

ASPHALT PAVEMENTS AND LEED®

Green Building System

The U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) Green Building Rating System™ is the nationally accepted benchmark or scorecard for the design, construction, and operation of high performance green buildings. Sustainable Development is defined as that which meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable Development, which involves “green” construction practices, tries to balance the needs of people, nature and the economy. LEED® promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. (Reference U.S. Green Buildings Council at www.usgbc.org.)

Earning LEED® Certification

To earn certification, a building project must meet certain prerequisites and performance benchmarks (“credits”) within each category. Projects are awarded *Certified*, *Silver*, *Gold*, or *Platinum* certification depending on the number of credits they achieve.



How Asphalt Pavements Contribute to Attaining LEED® Credits

Asphalt pavements contribute to LEED® credits in a variety of ways. Asphalt pavements may be eligible for LEED® credits in the following categories:

Rating Category	Credit(s)	Applicability
Sustainable Sites (SS) SS Credit 6.1 Stormwater Design: Quantity Control	1	Porous Asphalt (Pervious Pavement) constructed on a stone recharge bed promotes quantity control by utilizing highly pervious asphalt pavement mixtures. Site discharge and flow can be reduced below predevelopment conditions through conveyance of roof drainage and other stormwater flows to the recharge bed.
SS Credit 6.2 Stormwater Design: Quality Control	1	Open graded asphalt pavement used as a surface course or for porous asphalt promotes quality control by utilizing highly pervious asphalt pavement mixtures. A reduction in pollutant loads has been shown to improve water quality.
SS Credit 7.1 Heat Island Effect: Non-Roof	1	Two common ways in which asphalt pavement may be used to attain this credit: 1) Porous or open graded asphalt pavement to reduce pavement temperature 2) Pavement coatings to raise Solar Reflectance Index (SRI)
Material & Resources (MR) MR Credit 2.1 to 2.2 Construction Waste Management: Divert from Disposal	1 to 2	Asphalt pavements are 100% recyclable. Where major renovation requires removal of existing asphalt pavement, the entire quantity can be redirected to the manufacturing process for recycling into new Recycled Asphalt Pavement (RAP).
MR Credit 4.1 to 4.2 Recycle Content	1 to 2	Reduction in virgin materials is accomplished by incorporating RAP into new asphalt pavement. 10% to 20% recycle content is common for both lower and surface layers.
MR Credit 5.1 to 5.2 Regional Materials	1 to 2	Asphalt pavement utilizes local materials that are indigenous to the region, reducing environmental impact from transportation.
Innovation and Design Process (ID) IR Credit 1X	1 to 4	Warm Mix Asphalt and High RAP mixtures are recent design processes which can reduce consumption of natural resources and emissions.