

# How to build a Garden Retaining Wall

## Before you Start Checklist

### 1. Check with your council

Low garden edging can usually be installed without council approval. However walls over 1m will generally need to be designed and certified by a suitable qualified engineer. Walls in locations close to building or driveways, in places where significant ground water or storm water build up can be expected, in steep or unstable terrain, or where there is reactive clay or fine sandy soils, may need special attention. If in doubt please contact your local council.

### 2. Check you have all the right equipment

- Garden Gloves
- Wheelbarrow
- Spade
- Rubber Mallet
- Road Base (for leveling Pad)
- 10mm – 20mm Blue Metal (for drainage)
- Safety Glasses
- Spirit Level
- String Line
- Small Broom
- Hammer & Bolster (for splitting blocks)
- Compactor

### 3. IMPORTANT SAFETY

- **Always wear eye protection when you're splitting or cutting an Adbri Masonry retaining wall unit. Wear eye protection when you are using a whacker.**
- **Bend your knees when lifting heavy products.**
- **Wear work boots to protect your feet & gardening gloves to protect your hands.**
- **Slip, slop, slap if you are working in the sun & keep your fluids up.**

### Tip before you start

A great retaining wall requires a good foundation, correct backfill and drainage. Pay special attention to getting your leveling pad – Foundation to an even depth, and if using road base make sure your bed is compacted to the correct size. Drainage gravel should be 10mm-20mm in size – blue metal is perfect. Remember the first course of blocks will dictate how the final wall looks, so lay them square and true level side to side and front to back. Use a spirit level across the top of the blocks and tap them down with a rubber mallet.



## Additional Tips

### Additional Tips for Curves

Insert a Stake at the centre of the desired curve then mark an arc on the ground with a spray can, connected by the string. For outside curves, the top course will have the smallest radius so make sure this is not less than the minimum for the block type you are using. Conversely, for inside curves the wall radius increases with each subsequent course. For both inside and outside curves, you will need to include partial blocks to maintain a proper running bond.

### Additional Tips for Corners

To build an outside corner begin by placing a half unit on the corner then lay the rest of the base course working out from the corner block. Begin the second course with another half unit, this time aligned with the alternate wall. Place the second and third blocks on either side of the corner unit. Continue to alternate the corner unit orientation with each subsequent course.

To build an inside corner, place a full block at the corner then lay a second block at right angles to the first. Continue laying out the rest of the base course working from the corner out. On the second course lay the blocks on bond (e.g. like bricks) on one side of the corner.

Once the second course of one wall is established, begin the second course of the adjacent wall. Partial units may be required on this wall to maintain running bond for better strength and appearance. Block placement in the corner should alternate direction with each subsequent course.

## 1. Mark out the wall



For straight walls use stakes and a string line. For curved walls set the shape by laying a garden hose on the ground, then mark the curve with spray paint. Its best to use a hose with a tap on the spray nozzle of, as the water pressure will form a more uniform curve.

**Handy Tip:** Use brightly coloured string so you don't trip over it.

## 2. Dig a trench



Dig a trench 300mm-600mm wide and 130mm-150mm deep to fit the leveling pad. Remove any roots and soft earth. Level and firmly compact the soil at the bottom of the trench.

**Handy Tip:** Gloves make your spade user friendly.

## 3. Add leveling pad



Spread road base along the bottom of your trench. When using road base, level with a straight edge and compact to the required height by tamping with the rear face of a block or mechanical whacker packer.

**Handy Tip:** Road base consists of 5% cement – stabilized crushed rock.

## 4. The first course



Place blocks side by side at the front of the leveled and compacted road base whilst using a string line along the back of units for alignment. For curved walls, place the blocks against the required shape formed by a garden hose and marked out with spray paint. Make sure the blocks are tightly side butted together and true to the running edge of the finished wall. Sweep the top of the first course before laying the second.

**Handy Tip:** Use a rubber mallet to tap blocks into place – a metal hammer may crack them.

## 5. Backfill



When the first course is in place, backfill behind the blocks with a minimum 300mm wide 10-20mm blue metal drainage aggregate to a level slightly lower than the block height. Lay in the second block course then backfill immediately behind the wall with the drainage aggregate.

**Handy Tip:** Back fill as you go.

## 6. Install the drain



If required place a 100mm drainage pipe behind the first course of blocks on the bed of drainage aggregate. Outlet the drain through the wall at every low point, at every 20m of wall length, and around the ends of the wall to your storm water system.

**Handy Tip:** Use Ag pipe with a protective sock on it.

## 7. Continue to lay



Add your subsequent block courses to your maximum height. Remember to backfill with drainage aggregate as you go, and compact it when 300mm deep. Sweep the top of each course before laying the next to remove all loose stones. Ensure the locking lips (at the back or top of the block) fit snugly together.

**Handy Tip:** Make sure your blocks lock together.

## 8. Finishing Off



Backfill to the final wall height whilst being careful not to nudge any blocks out of alignment. Capping units should be glued to the top course using a construction adhesive. (Liquid Nails)

**Handy Tip:** Make sure you have a cold one in the fridge for when you have finished.