

A demonstrator site in Fort Lauderdale proves that realistic and attractive sustainable parking is just a few steps away.



# GREENING THE LOT

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It's an overcast day in Fort Lauderdale, Fla., but that doesn't stop dozens of parking professionals from boarding a shuttle bus to tour a recently upgraded sustainable parking operation. On the way, Green Parking Council (GPC) Executive Director Paul Wessel and Rachel Yoka, LEED AP BD+C, CPSM, vice president of strategic business planning and sustainability, Timothy Haahs & Associates, discuss the background of the Greening the Lot project. The brainchild of Brian McKelliget, City of Fort Lauderdale parking service manager, Wessel, and Yoka, Greening the Lot was hosted during the 2013 International Parking Institute (IPI) Conference & Expo by IPI, the GPC, the City of Fort Lauderdale, and Timothy Haahs & Associates.



The team embarked on a groundbreaking initiative to “green” one of its municipal parking lots, leading the way in exploring sustainability in surface parking. The collaboration sought to design and construct one of the greenest parking lots in existence as a demonstration site for best practices, new technology, and innovative strategies. The program redesigned and retrofitted the Orchid Lot, adjacent to City Hall, as the pilot site to showcase strategies and educate both parking professionals and the general public.

### Exploring the Lot

As the shuttle bus approaches the parking lot, the clouds part and the sun shines as if to welcome us—a positive sign. The first thing that catches the attention of those on board is the aesthetically-pleasing fawn-hued surface lot coating. Applied by Street Bond, the coating was reported by McKelligett to have reduced the heat island effect of the lot by 40 percent. This particular coating has a solar reflectance index (SRI; it measures a surface’s ability to stay cool by reflecting solar radiation) of 35; compare that to typical asphalt, which has a SRI of zero. In addition to the coating, the oper-

ation installed two pervious parking spaces. It rained all morning the day of the Greening the Lot tour and was quite eye-opening to see the two dry pervious parking spaces only a few feet away from rainwater puddles accumulated in a neighboring impervious drive lane.

We gather around McKelligett as he explains that the Orchid Lot serves Fort Lauderdale City Hall and is in a prime location only a few blocks away from a bus station, giving it easy access to mass transit. Even the payment method is green, as the lot uses solar-powered IPS meters that integrate with pay-by-cell wireless technology provided by PayByPhone.

One benefit of greening a parking lot is simple aesthetics. The Orchid Lot is a beautiful location in which to park. The landscaping is visually pleasing

Solar-powered meters integrate with pay-by-cell technology.



Attendees enjoyed seeing energy-efficient lighting options and an electric Fisker Karma.



while requiring minimal to no irrigation, thus conserving water resources. One of the best parts of the landscaping was a temporary corner pocket park. This parklet integrated nature into an urban environment, providing a picnic table and chairs that also gave the space another use that would make Eran Ben-Joseph, author of *ReThinking a Lot*, proud.

The lighting was retrofitted with an induction solution as well as an LED solution, both provided by ECO Parking Lights. These lighting modifications achieve a 35 to 50 percent reduction in energy use and will last four to six times longer than traditional lights. Conventional wisdom holds that more efficient lighting typically leads to a safer parking lot. And in general, greening a parking lot often leads to a higher sense of safety and security. A recent study by the University of Pennsylvania found that greening parking lots led to a decrease in crime, which helps nearby residents feel safer.

Also on display at the lot were electric vehicle (EV) charging stations by Carcharging, a bicycle sharing program by B-cycle, and three EVs—a Chevy Volt, a Nissan Leaf, and a Fisker Karma—provided by the Southeast Florida Clean Coalition. One attendee took one of the bike sharing bicycles out for a joy ride while others took turns getting their picture taken inside the Fisker Karma. The vendors were pleasant and professional, answering the many questions that the parking professionals brought to the table.

### On-Street

After touring the Orchid Lot, the next stop on the trip is to check out the city's sustainable on-street initiatives. We all take different sustainable methods of transportation to a nearby on-street city block. One person chooses to bike, several take a solar-powered bus, some walk, and many carpool in one of the EVs.

I am fortunate to experience my first trip in a fully-



Paul Wessel, Rachel Yoka, LEED AP BD+C, CPSM, and Brian McKelliget take a moment in the lot's parklet.

electric vehicle: a Nissan Leaf owned by Carlos DeJesus, owner of Crown Electric. The first thing that stands out is how quiet the vehicle is. It starts with a push of a button and there is no typical start-up sound. The vehicle carries us smoothly to our destination while DeJesus gives us some background on the benefits of driving a fully-electric vehicle. "It's so convenient. I just unplug and go," says DeJesus.

We arrive at the demonstrator on-street site, and the closest parking spot is a small one that would require an excellent parallel parking job; it's one I'd shy away from attempting. But DeJesus has no fear. EVs are smaller than their gasoline-powered counterparts, and with the help of the vehicle's backup camera, parking is a cinch, demonstrating yet another benefit of driving an EV.

After we all arrive at the on-street city block, representatives from Streetline and IPS demonstrate street sensors and parking meter integration. Having read close to everything there is to read about street sensors, it is

beneficial to actually see them in action. Parking Operations Supervisor Jeff Davis shares some background on the project while some of his staff provide additional enforcement demonstrations.

### Impressions

All in all, the parking professionals left delighted, having experiencing first-hand all of the various innovative green strategies and enjoyed the opportunity to mingle with like-minded professionals. "It was great to see the various aspects of greening incorporated into the surface parking lot in the city of Fort Lauderdale. Kudos to them for taking the initiative," says Larry Cohen, CAPP, executive director, Lancaster Parking Authority.

IPI and the GPC will embark on a second "Greening the Lot" project at the 2014 IPI Conference & Expo, June 1-4, in Dallas. We look forward to building on the success of the first project and advancing our efforts! 



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