



HOMES

May/June 2010

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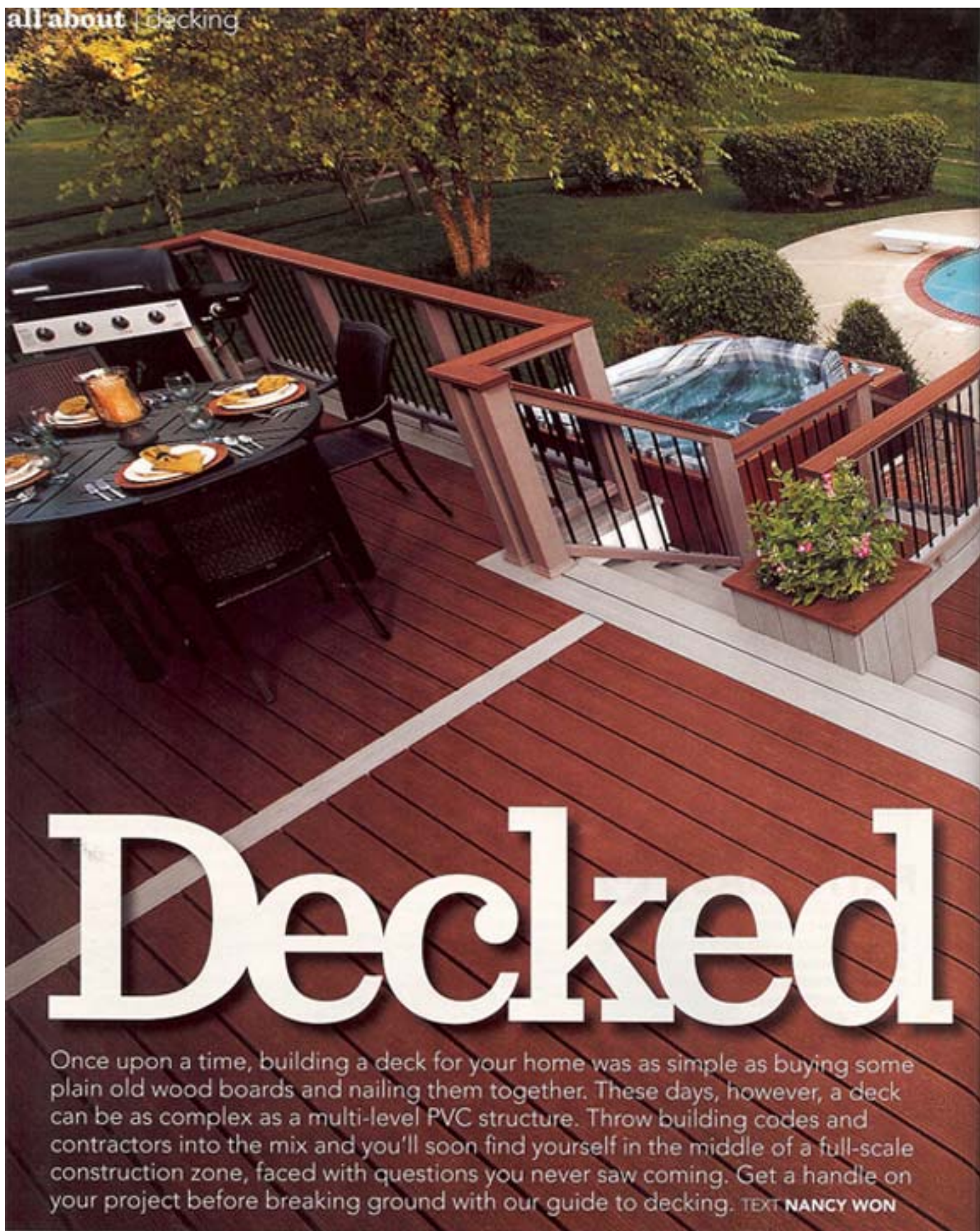
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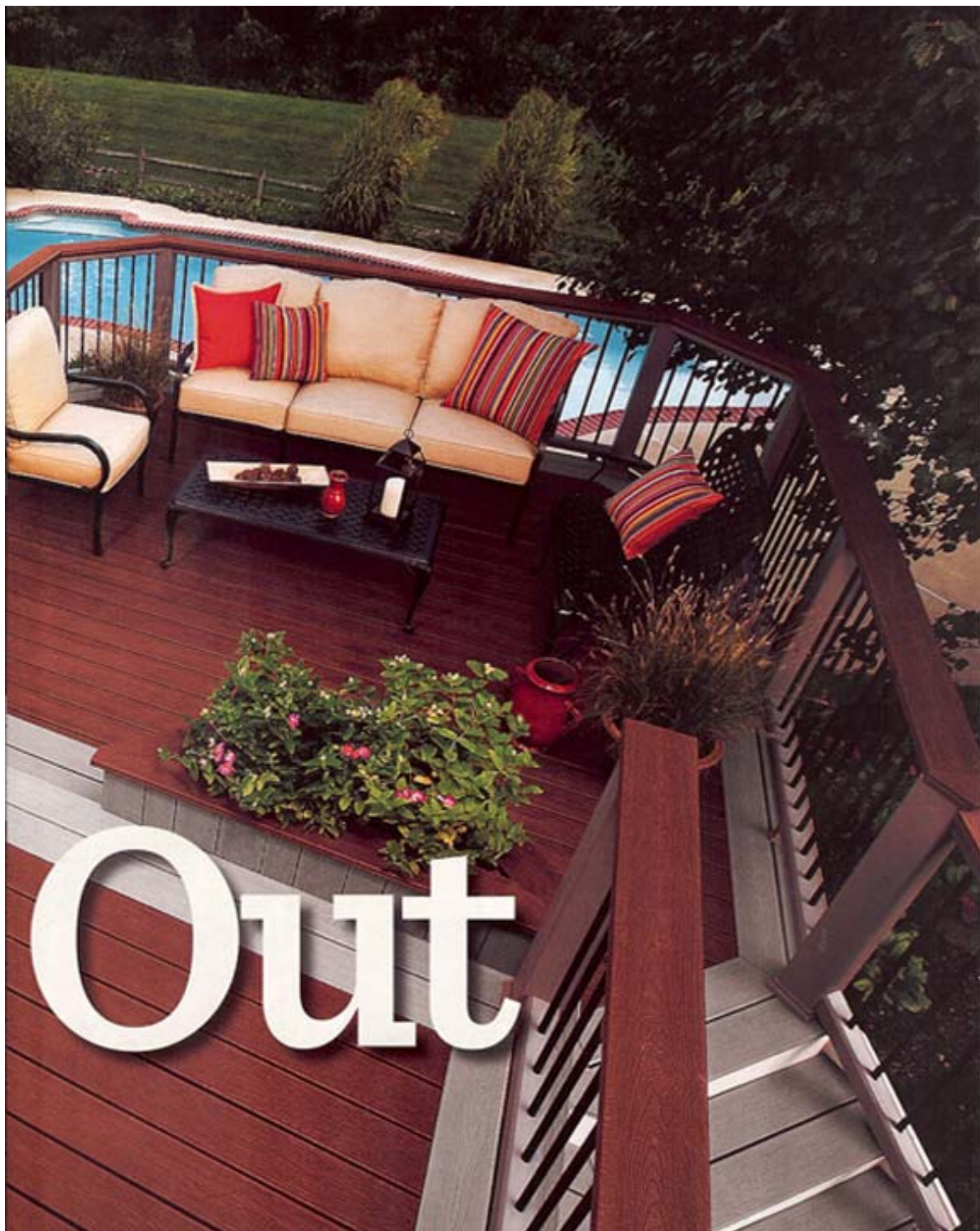
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Decked

Once upon a time, building a deck for your home was as simple as buying some plain old wood boards and nailing them together. These days, however, a deck can be as complex as a multi-level PVC structure. Throw building codes and contractors into the mix and you'll soon find yourself in the middle of a full-scale construction zone, faced with questions you never saw coming. Get a handle on your project before breaking ground with our guide to decking. **TEXT NANCY WON**



Out



One of the biggest decisions you'll make when it comes to your new deck is which decking material to choose. To help you with your choice, we break down the most popular options. Here are their advantages, disadvantages and how they rate in terms of eco-friendliness.

OPTION 1 | PRESSURE-TREATED LUMBER

➤ **PROS:** The most economical option available, pressure-treated wood has long been the go-to material for decks. It's plentiful, easy on the wallet and, if maintained correctly, can last up to 20 years.

➤ **CONS:** Pressure-treated wood is chemically treated to make it resistant to the elements. The most commonly used preservative, CCA (chromated copper arsenate), was pulled from use in residential settings in 2003 because of its high arsenic content. But the new ACQ- (alkaline copper quarternary) treated lumber is not without its own problems. "ACQ is very, very corrosive to metal fasteners," says Paul Lilley, co-owner of Dream Decks, a decking company in Vancouver. "It's very important to choose corrosion-resistant fasteners." Keep in mind that the structure of your deck is typically made from pressure-treated lumber regardless of the deck-board material you choose.

➤ **MAINTENANCE:** The chemical preservative in pressure-treated lumber helps to protect the wood and boosts longevity. But to ward off warping, cracking, splitting and twisting, apply a deck stain or sealer every two to four years, and wash with water and detergent every year.

➤ **ECO FACTOR:** A durable option, pressure-treated wood means fewer trees are cut down. And by eliminating the arsenic content in pressure-treated lumber, ACQ wood is safer for your family and the world around us. But it still uses a toxic chemical preservative that can negatively affect the environment. And because of its chemical content, ACQ wood isn't recyclable or suitable for use as firewood, so it will end up as landfill waste.

➤ **PRICE:** Approximately \$1.29 per linear foot.



Good to know Make sure your deck has had a few days of warm, dry weather before you stain it. The stain won't adhere properly if the deck boards are moist. Also consider semi-transparent over solid stains and paints, as they soak into the wood rather than sit on the surface and don't peel off, requiring less-frequent applications.

OPTION 2 | CEDAR

➤ **PROS:** A step up from pressure-treated wood, cedar has a beautiful grain and colour, is naturally resistant to rot, decay and insects, and has a lifespan comparable to pressure-treated wood without the use of a chemical preservative. "There will still be some warping and cracking, but very little splintering," says Todd Mounsey, owner of Your Deck Company, a decking company in Toronto.

➤ **CONS:** As naturally resistant to weathering as cedar is, decking experts are starting to see the quality of cedar decline in recent decades. "When I started 24 years ago, there was a lot of first-generation growth—hundred-year-old trees that had never been cut before," says Mounsey. "A lot of the lumber we're seeing now is second-generation growth, so it's been reforested, grown faster and yielded sooner. As a result, the quality isn't as good and we're starting to see signs of rot within about eight years."

➤ **MAINTENANCE:** Aside from washing your deck every year, you should apply an eco-friendly deck stain or sealer to maintain its colour every two to four years. "The first time is easier because the wood is fresh and new, but subsequent applications usually involve sanding and removing loose material," says Mounsey. "It can be a pretty laborious process."

➤ **ECO FACTOR:** Biodegradable and naturally resistant to rot and decay, cedar is a greener decking choice than pressure-treated wood, but it still puts a strain on our natural resources.

➤ **PRICE:** From approximately \$1.30 per linear foot.





OPTION 3 | COMPOSITE

◆ **PROS:** Composite decking is made of wood and plastic. It has a long lifespan (most companies offer a 25-year warranty) and requires very little maintenance aside from washing. "Composites are guaranteed against rot and decay," says Mounsey. "And they won't warp, crack, split or twist like lumber will." Composites also come in a variety of styles and colours to closely match the look of your home. "It might cost you more upfront than a wood deck but composites will save you time and money on maintenance in the long run," says Lilley.

◆ **CONS:** Composites are known to have poor stain resistance and while the majority of stains can be cleaned off, regular soap and water won't do the trick, so you'll have to purchase a special deck wash to get the job done. They can also scratch and dent quite easily and they don't look like real wood (no matter how hard they try).

◆ **MAINTENANCE:** Just a scrub using a good deck cleaner every year; no other maintenance is required.

◆ **ECO FACTOR:** Composites get eco-friendly points for longevity, and some brands, such as Trex, even use 100-percent-recycled material. But not all composite-decking companies are as committed to being green. Some use all-new materials while others, like TimberTech, use recycled wood fibres but virgin plastic. Composites (including recycled composites) are neither recyclable nor compostable and are destined for the landfill.

◆ **PRICE:** From approximately \$2.49 per linear foot.

OPTION 4 | CELLULAR PVC

◆ **PROS:** Cellular PVC decking material is 100-percent synthetic. It offers all the benefits of a composite (including the 25-year warranty) plus extremely high stain- and scratch-resistance. Cellular PVC is also very easy to clean. "Dish soap and water are all you need," says Mounsey.

◆ **CONS:** In terms of stain resistance, the only thing cellular PVC has been known to react with is rubber, which causes discolouration, so it's best to avoid rubber welcome mats on your deck unless they have an "approved for vinyl" stamp. Also, PVC doesn't look like real wood.

◆ **MAINTENANCE:** "No deck material is maintenance-free," says Mounsey. "I'd be wary of anything that says it is." All decks need to be washed once a year and cellular PVC is no exception.

◆ **ECO FACTOR:** Cellular PVC decks have excellent longevity but use 100-percent virgin material; there is nothing recycled in them. Cellular PVC is also not recyclable and will end up in a landfill at the end of its life.

◆ **PRICE:** Approximately \$8.99 per linear foot.



HIRING HOW-TO

Ask for references. "And not just two or three," says Todd Mounsey, owner of Your Deck Company in Toronto. "Try to get 15 references or more—it's easy to pick two or three of your favourite clients, but if someone can confidently give you 20 names so that you can talk to people in your area, people with different styles of decks, that says a lot."

Find out if they sub-contract. "A lot of companies will just sell the deck but are too busy to build it, so they subcontract some or all of the work out to another company," warns Mounsey. "I've heard of people

being stiffed by companies who then will refuse to honour the warranty because the work wasn't actually done by them."

Ask for a set of drawings. "A picture is worth a thousand words," says Paul Lilley, co-owner of Dream Decks in Vancouver. "It really helps to articulate the details of construction—the size, shape, railings, stairs, do you want a landing in the middle of those stairs? So much is open to interpretation, and if the contractor is not thorough and professional, a lot of those things can get missed and that's when issues arise."

Get it in writing. "The scope of the work needs to be very clear—detail what is included, what is extra and what materials are being used," says Lilley.

Get a building permit through your local municipality. "Not all decks require a permit, but it's a good idea to get one because that way you know it will meet the building code," says Mounsey. "It doesn't guarantee the quality of your deck—it doesn't mean the guy can cut a straight line—but the footings will be the right size, they'll be spaced correctly, you'll have the proper structure, the proper framework."

OPTION 5 | EXOTIC HARDWOOD

➤ **PROS:** Exotic hardwoods like ipe, kayu, tigerwood and ironwood are the Cadillacs of lumber decking options. They give you much of the performance of a composite in a real, natural wood. These are very hard, stable woods with very little crack, minimal twisting and almost no splintering. In terms of longevity, you can expect an exotic hardwood deck to last for 20 years or more.

➤ **CONS:** The biggest disadvantage of exotic hardwoods is that they are expensive. Installing them is also labour-intensive and adds to costs.

➤ **MAINTENANCE:** As with all wood decks, you can apply a stain or breathable paint every two to four years, depending on your climate, to help prevent some of the damage from the elements.

➤ **ECO FACTOR:** Exotic hardwoods are renewable, recyclable, biodegradable and all-natural, but the fact that most exotic hardwoods come from rainforests doesn't sit well with environmentalists, especially since they are very slow-growing trees harvested in areas of the world where monitoring is poor and deforestation is a problem. The energy required to transport them is also harmful to the environment.

➤ **PRICE:** Approximately \$5.94 per linear foot.

New innovations In addition to these standard decking options, new alternatives are breaking ground and joining their ranks. Created by FPIInnovations in Vancouver, Profile Decking (\$1.30 per linear foot,

wood.com) is West Coast fir that is ACQ pressure-treated and then profiled, meaning grooves are placed into the surface of the wood to release the surface tension, making it less likely to split and crack.

Trex's new high-performance Transcend product line (\$3.87 per linear foot, www.trex.com) has a PVC-free integrated shell with a wood-like grain pattern, and a 95-percent-recycled composite core.

Then there's BamDeck, a new bamboo decking material by Cali Bamboo (\$3.38 per linear foot, www.calibamboo.com) that has the density, strength and durability of an exotic hardwood. But because it's made from 100-percent bamboo, the most rapidly renewable wood on the planet, it doesn't strain the earth's resources. It's also termite-resistant, weather-tested and LEED-qualified. ■



UNDER CONSTRUCTION

There's a lot more to your deck than meets the eye. The foundation and structure beneath your feet are crucial to the stability and safety of your deck. Code and regulations vary from place to place, so read up on your local requirements or hire a qualified designer familiar with them. You may also need an engineer. Before anyone starts digging, be sure to locate underground utilities and easements. Here are the basic structural elements you'll need to know about:

STAIRS

Steps and stairs are usually 36 inches wide, with a seven-inch rise and a 10-inch-wide tread. Local code will define the minimum, and usually a maximum, rise. The building code also regulates how stairs are supported and attached, and whether or not you need a railing. Decks that are higher than three steps, or stairs with more than two risers, usually require at least one handrail.

RAILINGS

According to code, any deck over two feet high requires a railing. Make sure the railings are high enough and that they're properly designed and secured to the deck. Different municipalities specify different rail heights; usually if your deck is under five feet 11 inches off the ground, you need a railing that's 36 inches high. Check with your local building department.

JOISTS

The deck boards are laid on joists, wood members placed on edge on top of the beams. Joists must be sized and spaced properly for the load of the deck and also for the type of decking material being used for the flooring. Joist spacing is commonly 16 inches on center but can range anywhere from 12 to 24 inches on center. Local codes will identify the minimum spacing.



FOUNDATION & FOOTINGS

Good decks are built so that the wood does not rest directly on the ground to prevent woods, termites, rot and mould growth. They also slope away from the home for proper drainage. You may be tempted to go with inexpensive deck-block foundations, but this is one area where you don't want to cut corners. Hold out for proper concrete footings, which prevent heaving.

The footings bear the weight of the deck, and to do this properly, they need to be sized and spaced correctly, and dug to the proper depth. Done correctly, footings won't shift or move, even during freeze/thaw cycles. In cold climates, the footings need to be below the frost line (typically four feet below ground), and good footings are belled so they have a large foot.

POSTS & BEAMS

Your deck's structure is made up of posts and beams that support the weight of the deck. The posts sit on top of and are anchored to the concrete footings and should be a minimum of four-by-four inches for decks less than four feet high. Beams span between the posts to carry the load of the deck to the posts and down to the foundations. How many you need and how far apart they should be spaced is regulated by the building code.

ROOFTOP DECKS

Rooftop decks require even more consideration than ground-floor decks. The most common (and dangerous) mistake that occurs with rooftop deck construction is improper railing connection. Ensuring the railing is securely anchored to the roof or deck structure is crucial to the safety of those using the deck. And it's important to keep drainage in mind—supporting joists should be installed in a way that will allow water to flow off the roof. It's also a good idea to hire a roof professional to inspect the area and make any necessary repairs before you start building the deck.

Roof decks that convert an existing flat roof to a walkout deck require several considerations:

- Can the structure still support the roof with the potential new load of people and their activities added to it?
- What services (such as plumbing vent stacks and roof vents) penetrate the roof that may need to move—can they be moved?
- How are guardrails to be attached to the structure without affecting the need to keep the elements out?
- The roof deck still needs to function as a roof and have the required insulation and venting. Without insulation and ventilation, the roof structure, roofing material and insulation may fail.