

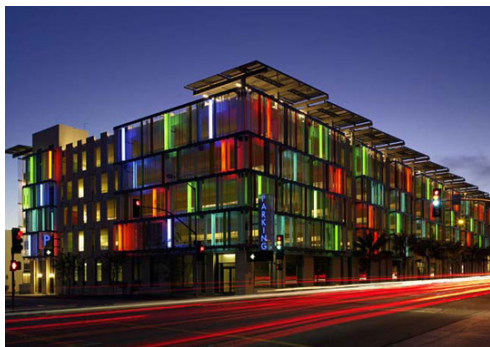


Green and Garages – a contradiction in terms.....or not?

March is indeed the month of “All Things Green” whether we are focusing on green shamrocks, the first hints of new grass or taking time to focus on the value of green initiatives in our community including infrastructure such as parking garages and lots. Most people do not think of parking garages and the concepts of green building design or “LEED” in the same sentence. Garages seem out of place and ill equipped to master LEED certification demands. So is it even possible for garage structures to have the LEED designation? The truth is not many have them and LEED designations for them are no long available. So what is up with that?

Let’s take a look at LEED itself to try and understand this departure. First, what is LEED? It stands for Leadership in Energy and Environmental Design (LEED) and it’s a set of rating systems for the design, construction, operation, and maintenance of green buildings, homes, and neighborhoods. Buildings can qualify for levels of Certification based on six credit categories including Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, and Innovation in Design. Developed by the [U.S. Green Building Council \(USGBC\)](#), LEED is intended to help building owners and operators be environmentally responsible and use resources efficiently.

In 2010, Duke Parking & Transportation announced that it received the nation’s first LEED certification status for a free standing parking garage from the USGBC for its new Research Drive Parking Garage. This marked the first



recognition of its kind for a free-standing garage which featured “green” design elements including two 10,000 gallon cisterns to collect rainwater, overhead canopies using plants to provide shade, and low power LED lights. It is interesting to note that two years earlier, a new parking garage had already grabbed that green spotlight on the West coast.

In 2008, the City of Santa Monica, California announced that its Civic Center Parking Garage was the first building of its type in the country to receive a LEED-Certified rating through the USGBC. The parking garage featured design strategies, materials, products, and construction practices that preserved natural resources, conserved water and energy, and reduced waste. It has quickly become a famous work of art with its solar powered multi-colored light array.

A change occurred 2011 when LEED issued a ruling that buildings that dedicate more than 75% of floor area to parking and circulation of motor vehicles were ineligible for LEED certification. However, parking garages connected to or on the site of a LEED project building may be included within the LEED project boundary. Are you as confused as we are? The parking industry knew that this change still did not diminish the need for green infrastructure choices in all type of garages and lots. And the green baton soon passed to another group that grabbed it quickly to keep the needed focus by creating the Green Parking Council's (GPC) Certification Program.

The GPC is an affiliate of the International Parking Institute whose byline is "We're changing the nature of parking." The council was formed from leaders in the parking industry to provide leadership for the green conversion of parking facilities to sustainable and environmentally responsible assets. They have combined ideals of parking, green building, clean technology, renewable energy, smart grid infrastructure, urban planning, and sustainable mobility. The GPC has developed a Green Garage Certification Program in support of their goal to build parking sustainability.

The GPC has established draft guidelines in over 40 areas that would allow for a Green Certification of parking structures – and it's pretty intense. They have issued a 174 page booklet setting forth the details of the program in which points are assigned to provide ranking for a multitude of factors. Some of the top point getters are:

- Parking pricing strategies and access and control technologies
- Accessibility to Mass Transit
- Car share and ride share programs
- Education and Marketing programs
- Internal and External Wayfinding systems
- Energy efficient lighting
- Environmentally friendly cleaning supplies, recycling programs
- Construction waste removal, using local labor, and purchasing local building materials
- Management having certifications and credentials along with use of Innovative Concepts
- Support of alternative fuel vehicles such as charging stations and priority parking for EVs
- Shuttles or equipment using alternative fuel
- Bicycle parking, lockers, showers and bicycle repair and rental services
- Special parking for small cars, motorcycles, and scooters
- Fire suppression, tire inflation stations, water efficient landscaping, indoor water efficiency, grey water recycling, rainwater harvesting
- Energy efficient lighting, ventilation, HVAC systems, roofing systems, solar power, net zero energy buildings

Certainly, it's easier for newly constructed garages to meet these principles. But that doesn't mean that sustainable opportunities do not exist for structures that predate these guidelines. PARK Roanoke has already incorporated some of these mandates into its operations and will continue to explore new strategies to keep our facilities environmentally friendly. Some of our "green" initiatives are: Ice removal products from

chemicals that are friendlier to the environment; bicycle parking offered in all garages along with a fix-it station in Market Garage; energy efficient LED lighting installed and continuing to be on our critical path; and, education and marketing programs have been launched. PARK Roanoke provides free parking to SmartWay Bus Riders further supporting mass transit. Alternative fuel is used in our scrubber and sweeper machines; lawn mowers/ blowers are all-electric; and, we actively use day light harvesting – meaning where there is natural light, there’s no need to burn light bulbs. Pulse start or metal halide light bulbs are used in our newest Campbell Garage. Grassy perimeters around garages act to catch storm water runoff and during pressure washing the dirty water loaded with oils and contaminants is collected and taken to a treatment facility. At PARK Roanoke, we are always striving to improve and support sustainability issues in our decision making, maintenance, and operations.

For more information on Sustainability in Parking visit:

www.greenparkingcouncil.org

www.parking.org

www.usbgc.org