# STRUCTURAL BUILDING COMPONENTS MAGAZINE June 2002

## Frequently Asked Questions

### Perceived Truss Problems in New Construction by Rachel Smith

There are many "new construction" problems like movement of wood framing, settling, drywall cracks, and exterior and interior finishes showing imperfections. Many times truss manufacturers can get embroiled in the owner's quest to find a responsible party.

Partition separation, sometimes called ceiling floor partition separation, is one of the most common dissatisfactions that relate back to truss installations. It is important to understand, however, that trusses have been identified as the cause of the problem in only about 20 percent of the reported cases. WTCA has addressed this particular issue in its Truss Technology in Building brochure "Partition Separation."

Some other situations that have come through WTCA's technical department lately in which trusses have been wrongfully accused are discussed in the next two questions and answers.

#### **QUESTION:**

We supplied roof trusses to a residential project over a year ago. The homeowner is now complaining of unsightly ridges appearing in the roofing at regular intervals and is blaming the trusses. We have investigated the complaint and don't agree with this assessment. Do you have any ideas what can be the cause of this?

#### ANSWER:

Telegraphing of sheathing joints through the shingles is a common problem when the edges of the sheathing swell due to high moisture environments or when the sheathing is installed without leaving expansion gaps between panels. APA, the Engineered Wood Association (<a href="www.apawood.org">www.apawood.org</a>), publishes a technical note titled "Buckling of Wood Structural Panel Sheathing D481" and lists recommendations to avoid this problem such as using metal clips to create 1/8" gaps between panels.

#### **QUESTION:**

I was recently called back to a roof truss job that we supplied 16 months ago. The homeowners were noticing black streaks on the drywall ceiling under all the roof truss bottom chords and at the wall studs. The streaks had darker spots coinciding with the drywall screws. We thought it might be a mold problem and checked for poor attic ventilation and high lumber moisture content, but all were okay. The house is on a hill with the trees cleared so that it gets ample

sunlight. The house has gas heat and a gas fireplace. The homeowner had about a half dozen candles burning when I was there. I started coughing when I entered the house and didn't stop until about 20 minutes after I left. I have never encountered anything like this before. I recommended they call their county health department. Do you have any other suggestions?

#### **ANSWER:**

You are correct that this could be a potential health problem that has nothing to do with the framing. The Canadian Mortgage and Housing Corporation (<a href="www.cmhc.ca">www.cmhc.ca</a>) has this to say on the subject of streaking, staining or sooting problems, "These problems seem to be more prevalent in new homes but older homes are also affected. Most building scientists agree that the source of the black material causing the stains is most often carbon soot from a combustion source. Potential combustion sources in houses include furnaces, fireplaces, water heaters, gas dryers, gas ranges, smoking, vehicle exhaust from attached garages, and candle burning. Although homeowners are often skeptical of candle burning being a prominent source of soot, literature on the topic suggests it is the likely culprit in many cases."

The National Association of Home Builders Research Center (<a href="www.nahbrc.org">www.nahbrc.org</a>) also has a brochure on wall and carpet discoloration that discusses ways of reducing this type of discoloration such as eliminating sources of combustion products—smoking, burning candles, solid fuel burning appliances, dust producing activities, and running of automobiles in attached garages. Also, CMHC recommends a high efficiency filter on the furnace or an electrostatic precipitator to reduce staining and improve air quality.

To pose a question for this column, email us at <u>faq@woodtruss.com</u>. To view other questions visit the <u>WTCA website</u>.

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