

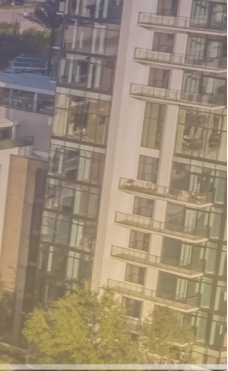


THE MAKING OF MIDTOWN PARK

A new Houston property
offers an urban oasis
of sustainable and
innovative design

By [Brian Lozano, PMP](#)





HISTORICALLY KNOWN as Houston's second residential neighborhood, Midtown flourished through the mid-1940s, boasting Victorian homes owned by well-known families. After declining in the 1980s and 1990s, Midtown has rebounded to become one of Houston's most bustling neighborhoods. It is now also home to Midtown Park, a landmark project completed near the end of 2018 that features a 2.5-acre park above a parking garage plus an entertainment pavilion, water features, an additional half-acre pocket park, restaurants, and luxury apartments.

"In addition to increasing community gathering opportunities and enhancing quality of life for current Midtown residents, the park will become an economic development catalyst to attract new development to Midtown," says Marlon Marshall, director of engineering and construction at Midtown Redevelopment Authority (MRA), a nonprofit organization created to manage basic infrastructure improvements and encourage new residential and commercial development in the neighborhood.



Premier Park Space

Since the late 1990s, MRA had been working with developers and property owners to assemble what became a 6-acre tract of land commonly referred to as “the Midtown SuperBlock.” Through the years, the MRA board, staff, and design team consultants, with community and stakeholder input, worked to create a vision for a mixed-use project featuring an underground garage. “We wanted to create a premier urban park space in the heart of Midtown to become the focal point for the community and attract new development along the Main Street corridor,” says Marshall. The group brought in national engineering and consulting firm Walter P Moore as lead design consultant for the project. The goal was to bring nature to Midtown and revitalize the East Side, which had experienced a decline in retail occupancy.

Camden McGowen Station occupies three of the six total acres of development. The eight-story complex boasts more than 300 luxury studios, apartments, and townhomes. The multifamily community will include amenities such as a private parking garage, chef-inspired kitchens, spa-reminiscent bathrooms, and—capitalizing on its serene location—a community pool overlooking a portion of Midtown Park. Camden specifically responded to the scheme of the park with the design of their building forming an H and allowing for both park and downtown views.

One challenge that proved surmountable was how to host a living, sustainable park above a below-grade parking garage. Walter P Moore utilized a collaborative and integrated design approach to design an operationally efficient garage while allowing the park’s trees to also

The elevator lobby is surrounded by a custom and state-of-the-art Novum glass curtain wall that is affectionately referred to as the glass cube.



grow and thrive. Partnering with landscape architect Design Workshop, Walter P Moore and Midtown MRA determined that providing both a large open lawn space and mature trees would help enhance the park’s aesthetic, attract visitors, and, most importantly, attract wildlife that was lacking in Midtown. Due to the compact size of the park and the fact that a large underground garage was located directly beneath the development, the team strategically located large trees throughout the park that required over five feet of clearance from the soil to the top of the structure to allow the roots to grow. The lid of the garage was sloped from the center outward to not only allow for enhanced drainage, but also provide adequate clearance for the grass blanketing the lawn space and a greater distance to sustain the trees.

Sustainable Solutions

The 400-space parking facility—which opened February 2017, just in time for Super Bowl weekend—sits virtually unnoticed below the SuperBlock. An intricate system of underslab draining capabilities, robust waterproofing, pumps, and a rainwater vault not only serve to self-water the landscape but also prevented the garage from flooding during Hurricane Harvey, which destroyed many surrounding homes and underground structures in August and September 2017.

Because the garage resides below an active and thriving park and just above the water table, a robust waterproofing system was provided to ensure long term





durability. A custom, hot-applied waterproofing membrane with a state-of-the-art integrated vector mapping leak detection system was installed to keep the lid of the garage dry and accurately detect the source of potential leaks. The basement walls and slabs are protected with a bentonite waterproofing membrane, a dual wall drainage system, and a full under-slab drainage system.

As a nod to Houston's "Bayou City" nickname, the Park's bayou landscape and waterway serve as part of the park's stormwater infrastructure, mimicking the recirculating system of natural bayous and wetlands. Rainwater is collected through a piping system in the garage before it is pumped into a 70,000-gallon irrigation vault underground. The team planned for the impressive rainfall that often hits the Houston area and integrated a backup plan. The parking garage underslab drainage system pumps water into the irrigation vault, which is used to water the various landscape features in the park. When the vault fills up and cannot receive any additional water, a series of valves in the system allows the water to bypass the vault and drain into the bayou water feature, which also serves as the detention for the Midtown Park site.

Additionally, the parking structure meets the rigorous sustainability requirements of the district by providing energy efficient LED lighting with motion detection and dimming capabilities. Most importantly, the entire garage and park is powered by a 100 percent renewable energy provider.

Safety and Structure

The design of the garage accounts for various operational and long-term maintenance considerations to ensure it will operate efficiently and achieve a lifespan beyond 60 years. Enhanced

wayfinding and a two-way traffic flow with dual express ramps allow for maximum operational flexibility during normal operation and events. Additionally, the garage utilizes an automated pay on foot revenue collection system. During events, payment collected upon entry allows for frictionless exiting. Currently, a manned security presence patrols both the park and garage, but the garage has infrastructure to accommodate security cameras and emergency phones. In addition to ensuring that the parking garage met all safety standards, the parking team at Walter P Moore designed additional lighting to help drivers adjust when transitioning from below ground to above ground. Additionally, the structure itself was designed with additional vertical clearance with the primary goal of helping people feel extremely safe when parking in the garage.

There are many beautiful architectural features that the park and garage share, including the breathtaking 5,000-square-foot performance stage and pavilion that houses the main elevator lobby and stair that leads pedestrians from the park into the garage. The elevator lobby is surrounded by a custom and state-of-the-art Novum glass curtain wall that is affectionately referred to as the glass cube. The performance pavilion also includes a one-of-a-kind water feature that simulates a thunderstorm as it builds in intensity.

The beautiful glass cube language translates down into the garage, allowing tons of natural light to pour in from the park above. To help with pedestrian wayfinding, each garage pedestrian portal was designed with cues from the park above and include color matching and patterned concrete with custom patterns in the basement walls.

Abundant Amenities

Midtown Park and Garage serves a variety of user groups. Visitors to the local eateries and night life and commuters alike utilize the garage as a transportation hub due to its adjacency to a METRO light rail station and onsite METRO bus shelters. B-Cycle stations were installed in the park to attract more pedestrians to the development.

Aside from visitors and commuters, the local community college uses the park for outdoor teaching opportunities at the custom chalkboard located on the park grounds.

The vehicular entry portal into the garage also provided a wonderful opportunity to integrate a one-of-a-kind dog play area. The entry ramp includes a lid where a dog run was constructed on the sloping portion to allow dog owners to run up and down the ramp with their furry friends. This unique feature provided a wonderful opportunity to capture an otherwise unusable space in the park.

The ventilation system for the garage also received special architectural consideration as it is concealed entirely under the performance pavilion stage. This allowed for the stage to be

raised above the surrounding park and provide a spectacular view and allow fresh air into the garage through concealed ventilation fans.

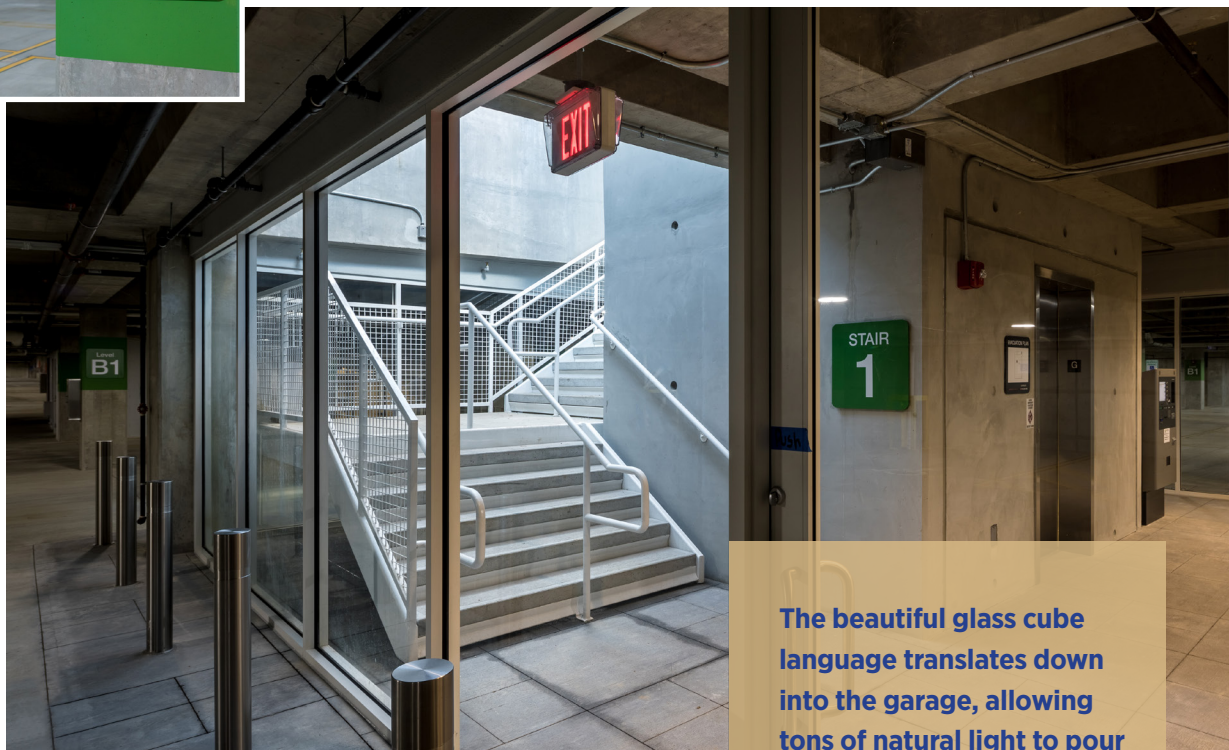
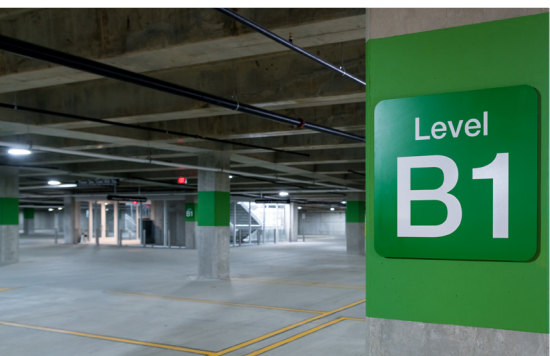
Crime Prevention Through Environmental Design (CPTED) was utilized throughout the design of the park and influenced the design of the garage. The garage design includes clear sight lines with minimal hidden corners. To aid in wayfinding, the garage is divided into three color zones with custom column wraps.

Fun Meets Functional

Bound by the SuperBlock of Main, McGowen, Travis, and Anita streets, Midtown Park offers residents a blend of urban living and functional green space. Many educational and sustainable features are interwoven into the fabric of the park's design. When we considered the audience that would be utilizing the space, we pictured young professionals living in the area, working in downtown. The first day the gates came down, we saw urbanites in the park with their four-legged friends.

All of the spaces in the park and garage were employed to create a multiuse area that appeals to all brands of outdoor enthusiasts. The slope of the garage entrance, for instance, also operates as a portion of the off-leash dog park and serves as a highly popular dog run.

The Camden Pavilion's water feature boasts a rain-fall simulation program that can be turned on and off



The beautiful glass cube language translates down into the garage, allowing tons of natural light to pour in from the park above.



As a nod to Houston's "Bayou City" nickname, the Park's bayou landscape and waterway serve as part of the park's stormwater infrastructure, mimicking the recirculating system of natural bayous and wetlands.

to allow a still layer of water to remain (approximately 1/4-inch deep) that appears as clear as glass but morphs into a replication of a rainstorm in mere seconds. Jets shoot up through the water, making it look like raindrops. The intensity gradually increases, and the lights within the feature and around the pavilion come on, which is quite mesmerizing to watch.

A playground encourages exploration as well as activity, with climbing spheres, sound tubes, adult-size swings and interactive pipe sections. The social games area—where patrons can play bocce, washer pitching (a game similar to horseshoes), and other games—is surrounded by lush gardens.

The park contains a pavilion and stage area where concerts and other types of performances, as well as exercise classes and various other public events, will be held. There is also a designated space with plug-ins for food trucks, and the area behind the stage is wide enough for vehicles to pull up behind it to unload equipment. Tent anchors are set into the ground along the

Promenade, encouraging farmers markets, craft fairs and other similar events.

"Since the start of construction at Midtown Park, there have been six new private development projects announced within three blocks of the park," says Marshall. "These ongoing, planned or recently announced redevelopment projects include mixed-use residential/retail, multifamily and office projects, which we expect to generate an estimated \$338 million in new taxable value in Midtown."

Parks help maximize the long-term value of real estate since businesses and residents are willing to pay a premium to be near them. As a direct result, the park has become an economic catalyst attracting new development to the area. Midtown Park answers the need for a flourishing green space in an urban area while maintaining a stunning backdrop of the downtown skyline. ♦



BRIAN LOZANO, PMP, is principal with Walter P Moore. He can be reached at blozano@walterpmoore.com.