

GOING GREEN



How parking can become a part of the global green infrastructure conversation.

By Sarah Stanley

Brightly painted walls and columns, directional signage, sensor-connected lights, and painted floors offer a pleasant, sustainable experience.



Green lighting both illuminates the garage and provides easy wayfinding cues to help drivers find their way around.



Directional signs use both language and graphics to help drivers and pedestrians navigate between their cars and their above-ground destinations.



Patrons can use their smartphones to scan QR codes in the garage and get instant information.

AS THE WORLD'S LARGEST CAR MARKET, China is making significant moves to spur the growth of electric vehicles (EVs). The Chinese government announced this past fall that it will be moving toward banning the sale and production of fossil fuel vehicles. China is not the first to threaten the future of the combustion engine. Policy and industry changes like China's are an indicator that the way companies and governments deal with transportation is entering a new era.

The West Village parking structure is the first Parksmart-certified parking garage in China.



China's first Parksmart-certified garage is part of a larger project that includes fitness and sports facilities, offering patrons an escape from their hectic schedules.

Shifts in the auto world affect how residents move around their cities, countries, and the world. The emergence of ride-sharing programs such as those offered by Uber and Lyft are evidence of that behavior change. So how does that affect other mobility assets such as parking?

Face Forward

“Given the changes in the ways we get around, new policies, and technologies, it’s important that the parking industry find ways to stay at the forefront of this evolution,” says Paul Wessel, director of market development, U.S. Green Building Council (USGBC). “It’s important to think about what steps we can take as an industry to continue to provide value.”

The move toward electric vehicles and ongoing discussions about autonomous ones show that green business practices and technologies will continue to play a role in the future. As governments and companies look for ways to cut carbon emissions and conserve resources, transportation remains an important challenge.

Parking Smart

Inspired by what USGBC’s LEED (Leadership in Energy and Environmental Design) green building program did for buildings, Wessel was involved in spearheading a similar green business effort that addressed the unique needs of parking structures. The program is now known as Parksmart and is administered by Green Business Certification Inc. (GBCI), the same organization that certifies LEED projects globally.

“Sustainability is not new to parking facilities, but it was being executed in different ways, and there was no consistency that was really identifying leadership in that space,” says Wessel. “We asked the industry for feedback and best practices and consulted with life-cycle experts and others in the field to develop a program that is flexible and defines what it is to be a high-performing, sustainable parking structure.”

The role of parking is expanding as the need to address environmental issues increases and evolving technologies present new business opportunities. In the U.S., Parksmart has already been adopted at airports, universities, retail centers, and entertainment venues. The program provides new and existing facilities a road map for incorporating innovative, solution-oriented strategies that deliver triple-bottom-line benefits. Projects are finding new methods to design and operate their garages in a way that lowers energy use through lighting and ventilation and reduces operational costs up to 25 percent compared to the national average.

Worldwide, the number of motorized vehicles is expected to double by 2040, according to a research report by Bernstein. How countries respond to the growing number of vehicles and what technologies will drive the future of the auto market will have an effect on the role of parking structures. China’s own moves to curb fossil fuel vehicles and improve environmental performance have sparked interest in greener parking structures.

Certified in China

LimeTree Capital, a private equity and real estate investment manager, is an investor in WE PARK (Huibo), the leading car park owner and operator in China. Recently, its West Village project became the first Parksmart-certified project outside the U.S.


“With the West Village certification, it is truly an honor for WE PARK (Huibo) to be an industry pioneer in one of the largest, most dynamic, and innovative car parking markets in the world,” says Mark Cho, senior partner and CEO China, LimeTree Capital and WE PARK (Huibo). “Our organization has always been focused on the mission to help solve China’s massive urban parking dilemma.”

West Village is a multi-functional complex that provides a retreat from the fast-paced city of Chengdu and features a courtyard-style building with distinct culture-based commerce and an extensive sports field for outdoor activities. Its below-ground garage includes more than 1,000 spaces and uses efficient technologies to create a unique and hassle-free parking experience. An online reservation and payment system reduces unnecessary idling; state-of-the-art electronic car-charging stations promote the use of alternative fuel vehicles; and car park incentives and surveys encourage carpooling and ride-sharing. As part of the construction, West Village sourced at least 75 percent of its materials regionally and created a rainwater harvesting system that diverts rainfall to green infrastructure surrounding the building. In addition, there is an active recycling program onsite, and areas that were not usable for parking were converted to self-storage for garage users.

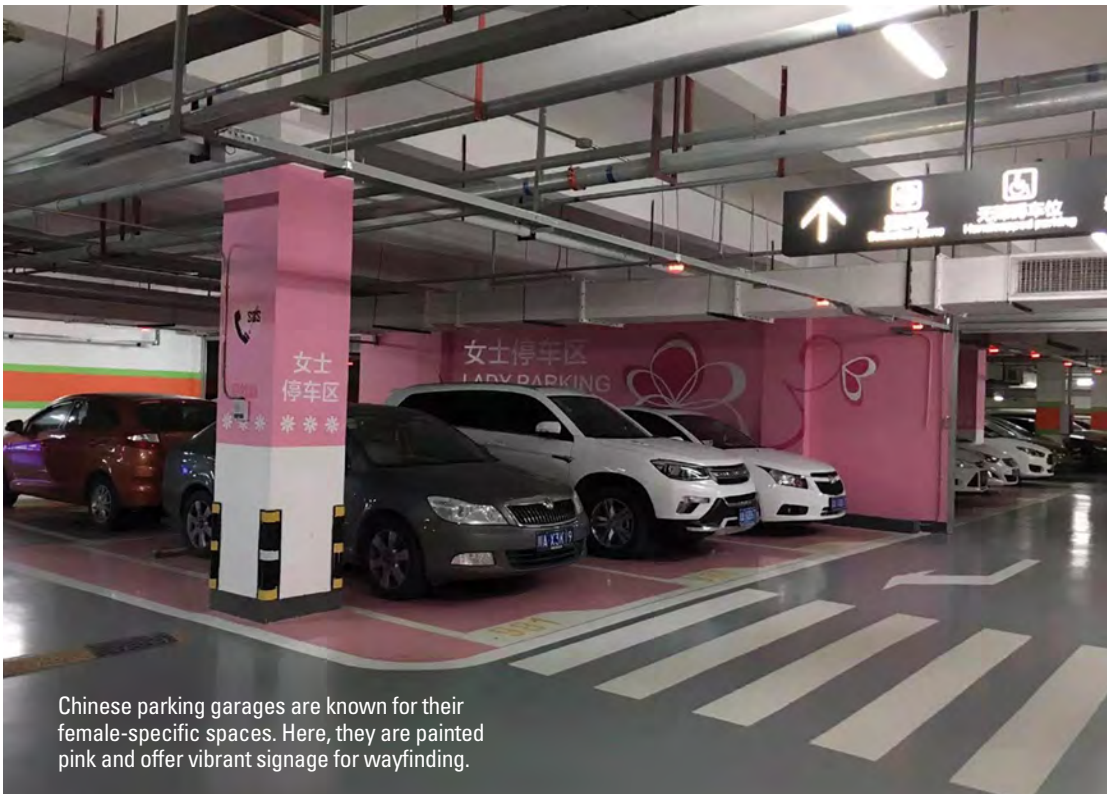
China’s parking dilemma is not unique, and the project is expected to help elevate parking as a critical piece of the transportation evolution. “Conversations around sustainable mobility must include parking. We can help facilities and structures understand what the needs are and how best to support them while being more resource efficient,” says Wessel.

A key factor in helping the industry move toward a more sustainable future not only includes talking about parking facilities, but also recognizing the need for a skilled workforce that is knowledgeable and can guide companies down that path. USGBC and GBCI developed a Parksmart Advisor professional certification intended to help clients through the certification process and effectively evaluate a parking facility. The International Parking Institute (IPI) is the USGBC’s education partner providing the education required to earn the certificate. (see parking.org/parksmart)

“In some ways, incorporating green business practices means thinking differently about your business as a whole,” says Wessel. “Parksmart is not only a resource to help parking facilities improve performance, it is also helping them become a part of the green infrastructure conversation.”

As countries like China continue to encourage industry change, businesses have the opportunity to decide what role parking will play in that transformation. 

Parksmart registration is available through Arc. Users can learn more about the program and how to get started by visiting parksmart.gbci.org.



Chinese parking garages are known for their female-specific spaces. Here, they are painted pink and offer vibrant signage for wayfinding.



SARAH STANLEY
is media and communications manager for the U.S. Green Building Council. She can be reached at [ssstanley@usgbc.org](mailto:sstanley@usgbc.org).