

Constructing the Simple Concrete Form

The practice form is similar to one that could be made to hold concrete for a sidewalk pour.

Long forms would have to be built in place if this was a lengthy stretch of sidewalk. However the frame of this form can be cut and assembled first and then set at the desired location and staked into the ground.

Step 1 – Read the rubric and look over the provided plans for the form.

Step 2 – Create a list of tools and equipment and PPE that will need to be obtained to carry out the work. Create a cut list of the materials for the form and those for the stakes. You may be asked to use stakes that someone else used.

Step 3 – Gather tools and materials needed for the task. Be sure to acquire and wear any PPE appropriate for the job.

Step 4 – Cut the materials to length and the stakes to the correct length and pointiness.

Step 5 – Nail the form together

Step 6 – Set the form on the ground's surface and check for levelness.

Step 7 – Shovel away any surface soil which prevents the form from sitting close to level.

Step 8 – Drive the stakes along the longer side of the form into the ground at the locations indicated on the drawing provided. Be careful not to deform the sides of the form by pushing too hard against it when positioning the stake.

Step 9 – With a level determine the highest point at one of the 4 end stake locations. Move the level into a protected position. Drive a duplex nail through the stake into the side of the form. Be sure to buck the form with a sledge hammer or at least a claw hammer.

Step 10 – Place a level (30" or 4") on the top edge of the side of the form being adjusted. Pick up the side of the form carefully so that it pivots on the nail. Observe the bubble in the level. When levelness is indicated, have someone mark the top edge of the form on other stake positioned against the side of the form being adjusted. Remove the level and place it in a protected location.

Step 11 – Set a duplex nail into the stake so that one or two hammer blows would drive the nail into the side of the form. Move the form to the mark made on the stake, buck with a hammer and, drive the nail into the form.

Step 12 – Check for levelness and adjust by tapping slightly if possible on the “high stake”. If not possible, remove the second nail and start again.

Step 13 – Set another duplex nail into a stake that is on the opposite side of the form, is at what was once the “high end of the form. Position the level at that end of the form and lift the form until levelness is indicated in the level. Mark the top position on the stake. Move the level into a protected position.

Step 14 – Use a framing square to check the squareness of the form. Rack the form slightly as needed to bring the form into squareness. It might be helpful to make an indexing mark on the top of the form that matches a mark on the line drawn on the stake to be fastened to the form. The mark will help to maintain squareness. Move the square into a protected position.

Step 15 – Attach the stake to the form as was done in step 11.

Step 16 – Retrieve the level and check for levelness – do not attempt to tap on any stakes to make an adjustment. Redo steps 13-14 if necessary.

Step 17 – Place a level on the side of the form being worked upon. Lift the form until levelness is observed and mark the position at the other end stake. Hold the form in position or return it to position after placing the level at the untested end of the form. Check for levelness across the form. Set a nail into the stake. Position the form to the mark on the stake and attach the stake to the form.

Step 18 – Recheck for levelness around the form. Recheck squareness at the four corners (you could have an inward bulge). Check the sides for straightness. Move the level and the square into a protected position.

Step 19 – Continue to drive nails until each side stake has two nails.

Step 20 – Add the end stakes. Be sure not to distort the shape of the form.

Step 21 – Add and stake the braces. Be sure not to distort the shape of the form.

Step 22- Recheck to insure that nothing was knocked out of alignment.

Step 23 – After confirmation that all is O.K., cut the top of the stakes off flush with the top of the form with a handsaw. Be sure not to damage the top of the form while sawing. Protect the saw teeth from being damaged as well.

Step 24 – Police your work area. Pick up and store all tools and clean up construction debris disposing of it properly. Or, wait to police the area until grading is completed if it can be done within the same class period.

Step 25 – After the grading and discussion of the qualities of the workmanship, disassemble the form. Be sure to remove nails out of wood as you work along. Do not wait until everything is disassembled to begin removing nails.

Step 26 – Your instructor will probably want to reuse some of the materials. Check about this before disposing any materials from the exercise. Restore tools to their storage position and finish any record keeping you may be requested to perform.