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Recycled Materials that are Included with Brick Masonry Can Enhance Your Position as a Green Builder

The emphasis on environmental stewardship and energy efficiency is more important than ever before. With nearly 8,000 pounds of waste typically thrown in a landfill during the construction of a 2,000 square foot home, using products that incorporate recycled content is crucial. Brick can play a significant role in your efforts. Because fired clay units are inert, brick can incorporate many materials, including pre-consumer recycled content and soil that would otherwise be considered waste. In addition, the packaging of brick—a few hands and wooden strips—is 100% recyclable, as are the bricks themselves. Finally, because of the product’s tremendous durability, reclaimed brick are commonly used in new construction. While other building materials can be methodically nested, repurposed or repurposed in some way, what other material than brick can be placed in usage for more than 100 years, taken down, and then reused as just as it was designed to do originally? At the same time, other materials related to brick can also incorporate recycled material.

• Mortar and grout, which comprise about 18% of a brick’s wall surface, can include recycled materials such as fly ash.
• Flashings can be made from recycled metal or plastic.
• Mortar deflection devices can incorporate recycled plastic.
• Wall ties can be made of recycled metal.

Inefficient Opening Details Figure 2

Extend Brick’s Use to the Ground with Clay Pavers

A permeable pavement made with clay pavers set in a flexible base can contribute water back into our underground water supply. To support the health of vegetation and to help control existing flood water supplies, some municipalities limit the size of the footprint that new constructions can consume on a given lot size. This footprint includes the house itself, as well as patios, sidewalks, and driveways consisting of impervious materials. Realizing the contribution that a flexible clay paving system offers to the environment, some municipalities will allow a larger house footprint, if all or some of the footprint is permeable. In addition, most clay pavers reflect heat very well and reduce the heat island effect.

How Brick Can Help You Build Green, Efficient Homes That Your Customers Want

In 2008, the National Association of Home Builders introduced the National Green Building Standard. In November 2009, Rose Allen Hamilton’s “U.S. Green Jobs Study” forecasted that LEDS® related spending will generate $12.5 trillion in gross domestic product between 2009 and 2015. The U.S. Department of Energy is developing a National Energy Rating Program for Homes. This rating program will offer consumers easy-to-understand and consistent information about their home’s energy performance, which impacts both the remodeling and home building industries. With this confluence of events, it’s clear that sustainability and energy efficiency are going to be very important to you and your customers if they aren’t already.

Genuine Clay Brick is an Energy-Efficient Product That Your Customers Want

Most builders and their customers know that genuine clay brick is an outstanding building material. According to Ducker Worldwide, homeowners consider brick as the ideal and preferred material for exterior cladding more often than any other exterior cladding material. Because of its thermal mass properties, brick has the inherent ability to absorb and retain heat to release at a later date, resulting in less energy required to heat and cool homes. Unlike other materials, brick is supremely durable, and the National Institute for Standards and Technology (NIST) allies brick masonry a 100-year life. Brick is made from natural materials free of volatile organic compounds, which result in better occupant health, comfort, and well-being. With its combination of qualities, clay brick is the most sustainable green building material made. The question for builders then is how can you provide green products that your customers want in an efficient, cost-effective manner so that everyone can be a profitable, green builder?

BIA’s Recommended Best Practices Can Make It Easier to Solidify Yourself as a Green Builder

Proprietary Planning Will Increase Efficiency with Each Brick Delivery

Pay Attention to Material Storage: Placing brick and sand directly on the ground when it is delivered to the job site is quite common over time. There is no way to get all the sand that is sitting directly on the earth back up and into the mixer which is why it is common to order an extra ton or two to allow for waste. Also, brick and sand in direct contact with the ground can pick up salts and other materials that can later contribute to efflorescence - stains can be costly to remove. Therefore, some attention must be given to create material storage. Placing materials on tarps, plastic, or up on pallets can optimize material usage.

Increase the Use of Modular Dimensions: Substantial effort goes into designing commercial structures with modular dimensions. Laying out a building in such a way is more than an aesthetic issue; it saves materials as well. Consequently, similar thought should be given to controlling waste in residential settings. For example, while there are a limited number of odd-sized windows in some homes, the majority of the windows on each successive floor level of most homes are of similar dimension. If windows are carefully placed at the same height on all sides of the home, the mason can use the tips of windows as a benchmark to help course off the story poles. This careful placement will eliminate the need to cut brick or rip out the lintel over the openings, cutting down on waste and providing a more professional looking installation.

Consider Different Sized Units: It is now common practice for builders to select brick for their projects that are not designed for use with modular dimensions. For example, some use brick with a nominal 5-inch width and set bed. If these thinner bricks are used on a house where a conventional 4½-inch brick ledge and a
Mortar and grout, which comprise about 18% of a brick’s wall surface, can incorporate recycled plastic and other waste, contribute to a more professional looking installation, and be a faster and more efficient opening detail in Figure 2. This approach will certainly cut down on waste and provide a more professional looking installation, and be a faster and more efficient way for the master to use normal 5 ⅝-inch wide brick.

When nominal 5 ⅝-inch wide brick is used around window and door openings, the brick contouring should be initially set so that the brick ‘come out’ at the top of openings to support the lintels on full-height brick units as shown in the Preferable Opening Detail of Figure 2. If this is not done, ripped brick or large mortar joints may result under the lintel as shown in the Inefficient Opening Detail of Figure 2. If a vertical brick detail above openings is desired, the Preferable Opening Detail of Figure 2 shows how to achieve this using small brick pieces as shown in the Inefficient Opening Detail of Figure 2. This approach will certainly cut down on waste, contribute to a more professional looking installation, and be a faster and easier way for the master to use normal 5 ⅝-inch wide brick.

Encourage Mason Contractors to Supply Labor and Materials: There can be little incentive on the master’s part to give attention to conserving materials if the builder is supplying them. Masonry contractors who are contracted to supply both labor and materials are generally more motivated to optimize the use of all the components in a venser.

Recycled Materials that are Included with Brick Masonry Can Enhance Your Position as a Green Builder: The emphasis on environmental stewardship and energy efficiency is more important than ever before. With nearly 8,000 pounds of waste typically thrown in a landfill during the construction of a 2,000 square foot home, using products that incorporate recycled content is crucial.

Brick can play a significant role in your efforts. Because fired clay units are inert, brick can incorporate many materials, including pre-consumer recycled content and soil that would otherwise be considered waste. In addition, the packaging of brick—a few hands and wooden strips—is 100% recyclable, as are the bricks themselves. Finally, because of the product’s exceptional durability, reclaimed brick are commonly used in new construction. While other building materials can be methodically disposed, or repurposed in some way, what other material than brick can be placed in usage for more than 100 years, taken down, and then reused as is just as it was designed to do originally? At the same time, other materials related to brick can also incorporate recycled material.

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Extend Brick’s Use to the Ground with Clay Pavers: A permeable pavement made with clay pavers set in a flexible base can contribute water back into our underground water supply. To support the health of vegetation and to help regulate existing fresh water supplies, some municipalities strictly limit the size of the footprint that new constructions can consume on a given lot size. This footprint includes the house itself, as well as patios, sidewalks, and driveways. Consequently, similar thought should be given to controlling waste in residential and commercial structures with modular dimensions. Laying out a design that uses modular block sizes will certainly cut down on waste, contribute to a more professional looking installation, and be a faster and easier way for the master to use normal 5 ⅝-inch wide brick.

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