

Skill Level: ADVANCED Try these projects after you have a collection of DIY successes under your belt, and make sure you're ready for a challenge. You'll need experience with a wide variety of specialized tools, and it may take several hours to finish. If you've built a deck or installed an irrigation system, these projects probably match your abilities.

✓ MATERIALS

- [Lowe's.com/DeckDesigner](https://www.lowes.com/DeckDesigner)
- Pencil
- Tape Measure
- 3 lb. Hammer
- Wood—for batterboards
- Hammer
- Nails
- Mason's String
- Utility Knife
- Line Level
- Shovel
- Plumb Bob
- Wood Stakes—for marking post holes
- Drill with Bits
- Screws
- Level
- Flat Blade Shovel or Sod Remover
- Wheelbarrow
- Chalk Line
- Work Gloves
- Safety Glasses

If installing a ledger:

- Joist—for the ledger
- Circular Saw
- Wood—for braces
- Socket Wrench and Sockets
- Lag Bolts
- Washers
- Masonry Anchors—for concrete hollow block
- Galvanized Metal Flashing
- Silicone Sealant

At this point in your deck build you should have a printed construction plan. If not, view the previous video and instruction sheet in this series, *Designing a Deck*. In this instruction sheet, Part Two of our six-part series on *How to Build a Deck*, you'll learn how to layout your deck so that it has a strong foundation and provides you years of enjoyment.

PREPARATION

At this point, you should have developed a deck construction plan following directions on the prior instruction sheet in this series or by using the online deck design program at [Lowe's.com/DeckDesigner](https://www.lowes.com/DeckDesigner). Also you have checked with the local building department and/or homeowner's association to make sure that your plan conforms to construction and safety requirements.

Now you can prepare for locating and laying out the deck.

- 01 Call 811 to be connected with your local utility companies. They will mark any underground service lines to avoid.**



MARKING DECK HEIGHT

If you are building a deck that will be accessed from an adjacent house door, you must verify the height and location on the house. Freestanding decks built away from a structure don't require this process. For steps on marking height for a freestanding deck, view the instructions for *How to Build a Deck: Setting the Posts*.

- 01 Determine where the deck will sit in relation to the door. It should be below the threshold to keep water from entering the house—a step down from the door will aid in drainage and snow banking.**
- 02 Mark the location of where the top of the decking will be on the house.**

IMPORTANT

If you are not comfortable planning and building a deck, discuss the job with a Lowe's associate. Lowe's can take care of any or all of deck construction from blueprints to material selection to finishing. Before you begin your layout, call 811 to be connected with your local utility companies. Make sure that the site you have selected and where you will dig does not have underground utility lines that can be damaged by digging tools.

MARKING DECK HEIGHT (cont.)

- 03 Next, measure down the thickness of the decking AND the width of the joists. This will give you a height for the top of your beams.
- 04 Snap a level line on the house. We'll use this mark to install a ledger (below) or a freestanding deck in the next set of instructions.



INSTALLING A LEDGER

In the video that accompanies these instructions, we built a freestanding deck. However, you may want to attach your deck directly to a house or other structure. In that case, you'll need to install a ledger board or ledger.

- 01 Cut the ledger board to the length indicated in the deck construction plans.
 - **SAFETY TIP:** Always wear a dust mask and safety glasses when cutting treated lumber.
 - Apply a weather sealer to the cut ends of treated lumber.
- 02 Use the level line on the house (see Marking Deck Height), tape measure, level and pencil to mark the ledger location on the structure.
- 03 If the ledger location is covered with lap siding, carefully remove the siding to expose the underlying wood or concrete structure.
- 04 Install galvanized metal flashing following the deck construction plans and local building codes.
- 05 Drill a pair of holes in the ledger every 2', then counterbore each hole to 1/2" with a 1" bit.
- 06 Place the ledger against the house and temporarily hold it in position with wooden braces. Make sure it is level before continuing.
- 07 If attaching the ledger to stucco or concrete, drill 3"-deep holes in the masonry through the pilot holes. If attaching to a hollow concrete block foundation, first use a 5/8" drill to install masonry anchors behind the ledger.
- 08 Attach the ledger to the wall with 4" lag bolts and washers.
- 09 Apply silicone sealant around the perimeter of the ledger board and in the counterbored holes.

The remaining sides of the deck frame will be constructed after the posts are installed. Use the ledger as a reference for laying out your deck.

LAYING OUT THE PERIMETER

01 Assemble batterboards with screws or nails.

- Batterboards can be made from scrap 2-by or 1-by wood. Cut a point on stakes for easier insertion into the ground.
- The cross-piece should be 1-2' in length to allow for adjustment of the string.



02 Drive the batterboards in the ground to support string that will mark the outside edge of your deck.

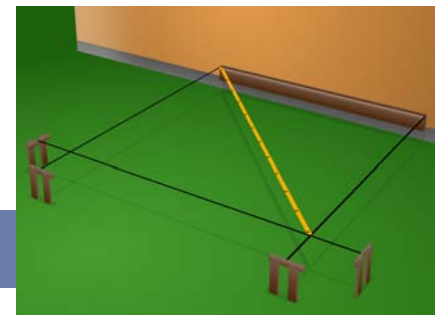
- The batterboards should be placed beyond the approximate corners of the deck—two for each side.
- **TIP:** If there is no room for batterboards near the house, fasten screws to the house or a single stake at the proposed corner of the deck, then attach a string to the screws.

03 Tie the strings to the batterboards to approximately mark the outside edges of the deck location.

- **TIP:** Be sure to use mason's string rather than household string in laying out your deck. Mason's string is sturdier and won't stretch as easily.

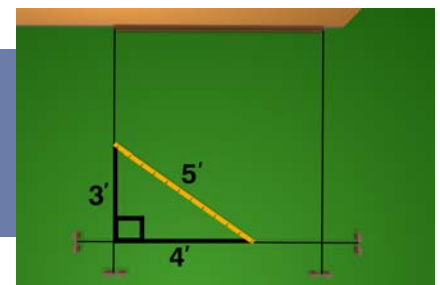
04 Use a line level to verify that all the strings are level.

- Adjust the batterboards up or down as needed. The string marks the outside edge of the proposed deck. If the strings are not level, checking for square may not be accurate.



05 Measure the diagonals of that layout. Your layout is square when the diagonals are equal.

- Make any adjustments and attach the strings in their final positions with nails or screws.
- **TIP:** Professional deck builders often use the 3-4-5 Rule (geometry) to verify that the layout is square. From a corner, measure 3' along one string and make a mark. From the same corner, measure 4' along the other string or edge and make a second mark. The diagonal distance between the two marks should be 5'. Adjust the strings as needed.



REMOVE THE SOD

Some building codes require removing the sod and using landscape fabric and gravel under the deck. Even if you're not required to remove the sod in your area, consider doing so as it prevents grass and weeds from growing through the decking.

REMOVE THE SOD (cont.)

- 01 **Use a flat blade shovel or rent a sod remover to take up the sod.**
 - Don't dig too deep, no more than a few inches.
- 02 **Roll up the sod in small pieces and remove from the construction area.**
 - **TIP:** Lift with your legs, not your back.
 - **TIP:** Save the sod to use around the perimeter of the deck after construction is complete.
- 03 **Don't add the landscape fabric just yet. Lay it down after you dig the holes.**

MARKING FOUNDATION POST HOLES

- 01 **Refer to your deck building plans for the location of foundation posts and holes.**
 - A freestanding deck will require more foundation post holes than a deck that is attached to the house.
- 02 **Use additional stakes or batterboards and string to line up the post holes.**
- 03 **Measure inward from the side strings to locate the post holes.**
- 04 **Extend a plumb bob to the ground to determine the center of foundation post holes.**
- 05 **Mark the post holes with a stake at each location.**



That's all there is to laying out your new deck. The next step *Setting the Posts*, is covered in the next part of this series on *How to Build a Deck*, available at [Lowes.com/Videos](https://www.lowes.com/Videos).

These "How-To's" are provided for informational purposes only. The information contained in Lowe's "How-To" videos is intended to provide general guidance to simplify jobs around the house. Because tools, products, materials, techniques, building codes and local regulations are continually changing, Lowe's assumes no responsibility for the accuracy of the information contained herein and disclaims any liability for omissions, errors or the outcome of any project. It is the responsibility of the viewer to ensure compliance with all applicable laws, rules, codes and regulations for a project. The viewer must always take proper safety precautions and exercise caution when taking on any project. If there is any question or doubt in regards to any element of a project, please consult with a licensed professional.