

MATERIALS AND RESOURCES

Building Life-Cycle Impact Reduction

STATED INTENT

“To encourage adaptive reuse and optimize the environmental performance of products and materials.”

PERTINENT REQUIREMENTS

Option 1: Historic building reuse

Maintain the existing building structure, envelope, and interior nonstructural elements of a historic building or contributing building in a historic district.

Option 3: Building and material reuse

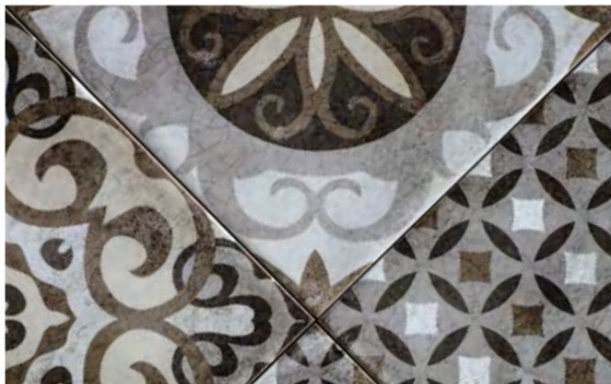
Reuse or salvage building materials from off site or on site as a percentage of the surface area. Include structural elements (e.g., floors, roof decking), enclosure materials (e.g., skin, framing), and permanently-installed interior elements (e.g., walls, doors, floor coverings, ceiling systems).

Option 4: Whole-building life-cycle assessment

TIPS TO INTEGRATE TILE INTO YOUR DESIGN

Tile’s inherent durability makes it one of the few interior surface coverings that can be reused in renovations without refinishing. Preservationists often incorporate exquisite historic tile installations into building restorations, honoring the industry’s rich artistic heritage.

Tile’s 60 year-plus lifespan and minimal environmental footprint offer significant advantages in a whole-building life-cycle assessment. And because Option 4 requires material selection based on a 60-year whole-building life-cycle assessment, specifying tile is an ideal way to contribute to this requirement.



Building Product Disclosure and Optimization—Environmental Product Declarations

STATED INTENT

“To encourage the use of products and materials for which life-cycle information is available and that have environmentally, economically, and socially preferable life-cycle impacts. To reward project teams for selecting products from manufacturers who have verified improved environmental life-cycle impacts.”

PERTINENT REQUIREMENTS

Option 1: Environmental product declaration (EPD)

Use at least 20 different permanently-installed products sourced from at least five different manufacturers that meet one of the disclosure criteria below.

- Products with a product-specific, publicly available life-cycle assessment (LCA)
- Products with an industry-wide (generic) EPD
- Products with a product-specific EPD

Option 2: Multi-attribute optimization

Use products that comply with the criterion below for 50%, by cost, of the total value of permanently-installed products in the project.

- Products that demonstrate impact reduction below industry average in at least three impact categories

TIPS TO INTEGRATE TILE INTO YOUR DESIGN

To ensure that tile is taken into consideration when making EPD-based product comparisons, TCNA released an industry-wide EPD in 2014 that provides a third-party verified, comprehensive analysis of the majority of ceramic tile produced in North America. This EPD is based on a life-cycle assessment (LCA) that addresses everything from sourcing and extraction of raw materials to end of product life options.

Some tile products that were included in the generic EPD have proprietary life-cycle data available, and those that demonstrate impact reduction below industry average can further contribute to this credit.