News Your Customer Can Use

John Curtin Home Inspector LLC <u>What is a Wind Mitigation Report?</u> 561-406-3013

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What is a wind mitigation report?

The State of Florida and insurance companies have created a form to determine how well your home will resist a hurricane. <u>The Mitigation Report</u> reviews 7 points on your home related to hurricane forces. They are: The building code under which the home was constructed, The type and age of roof covering, How the roof deck is attached to the trusses, How the trusses are attached to the walls, The geometry of the roof, If a secondary water resistance layer is present, and What type of hurricane protection is used on your windows and doors. Depending on your degree of protection you may be eligible for a discount on your insurance.

Do I need a wind mitigation report?

In approximately 2010 the Wind Mitigation Report was initiated and it has gone through 3 modifications until its present form. At first it was not always required but over time they have become mandatory for most homes. With Palm Beach and Martin county being right above the HVHZ (*High Velocity Hurricane Zone*) insurance companies will most likely request a wind mitigation report.

Who can perform this type of inspection?

A licensed home inspector that has passed an State of Florida approved Wind Mitigation Training and Certification Course can perform a wind mitigation inspection and fill out the report.

What does the inspector look for?

- 1. <u>Building Code</u>: The inspector will look up the original building permit for the house to see when it was constructed. A building permit application date of March 1, 2002 or later will receive a credit.
- 2. <u>Roof Covering</u>: The type of roof covering will be documented. Typical coverings include; asphalt shingle, concrete or clay tile, metal, etc.... A roof permit application date of March 1, 2002 or after will be eligible to receive an insurance credit.
- <u>Roof Deck Attachment</u>: Pictures will be taken to document the nailing pattern and type of nails used to secure the roof decking to the trusses. The nailing pattern is determined using a Zircom MT6 metal detector and the length of the nail is determined by a observing a "shiner" nail protruding from a truss. 2" nails installed 6 inches on center is preferred and will receive the greatest credit



At www.JCHomeInspector.com you can find information about our inspection process, a Sample Report, information on How Your Home is Built, Mold, Termites, Radon, Lead in your home, Hurricane preparation, community information and much more. 4. <u>Roof to Wall Attachment:</u> The roof truss to wall attachment will be documented with pictures. Single wrapped straps with proper nailing will receive the greatest credit with clips receiving a lesser credit.



Single Wraps: A strap that wraps the top of the truss and has a minimum of 2 nails on one side and 1 nail on the other side



Clips: A strap that does not wrap the top of the truss or a metal plate that has a minimum of 3 nails securing it to the truss.



Toe Nails: A roof connection that does not meet the minimum requirements for a Wrap or a Clip.

5. <u>Roof Geometry:</u> The preferred roof design is called a "Hip roof". On a hip roof all of the roof surfaces slope upwards from the fascias with no vertical ends (gables) or large flat areas.





Non hip roof features include gable ends and large flat areas.



6. <u>Secondary Water Resistance Layer:</u> The SWR layer is applied when the roof is built and is a 36" wide self-adhering polymer-modified bitumen roofing underlayment or 6 inch strips that are self adhered to the roof to keep water from entering between the decking seams. SWR's are rarely installed and can not be physically viewed so instillation documentation needs to be provided.

7. <u>Opening protection</u>: The type of opening protections for your glazed and non glazed openings (windows and doors) is indicated here. The level of protection is determined by the lowest level of window protection on the home. A single unprotected opening voids consideration of all other installed protective systems. Miami Dade rated protection will receive the greatest credit.



The different levels are 9 lb Large missile Impact, 4-8lb Large missile Impact, Verified plywood attached according to Table 1609.12 of the Florida Building Code, Or other protection that looks like the above but have no discernible markings proving such.

Different types of opening protection are. Corrugated Metal shutter, Accordion Shutter, Impact rated windows, and Roll Down Shutters, etc.....

Qualifying markings or labels are observed to determine the level of protection offered. They will be observed on qualifying shutters, impact windows and garage doors.

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Basic Wind Inspection Requirements and Pitfalls

At first glance, an improved area of a home may *appear* to be in compliance with mitigation improvements. However, there may be minor discrepancies that may reverse *any* insurance discount credits for a major upgrade and costly improvement investment. The standards listed below will receive the greatest credits. Some lesser compliance may receive lesser credits. (Regional variances can apply so this discussion will pertain to homes built in Palm Beach and Martin Counties only.)

Here's an important "heads-up"; Many insurance companies are performing random follow up inspections due to several inspectors unknowingly sighting, or being asked to, "push the limits" of what is acceptable. Inspectors who knowingly submit falsified reports can lose their license and are liable for prosecution. Home owners who suffer losses may have their claims nullified if their inspection reports are in error. The State of Florida is asking inspectors to report Realtors, and home owners who ask them, to falsify Wind Inspection Reports so they can be prosecuted.

1) <u>Building Code:</u> Insurance companies are looking for homes which were built under the 2001 Florida Building Code (FBC 2001) or later. This building code was adopted on March 1, 2001. If the home was built close to this time, the date the building permit was issued will have to be determined. Some homes that were issued a C.O. (Certificate of Occupancy) for final completion up to a year or two later may have had their original building permit issued under the FBC 2001 and be in compliance.

If a municipal building department has not kept proper records or municipalities have merged, the original building permits may not be locatable. This can result in a home, that was known to have been built under compliance, failing to receive proper credits because its age cannot be determined. This serves to emphasize the importance of homeowners keeping copies of all permits and important documents.

2) <u>Roof Covering</u>: The type of roof covering is not of concern, but its installation will have to have been allowed after March 1, 2002 to be in compliance. Installation after this date will ensure compliance because the installation techniques and the material manufacturing requirements will have been met. Some roofing materials were manufactured before the FBC 2001 was adopted. It is possible to have a roof installed earlier than March 2001 comply, but determining this is can be very difficult and require costly research.

ALL roof coverings, including small areas of a flat roof installed over enclosed patios, (living space,) need to be in compliance or else NO credits may apply. Covered patio roofs that anchor *under* the top of a home's main roof do not need to be considered. However, a patio roof which anchors directly TO a main roof does. It may blow away in a storm causing leaks and damages to the main roof, thus the home.

3) <u>Roof Deck Attachment</u>: The method of attaching the roofing sheathing (plywood or planking) was upgraded with the FBC 2001. Again the date the roofing permit was issued is the date of record as opposed to the date the roof was completed. The inspector will determine that the roofing sheathing (plywood) is a minimum of 7/16" thick or is 3/4" wood planking in older roofs. The plywood will be nailed to the trusses/rafters with 2" long (8 penny) "common" nails. The nails will be installed no greater than 6" apart along all roofs trusses/rafters. Other systems of attachment (screws, etc...) may comply but are rarely seen. The roof trusses / rafters will be a maximum of 24" apart from each other.

The inspector will use a tool called an MT-6 to locate the placement of nails which are embedded in the truss/rafter. He shall mark their location on the truss and photograph them for the report. Two sections of truss/rafter a minimum of 4' long will be documented. The inspector will also locate a minimum of 1 exposed nail (shiner) to determine its length with a ruler and document it. Finally the inspector will determine the thickness of the roof decking by documenting (photograph) a stamp visible on the plywood or inserting a measuring device (ruler) between the pieces of decking to document its thickness.

4) <u>Roof to Wall Attachment</u>: All roof trusses or rafters will be secured to the wall with a metal strap manufactured for this purpose. The strap will wrap over the top of the truss and have (2) nails installed on its main side and (1) nail on its overwrapping side. Any gap between the strap and truss/ rafter shall be minimal. Even one roof truss/rafter that is not properly secured could void or down grade the attachment credit. A strap which does not meet the required nailing pattern will be considered an attaching "clip". The credit given for clips is not significantly less than properly installed straps. Retrofitting may prove more expensive than any potential savings. Trusses/rafters which are only nailed to the top of a wood wall in a wood frame home will receive no credit.

Different securing standards apply to multi-story concrete structures such as condominiums. The method of attachment will be photographed and included in the report.

5) <u>Roof Geometry</u>: The ideal roof will have all of its roofed surfaces slope down to the homes fascia, where the gutter is typically attached, with no "other" roof features. This will add up to more than 10% of the roof's total perimeter. Small roof features such as, covered entry overhangs, dormers on a main roof, small areas of side walls above the main roof, flat enclosed rear patios, and other features can add up to negate what appears to be a hip roof design. A bird's eye view of the structure (from above, outlining the covered roof area) will be included in the report. The perimeter wall lengths will be dimensioned and the total perimeter length will be documented.

6) <u>Secondary Water Resistance (SWR)</u>: Until recently SWR's were rarely installed. Self adhering 6" wide rubberized strips applied over plywood seams or 36" wide full sheet modified bitumen applied directly to the entire roof decking, manufactured for this purpose, will be considered as a SWR. After installation SWR's cannot be visually seen in an inspection. Documentation from its installation would have to be provided.

7) <u>Opening Protection</u>: All glazed openings; fixed or operable windows, glass block, hinged doors with windows, sliding doors, and garage doors; with or without windows, hinged doors without glass, and sky-lights, all need to meet specific impact standards.

Some home owners will have expensive shutter systems installed but fail to cover an entry door which has a 4"x 6" viewing window, or they may upgrade a skylight. This small unprotected opening will make all other protection null and void when considering insurance discounts.

Many homes which were built-in the 1990's appear to have complete window and door protection but the glass block at that time, did not need to be covered at the time of inspection. To obtain insurance credits shutters need to be installed over the glass block.

Many shutter systems may appear to qualify, but if the inspector cannot locate documentation indicating the shutters comply with FBC 2001 standards, insurance companies may not issue credits. Qualifying documents that can be considered are; specific etchings on impact rated windows and doors, stickers, stamps or engravings on shutter systems, installation, manufactures, and permitting documents.

Plywood panels that are installed to specific specifications may qualify, however, the limitations of the panel size, and the attaching standards, make it very difficult for them to comply. Some corrugated panel shutters that appear to comply may not have acceptable fastening systems. Older "clam shell" type shutters do not qualify for even a minimal discount.

Garage doors can present specific problems. Unless a compliance sticker is noted on the door, or documentation is provided, it may be impossible to determine with certainty that the door meets FBC 2001 standards.

Gable end attic vents do not need to be covered.

There are specific requirements as to how all of these points of inspecting should be photographed and documented in the report.

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A Brief History of Florida's Wind Mitigation Insurance Program

In March of 2002 the concept of issuing "<u>Wind Mitigation Insurance Credits</u>" was first floated by the Florida Legislature. Its purpose was to allow home owners, who made hurricane strengthening improvements to their homes to receive insurance discounts, as opposed to similar homes without any improvements.

In 2006 the State of Florida created the "<u>My Safe Florida Home Program</u>". Its purpose was to define and fund home improvements which would make existing homes better able to withstand hurricane damage. The program would provide home owners with free home inspections to identify weaknesses and provide grants to make improvements. In June of 2006 the program was abandoned due to a lack of funding.

From 2002 to 2007 a number of varying forms and improvement requirements were used by insurance companies to determine what discounts would be provided to eligible home owners. In July of 2007 the first "<u>Uniform Wind Mitigation Inspection Form</u>" was adopted by the State of Florida. The form has been revised three times and the current format with its requirements was adopted in January of 2012. Some changes included dropping any discounts for CBS as opposed to frame homes and adding upgraded protection needs for skylights, glass block windows and garage doors.

The home's features that will be reviewed to establish insurance credits include: the home's age to determine applicable building code, roof shape and age, nailing pattern of roof sheathing to the rafters or trusses, anchoring of roof rafters or trusses to the home's walls, storm protection for all windows doors and skylights and finally, secondary water resistance added under the roof material (this is rarely seen).

The rate of discount for "complying" or improving an area is agreed upon by the insurance companies and the State. The percent of insurance fee discounts for multiple features may not add up to the sum of credits for individual features in "compliance". Some features will gain greater credits than others. The year the home was built, the age of the roof, it's anchoring to the structure, and the degree of storm protection for "glazed openings" will gain the most credits. A copy of the <u>Wind Mitigation Inspection Report</u> can be Goggled by typing:

FL Wind Report or http://www.floir.com/siteDocuments/OIR-B1-1802eff02012012.pdf