

# Revitalization

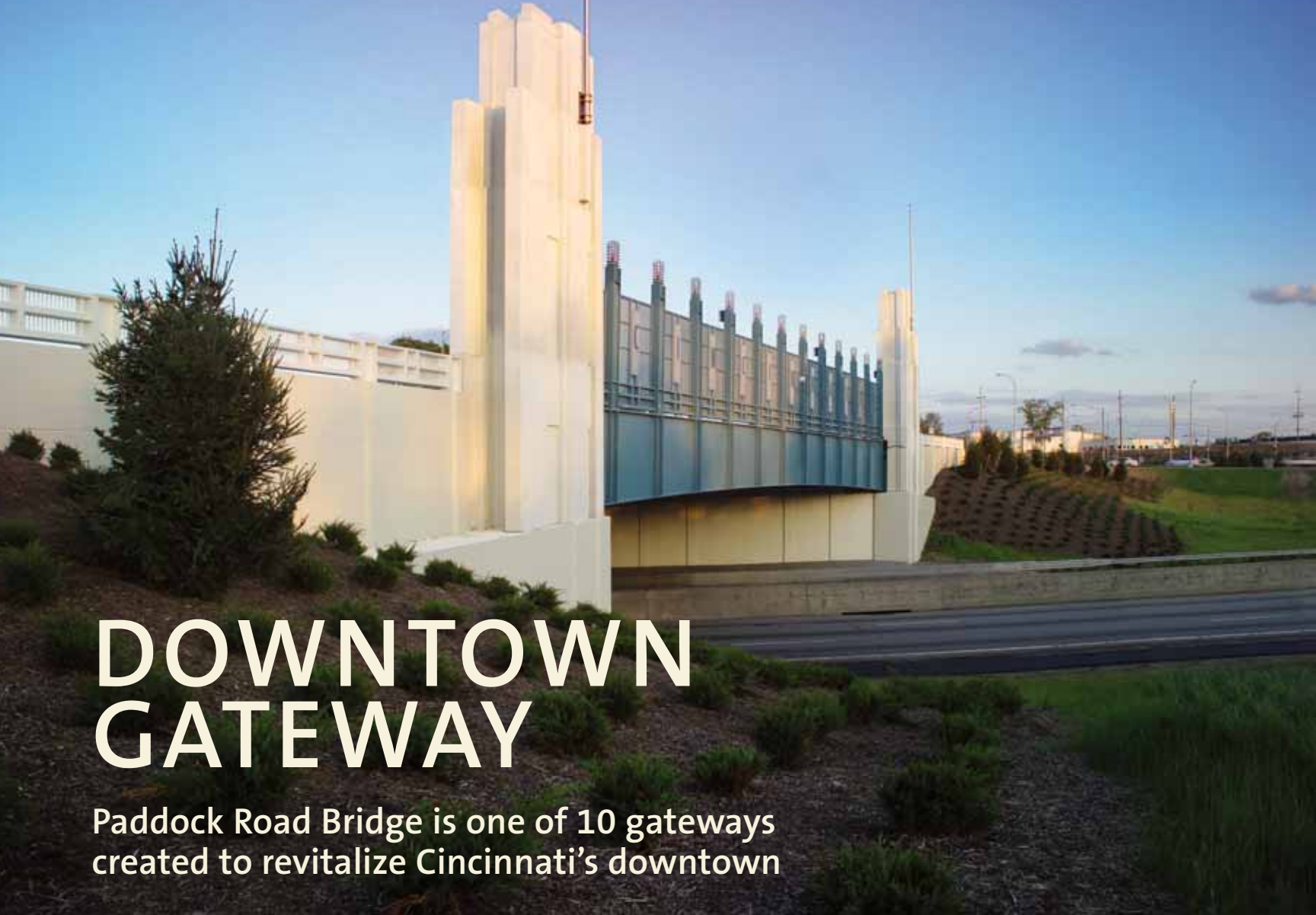
The Magazine of Community Renewal and Natural Resource Restoration

## GATEWAY TO THE CITY

Cincinnati Project  
Created Distinctive  
Downtown Gateways

Principles of  
ECOLOGICAL  
RESTORATION

Greening the  
INFRASTRUCTURE



# DOWNTOWN GATEWAY

Paddock Road Bridge is one of 10 gateways created to revitalize Cincinnati's downtown

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**A**ffectionately nicknamed the Queen City, Cincinnati was founded along the Ohio River in 1788 as Losantiville. The city's name was later changed to Cincinnati in honor of the Society of Cincinnati, an organization of Revolutionary War officers founded by George Washington.

Today, the 13-county, three-state Greater Cincinnati area is bustling with almost two million people. City officials are working diligently to revitalize the city in order to maintain its beauty and functionality, improve the quality of life and socioeconomic opportunities for its residents, and attract high-quality talent for the city's top employers.

One specific revitalization effort, the Downtown Gateway Project, was established in 1992 to enhance downtown Cincinnati's front doors through the addition of 10 gateways, all located at the most visible and traveled entrances to the city. Each gateway provides a unique identity and sense of place for the location and its edge of the city. The project celebrates Cincinnati's corporate and civic history and establishes a strong sense of urban vitality while providing the framework to orient visitors, linking downtown to the hillside and inner neighborhoods.

The Downtown Gateway Project is being completed through a unified public/private partnership that covers every aspect of the replacement:

design, funding, implementation, and maintenance. The partners are some of Cincinnati's historic corporations and institutions, including the Greater Cincinnati Visitors and Convention Bureau; Procter & Gamble; the Verdin Company; the Corbett Foundation; the Taft Museum of Art; St. Peter In Chains Cathedral; Cinergy Corp.; PNC Bank; and Eagle Realty Group, a Western-Southern Company.

The partnership has been vital to the Downtown Gateway Project in promoting the program's social benefit, thus gaining community support. In addition, the partnership has been vital in contributing the necessary financial support — both capital funding and maintenance.

The City of Cincinnati also has committed significant capital improvement funds toward the project. In fact, the Downtown Gateway Project story actually begins in 1977, when city officials recognized a congestion problem at the interchange of Paddock Road and I-75. Paddock Road bridges I-75, which takes drivers from the top of Michigan to the bottom of Florida, and is one of the most heavily traveled highways in Southwest Ohio.

City officials commissioned Cincinnati-based KZF Design to do a traffic study. At that time, however, no funds were available to improve the interchange. In 1996, when funding became available through the Ohio

Left: The Paddock Road Bridge assists traffic flow and eases congestion with wider traffic and turn lanes, and creates more accessibility to the developments taking place in the surrounding communities, such as the proposed development of "The Villages of Daybreak," where 300 new owner-occupied houses are to be built.

Department of Transportation (ODOT) and the Federal Highway Administration (FHWA), KZF completed preliminary plans, as well as the environmental process and an interchange modification study. All of this was submitted to ODOT for approval. ODOT's response was that the bridge would have to be completely replaced because of traffic issues pertaining to I-75.

Forward-thinking city officials saw ODOT's response as an opportunity to beautify the city and, together with Downtown Cincinnati, Inc. (DCI), a private, non-profit organization dedicated to the revitalization of Cincinnati's center, include the Paddock Road Bridge as one of the city's gateway projects.

Implementing the Downtown Gateway Project required a strong interagency partnership among the public/private partnership, FHWA, ODOT, and OKI (a council of local Ohio, Kentucky, and Indiana governments, business organizations, and community groups committed to developing collaborative strategies, plans, and programs to improve the quality of life and the economic development potential of the tri-state). Working with the city's transportation and engineering department, community development and planning department, public services department, and the park board, the groups moved forward.

### Objectives and concept

The 10 gateways are all located at the most visible and traveled entrances to the city. In designing the gateways, strong design criteria was needed to maintain visibility and create a positive feeling toward the city and its neighborhoods:

- Enhance the city's "front doors" by constructing improvements in the areas seen by the most people, and do so in a way that provides a unique identity and sense of place for each location and the edges of the city.
- Celebrate Cincinnati's corporate and civic history, and establish a strong sense of uniqueness and urban vitality.
- Help identify more clearly the boundary of the Central Business District (CBD) with elements that celebrate the CBD's characteristics.
- Provide a framework to orient visitors, linking downtown to the hill-sides and inner neighborhoods.
- Increase green space.

From these points sprang a design concept in which the gateways provide a series of towers, campaniles, lighthouses, fountains, beacons, gateposts, and/or pylons that become focal points of a network of green entryways. The gateways are lit up each evening with a combination of light sources to enhance the liveliness and 24-hour aspect of Cincinnati. The original downtown concept was to literally have light cannons within each of the gateways that shine straight up into the air to act as a crown for the Queen City.

A specific challenge arose almost immediately. The gateways with bridges are costly — and funding was limited. To resolve this challenge, city officials investigated additional funding sources, worked closely with their interagency partners, and sought a stronger public/private partnership.

### Funding features

A unique funding element developed for the Downtown Gateway Project from the public/private partnership. Traditionally, partners contribute funds when projects are going to be completed in close proximity to their offices, to gain the greatest benefit. In this case, the public/private partners have a strong desire to revitalize the entire city, and so they're making financial contributions to projects that are not always in front of their offices.

Ironically, no public/private partnership funds were needed for the Paddock Road Bridge. Leading the way, the city committed a great deal of the necessary funds, with the other partners pitching in. The project cost \$13 million, beginning with the traffic study and concluding with construction. Here's how it broke down: City of Cincinnati — traffic study of the I-75 and Paddock Road interchange, and bridge design (\$300,000); City of Cincinnati — Right of Way (ROW) plans and acquisition (\$380,000); City of Cincinnati — bridge aesthetic adornment and enhancement (decorative lighting, railing, and landscaping), paid for through an Intermodal Surface Transportation and Efficiency Act (ISTEA) grant (\$264,000); Greater Cincinnati Water Works — water main replacement (\$1,000,000); and FHWA, OKI, OPWC, and ODOT — bridge and interchange construction (\$11,000,000).

In addition, ongoing maintenance is being provided by the City of Cincinnati and the Cincinnati Park Board.

### Paddock Road planning

When it came to planning, the Downtown Gateway Project partners contributed high-level planning and decision making. That's the launching point for the Paddock Road Bridge project. For the partners, it was important that the project not just make downtown Cincinnati look pretty, but also tackle the functional needs of traffic congestion and overcapacity, which had led to an increase in travel time for vehicles using the intersection to enter and leave surrounding neighborhoods.

KZF provided architectural and engineering services, including an environmental assessment, preliminary engineering, and construction plans. Also involved in the planning process were Cincinnati-based landscape architect Bentley/Koepke and Columbus-based contractor Complete General Construction.

As part of the project scope, approximately one half-mile of Paddock Road was widened to five lanes and eight lanes over I-75, and the entire interchange was reconstructed. The design included a new storm sewer system; reconstruction of Seymour Avenue and Summit Road; lighting plans; signing and pavement markings; right-of-way plans; maintenance of traffic plans for Paddock Road and I-75; modification of the ARTIMIS System; vandal screening; and a single-span, eight-lane composite arched plate girder bridge across I-75.

Included in the planning process was compliance with the National Environmental Protection Act (NEPA). Original NEPA conformity was accomplished as early as 1980. Revisions were completed in 1990, and several alternatives were analyzed and completed in 1995. Once conformity was assured, KZF moved ahead on design.

As with any revitalization project, there were a number of hurdles to overcome. First, there was a long gestation and implementation period for the bridge study, design, and construction because of longer partner coordination times and lack of funding. In fact, during the process, several ODOT and FHWA standards were updated. Every time this occurred,

the design needed to be revisited. More positively, because the project was an ODOT priority project, it received funding quickly.

Second, the original bridge was supported by a pier in the center. Because I-75 was to be widened by a lane on each side, it was necessary to remove the center pier. Therefore, it was recommended that the bridge be redesigned as a single-span bridge. This added two complexities: to eliminate the center pier and meet required vertical clearance over I-75, the profile of the Paddock Road Bridge was raised by three feet; and the outside bridge beams were to have an arc shape, to look like a gateway. Solving this created yet more hurdles — it drove up construction cost and added the issue of I-75 traffic maintenance during construction. The resolution was to build one half of the bridge, and then the other.

Third, the span of the bridge was not long enough to justify unusual design, and there weren't enough funds to design a structurally innovative bridge to serve as a ceremonial gateway bridge. Instead, a more typical structural design was employed to optimize economy of the basic span. The bridge was then enhanced with custom elements that were both visual (establishing the celebratory gateway) and functional (fulfilling lighting, vandal screening, and guardrail requirements).

## All in all, Cincinnati's Downtown Gateway Project serves as a shining example of a successful interagency partnership working to revitalize a high-quality city.

Fourth, when it came to the bridge's urban design elements, a lot of the extra detail was planned to have longevity, and so both aesthetics and ease of maintenance were kept in mind. Designing the decorative elements took a lot of time. It was accomplished while making sure the design adhered to American Association of State Highway and Transportation Officials (AASHTO) transportation standards. AASHTO, a non-profit organization, has a primary goal of fostering the development, operation, and maintenance of an integrated national transportation system.

Specific design elements include precast concrete towers; high-quality finish specs for precast concrete panels; a specially designed ornamental railing that serves as vandal screenings and adds class to ODOT's typical design; small decorative lights that face inward to give attention to the driving experience on Paddock Road; and good landscaping, especially because the area around the bridge is large and it was important for the landscaping to contribute to the visual experience. In addition, a special design was used to accommodate conduits and wiring for the lighted letters in the towers that spell "Cincinnati." This was coordinated with the city to make sure the lighting didn't call for specialized lamps that would be difficult to stock and maintain.

### Bridge concept and design

In 1999, KZF's Urban Design Division and Transportation & Infrastructure Division completed a design consistent with the overall Gateway Bridge Project. Designers began with architectural precast concrete to create four, 40-foot-tall art deco towers, one at each corner of the bridge over the interstate.

Most of the gateways are small in scale and celebrate local character. Because of its location on I-75, the Paddock Road Bridge acts on a regional scale, so it references city iconography that is more broadly recognizable. Specifically, the towers are an allusion to Carew Tower, the signature art deco tower that dominates the downtown skyline. The bridge also makes reference to the Western Hills Viaduct, a distinctive art deco bridge on the northwestern edge of downtown, and the blue steel of the Roebling Suspension Bridge.

A subtle arch shape enhances the gateway model. Consistent with the Gateway Design Concept, the bridge features ornamental metal railings on the four towers with lighted letters spelling out a bright "Cincinnati" on either side, which lights up at night.

### Traffic flow improvements

Construction on Paddock Road Bridge began in 2002. Once it was complete in 2003, it didn't take long to see the benefits. It assists traffic flow and eases congestion with wider traffic and turn lanes, creates more accessibility to the developments taking place in the surrounding communities, and provides increased business opportunities. In addition, the renovation makes for easier access to the neighborhood of Carthage and recently developed Carthage Mills, a 50-unit, single-family, owner-occupied residential community. It also provides an entrance into the Bond Hill neighborhood and the proposed development of "The Villages of Daybreak," where 300 new owner-occupied houses are to be built.

All in all, Cincinnati's Downtown Gateway Project serves as a shining example of a successful interagency partnership working to revitalize a high-quality city, as evidenced by the successful replacement of the Paddock Road Bridge. The Downtown Gateway Project creates a positive identity for the CBD and complements Cincinnati's other CBD revitalization projects, some of which include The Banks, Riverfront Development Master Plan, Over-the-Rhine Revitalization Plan, and Fountain Square Redesign.

The proof that the improvements combine sound structural engineering with aesthetics to improve traffic capacity and access issues are seen in the two awards the project has garnered. The first is a design award, the 2002 AIA Honor Award for Built Work from the Cincinnati Chapter; the second is the American Society of Highway Engineers Triko Valley Section 2004 Donald C. Schramm Transportation Improvement Award.

But more than awards, the bridge replacement shows that a strong public/private partnership can revitalize a city beyond expectations and spur officials to step toward additional efforts to produce an attractive, inviting, and welcoming place to live and work. ☺

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