

PARKS AND BIKE PATHS EMBROIDER THE CITY IN THE BAYOU GREENWAY INITIATIVE PLAN.

BY BRIAN BARTH

Kinder Baumgardner, ASLA, the president of SWA Group and the managing principal of its Houston office, is not the type of landscape architect to shy away from controversial ideas. In 2013, at the zenith of the vitriolic debate around the proposed Keystone XL pipeline, he sent an unsolicited design proposal

to the White House, the State Department, the Department of Energy, the Department of Commerce, and a slew of other federal agencies with a stake in the project. In it were a set of overlay maps of the proposed route that illustrated various ecological and cultural dimensions of the pipeline landscape, as well as a set of render-

ings suggesting that a bike path be built within the pipeline corridor from its starting point in Hardisty, Alberta, down to the terminus in Port Arthur, Texas, near Houston.

"It was roundly hated," says Baumgardner of the idea, insisting it was not an endorsement of the pipeline



but an attempt to puncture the status quo notion of "infrastructure as a one-dimensional thing." Reactions were neatly divided along ideological lines. "Some people saw it as: 'You're trying to make this bad thing better, and that might mean it would get built.' On the other side, people who were much more conservative

but an attempt to puncture the status were saying, 'You shouldn't be doing quo notion of "infrastructure as a one-dimensional thing." Reactions were neatly divided along ideologi- it down.'"

The Obama administration recently gave what appears to be the final ax to the Keystone XL pipeline project, but SWA Group's proposal for it



remains a useful thought experiment for the coupling of utility infrastructure with landscape-related programming. In Houston, the concept already has a tangible application in the Bayou Greenways Initiative, a 10- to 15-year plan to establish a continuous 300-mile network of hiking and bicycle trails along nine of the major bayous that drain the Houston area. The first phase of the plan-called Bayou Greenways 2020—is under way, and includes 80 miles of new trails to expand on Houston's existing 70-mile bayou trail system. Following the success of SWA Group's linear parks along Buffalo Bayou and Brays Bayou, the firm was hired to develop a master plan for the full-blown bayou greenway network and has had a hand in some of the site-specific design work completed so far.

Houston's bayous were once braided blackwater channels, where slowmoving water leached tannins from the forested wetlands of the coastal plain as they meandered toward Galveston Bay. Today, the bayous serve as Houston's flood control infrastructure under the jurisdiction of the Harris County Flood Control District; many are lined in concrete, clogged with trash, and polluted from urban runoff, offering little in the way of aesthetic, recreational, or ecological value. Yet, in a city known more for its highways and shopping centers than parkland, the bayous are a last untapped vestige of green space.

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Buffalo Bayou Park is a 160-acre oasis in downtown Houston.

RIGHT

SWA Group hoped to garner bipartisan support for its vision of Keystone XL as a multiuse corridor.

A \$100 MILLION BOND MEASURE FOR THE GREENWAYS PROJECT PASSED WITH 68 PERCENT SUPPORT BY VOTERS.

Currently, 55 percent of Houston's parkland is concentrated in three large parks on the periphery of the city. However, the dendritic pattern of the bayous means the new linear parks will be distributed equally throughout the city—52 percent of residents live within one and a half miles of a bayou. The trail system will connect 77 existing parks and add an additional 50 parcels of green space, ranging in size from under

of approval for any referendum in the city's history. Some \$95 million of the \$120 million in private capital has already been raised, mostly through large-sum donations from Houston's well-endowed oil and real estate philanthropies.

"We are converting a very underutilized asset into something that everybody can enjoy," says Charles Place, the managing director of capital programs for the Houston Parks Board, the local nonprofit spearheading the Bayou Greenways Initiative. "As the flood control director says, he really only needs the bayous maybe two days a year. The rest of the time they should be available for other people to enjoy."

With a \$215 million capital project in the early stages of implementation, you would think the Houston Parks Board had its hands full. But behind the scenes it was working on an even more ambitious plan for Houston's greenways: linking the bayous with other utility corridors-power line cuts, secondary drainage easements that feed into the main bayous, railroad alignments, and perhaps even oil and gas line corridors-to form a comprehensive off-street recreation and transportation network throughout the region. "The working title is the Green Grid," Place says.

Years ago, when looking at aerial maps of Houston, Kevin Shanley, FASLA, a principal in SWA's Hous-

ton office and an outspoken advocate for bayou preservation, noticed that, taken together, the bayous and other local utility corridors form an offroad grid that is roughly parallel to the city's street grid. The bayous run west to east, while a majority of other utility corridors have a north-south alignment. Shanley traces the pattern back to Houston's founders, the Allen brothers. "Houston's downtown grid is rotated to the Jeffersonian grid because the Allen brothers platted it [in alignment] with Buffalo Bayou," he says of the real estate barons who bought the land around Houston's port on Buffalo Bayou in the early 19th century.

Utility corridors may seem like a logical place to route greenways, but it's not as simple as slapping a 10-foot asphalt path along every sewer line or power easement that crisscrosses a city. Baumgardner says the engineering challenges for building greenways in floodplains are significant. "You have to satisfy a lot of hydraulic requirements, [even though] once it's built it just looks like any old trail," he says. Flood control infrastructure is typically the territory of civil engineers, but Baumgardner says that initial resistance to a landscape architecture firm leading the design work on Houston's bayou greenway projects has faded over time.

Place says the U.S. Army Corps of Engineers has "revised their thought process" around waterways in recent



ABOVE

Community members participate in a 5K run along Brays Bayou on the Houston Parks Board's annual Bayou Greenway Day. two acres to more than 350 acres, which are slated for a mix of stormwater detention, habitat conservation, and traditional park amenities. Initial funding was secured through a \$166 million bond measure that designated \$100 million for Bayou Greenways; the measure passed with a 68 percent vote—the highest rate



Board has been working "hand in glove" with the Harris County Flood Control District (HCFCD) on re-



years and that the Houston Parks cent projects. "Along Brays Bayou, [the HCFCD] is sculpting their new channel and leaving shelves for us to install trails and landscaping," he says. "It used to be that they would just line [the bayous] with concrete to try to get the water out as fast as possible, but they've realized that often causes as many problems as it solves. Now they are increasingly working toward a more nuanced, environmentally sensitive approach."

> A bill adopted in 2013 by the Texas legislature smooths out another roadblock commonly encountered on greenway projects: liability concerns. The bill, originated by Representative Jim Murphy (R-Houston), a local cycling enthusiast and businessman, reduces the liability that the local power company, CenterPoint, will be subject to when allowing bike paths to be built below its transmission lines-a major step toward realizing Houston's Green Grid.

Pilot projects to link bayou trails via power line trails are now under way, including a trail from Sims Bayou (one of the city's major bayous) to Cambridge Village Park (a small neighborhood park) via an easement along a secondary drainage canal in a suburban neighborhood in southwest Houston, Place says. "It's through a \$1.5 million grant that CenterPoint handed to the city to kick off this whole program. We've done a couple trails with [Center-Point] now and are starting to get into a routine with them. It's starting to work out."

In 1912, the landscape architect Arthur Comey, author of Houston's first comprehensive city plan, wrote that "Houston is far behind other progressive cities in certain respects, notably in its park system, and should act at once to remedy these conditions." He went on to state that "the backbone of a park system for Houston will naturally be its bayou or creek valleys, which ... furnish opportunity for parks of unusual value within a comparatively short distance of most of the residential areas." Despite the best intentions, good ideas in urban planning sometimes take a century or more to bear fruit.

BRIAN BARTH IS A TORONTO-BASED WRITER WITH A BACKGROUND IN URBAN PLANNING AND LANDSCAPE DESIGN.

TOP

Proposal for a multiuse trail piggybacking on an existing power line easement in Houston's Westchase District.

RIGHT

An electrical transmission easement cuts across Houston.

