

Earning LEED Points with Brick Commercial Construction using LEED-NC 2009



Using brick can help a building achieve points toward LEED certification. Listed below are some of the ways brick can directly and indirectly influence LEED points. LEED Rating Point Thresholds: Total possible points: 110, Certified = 40-49 points, Silver = 50-59 points, Gold = 60-79 points, Platinum = 80+ points

Energy and Atmosphere

Credit 1:
Optimize Energy Performance (1 up to 19 points)

Brick's high thermal mass and insulating value reduces peak demand energy loads, decreasing the size of the HVAC system.

Materials and Resources

Credit 1.1 & 1.2:
Building Reuse - Exterior Walls (1 to 3 points)
Interior Walls (1 point)

Older brick buildings are inherently durable which make them prime candidates for reuse. There are certainly numerous examples where brick buildings have taken on a new life. Old brick warehouses have been turned into lofts, condos and other new uses. Many of these projects become very desirable after renovation.

Credit 2:
Construction Waste Management (up to 2 points)

Brick's small unit size helps divert waste from landfills. In some cases, they can be used as site fill or as infill for walls. Brick packaging is minimal - some branding and maybe some wood strips for protection.

Credit 3:
Material Reuse (up to 2 points)

Salvaged brick can be used in road construction or incorporated in other projects. Brick and other masonry are among the most commonly salvaged building materials.

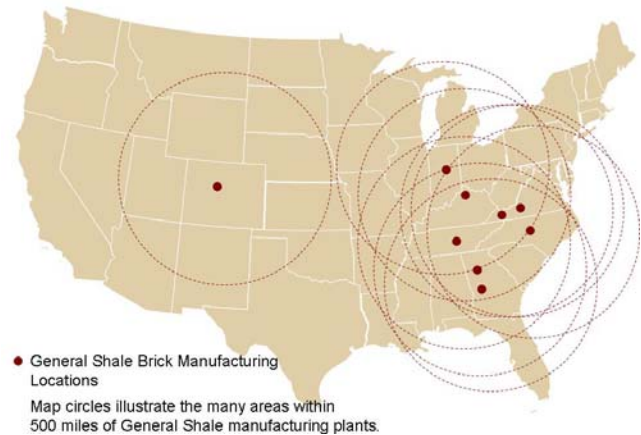
Credit 4:
Recycled Content (1 to 2 points)

Brick from the Rome, GA plant incorporates recycled or industrial waste aggregates that are rendered harmless when the brick is fired.

Credit 5:
Regional Materials (1 to 2 points)

Supporting regional economy and reducing environmental impacts from transportation by using brick extracted/harvested/recovered and manufactured within 500 mi radius of project site.

Most brick raw materials are obtained within average of 15 miles or less from plant. General Shale's regional plant locations provide a wide coverage of areas.



Sustainable Sites

Credit 2:
Development Density & Community Connectivity (up to 5 points)

Masonry lends itself to designs that can take advantage of small, irregular lots. Since brick is a non-combustible finish, buildings with brick veneer can be built closer together.

Credit 5.2:
Site Development (1 point)

Hardscape surfaces which use materials like brick pavers are often used in open spaces to allow a firm, stable, accessible surface for pedestrians. Brick paving surfaces can also be made permeable.

Credit 6.1:
Stormwater Design – Quantity Control (1 point)

For existing site < 50% pavement (un-developed site): Post-construction runoff < Pre-construction
For existing site > 50% pavement (developed site): Reduce post-construction runoff by 25%
Use one-year and two-year 24-hour storm for calculation.

Credit 6.2:
Stormwater Design – Quality Control (1 point)

Capture and treat 90% of average rainfall. Remove 80% of post-development suspended solids.

Credit 7.1:
Heat Island Effect (non-roof) (1 point)

If the SRI (Solar Reflective Index) > 29. Red clay roof tiles SRI = 36 (Lawrence Livermore). Asphalt SRI=0 (Lawrence Livermore). New gray concrete SRI=35, new white concrete SRI=86, weathered white concrete SRI=45.