

# Building Parallel Steps with Round Corners

## Allan Block Provides Many Options For Steps

One of the unique benefits that sets Allan Block apart from other retaining wall systems is a great variety of options in designing and building steps into a retaining wall. With Allan Block, you can build steps parallel or perpendicular to the wall face. Step corners can be designed with right angles or smooth flowing curves, and stair treads can be built with AB Capstones or a variety of other finishing options. No other retaining wall system gives you these options.

### Building steps without using corner blocks

The simplest and easiest method of building steps with Allan Block is to use smooth flowing curved walls with stair treads made of poured concrete. The benefits of this method include:

- no cutting of blocks
- no corner blocks
- less time and expense to construct
- soft curves compliment most landscape designs

### Step 1: Base Course

- Excavate a 6 in. deep x 18 in. wide (15 cm x 45.7 cm) base trench at the location of your steps (Fig. 1).
- Place 4 in. (10.2 cm) of granular material in the trench and compact with a mechanical plate compactor (Fig. 2).
- Position Base Row of AB Blocks as shown. Carefully place granular material in block cores and 6-12 in. (15-30 cm) behind blocks and compact to lock in position (Fig. 3).

**NOTE: The height of this backfill material should be level with the back of the base row of blocks.**

### Step 2: 2nd Course

- Place AB Blocks on 2nd course as shown (Fig. 4). Make sure to level each block and keep the step level as it curves back to join up with the front of the wall.

### Additional Courses

- Repeat STEP 2 for each course of the stairs. Maintain an even spacing of each stair tread (Fig.5).

### Step 3: Finishing stair treads

- Allan Block's patented front lip provides a built-in edging for finishing stair treads. Allan Block Capstones, crushed rock, mulch, exposed aggregate, poured concrete, paving stones and flagstones all work well (Fig. 6).

Figure 1 Excavate Base Trench

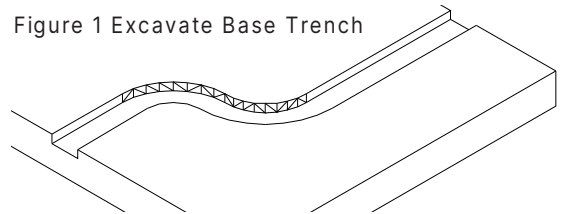


Figure 2 Compact Granular Material In Trench

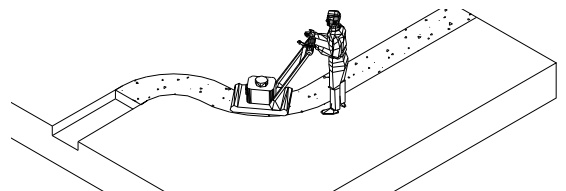


Figure 3 Install Base Course, Backfill & Compact

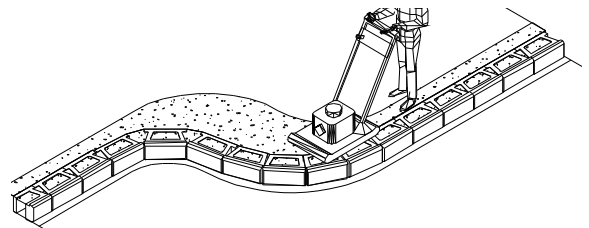


Figure 4 Install 2nd Course, Backfill & Compact

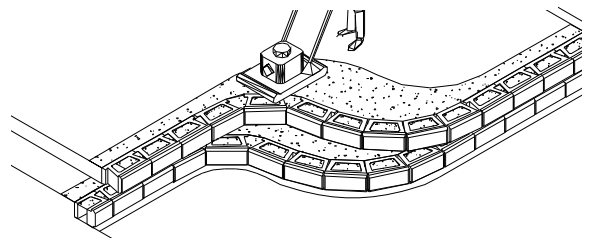
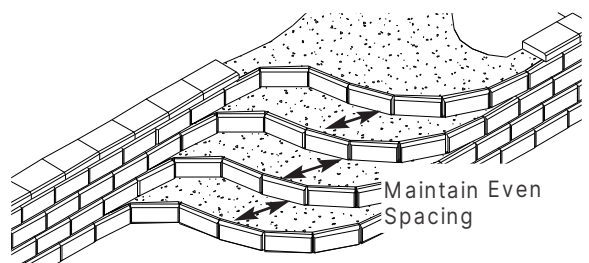


Figure 5 Parallel Steps With Rounded Inside And Outside Corners OPTION #1



### Special Considerations When Building Steps

- **Design** Stair and step design should enhance the overall landscape project. Typically, smooth flowing curves will compliment your landscape design and are the easiest to build.
- **Time** Stairway construction may require extra time for spacing and fitting blocks. For a quality job, allow yourself a little extra time for laying out and building your stairs.
- **Codes** Consider local building codes regarding step and stair dimensions in your design.
- **Finishes** Choose a stair tread material to match your landscape project. Allan Block's built-in front lip provides a natural edging for AB Capstones, landscape pavers, poured concrete, crushed rock, mulches and flagstones (Fig. 6).

**Note: If AB Capstones or concrete are used for stair treads, avoid the use of de-icing salts which will cause the concrete to deteriorate over time.**

- **Dimensions** To minimize cutting, design stairs to account for AB block dimensions and finishing materials (Capstone or paver dimensions).

### Inside Corners

Inside corners are easily constructed by modifying Allan Block units (Fig. 8).

- Remove half of raised front lip. They can be chiseled off, but a masonry saw works best.
- Lay modified block perpendicular to another Allan Block unit with the lips lined up (STEP 1).
- Remove the opposite half of the lip of another AB unit and position it over the corner (STEP 2).
- Reverse the position of the modified block on each row to obtain an interlocked corner.

### Construction Notes:

**Granular Base and Backfill Material:** Allan Block recommends using the same material for the base, the drain field within the block cores and 6-12 in. (15-30 cm) behind the wall. We recommend a well draining compactible aggregate, ranging in size from 0.25 in. to 1.5 in. (6.4 mm to 3.8 cm) diameter. See your local aggregate sources for availability.

**Compaction:** Use a plate compactor to compact material in 8 in. (20.3 cm) lifts. Run the plate compactor on top of the block to lock them in position. Compact parallel to the wall, working from the front of the wall to the back of the infill material. Keep heavy equipment a minimum of 3 ft (0.9 m) from the back of the wall.

Figure 6 Options For Finishing Stair Treads

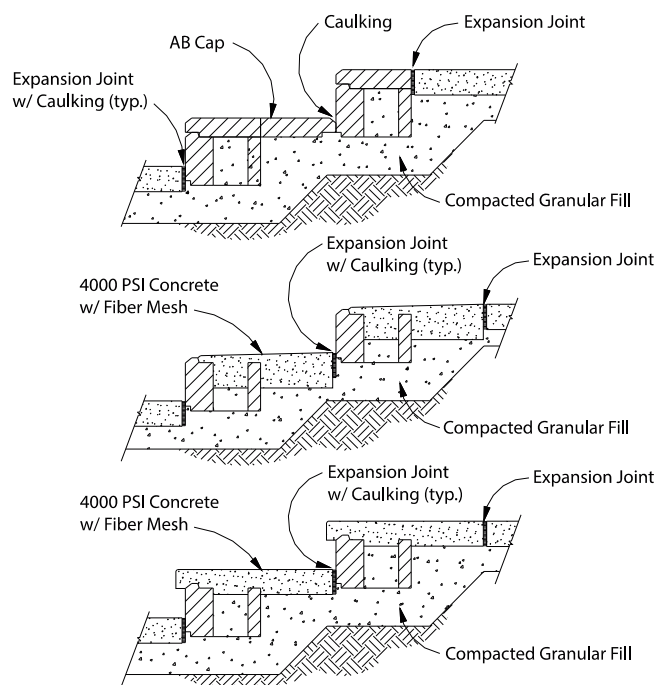
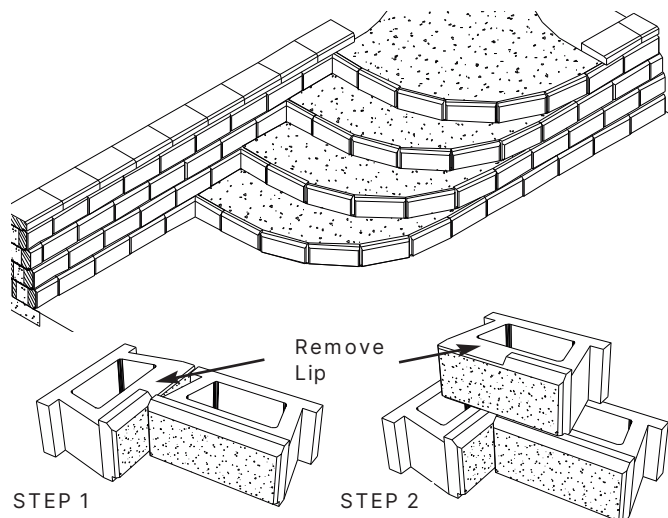


Figure 7 Parallel Steps With Right Angle Inside Corner And Rounded Outside Corner OPTION #2



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