

LEED V5 CREDITS AND CLAY BRICK MASONRY

INTRODUCTION

The Leadership in Energy and Environmental Design™ green building program, better known as LEED®, includes a suite of rating systems developed by the U.S. Green Building Council (USGBC) to promote environmental responsibility and sustainable practices. In 2025, USGBC released updated versions of its Building Design and Construction (BD+C), Interior Design and Construction (ID+C), and Building Operations and Maintenance (O+M) rating systems. The new versions, known as LEED v5, supersede LEED v4 and LEED v4.1.

A key focus of LEED v5 is embodied and operational carbon of buildings, including requirements for carbon assessment and reducing embodied carbon of building materials. Other changes in LEED v5 include the addition of [requirements related to climate resilience](#).

This *Brick Brief* focuses on the changes in the BD+C rating system, as that is the rating system applicable to new construction and major renovations. This *Brick Brief* is not intended to address all the changes in LEED v5 but focuses on the credits that may involve the use of brick, in the categories of Sustainable Sites (SS) and Materials and Resources (MR). As with all LEED requirements, no single product can earn a LEED point by itself but instead can contribute to the requirements for earning LEED points.

SUSTAINABLE SITES (SS) CREDITS IN LEED V5

There are three SS credits in LEED v5 related to brick masonry, which are summarized in [Table 1](#). More information on these and other LEED SS credits can be found [here](#).

Rainwater Management (SSc3)

In [this credit](#), projects can earn 1 to 3 points for reducing water runoff from a site using low-impact development (LID) and green infrastructure (GI) practices. These strategies include the use of permeable pavement systems to achieve water retention goals ([Photo 1](#)). Permeable clay brick pavements can be used for sidewalks, driveways, parking lots, and other hardscape areas.



Photo 1: Permeable clay brick pavement

TABLE 1:
LEED v5 Sustainable Sites (SS) Credits

LEED v5 Credit	Option	Points	Description
SSc3: Rainwater Management	Option 1, Percentile of Rainfall Events	1–3 points	Points are based on the percentile of regional or local rainfall events retained. Strategies for reducing water runoff (retaining rainfall) include the use of permeable pavement systems.
SSc4: Enhanced Resilient Site Design		2 points	Projects must implement best practices for at least two of the hazards identified in the Climate Resilience Assessment prerequisite. These hazards include flooding, high winds, and wildfire. Brick masonry is flood resistant, impact resistant, and fire resistant.
SSc5: Heat Island Reduction	Option 1, Nonroof and Roof	1 point	Points are awarded if the weighted sum of the areas of qualifying horizontal nonroof surfaces, high-reflectance roof surfaces, and vegetated roof surfaces exceed the sum of the total site paved area and the roof area. Qualifying measures for nonroof areas include paving materials with an initial solar reflectance (SR) value of 0.33 or higher.

Enhanced Resilient Site Design (SSc4)

[This new credit](#) in LEED v5 provides 2 points for projects that implement best practices for at least two of the hazards identified in the [Climate Resilience Assessment prerequisite](#). These hazards include flooding, high winds, and wildfire. Options for compliance related to flood hazards include ensuring that all structural materials, finish materials, and connectors used below the design flood elevation (DFE) are flood resistant. Brick masonry has an acceptable rating for flood damage resistance per National Flood Insurance Program (NFIP) [Technical Bulletin 2](#).

Brick masonry has demonstrated impact resistance to hail and wind-borne debris. The Insurance Institute for Business & Home Safety (IBHS) [2025 Fortified Commercial Standard](#), in Section 3.2.2.2, Wall Impact Resistance, recognizes walls with brick veneer as one of the finishes qualified to provide debris impact resistance in hurricane-prone regions. A reinforced brick masonry wall can also provide impact resistance.

Recommendations for design to resist wildfire, such as those in the IBHS [Wildfire Prepared Home checklist](#), include use of noncombustible building materials such as brick on exterior walls and for fences within 5 feet of a building.

Heat Island Reduction (SSc5)

[This credit](#) has three compliance paths, one of which relates to brick. *Option 1, Nonroof and Roof*, is worth 1 point if the weighted sum of the areas of qualifying horizontal nonroof surfaces, high-reflectance roof surfaces, and vegetated roof surfaces exceed the sum of the total site paved area and the roof area. Qualifying measures for nonroof areas include shade provided by plants, shade structures, open-grid pavement systems, and paving materials with an initial solar reflectance (SR) value of 0.33 or higher. Brick pavements, permeable or mortared, meeting the SR requirement can be used.

MATERIALS AND RESOURCES (MR) CREDITS IN LEED V5

The [MR credits in LEED v5](#) are heavily focused on reducing embodied carbon associated with building materials. The LEED v5 MR credits build on those found in LEED v4/4.1 with several important changes. LEED v5 presents a shift in the approach to building product selection. While product-specific information is required for compliance with many credits, there is a focus on a more holistic approach that considers broad product categories. In all cases, points are calculated by considering entire product categories (e.g., walls) or the building as a whole. No single product can earn points on its own. [Table 2](#) summarizes the LEED v5 MR credits.

Quantify and Assess Embodied Carbon (MRp2)

Prerequisite

[This new prerequisite](#) is required for all LEED projects and has two parts. The first part requires projects to quantify the embodied carbon impacts (cradle-to-gate [A1–A3] global warming potential or GWP) of the structure, enclosure, and hardscape materials for the project. GWP emissions associated with manufacturing are determined through the use of life cycle assessment (LCA) software or industry-average EPDs. The second part of this prerequisite requires the identification of the three primary contributors to embodied carbon based on the quantification of GWP for each material assessed on the project and steps taken to reduce their impacts. Steps to reduce impacts may include changes in the building design to optimize material use or to use similar materials with less embodied carbon based on product-specific EPDs.

Building and Materials Reuse (MRc1)

The intent of [this credit](#) is to reduce embodied carbon by reusing portions of existing buildings and reusing materials. This credit has two options:

Option 1, Building Reuse, is worth 1 to 3 points based on the percentage of the area of existing structure and enclosure that is reused. A minimum of 20% of the existing building surface area must be reused. Maintaining an existing brick masonry facade or incorporating existing structural multi-wythe brick walls into the design would count toward achieving this credit ([Photo 2](#)). Incorporation of enclosure cladding materials such as salvaged brick into a new facade would also qualify. See the [LEED v5 BD+C Reference Guide](#) for additional guidance.



Photo 2: Existing building with brick structural walls (left) renovated and reused within new development

TABLE 2:
LEED v5 Material and Resources (MR) Credits

LEED v5 Credit	Option	Path	Points	Description
MRp2: Quantify and Assess Embodied Carbon (prerequisite for LEEDv5 certification)			0 pts	Part 1 requires projects to quantify the embodied carbon impacts (cradle-to-gate [A1–A3] global warming potential) of the structure, enclosure, and hardscape materials for the project, including masonry. Part 2 requires the identification of the three primary contributors to embodied carbon on the project and steps taken to reduce their impacts.
MRc1: Building and Materials Reuse	Option 1, Building Reuse		1–3 pts	Points based on the percentage of the surface area of existing structure and enclosure that is reused. Incorporation of salvaged materials into the structure or enclosure counts toward area reused. 20% = 1 pt; 35% = 2 pts; 50% = 3 pts.
	Option 2, Materials Reuse		1–2 pts	1 or 2 points can be earned depending on the type and amount of material reused in nonstructural applications as compared with the total amount of material type in the new construction scope. Minimum reuse is 15% of specific material types.
MRc2: Reduce Embodied Carbon	Option 1, Whole Building Life Cycle Assessment (WBLCA)		2–6 pts	A baseline whole-building design using standard materials is compared with a low-embodied carbon whole-building design using WBLCA software. Projects that meet the baseline or industry average for GWP = 2 pts; 10% reduction in GWP = 3 pts; 20% reduction = 4 pts; 30% reduction = 5 pts; 40% reduction = 6 pts.
	Option 2, Environmental Product Declaration Analysis	Path 1, Project-Average Approach	1–3 pts	Points based on GWP values for the total materials used on the project compared with the sum of the corresponding industry-average GWP values. Projects that meet the baseline for GWP = 1 pt; 20% reduction in GWP = 2 pts; 40% reduction in GWP = 3 pts.
		Path 2, Materials Type Approach	1–2 pts	Points earned for using structural, enclosure, and hardscape materials that have lower embodied carbon impacts than industry benchmarks. Lower than industry benchmark GWP in 3 material categories = 1 pt; lower in 5 or more material categories = 2 pts.
MRc3: Low-Emitting Materials			1–2 pts	Requires a specified percentage of products in designated categories to have low to no VOCs. Projects with >90% of all products in categories of paints and coatings, flooring, and ceilings compliant = 1 pt; additionally, >80% of all products in at least two of the following categories compliant: adhesives and sealants, walls, insulation, or composite wood = 1 pt.
MRc4: Building Product Selection and Procurement			1–5 pts	Projects earn 1 point for each compliant category using a weighted scoring that considers climate health, human health, ecosystem health, social health and equity, and circular economy. Categories evaluated are paints and coatings, adhesives and sealants, flooring, walls, ceilings, insulation, furniture, composite wood, and plumbing fixtures. A maximum of 5 points can be earned.
MRc5: Construction and Demolition Waste Diversion			1–2 pts	Projects earn 1 point for diverting ≥ 50% of the total C+D material. At least 10% of diverted material must be salvaged or source-separated and sent to single material recycler(s). Projects earn 2 points for diverting ≥ 75% of the total C+D material. At least 25% of diverted material must be salvaged or source-separated and sent to single material recycler(s).

Option 2, Materials Reuse, is focused on nonstructural (interior) applications. Either 1 or 2 points can be earned depending upon the type and amount of material reused as compared with the total amount of material type in the new construction scope. For example, if at least 15% of the interior walls on the project are existing (reused) walls, the project can earn 1 point. Procuring materials from off-site for use in the project also counts toward the percentage reused, such as salvaged brick used in an interior finish application. See the calculation in the LEED credit for further information.

Reduce Embodied Carbon (MRc2)

[This credit](#) has two options that relate to brick masonry. The Industry-Average EPD for Clay Masonry Products can be used to provide GWP values for Option 1 (WBLCA) and Option 2 (EPD Analysis). Clay masonry product-specific EPDs can be used to demonstrate GWP values below the industry average for Option 2.

Option 1, Whole Building Life Cycle Assessment (WBLCA), is worth 2 to 6 points. In this option, a baseline whole-building design using standard materials is compared with a low-embodied carbon whole-building design using WBLCA software. This option evaluates the entire life cycle of a building, including construction, use, and demolition. An increasing number of points are earned for reductions in global warming potential (GWP) as compared with industry-average performance. WBLCA software is the primary source for product information in this option.

Option 2, Environmental Product Declaration (EPD) Analysis, is worth 1 to 3 points. This option has two paths.

Path 1, Project-Average Approach, compares the GWP values for the total materials used on the project with the sum of the corresponding industry-average GWP values. Compliance is achieved by using the data in the [EC3 tool](#) or industry-average EPDs to set the baseline and comparing that with product-specific EPDs. In this path, 1 point is earned by not exceeding the industry-average GWP values; 2 points for a 20% reduction in GWP; and 3 points for a 40% reduction in the total calculated GWP on the project.

Path 2, Materials Type Approach, awards points for using structural, enclosure, and hardscape materials that have lower embodied carbon impacts than industry benchmarks. Up to 2 points can be earned based on the number of compliant material categories. This path is intended to align with federal and state Buy Clean initiatives for targeted materials. This LEED credit does not define targeted materials/material categories. This path requires product-specific Type III EPDs.

Low-Emitting Materials (MRc3)

[This credit](#), formerly found in the Indoor Environmental Quality category, awards up to 2 points for achieving a specified percentage of products in designated categories that have low to no volatile organic compounds (VOCs). Brick is considered an inherently non-emitting material. However, for brick, this credit applies only to interior, nonstructural wall and floor applications. To earn 1 point, at least 90% of all products, based on surface area or cost, used for paints and coatings, floors, and ceilings must be compliant. Another point can be earned if at least two other categories comply. Categories include walls, insulation, adhesives and sealants, and composite wood.

Building Product Selection and Procurement (MRc4)

[This credit](#) combines several of the *Building Product Disclosure and Optimization* credits in LEED v4/4.1 into a single credit, but with an important difference: It excludes products used in the structural elements of the building. This credit rewards the selection of eligible interior and enclosure materials from the following product categories: paints and coatings, adhesives and sealants, flooring, walls, ceilings, insulation, furniture, composite wood, and plumbing fixtures. Clay masonry products used in the building enclosure or interior applications having Cradle to Cradle, Declare, Environmental Product Declaration (EPD), and Health Product Declaration (HPD) certifications, or containing recycled content, can be used in calculating conformance for a particular compliance category. Up to 5 points can be earned based on the number of compliant categories. The calculation for this credit is complex, and more information can be found on the [USGBC website](#).

Construction and Demolition Waste Diversion (MRc5)

The [Construction and Demolition Waste Diversion credit](#) in LEED v5 is similar to that in LEED v4/4.1. At least 50% of construction and demolition (C+D) material must be diverted from landfill. Additionally, at least 10% of diverted materials must be salvaged or source-separated (separated by material type) and sent to single-material recycler(s). This requirement for source separation is new in LEED v5. Materials such as brick that are sent to salvage markets or returned to the manufacturer are valued at twice the diversion rate (200%) of other diverted materials for credit calculation purposes. The LEED v4/4.1 option for minimizing total waste generated has been deleted. Up to 2 points can be earned based on the percentage of total C+D waste diverted and the percentage salvaged or source-separated.

Product Documentation for MR Credits in LEED v5

For many of the credits in the MR category in LEED v5, product certifications are essential elements to achieve credit compliance. These certifications include product-specific EPDs, HPDs, and so forth. A short description of several of these certifications is provided below.

Cradle to Cradle (C2C): This certification evaluates how well “products are designed and manufactured in a prosperous, circular economy to maximize health and well-being for people and planet.” In evaluating products, C2C considers materials used to make a product, energy and water use, assessment of environmental risks and emissions, circularity, and social fairness and human rights. Based on performance across these categories, products can earn four levels of certification. Information on C2C can be found at <http://www.c2ccertified.org/>.

Cradle to Cradle Material Health Certificate: This certification meets only the Material Health portion of a C2C certification. Material Health evaluates raw ingredients used in a product for impacts on human health and the environment, and it restricts use of certain chemicals of concern. For more information, see <http://www.c2ccertified.org/material-health-certificate>.

Declare: To qualify for a Declare label, products must disclose all intentionally added ingredients and residuals at or above 100 ppm (0.01%) present in the final product by weight. Products that are [Red List Free or Red List Approved](#) have higher weighting in contributing toward the LEED MRc4 credit. More information on Declare can be found at <https://living-future.org/declare/basics/>.

Environmental Product Declaration (EPD): EPDs provide environmental reporting across five impact categories, including GWP. In LEED v5, industry-average EPDs are used for benchmarking and minimal compliance when considering carbon assessments. Product-specific EPDs are required for products to contribute toward earning points in the **Reduce Embodied Carbon credit (MRc2)** and for **Building Product Selection and Procurement credit (MRc4)**. The [industry-average EPD for clay masonry products](#)

Environmental Product Declaration

Clay Masonry Products Industry Average EPD

Clay Masonry Products



The brick industry recognizes that the stewardship of our planet lies in the hands of our generation. Our goal is to continually seek out innovative, environmentally friendly opportunities in the manufacturing process and for the end use of clay brick products. As demonstrated over time, we are committed to manufacturing products that provide exceptional energy efficiency, durability, recyclability, and low maintenance with minimal impact on the environment from which they originate. We will ensure that our facilities meet or exceed state and federal environmental regulations, and we will continue to partner with building professionals to help them in using our products to create environmentally responsible living and working spaces for today's and future generations.

Photo 3: Clay Masonry Products Industry Average EPD

(Photo 3) provides the necessary benchmark information for LEED v5 requirements. Brick manufacturers with a product-specific EPD can further contribute toward the new LEED v5 credits.

Health Product Declaration (HPD): An HPD evaluates potential human health impacts based on product ingredients. Products with an HPD having a disclosure of at least 1000 ppm and evaluated for LEED compliance qualify. More information on Health Product Declarations can be found at <https://www.hpd-collaborative.org/>.

SUMMARY

This *Brick Brief* provides an overview of the most relevant LEED v5 credits related to brick. For further information on sustainable and resilient design strategies with brick, see BIA *Technical Note 48*, “Sustainability.”

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