



DCA10-DEC-247
FILING AND ACKNOWLEDGEMENT
FILED, on this date, with the designated
Clerk, receipt of which is hereby
acknowledged.

Paula P. Ford 11/24/10
Paula P. Ford Date
Commission Clerk

PETITION for DECLARATORY STATEMENT

Before the Florida Building Commission

Petitioner:

Timothy Graboski, Tim Graboski Roofing Inc.
151 NW 18 Avenue Delray Beach, Florida 33444
Phone: 561.276.8252 Facsimile: 561.276.6650

2009 supplement to the 2007 Florida Building Code, Chapter 15, Section 1504.3.1

In reviewing the test standards and code language for "Other Roof Systems" under section 1504.3.1, I would request a declaratory statement on the following concerns:

*Request for Clarification on the code mandate of testing for
"Structural Uplift Resistance Rating" for fully adhered roof systems,
specifically Roof Tile Underlayment system that incorporate the roof
tile attachment via Adhesive or Mortar applications.*

Section 1504.3 Wind resistnace of nonballasted roofs. Roof coverings installed on roofs in accordance with Section 1507 that are mechanically attached or adhered to the roof deck shall be designed to resist the design wind load pressures for cladding in Chapter 16.

1504.3.1 Other roof systems. Roof systems with built-up modified bitumen, fully adhered or mechanically attached single-ply through fastened metal panel roof systems, and other types of membrane roof coverings shall also be tested in accordance with FM 4450, FM 4470, UL 580, or UL 1897.



My concern is the test standards for product approvals associated with roof tile self-adhering underlayments have NOT addressed the adhesive abilities of the HYBRID product.

The CAP SHEET is now a Hybrid product - serving as the ADHESIVE and the Approved Cap Sheet (physical properties).

Currently the code is approving these HYBRID products based only on their physical properties testing (as if they are a standard CAP Sheet), without performing the evaluation for the ADHESIVE properties.

When using a Mechanically attached roof tile system, this does not present a concern.

However, when using a MORTAR or ADHESIVE set roof tile system, the entire roof assembly becomes dependent on the attachment and resistance ability of the Hybrid Cap Sheet.

Without a FORMAL TEST and "STRUCTURAL UPLIFT RATING" how do you determine if the roof system is capable of withstanding the design pressures?

The Department of Community Affairs issued a clarification to the Florida Building Commission (attached) instructing the necessity "Verification of Compliance with the Limitations of Use".

Respectfully Submitted,

Timothy Graboski
Tim Graboski Roofing Inc

23rd of November 2010

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Self Adhered Underlayment for Roof Tile

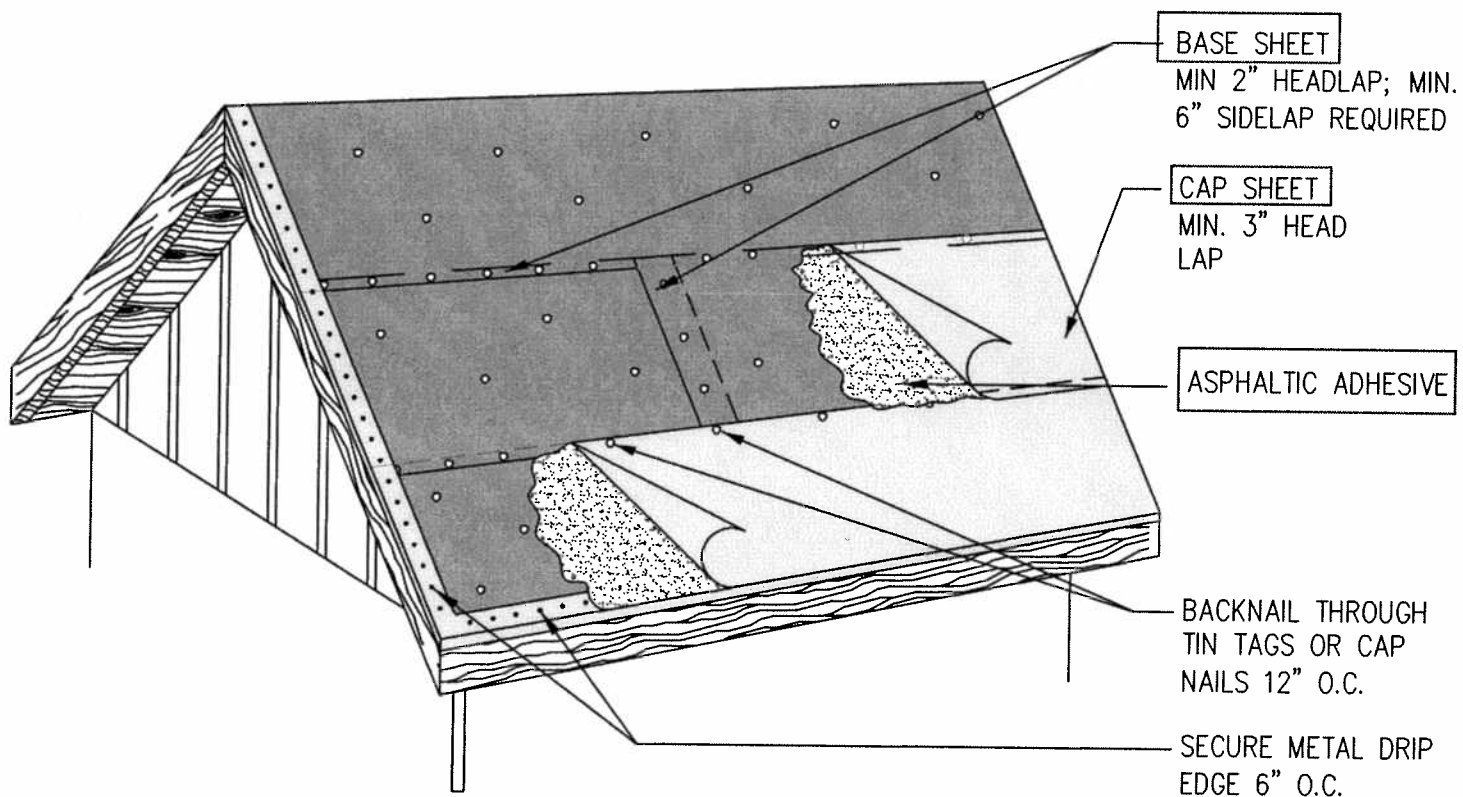
Hybrid Product Evaluation

Both Aspects of the product
should be considered &
formally tested for
compliance

UNDERLAYMENT APPLICATION - TWO PLY

(Hot Mop, Cold Applied)

FHW-02



2 Ply SEALED system

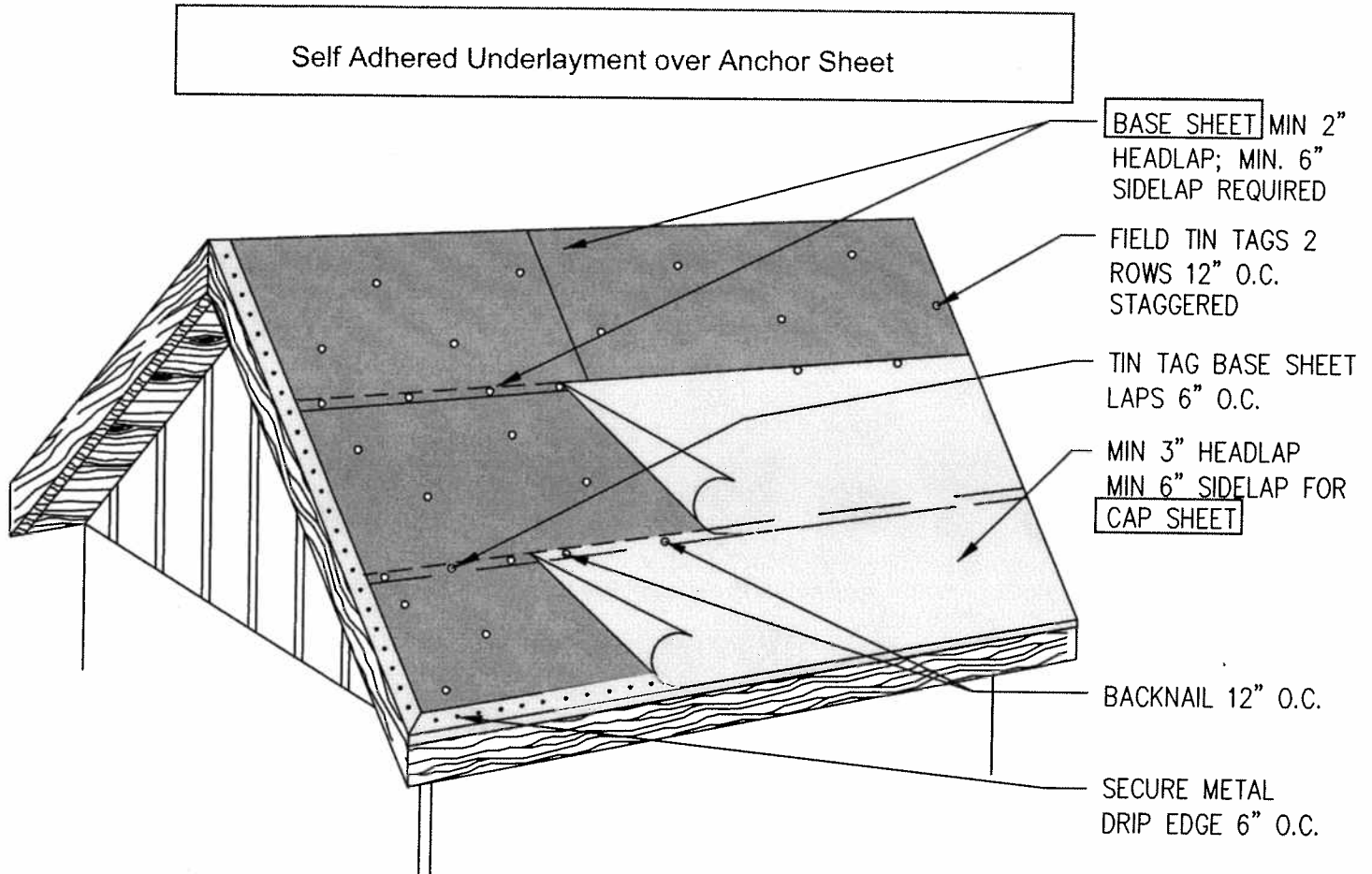
Approved ANCHOR sheet mechanically fastened to deck, Approved ADHESIVE used to adhere the Approved CAP SHEET to the Anchor sheet for a FULLY ADHERED SYSTEM.

Drawing shown depicts the application of all tile profiles. Unless otherwise noted it would apply to either concrete or clay tiles.

UNDERLAYMENT APPLICATION - TWO PLY

Self-Adhered

FHW-02B



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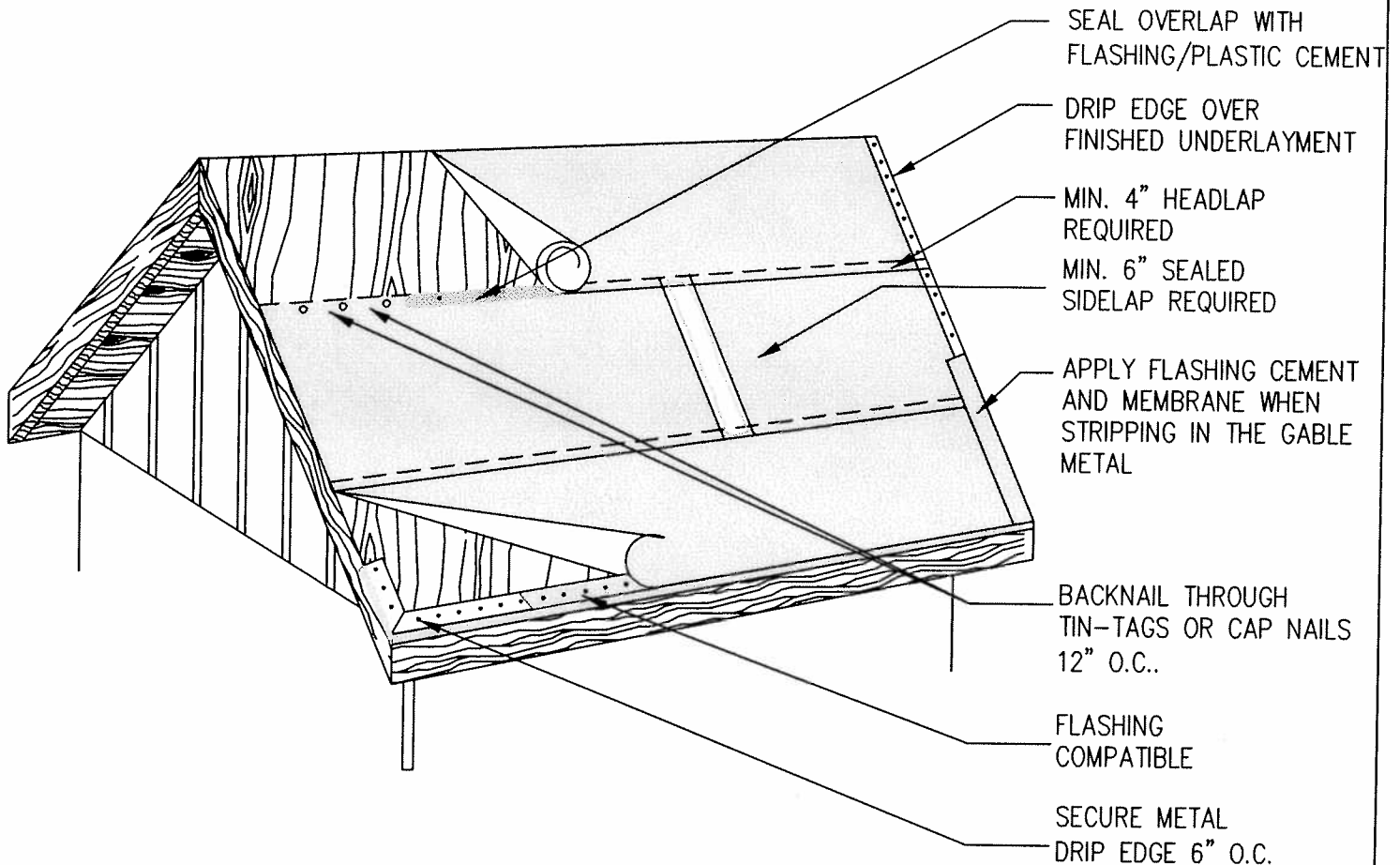
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SELF ADHERED - SINGLE PLY

FHW-02C

Self Adhered Underlayment DIRECT TO DECK



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STATE OF FLORIDA
DEPARTMENT OF COMMUNITY AFFAIRS

"Dedicated to making Florida a better place to call home"

JEB BUSH
Governor

CODE COMPLIANCE

THADDEUS L. COHEN, AIA
Secretary

STEP ONE: PRODUCT APPROVAL

STEP TWO: SITE SPECIFIC DESIGN

MEMORANDUM

EACH BUILDING

Florida Building Commission
Raul L. Rodriguez, AIA, Chairman

Date: December 6, 2006

Re: Acceptance of State Approved Products and Verification of Compliance with
"Limitations of Use"

Florida Statutes, section 553.842, govern local and state approval of building products directly related to the structural wind resistance of buildings. The law establishes specific methods for manufacturers to demonstrate compliance with the Florida Building Code but gives the manufacturer the option of obtaining either local or state approval. State approved products must be accepted by local jurisdictions within the limitations of use established by the state approval without requirement for further testing, evaluation or submission of evidence. (Florida Statute, section 553.842(4) Products or methods or systems of construction requiring approval under s. 553.77 must be approved by one of the methods established in subsection (5) before their use in construction in this state. Products may be approved by the commission for statewide use. Notwithstanding a local government's authority to amend the Florida Building Code as provided in this act, statewide approval shall preclude local jurisdictions from requiring further testing, evaluation, or submission of other evidence as a condition of using the product so long as the product is being used consistent with the conditions of its approval.) When a product is state approved the local jurisdiction's authority extends only to determining the product is being used within the conditions established by the approval.

* * (1)

Determination that a product complies with the Code is a two step process. The first step is performed one time and provides the basis for the second step which is repeated for each building. The first step is verification that a performance evaluation has been conducted according to the standards adopted by the Code or approved equivalent standards and by either a certification agency, test laboratory, evaluation entity or Florida registered Engineer or Architect as required by law. The second step is verification that the product selected and installed in a building meets the Code performance requirements for that specific building. The first step may be conducted by the local jurisdiction unless the manufacturer elects to obtain State approval in which case the performance rating and limitations of use provided in the State approval documentation must be accepted by local jurisdictions when conducting the second step. The second step is always conducted by the permitting jurisdiction. (Note: Local jurisdictions may only require additional testing, calculations or other additional demonstration of compliance for State approved products when determining whether to allow use of the product outside of the limitations of use established by the State approval.)

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1504.2 **Wind resistance of clay and concrete tile.** Clay and concrete tile roof coverings shall be connected to the roof deck in accordance with Chapter 16.

1504.3 **Wind resistance of nonballasted roofs.** Roof coverings installed on roofs in accordance with Section 1507 that are mechanically attached or adhered to the roof deck shall be designed to resist the design wind load pressures for cladding in Chapter 16.

1504.3.1 **Other roof systems.** Roof systems with built-up, modified bitumen, fully adhered or mechanically attached single-ply through fastened metal panel roof systems, and other types of membrane roof coverings shall also be tested in accordance with FM 4450, FM 4470, UL 580 or UL 1897.

1504.3.2 **Metal panel roof systems.** Metal panel roof systems through fastened or standing seam shall be tested in accordance with UL 580 or ASTM E 1592 or TAS 125.

Exception: Metal roofs constructed of cold-formed steel, where the roof deck acts as the roof covering and provides both weather protection and support for structural loads, shall be permitted to be designed and tested in accordance with the applicable referenced structural design standard in Section 2209.1.

1504.4 **Ballasted low-slope roof systems.** Ballasted low-slope (roof slope < 2:12) single-ply roof system coverings shall be designed ANSI/SPRI RP-4.

1504.5 **Edge securement for low-slope roofs.** Low-slope membrane roof systems metal edge securement, except gutters, shall be designed and installed for wind loads in accordance with Chapter 16 and tested for resistance in accordance with ANSI/SPRI ES-1 or RAS 111 except the basic wind speed shall be determined from Figure 1609.

1504.6 **Physical properties.** Roof coverings installed on low-slope roofs (roof slope < 2:12) in accordance with Section 1507 shall demonstrate physical integrity over the working life of the roof based upon 2,000 hours of exposure to accelerated weathering tests conducted in accordance with ASTM G 152, ASTM G 153, ASTM G 155 or ASTM G 154. Those roof coverings that are subject to cyclical flexural response due to wind loads shall not demonstrate any significant loss of tensile strength for unreinforced membranes or breaking strength for reinforced membranes when tested as herein required.

1504.7 **Impact resistance.** Roof coverings installed on low-slope roofs (roof slope < 2:12) in accordance with Section 1507 shall resist impact damage based on the results of tests conducted in accordance with ASTM D 3746, ASTM D 4272, CGSB 37-GP-52M or the "Resistance to Foot Traffic Test" in Section 5.5 of FM 4470. All structural metal roofing systems having a thickness equal to or greater than 22 gage and all nonstructural metal roof systems having a thickness equal to or greater than 26 gage shall be exempt from the tests listed above.

1504.8 **Gravel and stone.** Gravel or stone shall not be used on the roof of a building located in a hurricane-prone region as defined in Section 1609.2, or on any other building with a mean roof height exceeding that permitted by Table 1504.8 based on the exposure category and basic wind speed at the building site.

TABLE 1504.8 MAXIMUM ALLOWABLE MEAN ROOF HEIGHT PERMITTED FOR BUILDINGS WITH GRAVEL OR STONE ON THE ROOF IN AREAS OUTSIDE A HURRICANE-PRONE REGION

BASIC WIND SPEED FROM FIGURE 1609 (mph) ^b	MAXIMUM MEAN ROOF HEIGHT (ft) ^{a,c}		
	Exposure category		
	B	C	D
85	170	60	30
90	110	35	15
95	75	20	NP
100	55	15	NP
105	40	NP	NP
110	30	NP	NP
115	20	NP	NP
120	15	NP	NP

ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

1504.3.1 Other roof systems. Roof systems with built-up, modified bitumen, fully adhered or mechanically attached single-ply through fastened metal panel roof systems, and other types of membrane roof coverings shall also be tested in accordance with FM 4450, FM 4470, UL 580 or UL 1897.

1504.3.2 Metal panel roof systems. Metal panel roof systems through fastened or standing seam shall be tested in accordance with UL 580 or ASTM E 1592 or TAS 125.

Exception: Metal roofs constructed of cold-formed steel, where the roof deck acts as the roof covering and provides both weather protection and support for structural loads, shall be permitted to be designed and tested in accordance with the applicable referenced structural design standard in Section 2209.1.

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TABLE 1504.8
MAXIMUM ALLOWABLE MEAN ROOF HEIGHT PERMITTED FOR BUILDINGS WITH GRAVEL OR STONE ON THE ROOF IN AREAS OUTSIDE A HURRICANE-PRONE REGION

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	Exposure category		
	B	C	D
85	170	60	30
90	110	35	15
95	75	20	NP
100	55	15	NP
105	40	NP	NP
110	30	NP	NP
115	20	NP	NP
120	15	NP	NP
Greater than 120	NP	NP	NP

For SI: 1 foot = 304.8 mm; 1 mile per hour = 0.447 m/s.

a. Mean roof height in accordance with Section 1609.2.

b. For intermediate values of basic wind speed, the height associated with the next higher value of wind speed shall be used, or direct interpolation is permitted.

c. NP = gravel and stone not permitted for any roof height.

1504.9 Margin of safety. A margin of safety of 2:1 shall be applied to all wind uplift resistance test results except when a margin of safety is specified in the test standard.

Exception: Asphalt shingles testing resulting in a miles per hour rating as required in Section 1507.2.10.

SECTION 1505
FIRE CLASSIFICATION

1505.1 General. Roof assemblies shall be divided into the classes defined below. Class A, B and C roof assemblies and roof coverings required to be listed by this section shall be tested in accordance with ASTM E 108 or UL 790. In addition, fire-retardant-treated wood roof coverings shall be tested in accordance with ASTM D 2898. The minimum roof coverings installed on buildings shall comply with Table 1505.1 based on the type of construction of the building.

Exception: Skylights and sloped glazing that comply with Chapter 24 or Section 2610.

SELF ADHERED UNDERLAYMENT – STRUCTURAL UPLIFT RATING

Considerations for the TESTING of the adhesion for the following substrates:

1. Plywood Deck

- Primed
- Unprimed

2. OSB

3. Concrete – Primed

4. #30 Anchor Sheet