

AUG  
2021

# Building Bulletin

## ROOF FRAMING TO TOP PLATE CONNECTIONS

In response to the July 15<sup>th</sup>, 2021 tornado in Barrie, the Building Department is reminding all builders of the nailing requirements in the Ontario Building Code with respect to roof to exterior wall connections.

The Ontario Building Code provides several paths to compliance with respect to attaching roof framing (including trusses) to walls. The prescriptive requirement solution discussed in this bulletin, is one of those options. For reference, the other paths to compliance as specified in 9.4.1.1.(1)(b) and (c) are to design in accordance to good engineering practice such as provided in the CWC “Engineering Guide for Wood Frame Construction” or design to Part 4 of the Ontario Building Code.

The prescriptive requirements referred to in 9.4.1.1(1)(a) specify the following:

- Each top plate connection requires a minimum of 3 nails, 82 mm in length (Table 9.23.3.4.)
- Nails shall be a minimum of 3.66 mm in diameter (Table 9.23.3.1.)
- Common steel wire nails or common spiral nails must conform to ASTM F1667 or CSA B111 (9.23.3.1.(1))

Where nails other than those specified above are used, equivalent strength connections shall be provided. This should be determined by a registered professional structural engineer. Guidance on using nail diameters, other than those specified in the prescriptive requirements of the Ontario Building Code, can be found in the Appendix to the National Building Code of Canada in A-9.23.3.1.(2).

Michael Janotta, P.Eng., CBCO  
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