

# How to

## Plan a Deck

Ask Allerdice.

### Level of difficulty: Advanced

A deck is a popular home improvement that not only adds to the value of your home, but provides a focal point for enjoying the outdoors. This will be the spot of many BBQ's, parties, and other social activities. The uses for a deck are as numerous as the types of decks one can build. Keeping that in mind, you'll want to carefully consider the design elements that go into your deck. Planning is the most important part of building a deck, because, chances are, you'll be living with your design for a long time.



### Location

The size and orientation of your property and house may limit you to one or two deck locations, but within those limits, you may have more choices than you think. You may be able to add a door, build a walkway, or incorporate a privacy screen that will allow you to locate your deck so it is most convenient for your intended uses. The climate in your area and the views you'll see are the major factors to consider when deciding where to place your deck. A north-side deck will probably be the coolest location. Southern or western orientations may be too warm in the middle of the summer, unless you include an overhead screen, or build the deck around an existing shade tree.

You may be able to avoid prevailing winds by locating your deck where the house will provide some protection. Likewise, careful placement can minimize traffic noise, eliminate unwanted views, or provide additional privacy. If you plan to include a hot tub or swimming pool in your plans, privacy considerations for you and your guests may be very important.

### Legal Considerations

Local zoning ordinances - May limit the overall size of your deck, height of privacy screens, and the minimum distance from your deck to your lot lines. Neighborhood or subdivision covenants - May restrict the appearance of the structure.

Local building department - May require a building permit and design plans. Local utility companies - Will help locate buried pipes, utility lines and utility right-of-ways.

### Size

You can build any size deck you want within legal limits. However, a huge deck can look out of place next to a small house, just as a tiny deck looks wrong with a big house. If you think your dream deck is too large for your house, break up the expanse by building smaller sections on multiple levels. To test your ideas, measure the size you want on your lawn. Drive 4-foot stakes at the approximate corners, then tie string between them at about the height of the railings. Set your lawn furniture in the area to get an idea of how the space will work. The most common mistake people make is building a deck too small.

Tip: If possible, size your deck in 2-foot or 4-foot increments. You'll have to buy standard lumber lengths anyway, and there's no point in wasting that material when you could have a larger deck for the same amount of money.

### Shape and Decking Patterns

A deck can be any shape you want, and in fact, simple changes like an angled corner or a 45 degree decking pattern can dress up a house. You can also add visual interest by wrapping the deck around a corner, adding built-in benches, integrating a fence or screen on one side, or even adding an overhead screen.

### Height

Usually, the decking should come to within 2 inches of the bottom of the access door from the house. On sloped ground, you may want to build your deck in multiple levels to follow the slope. Typically, wherever the deck is more than 48 inches off the ground, codes require that the posts be braced to prevent swaying and racking.

### Cutouts

A spa or hot tub can be set on the deck if the structure is reinforced to carry the weight of the water, or it can be set directly on a concrete slab on the ground, with the deck built around it. Existing trees and rocks can also be integrated into the deck by framing around them. If you work around a tree, leave at least 3 inches on all sides to allow for growth. Around a stationary object such as a boulder, leave about 1/4 inch so the decking can expand and contract with temperature and moisture changes.

### Railings

Railings are the most prominent visual element in a deck, and offer great opportunity to use your imagination and creativity. They may be fastened to posts that run all the way to the ground, along the sides of the rim joists, or attached to the decking itself. They may include wood, metal, or even rope - nearly anything that satisfies structural requirements. Your railing design will be limited primarily by building code regulations that are designed to insure safety. Typically, those codes state that support posts may be no more than 6' apart, and that the railing may have no spaces larger than 4" x 4". The durability of your railing will be affected by the design. For example, the ends of the railing posts should be covered or cut at an angle to shed water, to minimize cracking and splitting.

### Steps and Stairs

Step and stair construction is closely regulated by building codes. As a rule, steps and stairs should be at least 36 inches wide - 48 inches if you want two people to be able to pass each other comfortably. The rise should be no more than 7 1/2 inches and the width of a tread at least 10 inches. The slope should not be too steep - a 7 inch riser with a 10 1/2 inch tread are a common combination.

**(turn over)**

Building codes will also govern how the stair is supported and attached, and whether or not you need a railing.

### **Structural Components**

There are five basic components of a typical deck:

Vertical posts: Set on concrete or on piers, typically spaced 4 to 8 feet apart.

Horizontal beams: Set on posts parallel to the decking, carrying the weight of the deck.

Joists: Run between the beams, typically 16 or 24 inches apart. They distribute the weight of the deck, allowing the use of decking boards.

Decking: Laid over the joists to form the floor of the deck.

Railings: Usually 36 to 42 inches high. The materials used and the size and spacing of these components are specified by local building codes.

### **Selecting Materials**

Deck materials must not only be resistant to decay and insect damage, but also withstand the effects of water and sun. Standard construction lumber such as fir, pine or spruce may be treated to protect it from rot, but it won't hold up under extreme weather conditions or the ultraviolet rays in sunlight. You'll get the most durability

from pressure-treated pine, cedar, or redwood, and they can be stained to nearly any color you want. If you use redwood or cedar, remember that only the heartwood portion is decay-resistant. The lighter colored sapwood will deteriorate just as quickly as pine or spruce.

### **Sketch Your Idea**

Once you have a rough idea, draw two sketches - one of your lot, showing the deck as part of your landscaping plan, and one of your design. Use graph paper, making each square equal a given dimension to get all the components to scale. Take the sketch to your local home center or lumberyard, and ask the salesperson to estimate and price the materials you'll need.

### **TOOLS & MATERIALS:**

- 100' measuring tape
- 25' measuring tape
- Graph paper and pencil ruler
- 4' wood stakes
- Mason String
- Hammer