

Technical Bulletin 10-002

Roof sheathing fasteners for wood structural panels

The 2009 Supplements to the 2007 Residential Florida Building Code implemented minimum criteria for wood structural panel sheathing fasteners to roof framing. Below are the requirements per code section R803.2.3.1.

R803.2.3.1 Sheathing fastenings. Wood structural panel sheathing shall be fastened to roof framing with 8d ring-shank nails at 6 inches on center at edges and 6 inches on center at intermediate framing. Ring-shank nails shall have the following minimum dimensions:

1. 0.113 inch nominal shank diameter
2. Ring diameter of 0.012 over shank diameter
3. 16 to 20 rings per inch
4. 0.280 inch full round head diameter
5. 2 inch nail length

Where roof framing with a specific gravity, $0.42 \leq G < 0.49$ is used, spacing of ring-shank fasteners shall be 4 inches on center in nailing zone 3 for 130 mph or greater design wind speeds in accordance with Figure R803.2.3.1.

Exceptions:

1. Where roof framing with a specific gravity, $0.42 \leq G < 0.49$ is used, spacing of ring-shank fasteners shall be permitted at 12 inches on center at intermediate framing in nailing zone 1 for any design wind speed and in nailing zone 2 for 110 mph or lower design wind speeds in accordance with Figure R803.2.3.1.
2. Where roof framing with a specific gravity, $G \geq 0.49$ is used, spacing of ring-shank fasteners shall be permitted at 12 inches on center at intermediate framing in nailing zone 1 for any design wind speed and in nailing zone 2 for 120 mph or lower design wind speeds in accordance with Figure R803.2.3.1.
3. Where roof framing with a specific gravity, $G \geq 0.49$ is used, 8d common or 8d hot dipped galvanized box nails at 6 inches on center at edges and 6 inches on center at intermediate framing shall be permitted for 100 mph or lower design wind speeds in accordance with Figure R803.2.3.1.
4. Where roof diaphragm requirements necessitate a closer fastener spacing.

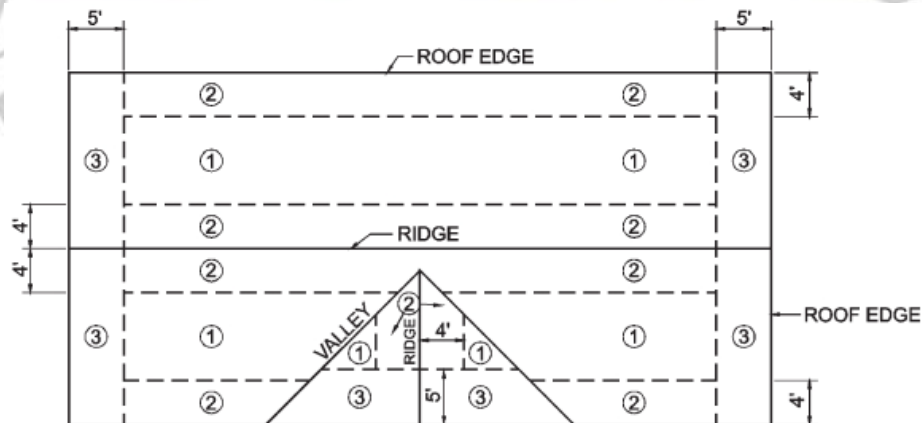


FIGURE R803.2.3.1 ROOF SHEATHING NAILING ZONES

Reference: International Code Council 2007 Florida Building Code: Residential (First Printing), includes 2009 Supplement: http://ecodes.citation.com/cgi-exe/cpage.dll?pg=x&rp=indx/ST/fl/st/b400v07/st_fl_st_b400v07_8.htm&sid=2010011511241495524&aph=0&cid=iccf&uid=icsc0418&clrA=005596&clrV=005596&clrX=005596&ref=/nonindx/ST/fl/st/b400v07/index.htm#b=R803.

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