THE 2013 IPI AWARDS OF EXCELLENCE

OUTS Accom

By Anderson C. Moore and Molly Winter

Every so often, a photo or description of a parking facility or operation can nearly take your breath away. A design, an idea, a technique, or a strategy can be so brilliant and so unusual, even it its simplicity, that it sticks in your head and you have to share it.

For many parking professionals, several of those moments cluster together right around this time of year, when the International Parking Institute (IPI) announces the winners of its coveted Awards of Excellence. Recognizing outstanding accomplishment in architectural achievement, design, rehabilitation and restoration, innovation in operations or programs, and sustainability, the Awards of Excellence have showcased the best the parking industry has to offer since 1982, sparking imaginations and furthering the parking profession through example.

Nominations are accepted on an annual basis and winners are chosen by a select panel of judges representing architects, parking consultants, and city, airport, and university officials on the IPI Awards of Excellence Committee. This year's Awards of Excellence honorees received their honors last month at the 2013 IPI Conference & Expo in Fort Lauderdale, Fla.

Awards of Excellence winners exemplify the best of all the parking industry has to offer. We are excited to profile this year's honorees on the following pages.

TANDING plishments

Best Design of a Parking Facility with Fewer than 800 Spaces

Multi-Functional Parking Facility in Historical Downtown—Lisbon, Portugal

Owner: EMEL – Empresa Municipal de Estacionamento de Lisboa

PROJECT TEAM:

EMEL—Lisbon Mobility & Parking Company, Owner

CML—Municipality of Lisbon, Promoter

The transformation of an abandoned market building in downtown Lisbon, Portugal (*Mercado Chão do Loureiro)* into a modern, multi-functional, sustainable 196-space facility fully integrated the building into the local landscape.

The original structure didn't allow for circulation between floors, so the building's core was demolished. Its facade was left standing, and six floors of parking were achieved. Because it is located in an old neighborhood, construction was carefully planned to minimize effects on local traffic flow and allow circulation on adjacent roads.

The building offers a variety of public amenities, including a ground-floor supermarket, a floor for electric vehicles (EVs) with 32 chargers, a restaurant, a panoramic overlook on the terrace, and a solar power plant. It also plays an important role in the city's mobility plan, offering two panoramic lifts for public use that allow pedestrian access to every floor, and from downtown to Saint Jorge Castle, which is the most visited monument in the country.

The facility acts as an art gallery for five urban artists whose works are displayed on the walls of each level. It also offers music, fragrance, and amenities that include car assistance, flat tire kits, alcohol analyzers, umbrellas, and bicycles.

An Equinsa parking system was installed that uses bar code tickets and optical readers to provide efficient revenue control; clients can use pay-on-foot machines on each floor. A fully-equipped attendance and control room on the first floor includes a CCTV security system and safe house. Aluminum grids on the facade allow natural ventilation, and natural light enters from a skylight, which reduces the need for artificial lighting.

Most clients are patrons with monthly cards, but the garage offers special prices for residents and professionals, and supermarket customers receive one-hour validated parking in the store. Clients enter on the fifth floor of the garage and exit on the first, so traffic circulates only one way (down), which reduces energy expense and pollution. Only EVs go to the sixth floor. Pedestrians can enter through four access points: the supermarket level, first floor, fifth floor main entrance, and the terrace/restaurant. Income also comes from supermarket and restaurant rent, ensuring stable and regular revenue to cover operational costs.

Best Design of a Parking Facility with 800 or More Spaces

Central Riverfront Garage—Phase II—Cincinnati, Ohio

Owner: County of Hamilton, Ohio

PROJECT TEAM:

THP Limited Inc., Architect-of-Record, Parking Consultant & Structural Engineer

Messer Construction, Construction Manager

Heapy Engineering, Mechanical & Electrical Engineer

GBBN Architects, Design Consultant

DNK Architects, Design Consultant

The Central Riverfront Garage, a two-level cast-in-place concrete parking structure located within the Ohio River floodplain, forms the base for Cincinnati's new $600 million mixed-use riverfront neighborhood known as "The Banks." Because of its strategic location adjacent to The Banks, as well as Cincinnati's central business district, the Great American Ball Park (home of the Cincinnati Reds), the new Smale Riverfront Park, Paul Brown Stadium (home of the Cincinnati Bengals), and several public transportation lines, the garage efficiently and sustainably addresses the riverfront's wide range of parking needs (monthly, transient, special event, validation, and valet).

The structure is designed to support eight buildings (ranging from five to 24 stories high), several city streets, and an elevated city park. It features a simple layout: straight two-way drive aisles with 90-degree parking and clear sightlines, white ceilings and ample lighting, glass-enclosed stairways with accent lighting, unique tile designs, dedicated pedestrian walkways with bollards, and durable low-maintenance materials. Two phases are currently finished; when phase III is completed, the facility will offer 5,500 spaces and be one of the largest underground facilities in the U.S.

Revenue integrity is protected by encouraging electronic payment and minimizing cash transactions. Passive and active security are used, and a police substation is located in the building complex above.

The facility's durability and longevity are enhanced with epoxy-coated rebar, silica fume, and corrosion-inhibitor admixtures in the cast-in-place concrete, and other materials, including stainless steel, laminated glass, galvanized steel, and tile, that can be hosed down after a flood. Sustainability provisions include HOV spaces, variable-speed fans, reduced use of Portland cement, and recycling of demolished materials. There are two four-lane lower level entry/exits and three two-lane upper level entry/exits, all of which were sized for sporting events and morning/evening commuter peaks using computer simulations. Simple, clear signage is used throughout, and stair names correspond to the street intersections above for easy wayfinding.

Funding included nine local, state, federal, and private partners.

- Cost: $60.8 million

The University of South Carolina's new 50-acre tailgating facility has become a catalyst for neighborhood transformation. Located across the street from Williams-Brice Stadium and abutting a heavily-traveled industrial corridor, the former farmer's market site has become a facility for Gamecock fans and for other uses as well.

Providing game day parking for more than 3,000 vehicles, the space includes a state-of-the-art tailgating facility with dedicated tent zones, cable television hook-ups, electrical outlets, and four restroom buildings. It is also designed to support intramural sports and civic uses, including concerts, special events, food festivals, art festivals, and other gatherings.

Development methods reduced stormwater runoff from the previously developed site by 90 percent. A tree-lined, grassy promenade funnels pedestrians into a vehicle-free zone, offering a safe connection to the stadium. The space also provides a venue for free play, the marching band, cheerleaders, and the football team.

Patrons are directed to pre-assigned spaces through placement of trees, signage, and lane striping. Non-assigned spaces are sold on a first-come, first-served basis on a large grassed open space at the rear of the site., which can be used as intramural space on non-game days.

The project used low-maintenance materials that are consistent with those used on campus. There is a relatively small number of paved spaces, with most spaces in grassed and landscaped zones. Low-impact development techniques were used, including infiltration trenches and bio-retention cells, to minimize runoff. The facility requires very little maintenance other than periodic mowing and yearly aerating; wells provide irrigation water, which further reduce costs.

Concrete and other materials that existed on the site prior to renovation were crushed and reused or sold for use elsewhere. Asphalt was milled and mixed back into the soil for support in grassed areas. Planting more than 900 tree species reduced the urban heat island effect, and the facility uses exterior pole lights with reflector shields to reduce light pollution. Solar lighting fixtures were also utilized in the restroom facilities.

- Cost: $15.5 million

Best Design/Implementation of a Surface Parking Lot

University of South Carolina Tailgate Facility—Columbia, S.C.

Owner: University of South Carolina

PROJECT TEAM:

Cox and Dinkins, Inc., Project Manager & Civil Engineers-of-Record

Wood+Partners Inc., Master Planner & Landscape Architect

Watson Tate Savory, Architecture

Sustainable Design Consultants, Inc., Water Quality & Sustainability Consultants

Civil Engineering Consulting Services, Inc., Traffic Engineer

DWG, Inc. Consulting Engineers, Mechanical, Electrical, Plumbing Engineer

Collins Consultants, Inc., Structural Engineer

Innovation in a Parking Operation or Program and Excellence in Sustainability Relating to Existing Facilities

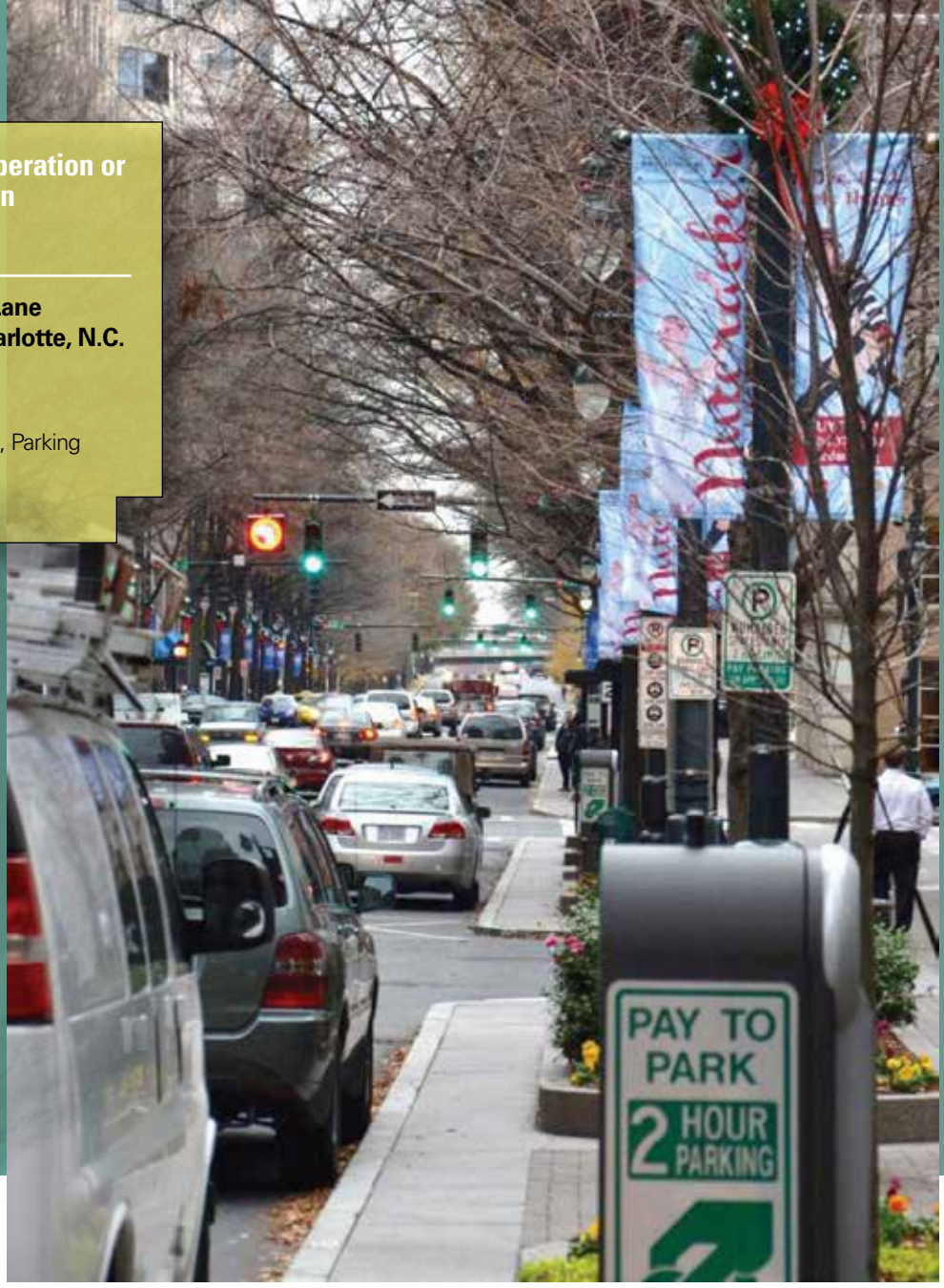
Charlotte Center City Curb Lane Management Program—Charlotte, N.C.

Owner: City of Charlotte, N.C.

PROJECT TEAM:

Kimley-Horn and Associates, Inc., Parking Consultant

DAWA, Inc., Sign Consultant



Two years ago, the City of Charlotte began to invest in the redevelopment of its curb lane assets through the rebranding, restructuring, and reallocation of various curb lane uses, policies, signage, and operation. The result—The Uptown Charlotte Curb Lane Management Program—led to a refreshed outlook on parking, enforcement, and overall day-to-day operations.

The purpose of the Uptown Charlotte Curb Lane Program is to define the efficient use of curb lane space and improve signage that communicates the uses to the public. The program aims to enhance the Uptown experience for all users of the curb lane, and includes parking space reallocation and management, loading zone policies and orientation, and signage improvements and consolidation.

During 2011 and 2012, the city implemented a pilot program along Tryon Street, which is the signature street for pedestrian, business, and community activity. After one year, 35 new parking spaces were identified through curb reallocation, citations had dropped from 954 in six months to 439 in the same period the next year, and parking meter revenue has grown.

Another aspect of the program is improved signage—signage was consolidated to eliminate duplicates, and the program adopted symbols and messages that were easier to understand. Curb spaces were allocated to specific uses and organized, making parking easier for users and offering a more efficient environment for management operations, along with more spaces for short-term parking, prioritized loading zones, and easier enforcement.

A master prioritization was adopted for curb lane management, defining how curb lanes should operate for each street type. Signature street priorities are transit operations, on-street parking, loading, and traffic capacity. Primary/secondary street priorities are transit operations, transit capacity, on-street parking, commercial loading, and passenger loading. And residential street priorities are parking for residents, transit operations on the periphery, and residential loading.

- Cost: $130,000

Built in 1967, the 90 Central Parking Avenue Deck is used for state government employee monthly parking. Located in the downtown district adjacent to Five Points business district and Georgia State University, it was constructed above historic Atlanta Zero Mile Marker and right-of-ways for the railroad and MARTA rails, adjacent to the historic Atlanta train depot and Underground Atlanta. It has seven levels and 699 parking spaces, including 19 ADA spaces on the second and third levels, along with three elevator banks.

By 2008, the garage suffered multiple issues of deterioration, including significant water intrusion, concrete rail cracks, deteriorated surfaces on an abandoned helipad, and a mural by artist Wyland that was deemed extinct. Restoration was preferred over new construction, and those took place in fiscal year 2011.

Walls were waterproofed, spalling concrete and exposed steel tendons were repaired, deteriorated steel doors were replaced, the helipad was removed, expansion joints and guardrails were replaced, deck coating was installed, striping and wayfinding were re-done, and lighting was upgraded, among many other projects.

To accomplish the restoration within the $2.8 million budget, separate contracts were awarded to three different contractors: One for structural concrete restoration; one for structural removal of exterior vertical steel members and installation of horizontal steel vehicular guard rails, with interior replacement of 6-inch pipe cast iron drainage system with CPVC, re-roof, and removal of helipad; and one for interior/exterior lighting retrofit.

Construction was accomplished during evening/night hours, allowing the deck to remain operational during the day. Contractors phased the construction and storage of materials to close only on level at a time. The project was completed in one year, with lighting finished after the main restoration project.

- Cost: $2.7 million

Best Parking Facility Rehabilitation or Restoration

90 Central Avenue Parking Deck—Atlanta, Ga.

Owner: Georgia Building Authority

PROJECT TEAM:

AMEC Environment & Infrastructure, Inc., Engineer-of-Record

Albion Scaccia Enterprises, LLC, Construction Manager, Structural Steel & Re-Roof

Stethen-Smith, Construction Manager—Concrete

Merik Inc., Roofing Consultant

E. Sam Jones, Lighting Consultant

Spencer Bristol Lighting Engineering, Lighting Engineer

Facility Lighting, Retro Fit Lighting Consultant

Georgia Finance & Investment Commission, Presenting Owner

Designed for maximum sustainability, the parking facility at the National Renewable Energy Laboratory (NREL), Golden, Col., is an open, five-level concrete frame with a steel roof canopy featuring a photovoltaic (PV) array. All sides of the garage are open to the elements, allowing natural ventilation throughout and precluding the need for mechanical systems. At 1,800 spaces, the facility provides convenient accessible parking spaces, 180 preferred spaces for car/vanpools and low-emitting vehicles, 36 spaces for electric car-charging stations, and the infrastructure for up to 360 total charging stations.

The structure provides four and five levels of parking in two symmetrical halves, made diverse by an additional level of parking on the eastern half. Each of the halves has interior and exterior light wells to draw daylight into the middle of the facility, ensuring that 99 percent of the structure is daylit. A weather-protected fifth light well that is also a dedicated pedestrian circulation spine bisects the two halves and features a monumental main stair. This center zone encourages social interaction through a pedestrian gathering node that ultimately culminates in an enlarged, sheltered shuttle stop area and paved walking path to the main campus. The elevator count was consciously reduced to two, encouraging NREL's "walking campus" while saving energy and reducing maintenance needs. Because the campus is within a migratory path, the designers specified bird-friendly glazing that deters fatal avian collisions. The north, west, and east facades are screened with cradle-to-cradle recyclable, perforated aluminum panels that limit wind, rain, and snow entering the garage while still permitting ample sunlight penetration to meet lighting goals.

The facility's roof utilizes prefabricated steel joists and truss girders to support the PV panel canopy. The all-steel joists and girders are galvanized with bolted connections to increase component longevity. The facility is capable of generating 1.1MW of power and achieves net-zero energy use. Surplus energy from the PV array is returned to the campus grid and is instrumental in aiding two additional campus buildings in becoming net-zero as well.

By itself, the parking structure uses less than 160 KBTUs of energy per parking space per year, making the structure 90 percent more efficient than a typical garage per ASHRE 90.1 standards. Crucial to the energy savings strategy is an advanced zone-based LED lighting and control design that is connected to both daylighting and occupancy sensors, and coordinated with a parking management system. Remarkably, the structure achieves these sustainability initiatives for a cost-per-space that meets or exceeds structures of comparable size. (See the December 2012 issue of *The Parking Professional* for more on this.)

- Cost: $25.51 million.

Award for New Sustainable Parking & Transportation Facilities Excellence

National Renewable Energy Laboratory (NREL) Parking Structure—Golden, Colo.

Owner: U.S. Department of Energy's National Renewable Energy Laboratory

PROJECT TEAM:

RNL, Architect-of-Record, Design & Landscape Architect

Haselden Construction, Design Builder

DESMAN Associates, Inc., Structural Engineer-of-Record & Parking Consultant

Architectural Achievement

Franklin Street Parking Deck—Fayetteville, N.C.

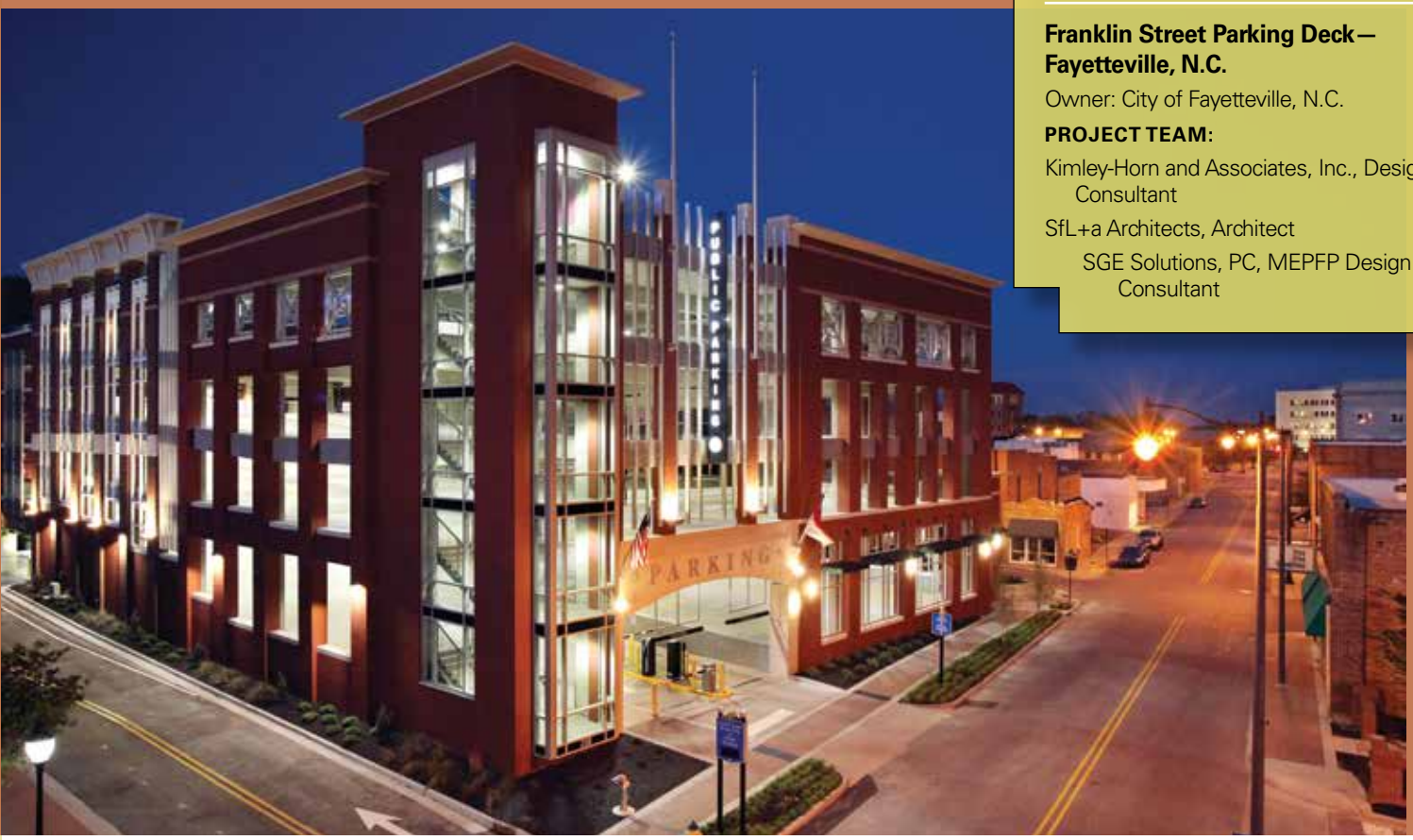
Owner: City of Fayetteville, N.C.

PROJECT TEAM:

Kimley-Horn and Associates, Inc., Design Consultant

SfL+a Architects, Architect

SGE Solutions, PC, MEPFP Design Consultant



The City of Fayetteville, N.C., contemplated building its first municipal-owned parking deck for more than 40 years. Despite 11 parking studies that recommended the facility, City Council did not approve its construction until 2010 due to negative public perception, lack of funding, and concern about the potential effect on the historic downtown district. Finally, a three-party financial agreement between the city, county, and public works commission (PWC) and federal American Recovery and Reinvestment Act (ARRA) funds made it possible.

While it began as a controversial project, the parking deck, which draws its character from the surrounding buildings, has become a celebrated and distinctive feature of the downtown district. Designed to minimize maintenance costs, maximize service and safety, accommodate future mixed-use development, and attract downtown visitors, the facility stands as an example of the success that can be achieved through open dialogue with the community and outstanding team coordination.

The two-bay, five-level deck offers 294 spaces; PWC monthly tenants use secure parking on the top two levels, ensuring municipal revenue. Other levels are used for monthly and visitor parking. The facility was designed with a 75-year service life, using post-tensioned concrete, corrosion inhibitors, low-maintenance landscaping, and an anti-graffiti coating on the facade. Video surveillance, columns (instead of walls), and intercom systems offer security, while two-way, 90-degree parking simplifies vehicular travel paths. LED lighting provides average light levels of 6.5 foot candles, which is significantly higher than the recommended five-candle minimum, and sensors reduce operational costs.

Other design features include a card-access pedestrian bridge that spans a two-lane service drive to connect the deck's fourth level with the PWC building's third floor, and ground level mixed-use accommodation, with aluminum storefront to minimize future upfit costs.

A neighborhood outreach program was implemented to address concerns and misconceptions, both from citizens and the local media. Materials with highly competitive local markets, such as masonry and concrete, were made large components of the overall design to promote local jobs during construction.

- Cost: $6.165 million

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