



A handsome natural stone retaining wall adds beauty and value to both commercial and residential property.

It is true that an experienced "stone wall installer" can readily build the "perfect" stone wall — and it will last forever. But the building of the stone wall is a project that can also be undertaken by a homeowner — with great success.

There are two types of retaining walls. One, a dry wall where the stones are stacked and *no mortar* is used. The second is a stone wall, using mortar and a foundation.

COVER PHOTO: Stewart & Kleinman,
Landscape Architects, New York, New York.

HOW TO BUILD A DRY WALL NO MORTAR

HOW MUCH STONE WILL YOU NEED?

First, determine the length of the wall (in feet) and the height of the wall (in feet). If the wall is to be no more than 4-foot high, then you can use stones which measure about 1-foot wide. That will make your wall about 1-foot thick.

Remember, stone is heavy (it lasts forever). Don't get discouraged when your stone dealer talks about *price per ton* of various stones.

Let's say you determined that your wall will be 50-foot long and 2-foot wide.

Here is the formula:

$$50' \times 2' \times 1' = 100 \text{ Cubic Feet (cf)}$$

The stone will probably weigh an average of 125 pounds per cubic foot.

$$100 \text{ cf} \times 125 \text{ lb/cf} = 6\text{-}1/4 \text{ tons}$$

$$\frac{2,000 \text{ lb/ton}}$$

Your calculations indicate that you will need about 6-1/4 tons of stone. Take a little extra stone to allow for a good selection. The cost can range from \$100 to \$200 or more, per ton—depending on the type of stone, how it is to be delivered (or dumped), where it is to be delivered, etc. Be sure to buy your materials from a reliable stone dealer. All too often there is a "bargain" stone available—which may have been blasted free with dynamite—and which now contains microscopic fissures that can hold water and freeze, spall and deteriorate. All of your effort will have been wasted if the stone material is not of good quality and the wall deteriorates.

TOOLS AND MATERIAL REQUIRED:

- A] Heavy Hammer
- B] Folding Rule
- C] Carpenter's Level
- D] Pick and Shovel
- E] String Line
- F] Selected Stone and a cheerful disposition!

HOW TO START:

Dig a trench about 6-inches deep and about 12-inches wide (or as wide as your largest stone) along the base of your slope or the proposed location of the wall. There is no elaborate footing required for a "dry" wall. Since no mortar is used the stones are *not bonded* together and they will rise and fall with the frost—causing no damage to the wall.

Place your largest stones in the trench, end to end. For best results, lay all of

your stones down flat—as they would lie naturally on the ground. Now, as you begin to stack the wall, working from one end to the other, you must remember to slope it back toward the high ground, or "batter" the wall. This is accomplished by simply standing your level on end and measuring to the face of the wall as shown in the drawing.

As you build, try to avoid continuous horizontal and vertical joints by breaking them up with larger and smaller stones. Place stones so they fit tightly together for strength and a nice appearance. Fill in the area behind your wall with dirt and compact it as you go. Every now and then, turn a long stone into the hillside to act as an anchor or "bond" stone. This will improve the stability of your wall.

Save some of the nice flat pieces of stone to cap the wall off on top.

