**Energy Technical Advisory Committee – Errata/Glitch**

**8th Edition (2023) Florida Building Code, Energy Conservation**

**CHAPTER 4 [CE] COMMERCIAL ENERGY EFFICIENCY**

EN-FBC-EC/C – Ch.4 – Errata #1

**Timothy G. de Carion – Broward County**

Hi Mo:

I found a typo in the 2023 Florida energy code posted on the icc site. You might have caught it already.

Number on the attached should be an 11 and not a 10 for the electrical boxes.

**Proposed fix by staff:**

**C402.5.10 Electrical and communication boxes.** Electrical and communication boxes that penetrate the air barrier

of the building thermal envelope, and that do not comply with Section C402.5.~~11~~10.1, shall be caulked, taped, gasketed or otherwise sealed to the air barrier element being penetrated. All openings on the concealed portion of the

box shall be sealed. Where present, insulation shall rest against all concealed portions of the box.

**C402.5.10.1 Air-sealed boxes.** Where air-sealed boxes are installed, they shall be marked in accordance with

NEMA OS 4. Air-sealed boxes shall be installed in accordance with the manufacturer’s instructions.

**TAC Recommendation**:

**Commission Action:**

**Comment –**

**BOAF Building Officials Association of Florida CDC Code Development Committee**

**Proposal: Typo change 11 to 10**

**Comment: Needed correction**

**Approve/Oppose: Approve**

EN-FBC-EC/C – Ch. 4 – Errata #2

**Bereket Nigusse – FSEC**

C403.2.3 HVAC equipment performance requirements

Minimum efficiency requirements for liquid-to-liquid plate HX Table C403.2.3(10) is referenced twice.

Anyways minimum efficiency is Not Required (NR) for this equipment per Table C403.2.3(10).

**Proposed fix:**

Delete “*Plate-type liquid-to-liquid heat exchangers shall meet the minimum requirements of Table C403.2.3(10)*”.

**C403.2.3 HVAC equipment performance requirements.** Equipment shall meet the minimum efficiency requirements of Tables C403.2.3(1), C403.2.3(2), C403.2.3(3), C403.2.3(4), C403.2.3(5), C403.2.3(6), C403.2.3(7),

C403.2.3(8), C403.2.3(9), C403.2.3(10), C403.2.3(11), C403.2.3(12), C403.2.3(13), C403.2.3(14), C403.2.3(15),

C403.2.3(16) and C403.2.3(17) when tested and rated in accordance with the applicable test procedure. ~~Plate-type~~

~~liquid-to-liquid heat exchangers shall meet the minimum requirements of Table C403.2.3(10)~~. ….

**TAC Recommendation**:

**Commission Action:**

**Comment –**

**BOAF Building Officials Association of Florida CDC Code Development Committee**

**Proposal: C403.2.3 Delete Plate type liquid to liquid heat exchangers minimum requirement**

**Comment: Agree with proposal**

**Approve/Oppose: Approve**

EN-FBC-EC/C – Ch. 4 - Errata #3

**Staff**

Add “SEER2” to section C403.3(Exception 7) for consistency with the rating efficiency for HVAC units.

**C403.3 Economizers (Prescriptive).** Each cooling system shall include either an air or water economizer complying with Sections C403.3.1 through C403.3.4.

**Exceptions:**

**…**

7. The required air or water economizer may be eliminated if the minimum code required cooling efficiency

of the HVAC unit rated with an IPLV, IEER, SEER2 or SEER is increased by at least 17 percent. If the HVAC unit is only rated with a full-load metric like EER cooling, then it must be increased by at least 17 percent.

**TAC Recommendation**:

**Commission Action:**

**Comment –**

**BOAF Building Officials Association of Florida CDC Code Development Committee**

**Proposal: Add SEER2 to C403.3**

**Comment: Agree with proposal needed for DOE changes**

**Approve/Oppose: Approve**

EN-FBC-EC/C- Ch. 4 – Errata #4

**Bereket Nigusse – FSEC**

Table C403.2.14.2(3)

Table C403.2.14.2(3) Walk-in Cooler and Freezer Refrigeration Systems Efficiency Requirements (CE126-16AM)

The table title has the text “(CE126-16AM)” that should be removed.

**Proposed fix:**

**TABLE C403.2.14.2(3)**

**WALK-IN COOLER AND FREEZER REFRIGERATION SYSTEMS EFFICIENCY REQUIREMENTS ~~(CE126-16AM)~~**

**TAC Recommendation**:

**Commission Action:**

**Comment –**

**BOAF Building Officials Association of Florida CDC Code Development Committee**

**Proposal: Remove CE126-16AM from Table title**

**Comment: agree with proposal**

**Approve/Oppose: Approve**

EN-FBC-EC/C – Ch. 4 – Glitch #1

**Bereket Nigusse – FSEC**

C405.3.2.2

Item #1 of Section C505.3.2.2 is a copy of item #1 of the building area method from Section C405.3.2.1. See it below:

“*For each building area type inside the building, determine the applicable building area type and the allowed lighting power density for that type from* ***Table C405.3.2(1)****. For building area types not listed, select the building area type that most closely represents the use of that area. For the purposes of this method, an “area” shall be defined as all contiguous spaces that accommodate or are associated with a single building area type*.”

The entire code language does not apply to the space-by-space method and references the wrong table. This must be

an editorial error.

**Proposed fix:**

The correct code language for item #1 of section C405.3.2.2, from 2021 IECC is shown below:

"*For each space enclosed by partitions that are less than 80 percent of the ceiling height, determine the applicable space type from Table C405.3.2(2). For space types not listed, select the space type that most closely represents the proposed use of the space. Where a space has multiple functions, the space may be divided into separate spaces*."

1. Glitch criteria:

* Conflicts within the updated code;
* Unintended results from the integration of previously adopted Florida-specific amendments with the model code.

1. The proponent must address as part of the rationale for the proposed code change the following:
2. Whether the proposed code change falls within the glitch criteria stated above.

*Yes, the proposed code change falls within the glitch criteria stated above per (1) Conflicts within the updated code and (2) Unintended results from the integration of previously adopted Florida-specific amendments with the model code.*

1. Whether the proposed code change has a Florida specific need.

*Yes, it impacts any building that uses a space-by-space method for lighting compliance*.

1. What the impact is on small businesses.

*This change improves the code implementation and avoids confusion.*

1. Whether the proposed code change has a reasonable and substantial connection with the health, safety, and welfare of the general public.

*Item #1 of Section C505.3.2.2, shown below, is an identical copy of item #1 of the building area method of Section C405.3.2.1, and it is not applicable to the space-by-space method.*

*“For each building area type inside the building, determine the applicable building area type and the allowed lighting power density for that type from* ***Table C405.3.2(1)****. For building area types not listed, select the building area type that most closely represents the use of that area. For the purposes of this method, an “area” shall be defined as all contiguous spaces that accommodate or are associated with a single building area type.”*

*The code language above should be replaced with the text shown below to be applicable to the space-by-space method. Also, this change points to the correct table C405.3.2(2) for the space-by-space method. The correct text of item #1 of section C405.3.2.2 was taken from the published 2021 IECC.*

*"For each space enclosed by partitions that are less than 80 percent of the ceiling height, determine the applicable space type from* ***Table C405.3.2(2)****. For space types not listed, select the space type that most closely represents the proposed use of the space. Where a space has multiple functions, the space may be divided into separate spaces."*

1. Whether the proposed code change strengthens or improves the Florida Building Code.

*The proposed glitch code changes eliminate code enforcement confusion by correcting the code language of Section C405.3.2.2 and correcting table references*. *This error originally came from the 2021 ICC but must have been corrected before publication.*

1. The proposed code change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

***No discrimination.***

1. The proposed code change does not degrade the effectiveness of the Florida Building Code.

***No discrimination.***

**TAC Recommendation**:

**Commission Action:**

**Comment –**

**BOAF Building Officials Association of Florida CDC Code Development Committee**

**Proposal: fix for editorial issue with section C405.3.2.2 section does not apply to space-by -space method fix indicates correct wording**

**Comment: In proposed reasoning Mr. Nigusse accidentally starts by referencing the wrong section C505.3.2.2 should be C405.3.2.2. Agree with copied duplicate wording and correction needed for Space By Space method wording and correct Table.**

**Approve/Oppose: Approve**

EN-FBC-EC/C – Ch. 4 - Errata #5

**Bereket Nigusse – FSEC**

C405.3.2.2.1 Additional interior lighting power

“Where using the Space-by-Space Method, an increase in the interior lighting power allowance is permitted for specific lighting functions. Additional power shall be permitted only where the specified lighting is installed and controlled in accordance with **Section C405.2.4**. This additional power shall be used only for the specified luminaires and shall not be used for any other purpose. “

Incorrect reference to code Section **C405.2.4**.

This code **MUST** reference Section **C405.2.5 Specific application controls**, **NOT** Section C405.2.4, which is Daylight-responsive controls.

Replace Section **C405.2.4** with **C405.2.5**.

**Proposed fix:**

**C405.3.2.2.1 Additional interior lighting power.** Where using the Space-by-Space Method, an

increase in the interior lighting power allowance is permitted for specific lighting functions. Additional

power shall be permitted only where the specified lighting is installed and controlled in accordance

with Section C405.2.~~4~~5. This additional power shall be used only for the specified luminaires and shall

not be used for any other purpose. An increase in the interior lighting power allowance is permitted in the

following cases:….

**TAC Recommendation**:

**Commission Action:**

**Comment –**

**BOAF Building Officials Association of Florida CDC Code Development Committee**

**Proposal: change reference to section C405.2.4 toC405.2.5**

**Comment: Errata not needed proposal is looking at 7th Ed sections, 8th edition sections were revised and now are C405.3.2 and are correct as is.**

**Approve/Oppose: Oppose**

**CHAPTER 4 [RE] RESIDENTIAL ENERGY EFFICIENCY**

EN-FBC-EC/R- Ch. 4 – Glitch #1

James (Jim) Bailey – Baileys & McDaniel

Hello,

October 27, 2023

RE: 8th Edition (2023) Florida Building Code

Glitch/Errata Code Change Cycle for the 2023 update to the Florida Building Code

I am wishing to bring to your attention for consideration a clarification change in our 2023 Code as in our opinion falls within the glitch change criteria: a conflict within the updated code, and inconsistency with state law, between the Florida Mechanical & Florida Energy code.

The proposed glitch change will better address the needs of the people of Florida by removing an unintended negative energy consequence caused by a prescribed Energy code restriction as it relates to air handler access. The people of Florida’s intent for a Florida Energy code is for the code to make dwellings more energy efficient for Florida as it pertains to subjects of energy efficiency. If a restriction within the Energy code does not in itself make for a more energy efficiency scenario then it is better addressed outside the Energy code for practical & safety reasons. In the case of air handler location, this is better addressed in the Mechanical code.

The impact on small business as it relates to this proposed glitch change is positive as it will improve upon supply change constraints which we have all seen in recent times by not requiring unnecessary amounts of product which will only cost consumers more to buy then going forward cause higher energy usage within the consumer home. These savings will only go back into the economy perpetually to be spent in more productive ways and in turn bettering small business.

The proposed glitch change has a reasonable connection on the health, safety, and welfare of the general public. There are no negatives for the general public as it relates to this proposed glitch change. In fact allowing the Mechanical code, which its principle basis is built on safety, to prevail over this subject will only help to insure the overall safety of Florida’s dwellings.

The proposed glitch change will only strengthen the Florida Building code by removing the unintended counterproductive consequence of a restriction within the Energy code and allowing the Mechanical code to prevail over a subject better addressed by the Mechanical code.

The proposed glitch change does not discriminate against any materials, products, methods, or systems of construction of demonstrated capabilities... The intent is simply to minimize the amount of heat conductive surface area located in Florida attics and allow hvac systems in Florida dwellings to operate more effectively.

The proposed glitch change does not degrade the effectiveness of the Florida Building code. The proposed glitch change clarifies and simply allows the Mechanical code to prevail as it pertains to a subject better addressed by the Mechanical code.

Our suggestion is, for the Florida Energy code the language concerning air handler location in attics, to fully allow the Florida Mechanical code to prevail with respect to an appliances distance from the attic access including air handler.

Below are two excerpts from sections of the Mechanical code and the Energy Code which sometimes can lead to inconsistent interpretations across Florida. When residential dwellings are designed with an air handler to be located in a attic location, the written Mechanical code will allow for the best placement of an air handling unit for better centralized system design, performance, and energy efficiency.

**Mechanical Code**

**306.3Appliances in attics.**

Attics containing *appliances* shall be provided with an opening and unobstructed passageway large enough to allow removal of the largest *appliance*. The passageway shall be not less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20 feet (6096 mm) in length measured along the centerline of the passageway from the opening to the *appliance*. The passageway shall have continuous solid flooring not less than 24 inches (610 mm) wide. A level service space not less than 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present at the front or service side of the *appliance*. The clear access opening dimensions shall be not less than 20 inches by 30 inches (508 mm by 762 mm), and large enough to allow removal of the largest *appliance*.

**Exceptions:**

1.      1.The passageway and level service space are not required where the *appliance* is capable of being serviced and removed through the required opening.

2.      2.Where the passageway is unobstructed and not less than 6 feet (1829 mm) high and 22 inches (559 mm) wide for its entire length, the passageway shall be not greater than 50 feet (15 250 mm) in length.

**Energy Code**

**R403.3.6Air-handling units.**

Air-handling units shall not be installed in the attic when a home is brought into code compliance by Section R402. Air-handling units shall be allowed in attics for compliance by Section R405 only if the following conditions are met:

1. 1.The service panel of the equipment is located within 6 feet (1829 mm) of an attic access.

2. 2.A device is installed to alert the owner or shut down the unit when the condensation drain is not working properly.

3. 3.The attic access opening is of sufficient size to replace the air handler.

4. 4.A notice is posted on the electric service panel indicating to the homeowner that the air handler is located in the attic. Said notice shall be in all capitals, in 16-point type, with the title and first paragraph in bold:

**NOTICE TO HOMEOWNER**

**A PART OF YOUR AIR-CONDITIONING SYSTEM, THE AIR HANDLER, IS LOCATED IN THE ATTIC. FOR PROPER, EFFICIENT AND ECONOMIC OPERATION OF THE AIRCONDITIONING SYSTEM, YOU MUST ENSURE THAT REGULAR MAINTENANCE IS PERFORMED. YOUR AIR-CONDITIONING SYSTEM IS EQUIPPED WITH ONE OR BOTH OF THE FOLLOWING: (1) A DEVICE THAT WILL ALERT YOU WHEN THE CONDENSATION DRAIN IS NOT WORKING PROPERLY OR (2) A DEVICE THAT WILL SHUT DOWN THE SYSTEM WHEN THE CONDENSATION DRAIN IS NOT WORKING. TO LIMIT POTENTIAL DAMAGE TO YOUR HOME, AND TO AVOID DISRUPTION OF SERVICE, IT IS RECOMMENDED THAT YOU ENSURE PROPER WORKING ORDER OF THESE DEVICES BEFORE EACH SEASON OF PEAK OPERATION.**

We are suggesting to remove line, 1. The service panel of the equipment is located within 6 feet (1829 mm) of an attic access., from Energy Code R403.3.6.

Reasoning: When air handler units are remotely located in an attempt to meet the above highlighted requirement of Energy Code R.403.3.6, this in most scenarios has and will have a negative impact on the overall performance and efficiency of the hvac system and home as a whole. One of the greatest energy consumers , problem source, and heat gain’s of a home in Florida is the homes duct system being located in a hot attic. However, from a construction standpoint, ducts in attics are unavoidable and we have it in our capacity to not require unnecessary amounts of duct surface area in an attempt to meet a air handler location requirement. Meeting this in many cases can add twice the duct surface area to an entire duct system simply because large return and supply ducts capable of handling 100% of the systems air volume are required to run from a central location to a more lengthy remote location for a code access requirement.

With this in mind it is completely counter to what Florida law prescribes as the reason for establishing a Florida Energy code to start with. Removing the above highlighted line from Energy Code R403.3.6 will positively address this and allow the mechanical code prevail.

**TAC Recommendation**:

**Commission Action:**

**Comment #1:**

Mo Madani:

Please accept my response to“EN-FBC-EC/R-Ch.4- Glitch #1.”**:**

**Summary:**

Mr. Bailey claims Section 306.3 of the mechanical code conflicts with Section R403.3.6 of the residential portion of the energy code. I disagree with his assertion because Chapter 14 of the residential building code is what must be used for new residential buildings and not the mechanical code. Chapter 14 of the residential building code 1401.1 clearly sends you to R403.3.6. for installation practices.

***M1401.1Installation.***

*Heating and cooling equipment and appliances shall be installed in accordance with the manufacturer’s instructions and the requirements of this code. Air-handling units installed in attics shall comply with the Florida Building Code, Energy Conservation Section R403.3.6.*

Also, Commercial section C403.2.9 of the Energy Code clearly prohibits air handlers from being installed in attics.

***C403.2.9.6Air-handling units.***

*Air-handling units shall not be allowed in the attics of commercial buildings.*

Mr. Bailey also claims that section R403.3.6 of the energy code violates Florida law because the location of the air handler in the attic is not an energy issue. I disagree with this assertion. Placing the air handler 20 feet away from the attic hatch places an undue burden on the maintenance of the air handler. Poor air handler maintenance is a chief cause of increased energy use. No homeowner wants to climb 20 feet into a hot attic to change a filter, service a drain, or clean a coil. Placing the unit 20 feet away from the attic hatch also increases the cost-of-service call and that will also discourage a homeowner from having it serviced. This will also waste energy.

My recommendation is to revise mechanical code section 306.3 by deleting the word “Attic” and replacing it with the words “Concealed locations”. *Concealed location* is defined in the mechanical code and *Attic* is defined in the energy code. These terms are different.

*306.3 Appliances in ~~attics.~~ Concealed locations*

*~~Attics~~ Concealed locations containing appliances shall be provided with an opening and unobstructed passageway large enough to allow removal of the largest appliance. The passageway shall be not less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20 feet (6096 mm) in length measured along the centerline of the passageway from the opening to the appliance. The passageway shall have continuous solid flooring not less than 24 inches (610 mm) wide. A level service space not less than 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present at the front or service side of the appliance. The clear access opening dimensions shall be not less than 20 inches by 30 inches (508 mm by 762 mm), and large enough to allow removal of the largest appliance.*

*Exceptions:*

1. *1.The passageway and level service space are not required where the appliance is capable of being serviced and removed through the required opening.*
2. *2.Where the passageway is unobstructed and not less than 6 feet (1829 mm) high and 22 inches (559 mm) wide for its entire length, the passageway shall be not greater than 50 feet (15 250 mm) in length.*

This small change in wording would clear up any conflict in the code because:

The proposed code change falls within the glitch criteria.

The proposed code change has a Florida-specific need.

No impact is on small businesses.

The proposed code change has a reasonable and substantial connection with the health, safety, and welfare of the general public.

The proposed code change strengthens and improves the Florida Building Code.

The proposed code change does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

The proposed code change does not degrade the effectiveness of the Florida Building Code.

Respectfully,

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Timothy de Carion

Chief Energy Code Compliance Officer

Broward County Board of Rules and Appeals

**Comment 2 –**

**BOAF Building Officials Association of Florida CDC Code Development Committee**

**Proposal: Remove max 6 foot equipment location from access from FAC and just use FBCM for requirement which is 20 feet and exception allows 50 feet**

**Comment: Need to use energy code more stringent criteria over the FBCM**

**Approve/Oppose: Oppose**

**CHAPTER 6 [RE] REFERENCED STANDARDS**

EN-FBC-EC/R – Ch. 6 – Errata #1

**Jeff Sonne – FSEC**

In the Referenced Standards section of the 2023 FL Energy Code, the ANSI/RESNET/ICC 380 standard is shown as being the 2016 version under ANSI, but the 2019 version under RESNET.

**Proposed fix by staff:**

For consistency revise ANSI/RESNET/ICC 380 as follows:

ANSI/RESNET/ Standard for Testing Airtightness of Building Enclosures, Airtightness of Heating and Cooling Air

ICC 380—201~~6~~9 Distribution Systems and Airflow of Mechanical Ventilation Systems

**TAC Recommendation**:

**Commission Action:**

**Comment**

**BOAF Building Officials Association of Florida CDC Code Development Committee**

**Proposal: fix reference RESNET/ICC 380-2016 to 2019**

**Comment: Agree with update**

**Approve/Oppose: Approve**