



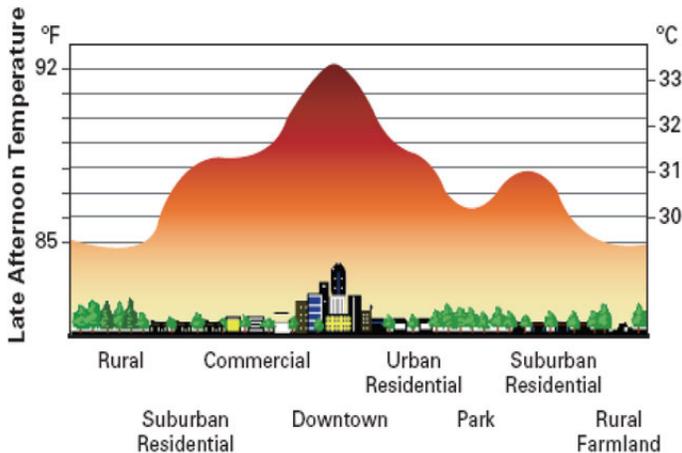
# Concrete Parking in Practice

Concrete Parking in Practice is a series of publications from the Maryland Ready Mix Concrete Association (MRMCA) to help specifiers become more familiar with design and benefits of concrete parking lots.

## CPIP No. 5

## LEED Heat Island (SS Credit 7.1)

Portland cement concrete pavements contribute to a sustainable environment by reducing heat islands. A heat island is a local area of elevated temperature in a region of cooler temperatures. Heat islands are found where there is an abundance of dark surfaces and a lack of vegetation. Higher ambient temperatures within a heat island increase the demands on building air conditioning systems.



The Leadership in Energy and Environmental Design (LEED) Green Building Rating System recognizes the benefit of heat reflectance. The LEED-NC Sustainable Sites (SS) Credit 7.1 Heat Island Effect grants points for reducing heat island effect. One point can be obtained for using a paving material with a SRI of at least 29 for a minimum of 50% of the hardscape. This includes roads, sidewalks, courtyards and parking lots. Unless actually measured, LEED allows an SRI of 35 for ordinary Portland cement concrete pavement.

Pavements with high solar reflectance lower ambient temperatures and reduce heat island effects. The solar reflectance index (SRI) is a composite measure that accounts for a surface's solar reflectance and its ability to reject solar heat. The scale is from 0 to 100. No reflectance is zero and complete reflectance is 100. Portland cement concrete surfaces have an SRI in the range of 38 to 52. New bituminous concrete (asphalt) surfaces typically have an SRI of 5. An asphalt surface that is five or more years old has an SRI of 10 to 15.

### What is the next step?

The MRMCA provides an AIA-approved parking lot design class that may be used for Professional Development Hours (PDH's). We also participate in a national Design Assistance Program (DAP) and we cover the costs of the first project within the state of Maryland. Depending on project specifics, we will offer additional DAP projects at little or no cost. All we need are the current CAD drawings and a few pieces of project information. Contact us for more details.

Maryland Ready Mix Concrete Association

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