

ASK THE INSPECTOR COLUMN FOR MAY 18, 2016
HEADLINE: AVOIDING EXISTING DECK PROBLEMS

About this time of year I get a number of questions from readers about their decks. With that in mind, an article on common issues and things to watch for would be timely. More than one article has crossed my desk about decks that have failed, causing bodily harm. Let's start with one commonly ignored fact. Although the 100 sq. foot rule applies to garden sheds, all decks require a building permit.

A couple of readers asked for some tips about planning an addition to their existing deck. The first thing is to establish the integrity of your present deck, especially if you intend to tie your new deck to this one. Go over the deck as if you are rebuilding it; you may end up doing so. Is it correctly fastened to the house? It should be bolted, not nailed or screwed. The first piece of decking should be set off the house or the rim joist flashed so the water does not run behind it and rot this vital support out. Probe all the decking and posts and replace any marginal wood pieces. Pay special attention to the stairs and treads. If you are planning a large deck you may be surprised to find out that your municipality wants a proper set of plans. I know of one very large deck where they required professional engineered drawings. Remember the setback rules, four feet off the lot line is common in many areas. Your building department will likely want a site plan that shows the position of the deck and it helps the tax assessment department, too.

Water issues are paramount. I often see the stairs of a deck resting on the ground. One poke with a scratch awl tells whether the sidepieces, which are called stringers, are rotted out. If they rot out, the stairs could fail without warning. While potted plants and planter boxes are pretty, your deck boards need to breathe and dry out. If your deck is built close to the ground, it should have an aggressive drainage created under it. In fact, regardless of location, every deck should have good drainage. I often see decking prematurely decaying due to the decking fitted too tight or with only a tiny space separating them. Leaves and debris will gather, collecting water, thereby speeding up the rot process. Use 3/8" spacers if the wood is dry, 1/4" spacers if it's not. One of the first wood pieces to rot, after the ground based stair stringers, is often the top of the posts that support your railings; a quick check with your scratch awl will tell you the story here, too. End caps have been available for years; I think they should be code. There are plain plastic caps, as well as copper and stained glass ones. Solar powered lights in the cap are popular now. For all they cost vs. having to replace a post, install some post caps.

A ground cover membrane should be used to stop plants and weeds from growing under a deck. A good layer of washed stone over the rubber membrane makes a nice finishing touch.

In the case where your deck starts to move around annually due to poor drainage or frost, it is time to level it, which, in the case of a large deck is a major undertaking. If your deck is resting on deck blocks now, consider replacing the area under and around the posts. While deck blocks may be permitted in a small number of applications, most municipal regulations now call for sono-tubes or foot-tubes. Dig an 18" deep hole, 24 inches square, line with ground cloth and fill with washed stone that is well compacted. Then level a patio stone on top and replace the deck block. This can usually be done one post at a time.

Remember the four basic safety steps: 1) for decks over 24 inches above the grade, handrails must be a minimum of 36” in height and, in some areas, they may want 40” or 42.” If your deck is over 5 feet off the ground, you can expect to install the higher handrails; 2) no part of the railing can allow the passage of a 4” ball. Many people only think of the vertical spindles. If your deck has a railing kit, this applies to the space under the railing too. People often get fooled with seat kits on the edge of a deck. The inspector will measure from the top of the seat, not the deck floor. It’s the seat back height that is required to meet code; 3) a deck railing, assembled to standards, must be able to withstand a lateral force of 200 lbs, and 4) bolt the posts to the frame in an angled pattern, a vertical line may be subject to splitting over time.

Once you have gone over your old deck, made the necessary improvements, applied for and received your permit for the addition to your existing deck, give some thought to the materials. If you are using pressure treated lumber, consider what you are using for screws and metal deck brackets, if you need them. Corrosion of metal screws and joist hangers has become an issue. Check with your lumber store and they will likely recommend either coated, as recommended by the hardware manufacturer, or stainless hardware. If your deck is to be built of cedar or redwood, stainless hardware is the only answer. As much as screws are time consuming, forget the nails; you will build a stronger deck over the long haul. There are a number of under-mount kits and hidden fasteners on the market today. A company called Simpsons makes an excellent line of deck hardware; check their site at www.strongtie.com

Always remember, you are building a house without a roof. If you are in doubt, build it to code standards for wood frame or call your local building official for an interpretation of the codes or municipal regulations.

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