

Taking Home the Trophies

Presenting the winners of this year's **IPMI Awards of Excellence Competition.**

By Melanie Padgett Powers



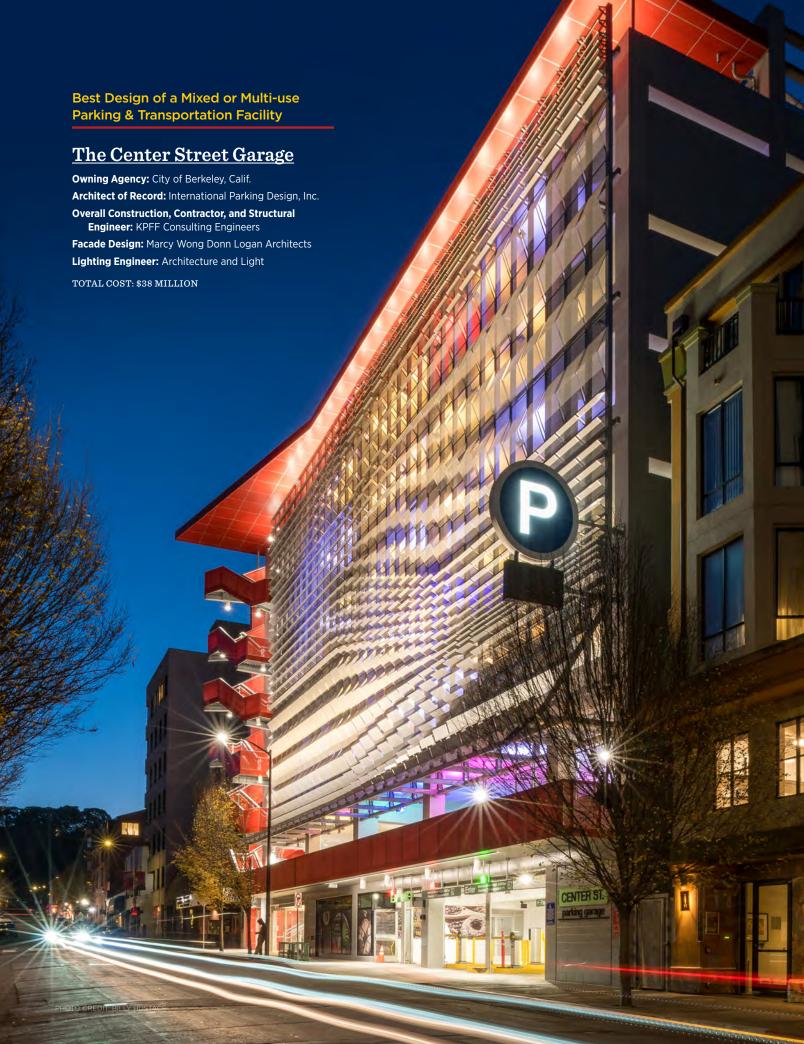
EVERY YEAR (well, most years, anyway) sports fans wait with anticipation to see who will be crowned the baseball World Series champion, the NFL Super Bowl winner and the king of the Daytona 500. In the parking and mobility world, the best of the best are also recognized once a year for their outstanding achievements with the Awards of Excellence. The wait is over. Here are this year's inspiring winners.

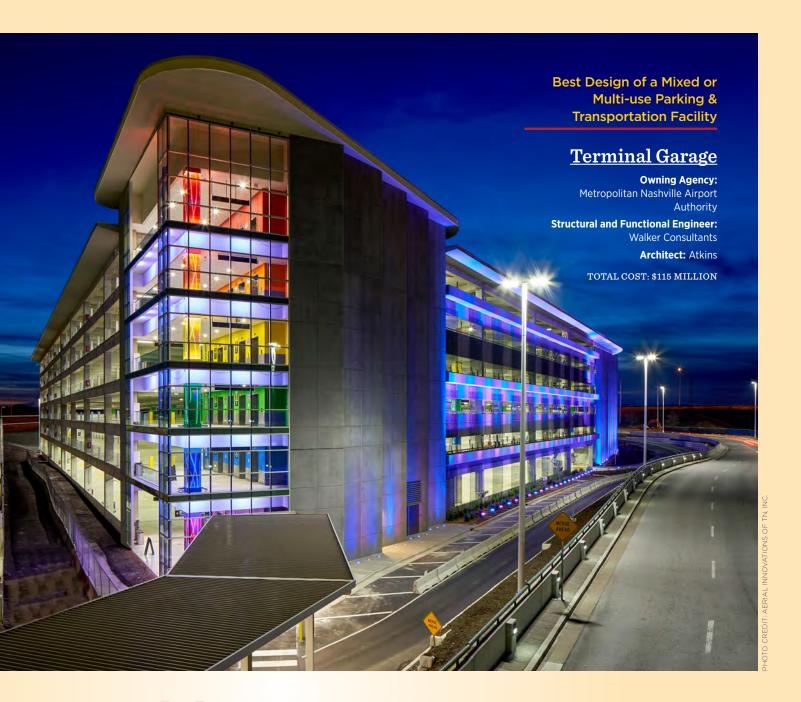
HE CENTER STREET GARAGE has been hailed by Berkeley Mayor Jesse Arreguin as "probably the greenest parking garage in California" thanks to its endless environmentally sustainable features. The garage includes 480 rooftop solar panels, electric-vehicle charging stations, a rainwater collection cistern, and stormwater treatment vegetation. The aggressive efforts to reduce energy use beat California's Title 24 energy standards by 15 percent.

Easily accessible by mass transit, bicyclists, pedestrians, and drivers, the new structure provides 720 spaces for cars and 350 spaces for bikes. Beyond its sustainability features, the 250,000-square-foot, eight-level garage offers plenty of amenities and a beautiful design. The garage features an art exhibit space, café, bike valet, public restrooms, a state-of-the-art security system, and a parking count system with red and green indicator lights designating open spaces. It also houses a bike-share network and includes a Bay Area Rapid Transit (BART) bike station with bicycle-equipment repair shop and 55 secured bicycle spaces. Graphic color schemes throughout the facility provide easy visibility for wayfinding.

The exterior facade consists of folded perforated metal panels creating a wavelike form on both Addison Street and Center Street. The elevation is capped by a continuous metal panel canopy that protects the stairs, while also visually terminating the facade. A covered cantilevered walkway at the second level is clad in an accent-colored perforated metal that articulates up the exterior on a dramatic twisting staircase. The exterior design is highlighted by accent lighting that is programmable and allows a dynamic variety of colors for visual effect at night.

The garage—which is expected to receive Parksmart gold certification-serves visitors of the bustling downtown and Berkeley theater district. The site was previously occupied by a four-story parking structure built in the late 1950s.





ASHVILLE INTERNATIONAL AIRPORT (BNA) in Tennessee has experienced unprecedented growth for the past six consecutive years. In response, the airport is in the midst of a major expansion program called BNA Vision. Spanning seven years, the expansion includes a variety of landside and airside projects that will accommodate the record-breaking growth. New parking facilities are a key component.

BNA opened a six-level garage in December 2018 as part of a three-phase parking expansion. This state-ofthe-art facility offers 2,200 covered parking spaces convenient to the terminal, as well as a variety of customer conveniences and a dedicated Ground Transportation

Center at grade. This mixed-use facility serves two distinctive needs: convenient public parking and access to commercial vehicle pick-ups for arriving passengers.

The project entailed cast-in-place, post-tensioned construction, which provides a durable and low maintenance structure. The project relocated an exit road and toll plaza, enhanced wayfinding signage, and included roadway improvements to streamline entry and exit to the new garage, an adjacent surface lot, and the airport's consolidated rental car center. BNA broke ground on the facility in January 2017 and opened the garage in December 2018. It was built with a workforce of more than 1,200 people and took 534,000 hours of labor to complete. The project finished \$7 million under budget.



ALIFORNIA'S SAN FRAN-CISCO INTERNATIONAL AIRPORT (SFO) Long Term Parking 2 was designed to be the most technologically advanced structure of its kind, elevating industry standards

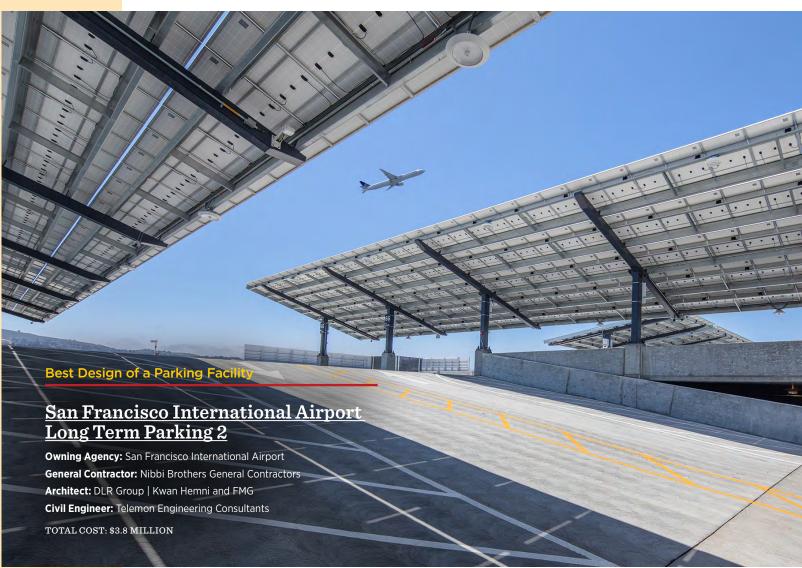
through collaboration and sustainability.

The six-story, 1.2 million-square-foot parking garage has 3,600 stalls. The thoughtful use of technology is intended to alleviate user stress, improve operations, reduce environmental impact, and ready the garage to adapt to future needs. The structure features an automated parking guidance system that signals drivers about the availability of stalls, an access-and-revenue-control system for reserved parking, and a find-my-car function at the pay stations. The structure is 100 percent Wi-Fi accessible, and the team installed backbone conduit risers to accommodate future improvements in cellphone coverage.

The garage has earned Parksmart gold

certification—it was designed and built to be over 20 percent electric-vehicle charging capable, with 3 percent of the parking stalls providing charging stations at the facility's opening. Solar panels cover the roof, creating a net-energy-positive system that powers the garage and additional SFO facilities. A lighting control system reduces energy consumption and can be operated remotely to adjust energy consumption for the garage's elevators and electrical and mechanical systems. A pedestrian and vehicle bridge connects the garage to the adjacent existing parking structure, and the new garage has been designed to directly connect to the future Air-Train station and future consolidated rental car facility.

Speed ramps and intuitive wayfinding signs throughout the structure help drivers find open parking stalls as quick as possible. The San Francisco Arts Commission contributed to the open aesthetic with painted steel art panels and mirrored glass panels that spell out "San Francisco" in Morse code.



Best Facility Rehabilitation or Restoration

Nebraska Medical Center Lot 01 Restoration

Owning Agency: Nebraska Medical Center

Engineer: Walker Consultants

General Contractor: Kiewit Building Group, Inc. **Restoration Contractor:** McGill Restoration

TOTAL COST: \$4,665,216



EBRASKA MEDICAL CENTER (NMC) moved forward with a long-overdue renovation of the Orange Parking Structure (Lot 01) and the hospital front entrance. The renovation allowed for significant structural enhancements: a three-level parking structure, a drive-up patient and valet entrance for Clarkson Tower, a helipad that serves as the primary emergency department landing zone, doctor parking at grade level, and a waterproofed plaza system.

Before the renovation could start, a new access entrance to the parking deck had to be constructed and the flow of traffic remapped. While the plaza system was replaced at the main entry, a temporary patient drop-off canopy was erected and the side emergency door was used as the entry. To further accommodate the needs of patients and staff (while maintaining a tight schedule) a significant amount of the work was performed during off-business hours, and major demolition of the parking garage occurred at specified times.

The restoration of this important facility was successful due to phasing cooperation of the design and construction teams. The scope of work included replacement of expansion joints, post-tension cable repairs, masonry repairs, application of traffic coatings, application of penetrating sealer, and painting the interior ceiling surfaces. A new waterproofing membrane was applied; the specifications called for a 24-hour flood test to ensure the new system was water tight. The project was completed on budget and on time in less than six months, while never closing the garage and keeping the valet operational 24/7.



PHOTO CREDIT: DON SABAN

Innovation In Facility Design

Pixar Pals Parking Structure

Owning Agency: Walt Disney Imagineering
Architect of Record: International Parking Design

Contractor: Bomel Construction

Structural Engineer: Culp & Tanner

Project Management: Spectrum Development Group

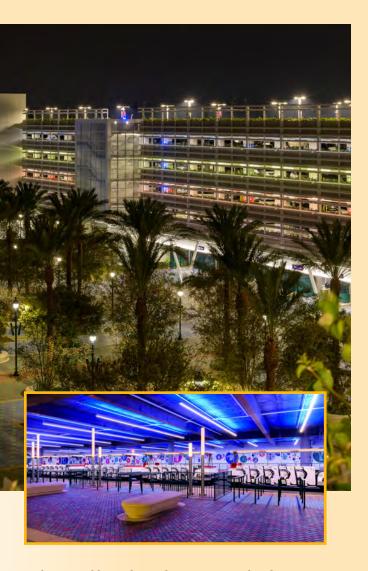
Design Assist: Architects Orange

TOTAL COST: \$100 MILLION+

ISNEYLAND RESORT is the No. 1 tourist attraction in Southern California, drawing millions of visitors each year. As attendance continues to increase and the resort expands, the Pixar Pals Parking Structure was designed and constructed to accommodate guests and cast members.

The new structure, which connects to the existing Mickey & Friends Garage, serves as the primary transportation hub and gateway to Disneyland Park, Disney California Adventure Park and Downtown Disney District by integrating the main tram pick-up/drop-off into the ground level of the garage.

Pixar Pals has 6,500 parking spaces on six levels and



features additional entry lanes, express vehicular ramping, an electronic car-counting system, and a pedestrian bridge directly linking to Downtown Disney District. The design expedites parking, improves circulation, reduces traffic, and provides additional safety and security measures for guests and cast members.

For many guests, the new Pixar Pals Parking Structure is their first experience as they arrive at Disneyland Resort. Branded wayfinding elements designed by Disney Imagineers are located throughout, including levels named after Pixar characters. Once guests exit their vehicle, they are directed to a dedicated pedestrian walkway along the east edge of the structure that leads to the vertical circulation core. This core includes elevators and stairs, along with the adjacent feature "rotunda" containing a series of escalators serving all levels of the garage. Guests gather in the main pedestrian plaza, which includes multi-color paving and enhanced landscaping, and proceed to the security screening bag-check area. Guests board the tram that is routed through the garage's ground level and are transported to the main entrance of Disneyland Park and Disney California Adventure Park.

Innovation in a Mobility, Transportation, or Parking Program

Automating Disability Cart Service

Owning Agency: University of Arizona

University of Arizona, Parking and Transportation Services Staff

ARKING AND TRANSPORTATION SERVICES (PTS) at the University of Arizona offers a free service for those with long- or short-term disabilities called the Disability Cart Service. It uses electric golf carts and had operated for 22 years through paper ride submissions and an Excel spreadsheet.

In 2017, PTS was focused on growth and realized that this service was underdeveloped and could become more efficient. The process of collecting a ride request, establishing a schedule, and assigning a driver could take over six hours each day.

In fall 2018, PTS began a two-phase project that created a highly desired, free ride service that now provides over 2,700 rides a month. In phase one, PTS created an in-house scheduling tool to allow riders to more easily access the service and to assist dispatchers in creating schedules.

Phase two rolled out the TapRide application, which allows for auto-assignment of rides and better management of schedules. The drivers now use tablets, eliminating the use of more than 2,160 pieces of paper each month. TapRide had only previously been used for on-demand ride services; Disability Cart Service is the first to use the app to manage a scheduled ride service.

Besides improved efficiency, ridership has also increased. In October 2019, the service completed 2,727 rides, compared to 2,075 rides in October 2018 and approximately 1,500 rides in October 2017.



Excellence in Sustainable Design

Terminal Garage

Owning Agency: Metropolitan Nashville Airport Authority Walker Consultants

TOTAL COST: \$115 MILLION





he 900,000-square-foot TERMINAL GARAGE at Nashville International Airport in Tennessee was awarded a Parksmart bronze level certification in August 2019, making it one of only 35 parking structures in the world with this distinction.

This visually striking, state-of-the-art garage is a six-level structure with five levels of public parking totaling 2,200 spaces, an integrated ground transportation center, and numerous user amenities. The concept was for the garage to be an openair structure and ensure proper indoor air quality to nearly eliminate the need for energy-consuming and maintenance-intensive mechanical ventilation systems or exhaust fans.

The garage's sustainable design features include energyefficient LED lighting throughout; a 20,000-gallon cistern; high-efficiency VRF heat pumps for heating and cooling enclosed personnel spaces; and facade trellises to add high-profile landscape elements that provide biophilia-related mental health benefits and enhance the overall appearance.

To help customers reduce vehicle-use carbon and emissions, a ground transportation center provides convenient access to multi-modal transportation, including public mass transit, and a parking guidance system directs drivers to parking spaces quickly and efficiently, reducing unnecessary drive time, fossil fuel usage, and greenhouse gases. In addition, there are pay-on-foot kiosks, electricvehicle charging stations, and a tire inflation station.

Proactive construction waste management practices successfully recycled 70 percent of the total 2,500 cubic yards of construction waste. Emphasis on a regional labor force and regionally sourced materials helped support the local economy while reducing transportation-related fossil fuel usage and greenhouse gas emissions.

Recycling receptacles enable over 50 percent of the garage's operational waste stream to be successfully recycled. A truck-mounted pressure washer maintains the sizable garage parking deck floor area vacuums and filters and reuses the wash water.

he 250,000-square-foot, eight-level CENTER STREET GARAGE provides 720 spaces for cars and 350 spaces for bikes. The garage features an art exhibit space, café, bike valet, public restrooms, state-of-theart security system, and a parking count system with red and green indicator lights designating open spaces. The garage also houses a bike-share network and includes a BART bike station with bicycle-equipment repair shop and 55 secured bicycle spaces.

Graphic color schemes throughout the facility provide easy visibility for wayfinding to and from the vertical circulation elements and orientation to either end of the building. The exterior facade consists of folded perforated metal panels creating a wave-like form on both Addison Street and Center Street. With over 20 size variations of the metal panels, each one is numbered and bolted into place in an accordion-like fashion.

The elevation is capped by a continuous metal panel canopy that protects the stairs, as well as visually terminates the facade. A covered cantilevered walkway at the second level is clad in an accent-colored perforated metal that articulates up the exterior on a dramatic twisting staircase.

The exterior design is highlighted by accent lighting that is programmable and allows a dynamic variety of colors for visual effect at night. To design the facade illumination, the sharply folded perforated metal panels strike an up-tempo counterpoint to the red and lime green staircases. The pleated scrims form two waves surging in different directions. Using all LEDs, the structure behind is lit with color-changing floods, while the front is lit in white, creating great depth and mystery. These two layers of light provide complexity and seemingly infinite thematic variations. The eye-catching sculpture and light display enhances the vitality of Berkeley and delights people. This dynamic optical contrast allows low brightness, achieves exceptional efficiency, and meets dark sky constraints not otherwise possible from conventional approaches.



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