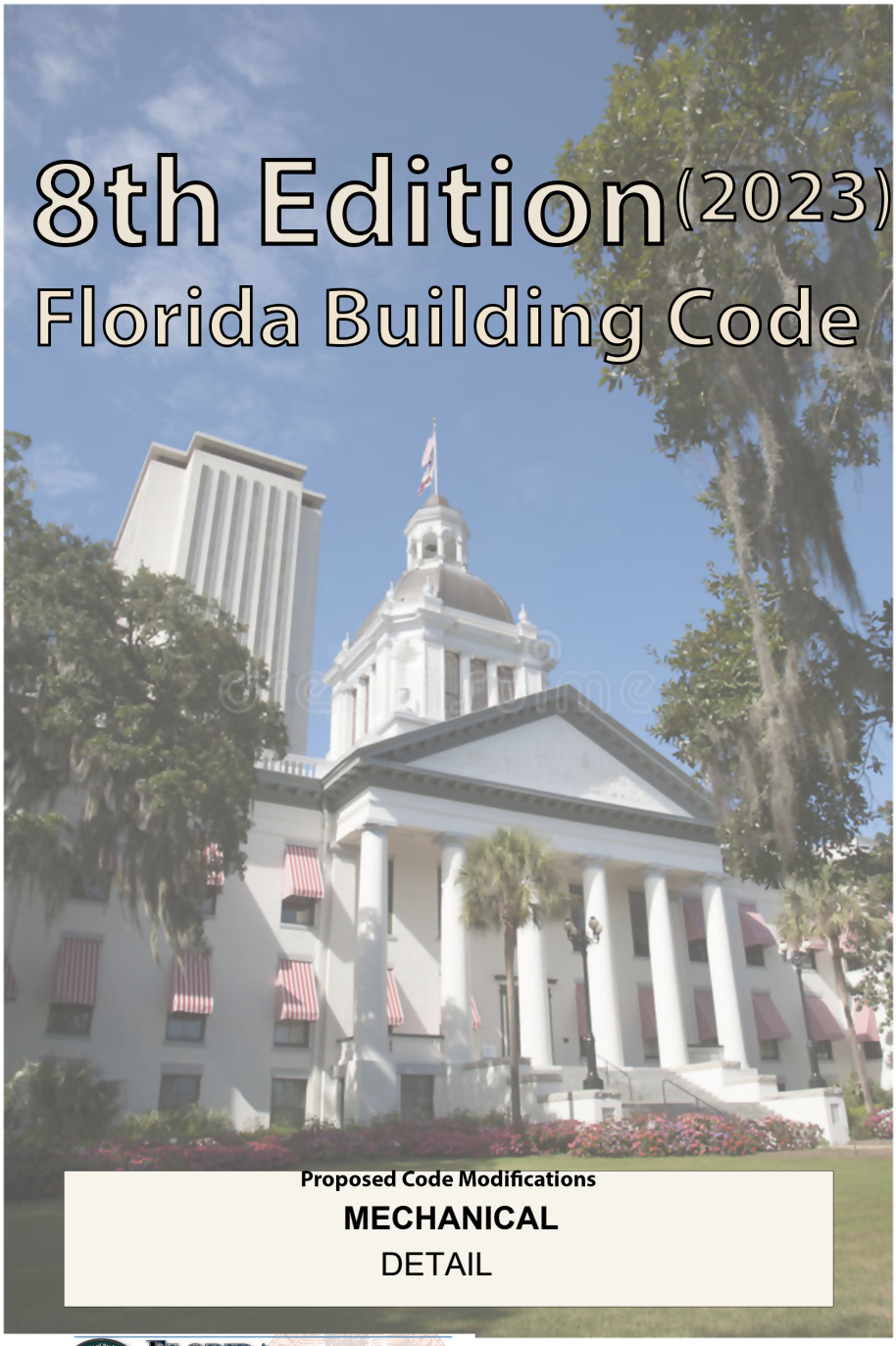

FLORIDA BUILDING COMMISSION
"Stronger Codes Through Science and Consensus"

dbpr Department of Business & Professional Regulation

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850-487-1824

TAC: Mechanical

Total Mods for **Mechanical** in **Pending Review : 12**

Total Mods for report: 12

Sub Code: Building

1

M10394

Date Submitted	02/14/2022	**Section**	1705	**Proponent**	Richard Walke
Chapter	17	**Affects HVHZ**	No	**Attachments**	**Yes**
TAC Recommendation	Pending Review				
Commission Action	Pending Review				

Comments

General Comments Yes **Alternate Language Yes**

Related Modifications

Summary of Modification

Propose Special Inspections for SFRM and IFRM

Rationale

This proposal provides details on the methodology of conducting special inspections on Sprayed Fire-resistant Materials (SFRM) and Intumescent Fire-resistant Materials (IFRM). These materials and system are critical components of the life-safety structural provisions of the Florida Building Code. Their installation is highly technical and must be based on tested assemblies and manufacturers installation instructions as specified in Chapter 7 of this code. Both SFRM and IFRM must be installed at thicknesses as stated in the tested structural element or assembly listings, and tolerances in the codes. Inspection assures that fireproofing installed in the field meets what was tested to provide fire-resistance at the laboratory, protecting structures, and most importantly, the occupants. Based in the technical nature of their installation and the numerous new product entrants into the marketplace, both SFRM and IFRM warrant rigorous and thorough inspection based on industry accepted standards. While IFRM looks like paint and SFRM looks like stucco after application, there is much more to these products that make them perform under fire. This proposal provides the required details of those inspections to assure the products are installed to protect. The requirement for special inspections of SFRM has existed since the days of the legacy codes. The requirement for special inspections of IFRM has existed in the IBC since the 2006 edition. These requirements assure that the fireproofing has been installed in accordance with the listing and manufacturers installation instructions. SFRM and IFRM fireproofing installations protect structural elements in buildings against the effects of heat in buildings. SFRM and IFRM are critical components to structural protection and preventing progressive collapse due to fire. The products have been rigorously tested at leading laboratories like FM Approvals, Intertek, UL and other approved agencies.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

This proposal will reduce the cost to the local entity as a Special Inspection agency will be doing the bulk of the inspection work in the field.

Impact to building and property owners relative to cost of compliance with code

This proposal will require the building and property owners to hire and pay for a Special Inspection agency to conduct inspections on SFRM and IFRM.

Impact to industry relative to the cost of compliance with code

There will be no impact to industry.

Impact to small business relative to the cost of compliance with code

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

SFRM and IFRM are critical components of the life-safety structural provisions of the Florida Building Code. Their installation is highly technical. Special inspections provide for adequate time for thorough inspections of these components.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Special inspections improve the likely-hood that the products will be installed in accordance with the manufacturer's installation instructions and the tested assemblies as required by Chapter 7.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal requires all sprayed and coating type materials used to provide fire resistance be under a special inspection program.

Does not degrade the effectiveness of the code

This proposal strengthens the requirements of the code as it provides for further oversite on the installation of SFRM and IFRM.

Alternate Language

1st Comment Period History

M10394-A2

Proponent Richard Walke **Submitted** 4/15/2022 11:24:11 AM **Attachments** Yes

Rationale:

I am the original proponent of F10394. When developing the original proposal, I made a "cut and paste" error when extracting the language from the 2021 International Building Code. With the additional language suggested by this comment, the text of this section of the overall proposal for the Florida Building Code now aligns with the language of the 2021 International Building Code. All other provisions from the original proposal remain unchanged.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

This proposal will reduce the cost to the local entity as a Special Inspection agency will be doing the bulk of the inspection work in the field.

Impact to building and property owners relative to cost of compliance with code

This proposal will require the building and property owners to hire and pay for a Special Inspection agency to conduct inspections on SFRM and IFRM.

Impact to industry relative to the cost of compliance with code

There will be no impact to industry.

Impact to small business relative to the cost of compliance with code

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Their installation is highly technical. Special inspections provide for adequate time for thorough inspections of these components.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Special inspections improve the likely-hood that the products will be installed in accordance with the manufacturer's installation instructions and the tested assemblies as required by Chapter 7.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal requires all sprayed and coating type materials used to provide fire resistance be under a special inspection program.

Does not degrade the effectiveness of the code

This proposal strengthens the requirements of the code as it provides for further oversite on the installation of SFRM and IFRM.

1st Comment Period History

M10394-A1

Proponent Richard Walke **Submitted** 4/15/2022 10:43:45 AM **Attachments** Yes

Rationale:

I am the original proponent of F10394. When developing the original proposal, I made a "cut and paste" error when extracting the language from the 2021 International Building Code. With the additional language suggested by this comment, the text of the overall proposal for the Florida Building Code now aligns with the language of the 2021 International Building Code. All other provisions from the original proposal remain unchanged.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

This proposal will reduce the cost to the local entity as a Special Inspection agency will be doing the bulk of the inspection work in the field.

Impact to building and property owners relative to cost of compliance with code

This proposal will require the building and property owners to hire and pay for a Special Inspection agency to conduct inspections on SFRM and IFRM.

Impact to industry relative to the cost of compliance with code

There will be no impact to industry.

Impact to small business relative to the cost of compliance with code

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

SFRM and IFRM are critical components of the life-safety structural provisions of the Florida Building Code. Their installation is highly technical. Special inspections provide for adequate time for thorough inspections of these components.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Special inspections improve the likely-hood that the products will be installed in accordance with the manufacturer's installation instructions and the tested assemblies as required by Chapter 7.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal requires all sprayed and coating type materials used to provide fire resistance be under a special inspection program.

Does not degrade the effectiveness of the code

This proposal strengthens the requirements of the code as it provides for further oversite on the installation of SFRM and IFRM.

1st Comment Period History

M10394-G1

Proponent Ken Hix Submitted 4/14/2022 2:59:59 PM Attachments No

Comment:

While I'm generally very supportive of special inspections, I have several concerns with this proposal. First I do not think that all "elements and nonstructural components" or all "alternative to materials and systems prescribed by this code" are of the complexity that special inspections are necessary. Because of this, I feel this proposed section devalues evaluation reports and product approvals and will add unnecessary cost to construction. In Section 1705.1.1 the proposals states "in the opinion of" but does not tell you who's opinion.

1705.1.1 Special cases. *Special inspections* and tests shall be required for proposed work that is, in the opinion of the building official, unusual in its nature, such as, but not limited to, the following examples:

1705.1.1 Special cases. *Special inspections* and tests shall be required for proposed work that is, in the opinion of the *building official*, unusual in its nature, such as, but not limited to, the following examples:

1705.1 General. *Special inspections* and tests of elements and nonstructural components of buildings and structures shall meet the applicable requirements of this section.

1705.1.1 Special cases. *Special inspections* and tests shall be required for proposed work that is, in the opinion of limited to, the following examples:

1. Construction materials and systems that are alternatives to materials and systems prescribed by this code.
2. Unusual design applications of materials described in this code.
3. Materials and systems required to be installed in accordance with additional manufacturer's instructions that prescribe requirements not contained in this code or in standards referenced by this code.

[BF] 1705.2 Sprayed fire-resistant materials. *Special inspections* and tests of sprayed fire-resistant materialsapplied to floor, roof and wall assemblies and structuralmembers shall be performed in accordance with Sections1705.2.1 through 1705.2.6. *Special inspections* shall be based on the fire-resistance design as designated in the *approved construction documents*. The tests set forth in this section shall be based on samplings from specific floor, roofand wall assemblies and structural members. *Special inspections* and tests shall be performed during construction withan additional visual inspection after the rough installation ofelectrical, automatic sprinkler, mechanical and plumbingsystems and suspension systems for ceilings, and beforeconcealment where applicable. The required sample size shall not exceed 110 percent of that specified by the referencedstandards in Sections 1705.2.4.1 through1705.2.4.9.

[BF] 1705.2.1 Physical and visual tests. The *special inspections* and tests shall include the following todemonstrate compliance with the listing and the *fire-resistance rating*:

1. Condition of substrates.
2. Thickness of application.
3. Density in pounds per cubic foot (kg/m^3).
4. Bond strength adhesion/cohesion.
5. Condition of finished application.

[BF] 1705.2.2 Structural member surface conditions. The surfaces shall be prepared in accordance with the*approved* fire-resistance design and the written instructions of *approved* manufacturers. The prepared surface of structural members to be sprayed shall be inspected by the *special inspector* before the application of the sprayed fire-resistant material.

[BF] 1705.2.3 Application. The substrate shall have a minimum ambient temperature before and after application as specified in the written instructions of *approved* manufacturers. The area for application shall be ventilated during and after application as required by the written instructions of *approved* manufacturers.

[BF] 1705.2.4 Thickness. Not more than 10 percent of the thickness measurements of the sprayed fire-resistant materials applied to floor, roof and wall assemblies and structural members shall be less than the thickness required by the *approved* fire-resistance design, and none shall be less than the minimum allowable thickness required by Section 1705.2.4.1.

[BF] 1705.2.4.1 Minimum allowable thickness. For design thicknesses 1 inch (25 mm) or greater, the minimum allowable individual thickness shall be the design thickness minus 1/4 inch (6.4 mm). For design thicknesses less than 1 inch (25 mm), the minimum allowable individual thickness shall be the design thickness minus 25 percent. Thickness shall be determined in accordance with ASTM E605. Samples of the sprayed fire-resistant materials shall be selected in accordance with Sections 1705.2.4.2 and 1705.2.4.3.

[BF] 1705.2.4.2 Floor, roof and wall assemblies. The thickness of the sprayed fire-resistant materialapplied to floor, roof and wall assemblies shall be determined in accordance with ASTM E605, makingnot less than four measurements for each 1,000 squarefeet (93 m^2) of the sprayed area, or portion thereof, ineach story.

[BF] 1705.2.4.3 Cellular decks. Thickness measurements shall be selected from a square area, 12 inches by 12 inches (305 mm by 305 mm) in size. Not fewer than four measurements shall be made, located symmetrically within the square area.

[BF] 1705.2.4.4 Fluted decks. Thickness measurements shall be selected from a square area, 12 inches by 12 inches (305 mm by 305 mm) in size. Not fewer than four measurements shall be made, located symmetrically within the square area, including one each of the following: valley, crest and sides. The average of the measurements shall be reported.

[BF] 1705.2.4.5 Structural members. The thickness of the sprayed fire-resistant material applied to structural members shall be determined in accordance with ASTM E605. Thickness testing shall be performed on not less than 25 percent of the structural members on each floor.

[BF] 1705.2.4.6 Beams and girders. At beams and girders thickness measurements shall be made at nine locations around the beam or girder at each end of a 12-inch (305 mm) length.

[BF] 1705.2.4.7 Joists and trusses. At joists and trusses, thickness measurements shall be made at seven locations around the joist or truss at each end of a 12-inch (305 mm) length.

[BF] 1705.2.4.8 Wide-flanged columns. At wide-flanged columns, thickness measurements shall be made at 12 locations around the column at each end of a 12-inch (305 mm) length.

[BF] 1705.2.4.9 Hollow structural section and pipe columns. At hollow structural section and pipecolumns, thickness measurements shall be made at notfewer than four locations around the column at eachend of a 12-inch (305 mm) length.

[BF] 1705.2.5 Density. The density of the sprayed fire-resistant material shall be not less than the density specified in the *approved* fire-resistance design. Density of the sprayed fire-resistant material shall be determined in accordance with ASTM E605. The test samples for determining the density of the sprayed fire-resistant materials shall be selected as follows:

1. From each floor, roof and wall assembly at the rate of not less than one sample for every 2,500 square feet (232 m^2) or portion thereof of the sprayed area in each story.

2. From beams, girders, trusses and columns at the rate of not less than one sample for each type of structural member for each 2,500 square feet (232 m^2) of floor area or portion thereof in each *story*.

[BF] 1705.2.6 Bond strength. The cohesive/adhesive bond strength of the cured sprayed fire-resistant material applied to floor, roof and wall assemblies and structural members shall be not less than 150 pounds per square foot (psf) (7.18 kN/m^2). The cohesive/adhesive bond strength shall be determined in accordance with the field test specified in ASTM E736 by testing in-place samples of the sprayed fire-resistant material selected in accordance with Sections 1705.2.6.1 through 1705.2.6.3.

[BF] 1705.2.6.1 Floor, roof and wall assemblies. The test samples for determining the cohesive/adhesivebond strength of the sprayed fire-resistantmaterials shall be selected from each floor, roof andwall assembly at the rate of not less than one samplefor every 2,500 square feet (232 m_2) of the sprayedarea, or portion thereof, in each *story*.

[BF] 1705.2.6.2 Structural members. The test samples for determining the cohesive/adhesive bond strength of the sprayed ire-resistant materials shall be selected from beams, girders, trusses, columns and other structural members at the rate of not less than one sample for each type of structural member for each 2,500 square feet (232 m^2) of floor area or portion thereof in each *story*.

[BF] 1705.2.6.3 Primer, paint and encapsulant bond tests. Bond tests to qualify a primer, paint orencapsulant shall be conducted where the sprayed fire-resistantmaterial is applied to a primed, painted or encapsulated surface for which acceptable bond-strength performance between these coatings and the fire-resistant material has not been determined. A bonding agent *approved* by the SFRM manufacturer shall be applied to a primed, painted or encapsulated surface where the bond strengths are found to be less than required values.

[BF] 1705.3 Mastic and intumescent fire-resistant coatings. *Special inspections* and tests for mastic and*intumescent fire-resistant coatings* applied to structuralelements and decks shall be performed in accordance withAWCI 12-B. *Special inspections* and tests shall be based onthe fire-resistance design as designated in the *approvedconstruction documents*. *Special inspections* and tests shallbe performed during construction. Additional visual inspectionshall be performed after the rough installation and,where applicable, prior to the concealment of electrical,automatic sprinkler, mechanical and plumbing systems.

Add new standard(s) as follows:

ASTM

E605/E605M-93(2015)e1: Test Method for Thickness and Density of Sprayed Fire-resistive Material (SFRM) Applied to Structural Members

E736/E736M-2017: Test Method for Cohesion/Adhesion of Sprayed Fire-resistive Materials Applied to Structural Members

AWCI

12-B-14: Technical Manual 12B, Third Edition; Standard Practice for the Testing and Inspection of Field Applied Thin Film Intumescent Fire-resistive Materials; an Annotated Guide

TAC: Mechanical

Total Mods for **Mechanical** in **Pending Review : 12**

Total Mods for report: 12

Sub Code: Mechanical

2

M9996

Date Submitted	02/01/2022	**Section**	301.18	**Proponent**	T Stafford
Chapter	3	**Affects HVHZ**	No	**Attachments**	No
TAC Recommendation	Pending Review				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language No**

Related Modifications

Summary of Modification

This modification is one of a series of modifications that delete the seismic and snow requirements from the code. In accordance with Exception 2 to Section 101.2 of the FBCB, seismic and snow requirements are not to be utilized or enforced in the State of Florida.

Rationale

This modification is the culmination of a project funded by the Florida Building Commission through Building a Safer Florida (BASF) that the deletes the seismic and snow provisions from the Florida Building Codes. In accordance with Exception 2 to Section 101.2 of the Florida Building Code, Building, the seismic and snow provisions are exempted from the scope of the Florida Building Codes. Exception 2 to Section 101.2 states the following: "2. Code requirements that address snow loads and earthquake protection are pervasive; they are left in place but shall not be utilized or enforced because Florida has no snow load or earthquake threat." These modifications clarify and simplify the code by deleting requirements that do not apply in the State of Florida.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

No impact to local entities relative to enforcement of the code.

Impact to building and property owners relative to cost of compliance with code

No impact to building and property owners relative to cost of compliance with the code.

Impact to industry relative to the cost of compliance with code

No impact to industry relative to the cost of compliance with the code.

Impact to small business relative to the cost of compliance with code

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Clarifies and simplifies the code by deleting requirements that do not apply in the State of Florida.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by deleting requirements that do not apply in the State of Florida.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

This proposal does not degrade the effectiveness of the code.

Revise as follows:

301.18 Seismic resistance. Reserved. ~~Where earthquake loads are applicable in accordance with the *Florida Building Code, Building*, mechanical system supports shall be designed and installed for the seismic forces in accordance with the *Florida Building Code, Building*.~~

TAC: Mechanical

Total Mods for **Mechanical** in **Pending Review : 12**

Total Mods for report: 12

Sub Code: Mechanical

3

M9997

Date Submitted	02/01/2022	**Section**	506.3.3	**Proponent**	T Stafford
Chapter	5	**Affects HVHZ**	No	**Attachments**	No
TAC Recommendation	Pending Review				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language No**

Related Modifications

Summary of Modification

This modification is one of a series of modifications that delete the seismic and snow requirements from the code. In accordance with Exception 2 to Section 101.2 of the FBCB, seismic and snow requirements are not to be utilized or enforced in the State of Florida.

Rationale

This modification is the culmination of a project funded by the Florida Building Commission through Building a Safer Florida (BASF) that the deletes the seismic and snow provisions from the Florida Building Codes. In accordance with Exception 2 to Section 101.2 of the Florida Building Code, Building, the seismic and snow provisions are exempted from the scope of the Florida Building Codes. Exception 2 to Section 101.2 states the following: "2. Code requirements that address snow loads and earthquake protection are pervasive; they are left in place but shall not be utilized or enforced because Florida has no snow load or earthquake threat." These modifications clarify and simplify the code by deleting requirements that do not apply in the State of Florida.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

No impact to local entities relative to enforcement of the code.

Impact to building and property owners relative to cost of compliance with code

No impact to building and property owners relative to cost of compliance with the code.

Impact to industry relative to the cost of compliance with code

No impact to industry relative to the cost of compliance with the code.

Impact to small business relative to the cost of compliance with code

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Clarifies and simplifies the code by deleting requirements that do not apply in the State of Florida.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by deleting requirements that do not apply in the State of Florida.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

This proposal does not degrade the effectiveness of the code.

Revise as follows:

506.3.3 Grease duct supports. Grease duct bracing and supports shall be of noncombustible material securely attached to the structure and designed to carry gravity ~~and seismic~~ loads within the stress limitations of the *Florida Building Code, Building*. Bolts, screws, rivets and other mechanical fasteners shall not penetrate duct walls.

TAC: Mechanical

Total Mods for **Mechanical** in **Pending Review : 12**

Total Mods for report: 12

Sub Code: Mechanical

4

M10381

Date Submitted	02/14/2022	**Section**	507.2	**Proponent**	Rolando Soto
Chapter	5	**Affects HVHZ**	No	**Attachments**	No
TAC Recommendation	Pending Review				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language No**

Related Modifications

Summary of Modification

This modification will provide an exception to the code requirement for Type 1 hoods (grease) for the installation of solid fuel or combination gas and solid fuel pizza ovens listed for direct venting.

Rationale

This modification will provide consistency thru the state in the enforcement of section 507.2, catch up with the technology and reduce the need for job specific alternatives.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

This modification will provide consistency thru the state in the enforcement of section 507.2.

Impact to building and property owners relative to cost of compliance with code

This modification will reduce cost to owners.

Impact to industry relative to the cost of compliance with code

This modification will reduce cost to industry.

Impact to small business relative to the cost of compliance with code

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

This modification will ensure that only listed materials, products, methods, or systems of construction are used for the venting of solid fuel or combination gas and solid fuel pizza ovens if the oven is tested and listed using direct venting as allowed in NFPA 96.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

This modification will ensure that only listed materials, products, methods, or systems of construction are used for the venting of solid fuel or combination gas and solid fuel pizza ovens if the oven is tested and listed using direct venting as allowed in NFPA 96.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This modification does not discriminate against listed materials, products, methods, or systems of construction.

Does not degrade the effectiveness of the code

This modification will ensure that only listed materials, products, methods, or systems of construction are used for the venting of solid fuel or combination gas and solid fuel pizza ovens if the oven is tested and listed using direct venting as allowed in NFPA 96.

507.2Type I hoods.

Type I hoods shall be installed where cooking appliances produce grease or smoke as a result of the cooking process. Type I hoods shall be installed over medium-duty, heavy-duty and extra-heavy-duty cooking appliances.

Exceptions:

1. A Type I hood shall not be required for an electric cooking appliance where an approved testing agency provides documentation that the appliance effluent contains 5 mg/m3 or less of grease when tested at an exhaust flow rate of 500 cfm (0.236 m3/s) in accordance with UL 710B.
2. A Type I hood shall not be required for solid fuel or combination gas and solid fuel pizza ovens if the oven is tested and listed using direct venting as allowed in NFPA 96. The venting system shall be constructed and installed per the conditions of listing of the oven and of the duct or chimney used for venting. This applies to pizza ovens listed with natural draft or forced draft venting.

TAC: Mechanical

Total Mods for **Mechanical** in **Pending Review : 12**

Total Mods for report: 12

Sub Code: Mechanical

5

M9999

Date Submitted	02/01/2022	**Section**	908.4	**Proponent**	T Stafford
Chapter	9	**Affects HVHZ**	No	**Attachments**	No
TAC Recommendation	Pending Review				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language No**

Related Modifications

Summary of Modification

This modification is one of a series of modifications that delete the seismic and snow requirements from the code. In accordance with Exception 2 to Section 101.2 of the FBCB, seismic and snow requirements are not to be utilized or enforced in the State of Florida.

Rationale

This modification is the culmination of a project funded by the Florida Building Commission through Building a Safer Florida (BASF) that the deletes the seismic and snow provisions from the Florida Building Codes. In accordance with Exception 2 to Section 101.2 of the Florida Building Code, Building, the seismic and snow provisions are exempted from the scope of the Florida Building Codes. Exception 2 to Section 101.2 states the following: "2. Code requirements that address snow loads and earthquake protection are pervasive; they are left in place but shall not be utilized or enforced because Florida has no snow load or earthquake threat." These modifications clarify and simplify the code by deleting requirements that do not apply in the State of Florida.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

No impact to local entities relative to enforcement of the code.

Impact to building and property owners relative to cost of compliance with code

No impact to building and property owners relative to cost of compliance with the code.

Impact to industry relative to the cost of compliance with code

No impact to industry relative to the cost of compliance with the code.

Impact to small business relative to the cost of compliance with code

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Clarifies and simplifies the code by deleting requirements that do not apply in the State of Florida.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by deleting requirements that do not apply in the State of Florida.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

This proposal does not degrade the effectiveness of the code.

Revises as follows:

908.4 Support and anchorage. Supports for cooling towers, evaporative condensers and fluid coolers shall be designed in accordance with the *Florida Building Code, Building*. ~~Seismic restraints shall be as required by the *Florida Building Code, Building*.~~

TAC: Mechanical

Total Mods for **Mechanical** in **Pending Review : 12**

Total Mods for report: 12

Sub Code: Residential

6

M10024

Date Submitted	02/01/2022	**Section**	1307.2	**Proponent**	T Stafford
Chapter	13	**Affects HVHZ**	No	**Attachments**	No
TAC Recommendation	Pending Review				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language No**

Related Modifications

Summary of Modification

This modification is one of a series of modifications that delete the seismic and snow requirements from the code. In accordance with Exception 2 to Section 101.2 of the FBCB, seismic and snow requirements are not to be utilized or enforced in the State of Florida.

Rationale

This modification is the culmination of a project funded by the Florida Building Commission through Building a Safer Florida (BASF) that the deletes the seismic and snow provisions from the Florida Building Codes. In accordance with Exception 2 to Section 101.2 of the Florida Building Code, Building, the seismic and snow provisions are exempted from the scope of the Florida Building Codes. Exception 2 to Section 101.2 states the following: "2. Code requirements that address snow loads and earthquake protection are pervasive; they are left in place but shall not be utilized or enforced because Florida has no snow load or earthquake threat." These modifications clarify and simplify the code by deleting requirements that do not apply in the State of Florida.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

No impact to local entities relative to enforcement of the code.

Impact to building and property owners relative to cost of compliance with code

No impact to building and property owners relative to cost of compliance with the code.

Impact to industry relative to the cost of compliance with code

No impact to industry relative to the cost of compliance with the code.

Impact to small business relative to the cost of compliance with code

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Clarifies and simplifies the code by deleting requirements that do not apply in the State of Florida.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by deleting requirements that do not apply in the State of Florida.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

This proposal does not degrade the effectiveness of the code.

Revise as follows:

M1307.2 Anchorage of appliances. *Appliances* designed to be fixed in position shall be fastened or anchored in an *approved* manner. ~~In Seismic Design Categories D_0, D_1 and D_2, and in townhouses in Seismic Design Category C, water heaters and thermal storage units shall be anchored or strapped to resist horizontal displacement caused by earthquake motion in accordance with one of the following:~~

-

~~1. Anchorage and strapping shall be designed to resist a horizontal force equal to one-third of the operating weight of the water heater storage tank, acting in any horizontal direction. Strapping shall be at points within the upper one-third and lover one-third of the *appliance's* vertical dimensions. At the lower point, the strapping shall maintain a minimum distance of 4 inches (102 mm) above the controls.~~
~~2. The anchorage strapping shall be in accordance with the appliance manufacturer's recommendations.~~

TAC: Mechanical

Total Mods for **Mechanical** in **Pending Review : 12**

Total Mods for report: 12

Sub Code: Residential

7

M10170

Date Submitted	02/11/2022	**Section**	1507.3.4	**Proponent**	Jeff Sonne for FSEC
Chapter	15	**Affects HVHZ**	No	**Attachments**	No
TAC Recommendation	Pending Review				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language No**

Related Modifications

Summary of Modification

Additional documentation and labeling requirements for whole-house mechanical ventilation systems.

Rationale

FBC sponsored Florida research indicates that whole-house mechanical ventilation systems are not well understood by home occupants and for a number of reasons are not functioning as intended in the majority of cases. Whole-house mechanical ventilation systems are installed with the intent of improving the air quality of homes, and without documentation, the occupants may not be aware of the system and potentially suffer negative health impacts. This mod seeks to help insure that these systems are better understood by occupants, improve system reliability, and facilitate maintenance. For more information see: https://publications.energyresearch.ucf.edu/wp-content/uploads/2018/06/FSEC-CR-2002-15.pdf

Fiscal Impact Statement

Impact to local entity relative to enforcement of code
Slight impact in applicable cases to verify compliance.
Impact to building and property owners relative to cost of compliance with code
Slight increase in first cost in applicable cases.
Impact to industry relative to the cost of compliance with code
Slight impact in applicable cases.
Impact to small business relative to the cost of compliance with code

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public
Yes; benefits public by increasing awareness of and reliability of whole-house mechanical ventilation systems.
Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes; strengthens the code by increasing awareness of and reliability of whole-house mechanical ventilation systems.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No; only increases awareness of and reliability of whole-house mechanical ventilation systems.

Does not degrade the effectiveness of the code

Increases effectiveness of the code by increasing awareness of and reliability of whole-house mechanical ventilation systems.

M1507.3 Whole-house mechanical ventilation system.

Whole-house mechanical ventilation systems shall be designed in accordance with Sections M1507.3.1 through M1507.3.~~3~~4.

[New] M1507.3.4 Mechanical ventilation labeling and documentation.

Where a whole-house mechanical ventilation system is provided, the following documentation and labeling shall also be provided:

1. Diagram or other descriptive information about the system provided with *ready access*. Diagram shall indicate the type of whole-house ventilation system and location of any supply and exhaust air ducts and grilles, filter(s), and controls.
2. Labeling on key components of the ventilation system including:

   a. Outdoor intake and exhaust terminations

   b. Accessory dampers

   c. Controls.

[Modify the following Section R202 definition:]

READY ACCESS (TO). That which enables a device, appliance, information, or equipment to be directly reached, without requiring the removal or movement of any panel, door or similar obstruction.

TAC: Mechanical

Total Mods for **Mechanical** in **Pending Review : 12**

Total Mods for report: 12

Sub Code: Residential

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M10171

Date Submitted	02/11/2022	**Section**	1507.3.5	**Proponent**	Jeff Sonne for FSEC
Chapter	15	**Affects HVHZ**	No	**Attachments**	No
TAC Recommendation	Pending Review				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language No**

Related Modifications

Summary of Modification

Test report requirements for whole-house mechanical ventilation systems.

Rationale

Whole-house mechanical ventilation is relatively new in Florida and is only installed on a relatively small number of new houses. Also, FBC sponsored Florida research indicates that whole-house mechanical ventilation systems are for a number of reasons not functioning as intended in the majority of cases (see: https://publications.energyresearch.ucf.edu/wp-content/uploads/2018/06/FSEC-CR-2002-15.pdf). This mod will help insure that whole-house mechanical ventilation system operational status has been confirmed and help make building officials aware of the presence of these systems to facilitate verification.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Slight impact in applicable cases to verify compliance.

Impact to building and property owners relative to cost of compliance with code

Small increase in first cost in applicable cases.

Impact to industry relative to the cost of compliance with code

Small increase in applicable cases.

Impact to small business relative to the cost of compliance with code

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Yes; benefits public by increasing awareness of and reliability of whole-house mechanical ventilation systems.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes; strengthens the code by increasing awareness of and reliability of whole-house mechanical ventilation systems.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No; only increases awareness of and reliability of whole-house mechanical ventilation systems.

Does not degrade the effectiveness of the code

Increases effectiveness of the code by increasing awareness of and reliability of whole-house mechanical ventilation systems.

M1507.3 Whole-house mechanical ventilation system.

Whole-house mechanical ventilation systems shall be designed in accordance with Sections M1507.3.1 through M1507.3.~~3~~5.

[New] M1507.3.5 Mechanical ventilation test report.

Where a whole-house mechanical ventilation system is provided, the builder must submit a test report for the system to the code official that indicates:

1. The location of the system
2. Air intake location(s)
3. Filter location(s)
4. System operation is controlled as specified
5. Tested air flow.

TAC: Mechanical

Total Mods for **Mechanical** in **Pending Review : 12**

Total Mods for report: 12

Sub Code: Residential

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M10173

Date Submitted	02/11/2022	**Section**	1507.3.6	**Proponent**	Jeff Sonne for FSEC
Chapter	15	**Affects HVHZ**	No	**Attachments**	No
TAC Recommendation	Pending Review				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language No**

Related Modifications

Summary of Modification

Failure detection requirements for whole-house mechanical ventilation systems.

Rationale

FBC sponsored Florida research indicates that whole-house mechanical ventilation systems are not well understood by home occupants and for a number of reasons are not functioning as intended in the majority of cases. This mod seeks to help insure that these mechanical ventilation systems are better understood by occupants, improve system reliability, and facilitate maintenance. For more information see: https://publications.energyresearch.ucf.edu/wp-content/uploads/2018/06/FSEC-CR-2002-15.pdf.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Slight impact in applicable cases to verify compliance.

Impact to building and property owners relative to cost of compliance with code

Small increase in first cost in applicable cases.

Impact to industry relative to the cost of compliance with code

Small impact in applicable cases.

Impact to small business relative to the cost of compliance with code

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Yes; benefits public by increasing awareness of and reliability of whole-house mechanical ventilation systems.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes; strengthens the code by increasing awareness of and reliability of whole-house mechanical ventilation systems.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No; only increases awareness of and reliability of whole-house mechanical ventilation systems.

Does not degrade the effectiveness of the code

Increases effectiveness of the code by increasing awareness of and reliability of whole-house mechanical ventilation systems.

M1507.3 Whole-house mechanical ventilation system.

Whole-house mechanical ventilation systems shall be designed in accordance with Sections M1507.3.1 through M1507.3.~~3~~6.

[New] M1507.3.6 Mechanical ventilation failure detection.

Where a whole-house mechanical ventilation system is provided, the system shall have means of detecting airflow movement through duct when on, with an operational status signal complying with one or more of the following:

1. A visual display that is readily accessible to occupants of the dwelling unit and located on or within one foot of the IAQ system control.
2. An electronic application.
3. An audible alarm accompanied by a visual display.

TAC: Mechanical

Total Mods for **Mechanical** in **Pending Review : 12**

Total Mods for report: 12

Sub Code: Residential

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M10069

Date Submitted	02/09/2022	**Section**	19	**Proponent**	Timothy de Carion
Chapter	19	**Affects HVHZ**	Yes	**Attachments**	**Yes**
TAC Recommendation	Pending Review				
Commission Action	Pending Review				

Comments

General Comments Yes **Alternate Language No**

Related Modifications

Summary of Modification

This modification will provide new code requirements for the installation of residential stand-by generators. Current code does not have requirements.

Rationale

The current code does not address installation standards for standby residential generators. This section will provide uniform standards for installation. These new sections will provide additional saftey requirements to protect homeowners from carbon monoxide sickness and even death.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

Residential generators are already permited and inspected. No additional inspections will be required.

Impact to building and property owners relative to cost of compliance with code

An additional carbon monoxide detector would be required.

Impact to industry relative to the cost of compliance with code

An additional carbon monoxide detector would be required.

Impact to small business relative to the cost of compliance with code

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

These new sections will provide additional saftey requirements to protect homeowners from carbon monoxide sickness and even death.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Yes, these new sections will provide additional saftey requirements to protect homeowners from carbon monoxide sickness and even death.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

No, many products available.

Does not degrade the effectiveness of the code

No, improves uniformity.

1st Comment Period History

M10069-G1

Proponent	Bryan Holland	Submitted	3/28/2022 9:28:14 AM	Attachments	Yes

Comment:

NEMA strongly supports this proposed modification and urges the TAC(s) and Commission to approve this modification that will improve the safe installation and operation of standby generators.

1st Comment Period History

M10069-G2

Proponent	Rebecca Quinn obo FL Div Emerg Mgnt	Submitted	4/14/2022 1:44:07 PM	Attachments	No

Comment:

On behalf of Conn Cole, State Floodplain Manage with FDEM Office of Floodplain Management, FDEM supports this proposal. When stand-by generators are elevated and flooding occurs up to the elevation required by R322.1.6, the generators will not need to be replaced or have major repairs performed before they're ready to provide power until service is restored.

CHAPTER19

SPECIAL APPLIANCES, EQUIPMENT AND SYSTEMS

SECTION M1905 RESIDENTIAL STAND-BY GENERATORS.

M1905.1 Listed and labeled.

Stand-by generators regulated by this code shall be listed and labeled for the application in which they are installed and used.

M1905.2 Installation.

Installation of stand-by generators shall comply with manufacturer's installation instructions and listing conditions.

M1905.2.1 Electrical installation.

Electrical installation of stand-by generators shall comply with the applicable provisions of NFPA 70, National Electrical Code, manufacturer's installation instructions, and conditions of the listing.

M1905.2.2 Flood hazard.

In flood hazard areas as established by Table R301.2(1), stand-by generators shall be located or installed in accordance with Section R322.1.6.

M1905.2.3 Fuel installation.

M1905.2.3.1 Fuel gas.

Fuel gas installation for stand-by generators shall comply with the applicable provisions of Chapter 24 of this code.

M1905.2.3.2 Liquid fuel.

Liquid fuel installation for stand-by generators shall comply with the applicable provisions of NFPA-30.

M1905.2.4 (301.10) Wind resistance.

Stand-by generators that are exposed to wind shall be designed and installed to resist the wind pressures determined in accordance with this code.

M1905.2.5 Exhaust Location.

Permanently installed residential standby generator’s exhaust shall be located to not create a nuisance. Exhaust termination shall be a minimum of 10 feet from any openings that could allow fumes into the building (doors, operable windows, eave vents, etc.) or air intakes.

Exception: The generator exhaust can be located a minimum of 5 feet from any such openings (doors, operable windows, eave vents, etc.) or in compliance with generator manufacturer installation requirements and listing, whichever is more restrictive, if all of the following is complied with:

1. A carbon monoxide (CO) alarm(s) is installed in the residency within 10 feet of each room used for sleeping purposes, or per the alarm's manufacturer installation requirements and listing, whichever is more restrictive.

2. An additional carbon monoxide (CO) alarm is installed in the residency as close as possible to the building's exterior opening nearest to the generator exhaust.

3. The carbon monoxide (CO) alarms mentioned above shall be of the types required by sections R315.1.1 or R315.1.2 of this code.

GENERATOR SAFETY

USE BACKUP POWER SAFELY

When used properly, portable and standby generators are a great option to provide backup power during brownouts or blackouts. **Learn how to use generators safely** with the following tips:

GENERATORS

Location

Always keep generators at least **20 feet away** from your home

Never operate a generator in an **enclosed space**

Make sure the generator has **3-4 feet** of clear space above and on all sides for proper ventilation

Keep generators **away** from doors, windows, and vents

Always **direct exhaust away** from your home

Use

Always use **grounded cords** and inspect cords for damage prior to use

Use the **proper cord** for the wattage being used

Always use **GFCI protection**

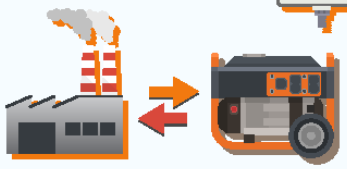
Make sure to start / stop generators when **no electrical loads** are connected

Keep generators dry, **do not operate when wet**, and refuel when cool

Do not overload generators

Do not plug a generator directly into your home, connect items being powered **directly to the generator**

TRANSFER SWITCHES



Transfer switches, whether manual or automatic, allow you to choose between **utility power** or **backup generator power**

Transfer switches are the only way to **safely power** your home's electrical system

Using a transfer switch **prevents backfeeding**. This occurs when your generator becomes a power source for the **surrounding area** and can damage your home, your neighbor's homes, and injure workers trying to restore power

CARBON MONOXIDE (CO) POISONING PREVENTION

Improper use and installation of generators could **cause CO poisoning**

Make sure your home has **carbon monoxide alarms** outside each sleeping area and on every level of the home

CO can kill in as little as **5 minutes**

Symptoms of CO poisoning

Dizziness Headaches Nausea Tiredness

If you experience CO poisoning symptoms, **get fresh air**, **do not reenter areas**, and **call 911**.

Please share this free resource to save lives

ESFI.org www.facebook.com/ESFI.org www.twitter.com/ESFIdotorg www.youtube.com/ESFIdotorg

M10069Impact Statement

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Page: 1

Mod_10069_Impact_price of co detector.pdf

TAC: Mechanical

Total Mods for **Mechanical** in **Pending Review : 12**

Total Mods for report: 12

Sub Code: Residential

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M10025

Date Submitted	02/01/2022	**Section**	2203.5	**Proponent**	T Stafford
Chapter	22	**Affects HVHZ**	No	**Attachments**	No
TAC Recommendation	Pending Review				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language No**

Related Modifications

Summary of Modification

This modification is one of a series of modifications that delete the seismic and snow requirements from the code. In accordance with Exception 2 to Section 101.2 of the FBCB, seismic and snow requirements are not to be utilized or enforced in the State of Florida.

Rationale

This modification is the culmination of a project funded by the Florida Building Commission through Building a Safer Florida (BASF) that the deletes the seismic and snow provisions from the Florida Building Codes. In accordance with Exception 2 to Section 101.2 of the Florida Building Code, Building, the seismic and snow provisions are exempted from the scope of the Florida Building Codes. Exception 2 to Section 101.2 states the following: "2. Code requirements that address snow loads and earthquake protection are pervasive; they are left in place but shall not be utilized or enforced because Florida has no snow load or earthquake threat." These modifications clarify and simplify the code by deleting requirements that do not apply in the State of Florida.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

No impact to local entities relative to enforcement of the code.

Impact to building and property owners relative to cost of compliance with code

No impact to building and property owners relative to cost of compliance with the code.

Impact to industry relative to the cost of compliance with code

No impact to industry relative to the cost of compliance with the code.

Impact to small business relative to the cost of compliance with code

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Clarifies and simplifies the code by deleting requirements that do not apply in the State of Florida.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by deleting requirements that do not apply in the State of Florida.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

This proposal does not degrade the effectiveness of the code.

Revise as follows:

M2203.5 Vent termination. Vent piping shall terminate outside of buildings at a point not less than 2 feet (610 mm), measured vertically or horizontally, from any building opening. Outer ends of vent piping shall terminate in a weatherproof cap or fitting having an unobstructed area at least equal to the cross-sectional area of the vent pipe, and shall be located sufficiently above the ground to avoid being obstructed ~~by snow and ice~~.

TAC: Mechanical

Total Mods for **Mechanical** in **Pending Review : 12**

Total Mods for report: 12

Sub Code: Residential

12

M10026

Date Submitted	02/01/2022	**Section**	2301.2.13	**Proponent**	T Stafford
Chapter	23	**Affects HVHZ**	No	**Attachments**	No
TAC Recommendation	Pending Review				
Commission Action	Pending Review				

Comments

General Comments No **Alternate Language No**

Related Modifications

Summary of Modification

This modification is one of a series of modifications that delete the seismic and snow requirements from the code. In accordance with Exception 2 to Section 101.2 of the FBCB, seismic and snow requirements are not to be utilized or enforced in the State of Florida.

Rationale

This modification is the culmination of a project funded by the Florida Building Commission through Building a Safer Florida (BASF) that the deletes the seismic and snow provisions from the Florida Building Codes. In accordance with Exception 2 to Section 101.2 of the Florida Building Code, Building, the seismic and snow provisions are exempted from the scope of the Florida Building Codes. Exception 2 to Section 101.2 states the following: "2. Code requirements that address snow loads and earthquake protection are pervasive; they are left in place but shall not be utilized or enforced because Florida has no snow load or earthquake threat." These modifications clarify and simplify the code by deleting requirements that do not apply in the State of Florida.

Fiscal Impact Statement

Impact to local entity relative to enforcement of code

No impact to local entities relative to enforcement of the code.

Impact to building and property owners relative to cost of compliance with code

No impact to building and property owners relative to cost of compliance with the code.

Impact to industry relative to the cost of compliance with code

No impact to industry relative to the cost of compliance with the code.

Impact to small business relative to the cost of compliance with code

Requirements

Has a reasonable and substantial connection with the health, safety, and welfare of the general public

Clarifies and simplifies the code by deleting requirements that do not apply in the State of Florida.

Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction

Improves the code by deleting requirements that do not apply in the State of Florida.

Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities

This proposal does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities.

Does not degrade the effectiveness of the code

This proposal does not degrade the effectiveness of the code.

Delete section in its entirety:

~~**M2301.2.13 Thermal storage unit seismic bracing.** In Seismic Design Categories D_0, D_1 and D_2 and in townhouses in Seismic Design Category C, thermal storage units shall be anchored in accordance with Section M1307.2.~~