



INDIAN RIVER COUNTY BUILDING DEPARTMENT

Prior to completing application, applicant should review the re-roof permit checklist that documents all additional requirements of the re-roof/repair permit application.

Section # 1: Administrative documentation for clarification of location, Owners, Contractors and Design Professionals involved in Re-roof project.

Section # 2: Values of roof and structure documentation.

Section # 3: Documentation required to verify compliance with FBC Existing, Section 706.1.1 if project is a repair. Roof slope, existing roof covering and new material indicated in this section.

Section #4: Wind speed criteria and components and cladding roof zones per ASCE 7-16. See pages 2-5 of this document for reference on determining exposure category and wind speed from an aerial view of subject property and surrounding area. Reference pages 6-8 for applicable pressures based on type of roof, roof slope and roof height. The charts provided differentiate between Exposure Categories and 1 and 2 story structures. It is important to note that structures that have differing roof heights on the 1st and 2nd story would still use the 2 story pressures. This section must be completed for tile, metal and low slope roof coverings. This section is not required for asphalt shingles, wood shingles or wood shakes. Multiple roof types and slopes will require completion of the applicable areas of this section.

Section #5: Re-nailing of roof sheathing indicated in this section as required by FBC Existing, Section 706.7.1.2 and criteria for allowance of a re-cover roof in Indian River County.

Section #6: Underlayment requirements per FBCB, Section 1507.1.1 and FBCR, Section 905.1.1. See attached completed sample.

Section #7: Roof covering information for Shingle and Tile roofs. Indicate manufacturer and brand. If tile, indicate tile fastening proposed per Florida Product Approval or Miami Dade NOA. See attached completed sample.

Section # 8: Roof covering information for Metal roofs. Indicate type of metal and manufacturer. Provide metal fastening proposed per Florida Product Approval or Miami Dade NOA. Indicate if lap sealant is required. See attached completed sample.

Section # 9: Roof covering information for Low Slope roofing. Provide low slope roof covering attachment per System Number of the Florida Product Approval or Miami Dade NOA. System Number must be included in this section.

Section # 10: Applicants affirmation with owner's signature, contractor's signature and notary. Owner's signature required unless a signed copy of the contract is provided from the contractor.

Section # 11: Product Approval Affidavit to be completed by owner or contractor. All products to be installed under this permit shall have the current Florida Product Approval Numbers or Miami Dade NOA information at the time of permit application.

Section # 12: Component and cladding pressure chart for Gable and Flat roofs with slopes from 0 to 1 ½:12 pitch. Information to be used to complete section 4 (page 1) of the application.

Section # 13: Component and cladding pressure chart for Gable roofs with slopes from >1 ½:12 to 12:12 pitch. Information to be used to complete section 4 (page 1) of the application.

Section # 14: Component and cladding pressure chart for Hip roofs with slopes from >1 ½:12 to 12:12 pitch. Information to be used to complete section 4 (page 1) of the application.

Section #15: Roof Diagram required for all roof permits. Roof repairs will require dimensions and square footage of applicable repaired area to verify compliance with FBC Existing, Section 706.1.1.



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R301.2.1.4 Exposure category.

For each wind direction considered, an exposure category that adequately reflects the characteristics of ground surface irregularities shall be determined for the site at which the building or structure is to be constructed. For a site located in the transition zone between categories, the category resulting in the largest wind forces shall apply. Account shall be taken of variations in ground surface roughness that arise from natural topography and vegetation as well as from constructed features. For a site where multiple detached one- and two-family *dwelling*s, *townhouses* or other structures are to be constructed as part of a subdivision or master-planned community, or are otherwise designated as a developed area by the authority having jurisdiction, the exposure category for an individual structure shall be based upon the site conditions that will exist at the time when all adjacent structures on the site have been constructed, provided that their construction is expected to begin within one year of the start of construction for the structure for which the exposure category is determined.

Exception: An intermediate exposure between the exposure categories defined is permitted in a transition zone provided that it is determined by a rational analysis method.

R301.2.1.4.1 Wind directions and sectors.

For each selected wind direction at which the wind loads are to be evaluated, the exposure of the building or structure shall be determined for the two upwind sectors extending 45 degrees (0.79 rad) either side of the selected wind direction. The exposures in these two sectors shall be determined in accordance with Sections R301.2.1.4.2 and R301.2.1.4.3 and the exposure resulting in the highest wind loads shall be used to represent winds from that direction.

R301.2.1.4.2 Surface roughness categories.

A ground surface roughness within each 45-degree (0.79 rad) sector shall be determined for a distance upwind of the site as defined in Section R301.2.1.4.3 from the categories defined below, for the purpose of assigning an exposure category as defined in Section R301.2.1.4.3.

- **Surface Roughness B.** Urban and suburban areas, wooded areas or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger.
- **Surface Roughness C.** Open terrain with scattered obstructions having heights generally less than 30 feet (9144 mm). This category includes flat open country and grasslands. This Surface Roughness shall also apply to any building located within Surface Roughness B-type terrain where the building is within 100 feet (30.5 m) horizontally in any direction of open areas of Surface Roughness C- or D-type terrain that extends more than 600 feet (182.9 m) and width greater than 150 feet (45.7 m) in the upwind direction.
- **Surface Roughness D.** Flat, unobstructed areas and water surfaces. This category includes smooth mud flats, salt flats and unbroken ice.

R301.2.1.4.3 Exposure categories.

An exposure category shall be determined in accordance with the following:

- **Exposure B.** For buildings with a mean roof height of less than or equal to 30 feet (9144 mm), Exposure B shall apply where the ground surface roughness, as defined by Surface Roughness B, prevails in the upwind direction for a distance of at least 1,500 feet (457 m). For buildings with a mean roof height greater than 30 feet (9144 mm), Exposure B shall apply where Surface Roughness B prevails in the upwind direction for a distance of at least 2,600 feet (792 m) or 20 times the height of the building, whichever is greater.
- **Exposure C.** Exposure C shall apply for all cases where Exposures B or D do not apply.
- **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 also apply where the ground surface roughness immediately upwind of the site is B or C, and the site is within a distance of 600 feet (183 m) or 20 times the building height, whichever is greater, from an Exposure D condition as defined in the previous sentence.

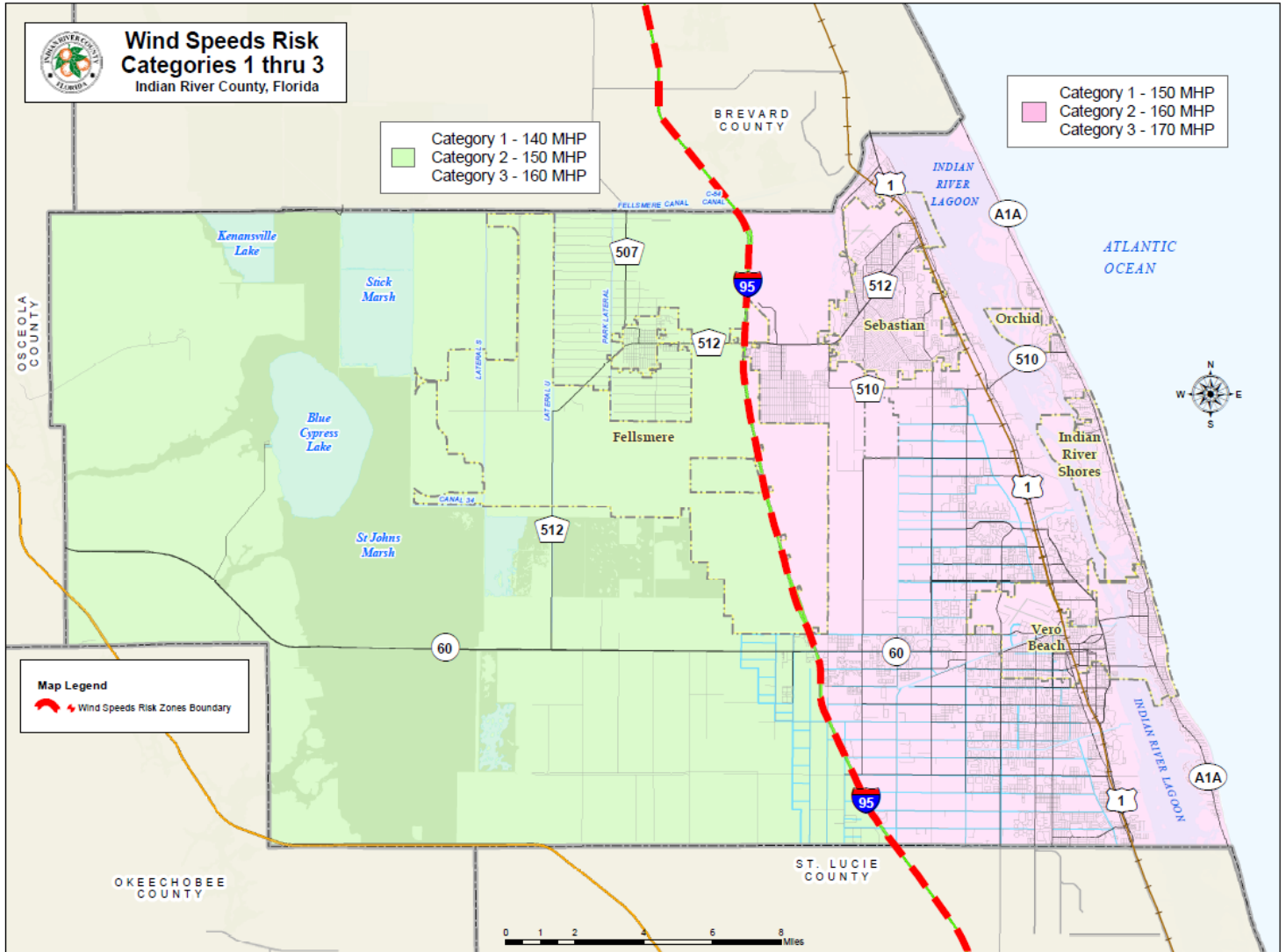


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TABLE 1604.5
RISK CATEGORY OF BUILDINGS AND OTHER STRUCTURES

RISK CATEGORY	NATURE OF OCCUPANCY
I	<p>Buildings and other structures that represent a low hazard to human life in the event of failure, including but not limited to:</p> <ul style="list-style-type: none"> •Agricultural facilities. •Certain temporary facilities. •Minor storage facilities. •Screen enclosures.
II	Buildings and other structures except those listed in Risk Categories I, III and IV.
III	<p>Buildings and other structures that represent a substantial hazard to human life in the event of failure, including but not limited to:</p> <ul style="list-style-type: none"> •Buildings and other structures whose primary occupancy is public assembly with an occupant load greater than 300. •Buildings and other structures containing Group E occupancies with an occupant load greater than 250. •Buildings and other structures containing educational occupancies for students above the 12th grade with an occupant load greater than 500. •Group I-2 occupancies with an occupant load of 50 or more resident care recipients but not having surgery or emergency treatment facilities. •Group I-3 occupancies. •Any other occupancy with an occupant load greater than 5,000.^a •Power-generating stations, water treatment facilities for potable water, wastewater treatment facilities and other public utility facilities not included in Risk Category IV. •Buildings and other structures not included in Risk Category IV containing quantities of toxic or explosive materials that: <ul style="list-style-type: none"> ◦ Exceed maximum allowable quantities per control area as given in Table 307.1(1) or 307.1(2) or per outdoor control area in accordance with the Florida Fire Prevention Code; and ◦ Are sufficient to pose a threat to the public if released.^b
IV	<p>Buildings and other structures designated as essential facilities, including but not limited to:</p> <ul style="list-style-type: none"> •Group I-2 occupancies having surgery or emergency treatment facilities. •Fire, rescue, ambulance and police stations and emergency vehicle garages. •Designated earthquake, hurricane or other emergency shelters. •Designated emergency preparedness, communications and operations centers and other facilities required for emergency response. •Power-generating stations and other public utility facilities required as emergency backup facilities for Risk Category IV structures. •Buildings and other structures containing quantities of highly toxic materials that: <ul style="list-style-type: none"> ◦ Exceed maximum allowable quantities per control area as given in Table 307.1(2) or per outdoor control area in accordance with the Florida Fire Prevention Code; and ◦ Are sufficient to pose a threat to the public if released.^b •Aviation control towers, air traffic control centers and emergency aircraft hangars. •Buildings and other structures having critical national defense functions. •Water storage facilities and pump structures required to maintain water pressure for fire suppression.

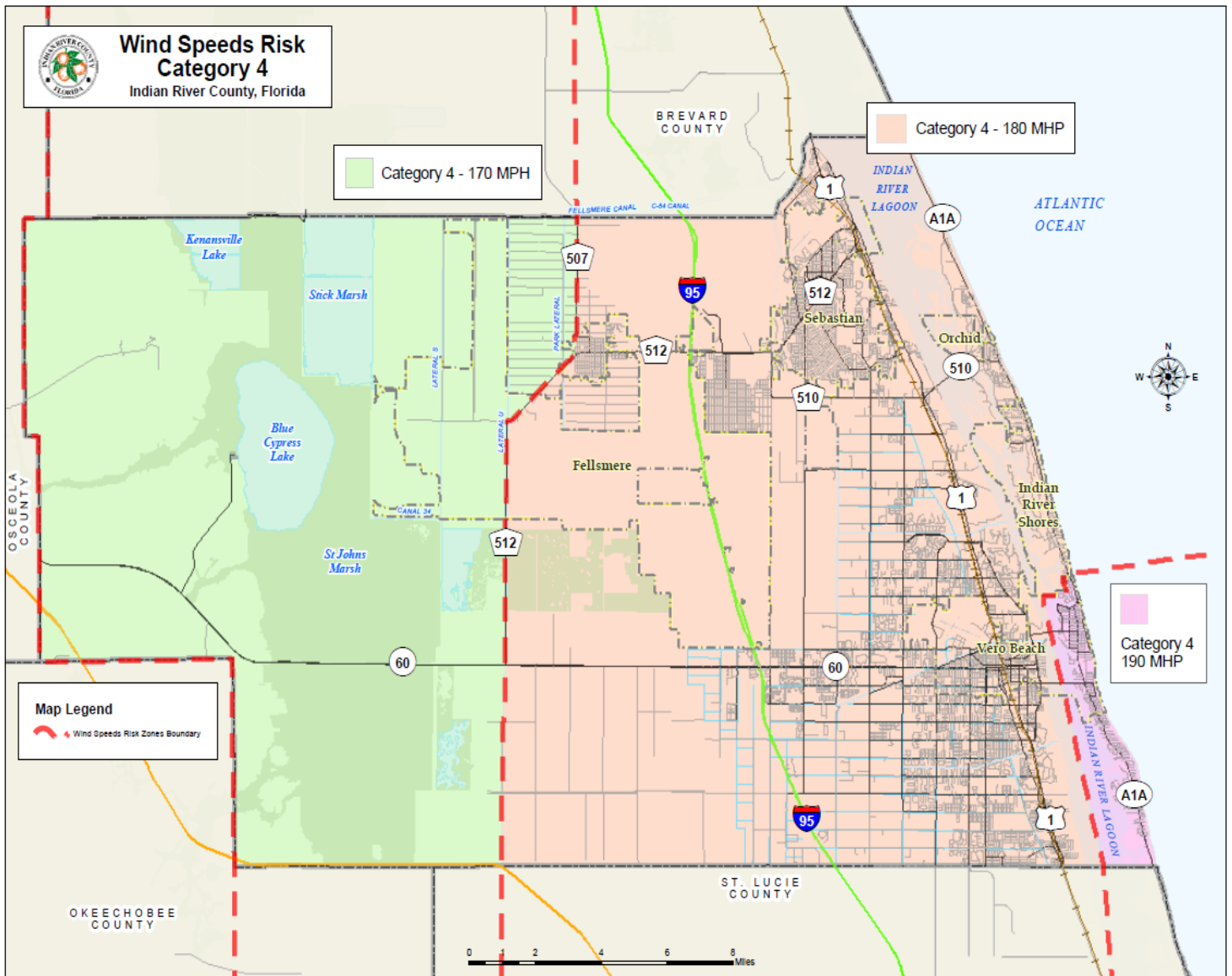


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RCGIS (KM) - 04/27/2020