# SPRI Annual Conference

January 13, 2023
Presented by: Amanda Hickman



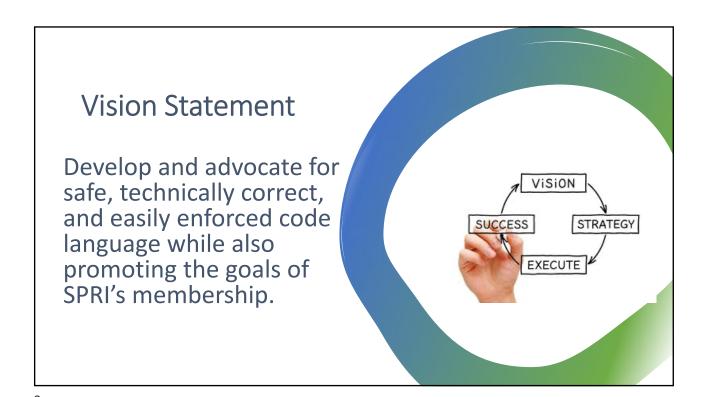




1

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Agenda Topics

- ICC
  - Process updates
  - Code Change Proposals for: IBC, IFC, IECC, IgCC
- ASHRAE
  - 90.1
  - 189.1
- Florida Code
  - Code development update

## Currently Under Development (2024 Edition)

- Group B (IBC-S, IEBC, IgCC, Admin):
  - Proposal Deadline was January 10, 2022
  - CAH March 27-April 6, 2022 Rochester, NY
  - Public Comments were due June 20, 2022
  - PCH Sept. 14-21, 2022- Louisville, KY
  - Online vote completed
  - Final Results pending validation committee
  - 2024 Editions of the codes will be published in Fall 2023
- IECC developed under new standards process ongoing



5

## ICC Group B proposals of interest to SPRI

Proposal	Position	Topic	CAH result	PCH result
ADM-001	M/D	UL - Revises definition of listed	AS	none
ADM-013	М	FCAC/BCAC - revise definition to "approved agency" and "peer review" / adds new language to section 104 for the duties and powers of the building official	AM	AM
ADM-052	AS	ICC - Standards update	AM	AM
S-008	Need mod.	UL - New definition for low slope roof; revise existing language	AM	none
S-011	AS	NRCA - Deletes redundant physical properties section	AS	none
S-042	M/D	CRCA - New section for Air Barriers	D	W
S-043	AS	SPRI - Lighting protection systems	D	AM
S-044	M/S	IIBEC - Modifies exception for roof replacement and recover	AS	AS
S-045	M/S	IIBEC – Modifies exception to replacing an existing roof covering	AM	AM
S-046	M/S	NRCA - Roof coverings	D	none
RB-255	M/D	SEIA – flashing (UL 2703A)	D	D

## 2024 IBC Commentary

- 1504.5 Edge Securement when required to be tested
- Gutters securing the roof
- LPS?
- Anything else?

7

## UL 2703A History

- NRCA and SEIA had code proposals about flashing for PV's
- NRCA's proposal stated the flashing is to be installed in accordance with the roof covering manufacturing
- SEIA proposed that flashing be installed in accordance with the pv manufacturer installed instructions
- The was a task force formed to resolve the issue
- The task force was unable to reach consensus
- SEIA proposed a public comment that either the roof covering manufacturing or the pv manufacturer's installation instructions can be used
- NRCA opposed the public comment
- Public comment denied at the public comment hearings

## History

- When the task force could not reach a consensus, SEIA asked UL to create a standard about flashings
- Stakeholders were invited to review the outline of 2703A
- The outline was published prior to the public comment hearings
- SEIA was hoping for approval of their public comment since there would be guidance available with UL 2703A

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## **UL 2703A**

Scope – flashings to prevent water penetration to interior of building where pv's penetrate the roof.

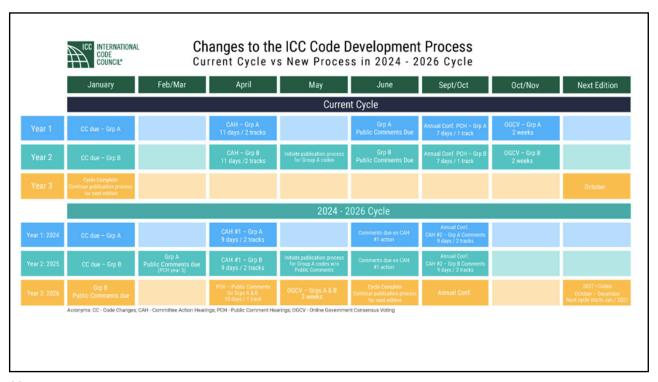
This is not a consensus document at this time, however UL plans on turning it into a standard in the near future.

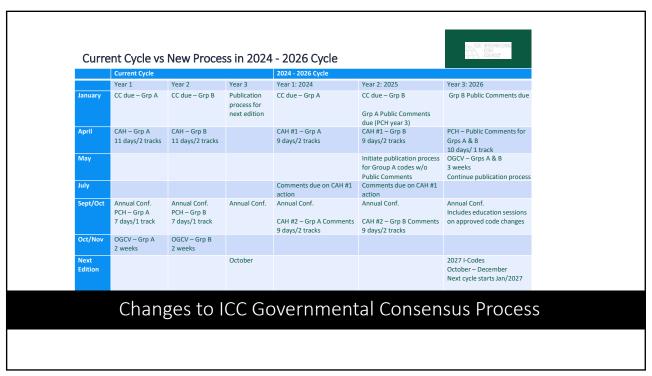
The Outline of Investigation was published September 9th.

They are awaiting revision comments on the draft.

View online here: UL LLC Outline of Investigation for Flashing Devices and Systems for Rooftop-Mounted Photovoltaics

https://www.shopulstandards.com/ProductDetail.aspx?UniqueKey=43337







## New ICC Energy Code Development Process

- IECC is being developed under ICC Governmental Consensus Process
- · 2 Committees (residential and commercial)
- Completed 1<sup>st</sup> and 2<sup>nd</sup> Phase Committee voted on all submitted proposals (nearly 500)
- Proposals needed to have received 2/3<sup>rd</sup> committee ballot vote to be included in the public comment draft (end of summer)
- 45 Day Public comment period (commercial and residential are on different timelines) – the entire IECC draft is open for comment
  - All Commercial IECC language was open for comment and ended October 21, 2022.
  - Residential IECC language was open October 24 and ended December 1, 2022.
- Subcommittee and Full Committee are now reviewing submitted comments.
   Comments will require 2/3rds vote of committee to be approved
- 2<sup>nd</sup> Public comment draft will be voted and then opened for comment- will require 2/3rds to be included
- 2024 IECC will be published end of 2023

13

# IECC Proposals to the Public Comment Draft



- 657 proposals were submitted (431 residential, 226 Commercial) Proposals include:
  - Air leakage/testing
- Cool Roofs
- Roof replacement clarifications
- Energy Credits
- PV/Renewables
- Energy creates
- · r v/ Neriewabies
- Roof membrane –
   Peel and Replace
- Thermal bridging
- Roof SRI
- Roof insulation
- Wall SRI
- Existing Buildings
- Decarbonization / Embodied carbon

## IECC Commercial Envelope Subcommittee

Will be discussed at the 1/19/23 meeting

#### Roofs / Ceilings / Attics:

- · CED1-089 Roof replacement definition by NRCA
- CED1-102 Minimum tapered insulation thickness errata by NRCA
- CED1-118 Roof assembly change to roof-ceiling construction by FSC/ACC
- CECD1-xxx –subcommittee proposal on low sloped roof definition. by ARMA
- CED1-122 Expands cool roof requirements into CZ 4-8 (6 except less than 50K pop) by Smart Surfaces Coalition
- CED1-124 Language clarifications (Renewable instead of PV) for cool roof section by Johnson
- CED1-144 Title and wording editorial changes for roof, ceiling, attic alterations by ARMA
- CED1-145 Remove redundant sentence for C503.2.1 by FSC/ACC
- CED1-146 Roof replacement by PIMA
- · CED1-147 Roof alterations title, approved entity by NRCA
- · CED1-148 Curb insulation for mechanical equip by PIMA

15

## IECC Commercial Envelope Subcommittee

#### Other:

- CED1-132 applicability to group R and I occupancies (tabled from 1/5/23 meeting)
- · CED1-137-22(Thermal bridging clarifications)
- CED1-138-22(Thermal bridging adjustments)
- CED1-107-22(Thermal bridging)
- · CED1-135-22(Thermal bridging to appendix)
- CED1-136-22(Thermal bridging in above-grade walls)
- · CED1-96-22(ASHRAE 90.1 to thermal bridging)
- CED1-97-22(ACI/TMS Code 122.1-21 thermal bridging)
- CED1-93-22(Remove thermal bridging ref) CED1-87-22(Building thermal envelope)
- CED1-194-22 Energy Credits (E02 15% UA reduction)

To view IECC Commercial agendas, publications and other information visit: <a href="https://www.iccsafe.org/products-and-services/i-codes/code-development/cs/iecc-commercial-consensus-committee/">https://www.iccsafe.org/products-and-services/i-codes/code-development/cs/iecc-commercial-consensus-committee/</a>

## IECC - Thermal Bridges

C402.7 Thermal bridges in above-grade walls Thermal bridges in above-grade walls shall comply with this section or an approved design.

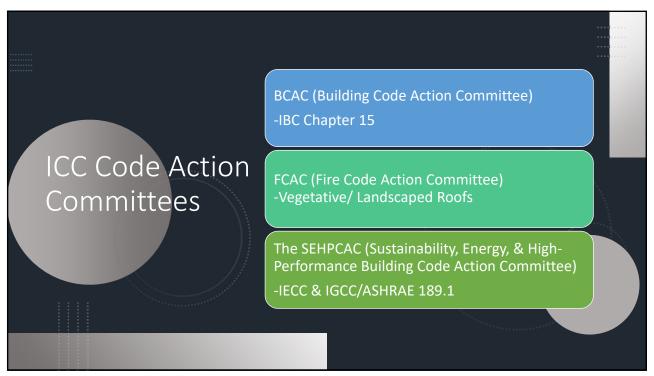
#### **Exceptions:**

- Buildings and structures located in Climate Zones 0 through 3.
   Any thermal bridge with a material thermal conductivity not greater than 3.0 Btu/h-ft-°F.
   Blocking, coping, flashing, and other similar materials for attachment of roof coverings.
   Thermal bridges accounted for in the U-factor or C-factor for a building thermal envelope.

IECC COMMERCIAL PUBLIC COMMENT DRAFT #1 UPDATE **NOVEMBER 7, 2022** 

A	pproved IECC Proposals of interest to SPRI	
Proposal	Summary	Proponent
CECPI-2	Renewable energy systems; on-site renewable energy for buildings in CZ 0-7	Electric Subcommittee
CECPI-4	performance alternative & total building performance compliance paths –this proposal is a combination of CEPI-33, 40, 45 which now provides prescriptive, component performance alternative and total building performance compliance paths and a requirement to note thermal bridges on the construction documents	Envelope Subcommittee
CEPI-17	Roof replacement definition	PIMA
CEPI-19	R-value labeling of insulation installed above deck	Darren Meyers; NRCA
CEPI-41	Installation requirements applicable to roof insulation - shall be installed in accordance with the requirements of C402.2.1.2 through C402.2.1.5	PIMA
CEPI-42	Joints staggered - Continuous, <u>above-deck</u> insulation board shall be installed	Darren Meyers; NRCA
CEPI-47	Tapered, above-deck roof insulation – minimum thickness shall be not less than 1inch	Darren Meyers; NRCA
CEPI-58	Air leakage testing - exempting whole building leakage testing for buildings larger than 250,000 ft2, proposes different test thresholds for multifamily structures, the original air leakage testing threshold for residential buildings of 0.30 cfm/square foot tested at 50 Pascals was lowered to 0.20 cfm/square foot, the air leakage rate in Section C406.9 was reduced from 0.25 cfm/ft2 to 0.17 cfm/ft2 at 75 Pa and the specific requirements for Group R and Group I buildings were added as an exception.	NBI; Steven Winter Assoc.
CEPI-61	Continuous air barrier; air leakage testing – removes all exceptions to air leakage testing	FTI
CEPI-69	Third party testing for air leakage – testing shall be done by <u>an approved third part</u> ; new reference standard ASTM E1186-17 Standard Practices for Air Leakage Site Detection in Building Envelopes and Air Barrier Systems	ABAA

Proposal	Summary	Proponent
CEPI-71	Reduction of measured air leakage - Reducing the measured air leakage from 0.40 to 0.30 cfm/ft2 at a pressure differential of 0.3 inch water gauge (75 Pa)	ABAA
CEPI-82	Roof and gutter deicing controls - including but not limited to self-regulating cable, shall include automatic controls configured to shut off the system when the outdoor temperature is above 40°F (4.8°C) maximum and shall include either a moisture sensor or programmable timer	Colorado ICC
CEPI-212	Standard reference design roof parameters - aligns the standard reference design roof parameters with conditions required in the prescriptive path for roof solar reflectance and thermal emittance in Section C402.3	ACC
CEPI-225	Alternative designs (roof replacement) – new definitions for approved source and construction documents, new exception for roof replacement insulation entirely above deck	PIMA
CEPI-257	Glide Path - appendix is intended to be adopted by jurisdictions that will require new construction to operate at net zero energy by the year 2030. It reduces the net annual energy use of buildings by approximately one-third	City of Seattle
REPI-68	Residential Low slope roof reflectance requirement – new definitions for low-sloped roof and steep- sloped roof; roof reflectance requirements; new ASTM standards	NBI; CA Utilities



### **Code Action Committees**

#### BCAC

- · Call for BCAC committee closed on October 24
- Currently accepting suggestions for next cycle topics
- Will begin work on development of the 2027 edition of the IBC

#### FCAC

- Call for FCAC committee closed on October 24
- Meeting was held in November to prepare for next FCAC cycle
- Will begin work in January on development of the 2027 edition of the IFC / IBC(F)

#### SEHPCAC

- Trying to get ICC BOD to clarify what the role of decarbonization measures are in the IECC.
  - ICC provided no further clarification on the scope of the IECC

21

## Codes Development Working Group

This Working Group meets between meetings to develop code change proposals and to consider input received from other interested parties.

Met via conference frequently to discuss IBC Group B public comments

Last met in December 2022

**Bob LeClare** 

Al Janni

Chris Mader

**Heather Estes** 

Eric Younkin

Brian Chamberlain

Jenny O'Neal

Mike Ennis

Amanda Hickman





#### **ASHRAE Conferences**

- Upcoming Winter Meeting scheduled February 4-8, 2023
- Upcoming Annual Conference scheduled for June 24-29, 2023 in Tampa, FL

#### 90.1

- 90.1 Spring Meeting will be held virtually on April 28, May 4 and May 11
- Bi-weekly/monthly web-meetings of Subcommittees/Working Groups
- Roof terminology workgroup formed in August

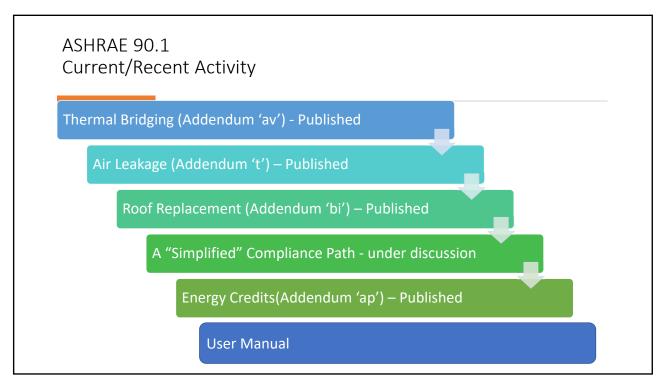
#### 189.1

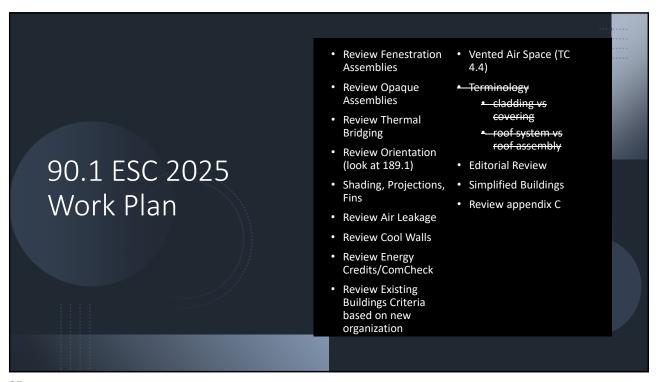
Monthly Working Groups and Main Committee web-meetings

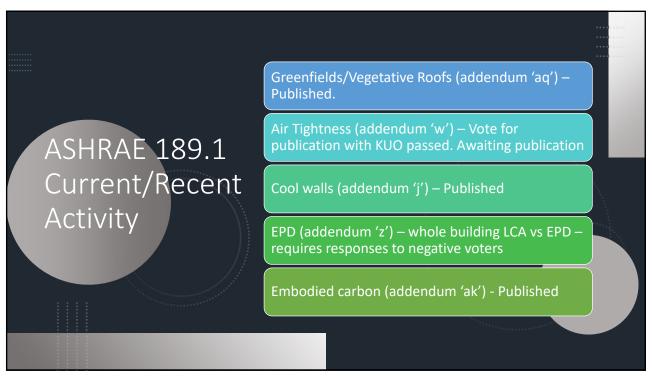
Published - ASHRAE 90.1-2022 (I-P) ▶

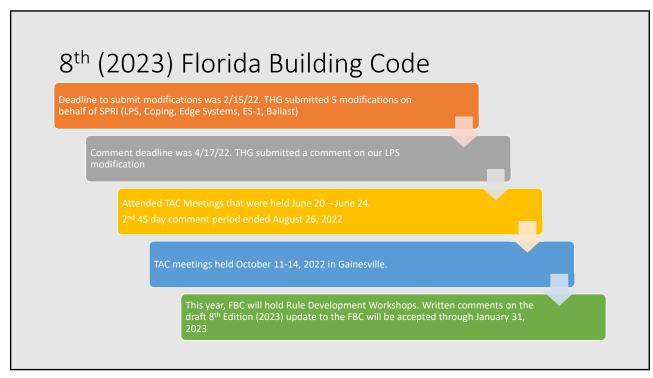
Standard 90.1-2022 (I-P Edition) -- Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings

23









## Florida Building Commission

- Florida Building Commission meeting December 12-13
- Mod 10115 (Lightning Protection)
  - Recommending to ask for denial of the lightning protection modification
  - Will come back to 2023 Code Workshop and propose consensus language that addresses the concerns of SPRI, LPI, and FRSA
    - Been in communication with Mike Silvers. He will support denial and will work together in a task group to develop consensus language.

## Florida Building Commission

- RE: 8th Edition (2023) Update to the Florida Building Code (FBC)
- Accepting Written Comments
- This is to inform you that early next year the Florida Building Commission is planning to hold rule development workshop(s) for the purpose of accepting public input regarding the proposed Supplements to the 7th Edition (2020) Florida Building Code (FBC) (specific dates and further information regarding the workshop(s) will follow soon). The combination of the 7th Edition (2020) FBC and the proposed Supplements comprise the draft 8th Edition (2023) update to Florida Building Code (FBC) in conformity with the triennial update process specified in sections 553.73(3)&(7), Florida Statutes. The Supplements consist of all modifications obtaining a 75% majority vote of the Commission together with amendments and modifications previously adopted by the Commission. The Supplements and 7th Edition (2020) FBC are available for review via the Commission website, <a href="www.floridabuilding.org">www.floridabuilding.org</a> at the following link.
- https://www.floridabuilding.org/fbc/thecode/2023 Code Development/2023 Code Development Process.htm
- In anticipation of these workshop(s), written comments on the draft 8<sup>th</sup> Edition (2023) update to the FBC will be accepted through January 31, 2023 by 5:00 p.m. or at the workshop(s). For written comments, please send comments to following email address: <a href="mailto:mo.madani@myfloridalicense.com">mo.madani@myfloridalicense.com</a>.
- Please note that the Building Code Information System/Proposed Code Modification Module has been updated to incorporate actions and outcomes
  from the December 13, 2022 Commission's meeting on the proposed code changes to the 8<sup>th</sup> Edition (2023) update to the Florida Building Code. In
  addition, at the link below, you will find summary of the tracking charts detailing the Commission's action on the proposed cod changes from the
  December 13, 2022 meeting.
- https://www.floridabuilding.org/fbc/thecode/2023 Code Development/2023 Code Development Process.htm

29

#### 8<sup>th</sup> (2023) Florida Building Code Lightning protection systems • ES-1 update 10115 •TAC approved FRSA comment 10119 • TAC approved as modified •Submitted a comment with S43 PC language Withdrew to be consistent with our agreement with LPI • McQuillen submitted comment •Will work FRSA in next cycle to reach consensus to update ASTM D6878 from 2013 to 2021 (TPO) 10117 Coping parapet walls •TAC approved as submitted Ballasted low slope 10121 TAC approved as submitted Edge securement 10118 •TAC approved as submitted ·Submitted an editorial comment to include counterflashing Gutter / GT1 Proposal recommended for approval

### Code Trends

- Changes to ICC Code Development Process
- Resiliency ICC launched: www.globalresiliency.org
- Air Leakage Whole Building Testing
- Renewables PV, Electrification
- Existing Buildings Roof recover, replacement, alterations
- Net Zero (by 2030)
- Decarbonization/ Embodied Energy
- Energy Credits (Performance Options)
- Occupiable Roofs, Blue Roofs (water storage)
- Tornado Provisions

31

## What's Next for SPRI

- IECC (2024) / ASHRAE 90.1 (2025) 189.1
- Commentary for IBC, IFC (2024)
- FBC Code Workshop
- LPS Task Group work towards consensus on updates to: FBC, UL 96A, NFPA 780
- Comment on UL2703 A Flashing/SEIA?
- Start developing concepts/language and gather/generate substantiation for 2027 code update proposals for SPRI
- Work with ICC CACs and Stakeholders to garner support for SPRI efforts

