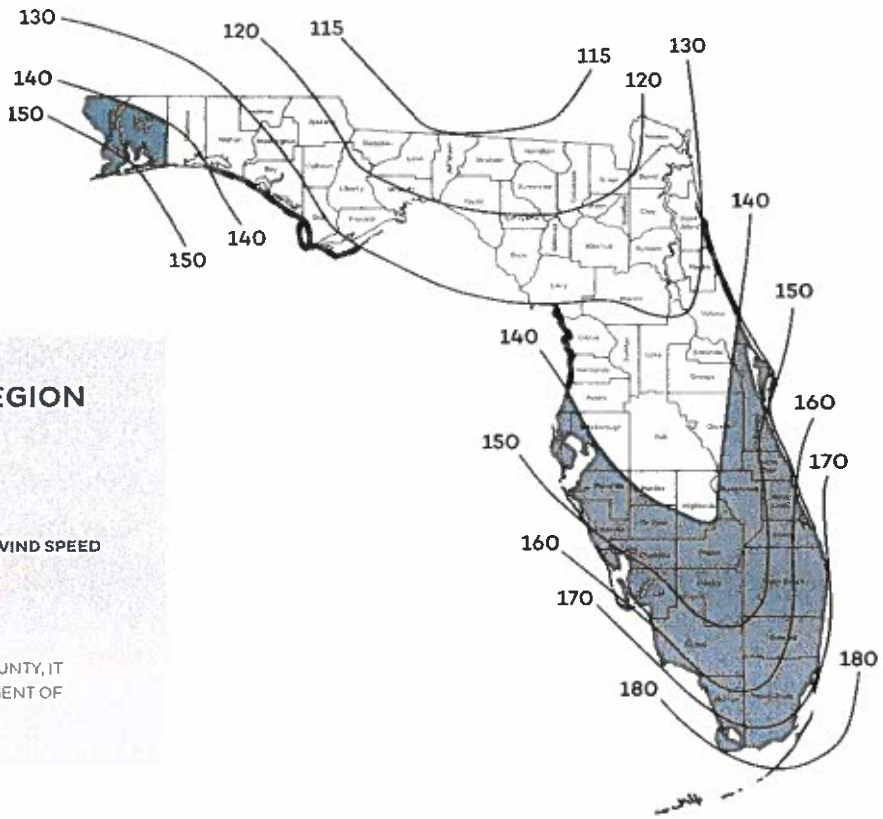
6TH EDITION • 2017

FLORIDA BUILDING CODE

ASCE 7-10 WIND ZONE MAP RISK CATEGORY II



WIND-BORNE DEBRIS REGION

Residential Section
Replacement or New Construction

DESIGNATED AREAS WHERE THE BASIC WIND SPEED IS 140 MPH OR GREATER

130 MPH AND WITHIN 1 MILE OF COAST

NOTE: THIS MAP IS ACCURATE TO THE COUNTY, IT IS NOT TO BE USED FOR PRECISE PLACEMENT OF CITIES NEAR ZONE BORDERS.

FAQs

IF I AM REPLACING WINDOWS OR DOORS IN A HOME OR A RESIDENTIAL CONDOMINIUM, DO THEY NEED INSULATED GLASS BEGINNING DECEMBER 31, 2017?
The code states that replacement windows and doors shall meet the requirements in Table R402.1.2. PGT offers a wide range of products that meet the requirements in Table R402.1.2; however, before you order, we strongly recommend that you talk to your local building official about his/her plans for enforcement of this code.

WHAT IF I AM ONLY CHANGING ONE WINDOW OR DOOR?
Section 402.3.3 of the code states that up to 15 square feet of glazed fenestration per dwelling unit shall be permitted to be exempt from the U-factor and SHGC requirements in Table R402.1.2.

DOES THIS CODE APPLY TO MIAMI DADE, BROWARD OR MONROE COUNTY?
Yes, this code applies to all Florida Counties.

WHAT ARE THE REQUIREMENTS FOR THE UNITS OF A CONDOMINIUM?
Condominium buildings with 3 stories or less are considered residential, and this code is applicable when replacing windows and doors in these types of structures. Condominium buildings with more than 3 stories are considered commercial, and should use the commercial provisions of the energy code when replacing windows and doors. Check with your local jurisdiction for specific requirements.

WHEN CAN I USE THE PERFORMANCE PATH?
This approach is commonly used for residential and commercial new construction projects, as well as major retrofits, where insulation and wall systems are being changed.

PROTECTING THE BUILDING ENVELOPE UNDER THE 6TH EDITION (2017) FLORIDA BUILDING CODE

The 6th Edition (2017) Florida Building Code went into effect December 31, 2017. As with previous editions, the 6th Edition (2017) separates building types by Risk Categories into three wind speed maps. This brochure will focus on Risk Category II Buildings which include residential dwellings.

REQUIREMENTS FOR PROTECTION OF BUILDING OPENINGS

- Specified on three different maps based on risk category.
- Defines and incorporates the High Velocity Hurricane Zone (HVHZ) consisting of Miami-Dade and Broward Counties.
- Defines areas of the state requiring wind-borne debris protection (see ASCE 7-10 wind map).
  - Areas within 1 mile of the mean high water line (the average between the high and low tide) where the wind speed is 130 mph or greater, or any location where the wind speed is 140 mph or greater.
- Defines wind-borne debris protection
  - Large-missile impact protection for all openings below 30 feet above grade.
  - Small-missile impact protection for openings from 30 feet above grade.

EXCEPTION - outside HVHZ only:

  - Glazing in Risk Category II building located over 60 feet above ground and over 30 feet above aggregate surface roofs located within 1,500 feet of the building shall be permitted to be unprotected.
- Includes a system with a valid product approval to the current code.

OPTIONS FOR MEETING THE REQUIREMENTS

OPTION 1: Plywood shutters may be used but they must be a minimum of 7/16-inch thick, precut with a code appropriate anchorage system permanently in place. They may not be used for openings exceeding a 44 inch span between lines of fasteners or a building mean roof height exceeding 33 feet. They cannot be used where wind speeds exceed 180 mph, Vult.

OPTION 2: Approved shutters (must be certified to meet either Miami-Dade protocols TAS 201, 202 and 203 or ASTM E1886 and E1996 impact tests) may be used except in HVHZ where only products tested to Miami-Dade protocols are permitted. Shutters may be of the roll-down, panel, accordion or other approved design type.

OPTION 3: Approved impact-resistant windows and doors (must be certified to meet either Miami-Dade TAS 201, 202 and 203 or ASTM E1886 and E1996 impact tests) may be used except in HVHZ where only products tested to Miami-Dade protocols are permitted.

INSTALLATION REQUIREMENTS FOR ALL WINDOWS AND DOORS

- When window buck (includes standard 1 x pressure treated buck) less than 1-½ inch thick is used, window attachment will require fastener penetration through the buck and into the substrate as recommended by the manufacturer.
- When window buck 1-½ inch thick or thicker is used, the buck must be attached in a manner that transfers the load directly to the substrate. Windows must be attached to the buck.
- The window buck must extend beyond the interior lip of the window to fully support the frame, unless otherwise tested.
- Window and door assemblies shall be anchored in accordance with the published or written manufacturer's recommendations to achieve the design pressure specified.
- When window mulling, mulls shall demonstrate transfer of the load to the substrate. Generally speaking, this means that mulls will require anchorage to the substrate at each end as well as calculations (AAMA 450 using accepted engineering practices) or test reports substantiating the type and quantity of anchors..
- Flashing at exterior window and door openings shall be installed in accordance with one or more of the following:
  - In accordance with FMA/AAMA 100, FMA/AAMA 200, or FMA/AAMA 250.
  - The flashing manufacturer's written installation instructions.
  - In accordance with the flashing method of a registered design professional.
  - The fenestration manufacturer's written installation instructions.

REQUIRED LABELING ON WINDOWS AND DOORS

- Exterior windows and glass doors shall be tested and approved by independent testing in a laboratory, and shall be labeled with an approved label identifying the manufacturer, performance characteristics and approved product certification agency, testing laboratory, evaluation entity or Miami-Dade Notice of Acceptance to indicate compliance with the requirements of one of the following specifications:
  - ANSI/ AAMA/ NWWDA 101/ I.S.2
  - TAS 202 (HVHZ shall comply with TAS 202)
  - ANSI/ AAMA/ WDMA/ 101/ I.S.2/ NAFS
  - AAMA/ WDMA/ CSA 101/ I.S.2/ A440
- Glass strength: Determination of load resistance of glass for specified loads of products not tested and certified in accordance with Section 1709.5.1 shall be designed to comply with ASTM E 1300 in accordance with Section 2403.
- Impact-resistant products may comply with ASTM E1886 and ASTM E1996 or Miami-Dade TAS 201, 202 and 203.

GLASS IDENTIFICATION

- Each pane shall bear the manufacturer's label designating the type and thickness of the glass or glazing material.

EXCEPTION:

- For other than tempered glazing materials or laminated materials, the identification shall not be omitted unless approved and an affidavit is furnished by the glazing contractor certifying that each light is glazed in accordance with approved construction documents that comply with the provisions of Chapters 17 and 24.

- Each pane of safety glazing installed in hazardous locations shall be identified by a label specifying the labeler, whether the manufacturer or installer, and the safety glazing standard with which it complies.
- The safety glazing label shall be acid etched, sandblasted, ceramic fired or an embossed mark, or shall be of a type that once applied cannot be removed without being destroyed.

EXCEPTIONS:

- For other than tempered glass, labels are not required, provided the building official approves the use of a certificate, affidavit or other evidence confirming compliance with this code.
- Tempered spandrel glass is permitted to be identified by the manufacturer with a removable paper label.

REQUIRED INFORMATION ON CONSTRUCTION DRAWINGS

- Ultimate design wind speed (Vult) and nominal design wind speed (Vasd) as determined in accordance with Section 1609.3.1
- Risk Category from Table 1604.5 or Table 1.5-1 of ASCE 7
- Wind exposure: Where more than one wind exposure is utilized, the wind exposure and applicable wind direction shall be indicated
- The applicable enclosure classifications and the internal pressure coefficient (if designing with ASCE 7)
- Components and cladding: The design wind pressures in terms of psf (kN/m2) to be used for the selection of exterior component cladding materials not specifically designed by the registered design professional

WHEN USING OR SPECIFYING WIND-BORNE DEBRIS PROTECTION, YOU SHOULD ASK TO SEE ONE OF THE FOLLOWING CERTIFICATIONS:

- ASTM E1886 and E1996
- FBC Test Protocols TAS 201 and 203 for shutters
- FBC Test Protocols TAS 201, 202 and 203 for impact-resistant windows
- Miami-Dade County Product Approval or NOA (Notice of Acceptance)
- Florida Building Commision approval showing compliance with one of the above
- Local product approval showing compliance with one of the above

FLORIDA BUILDING CODE FACTS

The first uniform state building code in Florida came into existence in 2002. It was written in 2001 as a result of the Florida Legislation responding to the need for more firm and regulated building codes after hurricane Andrew. Every 3 years, the codes are reviewed for updates from the most recent version of the International Codes. Although we do have a uniform state building code, you will discover that each municipality or jurisdiction may have their own special requirements. This happens because the original Florida Building Code, along with every subsequent version, allows for each municipality or jurisdiction to require greater than those minimum standards, but does not allow for less. As a result, we recommend that the appropriate building department be contacted first to clarify any building code questions and requirements.

HOW PRODUCTS ARE APPROVED

Statewide approval of products or revisions to existing statewide product approvals requires evaluation of product compliance with the Code by a method listed in Rule 61G20-3.005, F.A.C., validation of the evaluation as required by Rule 61G20-3.006, F.A.C., and approval per Rule 61G20-3.007, F.A.C. Validation of compliance with the Codes shall be performed by approved Validation Entities. Final approval shall be issued by the Commision. All products used in construction covered by the Code shall comply with the provisions or standards contained therein or with the intent of the Code. Approval by the Commision for statewide use shall be limited to the following categories of products:

- Panel Walls
- Exterior Doors
- Roofing Products
- Skylights
- Windows
- Shutters
- Structural Components
- Products comprising a building's envelope introduced as a result of new technology
- Impact Protective Systems

FLORIDA PRODUCT APPROVAL went into effect 10/1/2003. To view approved products visit FloridaBuilding.org. Click on Product Approval and then Find a Product or Application.

ENERGY CONSERVATION CODE - RESIDENTIAL WINDOWS AND DOORS

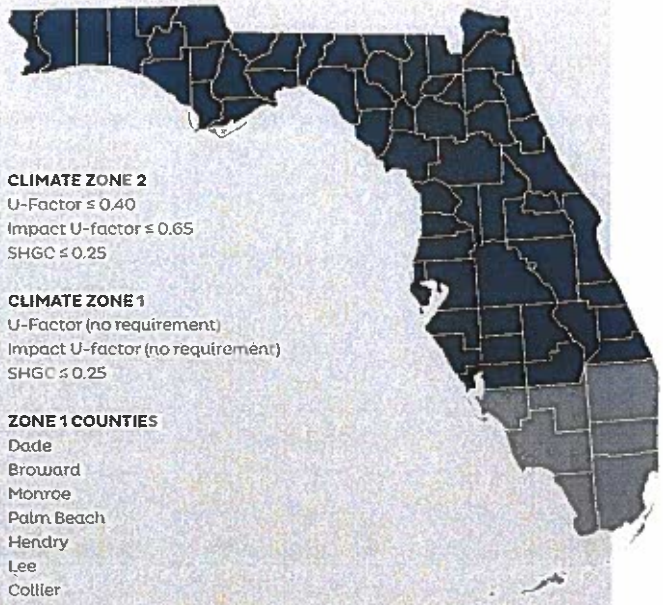
REPLACEMENT USING THE PRESCRIPTIVE PATH:
For renovation that includes replacing windows or doors, the code states that new windows and doors shall meet the requirements of Table R402.1.2. Details from Table R402.1.2 are shown in the image below. There also exists a Florida Statute that defines a renovation as construction that exceeds 30% of the assessed value of property. Per this statute, projects with a scope of work not exceeding this value may not be required to meet the values below.

Enforcement and interpretation is always up to the local building official. To avoid conflict and ensure a level playing field, always talk with your local building official about his/her plans for enforcement of this code.

NEW CONSTRUCTION, ADDITIONS AND OTHER RETROFITS USING THE PERFORMANCE PATH:
The performance path uses computer programs for whole building simulation. This approach can allow higher U-factors for both commercial and residential buildings through use of trade-offs. For example, a designer may choose to add additional wall insulation and raise the U-factor of the windows.

FLORIDA BUILDING CODE 6TH EDITION (2017)

Residential Section
Replacement or New Construction

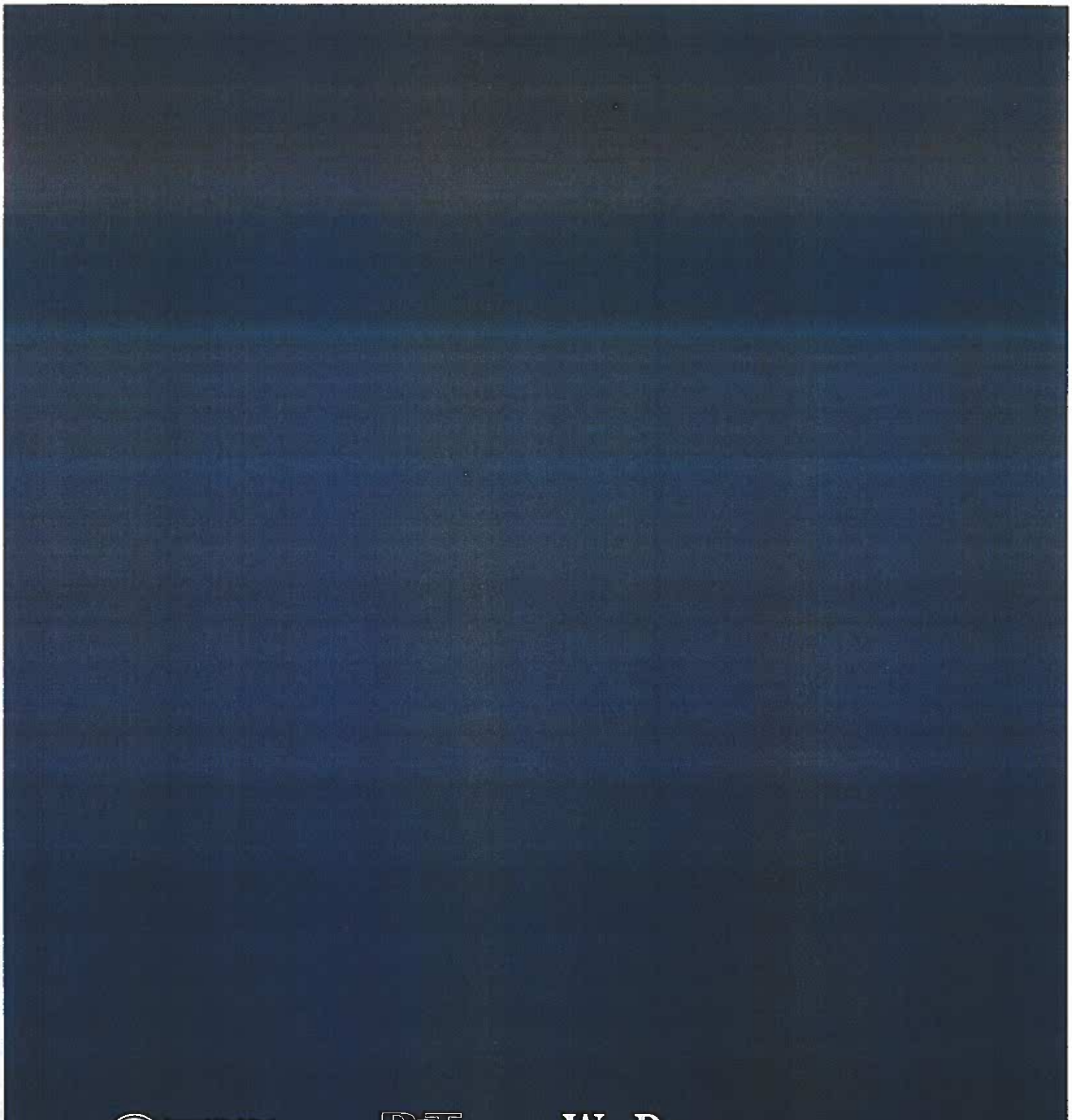


CLIMATE ZONE 2
U-Factor ≤ 0.40
Impact U-factor ≤ 0.65
SHGC ≤ 0.25

CLIMATE ZONE 1
U-Factor (no requirement)
Impact U-factor (no requirement)
SHGC ≤ 0.25

ZONE 1 COUNTIES
Dade
Broward
Monroe
Palm Beach
Hendry
Lee
Collier

ZONE 2
ZONE 1



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