



A quarterly newsletter for homebuilders and contractors

Spring 2006

## HBA to sponsor March 2 code forum

The Home Builders Association is sponsoring a free forum on one- and two-family structural code issues, 4-7 p.m., Thursday, March 2, at the State Office Building, 800 N.E. Oregon St., Room 120C, Portland.

Qualified participants may receive three hours of code-related credit from BCD, three hours of HSW credit from AIA or a certificate for three HSW hours, three hours of Master Builder continuing education credit, or three hours of home inspector continuing education credit from CCB.

The purpose of the forum is to discuss regional code applications and reach consensus on standards for the tri-county region. All area contractors, remodelers, architects, and building-department personnel are invited.

### Agenda

- Code updates
- Interpretations and alternate rulings
- Rowhoused and townhomes
- Open forum

## Q&A from September 21 code forum

**Q Deck question: what if you come across a deck that is 28 inches above grade? While one does not need a permit for a deck that is 30 inches or less above grade, must the deck still meet code requirements? If you install a rail, must it be to code even if it is constructed on a legally unpermitted deck?**

**A** Section R105.2 of the Oregon Residential Specialty Code (ORSC) states that a permit is not required for items that are listed as exempt from permits. Exemption from the permit shall not be deemed to grant an authorization for any work to be done in violation of the provisions of the code or any other laws. While the code section requires code conformance, building departments have no authority to regulate an exempted deck.

**Q The question has once again arisen as to whether we need to require galvanized plate washers on pressure-treated wood used as a foundation sill plate. This issue has been tossed around for years and I need clarification and the ability to issue a final consensus opinion to our customers. I am wondering if plate washers would not require specific protection, as this location is dry and therefore would not support corrosion of untreated washers. I would back this up with the following verbiage from the commentary, "Except for large steel bolts, all fasteners used in conjunction with pressure-treated wood must be corrosion resistant. Some chemicals used to pressure-treat or fire-retardant-treat wood may have a corrosive effect on fasteners when installed in locations that are high in moisture." I would use this to support my contention that sill plate washers specifically would not need to be galvanized, etc. as they are in an inherently dry location.**

**A** The issue of moisture driving the requirement for corrosion-resistant fasteners is secondary to the

treatments being used in new, preservative-treated products. Copper is highly corrosive to all standard steel products. The code clearly requires that all fasteners (except 1/2-inch and larger bolts) be corrosion resistant when in contact with pressure preservative treated material.

**Q The second, somewhat parallel, issue is, are 3/16-by-2-by-2-inch plate washers required on one- and two-family dwellings? There is a specific exception to R602.11.1 that exempts detached one- and two-family in Seismic Design Category D. In other than detached one- and two-family dwellings — townhouses, rowhouses, and apartments, for example — such plate washers would be required.**

**A** This exception is an existing Oregon amendment in which plate washers are not required for detached one- or two-family homes in Seismic Category D1 (in the previous code Seismic Zone 3). There was a typo when D was printed in place of D1. (You will find this in the code errata posted at [bcd.oregon.gov](http://bcd.oregon.gov).)

**Q Given living spaces under a roof structure, when does one consider the building to be two stories for the purpose of determining the required percentage of prescriptive wall bracing for the lower floor? In particular, at what height of a knee wall at the exterior wall line does the living space become considered a second floor, if it is not considered such when the roof framing begins at the floor line or on a lower knee wall?**

**A** The code does not specify the maximum or minimum heights for a story. There are some special considerations for a foundation cripple wall for two heights of studs (i.e., 14 inches and 4 feet.) In the absence of a code provision regarding knee walls, the knee wall at the upper floor needs to be considered

Continued . . .

Clackamas  
Multnomah  
Washington  
COUNTIES

Tri-County Service  
Center is a regional  
office of the Oregon  
Building Codes Division.

### Building Codes Division

Mark Long..... administrator  
Web site .. [www.oregonbcd.org](http://www.oregonbcd.org)

Joan Stevens-Schwenger  
..... manager  
E-mail ..... [Joanie.M.  
Stevens-Schwenger@state.or.us](mailto:Joanie.M.Stevens-Schwenger@state.or.us)





Clackamas  
Multnomah  
Washington  
COUNTIES

## News Site

2006  
Residential  
Code Forums

New location!

State Office Bldg.  
800 N.E. Oregon St.,  
Room 120C  
Portland  
March 2  
Dec. 5

Tri-County Service Center  
123 NE 3rd Ave., Ste. 440  
Portland, OR 97232-2901

Permits Protect  
Protecting the Safety  
& Value of Your Home  
www.permitsprotect.info

as an additional story for the purposes of establishing the percentage of wall bracing requirements for the lower-story wall. Anything else we try to establish here would constitute a code change that needs to go through its own process. (BCD is taking this up at the state level as a code change proposal.)

**Q Do I need one-hour protection of a second-story roof overhang from the underside when it is 2 feet from the property line? If so, why is it that decks not used for exits do not need protection anymore? I think ventilation is equally as important to roof overhangs that would be soffited with drywall.**

**A** Sections R302.1 and R302.2 provide regulations concerning the protection required for roof overhangs when they are less than 3 feet from the property line. To answer your first and third questions, yes, one-hour protection is required from the underside of the roof overhang when it is 2 feet from the property line. Any openings in this overhang are not allowed; this does not include foundation vents. As for your question regarding decks, Section R105.2 provides an exemption from the permit requirement to only those decks that are not more than 30 inches off the adjacent grade and when all parts or portions of those decks are at least 3 feet or more from the property line.

Special circumstances, such as zero lot lines, often require an appeal with the jurisdiction.

**Q The structural code (2304.11.5) says that naturally durable or pressure-treated lumber shall be used for those portions of wood members supporting appurtenances, such as porches, where such members are exposed to the weather without adequate protection from a roof over, overhang or other covering to prevent moisture or water accumulation on the surface or at joints between the members.**

**If part of the beam extends beyond the roof, or if the beam is not tight against the roof framing, would this trigger pressure-treated or naturally durable wood? Does this apply to exposed rafter tails or beams (popular as detailing for Craftsman-style structures) even if the main load bearing part of the wood members is covered by the roof?**

**A** Nonstructural or architectural parts of a building are not regulated by the codes and so are beyond the interpretation scope of this forum. Use of pressure-treated wood is recommended for the architectural or nonstructural woods in areas that are exposed to weather elements.

**Q Where wood joists frame over a concrete slab (typically a "rat slab") or over a former garage slab or patio slab, what clearance is required below joists that are not pressure treated? If pressure treated, is there a different clearance? The standards for a crawl space don't seem as if they would apply here. The "joists" are more like furring. Sometimes we need to install a floor and don't want to take up the slab, when finishing a garage. We typically require a 6-mil cross-laminated polyethylene moisture barrier.**

**A** Yes; your solution is acceptable to the code panel as an acceptable interpretation of the code provisions.

However, an acceptable moisture barrier is required between the concrete floor and wood floor joists.

**Q When this is done, would venting be required?**

**A** Yes. You could vent to the crawlspace or to the outside. Sometimes mechanical exhaust systems are used.

**Q We had a situation recently when we were called out to a single-family job site because "we" had a problem. It turns out that a section of the upper floor joists had been turned 90 degrees from our layout and a different manufacturer's layout. These joists (18 feet long, holding up a brittle tile floor) were framed into a beam that was not sized for any additional load. Typically, we size all the joists ourselves, using the specific manufacturer's software. Would the field inspector typically require a re-submittal if the joists in the field did not match the structural/architectural drawings?**

**A** Yes. Always.

**Q If a re-submittal is required, who checks to make sure that the substituted joists are equivalent to what was designed?**

**A** The applicant (design architect or engineer if one is available for the project) should check first for accuracy. Then those reviewed documents are checked by the plans examiner for code compliance.

**Q Our experience is that only the layout is required of the manufacturer. Who confirms that the joists are correctly sized?**

**A** The applicant (or design professional in-charge) is responsible.

**Q What cross checking is done to ensure that the classic "BBO" (beams by others) are designed properly?**

**A** Plan review is meant for compliance to the minimum requirements of the code; it should not be used as a design cross-checking service. The applicant (or the design professional in charge) should provide all the necessary checks and reviews before submitting them to the building department for their re-review.

**Q Is there a uniform standard applied by tri-county jurisdictions for what is required in manufactured joist submittals?**

**A** No. The code panel would be interested in drafting such standards for the tri-county region. One of the best things that those submitting plans can do is to provide the manufacturer's installation instructions to the local jurisdiction/plans examiner.

**Q When does a stair rail need pickets or more than a grab rail? And, where can I find easy answers to railing code requirements?**

**A** Intermediate rails are needed any time the stairs, rails, or decks are 30 inches above grade. Easy information: R311.5, or check out the City of Portland's Web site, Portlandonline.com, click on "Bureau of Development Services," then click on "Publications."