

Florida Roofing, Sheet Metal & Air Conditioning
Contractors Association, Inc.
P.O. Box 4850
Winter Park, FL 32793
Tel 407-671-3772
Fax 407-679-0010
www.floridarooof.com



NOVEMBER 19, 2013

Mr. Mo Madani

Florida Building Commission
Florida Department of Business and Professional Regulation
Building Codes and Standards Office
2555 Shumard Oak Blvd.
Tallahassee, Florida 32399

Dear Mr. Madani,

The FRSA's request for equivalency of standards for the Florida High Wind Concrete and Clay Tile Installation Manual, Fifth Edition has been submitted in an effort to regain compliance with the 2010 Florida Building Code (FBC) and consequently create uniformity in the design, installation and enforcement of roof tile systems in Florida. The FRSA/TRI Concrete and Clay Roof Tile Installation Manual, Fourth Edition currently referenced in the 2010 FBC, Building and Residential Volumes includes design tables that were developed using the pre 2007 FBC ASCE 7-02 standard while the 2010 Code referenced standard for wind load is ASCE 7-10. The ASCE-02 basic wind speed maps and Fourth Edition Tile Manual basic wind speed design tables range from 90 to 150 mph while the ASCE-2010 basic wind speed maps and the Fifth Edition Tile Manual basic wind speed design tables range from 120 to 190 mph*.

Additionally, the Fourth Edition Tile Manual provides for Exposure Categories B and C but omits Category D consistent with the 2007 FBC. However, in the 2010 FBC exposure D has been reestablished as a significant factor in design calculations for buildings within unobstructed areas and near to water surfaces. The Fifth Edition Tile Manual design tables include Exposure Categories B, C and D with basic wind speeds that range from 120 to 190 mph*.

Approving the equivalency request for the Fifth Edition Tile Manual, developed using ASCE 7-10, will eliminate these inconsistencies.

2010 Florida Building Code, Building

1609.4.2 Surface roughness categories.

Surface Roughness D. Flat, unobstructed areas and water surfaces. This category includes smooth mud flats, salt flats and unbroken ice.

1609.4.3 Exposure categories.

Exposure D. Exposure D shall apply where the ground surface roughness, as defined by Surface Roughness D, prevails in the upwind direction for a distance of at least 5,000 feet (1524 m) or 20 times the height of the building, whichever is greater. Exposure D shall extend inland from the shoreline for a distance of 600 feet (183 m) or 20 times the height of the building, whichever is greater from an Exposure D condition as defined in the previous sentence.

The fifth edition was reorganized removing redundant information and diagrams and merging the four systems into a user friendly matrix table. The simplified version reduced the size of the manual from 185 pages to 49.

*FRSA/TRI Florida High Wind Concrete and Clay Tile Installation Manual, Fifth Edition

Tables developed using ASCE 7-10 and include design pressures for Exposure Categories B, C, and D.

- (a) Table 1 - Allowable Uplift Resistance for Anchor Sheet Attachment (psf) Two-Ply Underlayment Fastening System. Page 13
- (b) Table 1A -Underlayment Table for Foam Adhesive and Mortar Set System and Hip and Ridge Design Pressures. Page 14
 - 1. Required Design Pressures for Category II Buildings having a 2:12 and Greater pitch per ASCE 7-2010 (psf) Page 14
- (c) Table 2A - Required Aerodynamic Uplift Moment for Field Tile, Ma (ft-lbf) For Roof Pitches 6:12 and Less. Page 15
- (d) Table 2B - Required Aerodynamic Uplift Moment for Field Tile, Ma (ft-lbf) For Roof Pitches Greater Than 6:12. Page 16
- (e) Table 3 - Mechanical Roof Tile Resistance Values (ft-lbf) For Field Tile. Page 17

Florida Administrative Code

61G20-3.015 Equivalence of Standard, section (5)(d) – See Ronald Ogawa, PE letter November 13, 2013

November 19, 2013

Regards,

A handwritten signature in black ink, appearing to read 'Mark Zehnal', written in a cursive style.

Mark Zehnal, CPRC, LEED AP BD+C

FRSA Director of Technical Services FRSA Director of Technical Services

FRSA, 4111 Metric Dr, Ste 6, Winter Park, FL 32792

407-671-3772 ext. 169

mark@floridarroof.com

www.floridarroof.com