity suppliers (if in a deregulated region) or REC products that are available nationally. The Green-e website can be used to find green power options in your area. We also recommend that information be provided specifically about Green-e certified utility green power programs/products, competitive electricity products, and stand-alone REC products.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 1510	11.1002.2 Operations manual
Submitter:	Todd Jones, Center for Resource Solutions	
Requested Action:	Revise as follows	
Proposed Change:	Information on opportunities to purchase Green-ecertified (or equivalent) renewable energy from local utilities or national green power providers and information on utility and tax incentives for the installation on on-site renewable energy systems.	
Reason:	(4) We recommend that information be provided specifically about Green-e certified utility and national green power products, to ensure that they are high quality and independently verified, The Green-e website is a good resource for finding local and national green power options.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 10 – Proposal LogID 1508. The parallel proposal is being reviewed by TG-4. TG-7 should review the recommendation of TG-4 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-4 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6564	11.1002.4 Training of building owners
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Revise as follows	
Proposed Change:	Mandatory 8 points	

Reason:	"Mandatory" and "8 points" appears to have been overlooked when this section was added to Chapter 11, despite equivalent appearing in corresponding section 11.1001.2 for Single Family. Additionally, same suggestion for standard section 1002.4 in Chapter 10 was submitted, as minimum points "8" appears to have been inadvertently removed when submission for 2012 Protocol was submitted/revised. Not possible to achieve level beyond Bronze if additional points not provided in this section of Chapter 10.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6434**	**11.1002.4 Training of building owners**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**11.1002.4 Training of building owners.** Building owners are familiarized with the role of occupants in achieving green goals. On-site training is provided to the responsible party(ies) regarding equipment operation and maintenance, control systems, and occupant actions that will improve the environmental performance of the building. These include:	**Mandatory** **8**
Reason:	Aligns with Measure 11.1001.2; In the development of the 2015 NGBS this measure was changed from being worth 8 point to being Mandatory. While making this mandatory is good, the loss of 8 points in Chapter 10 makes it extremely difficult for projects to achieve Gold or Emerald Certification.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 10 – Proposal LogID 6433. The parallel proposal is being reviewed by TG-4. TG-7 should review the recommendation of TG-4 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-4 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6436**	**11.501.2 Multi-modal transportation**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**ADD NEW OPTION TO 11.501.2** (7) Employment Access: A site is selected in an area with a measured Jobs per Sq. Mi. of: a) 10,000 - less than 25,000 - **3 POINTS** b) 25,000 to less than 50,000 - **4 POINTS** c) 50,000 to less than 100,000 - **5 POINTS** d) 100,000 or more - **6 POINTS**	
Reason:	Travel to and from work is a major source of carbon emissions. Locating housing near employment will significantly reduce the vehicle miles travelled of the average occupant. This metric can be accessed at: http://htaindex.cnt.org/	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6173. The parallel proposal is being reviewed by TG-2. TG-7 should review the	

	recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6389**	**11.501.2 Multi-modal transportation**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	**(8)** Lot is within a community that has a Bike sharing program and where facilities for bike sharing are planned for and constructed. - **5 points** **(9)** Lot is within a community that has a Car sharing program and where facilities for car sharing are planned for and constructed. - **5 points**
Reason:	Based on existing practice in NGBS 2015 (405.6) and applied to a single lot versus entire land development. Communities that provide for shared bike and vehicle usage should be rewarded as this reduces the production of green-house gases in the same way as mass transit or bicycle use.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6323. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6548**	**11.503.3 Soil disturbance and erosion**

Submitter:	Ben Edwards, Spindale NC
Requested Action:	Delete without substitution
Proposed Change:	Delete only item (3) from section 11.503.3 Limits of new clearing and grading are demarcated on the lot plan.
Reason:	This comment is intended to highlight a larger issue in this document: double counting. 11.504.3(2) awards 5 points for flagging the site under Lot Construction. 11.503.3(3) awards 5 points for the same action under Lot Design (points are awarded when "the intent of the design is implemented." While flagging a site is important, does the committee believe 10 points should be awarded for a fundamental construction practice? Further, 4 more points are awarded in 11.504.1 On-site Supervision and Coordination if someone watches the flagged clearing and grading. The potential for 14 points for a standard practice is not appropriate in an above-code document. Points should be awarded based on outcome, and should clearly indicate the relative weight in compliance. Note: Similar issues are found in Chapters 4 and 5, and the topic of soil disturbance is illustrative. Philosophically, if points are to be awarded for planning, construction, and verification, the greatest weight should be on verification.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6546. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6390**	**11.503.4 Stormwater management**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**(5)** Complete gutter and downspout system directs storm water away from foundation to landscaping or catchment system. - **8 points**	
Reason:	To direct rainwater away from the structure to prevent erosion and to protect the structure itself, and/or for rainwater capture	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6322. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 1516**	**11.503.4 Stormwater management**
Submitter:	Heather Dylla, National Asphalt Pavement Association	
Requested Action:	Delete without substitution	
Proposed Change:	~~Permeable materials are used for driveways, parking area, walkways and patios according to the following percentages~~ ~~(a) Less than 25 percent **2**~~ ~~(b) 20 50 percent **5**~~ ~~(c) Greater than 50 percent **10**~~	
Reason:	Giving points specifically to permeable materials may encourage their use where they are not practical or not even the best solution for stormwater management. Their efficacy depends on site limitations such as soil permeability, depth to impermeable layers and water table, and topography. It is recommended that permeable materials are evaluated together with all other low impact development practices (question 3) to encourage the best stormwater management solution.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 1515. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6239	11.503.5 Landscape plan
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**503.5 Landscape ~~plan.~~** ~~A plan for t~~ The lot is developed to limit water and energy use while preserving or enhancing the natural environment. **(Where "front" only or "rear" only ~~plan~~ is implemented, only half of the points (rounding down to a whole number) are awarded for Items (1)-(8)**	
Reason:	Remodels are more likely to improve their landscape using a design/build methodology which often skips the development of a formal plan during design. While this may not be best practice, the resulting verified installation should still receive full credit for the items that can still achieved without a design plan (i.e. 2-3,5-9).	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6240. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6248	11.505.0 Intent (Innovative Practices)
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	11 505.XX Project has emergency plan in place to address relevant Natural Disasters	
Reason:	to ensure project is protected against relevant potential impact from natural hazards e.g. Floods/Earthquakes/Landslides/Hurricanes/Tornadoes/Dust Storms/Wildfires	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6247. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6382	11.505.4 Mixed-use development
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**Mixed Use Development:** (1) The lot contains a mixed use building (2) Residential community contains a mixed use building (for Single Family homes only)	

Reason:	Allows single family mixed use communities to be recognized for achieving the same goal.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6174. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6391**	**11.505.5 Community garden(s)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	505.5 Community garden(s). Provide local food production for residents or area consumers through one of the following: (1) A portion of the lot is established as a community garden(s), available to residents of the lot~~, to provide for local food production to residents or area consumers~~. (2) Locate the project within a 0.5-mile walk distance of an existing or planned farmers market that is open or will operate at least once a week for at least five months of the year.	
Reason:	Access to fresh produce offers healthy food options for residents, and purchase of fresh produce directly from farmers demystifies the cycle of food production. This measure also supports local economic development that increases the economic value and production of farmlands and community gardens. This revision creates a path for sites where the community garden is not feasible but the end-goal can still be met through site-selection.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6192. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6231**	**11.602.1.8 Water-resistive barrier**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	Have 3rd Party Water Barrier / Window Leakage Test conducted and Passed per Industry standards	
Reason:	passing a performance test will help ensure weather barrier is installed as intended /per design.....potentially heading off potential moisture /intrusion problems and associated costs	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6226. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	

TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6309**	**11.605.2 Construction waste management plan**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	**11.605.2Construction waste management plan.** …diverting, through methods such as reuse, salvage, recycling or manufacturer reclamation, a minimum of 50 percent (by weight) of nonhazardous construction and demolition materials~~, excluding land-clearing waste,~~ from disposal in landfills and combustion, excluding energy and material recovery. <u>For this practice, land clearing debris is not considered a construction and demolition material and is excluded from the calculation.</u> Materials used as alternative daily cover are considered construction waste and do not count toward recycling or salvaging. **Exceptions:** ~~Waste materials generated from land clearing, soil and sub-grade excavation and all manner of vegetative debris shall not be in the calculations.~~ ~~2)~~ A recycling facility (traditional or E-Waste) offering material receipt documentation is not available within 50 miles of the jobsite.	
Reason:	If the intent of the “Exceptions” section is to indicate specific circumstances when the practice does not apply, or to acknowledge situations when it cannot be met by the person seeking the points, then it is unclear why the first item is listed. How is stating “Waste materials generated from land clearing, soil and sub-grade excavation and all manner of vegetative debris shall not be in the calculations,” an Exception? We would argue this is an exclusion from the calculation, not an exception from the practice - due to some imposed practical difficulties - and as such, it is more appropriately emphasized in the language of the credit. Solution: Revise the body of the credit to more strongly emphasize that land clearing debris is excluded from the calculation. Delete the first item listed under Exceptions.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6300. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6349**	**11.606.3 Manufacturing energy**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Delete without substitution	
Proposed Change:	~~11.606.3 Manufacturing energy. Materials are used for major components of the building that are manufactured using a minimum of 33 percent of the primary manufacturing process energy derived from renewable source, combustible waste sources, or renewable energy credits (RECs).~~	
Reason:	Use of the word ‘materials’ is does not promote use of this section for final products which could have multiple materials or assemblies and could be from various locations. An effective way to capture this information for products, or materials, would be through EPDs. EPDs are more widely recognized in the industry and easier for Standard user to obtain. Individually, these single-attributes have little bearing on	

	the final impact and are becoming antiquated, so they are being replaced with EPDs. Because EPDs are already a part of this standard, the available 6 points that would be removed with this section could be added into Product Declarations.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6348. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 1511**	**11.606.3 Manufacturing energy**
Submitter:	Todd Jones, Center for Resource Solutions	
Requested Action:	Revise as follows	
Proposed Change:	Materials manufactured using <u>renewable energy for</u> a minimum of 33 percent of their primary manufacturing process energy. <u>Non-electric energy used in manufacturing materials must be</u> derived from (1) renewable sources~~,~~ <u>or</u> (2) combustible waste sources~~, or (3) renewable energy credits (RECs)~~. <u>Electricity used in manufacturing materials must be paired with renewable energy certificate (RECs), which must be retired. The building may purchase RECs on behalf of the building material supplier where the supplier has not purchase/used renewable electricity, with RECs, for manufacturing of building materials.</u> <u>Green-e certification (or equivalent) is requires [or recommended] for renewable electricity purchases and materials manufacturerd using renewable electricity.</u>	
Reason:	This requirement refers to renewable energy use in manufacturing of building materials, and therefore may refer to use of both electricity and non-electric energy in manufacturing. Currently, the options 1-3 are not differentiated as apply to either electricity or non-electric energy use. However, since RECs are required to claim use of renewable electricity in all cases, including from on-site renewable generation equipment, we suggest differentiating between electricity used in manufacturing, in which case RECs are required, and non-electricity energy used in manufacturing. It is also not clear that in option 3, RECs are being purchased by the building to be applied to the building materials, i.e. its supply chain, and not to the building's own electricity usage, and that RECs/RE may also be purchased or used by the supplier of the building materials. Finally, we recommend that Green-e certification be required, or at least recommended, to ensure that use of renewable electricity has been properly verified.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 1502. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6311**	**11.608.1 Resource-efficient materials**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	

Proposed Change:	**608.1 Resource-efficient materials.** Products containing fewer materials are used to achieve same end-use requirements as conventional products, including but not limited to: ~~(1) Lighter, thinner brick with depth less than 3 inches and/or brick with coring of more that 25 percent~~ ~~(2)~~ (1) Engineered wood or engineered steel products ~~(3)~~ (2) Roof or floor trusses
Reason:	Since engineered wood, engineered steel products and roof or floor trusses are incorporated intermittently in the façade, and/or entirely in the interior, their dematerialization is not likely to jeopardize the structure's overall energy efficiency. In fact, filling with insulation those spots in the exterior walls where the unneeded mass of structural elements would otherwise have been, reduces the thermal bridging associated with structural elements in exterior walls and improves the structure's energy efficiency. Conversely, the continuous dematerialization of a façade material, such as brick, may require an addition of more insulation to compensate for the loss of volume all along the perimeter, just to achieve comparable energy efficiency. A more accurate assessment of the benefits of the dematerialization of façade materials can possibly be made and if there are benefits, points can be captured through Life Cycle Assessments (11.610.1.1 and 11.610.1.2) that apply a material consumption impact category in addition to categories measuring energy-consumption impacts through the manufacturing, construction and use life-cycle stages.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6303. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6338**	**11.609.1 Regional materials**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Delete without substitution	
Proposed Change:	~~Regional materials. Regional materials are used for major and/or minor components of the building. (For a component to comply with this practice, a minimum of 75% of all products in that component category must be sourced regionally, e.g., stone veneer category – 75 percent or more of the stone veneer on a project must be sources regionally.)~~	
Reason:	To increase use of the standard, reduce the complexity and remove these calculations. Regional material impacts are captured through EPDs, which are easier for the end user to locate and provide a much better indicator as they focus on the outcome of the various inputs. Individually, single-attributes have little bearing on the final impact so they are being replaced with EPDs. Because EPDs are already a part of this standard, the 10 points removed with this section could be added into the Product Declarations, Section 11.611.4, if the Standard was to keep the same number of threshold points.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6337. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6312	11.610.1 Life cycle assessment
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	**11.610.1.1Whole-building life cycle assessment.** A whole-building LCA is performed in conformance with ASTM E2921 using ISO14044compliant life cycle assessment. Execute LCA at the whole-building level through a comparative analysis between the final and reference building designs as set forth under Standard Practice, ASTM E2921. The assessment criteria include the following environmental impact categories: a. Primary energy use b. Global warming potential c. Acidification potential d. Eutrophication potential e. Ozone depletion potential f. Smog potential g. Material Use h. Waste i. Water Use j. Pollution Discharges to Water … Execute full LCA, including extraction and harvesting, manufacturing, construction, use and end-of-life phases~~,~~. For the use phase, calculate ~~through calculation of~~ operating energy impacts (c) – (f) using local or regional emissions factors from energy supplier, utility, or EPA. For the use phase, also include impacts associated with material replacements. **11.610.1.2.1Product LCA.** A product with improved environmental impact measures compared to another product(s) intended for the same use is selected. The environmental impact measures used in the assessment are selected from the following: a. Primary energy use b. Global warming potential c. Acidification potential d. Eutrophication potential e. Ozone depletion potential f. Smog potential g. Material Use h. Waste i. Water Use j. Pollution Discharges to Water **11.610.1.2.2 Building Assembly LCA.** Abuilding assembly with improved environmental impact measures compared to an alternative assembly of the same function is selected… **…**The environmental impact measures used in the assessment are selected from the following: a. Primary energy use b. Global warming potential c. Acidification potential d. Eutrophication potential e. Ozone depletion potential f. Smog potential g. Material Use h. Waste i. Water Use j. Pollution Discharges to Water	
Reason:	Using less material and recovering more is crucial to our economic and environmental future. Material use and waste generation over the life cycle of a building should be modeled. In addition, the “full” life cycle assessment should include all life cycle phases, including manufacturing, construction, use and end-of-life phases. While the NGBS-proposed language for whole-building life cycle assessment emphasizes that the assessment should include the use phase, it omits mentioning the manufacturing, construction and end-of-life phases. Finally, the language for the whole-building use phase indicates that impacts related to energy use should be evaluated, but remains silent on the need to evaluate impacts	

	associated with the replacement of materials. Solution: Add the material use and waste impact categories to the assessment criteria. Emphasize that the boundary of the assessment should include the manufacturing, construction and end-of-life phase. Emphasize that the assessment of the use phase should include the analysis of impacts associated with the replacement of materials.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6304. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6365**	**11.611.3 Universal design elements**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Revise as follows	
Proposed Change:	(6) All sink ~~faucet controls are single-handle controls of both volume and temperature,~~ lavatory and showering controls shall have cross or lever handles.	
Reason:	The current language is design-limiting and also excludes other functional areas which could utilize universal design elements such as lavatories and showering areas. Cross and lever controls for all faucets and bathing/showering trim provide greater accessibility than controls with knob shapes. ADA and A117.1 allow center set, widespread and single handle controls.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6363. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6412**	**11.611.3 Universal design elements**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**11.611.3 Universal design elements.** Dwelling incorporates one or more of the following universal design elements. Conventional industry construction tolerances are permitted. **(1)** High visibility address numbers at entrance to dwelling unit **(2)** Movement sensor light at entrance into dwelling unit **(3)** A sidelight or a peephole at 42 and 60 inches above the floor at entrance to dwelling unit **RENUMBER SUBSEQUENT ITEMS**	

Reason:	Provide good overall lighting and house number for nighttime security and ease-of-use. Additional lowered peephole for seated or short adults and children. (Based on NC State University publication of universal design elements for residences.)
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6195. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6519**	**11.701.4.0 Minimum energy efficiency requirements**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**11.701.4.0 Minimum energy efficiency requirements.** Additions, alterations, or renovations to an existing building, building system or portion there of comply with the provisions of the ~~International Energy Conservation Code~~ ICC IECC as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this ~~code~~ standard. An addition complies with the ICC IECC if the addition complies or if the existing building and addition comply with the ICC IECC as a single building.	
Reason:	Revising for clarity, and consistent reference to ICC IECC.	
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 11 – Proposal LogID 6526.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6450**	**11.701.4.0 Minimum energy efficiency requirements**
Submitter:	Craig Conner, Building Quality	
Requested Action:	Revise as follows	
Proposed Change:	11.701.4.0 Minimum energy efficiency requirements. Additions, alterations, or renovations to an existing building, building system or portion ~~there of~~ thereof shall comply with the provisions of the International Energy Conservation Code as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code. An addition complies with the IECC if the addition complies or if the existing building and addition comply with the IECC as a single building.	
Reason:	Correct the spelling. This change is editorial. This change should be under only the name of “Howard C. Wiig, State of Hawaii, representing self”	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6364	11.701.4.3.2 Air sealing and insulation
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**11.701.4.3.2 Air sealing and insulation.** Grade II and III insulation installation is not permitted for newly installed insulation. For the potions of the building envelope that are exposed or created during the remodel, the ~~B~~ building envelope air tightness and insulation installation is verified to be in accordance with Section 11.701.4.3.2(1) and 11.701.4.3.2(2)… **No other revisions.**	
Reason:	Existing language appears to mandate insulation grading in existing walls that are not being disturbed as part of the remodel. This revision aligns the section with NGBS 2015 12.701.4.3.2 language.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6362	11.701.4.4 High-efficacy lighting
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**11.701.4.4 High-efficacy lighting.** Newly installed ~~L~~ lighting ~~efficacy~~ in dwelling units is in accordance with one of the following: (1) A minimum of 75 percent of the total hard-wired lighting fixtures or the bulbs in those fixtures qualify as high efficacy or equivalent ~~(2) Lighting power density, measured in watts/square foot, is 1.1 or less.~~	
Reason:	Current language mandates changing out existing lighting to meet this Mandatory item. Change aligns with other measures in Chapter 11 that only pertain to Newly Installed items. Calculating a lighting power density for newly installed lighting only does not make sense and hence option (2) should be removed.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6369	11.901.2.1 Solid fuel-burning fireplaces, inserts, stoves, and heaters
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**(2)** Factory-built, wood-burning fireplaces are in accordance with the certification requirements of UL 127 ~~and are EPA certified or Phase 2 Qualified~~.	
Reason:	The EPA does not certify factory-built wood burning fireplaces so the first reference is nonsensical. Very few fireplaces meet the EPA Phase 2 Qualified requirements and thus they are exorbitantly priced compared to other similar fireplaces. The second reference as a Mandatory measure represents undue burden for projects and should be removed.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6203. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to	

	remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6566**	**11.901.2.1 Solid fuel-burning fireplaces, inserts, stoves, and heaters**
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Revise as follows	
Proposed Change:	(2) Factory-built, wood-burning fireplaces are in accordance with the certification requirements of UL 127 and ~~are EPA certified or Phase 2 Qualified~~ insulated, fire-blocked, sealed and gasketed.	
Reason:	(Same revision was also submitted for standard Chapter 9 901.2.1): Mandating "EPA certified or Phase 2 Qualified" is extremely cost-prohibitive and thus nearly impossible. Recommend keeping the points and removing the Mandatory OR simply strike "EPA certified or Phase 2 Qualified". If the unit is insulated, fire-blocked, sealed and gasketed, this would be a reasonable requirement.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6561. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6269**	**11.901.3 Garages**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	11.901.3. X Install CO detector/Monitor within 10 ft of Garage door (interior side)	
Reason:	Points for going above Mandatory requirement. Easy / inexpensive health and safety measure	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6270. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6273**	**11.901.6 Carpets**

Submitter:	Paul Gay, US-EcoLogic
Requested Action:	Revise as follows
Proposed Change:	(1) ~~wall to wall~~ No New Carpeting is ~~not~~ installed ~~adjacent to water closets and bathing fixtures~~ in half/full bathrooms, kitchens, utility/laundry rooms or within 3 ft of entries. XX Points if existing carpet in these areas is removed and replaced with hard flooring
Reason:	who wants soggy socks??!original language is behind current /typical standard building practice
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6275. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6371**	**11.901.6 Carpets**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**Carpets.** Newly installed c~~C~~arpets are in accordance with the following: (1) Wall-to-wall carpeting is not installed adjacent to water closets and bathing fixtures.	
Reason:	Existing language appears to mandate changing flooring in otherwise undisturbed areas. Adding "newly installed" aligns this mandatory requirement with the other Mandatory requirements in section 11.901.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6413**	**11.902.2.1 Whole building ventilation system**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	902.2.1 One of the following whole building ventilation systems is implemented and is in accordance with the specifications of ~~Appendix B~~ ASHRAE 62.2 and an explanation of the operation and importance of the ventilation system is included in either 1001.1 or 1002.2. **DELETE APPENDIX B**	
Reason:	As demonstrated during the NGBS 2015 Development Committee discussions , Appendix B, which includes only an excerpt of ASHRAE 62.2, does not adequately capture the depth or breadth of the Standard. Excerpting some of the calculations from 62.2 while leaving other out along with various exceptions results in more air being required to be delivered compared to if the whole Standard had been adopted.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6206. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to	

	remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6414**	**11.902.2.1 Whole building ventilation system**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**11.902.2.1** One of the following whole building ventilation systems is implemented and is in accordance with the specifications of ~~Appendix B~~ ASHRAE 62.2 and an explanation of the operation and importance of the ventilation system is included in either 1001.1 or 1002.2. (1) exhaust or supply fan(s) ready for continuous operation and with appropriately labeled controls - 3 Points (2) exhaust or supply fan(s) with automatic smart ventilation controls to limit ventilation during periods of extreme temperature and extreme humidity. - 6 Points ~~(2)~~(3) balanced exhaust and supply fans with supply intakes located in accordance with the manufacturer's guidelines so as to not introduce polluted air back into the building - 6 Points ~~(3)~~(4) heat-recovery ventilator - 7 Points (5) balanced exhaust or supply fan(s) with automatic smart ventilation controls to limit ventilation during periods of extreme temperature and extreme humidity, and with intakes located in accordance with the manufacturer's guidelines so as to not introduce polluted air back in to the building - 8 Points ~~(4)~~(6) energy-recovery ventilator - 8 Points	
Reason:	Initial research in this area, funded by the U.S. Department of Energy (U.S. DOE), investigated the proof-of-concept for smart ventilation and estimated typical ventilation energy savings of 40% (Turner and Walker 2012) or about 15% of total heating and cooling load, with savings increasing to more than 50% on average for economizer-equipped homes.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6207. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6415**	**11.902.2.2 Whole building ventilation airflow is tested**
Submitter:	Aaron Gary, 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 ANSI/RESNET/ICC 380 and Section 902.2.1	
Reason:	Not all ventilation systems can be tested at the point of exhaust and for many doing so while possible is not accurate. ANSI/RESNET/ICC 380 is an ICC approved Standard that includes guidelines for testing ventilation airflow at multiple locations, including the point of exhaust, so that the most appropriate and accurate means can be selected by the 3rd party verifier.	

Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6205. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6416**	**11.902.6 Living space contaminants**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**11.902.6 Living space contaminants.** Indoor contaminants are limited through the following: (1) The living space is sealed in accordance with Section701.4.3.1 to prevent unwanted contaminants. **- MANDATORY** (2) A permanent shoe removal and storage space is implemented near the primary entryway. This space may not have wall-to-wall carpeting. **- 3 POINTS**	
Reason:	A majority of the dirt and dust in homes is tracked in by occupants. One of the most effective ways to reducing these indoor contaminants therefore is to encourage occupants and visitors to remove shoes at the door.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6209. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6425**	**Other for Chapter 11 (include section and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	11.905.X Outdoor Living. Meet any or all of the following: **(1)** Built-in outdoor kitchen **(4 points)** **(2)** Built-in outdoor fireplace (no indoor fireplace installed) **(3 points)** **(3)** Plumbed outdoor shower **(3 points)** **(4)** Covered, usable front porch protecting entry door Minimum depth: 6'; minimum area: 100 sq. ft. **(3 points)** **(5)** Covered, usable porch other than front porch Minimum side dimension: 6'; minimum area 100 sq. ft. One of the above porches fully screened **(2 points)** **(6)** Uncovered patio Minimum side dimension: 6'; minimum area: 100 sq. ft. **(1 point)**	
Reason:	To reduce sources of indoor heat and humidity and associated indoor air quality issues by encouraging occupants to take advantage of outdoor living. Could fit in with other Health and Wellness credits to form a new section.	

Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6427. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6493**	**Other for Chapter 11 (include section and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	**Section 11-906 -** Add a new section as relevant for health and well-being credits.	
Reason:	As sustainability protocols evolve, the natural progression is to include measures that have a positive benefit on occupant health and well-being.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6356. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6422**	**Other for Chapter 11 (include section and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**11.905.X Access to daylight.** To promote health and well being of occupants the following measures are implemented: (1) 75% of regularly occupiable spaces have windows, skylights, or glass doors. - **3 POINTS** (2) 75% of regularly occupiable spaces have direct line of sight views to the outdoors. **- 3 POINTS**	
Reason:	Studies have shown that access to outdoor light and views increase health and productivity of building occupants.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6355. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6430	Other for Chapter 11 (include section and title below)
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**ADD NEW SECTION** **11.902.2.3** Factory-built, wood-burning fireplaces are EPA Phase 2 Qualified. - **6 points**	
Reason:	Very few fireplaces meet the EPA Phase 2 Qualified requirements and thus they are exorbitantly priced compared to other similar fireplaces. This measure should be moved from being a Mandatory items to an optional credit.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6429. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6421	Other for Chapter 11 (include section and title below)
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**11.902.2.X** Whole building ventilation system in installed with a automatic notification device to communicate performance degradation or failure**. - 6 points**	
Reason:	2015 FSEC study (FSEC-CR-2002-15) showed a wide disconnect between the perceived and actual effectiveness of whole building ventilation systems in homes. The study found that of the homes surveyed only 5% of homes had a whole building ventilation system that was actually delivering the expected air as found while at the same time 48% of these same homeowners said they were happy with the performance of their whole building ventilation system. Existing and emerging technologies that can help address this disconnect should be well rewarded. The installation of non-performing ventilation systems both wastes resources and degrades the value of green building in the marketplace.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6418. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6423	Other for Chapter 11 (include section and title below)
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	

Proposed Change:	ADD SECTION **11.902.2.7 Preoccupancy flush.** Dwelling is flushed with outdoor air for 48 hours prior to occupancy.
Reason:	During the construction process dwellings become contaminated with dust, debris and off-gassing from materials. Flushing the dwelling with outdoor air prior to occupancy helps remove these potentially harmful pollutants from the space.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6424. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6409**	**Other for Chapter 11 (include section and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**505.12 Local Economic Development and Community Wealth Creation:** (1) Demonstrate that local preference for construction employment and subcontractor hiring was part of your bidding process - 3 POINTS (2) Demonstrate that you achieved at least 20% local employment - 4 POINTS (3) Provide physical space for small business, nonprofits, and/or skills and workforce education. - 5 POINTS	
Reason:	Housing often has the opportunity to act as an economic catalyst within a neighborhood and community. Housing projects offer opportunities to directly enhance the lives of residents when they include physical space that can accommodate various programs for learning, job skill development and other social interactions. Numerous studies have documented the ways in which affordable housing projects have positive economic impacts on their surrounding neighborhoods.	
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6179. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6411**	**Other for Chapter 11 (include section and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**ADD NEW SECTION** **11.505.X Building Orientation.** Lot is part of a community where a minimum if 75% of the building sites are designed with the longer dimension of the structure to face within 20 degrees of south. **- 6 points**	
Reason:	Takes existing NGBS 2015 practice, 403.2, and applies it to a lot.	

Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6324. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6406**	**Other for Chapter 11 (include section and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW SECTION **505.X Open Space:** Lot is within a community that has 1 acre or greater set aside as open space.	
Reason:	Based on NGBS 2015 405.9 and applied to a single lot versus entire land development	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6177. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6407**	**Other for Chapter 11 (include section and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW SECTION **505.X Community Recycling Program:** Lot is within a community that has a recycling program. **- 5 POINTS**	
Reason:	Promotes recycling on a community level as a means to align with practice 11.607 which does the same on the house level. Being able to collect recycling in a homes when you have no place to take it is aspirational but not particularly effective	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6326. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		

TG Vote:	

Proposal ID TBD	**LogID 6408**	**Other for Chapter 11 (include section and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW SECTION **505.X** District Heating and Cooling: Lot is within a community that has a district heating and/or cooling system.	
Reason:	District cooling and heating can be very efficient as it removes the need for building specific space heating systems, space cooling systems, and/or domestic water heating systems.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6178. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6410**	**Other for Chapter 11 (include section and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW SECTION **505.13 Community Design for Cross Ventilation:** Lot is within a community located in a hot, humid climate where 75% of streets are within 20-30 degrees either direction of parallel to the prevailing wind. - **5 POINTS**	
Reason:	In hot, humid climate good ventilation is necessary to remove excess heat from streets and open spaces and to provide cross-ventilation in buildings. Streets parallel to the prevailing wind have the highest velocity while streets perpendicular to the prevailing wind yield lower velocity and more turbulent wind in the streets.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6321. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6435**	**Other for Chapter 11 (include section and title below)**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	**11.1005.1 Appraisals.** One or more of the following is implemented. **(1)** Energy rating data is posted to publicly accessible database so that appraisers can access it for performing "green" property valuations. - **2 POINTS** **(2)** Green certification data is provided so that appraisers can access it for performing "green" property valuations. - **2 POINTS**
Reason:	The real key to increasing demand for high-performance homes is getting the information to home appraisers in such a way that they can recognize the increased value of the green certified home above that of a conventionally built home.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 10 – Proposal LogID 6291. The parallel proposal is being reviewed by TG-4. TG-7 should review the recommendation of TG-4 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-4 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD **LogID 6441** **Other for Chapter 11 (include section and title below)**

Submitter:	Aaron Gary, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	ADD NEW SECTION **11.611.X Resilient Construction**. Buildings are designed to withstand sever weather per Table 611.X **Table 611.3** **Fortified Home Technical Requirements Level**

	Points for Bronze	Points for Silver	Points for Gold
(1) Fortified Home Hurricane Technical Requirements	X	X	X
(2) Fortified Home High Wind Technical Requirements	X	X	X
(1) Fortified Home High Wind & Hail Bronze Technical Requirements	X	X	X

Reason:	Rebuilding homes after severe weather is costly in terms of time, money, and materials. This green building standard should recognize projects that build resiliently.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6442. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	

TG Vote:	

Proposal ID TBD	**LogID 6525**	**Other for Chapter 11 (include section and title below)**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Add new as follows	
Proposed Change:	**11.706** **Innovative Practices** **11.706.1 Ducts in conditioned space.** In climate zones1-4, heating system and cooling system ducts are located in conditioned space. Points = TBD **11.706.2 Insulated basement and crawl space.** In climate zones4-8, basement and crawl space are insulated as required by the ICC IECC. Points = TBD	
Reason:	In cooling dominated climate zones, where basements or crawl spaces are rarely constructed, moving or placing heating and cooling system ducts within (insulated) conditioned space improves the efficiency of the heating / cooling system. In heating dominated climate zones, where basements or crawl spaces are common, insulating those spaces as required by the ICC IECC improves energy efficiency significantly.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 7 – Proposal LogID 6515. The parallel proposal is being reviewed by TG-5. TG-7 should review the recommendation of TG-5 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-5 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6375**	**Other for Chapter 11 (include section and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	**11.505.X Street Network:** Locate the project in an area of high intersection density. - **5 POINTS**	
Reason:	This credit encourages health and well being of home owners and tenants on by encouraging daily physical activity. It has the added benefits of promoting projects that are well connected to the community at large as well as encourage development within existing communities that minimizes vehicle miles traveled.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6345. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6428**	**Other for Chapter 11 (include section and title below)**
Submitter:	Aaron Gary, US-EcoLogic	

Requested Action:	Add new as follows
Proposed Change:	**11.902.2.X** All HVAC filter locations are designed such that they are easily accessible to the occupant. - **3 POINTS**
Reason:	HVAC filters do not get changed when they are not accessible reducing the air quality and energy efficiency of the HVAC system and eventually leading to system failure.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6419. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6417**	**Other for Chapter 11 (include section and title below)**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	ADD NEW SECTION **904.3 Indoor Air Quality Metric**. Dwelling receives a IAQ score using the DOE IAQ Metric of X. (threshold TBD)	
Reason:	Recognize and encourage the adoption of the new DOE sponsored IAQ metric for indoor air quality.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6294. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6310**	**Other for Chapter 11 (include section and title below)**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Add new as follows	
Proposed Change:	**11.608.2Design for Adaptation and Disassembly.** For siding, windows, mechanical/electrical/plumbing (MEP) systems, wall paneling and flooring materials, incorporate three or more of the following measures, as applicable: Use reusable/recyclable materials. For example: o Use materials and fixtures for which take-back or reuse/recycling programs are established. o Use high-quality materials that exceed minimum performance standards. o Avoid use of coatings or adhesives that prevent reuse and recycling. Promote disentanglement of building components. For example: o To limit the destruction of the surrounding materials, incorporate installation details that permit easy removal and replacement of components. o Consolidate placement of MEP components in building floorplans and cross-sections.	

	Provide access to and use reversible connections, such as screws, bolts, or clips. Provide disassembly and reuse information to owner.
Reason:	Section 11.608 currently includes a single subsection encouraging the dematerialization of building components. The Design for Adaptation and Disassembly is similarly, an upstream strategy to improve resource efficiency and therefore, fits with the upstream, resource-efficiency focus of this section. The Design for Adaptation and Disassembly involves the utilization of recyclable/reusable building materials and preserves resources by maximizing their recovery and ensuring their continuous reutilization.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6302. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6331**	**Other for Chapter 11 (include section and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	2012 commentary has good info. Include an edited version.	
Reason:	the 2012 commentary provides short but helpful guidance for implementation. it makes sense to include this information upfront and center in the working standard not buried in another book	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6313**	**Other for Chapter 11 (include section and title below)**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	**11.1001.1Homeowner's manual.** A homeowner's manual is provided and stored in a permanent location in the dwelling that includes the following, as available and applicable… … (25) Retrofit energy calculator that provides baseline for future energy retrofits. (26) Disassembly plan with as-built drawings and information about the method of disassembly for major components; and material selection for recycling/reuse. **11.1001.2Training of initial ~~building~~ homeowners.** Initial homeowners are familiarized with their role and the role of occupants in achieving green goals. Training is provided to the responsible party(ies)regarding ~~newly installed equipment~~ changes in building operation and maintenance, including newly installed equipment operation and building material replacement, and regarding occupant actions that will improve the environmental performance of the building. These include, as applicable… … (7) Recycling and composting practices. (8) Disassembly methods for building components, material suitability for recycling and reuse, replacement with other recyclable/reusable materials.	

Reason:	Design for Adaptation and Disassembly involves the utilization of recyclable/reusable building materials and preserves resources by maximizing building-material recovery. A disassembly plan and building-owner training on the disassembly methods and reuse/recycling properties of the major building components, facilitate disassembly and appropriate material management, and help realize the intent and benefits of the Design for Adaptation and Disassembly measures. Solution: Add Disassembly Plan as an additional item to be provided to homeowner, as applicable. Include training on disassembly methods and building material reuse/recycling properties as an additional training for parties responsible for building maintenance and operation, including replacement of building materials.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 10 – Proposal LogID 6307. The parallel proposal is being reviewed by TG-4. TG-7 should review the recommendation of TG-4 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-4 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6314**	**Other for Chapter 11 (include section and title below)**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	**11.1002.1Building construction manual.** A building construction manual, including five or more of the following, is compiled and distributed… … (8) A photo record of framing with utilities installed. Photos are taken prior to installing insulation and clearly labeled. (9) Disassembly plan with as-built drawings and information about the method of disassembly for major components; and material selection for recycling/reuse. **11.1002.3Maintenance manual.** Maintenance manuals are created and distributed to the responsible parties in accordance with Section 1002.0.Between all of the maintenance manuals, five or more of the following options are included… … (10) A green cleaning plan which includes guidance on sustainable cleaning products. (11) For use during building component maintenance and replacement, a disassembly plan with as-built drawings and information about the method of disassembly for major components; and material selection for recycling/reuse. **11.1002.4Training of building owners.** Building owners are familiarized with the roles of operations and maintenance staff and occupants in achieving green goals. On-site training is provided to the responsible party(ies) regarding ~~newly installed equipment~~ changes in building operation and maintenance, including newly installed equipment operation, control systems and building material replacement and regarding occupant actions that will improve the environmental performance of the building. These include, as applicable… … (7) Recycling and composting practices. (8) Disassembly methods for building components, material suitability for recycling and reuse, replacement with other recyclable/reusable materials.	
Reason:	Design for Adaptation and Disassembly involves the utilization of recyclable/reusable building materials and preserves resources by maximizing building-material recovery. A disassembly plan and building-owner training on the disassembly methods and reuse/recycling properties of the major building components, facilitate disassembly and appropriate material management, and help realize the intent and benefits of the Design for Adaptation and Disassembly measures. Solution: Add Disassembly Plan as an additional item to be provided to building owners and parties responsible for operations and maintenance. Include training on disassembly methods and building material reuse/recycling properties as an additional	

	training for parties responsible for building maintenance and operation, including replacement of building materials.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 10 – Proposal LogID 6308. The parallel proposal is being reviewed by TG-4. TG-7 should review the recommendation of TG-4 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-4 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6263**	**Other for Chapter 11 (include section and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	Projects that are exempt from Mandatory Practices earn points if measure is done	
Reason:	precedent set ...see 705.6.2.1 and 705.6.2.3 a project that is exempt from Blower door /Duct test is awarded points if they are done	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6262**	**Other for Chapter 11 (include section and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	Add Innovative credits/trade off	
Reason:	Provide opportunity for innovative practices to be rewarded	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6245**	**Other for Chapter 11 (include section and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	11.XXX.XX Create Remodel Innovative Practice Section	
Reason:	encourage program participation and remodel specific solutions	
TG Recommendation (AS or AM or D):		

Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6558**	**Other for Chapter 11 (include section and title below)**
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Add new as follows	
Proposed Change:	HEALTH AND WELL BEING (...prior to each sub-section of INNOVATIVE PRACTICES: 11.405, 11.505, 11.611, 11.706, 11.802, 11.905, 11.1005)	
Reason:	To include a new sub-section within each chapter of the Protocol, as relevant, immediately preceding (or after) Innovative Practices section, to address health and well being issues that are interconnected to the overall Green certification, but independent/optional, not required. This opens the program to reach lifestyle and living for overall occupant health.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6569**	**Other for Chapter 11 (include section and title below)**
Submitter:	Kat Benner, US-EcoLogic / TexEnergy	
Requested Action:	Revise as follows	
Proposed Change:	11.801.6.3 Mandatory 6 points	
Reason:	(Note: Water Chapter 8 was missing from drop-down options on Chapter 11 online revisions? Thus, hand-typing Title) (Note 2: Same Revision below was submitted for corresponding standard Chapter 8 801.6.3, fyi) Reason for revision: Requiring WaterSense labeling, plan, and certified staff to install is impossible in many areas of the country, especially those further from large metropolitan areas, as WaterSense certified professionals are simply not available nor within any range to install or implement materials. Thus, also cost-prohibitive or simply impossible. Additionally, no equivalent program currently exists. Suggest removing Mandatory and instead leave measure, but suggest with 6 points awarded vs. Mandatory.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6494**	**Other for Chapter 11 (include section and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	

Requested Action:	Add new as follows
Proposed Change:	**Section 11.906.1** - Isolation of remodeled areas. To prevent contamination of unrenovated spaces, meet one of the following two options: (1) Remodeled space is isolated from unrenovated space by masking of openings and/or providing strip doors. 1 (2) Remodeled space is isolated from unrenovated space by masking of openings and/or providing strip doors and the space is either negatively pressurized by ducting exhaust to the exterior OR a HEPA filtration system is installed. 2
Reason:	Air quality should be maintained in spaces that are being occupied while renovations are happening in other areas of the building.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6498**	**Other for Chapter 11 (include section and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	New Section **Section 11.505.7 -** Pest Control **-** Meet one or more of the following: (1) Containers and garbage cans are sealed and storage of household materials outside is minimized. 1 (2) Pest Inspection is performed by certified pest control professional. 1	
Reason:	In some areas, pests can become an issue if trash and storage isn't properly secured.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6249**	**Other for Chapter 11 (include section and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	11.10XX.XX or 1X.XXX.XX (Existing Multi Family) Management has contract with Cleaning Company that enforces Green Cleaning Practices / has written Green Cleaning protocols established or Management Has written/enforcable In House Green Cleaning protocols in place and 48 hour Pre Occupancy Flush is conducted prior to tenant move in	
Reason:	Prior to move in Units are cleaned using Green Cleaning Practices (carpets etc) and or flushed	
Concurrent Review Staff Note:	*This proposal is also being reviewed by TG-6 (Multifamily) as the proposal will affect multifamily buildings.*	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		

TG Vote:	

Proposal ID TBD	**LogID 6242**	**Other for Chapter 11 (include section and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	11.505.X Pre Construction Durability Assessment Assess Project lot and Building risks associated with lot location, develop strategies to address specified risks. Include measures in plans	
Reason:	assess and address site / location specific risks eg Pests/UV/Excessive thermal considerations (Hot/Cold/ Humidity) Moisture/Soil/Terrain/Landscape and include measures to address in plans	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6241. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6236**	**Other for Chapter 11 (include section and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	11 611 XX Conduct "TBD" hours of documented onsite trades training. Documentation shows date /duration /trade and reason	setting / showing expectations of the credit requirement is an ongoing process....one and done = none. Verifier and
Reason:	Contractor teamwork is the trick,with visual and hands on learning the best way to ensure thing pass early and often	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6225. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6230**	**Other for Chapter 11 (include section and title below)**
Submitter:	Paul Gay, US-EcoLogic	

Requested Action:	Add new as follows
Proposed Change:	11.505 XX Install Permanent or Maintained/Managed Post Construction Sewer/Street drain protection
Reason:	protect sewer system and water ways from ongoing post construction pollutants
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 5 – Proposal LogID 6223. The parallel proposal is being reviewed by TG-2. TG-7 should review the recommendation of TG-2 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-2 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6244**	**Other for Chapter 11 (include section and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	11.XXX.XX Conduct 3rd party Air Seal/ Compartmentalization Plan evaluation with pre and during construction Trades training.	
Reason:	ensure air seal /compartmentalize measures are in plans and in scope of work.conduct training and provide guidance for correct/timely install practices early and as often as necessary	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6243. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6221**	**Other for Chapter 11 (include section and title below)**
Submitter:	Steven Rosenstock, Edison Electric Institute	
Requested Action:	Add new as follows	
Proposed Change:	**11.505.7 Battery Storage System.** A battery storage system is installed that stores electric energy from an on-site renewable electric generation system or is grid-interactive or can perform both functions.	
Reason:	As more electric grids and homes install renewable and variable electric generation systems, there is more need for energy storage. In Hawaii, there are now special electric rates for customers that can store electricity from on-site PV systems. This new section will allow more storage technologies to receive credit in the NGBS. Information on Hawaii rates: https://www.hawaiianelectric.com/clean-energy-hawaii/producing-clean-energy/customer-self-supply-and-grid-supply-programs Information on different battery storage technologies: https://cleantechnica.com/2015/05/07/tesla-powerwall-price-vs-battery-storage-competitor-prices-residential-utility-scale/ https://cleantechnica.com/2015/05/09/tesla-powerwall-powerblocks-per-kwh-lifetime-prices-vs-aquion-energy-eos-energy-imergy/ http://www.solarpowerworldonline.com/2016/05/comparison-residential-solar-batteries/	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 7 – Proposal LogID 6220. The parallel proposal is being reviewed by TG-5. TG-7 should review the	

	recommendation of TG-5 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-5 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	LogID 6330	12.0.1 Applicability
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	2012 commentary has good info. include an edited version.	
Reason:	the 2012 commentary provides short but helpful guidance for implementation. it makes sense to include this information upfront and center in the working standard not buried in another book	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6260	12.1(A) Product or material selection
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	Clarify language in 12. (A) …does this mean you can pick from any item designated 12.1.A XXXX?	
Reason:	Clear language of intent is a good thing	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	LogID 6340	12.1(A).604.1 Recycled content
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Delete and substitute as follows	
Proposed Change:	**12.1(A).604.1 Product Declarations. A minimum of 3 newly installed products comply with one of the following subsections.** **12.1(A).604.1.1Industry-wide declaration.** A Type III industry-wide environmental product declaration (EPD) is submitted for each product. Where the program operator explicitly recognized 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 is required to be explicitly recognized as a participant by the EPD program operator. All EPDs are required to consistent with ISO Standards 14025 and 21930 with at least a cradle-to-gate scope. **12.1(A).604.1.2Product Specific Declaration.** A product specific Type III EPD is submitted froe ach product. The product specific declaration shall be manufacturer-specific for an individual product or product family. All Type IIIEPDs are required to be certified as complying, at a minimum, with the goal and scope for the cradle-to-gate requirements in accordance with ISO Standards14025 and 21930.	
Reason:	Remove sections in entirety. (This changes includes removal of SECTION 12.1(A).604.1 RECYCLED CONTENT, SECTION 12.1(A).609.1 REGIONAL MATERIALS and SECTION 12.1(A).610.1 LIFE CYCLE ASSESSMENT) Replace these three sections with the proposed language above. To increase use of the standard, reduce the complexity and remove the recycled content and regional material calculations. Regional material impacts are captured through EPDs, which are easier for the end user to locate and	

	provide a much better indicator as they focus on the outcome of the various inputs. Individually, single-attributes have little bearing on the final impact so they are being replaced with EPDs. Asking a contractor or other Standard user to find an LCA tool and use it to select various inputs is not user-friendly, nor is it an effective way to understand the burden of that product. Essentially they would be guessing as to the inputs whereas the use of an EPD allows the manufacturer to utilize specific inputs, removing the guesswork.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6328**	**12.1(A).606.2 Wood-based products**
Submitter:	Rob Brooks, Rob Brooks & Associates	
Requested Action:	Delete and substitute as follows	
Proposed Change:	See proposed changes to Section 606.2: **606.2 Wood-based products.** Wood or wood-based products shall be derived from a manufacturers' fiber procurement system that has been audited by an *approved agency* as compliant with the provisions of: (a) ASTM D7612 as a responsible or certified source. Government or tribal forestlands whose water protection programs have been evaluated by an *approved agency* as compliant with the responsible source designation of ASTM D7612 are exempt from auditing in the manufacturers' fiber procurement system. (b) National Wood Flooring Association's Responsible Procurement Program (RPP)	
Reason:	See reason statement in proposed change to Section 606.2: • This proposed change related to the acceptance of forest products is vital to the use of ICC-700 in states where forest product production is an important source of revenue, such as Oregon. Neighboring states, such as Washington, Idaho and California also rely upon forest product production and support the use of sustainable forestry and best management practices to maintain (among other objectives) water quality. • The IgCC, USGBC Pilot Credit and the USDA BioPreferred Program currently recognize ASTM D7612 responsible and certified sources. The 2012 ICC-700 recognizes responsible sources through the SFI Fiber Sourcing program. Alternatively, SFI Chain of Custody is a certified source. (see attached table). All of the existing forest certification programs listing in ICC-700 are recognized by ASTM D7612. • ASTM D7612 provides a means to specify sustainable forestry via the certified sources designation without the reference to proprietary standards such as SFI, FSC, ATFS, etc. The American National Standards Institute's (ANSI) Essential Requirements for Due Process, excludes specifying ecolabels—FSC, PEFC, SFI—that is, their brand name—because that would run afoul of ANSI's prohibition on the use of commercial terms. It says in part, "[t]he appearance that a standard endorses any particular products, services or companies must be avoided." Previously, there was no method to generically specify these ecolabels, but with the advent of the ASTM D7612, the generic reference is available, which should replace the proprietary ecolabel. The USGBC Pilot Credit recognizes this advantage and avoids comparison between proprietary systems to avoid improper commercial endorsement. • ASTM D7612 provides a means to specify enforcement of best management practices by governmental agencies that have authority to protect water quality on both certified and non-certified forestlands via the responsible source designation. For Oregon, enforcement is achieved through the Oregon Forest Practices Act (OFPA), regardless of whether the forestland is certified to sustainable forestry standards, or not. o Enforcement is defined as having authority, staffing, budget, proof of citations and the ability to adapt the rules to improve the system. Oregon forestlands subject to the OFPA have been independently audited and found compliant to the responsible source designation by PFS Corporation. o The emphasis on water quality for government or tribal forestlands is due to the existing rules already in place tp protect forests (see https://cfpub.epa.gov/watertrain/moduleFrame.cfm?parent_object_id=1517 The degree to which these rules are enforced by each state has been evaluation by the National Association of State Foresters http://www.stateforesters.org/state-forestry-agency-best-management-practices-protecting-water#sthash.7VDEx3y6.dpbs The three tiers of enforcement are non-regulatory, quasi-regulatory and	

	regulatory in order of increasing compliance. ASTM D76712 recognizes those states having quasi-regulatory and regulatory compliance under the responsible source designation. o The strength of the responsible sources program is the ability to issue citations (fines) for noncompliance to water quality rules and to reward states/jurisdictions that fund enforcement. Citations are issued to operators on both certified and non-certified forests. In some states, such as Oregon, the OFPA rules extend beyond water quality. Oregon producers want recognition of their compliance to OFPA, but not at the same tier as certified sources to avoid market confusion that responsible and certified sources are equivalent. o Manufacturers are required to trace fiber procurement under both the responsible and certified sources designation. Further information can be provided to the ICC-700 committee upon request. o The strength of the certified sources program is to write rules that extend beyond issues related to water quality. When damage to the forest happens from non-compliance, certified source programs can de-certify clients, they cannot issue citations or stop-work orders to remediate damage. o Thus, the responsible source program is an important enforcement component (and partner) to a certified source program. It will provide recognition for those states who actively monitor, enforce and punish offenders not in compliance with the law. It encourages states to enforce their water quality rules through inspection, documentation and citation, which is complementary to the voluntary sustainable forestry standards, or certified sources. It supports the “boots on the ground”, actively monitoring harvest operations on both public and private lands. o ASTM D7612 not only supports the expanded enforcement of existing water quality rules (aka best management practices), but also recognizes voluntary compliance to those sustainable forestry practices above and beyond state water quality rules. • In Oregon, the OFPA applies to approximately 10 million acres; of which approximately 4 million acres are certified forests. If the responsible source designation were also applied to federal and tribal lands, the designation would apply to approximately 30 million acres of forestland in Oregon. The fiscal implication of the responsible source designation is significant to the increased value of building products derived from private and public lands, which is why the state of Oregon is presenting this request. The responsible source designation provides states recognition of best management practice enforcement on public lands without the controversial decision and cost to convert to the certified source designation. Further information about ASTM D7612 is found at https://www.astm.org/standardization-news/?q=features/green-greener-greenest-ma17.html.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6327. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6316**	**12.1(A).608.1 Resource-efficient materials**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	**12.608.1Resource-efficient materials.** Products containing fewer materials are used to achieve same end-use requirements as conventional products, including but not limited to: ~~(1) Lighter, thinner brick with depth less than 3 inches and/or brick with coring of more that 25 percent~~ ~~(2)~~ (1) Engineered wood or engineered steel products ~~(3)~~ (2) Roof or floor trusses	
Reason:	Since engineered wood, engineered steel products and roof or floor trusses are incorporated intermittently in the façade, and/or entirely in the interior, their dematerialization is not likely to jeopardize the structure’s overall energy efficiency. In fact, filling with insulation those spots in the exterior walls where the unneeded mass of structural elements would otherwise have been, reduces the thermal bridging associated with structural elements in exterior walls and improves the structure’s energy efficiency. Conversely, the continuous dematerialization of a façade material, such as brick, may require an addition of more insulation to compensate for the loss of volume all along the perimeter, just to achieve comparable energy efficiency. A more accurate assessment of the benefits of the	

	dematerialization of façade materials can possibly be made and if there are benefits, points can be captured through Life Cycle Assessments (12.610.1.1 and 12.610.1.2) that apply a material consumption impact category in addition to categories measuring energy-consumption impacts through the manufacturing, construction and use life-cycle stages.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6303. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6341**	**12.1(A).609.1 Regional materials**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Delete and substitute as follows	
Proposed Change:	**12.1(A).604.1 Product Declarations. A minimum of 3 newly installed products comply with one of the following subsections.** **12.1(A).604.1.1Industry-wide declaration.** A Type III industry-wide environmental product declaration (EPD) is submitted for each product. Where the program operator explicitly recognized 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 is required to be explicitly recognized as a participant by the EPD program operator. All EPDs are required to consistent with ISO Standards 14025 and 21930 with at least a cradle-to-gate scope. **12.1(A).604.1.2Product Specific Declaration.** A product specific Type III EPD is submitted froe ach product. The product specific declaration shall be manufacturer-specific for an individual product or product family. All Type IIIEPDs are required to be certified as complying, at a minimum, with the goal and scope for the cradle-to-gate requirements in accordance with ISO Standards14025 and 21930.	
Reason:	Remove sections in entirety. (This changes includes removal of SECTION 12.1(A).604.1 RECYCLED CONTENT, SECTION 12.1(A).609.1 REGIONAL MATERIALS and SECTION 12.1(A).610.1 LIFE CYCLE ASSESSMENT) Replace these three sections with the proposed language above. To increase use of the standard, reduce the complexity and remove the recycled content and regional material calculations. Regional material impacts are captured through EPDs, which are easier for the end user to locate and provide a much better indicator as they focus on the outcome of the various inputs. Individually, single-attributes have little bearing on the final impact so they are being replaced with EPDs. Asking a contractor or other Standard user to find an LCA tool and use it to select various inputs is not user-friendly, nor is it an effective way to understand the burden of that product. Essentially they would be guessing as to the inputs whereas the use of an EPD allows the manufacturer to utilize specific inputs, removing the guesswork.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6343**	**12.1(A).610.1 Life cycle analysis**
Submitter:	Cambria McLeod, Kohler	

Requested Action:	Delete and substitute as follows
Proposed Change:	**12.1(A).604.1 Product Declarations. A minimum of 3 newly installed products comply with one of the following subsections.** **12.1(A).604.1.1Industry-wide declaration.** A Type III industry-wide environmental product declaration (EPD) is submitted for each product. Where the program operator explicitly recognized 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 is required to be explicitly recognized as a participant by the EPD program operator. All EPDs are required to consistent with ISO Standards 14025 and 21930 with at least a cradle-to-gate scope. **12.1(A).604.1.2Product Specific Declaration.** A product specific Type III EPD is submitted froe ach product. The product specific declaration shall be manufacturer-specific for an individual product or product family. All Type IIIEPDs are required to be certified as complying, at a minimum, with the goal and scope for the cradle-to-gate requirements in accordance with ISO Standards14025 and 21930.
Reason:	Remove sections in entirety. (This changes includes removal of SECTION 12.1(A).604.1 RECYCLED CONTENT, SECTION 12.1(A).609.1 REGIONAL MATERIALS and SECTION 12.1(A).610.1 LIFE CYCLE ASSESSMENT and subsections) Replace these three sections with the proposed language above. To increase use of the standard, reduce the complexity and remove the recycled content and regional material calculations. Regional material impacts are captured through EPDs, which are easier for the end user to locate and provide a much better indicator as they focus on the outcome of the various inputs. Individually, single-attributes have little bearing on the final impact so they are being replaced with EPDs. Asking a contractor or other Standard user to find an LCA tool and use it to select various inputs is not user-friendly, nor is it an effective way to understand the burden of that product. Essentially they would be guessing as to the inputs whereas the use of an EPD allows the manufacturer to utilize specific inputs, removing the guesswork.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6317**	**12.1(A).610.1 Life cycle analysis**
Submitter:	Susan Gitlin, US Environmental Protection Agency	
Requested Action:	Revise as follows	
Proposed Change:	**12.1(A).610.1.1 Functional area life cycle assessment.** An LCA is performed in conformance with ASTM E2921 for an entire functional area using ISO14044 compliant a life cycle assessment. Execute LCA at the functional-area level through a comparative analysis between the final and reference building designs as set forth under Standard Practice, ASTM E-2921. The assessment criteria includes the following environmental impact categories: a. Primary energy use b. Global warming potential c. Acidification potential d. Eutrophication potential e. Ozone depletion potential f. Smog potential g. Material Use h. Waste i. Water Use j. Pollution Discharges to Water …	

	Execute full LCA, including extraction and harvesting, manufacturing, construction, use and end-of-life phases~~,~~. For the use phase, calculate ~~through calculation of~~ operating energy impacts (c) – (f) using local or regional emissions factors from energy supplier, utility or EPA. For the use phase, also include impacts associated with material replacements. **12.1(A).610.1.2.1~~Life cycle assessment for a product or assembly~~ Product LCA.** …The environmental impact measures used in the assessment are selected from the following: a. Primary energy use b. Global warming potential c. Acidification potential d. Eutrophication potential e. Ozone depletion potential f. Smog potential g. Material Use h. Waste i. Water Use j. Pollution Discharges to Water **12.1(A).610.1.2.2 Building Assembly LCA.** A building assembly with improved environmental impact measures… **…**The environmental impact measures used in the assessment are selected from the following: a. Primary energy use b. Global warming potential c. Acidification potential d. Eutrophication potential e. Ozone depletion potential f. Smog potential g. Material Use h. Waste i. Water Use j. Pollution Discharges to Water
Reason:	Using less material and recovering more is crucial to our economic and environmental future. Material use and waste generation over the life cycle of a building should be modeled. In addition, the "full" life cycle assessment should include all life cycle phases, including manufacturing, construction, use and end-of-life phases. While the NGBS-proposed language for whole-building life cycle assessment emphasizes that the assessment should include the use phase, it omits mentioning the manufacturing, construction and end-of-life phases. The language for the whole-building use phase indicates that impacts related to energy use should be evaluated, but remains silent on the need to evaluate impacts associated with the replacement of materials. Finally, the organization of the section 12.1(A).610.1.2 is inconsistent with sections 11.610.1.2 and 6.610.1.2. Solution: Add the material use and waste impact categories to the assessment criteria. Emphasize that the boundary of the assessment should include the manufacturing, construction and end-of-life phase. Emphasize that the assessment of the use phase should include the analysis of impacts associated with the replacement of materials. Divide Section 12.1(A).610.1.2 into 12.1(A).610.1.2.1 Product LCA and 12.1(A).610.1.2.2 Building Assembly LCA for organizational consistency with 11.610.1.2 and 6.610.1.2.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6304. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6224**	**12.1(A).610.1 Life cycle analysis**
Submitter:	Paul Gay, US-EcoLogic	

Requested Action:	Delete without substitution
Proposed Change:	~~**12.1(A).610.1 Life cycle assessment.** A life cycle assessment (LCA) tool is used to select environmentally preferable products, assemblies, or entire functional area in accordance with Section 12.1(A).610.1.1 or 12.1(A).610.1.2, respectively. Only one method of analysis or tool may be utilized. The reference service life is 60 years for any LCA tool. Results of the LCA are reported in terms of the environmental impacts listed in this practice and it is stated if operating energy was included in the LCA.~~ ~~**12.1(A).610.1.1 Functional area life cycle assessment.** An LCA is performed in conformance with ASTM E2921 for an entire functional area using ISO14044 compliant life cycle assessment.~~ ~~**(1)** Execute LCA at the functional area level through a comparative analysis between the final and reference building designs as set forth under Standard Practice, ASTM E2921. The assessment criteria includes the following environmental impact categories:~~ ~~**(a)** primary energy use~~ ~~**(b)** Global warming potential~~ ~~**(c)** Acidification potential~~ ~~**(d)** Eutrophication potential~~ ~~**(e)** Ozone depletion potential~~ ~~**(f)** Smog potential~~ ~~**(2)** Execute LCA on regulated loads throughout the building operations life cycle stage. Conduct simulated energy performance analyses in accordance with Section 702.2.1 ICC IECC analysis (IECC Section 405) in establishing the comparative performance of final versus reference building designs. Primary energy use savings and global warming potential avoidance from simulation analyses results are determined using energy supplier, utility, or EPA electricity generation and other fuels energy conversion factors and electricity generation and other fuels emission rates for the locality or Sub-Region in which the building is located.~~ ~~**(3)** Execute full LCA, including use-phase, through calculation of operating energy impacts (c) – (f) using local or regional emissions factors from energy supplier, utility, or EPA.~~ ~~**12.1(A).610.1.2 Life cycle assessment for a product or assembly.** An environmentally preferable product or assembly is selected for an application based upon the use of an LCA tool that incorporates data methods compliant with ISO 14044 or other recognized standards that compare the environmental impact of products or assemblies.~~ ~~**(1)** Two or more products with the same intended use are compared based on LCA and the product with at least a 15% average improvement is selected. A minimum of four environmental impact measures are included in the~~

	~~comparison. The environmental impact measures to be considered are chosen from the following:~~ - - ~~**(a)** primary energy use~~ - - ~~**(b)** global warming potential~~ - - ~~**(c)** acidification potential~~ - - ~~**(d)** eutrophication potential~~ - - ~~**(e)** ozone depletion potential~~ - - ~~**(f)** smog potential~~ - ~~**(2)** An assembly with improved environmental impact measures that are on average at least 15% better than a comparable functionally assembly is selected. A minimum of four environmental impact measures are included in the comparison. The full life cycle, from resource extraction to demolition and disposal (including but not limited to on-site construction, maintenance and replacement, material and product embodied acquisition, and process and transportation energy), is assessed. The assessment includes all structural elements, insulation, and wall coverings of the assembly. The assessment does not include electrical and mechanical equipment and controls, plumbing products, fire detection and alarm systems, elevators, and conveying systems. The following functional building elements are eligible for points under this practice:~~ - - ~~**(a)** exterior walls~~ - - ~~**(b)** roof/ceiling~~ - - ~~**(c)** interior walls or ceilings~~ - - ~~**(d)** intermediate floors~~ - - ~~The environmental impact measures to be considered are chosen from the following:~~ - - ~~**(a)** primary energy use~~ - - ~~**(b)** global warming potential~~ - - ~~**(c)** acidification potential~~ - - ~~**(d)** eutrophication potential~~ - - ~~**(e)** ozone depletion potential~~ - - ~~**(f)** smog potential~~ - - ~~**12.1(A).611.1 Manufacturer's environmental management system concepts.** For one or more products used in the remodel, the product's manufacturer's operations and business practices include environmental management system concepts, and the production facility is registered to ISO 14001 or equivalent.~~
Reason:	this seems an excessive mandatory requirement for a remodel project. should be encouraged but not required, i suspect this section as a requirement will put off potential program users
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	

TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6361**	**12.1(A).611.1 Manufacturer's environmental management system**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Revise as follows	
Proposed Change:	~~Manufacturer's environmental management system concepts. For one or more products used in the remodel, the product manufacturer's operations and business practices include environmental management system concepts, and the production facility is registered to ISO14001 or equivalent.~~ Product Specific Declaration Improvements. Utilizing a Type III environmental product declaration (EPD), one or more products used in the remodel shall demonstrate an improvement over prior EPDs for those same products.	
Reason:	The use of ISO 14001 adds minimal value and is not widely used as a facility could be ISO 14001 compliant and have negative impacts. Proving that a product's impacts, throughout its lifecycle, are improving over time is a more effective way to demonstrate innovation. Comparing a product's EPD from one year to the next can demonstrate improvement in environmental management systems, regardless of the type of facility registration.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6360. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6257**	**12.1.601.2 Material usage (General)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	Exemption if the exterior wall surface can not accommodate the advanced framing measures listed due to structural integrity issues.	
Reason:	[Exception requires a stamped letter to be completed by the Professional Engineer designing the structural detailing for the building explaining why].	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6526**	**12.1.701.4.0 Minimum energy efficiency requirements**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Revise as follows	
Proposed Change:	**12.1.701.4.0 M~~m~~inimum energy efficiency requirements.** Additions, alterations, or renovations to an existing building, building system or portion thereof comply with the provisions of the ~~International Energy Conservation Code~~ ICC IECC as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this ~~code~~ standard. An addition complies with	

	the ICC IECC if the addition complies or if the existing building and addition comply with the ICC IECC as a single building.
Reason:	Revising for clarity, and consistent reference to ICC IECC.
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 11 – Proposal LogID 6519.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6443**	**12.1.701.4.1.1 HVAC system sizing**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**12.1.701.4.1.1 HVAC system sizing** TC"12.1.701.4.1.1HVAC system sizing" \f C \l "3" **.** Newly installed or modified space heating and cooling system is sized according to heating and cooling loads calculated using ACCA Manual J, or equivalent. New equipment is selected using ACCA Manual S or equivalent. Where existing equipment is used to serve a functional area whose total conditioned area was increased during the remodel, Manual J is used to verify the capacity is appropriate for the remodel.	
Reason:	Existing equipment that is not being modified in any other way and where this is not change to the amount of conditioned are being served should not be required to be modified.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6265**	**12.1.701.4.1.1 HVAC system sizing**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Delete without substitution	
Proposed Change:	12.1.701.4.1.1 HVAC system sizing…~~." Where existing equipment is usedMan J is used to verify the capacity is appropriate for the remodel"~~	
Reason:	The additional "existing system" language isn't in Chapter 11 701.4.1.1 strike out to align standard language. what happens if the HVAC isn't "appropriate"?	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6384**	**12.1.701.4.4 High-efficacy lighting**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	

Proposed Change:	**High-efficacy lighting.** Newly installed l ~~L~~ighting ~~efficacy~~ in dwelling units is in accordance with one of the following: (1) A minimum of 75 percent of the total hard-wired lighting fixtures or the bulbs in those fixtures qualify as high efficacy or equivalent ~~(2) Lighting power density, measured in watts/square foot, is 1.1 or less.~~
Reason:	Aligns with other measures in Chapter 12 that only pertain to Newly Installed items. Current language mandates changing out existing lighting to meet this Mandatory item. Calculating a lighting power density for newly installed lighting only does not make sense and hence option (2) should be removed.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6385**	**12.1.901.2.1 Solid fuel-burning appliances**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	(2) Factory-built, wood-burning fireplaces are in accordance with the certification requirements of UL 127 ~~and are EPA certified or Phase 2 Qualified~~.	
Reason:	The EPA does not certify factory-built wood burning fireplaces so the first reference is nonsensical. Very few fireplaces meet the EPA Phase 2 Qualified requirements and thus they are exorbitantly priced compared to other similar fireplaces. The second reference as a Mandatory measure represents undue burden for projects and should be removed.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6203. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6272**	**12.1.901.6 Carpets**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	(1) ~~wall to wall~~ No New Carpeting is ~~not~~ installed ~~adjacent to water closets and bathing fixtures~~ in half/full bathrooms, kitchens, utility/laundry rooms or within 3 ft of entries. Exemplary credit if existing carpet in these areas is removed and replaced with hard flooring	
Reason:	who wants soggy socks??!original language is behind current /typical standard building practice	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 9 – Proposal LogID 6275. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		

Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6276**	**12.1.901.8 Interior wall coverings**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	is this standard common practice ie Home Depot off the shelf wallpaper meets it ? Can we simplify it?	
Reason:	Blah,blah, blah ....need cleaner , clearer language	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6444**	**12.1.901.9.2 Interior coatings emission levels**
Submitter:	Aaron Gary, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:		
Reason:	Aligns the requirements of 12.1.901.9.2 with sections 11.901.9.2 and 901.9.2.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		

12.1.901.9.2 ~~Newsite-applied interior architectural coatings are in accordance with theemission levels of CDPH/EHLB Standard Method v1.1, footnote b in Table 4.1 doesnot apply (i.e., maximum allowable formaldehyde concentration is 16.5 µg/m^3(13.5 ppb)). Emission levels are determined by a laboratory accredited toISO/IEC 17025 and the CDPH/EHLB Standard Method v1.1 is in its scope ofaccreditation. The product is certified by a third-party program accredited toISO 17065, such as, but not limited to, those in Appendix D.~~

Architectural coating colorant additive VOC content is in accordance with Table 901.9.2.

(Points for 901.9.2 are awarded only if base architectural coating is in accordance with 901.9.1.)

Table 901.9.2

VOC Content Limits for Colorants

Colorant	**LIMIT (g/l)**
Architectural Coatings, excluding IM Coatings	50
Solvent-Based IM	600
Waterborne IM	50

TG Vote:	

Proposal ID TBD	**LogID 6282**	**12.1.902.1.1 Spot ventilation**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	~~12.1.902.1.1~~ 12.3. XXX.XX Bathrooms are vented to the outdoors. The minimum ventilation rate is 50 cfm (23.6 L/s) for intermittent operation or 20 cfm (9.4 L/s) for continuous operation in bathrooms. Exemption if walls / ceilings are not opened up	
Reason:	as written the language indicates, regardless of the actual scope of work (ie addition/kitchen remodel/attic remodel) the bath fans have to be vented to outside. suggest moving to section 12.3 Chapter 11 902.1.1 has exemptions	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6283**	**12.1.902.1.1 Spot ventilation**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	**(2)** Clothes dryers (except listed and labeled condensing ductless dryers) are vented to the outdoors. Exemption if opening walls and ceilings is beyond project scope	
Reason:	as written the language indicates, regardless of the actual scope of work (ie addition/kitchen remodel/attic remodel) the clothes dryer have to be vented to outside. This would be a significant cost add and may force client to chose not to participate in program Chapter 11 902.1.1 has exemption	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6374**	**12.2.801.4.1 Faucets**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Delete without substitution	
Proposed Change:	~~12.2.801.4.1 Faucets. Newly installed lavatory faucets have a maximum flow rate of 1.5 gpm (5.68 L/m) or less when tested at 60 psi (414 kPa) in accordance with ASME A112.18.1.~~	
Reason:	Lavatory faucets are not relevant for kitchen remodels.	
TG Recommendation (AS or AM or D):		

Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6370**	**12.3.801.3 Showerheads**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Revise as follows	
Proposed Change:	The total maximum combined flow rate of all newly installed showerheads controlled by a single valve at any point in time in a shower compartment is 1.6 to less than 2.5 gpm. Maximum of two valves are installed per shower compartment. ~~The flow rate is tested at 80 psi (552kPa) in accordance with ASME A112.18.1.~~ Showerheads shall comply with ASME A112.18.1/CSA B125.1. Showerheads are served by an automatic compensating valve that complies with ASSE 1016/ASME A112.1016/CSA B125.16 or ASME A112.18.1/CSA B125.1and specifically designed to provide thermal shock and scald protection at the flow rate of the showerhead.	
Reason:	The language needs to be updated to reflect the harmonized standards. Including the pressure values is repetitive because they are included in the product standard requirements.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 8 – Proposal LogID 6367. The parallel proposal is being reviewed by TG-4. TG-7 should review the recommendation of TG-4 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-4 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6376**	**12.3.801.4.1 Faucets**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Revise as follows	
Proposed Change:	801.4.1 Lavatory Faucets. Newly installed lavatory faucets shall have a maximum flow rate of 1.5 gpm (5.68 L/m)~~, at 60 psi (414 kPa)~~ in ~~accordance~~ compliance with ASME A112.18.1/CSA B125.1, and certified to the performance criteria of the U.S. EPA WaterSense High-Efficiency Lavatory Faucet Specification.	
Reason:	Add the term 'lavatory' in the section title for consistency with the rest of the standard. The ASME and CSA standards are harmonized standards. They are recognized in the industry as ASME A112.18.1/CSA B125.1 and should be referenced as such. The EPA Water Sense program is a well-recognized program and products carrying a WaterSense label demonstrate that they not only save water, but they have been third-party certified to meet performance criteria. This allows consumers to easily identify water-efficient products that also perform. This program has widespread support and there are over 12,000 bathroom faucets/accessories currently labeled with WaterSense.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 8 – Proposal LogID 6372. The parallel proposal is being reviewed by TG-4. TG-7 should review the recommendation of TG-4 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-4 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		

TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6381**	**12.3.801.5 Water closets**
Submitter:	Cambria McLeod, Kohler	
Requested Action:	Revise as follows	
Proposed Change:	12.3.801.5 Water closets. All newly installed water closets have an effective flush volume of 1.28 gallons (4.85 L) or less ~~when tested in accordance~~ ,in compliance with ASME A112.19.2/CSA B45.1 or ASME A112.19.14 as applicable~~, and is in accordance with EPA WaterSense Tank-Type Toilets~~. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-Type Toilets.	
Reason:	Current language is permissive and unclear as to the requirements. The proposal keeps the intent but clarifies the language.	
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 8 – Proposal LogID 6377. The parallel proposal is being reviewed by TG-4. TG-7 should review the recommendation of TG-4 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-4 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6256**	**12.6.902.3 Radon control**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Delete and substitute as follows	
Proposed Change:	~~**12.4.902.3 Radon control**~~ TC"12.4.902.3Radon control" \f C \l "3" ~~. In Radon Zone 1, passive or active radon control system is installed in accordance with ICC IRC Appendix F.~~ ~~**12.6 .902.3 Radon control.** In Radon Zone 1, passive or active radon control system is installed in accordance with ICC IRC Appendix F.~~ **12.6.902.3 Radon control** TC"11.902.3 Radon control" \f C \l "3" **.** Radon control measures are in accordance with ICC IRC Appendix F. Zones are defined in Figure 9(1). This practice is not mandatory if the existing building has been tested for radon and is accordance with federal and local acceptable limits. **12.4 .902.3 Radon control** TC"11.902.3 Radon control" \f C \l "3" **.** Radon control measures are in accordance with ICC IRC Appendix F. Zones are defined in Figure 9(1). This practice is not mandatory if the existing building has been tested for radon and is accordance with federal and local acceptable limits.	
Reason:	Standard Language to align with Chapter 11. Also , as written potentially adds a huge cost add best to determine if measures are in fact warranted	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6246**	**Other for Chapter 12 (include section number and title below)**

Submitter:	Paul Gay, US-EcoLogic
Requested Action:	Add new as follows
Proposed Change:	12.XXX.XX Create Remodel Innovative Practice Section
Reason:	Encourage program participation and remodel specific solutions
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6255**	**Other for Chapter 12 (include section number and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	12 XXX.XX allow Irrigation improvement/ upgrade to count toward total water savings.	
Reason:	e.g upgraded irrigation system saves XXXXXX gals of water per year its the equivalent of XX units switching to low flow faucets and toilets.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6495**	**Other for Chapter 12 (include section number and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	**Section 12.7.1** - Isolation of remodeled areas. To prevent contamination of unrenovated spaces, meet the following: Remodeled space is isolated from unrenovated space by masking of openings and/or providing strip doors.	
Reason:	Air quality should be maintained in occupied spaces of the building while renovations of functional spaces is ongoing.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6532**	**Other for Chapter 12 (include section number and title below)**
Submitter:	John Woestman, Extruded Polystyrene Foam Association (XPSA)	
Requested Action:	Add new as follows	
Proposed Change:	**12.706** **Innovative Practices**	

	12.706.1 Ducts in conditioned space. In climate zones1-4, heating system and cooling system ducts are located in conditioned space. Points = TBD **12.706.2 Insulated basement and crawl space.** In climate zones4-8, basement and crawl space are insulated as required by the ICC IECC. Points = TBD
Reason:	In cooling dominated climate zones, where basements or crawl spaces are rarely constructed, moving or placing heating and cooling system ducts within (insulated) conditioned space improves the efficiency of the heating / cooling system. In heating dominated climate zones, where basements or crawl spaces are common, insulating those spaces as required by the ICC IECC improves energy efficiency significantly.
Parallel Proposal Staff Note:	A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 7 – Proposal LogID 6515. The parallel proposal is being reviewed by TG-5. TG-7 should review the recommendation of TG-5 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-5 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6271**	**Other for Chapter 12 (include section number and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Add new as follows	
Proposed Change:	12,901 XX Carbon Monoxide Alarms. A carbon Monoxide alarm is provided	
Reason:	allow battery/ hard wire or existing smoke to be switch out for combo CO/Smoke .....easy/inexpensive life safety measure	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6261**	**Other for Chapter 12 (include section number and title below)**
Submitter:	Paul Gay, US-EcoLogic	
Requested Action:	Revise as follows	
Proposed Change:	Add Innovative credits/trade off	
Reason:	Provide opportunity for innovative practices to be rewarded	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		

Proposal ID TBD	**LogID 6315**	**Other for Chapter 12 (include section number and title below)**
Submitter:	Susan Gitlin, US Environmental Protection Agency	

Requested Action:	Add new as follows
Proposed Change:	**12.608.2Design for Adaptation and Disassembly.** For siding, windows, mechanical/electrical/plumbing (MEP) systems, wall paneling and flooring materials, incorporate three or more of the following measures, as applicable: Use reusable/recyclable materials. For example: o Use materials and fixtures for which take-back or reuse/recycling programs are established. o Use high-quality materials that exceed minimum performance standards. o Avoid use of coatings or adhesives that prevent reuse and recycling. Promote disentanglement of building components. For example: o To limit the destruction of the surrounding materials, incorporate installation details that permit easy removal and replacement of components. o Consolidate placement of MEP components in building floorplans and cross-sections. Provide access to and use reversible connections, such as screws, bolts, or clips. Provide disassembly and reuse information to owner.
Reason:	Section 12.608 currently includes a single subsection encouraging the dematerialization of building components. The Design for Adaptation and Disassembly is similarly, an upstream strategy to improve resource efficiency and therefore, fits with the upstream, resource-efficiency focus of this section. The Design for Adaptation and Disassembly involves the utilization of recyclable/reusable building materials and preserves resources by maximizing their recovery and ensuring their continuous reutilization.
Parallel Proposal Staff Note:	*A parallel proposal was submitted by the same proponent for the corresponding section in Chapter 6 – Proposal LogID 6302. The parallel proposal is being reviewed by TG-3. TG-7 should review the recommendation of TG-3 to determine if any additional changes are necessary for application to remodeling, otherwise the recommendations of TG-3 on the parallel proposal will be adopted and automatically applied to the corresponding remodeling section.*
TG Recommendation (AS or AM or D):	
Modification of Proposed Change:	
TG Reason:	
TG Vote:	

Proposal ID TBD	**LogID 6373**	**Other for Chapter 12 (include section number and title below)**
Submitter:	Jeremy Velasquez, TexEnergy Solutions	
Requested Action:	Add new as follows	
Proposed Change:	**Section 12.7** - Add a new section as relevant for Health & Well-being credits	
Reason:	As sustainability protocols evolve, the natural progression is to include measures that have a positive benefit on occupant health and well-being.	
TG Recommendation (AS or AM or D):		
Modification of Proposed Change:		
TG Reason:		
TG Vote:		