

**Minutes**

GBI Consensus Body Meeting #18

BSR/GBI 01-201X

Webinar

Tuesday, June 21<sup>st</sup>, 2016 1:00 PM ET to 4:00 PM ET

and

Wednesday, June 22<sup>d</sup>, 2016 11:00 AM ET to 2:00 PM ET

**Attendance:**

No	Name	Organization(s)	5-9-16	5-25-16	6-6-16	6-21-16	6-22-16
	Gregg Bergmiller	S/L/A/M Collaborative	X	X	X (by proxy)	X	X
2	Paul Bertram	Kingspan Insulated Panels, Inc.	Absent	X		X (by Proxy)	X
3	Allan Bilka	International Code Council	X	X	X	X	X
4	Jeff Bradley	American Wood Council	X	X	X	X (by Proxy)	X (by Proxy)
5	William Carroll	American Chemistry Council	Absent	X	X	Absent	Absent
6	Chris Dixon	NBBJ (rep. self)	X	X	X	X	Absent
7	Nicole Dovel-Moore	CTA Architects Engineers	X	X		X	X
8	Amber Dzikowicz	NSF International	X		X	Absent	Absent
9	David Eldridge	Grumman/Butkus Assoc.	X (by proxy)	X	X	X	X
10	William Freeman	Resilient Floor Covering Institute	X	X (by proxy)	X	X (by Proxy)	X
11	Susan Gitlin	U.S. EPA	X	X (by proxy)		X	X
12	Don Horn	GSA	X	X		X	X
13	Josh Jacobs	UL Environment	Absent		X	Absent	Absent
14	Greg Johnson	Johnson Consulting Services, Greenscape Alliance	X	X	X	X	X
15	Karen Joslin		X	X	X	X	Absent
	Leslie Kahn	Admin. Office of the U.S. Courts	Resigned				
16	Malee Kaolawanich	NIH (rep. self)	X			X	X
17	Rachel Minnery	AIA	X	X	X	X	X
18	Charles	University of	X	X	X	X	X

	Kibert	Florida					
19	Gary Keclik	Keclik Associates	Absent	X	X (by proxy)	X	X
20	John Koeller	Alliance for Water Efficiency	X	X	Resigned		
21	Jennifer Kowalonek	Alfred Benesch & Company	X			Absent	X
23	Tien Peng	National Ready Mix Concrete Assn.	X	X		X	X
	Bernadette Reyes	Clark Construction Group	Resigned				
	Angela Rivera	URS Corporation (rep. self)	Resigned				
24	Jane Rohde	JSR Assoc. Inc., Vinyl Institute	X(by proxy)	X	X	X	X
25	Gord Shymko	G.F. Shymko & Associates, Inc.	X	X	X	X	X
	Julie Sobelman	Independent Consultant	Resigned				
26	Kent Sovocool	Southern Nevada Water Authority	X(by proxy)	X	X	X	X
27	Steve Strawn	JELD-WEN	Absent			Absent	Absent
28	George Thompson	Chemical Compliance Systems, Inc.	X	X	X	X	X
29	Angela Tin	American Lung Assn.	Absent	X		Absent	Absent
30	Douglas Tucker	Mitsubishi Electric Cooling & Heating	X	X	X	X	X
31	Erika Winters Downey	American Institute of Steel Construction	X	X	X	X	X
<b>Voting Alternates</b>							
	Abby Brokaw	American Lung Assn. (voting Alternate for Angela Tin)		X	X		
	Paul Karrer	AIA (Alternate for Rachel Minnery)					
	Bill Hoffman	UL Environment (Voting Alternate for Josh Jacobs)					
	Lance Davis	GSA (Voting Alternate for Don Horn)					
	D'Lane	D'Lane Wisner					

	Wisner	(Voting Alternate for William Carroll)					
	John Cross	American Institute of Steel Construction (Voting Alternate for Erika Winters-Downey)					
TOTALS			24/31	/31	21/30	23/30	22/30
<b>Visitors</b>							
	Martha VanGeem	Self (Principal Engineer)	X	X	X		X
	Kyle Thompson	IAPMO	X	X	X		
	Kelly Scanlon	U.S. EPA					
	Heather Dylla	National Asphalt Pavement Assn.	X				
	Wes Sullens	Stopwaste.org	X				
	Paula Melton	BuildingGreen, Ince	X		X		
	Christian Taber	Big Ass Consulting			X	X	X
	Allison Kinn Bennett	U.S. EPA				X	
	Jay Thomas	Sika					X
<b>Staff/Consultants</b>							
	Wayne Trusty	Chair	Resigned				
	Michael Lehman	Chair	X	X		X	X
	Vicki Worden	Executive Director, GBI			X		
	Emily Randolph	Secretariat Asst., GBI	X	X	X	X	X
	Micah Thomas	Staff, GBI		X			
	Maria Woodbury	Secretariat, GBI	X	X	X	X	X
	Chelsea Amaio	Staff, GBI	X	X	X	X	X
	Kim Goldsworthy	Roberts-Rules Consulting	X	X	X	X	X

**Tuesday, June 21<sup>st</sup>, 2016**

**Welcome & Roll Call**

Secretariat, Maria Woodbury welcomed participants and conducted roll call to establish quorum. The anti-trust statement was reviewed and participants were requested to comply with it fully.

### **Administrative Procedures and Related Matters**

Woodbury reviewed the participation options, stating that while observers are welcome to participate in the discussion, only Consensus Body Members are able to vote. Participants were reminded to raise hands should they desire to add something new to the discussion and the chair would then call on them in order.

At this meeting, no members voted using a voting alternate. There were 3 members voting via proxy (Greg Johnson for Jeff Bradley, Doug Tucker for Paul Bertram, and Jane Rohde for William Freeman).

Woodbury reminded the Consensus Body that the Ballot to elect Thomas Pape to the Consensus Body is due by close of business June 22nd

Woodbury informed the Consensus Body that Code of Conduct is still being drafted and reviewed by the GBI Board of Directors.

Woodbury informed participants that the call was being recorded for the purpose of minute taking, specifying that the recording would not be shared outside of GBI staff. No objection was raised to the recording of the call.

Secretariat Assistant Emily Randolph gave an update on the progress of the individual Subcommittees and informed the Consensus Body how many comments were up for review at this meeting under each Assessment Area:

- Project management: 10
- Site: 26
- Energy: not being reviewed
- Water: not being reviewed
- Materials: 38
- Indoor Environment Quality: 22

Randolph informed the Consensus Body that there are roughly 195 comment responses remaining to be voted on.

### **Chair's Opening Comments:**

Consensus Body Chair Mike Lehman made his opening comments stating that in the future, there will be a progress update at the start of each meeting to give the participants an over-arching picture of the progress made and remaining work to be done.

Lehman reminded participants to remain focused on the content at hand, stating that it's the Consensus Body's job to approve or disapprove recommendations. Lehman invited the Consensus Body members and observers to attend Subcommittee meetings if they are interested in participating in more technical conversations with experts in specific topics.

**MOTION: A motion was made, seconded, and carried to approve the minutes from the Consensus Body Meeting #17 on June 6th, 2016.**

## Discussion of public comments: Subcommittee Reports

### Project Management

- **24 – 6. Substantive. 6.1.1.1**

- **Comment:** The listed items in Column 1 include “Building resilience issues” under the “Indoor environment” heading however this is never addressed again. Resiliency as a design issue is alluded to briefly under site design (a completely different section). Resilient flooring (a non-related product) is addressed in the Materials section. Consider deleting building resilience issues altogether or address its value directly.
- **Reason:** If resilient design is to be addressed by the Green Globes rating system it must
  - 1) Be defined in the glossary;
  - 2) Be properly referenced within the standard;
  - 3) Be understood in the context of this standard’s intentions.
- **Proposed Response:** Accept as Noted. The Subcommittee is working with the Consensus Body to define the use of the term “resilience”. The Project Management Subcommittee will evaluate how resilience applies to the Project Management Assessment Area from the standpoint of extreme events and the need for continuing operation.
- **Subcommittee Vote:** 2 in favor, 1 opposed, 1 abstained

**MOTION: The motion was made and seconded to accept the proposed response.**

#### Discussion took place on the motion:

- The question was raised regarding the status of the working group addressing resilience. It was stated that this vote is only to address the comment at hand.

**VOTE: The Motion carried with 21 in favor, none opposed, and none abstained.**

None Opposed

None Abstained

- **29 – 1. Editorial. 6.1.2**

- **Comment:** In the lead-in the item describes “architectural-engineering team” but then in the options below doesn’t list architect, but does list the MEP disciplines. Owner or owner’s representative or project manager should be included in the options as there are sometimes meetings with only the architect.
- **Reason:** None Given
- **Proposed Response:** Accept as modified. The committee clarified the charging paragraph and added architect to the list.
- **Subcommittee Vote:** 3 in favor, 1 opposed, none abstained

- **24 – 7. Substantive. 6.1.2.1**

- **Comment:** Architect
- **Reason:** The list of design professionals and stakeholders reference everyone except the registered architect. This is a key member of the team that should never be excluded and the information as presented diminishes that role. If the architect is understood as a mandatory role, let it be identified as such where five stakeholders are required plus the architect.
- **Proposed Response:** Accept
- **Subcommittee Vote:** 3 in favor, 1 opposed, none abstained

- **11 – 5. Substantive. 6.1.2.1**

- **Comment:** Consider adding the following to the list of job functions/groups recognized for involvement in the integrated design process: • Certified Green Globes Professional

(GGP)

- Federal Guiding Principles Compliance Professional (GPCP), where applicable.

- **Reason:** The addition of GBI certified professionals encourages and promotes engagement of the rating system and adds value to the certification process.
- **Proposed Response:** Accept as modified. The committee added “Sustainability Consultant” to the list. The committee doesn’t want to limit who can count as a sustainability consultant.
- **Subcommittee Vote:** 5 in favor, none opposed, none abstained
- **49 – 8. Substantive. 6.1.2.1**
  - **Comment:** Include manufacturer of products too
  - **Reason:** This would aid in meeting certain performance goals established in 6.1.1 and would further enhance the project’s performance
  - **Proposed Response:** Reject. The committee will rely on the project team to invite manufacturers as needed.
  - **Subcommittee Vote:** 3 in favor, 1 opposed, none abstained
- **49 – 9. Substantive. 6.1.2.1**
  - **Comment:** Informational Reference: ASHRAE 189.1-2014, Appendix ~~H~~F
  - **Reason:** In 189.1-2014, integrated design is in Appendix F
  - **Proposed Response:** Accept as modified to use the technical language of the ASHREA section and to ensure that the Standard is using the most current reference.
  - **Subcommittee Vote:** 4 in favor, none opposed, none abstained

**MOTION: The motion was made and seconded to accept the recommendation of the Subcommittee on all five comments as listed.**

**Discussion took place on the motion:**

- It was clarified that the architect is usually considered part of the design team. One member stated this has not always been their experience.
- Concern was raised about voting on all five of these issues at once since the member is in favor of some, but opposed to others.

**MOTION TO DIVIDE THE QUESTION:** The motion was made and seconded to remove comment 24-7 from the group of comments and vote on that separately.

**Point of Order:** The question was raised if this should be an amendment or a motion. The parliamentarian clarified that no Amendment is needed and this can be a formal motion to divide the question.

**VOTE: the motion to divide the question carried with 17 in favor, 2 opposed, and 1 abstained.**

Opposed: Karen Joslin, Gary Keclik

Abstained: Gord Shymko

**Discussion took place on comment 24-7**

- The question was raised if “in addition to” should be struck from the charging language. It was stated that this seems to be a fundamental flaw in the language.

**MOTION: The motion was made and seconded to accept the comment [24 – 7].**

**Discussion took place on the motion:**

- Concern was raised that by adding job functions to the list there won’t be as many people proportionately at the decision-making table
  - It was stated that the focus needs to start with getting the correct people on the list so no one is overlooked.

**AMENDMENT: The amendment was made and seconded to change the response to Accept as Modified to change the required number of job functions from 5 to 6 in the points column. There was no objection to the amendment.**

**VOTE: The amended motion carried with 19 in favor, 1 opposed, and 1 abstained.**

Opposed: Erika Winters-Downey

Abstained: Chris Dixon

**Staff reminded the Consensus Body that the Modification requires a reason.**

**Reason for Modification:** By adding positions to list, we want to maintain the value proportionately of participation. **There were no objections to the reason for modification.**

**MOTION TO DIVIDE THE QUESTION: The motion was made to vote separately on 29-1.**

**Discussion took place on the motion:**

- The motion maker stated that they are concerned that the current response does not address the commenter's particular concern about the Owner's Representative. It was clarified that the Owner's Representative is already included on the list.

**The Motion was withdrawn. There were no objections to withdrawing the motion.**

**Discussion took place on the original Motion to accept the Subcommittee recommendations for the remaining four comments:**

**AMENDMENT: The amendment was made and seconded to change the language to strike "in addition to" from the charging language.**

**There was Objection raised.**

**Discussion took place on the amendment:**

- It was explained that "in addition to" replaced "beyond."
- One member asked if this should be sent back to the Subcommittee for more work.
- The concept of having a core group of people on the design team and offering points for going beyond that core group to include other experts in the design.
- One member stated that if the amendment fails to carry, they will make a motion to send this back to the Subcommittee for more work.
- A suggestion was made that the language could say "including or in addition to" to clarify the language.

**VOTE: The amendment carried with 11 in favor, 4 opposed, and 4 abstained**

Opposed: Susan Gitlin, Karen Joslin, Rachel Minnery, Kent Sovocool

Abstained: Jane Rohde, Bill Freeman, Doug Tucker, Paul Bertram

**Discussion took place on the Motion:**

- The question was raised about how many people are on design team. It was clarified that there are typically four members of the design team including the owner/owner's representative, mechanical engineer, and sometimes a civil engineer.

**MOTION: The motion was made and seconded to move 29-1, 11-5, 49-8, 49-9 back to the Project Management Subcommittee for revision.**

**Discussion took place on the motion:**

- It was stated that the Consensus Body can address three of the remaining comments and only 29 – 1 needs to be sent back.

**VOTE: The motion failed with 9 in favor, 10 opposed, and 1 abstained.**

Opposed: Erika Winters-Downey, George Thompson, Karen Joslin, Rachel Minnery, Susan Gitlin, Gregg Bergmiller, David Eldridge, Don Horn, Doug Tucker Paul Bertram

Abstained: Allan Bilka

**MOTION TO DIVIDE THE QUESTION: The motion was made and seconded to separate 29-1 from the rest of the comments.**

**VOTE: The motion carried with 14 in favor, none opposed, and 5 abstained.**

None Opposed:

Abstained: Jane Rohde, Bill Freeman, Charles Kibert, Allan Bilka, David Eldridge

**MOTION TO REFER TO SUBCOMMITTEE: The motion was made and seconded to refer 29-1 back to the subcommittee for further revision.**

**Discussion took place on the motion:**

- The maker of the motion clarified that the Subcommittee will review the language with the goal of having a core planning group and rewarding roles involved beyond that.

**VOTE: The motion carried with 16 in favor, none opposed, and 4 abstained.**

None Opposed

Abstained: Allan Bilka, David Eldridge, Greg Johnson, Jeff Bradley

**VOTE on original motion [to accept the subcommittee's recommendations on the remaining three comments, 11-5, 49-8, 49-9]: The motion carried with 18 in favor, none opposed, and 2 abstained.**

None Opposed

Abstained: Jane Rohde, Bill Freeman

- **50 – 2. Substantive. 6.1.3**
  - **Comment:** 1. Provide definition for “Capital asset plan” and “business case summary”.  
2. Allow customer organization’s formal documentation process when one is in place, even if it varies from definition.
  - **Reason:** 1. A general definition of the each document will help customer determine what to provide.  
2. This is especially true if customer organization already has a document process in place.
  - **Proposed Response:** Reject. The committee deleted the last bullet from the recommended documentation; it is no longer necessary in the context of Guiding Principles.
  - **Subcommittee Vote:** 3 in favor, none opposed, none abstained
- **49 – 10. Substantive. 6.1.3**
  - **Comment:** Recommended documentation ~~• Post-occupancy study;~~  
~~• Facility performance evaluation;~~  
~~• Capital asset plan and business case summary.~~
  - **Reason:** These documents are not appropriate for compliance with an integrated design process
  - **Proposed Response:** Reject. Facility performance evaluation and/or post-occupancy study are an important part of the design development process. The final bullet has been deleted in response to another comment.
  - **Subcommittee Vote:** 3 in favor, none opposed, none abstained

**MOTION: The motion was made and seconded to accept proposed responses for 50-2 and 49-10.**



**Discussion took place on the motion:**

- A question was raised regarding the response to comment 50-2. There was concern that the response referred to action taken based on another comment. It was clarified that 50 – 2’s response does not refer to another comment, however the response to 49 – 10 does.

**AMENDMENT: The amendment was made and seconded to amend 49-10 proposed response to strike “the final bullet has been deleted in response to another comment.” There was no objection to the amendment.**

**VOTE: The amended motion carried with 16 in favor, none opposed, and 4 abstained.**

None Opposed

Abstained: Kent Sovocool, Allan Bilka, Greg Johnson, Jeff Bradley

**Materials**

- **9 – 1. Substantive. 5. Definitions:**

- **Comment:** Definitions: Biobased content  
That portion of a material or product derived from plants and other renewable agricultural, marine, and/or forestry resources. Biobased content does not include feed, food, or fuel.
- **Reason:** This addition better aligns the GG biobased definition with the USDA definition of biobased.
- **Proposed Response:** Accept as Modified. The last sentence was modified to specify animal feed and biofuels in order to further align with the USDA definition of biobased content.
- **Subcommittee Vote:** 9 in favor, 1 abstained

**MOTION: The motion was made and seconded to accept the language as suggested by the Subcommittee.**

**Discussion took place on the motion:**

- There was a question raised regarding where animal feed and biofuel would appear. It was clarified that the language would appear as follows: **biobased content:** that portion of a material or product derived from plants and other renewable agricultural, marine, and/or forestry resources. Biobased content does not include animal feed, food, or biofuels.

**VOTE: The motion carried with 23 in favor, none opposed, and none abstained.**

None Opposed

None Abstained

- **50 – 1. Substantive. Definitions:**

- **Comment:** Delete “~~50% of the gross area~~” and change to a more substantial metric, such as: “50% of the building replacement value and \$2.5M”, or “50% of gross area and 50% of building replacement value”.
- **Reason:** A project that renovates 50% of the gross SF might only be replacing floor finishes, or only the HVAC system. A dollar value establishes a more comprehensive renovation that may truly affect the sustainable attributes of the existing building.
- **Proposed Response:** Reject. The Standard is a comprehensive standard and requires comprehensive effort. The Standard requires a minimum of 20% of the points in each of the assessment areas and eliminates the potential of achieving certification by simply replacing a floor or the HVAC system.
- **Subcommittee Vote:** Unanimously in favor

**MOTION: The motion was made and seconded to accept the Subcommittee's proposed response.**

**VOTE: The motion carried with 21 in favor, none opposed, and none abstained.**

None Opposed

None Abstained

- **52 – 50. Substantive. 10.3.1**

- **Comment:** Provide guidance around reporting the results in the generic classification of Green, Yellow, Orange and Red.
- **Reason:** It is unclear if reporting the results in the generic classification of Green, Yellow, Orange and Red could introduce inconsistencies. For example, it is unclear if one person could assume different risk ranges under Green than another. Unless this type of reporting has been understood, adopted and is commonly practiced by the industry professionals, it would be prudent to provide guidance so as to eliminate such inconsistencies.
- **Proposed Response:** Reject. Guidance is provided in 10.3.2 and intentionally allows the assessor the flexibility to describe how they performed the risk assessment and converted their conclusion into the proposed color scheme. The committee is open to specific language that would clarify the use of color-coded ratings.
- **Subcommittee Vote:** Unanimously in favor

**MOTION: The motion was made and seconded to accept the subcommittee's recommendation on 52 – 50.**

**VOTE: The motion carried with 20 in favor, none opposed, and 1 abstained.**

None Opposed

Abstained: Susan Gitlin

- **5 – 3. Editorial. 10.3.1.1**

- **Comment:** The results of each risk assessment, based upon the NSF/GCI/ANSI-355 Chemical Characteristics are reported in ~~the generic classification of Green (least risk), Yellow (2nd least), Orange (2nd most risk), and Red (Most risk)~~ in an easy to interpret form to indicate the degree of risk presented by the use of the product or article as intended.
- **Reason:** Make the reporting requirement more flexible, while still stressing ease of interpretation; also indicate the risk is for the product/article as it is intended to be used
- **Proposed Response:** Reject on the basis that the color coding scheme improves the ability of the reader to interpret the results. Proposal was to remove all of color scheme, comment lost formatting when copied and pasted.
- **Subcommittee Vote:** 7 in favor, 2 abstained

**MOTION: The motion was made and seconded to accept subcommittee's response to reject 5-3.**

**Discussion took place on the motion:**

- The question was raised if color-coding is required by the listed ANSI standard. It was clarified that the color-coding is not found in NSF/GCI/ANSI-35, but color-coding or a scale of 1 through 4 is used in many other Standards.
- Concern was raised about using "Green" in the color-coding. It was clarified that Green denotes the least risk.

**AMENDMENT: The amendment was made and seconded to replace green with brown in order to avoid the appearance that GBI is giving approval, implied or inferred, to any product.**

**Discussion took place on the amendment:**

- It was stated that the point of this criterion is to incrementally change behavior/choices of project teams. The Subcommittee consciously chose green and stated “least risk” as a way to encourage the use of it. It was also stated that Green is commonly used language and that Brown indicates something else.

**Amendment Withdrawn. There were no objections to the withdrawal.**

- The question was raised whether it is possible to classify a carcinogen under “green.” It was clarified that it is possible to classify a product containing carcinogens under green, but that reducing exposure reduces risk and it comes down to what is an “acceptable risk.”
- It was stated that this Standard is intended to go beyond baseline and trying to improve the market.
- There was discussion around the value of using a risk base approach vs. the use of hazard in this section of the Standard. Different members expressed their support of both approaches. The Subcommittee intentionally chose a risk based approach in this language.
- It was stated that we need to look at more than just risk perspective and use a broad-based perspective.

**VOTE: The motion carried with 16 in favor, 2 opposed, 4 abstained**

Opposed: Susan Gitlin Don Horn

Abstained: Chris Dixon, David Eldridge, Kent Sovocool, Tien Peng

- **48 – 8. Substantive. 10.3.1.1**
  - **Comment:** Informational references should include the body of work completed by the National Academies (NA) over the years, including the “Red”, “Blue”, “Silver” Books on risk assessment and the NA October, 2014 Guideline on Alternative Assessments.
  - **Reason:** These are the most authoritative references in the field of risk assessment.
  - **Proposed Response:** Accept. [References will be submitted by the commenter]
  - **Subcommittee Vote:** Unanimously in favor

**MOTION: The motion was made and seconded to accept the Subcommittee’s proposed response.**

**VOTE: The motion carried with 18 in favor, none opposed, and 3 abstained.**

None Opposed

Abstained: George Thompson, Erika Winters-Downey, Tien Peng

- **52 – 47. Substantive. 10.3**
  - **Comment:** Suggest removing specific list of Risk Assessment Tools.
  - **Reason:** Listing specific Risk Assessment Tools may limit the user’s ability to complete and/or achieve these points. Human health and ecological risk assessments can be conducted using a variety of processes or approaches (this language is included in the current draft, but it is not as obvious as the references to GreenSuite and Responsible Care). If the list must be kept in the document, then please consider identifying using the terms “examples” or “informational references.”
  - **Proposed Response:** Accept. Eliminate Risk Assessment Tool(s) heading with the intention that the suggested tools are part of the informational references. Eliminate: “or other third party tools capable of conducting the hazard and exposure analyses and the risk assessments;”
  - **Subcommittee Vote:** 8 in favor, 1 abstained (George Thompson Recused himself from the vote)

**MOTION: The motion was made and seconded to accept Subcommittee’s recommendation.**

**VOTE: The motion carried with 20 in favor, none opposed, and 1 abstained.**

None Opposed

Abstained: George Thompson

- **30 – 4. Substantive. 10.3**
  - **Comment:** GreenSuite (<http://chemply.com>) ~~SciVeraLens™~~ (<http://www.scivera.com/products.php>) or other third party tools capable of conducting the hazard and exposure analysis and the risk assessment; or
  - **Reason:** SciVera Lens™ does not appear to be an appropriate risk based system, lacks basic exposure assessment components but instead takes a list based hazard approach to evaluating a product
- **11 – 13. Substantive. 10.3.1.1**
  - **Comment:** “GreenSuite® (<http://chemply.com/>), ~~SciVera Lens™~~ (<http://www.scivera.com/products.php>), or other third party tools capable of conducting the ....”
  - **Reason:** SciVera Lens™ does not appear to be an appropriate risk-based system; it lacks basic exposure assessment components and takes a list-based hazard approach to evaluating a product.
- **18 – 13. Substantive. 10.3.1.1**
  - **Comment:** *GreenSuite®* (<http://chemply.com/>), ~~SciVera Lens™~~ (<http://www.scivera.com/products.php>), or other third party tools capable of conducting the hazard and exposure analyses and the risk assessment; or
  - **Reason:** SciVera Lens™ does not appear to be an appropriate risk based system, it lacks basic exposure assessment components, but instead takes a list based hazard approach to evaluating a product.
  - **Proposed Response:** Accept 30 – 4, 11 – 13, and
  - **Subcommittee Vote:** 8 in favor, 1 abstained

**MOTION: The motion was made and seconded to accept the Subcommittee’s proposed response to accept these comments 30-4, 11-13, & 18-13.**

**VOTE: The motion carried with 18 in favor, none opposed, and 4 abstained.**

None Opposed

Abstained: Rachel Minnery, George Thompson, Susan Gitlin, David Eldridge

- **5 – 4. Substantive. 10.3.1.1**
  - **Comment:** ~~Responsible Care or equivalent~~
  - **Reason:** ACC’s Responsible Care likely would not provide the level of detail necessary to demonstrate compliance with the criteria.
  - **Proposed Response:** Accept
  - **Subcommittee Vote:** 8 in favor, 1 abstained

**MOTION: The motion was made and seconded to accept the Subcommittee’s proposed response.**

**VOTE: The motion carried with 18 in favor, none opposed, and 1 abstained**

None Opposed

Abstained: George Thompson

- **18 – 14. Substantive. 10.3.1.1**
  - **Comment:** Consider including the option to allow other appropriate consensus-based ANSI-approved risk-based standards.

- **Reason:** There is full support of the transparent reporting used by NSF/GCI/ANSI355: Greener Chemicals and Processes Information Standard. However, should not be limited but also allow other appropriate consensus-based ANSI-approved risk-based standards.
- **Proposed Response:** Reject. No specific “other appropriate consensus-based ANSI-approved risk-based standards” were suggested. “Any system that fulfills the stipulations in this section would be acceptable.” already appears in the language.
- **Subcommittee Vote:** 8 in favor, 1 abstained

**MOTION: The motion was made and seconded to accept Subcommittee’s proposed response by rejecting the comment.**

**Discussion took place on the motion:**

- It was clarified that the comment is being rejected because other Standards are already covered by the existing language.

**VOTE: The motion carried with 17 in favor, 1 opposed, and 1 abstained**

Opposed: Don Horn

Abstained: George Thompson

- **32 – 1. Substantive. 10.3**

- **Comment:** add definitions for: **authoritative:** means a resource that has been validated, peer reviewed, and recognized for use in evaluating specified products. And **ingredient:** a substance or single constituent used to make a compound, mixture, or finished product. Ingredients can be active (help directly in achieving a performance objective(s)) or inert (facilitate acceptance, application, stability, handling or marketing of the product, or delivery of the active ingredients).
- **Reason:** Proposed language included some duplications that have been corrected. Refined language completed with the smaller ANSI sub-group (including Charles Kibert and George Thompson) and received feedback from other experts with Risk Assessment experience and understanding of evaluation of chemicals from a risk and exposure perspective. The attached document is the result of this evaluation and subsequent review with sub-group.
- **Proposed Response:** Accept as Modified. The committee changed ingredient to chemical constituent in previously accept language. The definition of authoritative has been modified to read: “**authoritative:** means a resource that has been peer reviewed and publically recognized for use in evaluating specified products.”
- **Subcommittee Vote:** 6 in favor, 2 opposed, 1 abstained

**MOTION: The motion was made and seconded to accept Subcommittee’s recommendation to accept as modified.**

**Discussion took place on the motion:**

- It was requested that an editorial change be mad to remove “means” from the definition because it is inconsistent with how other definitions are drafter. There was no objection to this deletion.

**VOTE: The motion carried with 19 in favor, none opposed, and none abstained.**

None Opposed

None Abstained

- **39 – 2. Substantive. 10.3.1**

- **Comment: 10.3.1 Risk Assessment**

ADD:

10.3.2 Resilience and Mitigation

#### 10.3.2.1 Life Cycle Material Reduction (20 Points)

Utilize high performance load (i.e. seismic, wind, fire, etc.) resisting systems to reduce the demand for structural and non-structural building materials over a buildings life, thus reducing the environmental impact (including Global Warming Potential) associated with extracting, processing, transporting and installing these materials. This option addresses durability, strength, resistance to storms and earthquakes, and other aspects of resilience as measured in weight or cost of material.

10.3.2.1.1 Determine primary hazard risk and establish performance level based upon Owners Project Requirements (OPR)

10.3.2.1 .2 Demonstrate reduction in material use in maintenance and repair over a 60-year design life from structural and non-structural building materials to achieve a reduction of 5% (11 point), 10% (20 points), or 15% (30 points) as compared with a conventional (code minimum) design on the same site. Non-structural materials and building contents, such as cladding, interior framing, mechanical and electrical equipment, ceilings and finishes shall be included in the calculations.

#### 10.3.2.2 Mitigation through FORTIFIED Designation (20 Points)

Achieve the Insurance Institute for Business and Home Safety's (IBHS) FORTIFIED for Safer Business (FFSB) designation (or FORTIFIED Safer Living for Homes).

A design professional (Registered Architect, Professional Engineer, Licensed General Contractor) must complete and submit a FORTIFIED for Safer Business (or Safer Living for Homes) Application, Design Professionals' Checklist and accompanying documents, and a signed Compliance Agreement to an authorized FORTIFIED for Safer Business (or Safer Living for Homes) Plan Reviewer.

#### 10.3.2.3 Extended Service Life Through Increased Durability Characteristics (20 Points)

Minimize materials use and construction waste over a building's life resulting from premature failure of the building and its constituent components and assemblies.

Develop and Implement a Building Durability Plan, in accordance with the principles in CSA S478-95 (R2001) - *Guideline on Durability in Buildings*, for the components within the scope of the Guideline, for the construction and preoccupancy phases of the buildings as follows:

3.1 Design and construct the building to ensure that the predicted service life exceeds the design service life established in *Table 2* in *CSA S475-95 (R2001) - Guideline on Durability in Buildings*.

3.2 Where component and assembly design service lives are shorter than the design service life of the building, design and construct those components and assemblies so that they can be readily replaced, and use a design service life in accordance with *Table 3* in *CSA S478-95 (R2001) - Guideline on Durability in Buildings*, as follows:

- o For components and assemblies, whose Categories of Failure are 6, 7 or 8 in *Table 3*, use a design service life equal to the design service life of the building.
- o For components and assemblies whose Categories of Failure are 4 or 5 in *Table 3*, use a design service life equal to at least half of the design service life of the building.

3.3 Demonstrate the predicted service life of chosen components or assemblies by documenting demonstrated effectiveness, modeling of the deterioration process or by testing in accordance with *Clause 7.3, 7.4 or 7.5* and by completing *Tables A1, A2 & A3* from *CSA S478-95 (R2001) - Guideline on Durability in Buildings*.

3.4 Document the elements of quality assurance activities to be carried out to ensure, the predicted service life is achieved, in the format contained in *Table 1, Quality Assurance and the Building Process*, of *CSA S478-95 (R2001) - Guideline on Durability in Building*.

3.5 Develop and document the quality management program for the project that ensures the quality assurance activities are carried out, in accordance with the elements identified in *Clause 5.3*,

Informational Reference(s):

FEMA HAZUS MH 2.2 Tool (<https://www.fema.gov/hazus>)

FEMA P-58 methodology, Performance Assessment Calculation Tool (PACT)

EnvISA (Comber et al. 2012)

FORTIFIED by IBHS (<https://disastersafety.org/fortified/safer-living/>)

Environmental Analysis Tool (Sarkisyan et al. 2012)

“Disaster Resilience and Sustainability”, The Disaster Resilience Working Group of the Structural Engineering Institute’s Sustainability Committee, Tonatiuh Rodriguez-Nikl, Ph.D., P.E., Editor

- **Reason:** Risk Assessment should include hazard risks to building and business continuity. Disasters throughout the country – Sandy, Joplin, Katrina, Napa Valley, Waldo Canyon – have economic and social impact to the community. A green building rating system should consider risk assessment and mitigation from natural hazards making long-term use of our built resources. Resilient design reduces the materials required to repair the elements of a building after a hazard event. Thus the overall reduction in materials is even more significant over the life of the structure, translating to reduced total impacts throughout the life of the building. Three pathways to resilience can be considered.
- **Proposed Response:** Reject. The comment does not fit the Subcommittee’s definition of product risk assessment for this Section.
- **Subcommittee Vote:** 8 in favor, 1 abstained

**MOTION: The motion was made and seconded to accept the Subcommittee’s proposed response.**

**Discussion took place on the motion:**

- The question was raised whether the Subcommittee had shared these ideas with any other Section within this document. It was stated that sometimes public comments are made in not necessarily the correct Sections, but that does not reduce the validity of the comment. It was clarified that the comment has been shared with the Resilience task group.
- The suggestion was made to suggest to the public commenter that they resubmit this comment to the proper group during the next public comment period. The commenter was present on the call and stated their satisfaction that the issues raised by the comment are being addressed in the Resilience task group. The sentiment was reiterated that this comment should be sent back to be handled by the appropriate Subcommittee. It was stated that this comment was submitted to the Materials section, so the Materials Subcommittee needs to reject it, regardless if we move it to another group for discussion. There was Discussion at the Subcommittee level and at the Consensus Body meeting in Chicago.

**AMENDMENT: The amendment was made and seconded to change the response to “accept as modified”. 10.3 is focused on product risk assessment. External risk, resilience, and durability are being developed elsewhere in the Standard.**

**Objections were raised to the amendment.**

**The amendment was changed and the change was seconded: Reject. Commenter is advised that 10.3 is focused on product risk assessment. External risk, resilience and durability are being developed elsewhere in the Standard. Comments will be taken under advisement.**

**Discussion took place on the amendment:**

- It was reiterated that this comment should be tabled since it’s being looked at under other groups. It was stated that the Consensus Body shouldn’t respond to the comment at this time.

- It was argued that product risk assessment is the issue at hand and that this comment can be voted on now.

**VOTE: The amendment carried with 7 in favor, 5 opposed, and 5 abstained**

Opposed: Susan Gitlin, Don Horn, Jane Rohde, Bill Freeman, Kent Sovocool

Abstained: Doug Tucker, Paul Bertram, David Eldridge, Gord Shymko, Tien Peng

**MOTION: The motion was made and seconded to close the meeting. There was no objection.**

**--Meeting #18 Part I adjourned at 4:04 PM ET--**

**Wednesday, June 22<sup>nd</sup>, 2016**

### **Welcome & Roll Call**

Secretariat, Maria Woodbury welcomed participants and conducted roll call to establish quorum. The anti-trust statement was reviewed and participants were requested to comply with it fully.

### **Administrative Procedures and Related Matters**

Woodbury reviewed the participation options, stating that while observers are welcome to participate in the discussion, only Consensus Body Members are able to vote. Participants were reminded to raise hands should they desire to add something new to the discussion and staff would then call on them in order.

At this meeting, no members voted using a voting alternate. There was 1 member voting via proxy (Greg Johnson for Jeff Bradley).

### **Chair's Opening Comments:**

Chair, Michael Lehman informed participants that the call would continue to follow the new grouped voting format. Lehman reminded participants to keep discussion germane to comment at hand.

Woodbury informed participants that the call was being recorded for the purpose of minute taking and that the recording would not be shared outside GBI staff. No objection was raised to the recording of the call.

### **Old Business**

#### **"No file action": Motion on the floor on comment 39 - 2:**

**Motion:** The motion was made and seconded to accept Subcommittee's proposed response

#### **Discussion:**

- Had the subcommittee shared these ideas with others in this section or any other section within this document? Sometimes public comments are made in not necessarily the correct sections.
  - Yes, we have a Resilience working group and are covered by them or the Project Management group. Maybe we can suggest to the public commenter that they can resubmit this to the proper group next round.
  - Commenter is on call and is satisfied that it's being worked on in Resilience task group.
  - This should be shifted to the proper subcommittee.
  - In principle, this was submitted to this section, so we need to reject it, regardless if we move it to another group for discussion. (Discussed in Subcommittee level and CB meeting in Chicago)



**MOTION AS AMENDED 6-21-16: The motion was made, seconded, and amended to reject the comment. Commenter is advised that 10.3 is focused on product risk assessment. External risk, resilience and durability are being developed elsewhere in the Standard. Comments will be taken under advisement.**

**Discussion took place on the motion:**

- There was a brief overview of the previous day's discussion on this comment for those not in attendance.

**VOTE: The motion carried with 17 in favor, 3 opposed, 1 abstained**

Opposed: Susan Gitlin, Rachel Minnery, Kent Sovocool

Abstained: Tien Peng.

**Site**

- **34 – 10. Substantive. 7.3.1.1:**

- **Comment:** An Erosion and Sedimentation Control Plan, signed and stamped by a professional engineer, is included in the construction documents.
- **Reason:** Georgia requires state certified designers. Since NPDES is locally administered program based on Federal approval, there are likely other jurisdictions that permit CPESC certification and others.
- **Proposed Response:** Accept as modified. Amend language to say “professional engineer or designer approved by the authority having jurisdiction.” to allow for flexibility.
- **Subcommittee Vote:** Unanimously in favor

**MOTION: The motion was made and seconded to accept the subcommittee's recommendation.**

**Discussion took place on the motion:**

- The question was raised whether an non-applicable would be provided for this criterion.

**AMENDMENT: The amendment was made and seconded to add “N/A where projects do not have any site work.”**

**Discussion took place on the Amendment:**

- Concern was raised that this will affect a lot of credits. The speaker's preference was to discuss the prospect further with the Site subcommittee.
- It was stated that not having a “Site” or not having “Site Work” are two different things. The opinion was raised that the wording needs to be changed.

**Amendment withdrawn with no objection**

[Note: Subcommittee will discuss further]

**VOTE: The motion carried with 20 in favor, none opposed, and 1 abstained.**

None Opposed

Abstained: Paul Bertram

- **34 – 11. Substantive. 7.3.1.2**

- **Comment:** Delete Path B
- **Reason:** I am not aware of where Path A would not be a permit requirement given this is based on the national NPDES program (with implementation authority is granted by the Federal). To adequately evaluate ESC plan is beyond the reasonable scope of an NC assessment.
- **Proposed Response:** Reject. The committee would like to keep Path B for small individual projects that fall under the one acre lot size which are not required to meet National Pollutant Discharge Elimination System (NPDES) requirements and to maintain the spirit of Green Globes as a teaching tool.

- **Subcommittee Vote:** 5 in favor, 1 abstained

**MOTION: The motion was made and seconded to accept recommendation.**

**Discussion took place on the motion:**

- The question was raised about whether the Subcommittee discussed adding language saying only when applicable. A suggestion was made to say “not applicable for sites larger than 1 acre.”

**AMENDMENT: The amendment was made and seconded to add an N/A: “not applicable where the lot is larger than 1 acre” in right hand column.**

**There were no objections.**

**VOTE: The amended motion carried with 20 in favor, none opposed, and none abstained.**

None Opposed

None Abstained

- **43 – 9. Substantive. 7.3.1.2.1:**

- **Comment:** Modify as follows:  
Erosion control: articulated concrete block, chemical stabilization...
- **Reason:** Articulated concrete block is specifically designed for and is effective in controlling erosion. It can be used to stabilize soils to prevent erosion.
- **Proposed Response:** Accept.
- **Subcommittee Vote:** Unanimously in favor

**MOTION: The motion was made and seconded to accept 43 – 9.**

**VOTE: The motion carried with 18 in favor, none opposed, and none abstained**

None Opposed

None Abstained

- **52 – 14. Substantive. 7.3.1.2.1:**

- **Comment:** Revise as follows: Erosion Control: chemical stabilization, ...dust control, flocculants, geotextiles, ...
- **Reason:** See [http://opcgis.deq.state.ms.us/Erosion\\_Stormwater\\_Manual\\_2ndEd/Volume1/Chap\\_4\\_Sections/4\\_6/V1\\_Chap4\\_6\\_Sediment\\_Control\\_FLC.pdf](http://opcgis.deq.state.ms.us/Erosion_Stormwater_Manual_2ndEd/Volume1/Chap_4_Sections/4_6/V1_Chap4_6_Sediment_Control_FLC.pdf)
- **Proposed Response:** Accept
- **Subcommittee Vote:** Unanimously in favor

**MOTION: The motion was made and seconded to accept Subcommittee’s proposed response.**

**VOTE: The motion carried with 18 in favor, none opposed, and none abstained**

None Opposed

None Abstained

- **34 – 12. Editorial. 7.3.1.3:**

- **Comment:** Construction activities do not go beyond an average of 40 ft. (12.2 m) of the building footprint(s) and remain within 10 ft (3 m) ~~5 ft. (1.5 m)~~ of parking
- **Reason:** Unless shown as an "average" vs an absolute distance this is a questionable item as to benefit; vulnerable areas of the site vary and are not given to absolute distances (e.g. stream buffers); Five (5) feet for work adjacent to hardscape is inadequate, typically any maintenance (or construction) easement is a minimum of 10ft.
- **Proposed Response:** Reject. The building should be sited away from sensitive areas. Giving these defined distances creates a proper buffer zone for construction.
- **Subcommittee Vote:** Unanimously in favor

**MOTION: The motion was made and seconded to accept Subcommittee’s proposed recommendation.**

**VOTE: The motion carried with 18 in favor, none opposed, and none abstained**

None Opposed

None Abstained

- **43 – 10. Substantive. 7.3.2:**
  - **Comment:** Modify as follows:...noninvasive and are either adaptive and/or are native...
  - **Reason:** Should not encourage invasive plantings.
  - **Proposed Response:** Accept as modified. The language has been changed to read: “adaptive and non-invasive.” to clarify that non-invasive applies to the word adaptive.
  - **Subcommittee Vote:** Unanimously in favor.
- **52 – 16. Substantive. 7.3.2**
  - **Comment:** Base the point system on a % of the site’s vegetation that will be saved, e.g., 8 points for 80%, 4 for 40%, 2 for 20%.
  - **Reason:** The current approach is overly vague on the number or trees or area of vegetation that will be retained.
  - **Proposed Response:** Accept as Modified. The language was revised. The exact number of points will be determined at a late date.
  - **Subcommittee Vote:** 5 in favor, 1 abstained.
- **52 – 15. Substantive. 7.3.2 & 7.3.3**
  - **Comment:** Combine 7.3.2 and 7.3.3 into one single path.
  - **Reason:** We agree that it is very important to retain existing vegetation whenever possible and whenever the vegetation is of high environmental value. However, we recommend that sections 7.3.2 and 7.3.3 be combined into one single path, for the following reasons:
    - a. The value of 7.3.2 relates heavily to, and is dependent on, criteria in section 7.3.3. Unless steps are taken to protect the saved trees, points dedicated to tree “integration” could have little environmental value.
    - b. Moreover, the combination of the points from 7.3.2 and 7.3.3 could lead to as many as 8 points when very few existing plants have been retained. When compared to the environmental merit and difficulty of some of the other criteria, this seems high.
    - c. 7.3.3.1 should not stand alone. A plan in and of itself does not necessarily mean that any existing trees will actually be retained. There needs to be a guarantee that the plan will be implemented – and thus it is important to join 7.3.3.1 and 7.3.3.2.
  - **Proposed Response:** Accept
  - **Subcommittee Vote:** Unanimously in favor
- **9 – 10. Substantive. 7.3.2.1:**
  - **Comment:** The following are integrated into the landscape plan if they already exist on site, are adaptive, non-invasive, and/or are native to the site:
  - **Reason:** Green Globes should clarify that invasive species should not be planted on the landscape.
  - **Proposed Response:** Accept as modified. The overall wording was changed and an emphasis on non-invasive plants was added.
  - **Subcommittee Vote:** Unanimously in favor
- **52 – 17. Substantive. 7.3.2.1:**
  - **Comment:** Delete the words “adaptive or” from where they occur in the right-hand column and add language to ensure that no points will be given for retaining invasive plants.

For invasive plants, add this informational resource:

*Invasive Plant Atlas of the United States*

<http://www.invasiveplantatlas.org/>

- **Reason:** This section provides many points, indicating a high environmental value. Points should therefore only be provided if the plants are of clear environmental value and not environmentally detrimental. The word “adaptive” is vague. Also, non-native plants do not offer the level of ecological benefits as those offered by native plants.
- **Proposed Response:** Accept as modified. An alternative reference was supplied.
- **Subcommittee Vote:** Unanimously in favor
- **34 – 13. Substantive. 7.3.2.1.1:**
  - **Comment:** Integrate this section with 7.3.3 Tree Preservation
  - **Reason:** Section should be integrated with landscape and tree preservation
  - **Proposed Response:** Accept
  - **Subcommittee Vote:** Unanimously in favor

**MOTION: The motion was made and seconded to accept the subcommittee’s rewrite of this section and responses to these comments [43 – 10, 52 – 16, 52 – 15, 9 – 10, 52 – 17, & 34 – 13].**

**Discussion took place on the motion:**

- It was pointed out that the Consensus Body had already rejected using the Invasive Plants Atlas of the US. Concern was raised that this was an attempt to put that back in and the question was raised whether this goes against procedure.
- It was clarified that this language was worked on in small group as well as at the Subcommittee level and does not incorporate the Invasive Plant Atlas, but another mutually agreed upon reference.

**VOTE: The motion carried with 14 in favor, 1 opposed, and 2 abstained.**

Opposed: George Thompson

Abstained: Allan Bilka, Tien Peng

- **52 – 19. Substantive. 7.3.4 (New)**
  - **Comment:** The roof and wall are shaded by either:  
Existing, non-invasive trees that are retained, provided the trees are non-invasive or  
n Newly planted non-invasive trees that will shade the requisite area within 15 years.  
For invasive plants, add this informational resource:  
*Invasive Plant Atlas of the United States*  
<http://www.invasiveplantatlas.org/>
  - **Reason:** 5 points  
This credit was added to be consistent with credit 7.3.4.3. Credit should be provided if trees are retained or planted that shade the structure and reduce urban heat island impacts and thermal gain.
  - **Proposed Response:** Accept as modified. Language was added to incorporate other heat island mitigation methods.
  - **Subcommittee Vote:** Unanimously in favor

**MOTION: The motion was made and seconded to accept the Subcommittee’s recommendation.**

**Discussion took place on the motion:**

- Clarification was requested around whether the response was accept or accept as modified. It was clarified that the motion is to accept the response which is to “accept as modified”

- A concern was raised about how to determine shading from trees. The question was raised about whether there is guidance/references for this. It was clarified that the Landscape Architect determines it and the language specifies must be demonstrated in summer months.
- There was a question raised about whether “summer months” is a standard definition as seasonality varies by region. There was a suggestion to define it based on the summer solstice or another specific date.
- There was a question around whether “shading” applies to just roofs or the walls too. It was clarified that the Standard addresses walls elsewhere—this credit is just for roofs.

**VOTE: The motion carried with 11 in favor, 5 opposed, and none abstained**

Opposed: Charles Kilbert, Greg Johnson, Gord Shymko, Jeff Bradley, Allan Bilka

None Abstained

- **52 – 18. Substantive. 7.3.4.4:**
  - **Comment:** Revise as follows: At least 75% of opaque wall surfaces (by area) on the east and west have an SRI of 29 or greater and/or are covered by vegetation.
  - **Reason:** Vegetated walls are a practice that can reduce urban heat island impacts and are an accepted mitigation practice along with reflective walls and roofs.
  - **Proposed Response:** Accept as modified. “SRI of 29 or greater, or are covered by, or are designed to be covered by, non-invasive vegetation or a vegetative wall.”
  - **Subcommittee Vote:** Unanimously in favor

**MOTION: The motion was made and carried to accept the Subcommittee’s recommendation.**

**Discussion took place on the motion:**

- A question was raised whether an assessor would read “covered by” as “shaded by”. It was stated that this isn’t explicitly stated here.
- The point was raised that it is unclear what percentage is covered with “and/or.”

**AMENDMENT: The amendment was made and seconded to change language to “non-invasive vegetation or are shaded by a vegetative wall.”**

**Discussion took place on the Amendment:**

- The suggestion was made to change the amendment so the text reads as follows: “~~or are covered or shaded by, or are designed to be covered or shaded by, non-invasive vegetation~~ and/or are shaded by a vegetative wall.”
- The suggestion was not supported by original maker of the amendment and was not adopted.
- It was stated that overall, these are all still problematic because it doesn’t specify what time of day this is measured. One member stated we should not rely on Landscape Architect for this.
- Clarification was provided that the amendment is intended to include shaded walls.
- One participant stated this is still vague and the question was raised regarding who calculates 75%.

**AMENDMENT TO THE AMENDMENT: The amendment was made and seconded to add “during the summer months” to the end.**

**Discussion took place on the amendment to the amendment:**

- A question was raised whether this is this in the context of Climate zones. It was explained that there is a “N/A” for climate zones.
- One member stated that “summer months” is still not specific enough and that this is still too vague.

**VOTE: The amendment to the amendment carried with 11 in favor, 3 opposed, and 6 abstained.**

Opposed: Erika Winters-Downey, Charles Kibert, Gord Shymko

Abstained: Rachel Minnery, Jane Rohde, Paul Bertram, Tien Peng, David Eldridge, Bill Freeman

**Discussion took place on the amended amendment:**

- One speaker encouraged rejecting amendment and sending the comment back to the Subcommittee due to the great questions raised in the discussion that need to be explored further

**VOTE: The amendment carried with 12 in favor, 5 opposed, and 2 abstained.**

Opposed: Erika Winters-Downey, Gary Keclik, Bill Freeman, Charles Kibert, Gord Shymko

Abstained: Jane Rohde, Paul Bertram

**Discussion took place on the amended motion:**

- A speaker reiterated that “shading” is not defined enough.
- Sentiments were echoed from an assessor’s perspective that this needs to go back to Subcommittee
- The point was made that the level of specificity is an issue across all Subcommittee areas.

**VOTE: The amended motion carried with 10 in favor, 7 opposed, and 1 abstained**

Opposed: Jane Rohde, George Thompson, Greg Johnson, Jeff Bradley, Bill Freeman, Charles Kibert, Gord Shymko

Abstained: Paul Bertram

- **52 – 23. Substantive. 7.5.1.1, 7.5.1.2 & 7.5.1.4:**

- **Comment:** We recommend that these three sections be combined into one and a maximum of no more than 6 points. Replace the existing 7.5.1.1, 7.5.1.2 and 7.5.1.4 left-hand column with the following:

7.5.1.1 A landscape design is planned and installed as follows: n The plan is developed by a landscape architect, certified professional landscape designer, certified horticulturalist, or other qualified professional.

n The plan shows the natural light conditions of the site

n The plan shows structural limitations (e.g. shading, utilities, overhangs, lights) that would impact the location and growth of plants.

n The plan identifies existing soil types and the installed landscape maintains those types and incorporates appropriate soil preparation and drainage to support root development for vegetation planned for the site.

Where an irrigation system is installed refer to Water Efficiency, Section 9.8, Irrigation.

Informational Reference(s):

- Agroforestry Note 38 – Landscape planning for environmental benefits USDA Natural Resources Conservation Service

- Local Cooperative Extension Research, Education and Extension Service

- State and local university or college landscape reference guide

Replace the language in the right-hand column of the three sections with the following:

6 points or N/A

3 points are earned if the criteria for the first three bullets are met.

Three points are earned if the criterion in the fourth bullet is met.

Not applicable where there is no room for landscaping.

- **Reason:** These sections offer a great many points for what seem to be redundant tasks. A decent landscaping plan, for example, should include information on light availability and soil conditions. Those elements should not merit additional points beyond the original 6. Indeed, no points should be available for a plan unless it contains the elements now included in 7.5.1.2 and 7.5.1.4. As currently written, these sections could provide 11 points, which seems excessive for the mere creation of a decent plan. We deleted the exception for “preserved natural areas” because the phrase is not defined and is therefore vague. What is a natural area? One with an officially designated status as a conversation area? An area of forest that a builder leaves undisturbed? If this latter, it is important that a builder not be penalized for retaining the site’s original vegetation. Unless a builder can receive more points for retaining the original vegetation than are rewarded by 7.5.1, 7.5.1 effectively penalizes the builder. In other words, it becomes an incentive to remove the original natural vegetation on the site.
- **Proposed Response:** Accept as modified. Strike “maintains those types and” from the forth bullet.
- **Subcommittee Vote:** Unanimously in favor
- **52 – 27. Substantive. 7.5.1.4.2:**
  - **Comment:** Delete the section.
  - **Reason:** This practice is largely operational and could not be evaluated by the assessor over the long term. Moreover, without a definition of “best practices,” how would the assessor evaluate this, even in the short term? If it is deleted, 7.5.1.5.1 could then be grouped with 7.5.1.3.1.
  - **Proposed Response:** Accept
  - **Subcommittee Response:** Unanimously in favor

**MOTION: The motion was made and seconded to accept Subcommittee recommendation on the rewrite of this section.**

**Discussion took place on the motion:**

- Clarification was provided that 52-27 and 52-23 are being addressed with this rewrite.

**VOTE: The motion carried with 18 in favor, none opposed, and none abstained.**

None Opposed

None Abstained

- **28 – 3. Substantive. 7.5.1.3.3 (New)**
  - **Comment:** Areas of turfgrass are over-seeded with maintenance tolerant, non-invasive flowering herbaceous plants. Plants should typically flower at less than 4 inches in height.
  - **Points column:**  
1 point is earned for each 2,500 square feet of turfgrass or majority fraction thereof. 3 points maximum for this practice.
  - **Reason:** This proposal is intended to promote the inclusion of pollinator forage in areas of turfgrass (‘bee lawns’). It is based upon work being done jointly by University of MN entomology and horticulture researchers and field tested at the MN Landscape Arboretum (see attachment). The inclusion of flowering plants areas of turfgrass is consistent with the direction of the 2014 Presidential Memorandum “Creating a Federal Strategy to Promote the Health of

Honey Bees and Other Pollinators” to increase flower diversity in plantings. It is also consistent with the White House Council on Environmental Quality’s direction to allow flowers in lawns in the guidance addendum “Supporting the Health of Honey Bees and other Pollinators.”

This proposal was the subject of vigorous debate by the Sites subcommittee and was rejected by a 3-2 margin.

Since the provision specifically prohibits invasive plants it is unclear why there is objection to including flowers in areas of turfgrass.

- **Proposed Response:** Reject. The proposed practice may make more sense for lawns in established landscapes. For pollinators, it is preferable to dedicate a portion of the landscape to plants that provide habitat. Such credits are offered elsewhere.
- **Subcommittee Vote:** 6 in favor, 1 opposed, 1 abstained.

**MOTION: The motion was made and carried to accept Subcommittee’s recommendation.**

**Discussion took place on the motion:**

- The commenter stated they will bring this back for public comment.

**VOTE: The motion carried with 15 in favor, 2 opposed, and none abstained.**

Opposed: Greg Johnson, Jeff Bradley

None Abstained

- **34 – 20. Substantive. 7.5.1.5.1:**
  - **Comment:** Delete this section
  - **Reason:** This is part of good professional practice which would be implicit 7.5.1.1
  - **Proposed Response:** Reject. While the committee agrees that it should be standard practice, many landscapes are not designed this way. This practice is important to water use efficiency.
  - **Subcommittee Response:** Unanimously in favor
- **52 – 28. Substantive. 7.5.1.5.2:**
  - **Comment:** Delete the section.
  - **Reason:** 7.5.1.5.2 is not clear (maturation at a 5-year growth rate?), and provides a point for something that should be self-evident, i.e., give a plant enough room to achieve its full growth potential. Moreover, how would the assessor evaluate this? The point could be better allocated.
  - **Proposed Response:** Accept.
  - **Subcommittee Vote:** Unanimously in favor
- **31 – 4. Substantive. 7.5.1.5:**
  - **Comment: 7.5.1.5** The landscape design shows that plants are located on the site as follows:
    - 7.5.1.5.1:** Plants with similar water requirements are grouped together; and
    - 7.5.1.5.2:** Plants are spaced to allow for maturation at a 5-year growth rate and trees at a 10-year maturation.

Maximum = 3 points or N/A

- Two points are earned if plants are grouped according to water requirements.
- One point is earned if plants are spaced to allow for maturation.
- Not applicable where all of the landscaping is a preserved natural area or where there is no room for landscaping



- **Reason:** 7.5.1.5.2 spacing trees at a 5-year maturation will cause overcrowding as the plants mature. There should be a longer time for trees since their growth rate is slower than other plants. Crowding the plants to get quicker cover eventually causes additional maintenance problems, including an increase in water to maintain them in an over-crowded condition.
- **Proposed Response:** Accept as modified. The committee agrees with the commenter's point, but will be deleting the section entirely.
- **Subcommittee Vote:** Unanimously in favor

**MOTION TO REFER TO COMMITTEE: The motion was made and seconded to send these comments back to the Subcommittee for clarification.**

**VOTE: The motion carried with 18 in favor, none opposed, and 1 abstained.**

None Opposed

Abstained: David Eldridge.

- **34 – 23. Substantive. 7.5.1.7:**
  - **Comment:** Revise / simplify criteria
  - **Reason:** I like this and agree with the overall points but feel it is too detailed; needs work to encourage actual incorporation in projects.
  - **Proposed Response:** Accept
  - **Subcommittee Vote:** Unanimously in favor
- **28 – 4. Substantive. 7.5.1.7:**
  - **Comment:** The building project supports on-site and off-site agriculture accessible to building users or employees in any of the following ways:
    - 7.5.1.7.1: Rooftop garden(s), edible landscape(s), food forest, or community garden is installed on-~~or off-~~site;
    - 7.5.1.7.2: Apiary or pollinator garden is installed on-~~or off-~~site;
    - 7.5.1.7.3: Chicken coop, aquaponics farm, and/or greenhouse is installed on- ~~or off-~~site;
    - 7.5.1.7.4: Food grown on ~~agricultural~~ site is distributed/cooked within the building or distributed to the surrounding community;
    - 7.5.1.7.5: Building users or employees can cook food grown on ~~agricultural~~ site in an onsite kitchen;
    - 7.5.1.7.6: Building's ~~organic matter~~ food and garden waste is composted on- ~~or off-~~site;
    - 7.5.1.7.7: Building's ~~organic matter~~ food and garden waste is delivered to a biogas facility with 15 mi (24.1km) of the building;
    - 7.5.1.7.8: The building hosts ~~or substantially sustains~~ a farmer's market; and/or
    - 7.5.1.7.9: The building hosting educational sessions at the ~~urban agricultural site.~~
  - Points column:**
    - Two points are earned where food grown on ~~agricultural~~ site is distributed/cooked within the building.
    - Two points are earned where the building's ~~organic matter~~ food and garden waste is delivered to a biogas facility within 15 mi (km) of the building
    - ~~One point is earned where there is an off-site rooftop garden, edible landscape, food forest, or community garden.~~
    - ~~One point is earned where there is an apiary or pollinator garden off-site.~~
    - ~~One point is earned where there is an off-site chicken coop, aquaponics farm and/or greenhouse.~~

- One point is earned where food grown on agricultural site is distributed to the surrounding community
  - **Reason:** 7.5.1.7.1; 7.5.1.7.2; 7.5.1.7.3; 7.5.1.7.6; Most offsite agricultural efforts will probably be beyond the reliable control of building management and therefore should not be relied upon for the intended benefits. Additionally, allowing offsite initiatives to count toward certification places an unacceptable degree of difficulty upon verification by the building rater.
  - 7.5.1.7.4 The standard addresses building sites; agriculture is intended as a supplemental use and not the primary use. Simply saying 'site' without reference to agriculture still creates the same incentive.
  - 7.5.1.7.5 The value of site grown produce is not diminished if employees or occupants of the building take the food home to cook. There's no need for the produce to be actually cooked onsite.
  - 7.5.1.7.6 ; 7.5.1.7.7 Some organic matter is not readily suitable for composting onsite and belongs in the sanitary sewer. The water section can address composting toilets if it is deemed appropriate.
  - 7.5.1.7.8 "Substantially sustains" is subjective and too difficult to verify.
  - 7.5.1.7.9 The idea of hosting education 'sessions' at the building suggests face to face meeting which is probably unnecessary and wasteful in the information age. There is a wealth of easily accessible information regarding urban agriculture online for any party that cares to seek it out.
  - **Proposed Response:** Accept as modified. The language referencing off-site was deleted. Other changes were made to the language in response to other comments.
  - **Subcommittee Vote:** Unanimously in favor
- **52 – 30. Substantive. 7.5.1.7.2**
  - **Comment:** 7.5.1.7.2 is in need of clarification. How large should the area for an apiary of pollinator garden be? One tree? 25% of the landscape?
  - **Reason:** None Given
  - **Proposed Response:** Accept with following text: Substitute text: 25% of vegetated area is dedicated to pollinator-friendly plantings or an apiary.
  - 
  - Additional text:
  - Informational References:
  - Pollinator Partnership, *Ecoregional Planting Guides*, <http://www.pollinator.org/guides.htm>
  - Xerces Society for Invertebrate Conservation, *Pollinator-Friendly Plant Lists*, <http://www.xerces.org/pollinator-conservation/plant-lists/>
  - **Subcommittee Vote:** 6 in favor, 1 abstained
- **36 – 15. Substantive. 7.5.1.7.7:**
  - **Comment:** Building's ~~organic matter~~ compostable waste is delivered to a biogas facility with 15 mi (24.1km) of the building;
  - **Reason:** Organic matter could refer to waste water, which generates biogas at a waste water treatment plant.
  - **Proposed Response:** Accept (Note: a previous response proposed deleting this criteria, but the subcommittee does support this change)
  - **Subcommittee Vote:** 6 in favor, 1 opposed

**MOTION: The motion was made and seconded to accept the Subcommittee's recommendations and the final rewritten version.**

**VOTE: The motion carried with 16 in favor, none opposed, and 1 abstained.**

None Opposed

Abstained: David Eldridge

- **28 – 5. Substantive. NEW**

- **Comment: 7.5.2 Landscaping in the Wildland- Urban Interface**

7.5.2.1 There is a determination by a fire protection engineer or certified fire marshal that the site wildland-urban interface hazard is moderate, high or extreme;  
and,

The site is designed to comply with wildland-urban interface principles.

and

Vegetation management plans and specifications are prepared; including classifications of fuel loading, fuel model light, medium, or heavy, and substantiating data to verify classification of fire resistive vegetation. Informational Reference(s):

- International Wildland-Urban Interface Code 2015

- Safer From the Start, A Guide to Firewise- Friendly Development. National Fire Protection Association (NFPA)

- National Cohesive Wildland Fire Management Strategy

**Points column:**

Maximum = 3 points or N/A

- Three Points are earned for an Extreme Hazard Site.

- Two points are earned for a High Hazard Site.

- One point is earned for a Moderate Hazard Site.

Not applicable where the legislative body has declared a wildland-urban interface area.

- **Reason:** This proposal was originally part of a pair of complimentary changes proposed to reduce the environmental impacts of fire spread through the wildland-urban interface. It was sharply debated by the Sites subcommittee before being rejected by a 3-2 margin.

New section 7.1.2.3, which was accepted by the subcommittee, creates an incentive to not locate the building project within or adjacent to a wildland-urban interface area where such an area has been formally recognized by the government with jurisdiction. This is an incentive to not build by land that is still in a natural condition. Requiring government declaration of such an area before awarding points for not building there prevents this provision from being 'free points' for all.

The half of the proposal now being offered recognizes that sometimes buildings will be constructed in the wildland- urban interface. When that happens conformance with the vegetative design and management provisions of the impacts of fire spread between buildings and wildlands.

This proposal is consistent with the National Cohesive Wildland Fire Management Strategy promulgated by USDA, Department of the Interior, and Homeland Security. It is also consistent with section VII O. of the Guidance for Federal Agencies on Sustainable Practices for Designed Landscapes and GSA's adoption of the International family of codes as referenced in the 2015 Facilities Standards for the Public Buildings Service.

This proposal is similarly consistent with the position of the International Association of Fire Chiefs Fire & Life Safety Section (see attached letter) as well as credits 4.1 and 8.1 of

the Sustainable Sites Initiatives 2012 SITES v2 Rating System.

Since this proposal addresses locations where government has not formally declared a wildland-urban interface area, a fire protection engineer or certified fire marshal would have to establish the applicability of these requirements to the specific site. This allows the technical details of this subject matter to be addressed by proven experts in the application of the principles of the IWUIC.

Requiring subject matter experts to determine wildland-urban interface hazard also keeps this provision from being 'free points' for building in any location regardless of wildland adjacency or vegetative fuel loads. Similarly, if government has established a wildland-urban interface area points will not be awarded for building in a known hazard area (consistent with Sec. 7.1.2.3). The IWUIC is structured to categorize hazarded sites as Extreme, High, and Moderate, with other sites not qualifying as hazarded.

It is proposed that points be allocated according to the degree of hazard; with the highest hazard – Extreme – receiving the most points at 3, High hazard receiving 2, and Moderate hazard receiving 1. It is appropriate to give the greatest incentive to mitigating the worst hazard.

Note that this is fewer points than are being proposed for not building in a wildland urban interface area (4 points) as per Sec. 7.1.2.3.

Also note that other sections (Urban infill, Greenfields, Transportation) award approximately 30 points for developing in the urban environment or away from wildland conditions. It is not realistic to believe that awarding 3 points for wildland fire mitigation will drive site selection; however it will hopefully drive site protection where necessary.

- **Proposed Response:** Reject. This proposed credit indirectly encourages building locations that are at odds with sustainability principles. Moreover it is not clear how an assessor would determine whether the design complied with all the wildland-urban interface principles. We are not also sure that such a credit would be sufficiently applicable to merit dedicating the points to the credit.
- **Subcommittee Vote:** 4 in favor, 2 opposed, 2 abstained

**MOTION: The motion was made and seconded to reject Subcommittee's recommendation.**

**Discussion took place on the motion:**

- It was stated that at the Subcommittee level, there were alternatives suggested but no time to discuss them. The speaker stated they would like to bring them to the table.
- One person speaking against current version, in support of motion stated this does rely on local jurisdiction to make judgment calls.
- A participant stated it is unclear why is there a need for alternative language.
  - There was a point of order that the Consensus Body's task at hand is to focus on the Subcommittee's response currently. A new proposal can be brought up during the "New Business" item on the agenda.
- There was a recommendation to send this language to the Resilience task group as they're already reviewing how to address other hazards in terms of Resilience.
- Clarification was provided around what is being rejected
- It was stated that this proposal was enormously flawed. The way it was structured, it was incentivizing building in higher risk areas. That is why it was rejected.
- The question was raised whether the commenter should be allowed to resubmit his comment at Consensus Body level.

- Clarification was provided that if the recommendation is rejected, it would be simply declining the Subcommittee's proposed response.
- It was recommended that this be sent back to the Subcommittee to be better presented to the Consensus Body to make an informed vote.

**MOTION: The motion was made and seconded to table the discussion until the Subcommittee has had a chance to review Greg's proposed response.**

**VOTE: The motion carried with 13 in favor, 2 opposed, and 1 abstained**

Opposed: Kent Sovocool, Don Horn

Abstained: David Eldridge

**Discussion took place after the vote:**

- Sentiment previously expressed was echoed questioning the process of a commenter bringing in a new proposal now as opposed to waiting for next round of public comment.

**Point of Order:** It was stated that it is important to rely on experts at Subcommittee level to dive deeply into these topics and keep the process moving quickly at the Consensus Body level to hear the Subcommittee recommendations and approve or decline to approve the proposed actions. If Consensus Body members want to be involved in forming the proposed responses or learn more about a topic raised by a comment, they are encouraged to participate in Subcommittee meetings.

- **34 – 24. Substantive. 7.6.1:**
  - **Comment:** Delete Path A
  - **Reason:** Professional designer can certify any or all Path B criteria that is met; 7.6.2.3 is the only item that is not MLO specific.
  - **Proposed Response:** Reject. In keeping with Green Globes format we want to accept the judgement of a design professional in Path A and retain a performance path.
  - **Subcommittee Vote:** 4 in favor, 2 abstained.
- **14 – 3. Substantive. 7.6.1:**
  - **Comment:** 7.6.1.1 An engineer or lighting professional creates a lighting design that meets all the performance requirements of the IDA - IES Model Lighting Ordinance, or the applicable local code, whichever is more stringent.
  - **Reason:** In instances where local code is more stringent, the standard should not encourage/reward below-code design.
  - **Proposed Response:** Reject. The committee does not want the assessors to interpret compliance with the local codes.
  - **Subcommittee Vote:** 6 in favor, 2 opposed
  - **Note:** There were three motions on this comment, two of which failed.

**MOTION: The motion was made and seconded to accept the Subcommittee's recommendation to reject both comments.**

**VOTE: The motion carried with 13 in favor, 2 opposed, and 2 abstained.**

Opposed: Susan Gitlin, Rachel Minnery

Abstained: Kent Sovocool, Eriki Winters-Downey

- **14 – 4. Substantive. 7.6.2:**
  - **Comment:** 7.6.2.1 Exterior lighting does not exceed prescribed values for the amount of light per unit of area. Informational Reference(s):

· IDA – IES Model Lighting Ordinance (MLO), Tables A and B or the applicable local code,  
whichever is more stringent.

- **Reason:** In instances where local code is more stringent, the standard should not encourage/reward below-code design.
- **Proposed Response:** Reject. The committee does not want the assessors to interpret compliance with the local codes.
- **Subcommittee Vote:** 6 in favor, 2 opposed.
- **14 – 4. Substantive. 7.6.2:**
  - **Comment:** 7.6.2.1 Exterior lighting does not exceed prescribed values for the amount of light per unit of area. Informational Reference(s):
    - IDA – IES Model Lighting Ordinance (MLO), Tables A and B or the applicable local code,

whichever is more stringent.

- **Reason:** In instances where local code is more stringent, the standard should not encourage/reward below-code design.
- **Proposed Response:** Reject. The committee does not want the assessors to interpret compliance with the local codes.
- **Subcommittee Vote:** 6 in favor, 2 opposed.

**MOTION: The motion was made and seconded to accept the subcommittee’s recommendation.**

**VOTE: The motion carried with 13 in favor, 3 opposed, and 1 abstained**

Opposed: Rachel Minnery, Susan Gitlin, George Thompson

Abstained: Kent Sovocool

#### **New Business:**

- Letter Ballot is due by 5:00 PM ET June 22<sup>nd</sup>.
- **Next CB Meetings:**
  - July 8<sup>th</sup> 11:00 AM to 3:00 PM ET
  - July 19<sup>th</sup> 11:00 AM to 3:00 PM ET

#### **Progress:**

- Before this CB had 195 comments, averaging 6 comments per hour with 40 hours of CB meetings left at this rate.
- During this meeting the CB reviewed roughly 40 comments. 150 comments remain.
- It was asked if there were going to be any more in-person meetings.
- Procedures require 30 days’ notice to do that so it wouldn’t occur until after August if it did.

#### **Adjournment**

**The Motion made, seconded and carried to adjourn the meeting.**

--Meeting adjourned at 1:33 PMET--