



Figure 4-10 Architectural concrete block comes in a variety of colors and textures.

4.6.1 Screen Block

Many decorative effects can be achieved through various CMU surface treatments. Perforated screen blocks are available in several patterns and can be used as sun screens, ornamental partitions, and exterior sound baffles for damping low-frequency airborne noise (*see Fig. 4-15*). Ordinary concrete blocks are typically laid with the hollow cores oriented vertically. Screen blocks, however, are laid with the hollow cores oriented horizontally, which yields a lower compressive strength for axial loads. Some common screen block designs are shown in *Fig. 4-16*, along with their relative compressive strength. Screen blocks are non-loadbearing, but they must be strong enough to carry their own weight and the weight of the units above them.

4.6.2 Prefaced Units

Glazed surfaces may be applied to concrete brick or block as well as to sand-lime brick. Glazes may consist of epoxy, polyester, ceramic, porcelainized, or



Figure 4-11 Ribbed, split-face, and burnished concrete block.

mineral glazes, or cementitious finishes. All applied surfaces must meet the requirements of ASTM C744, *Standard Specification for Prefaced Concrete and Calcium Silicate Masonry Units*, in tests of imperviousness, abrasion, stain resistance, chemical resistance, and fire resistance as well as crazing and adhesion of facing material to unit (see Fig. 4-17). A thermosetting, resinous coating combined with specially treated silica sand, pigments, and/or ceramic colored granules is applied to the unit. The minimum requirements for both strength and abrasion are lower for glazed cementitious and concrete products than for glazed clay masonry units. Like glazed clay units, prefaced concrete masonry units combine the functionality of masonry with a hygienic, cleanable surface and a wide palette of color choices. Manufacturing tolerances are only $\pm\frac{1}{16}$ in. so that narrow joints can be used to minimize mortar exposure.