

## Designing with Aggregate Industries colored concrete masonry

Concrete masonry units (CMU) are beautiful. However, while most designers and builders are aware of the strength, economy, fire resistance, and other performance advantages of CMU construction, they can overlook its aesthetic possibilities. This is changing, however, as an increasing number of architects are discovering the design potential of colored concrete masonry. Colored CMU is produced using pigments, typically synthetic iron oxides. These extremely small particles of pigment bond with the cement and last as long as the concrete. The architectural CMU category includes rock face, scored, burnished and specially shaped units, and it is the growing use of color with these units that has captivated the imagination of designers. Creative designers are using colored CMU to create the image and express the spirit of their buildings.

Architectural CMU are available in a wide spectrum of colors to satisfy almost any design requirement. In addition, high performance water repellents can be applied to walls or added to the concrete and mortar mixes. Subtle earth tone colors can be used to blend a building into its environment, or colors that are more vivid can be used to create visibility and a unique identity for a building. While many walls are constructed in a monolithic color, several shades of colored CMU also can be combined in a wall to create special effects. For example, accent colors can be used to create fascia and decorative panels or to accentuate lintels, columns, and other architectural features. Color blends can give a subtle texture to a wall. On many innovative projects, patterns and intricate coursing have been constructed with colored CMU to create uniquely decorated walls. These techniques are a time-honored masonry tradition and when constructed in the larger scale afforded by concrete block, they take on a new feel that is more expressive.

Since it is no longer necessary to paint or stain the units, the intrinsic beauty of the concrete masonry surface can be left exposed. In contrast to a painted or stained surface, exposed CMU have a more natural appearance. Not having to paint or stain a colored CMU wall saves time and money during construction. Additional savings accrue throughout the lifetime of the building, since colored concrete is a permanent material that requires little or no maintenance. This also offers an environmental benefit, since the integral color pigments used in colored CMU are nontoxic and contain none of the solvents associated with painting and re-painting.

Designers are combining colored CMU with, glass block, clay brick, and other building materials in innovative ways. The use of colored CMU is increasingly popular as an interior finish material. Computer aided drafting is making it easier to design complex masonry patterns and special motifs. In the words of one mason, it seems like “no one is building ‘four-cornered’ buildings any-more.” Instead, the variety of CMU colors and styles available today expands the designer’s palette. The real excitement is the increased willingness of so many designers to use concrete masonry in new and creative ways.