

LEED For Retail – New Construction and Major Renovations Pilot Version 2 April 2007

Rating Category	Credit Description	Points	Discussion of Asphalt Pavement Applicability/Contribution to Rating Category
Sustainable Sites			
SS Credit 6.1	Stormwater Design: Quantity Control	1	<p>Porous asphalt pavement (i.e. pervious paving) constructed on a recharge bed promotes quantity control utilizing highly pervious mixtures (approx. 6,000 ft/day). Potentially, site discharge and flow can be reduced below predevelopment conditions through conveyance of roof drainage, and other stormwater flows, to the pavement recharge bed.</p> <p>Design Guide: http://store.hotmix.org/index.php?productID=179</p> <p>Specification (porous base mix): http://www.flexiblepavements.org/documents/PorousPavementBaseCrse_rev15apr11_.pdf</p> <p>Specification (porous surface mix): http://www.flexiblepavements.org/documents/PorousPvmtSurfCrse_rev15apr11_.pdf</p>
SS Credit 6.2	Stormwater Design: Quality Control	1	<p>Porous asphalt pavement (i.e. pervious paving) constructed on a recharge bed promotes stormwater quality control through infiltration utilizing highly pervious mixtures (approx. 6,000 ft/day). Data indicates infiltration BMPs have the highest pollutant removal efficiency for total phosphorus, soluble phosphorous, nitrate, zinc, and TSS, when compared to wetlands, wet ponds, filtering, swales, and dry ponds.</p> <p>Presentation - Porous Asphalt Pavement: http://www.flexiblepavements.org/documents/PorousPavementfporevisions.pdf</p>
SS Credit 7.1	Heat Island Effect: Non-Roof (25% of site hardscape)	1	<p>There are two ways in which asphalt pavement may be used to attain this credit.</p> <p>(1) Porous asphalt pavement (i.e. pervious paving) applied to at least 25% of the site hardscape. (2) Reducing heat island effect using asphalt pavements is achievable by coating the pavement surface to raise the Solar Reflectance Index (SRI). This approach allows the designer to capture the economy of using asphalt pavement while also expressing creativity and ingenuity. Coatings of virtually any color are available to treat asphalt pavement. This allows the designer to raise the SRI and integrate features such as color designated pavement areas. Multiple colors can be used to identify walkways, bikeways, emergency parking, handicap areas, or other. Another treatment that raises albedo is “sealing and chipping” using limestone or other light colored aggregate. Sealing and chipping is low cost and provides an agrarian look. Lastly, a simple slurry application of portland cement following paving, while the asphalt surface is still hot, fills and coats the surface to raise SRI.</p> <p>Coating Colors for LEED Credit: http://www.integratedpaving.com/our-products/streetbondsr/index.cfm?PageContentID=41&do=content</p> <p>ODOT Specification - Sealing & Chipping: http://www.dot.state.oh.us/Divisions/ConstructionMgt/OnlineDocs/Specifications/2010CMS/400/422.htm</p>
SS Credit 7.2	Heat Island Effect: Non-Roof (50% of site hardscape)	1	<p>There are two ways in which asphalt pavement may be used to attain this credit.</p> <p>(1) Porous asphalt pavement (i.e. pervious paving) applied to at least 50% of the site hardscape. (2) See discussion for SS Credit 7.1</p>
SS Credit 7.3	Heat Island Effect: Non-Roof (75% of site hardscape)	1	<p>There are two ways in which asphalt pavement may be used to attain this credit.</p> <p>(1) Porous asphalt pavement (i.e. pervious paving) applied to at least 75% of the site hardscape. (2) See discussion for SS Credit 7.1</p>

LEED For Retail (continued)

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Materials & Resources			
MR Credit 2.1	Construction Waste Management: Divert 50% From Disposal	1	Asphalt pavements are 100% recyclable. Where construction/major renovation of the site requires removal of asphalt pavement the entire quantity of asphalt pavement can be redirected to the manufacturing process for recycling into new asphalt pavement.
MR Credit 2.2	Construction Waste Management: Divert 75% From Disposal	1 Point in addition to MR Credit 2.1	See discussion for MR Credit 2.1
MR Credit 4.1	Recycled Content: 10% (post-consumer + ½ pre-consumer)	1	Reduction in virgin materials is accomplished by incorporating recycled asphalt pavement. Project features utilizing asphalt paving materials and referencing the Ohio Department of Transportation Construction & Material Specifications are permitted to contain the following percentages of recycled asphalt pavement: Surface course mixes - 20%, Intermediate course mixes - 35%, Base course mixes - 50%. Asphalt shingle manufacturing waste may be used in base course mixes up to 10% of the total mix composition. ODOT Specification: http://www.dot.state.oh.us/Divisions/ConstructionMgt/OnlineDocs/Specifications/2010CMS/400/401.htm#a_401_04
MR Credit 4.2	Recycled Content: 20% (post-consumer + ½ pre-consumer)	1 Point in addition to MR Credit 4.1	See discussion for MR Credit 4.1
MR Credit 5.1	Regional Materials: 10% Extracted, Processed & Manufactured Regionally	1	Asphalt pavements utilize indigenous resources and reduce environmental impacts resulting from transportation. Asphalt pavements must be placed hot; therefore these mixtures must be produced locally, typically with local aggregate. Vehicles hauling asphalt mix are equipped to reduce heat loss in transport. Ohio Department of Transportation Construction & Materials Specifications place the following limitations: all truck beds must be insulated if the length of haul exceeds 20 miles, haul distance cannot exceed 50 miles.
MR Credit 5.2	Regional Materials: 20% Extracted, Processed & Manufactured Regionally	1 Point in addition to MR Credit 5.1	See discussion for MR Credit 5.1