



Building Department Newsletter

October 2008

Special points of interest:

- Prescriptive Residential Deck Construction Guide
- Nail Sizes are Changing!
- What's in a SWPPP?

The primary causes for collapse are:

- * **deficient connections between the deck ledger and the band joist and related decay**
- * **deficient guardrail systems and related decay and corrosion of fasteners**

Prescriptive Residential Deck Construction Guide

Over the past decade there have been numerous reports of deck, balcony and porch failures. Except for hurricanes and tornadoes, more injuries may be attributed to deck failures than all other wood building components. You only need to do a web search on "deck collapse" to find that this is a critical concern in the residential construction industry.

The primary purpose of this newsletter article is to provide the builder with information that may be considered and utilized when submitting plans to the building department for review. Some of the common questions that arise when reviewing submitted deck drawings are (footing depth, post or column size, ledger attachment type, size and spacing, along with beam and joist sizing).

The Prescriptive Residential Deck Construction Guide published by American Forest & Paper Association is based on the 2006 International Residential Code. Some or all of the

information provided can be used for your deck review submittal. This document can be downloaded from the internet by doing a search for prescriptive residential deck construction or www.awc.org/Publications/DCA/DCA6/DCA6.pdf

**Remember to use appropriate fasteners for pressure-preservative treated wood that comply with ASTM A 153 for hot-dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper.



Pawleys Island deck collapse

Nail Sizes are Changing!

The building code has been using nail sizes based on the penny system. The penny system is an old English system dating back to the 1400s where the price of purchase for a hundred nails was dictated by the size of the nail. Even though the price of the nails has changed over the centuries the penny designation for nail sizes has remained somewhat in place.

The modern manufacture of cut nails, box nails, common nails, and pneumatic nails has resulted in nails with the same penny designation having different diameters and lengths. Nail diameter and length specifications have now been inserted in IRC Table 602.3(1) *Fastener Schedule for Structural Members*. For example, the face nailing of top plates requires 3" x .128" nails 24" on center (oc). It should be noted that the top

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The City of Pullman will attempt to provide a local training opportunity for erosion control this winter.

Stay tuned for more details.

Questions or comments can be directed to Rob Buchert at (509) 338-3314 or email

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What’s in a SWPPP?

On or before February 2010, the City of Pullman will begin requiring submission of a **Stormwater Pollution Prevention Plan (SWPPP)** prior to issuance of a grading or building permit for construction projects. A SWPPP is currently required by WA State Dept. of Ecology for all construction projects that are one acre or larger in size or part of a common plan of development (lots within a subdivision). A SWPPP that meets Ecology’s approval will also meet City approval so there will be no need to create two plans. Erosion control plans will still be required by the City for projects less than one acre.

The SWPPP has 12 elements that need to be addressed. The next few newsletters will take a look at the 12 elements and hopefully provide information to help both you and the City stay in compliance with our State stormwater permits.

SWPPP Element #1: Preserve Vegetation & Mark Clearing Limits

The Permit Says: Prior to beginning land disturbing activities, including clearing and grading, clearly mark all clearing limits, sensitive areas and their buffers, and trees

that are to be preserved within the construction area. The duff layer, native top soil, and natural vegetation shall be retained in an undisturbed state to the maximum degree practicable.

In Pullman: Marking clearing limits is a normal function of the job, so this seems to be a “no-brainer”. Sensitive areas such as wetlands and waterways need to be protected with silt fence or some other physical barrier. As far as protecting trees, I’ve seen a few bull thistles that would qualify, but most new construction takes place in a wheat field. When preparing a site for construction, the preferred method would be to only clear and grade the portion of the site that will be worked on in the immediate future. When possible, keep the wheat stubble, top soil and/or grass undisturbed until ready to build. This is in line with the City of Pullman’s Design Standards which currently reads, “Where possible, natural vegetation will be maintained for silt control”.

The Bottom Line: The less ground that gets disturbed before or during the wet season, the less erosion will occur.

Nail Sizes are Changing ! (continued from page 1)

plate 24” offset of end joints requires the use of eight nails 3.5” x .135” at the lapped area.

Table R602.3(2) has also been revised to increase the length and decrease the spacing of alternate attachments (staples, screw shank nails, ring shank nails and other specialty nails). For example, 19/32” roof or wall sheathing attached with staples must use 15 or 16 gauge staples that are at least 2” in length, with a maximum edge spacing

of 4” oc. and spaced no more than 8” oc. at intermediate supports.

The ICC Evaluation Service (www.icc-es.org) has evaluation reports showing alternate nailing applications using specific brand name power driven staples and nails. If the intent is to use a nailing schedule other than as shown in the IRC or IBC then the table should be submitted on the plan and a copy of the evaluation report provided with plan submittal.

