Windborne Debris Protection

**Code:** 2006 Residential Code  
**Section:** R301.2.1.2  
**Date:** November 30, 2007

**Question:**
Is windborne debris protection required for windows, doors and glazing in exterior walls of coastal dwellings?

**Answer:**
Yes. See illustrations on next page for requirements.

**Question:**
For an existing dwelling, are windows that are replaced required to be protected?

**Answer:**
Yes, the windows that are replaced must comply with the current code requirements. However, existing windows that are not being altered or replaced may remain as installed originally as permitted.

**Question:**
If the dwelling is added to, such as a sunroom, bathroom, bedroom, etc, it is required to bring the whole building up to code?

**Answer:**
No, the new addition must comply with the current code requirements. The unaffected existing portion of the building may remain as-is, assuming it complied with the code under which it was originally built.
WOOD STRUCTURAL PANEL FASTENER SCHEDULE

| FASTENER TYPE | PANEL SPAN ≤4'-0" | 4'-0"≤ PANEL SPAN ≤6'-0" | 6'-0"≤ PANEL SPAN ≤8'-0"
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<thead>
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<tbody>
<tr>
<td>#6 WOOD SCREWS</td>
<td>16&quot; O.C.</td>
<td>12&quot; O.C.</td>
<td>9&quot; O.C.</td>
</tr>
<tr>
<td>#8 WOOD SCREWS</td>
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FASTENER NOTES:

A. THIS TABLE IS BASED ON 130 MPH MAXIMUM WIND SPEED (3 SEC. GUST) AND A 35 FOOT MEAN ROOF HEIGHT OR LESS.

B. FASTENERS SHALL BE INSTALLED AT OPPOSING ENDS OF THE WOOD STRUCTURAL PANEL. FASTENERS SHALL BE LOCATED A MINIMUM OF 1/4" FROM THE PANEL EDGE. SPECIFIED FASTENERS ARE MINIMUM. PRACTICAL CONSIDERATIONS MAY DICATE ADDITIONAL FASTENERS.

C. FASTENERS SHALL BE LONG ENOUGH TO PENETRATE THROUGH THE EXTERIOR WALL COVERING A MINIMUM OF 1.75" INTO THE WOOD WALL FRAMING, A MINIMUM OF 1/2" INTO CONCRETE BLOCK OR CONCRETE OR INTO STEEL FRAMING BY AT LEAST THREE THREADS. FASTENERS SHALL BE LOCATED A MINIMUM OF 2.0" FROM THE EDGE OF CONCRETE BLOCK OR CONCRETE.

D. WHERE SCREWS ARE ATTACHED TO MASONRY OR MASONRY/STUCCO, THEY SHALL BE ATTACHED UTILIZING VIBRATION-RESISTANT ANCHORS HAVING A MINIMUM ULTIMATE WITHDRAWAL CAPACITY OF 400 LBS.

ALTERNATES TO IMPACT RESISTANT GLAZING:

1. DESIGN THE BUILDING AS A PARTIALLY ENCLOSED BUILDING IN ACCORDANCE WITH THE NORTH CAROLINA STATE BUILDING CODE.

2. PROVIDE STORM SHUTTERS EVALUATED BY THE ICC-ES. INSTALL THE SHUTTERS IN ACCORDANCE WITH THE EVALUATION REPORT AND THE MANUFACTURER'S INSTRUCTIONS.
WOOD STRUCTURAL PANEL FASTENER SCHEDULE

<table>
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<tr>
<th>FASTENER TYPE</th>
<th>PANEL SPAN 5'-0&quot;</th>
<th>4'-0&quot;&lt; PANEL SPAN 5'-0&quot;</th>
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FASTENER NOTES:

A. THIS TABLE IS BASED ON 130 MPH MAXIMUM WIND SPEED (3 SEC. GUST) AND A 35 FOOT MEAN ROOF HEIGHT OR LESS.

B. FASTENERS SHALL BE INSTALLED AT OPPOSING ENDS OF THE WOOD STRUCTURAL PANEL. FASTENERS SHALL BE LOCATED A MINIMUM OF 3/4" FROM THE PANEL EDGE. SPECIFIED FASTENERS ARE MINIMUM PRACTICAL CONSIDERATIONS MAY Dictate ADDITIONAL FASTENERS.

C. FASTENERS SHALL BE LONG ENOUGH TO PENETRATE THROUGH THE EXTERIOR WALL, COVERING A MINIMUM OF 1/2" INTO THE WOOD WALL FRAMING, A MINIMUM OF 1/2" INTO CONCRETE BLOCK OR CONCRETE OR INTO STEEL FRAMING BY AT LEAST THREE THREADS. FASTENERS SHALL BE LOCATED A MINIMUM OF 2 1/2" FROM THE EDGE OF CONCRETE BLOCK OR CONCRETE.

D. WHERE SCREWS ARE ATTACHED TO MASONRY OR MASONRY/STUCCO, THEY SHALL BE ATTACHED UTILIZING VIBRATION-RESISTANT ANCHORS HAVING A MINIMUM ULTIMATE WITHDRAWAL CAPACITY OF 480 LBS.

ALTERNATE TO IMPACT RESISTANT GLAZING:

1. DESIGN THE BUILDING AS A PARTIALLY ENCLOSED BUILDING IN ACCORDANCE WITH THE NORTH CAROLINA STATE BUILDING CODE.

2. PROVIDE STORM SHUTTERS EVALUATED BY THE ICC-ES. INSTALL THE SHUTTERS IN ACCORDANCE WITH THE EVALUATION REPORT AND THE MANUFACTURER'S INSTRUCTIONS.

NC DEPT OF INSURANCE
322 CHAPANOE ROAD, STE 200
RALEIGH, NC 27603-3400
(919) 661-5880
www.ncdoi.com/OSFM

WIND BORNE DEBRIS PROTECTION
2006 NC RESIDENTIAL CODE
CODE SECTION R301.2.12

ONE OR TWO STORY BUILDING ON PILES

DATE 10/01/07
DWG NO. 3
SCALE 1/8"=1'-0"
REV N/A
ATTIC STORY:
ANY STORY SITUATED WHOLLY OR PARTLY IN THE ROOF, SO DESIGNATED, ARRANGED, OR BUILT AS TO BE USED FOR STORAGE OR HABITATION. IF AN ATTIC THAT IS ACCESSIBLE BY A FIXED STAIRWAY HAS A SEVEN FOOT CLEAR HEIGHT GREATER THAN 50% OF THE FLOOR AREA OF THE STORY BELOW, THEN THE SPACE SHALL BE CONSIDERED AS A STORY.

IMPACT RESISTANT GLAZING ANY FLOOR ABOVE SECOND FLOOR

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WIND BORNE DEBRIS PROTECTION
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TWO AND A HALF OR 3 STORY BUILDING

DATE
10/01/07

DWG NO.
2

SCALE
1/8"=1'-0"

REV
N/A
WOOD STRUCTURAL PANEL FASTENER SCHEDULE

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<tr>
<td>#6 WOOD SCREWS</td>
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FASTENER NOTES:

A. THIS TABLE IS BASED ON 130 MPH MAXIMUM WIND SPEED (4 SEC. GUST) AND A 33 FOOT MEAN ROOF HEIGHT OR LESS.

B. FASTENERS SHALL BE INSTALLED AT OPPOSING ENDS OF THE WOOD STRUCTURAL PANEL. FASTENERS SHALL BE LOCATED A MINIMUM OF 4" FROM THE PANEL EDGE SPECIFIED. PRACTICAL CONSIDERATIONS MAY DICTATE ADDITIONAL FASTENERS.

C. FASTENERS SHALL BE LONG ENOUGH TO PENETRATE THROUGH THE EXTERIOR WALL COVERING A MINIMUM OF 2 1/2" INTO THE WOOD WALL FRAMING, A MINIMUM OF 1 1/2" INTO CONCRETE BLOCK OR CONCRETE, OR INTO STEEL FRAMING BY AT LEAST THREE THREADS. FASTENERS SHALL BE LOCATED A MINIMUM OF 2 1/2" FROM THE EDGE OF CONCRETE BLOCK OR CONCRETE.

D. WHERE SCREWS ARE ATTACHED TO MASONRY OR STUCCO, THEY SHALL BE ATTACHED UTILIZING VIBRATION-RESISTANT ANCHORS HAVING A MINIMUM ULTIMATE WITHDRAWAL CAPACITY OF 400 LBS.

ALTERNATES TO IMPACT RESISTANT GLAZING:

1. DESIGN THE BUILDING AS A PARTIALLY ENCLOSED BUILDING IN ACCORDANCE WITH THE NORTH CAROLINA STATE BUILDING CODE.

2. PROVIDE STORM SHUTTERS EVALUATED BY THE ICC-ES. INSTALL THE SHUTTERS IN ACCORDANCE WITH THE EVALUATION REPORT AND THE MANUFACTURER’S INSTRUCTIONS.

ATTIC STORY:
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IMPACT RESISTANT GLAZING ANY FLOOR ABOVE SECOND FLOOR

TWO AND A HALF OR 3 STORY BUILDING ON PILES

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