



Barton Springs Road Bridge

Preliminary Design - Bridge Architecture

Design Report

12 August 2025

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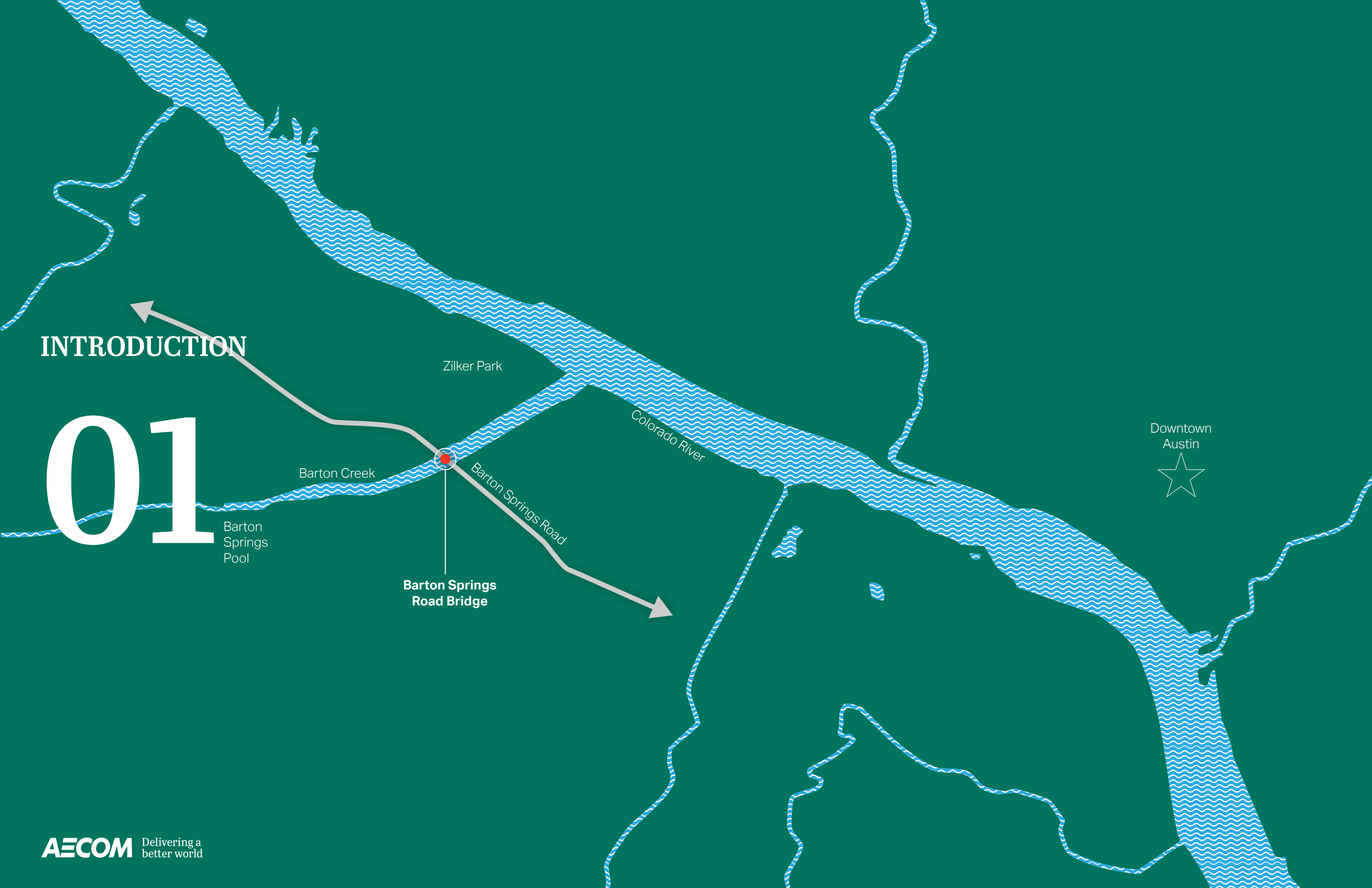
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INTRODUCTION

01



Zilker Park

Colorado River

Barton Creek

Barton Springs Road

Barton Springs Pool

Barton Springs Road Bridge

Downtown Austin



Barton Springs Bridge

Background

Built in 1925, the Barton Springs Road Bridge provides access over Barton Creek along Barton Creek Road at the entrance to Zilker Park. The bridge was widened to its current form in 1946, which includes two traffic lanes in each direction. The bridge also features narrow sidewalks along each side, guard rails and a sidewalk underneath. While the existing bridge is structurally in fair condition, many of its features are functionally obsolete and it requires replacement to ensure safety and longevity. Given that the existing bridge present mobility challenges for vehicles, bikes and pedestrians, this project will provide needed mobility enhancements for all users. Intersection improvements to nearby Barton Springs Road and Azie Morton Drive are necessary as part of this project.

In November 2020, Austin voters approved \$102 million for major infrastructure projects, with the possibility of allocating a portion of that funding to address the Barton Springs Road Bridge.

In December 2023, Austin City Council officially recommended replacing the bridge and advanced the project to the design phase.

The City of Austin received a \$32 million grant from the U.S. Department of Transportation in November 2024 to help fund construction of the new bridge.



Condition Assessment

- Deck (with integral longitudinal joint), floor beams, and spandrel columns exhibited the most degradation.
- All structural components exhibited some degradation.
- Rehabilitation for increased service life would need to remove deck, floor beams, and spandrel columns, stripping structure to arch ribs as a starting point.
- These results remove Rehabilitation Option 1 as feasible alternative since that option was the "low-impact", "preserve-structure" option.
- Based on the above, we are now focused on Rehabilitation Option 2 and on potential bridge replacement options.

Longitudinal Beam - Exposed Rebar



Longitudinal Beam - Exposed Rebar

Spandrel Column - Spalling



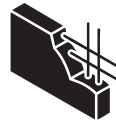
Exposed Rebar, Degraded Con

Project Needs & Goals

Needs

Replacement of Structure

100 yrs old, Associated structural degradation



Safety

Barton Springs roadway not aligned
Hillside instability at Umlauf Gardens



Insufficient Paths

Not enough bike or pedestrian paths on bridge



Intersection Congestion

At Barton Springs / Azie Morton intersection



Goals

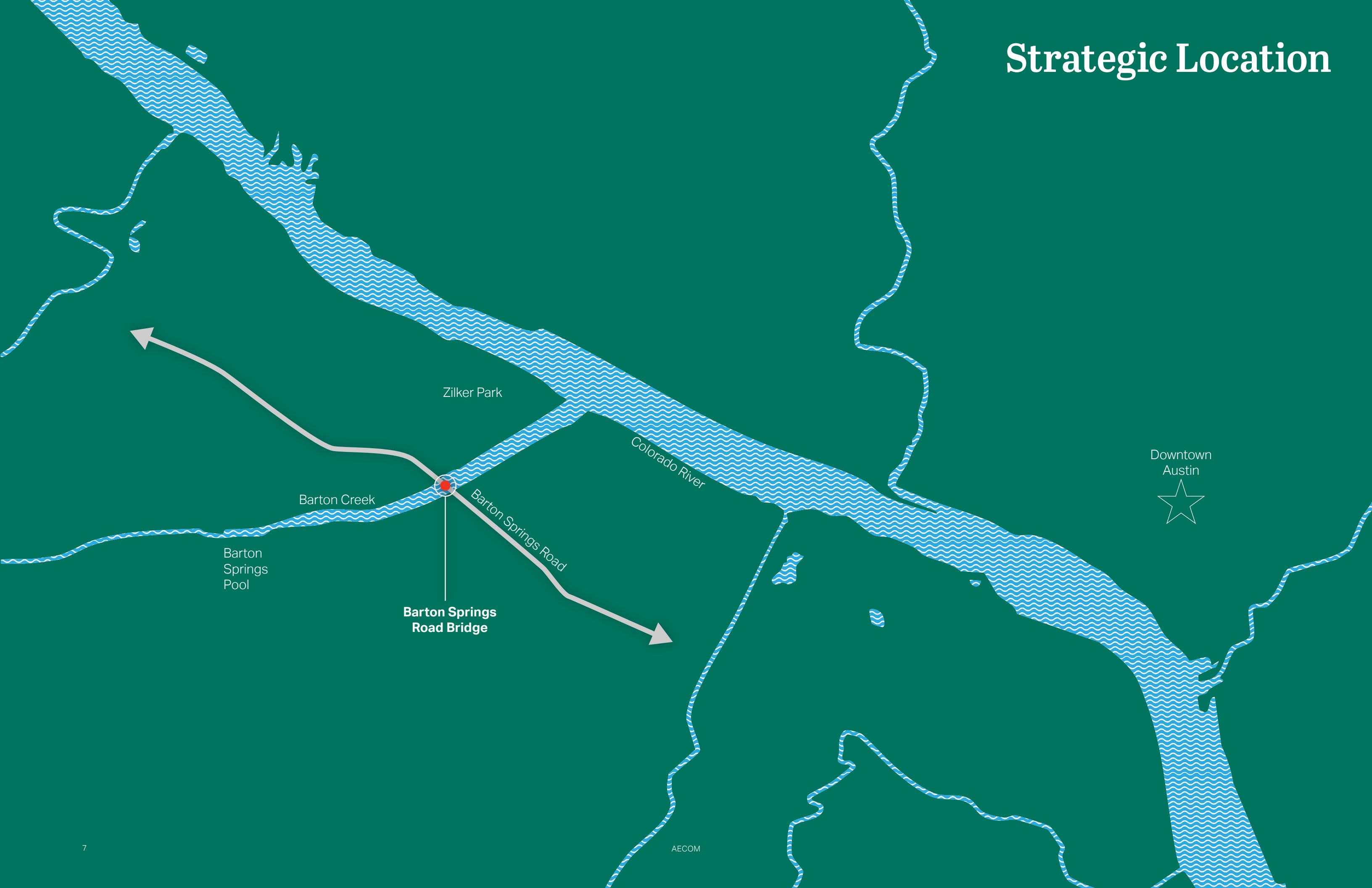
Provide 75 Year Bridge Service Life

**Improve Safety
Stabilize Umlauf Gardens**

Add Multi-modal and Connect with Park Trails

Reduce Congestion with addition of right turn

Strategic Location



Zilker Park

Colorado River

Barton Creek

Barton Springs Pool

Barton Springs Road

Barton Springs Road Bridge

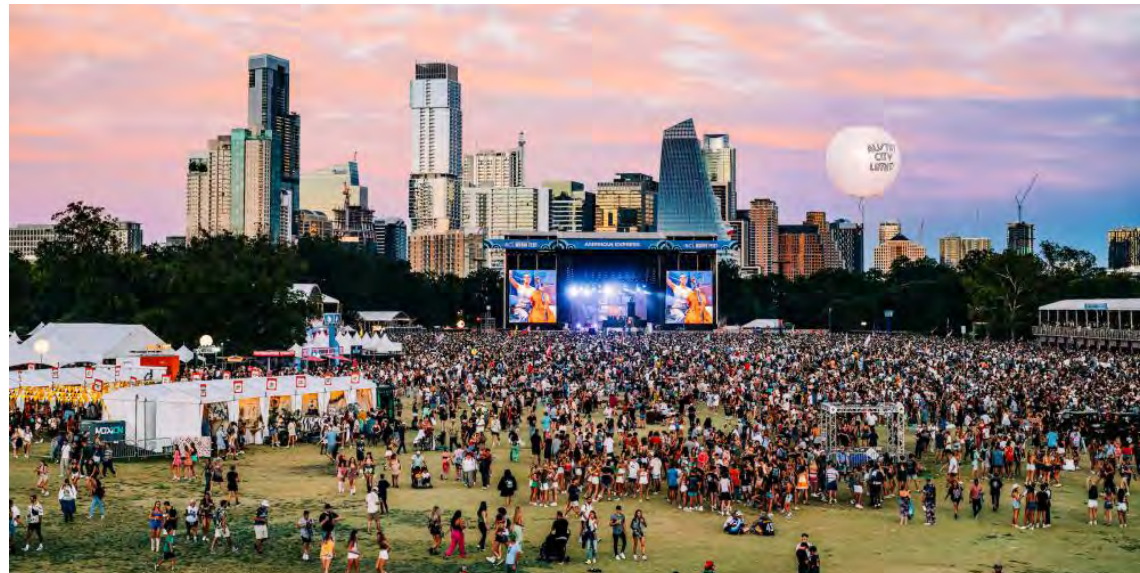
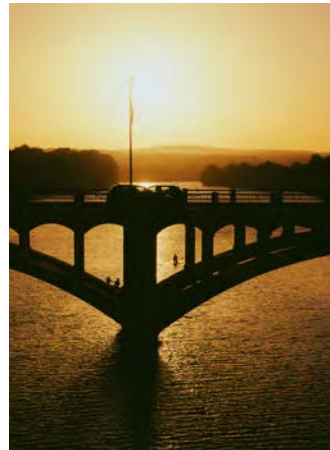
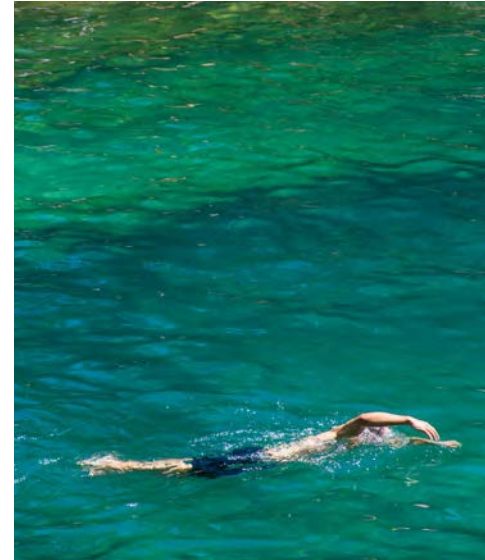
Downtown Austin





About Austin

Culture



100

Austin offers over 100 miles of trails for biking, walking, and running.

21

Between 2010 and 2020, Austin's population grew by 21%, one of the fastest growth rates in the U.S.

400k

The Austin City Limits Music Festival attracts over 400,000 attendees annually.

\$2b

Before the pandemic, Austin's live music scene contributed roughly \$2 billion to the local economy

20k

Vehicles per day on Barton Springs Road

8k

During peak summer days, Barton Springs Pool can attract up to 8,000 visitors

DESIGN CONCEPT

02



Zilker Park

Colorado River

Barton Creek

Barton Springs Road

Barton Springs Pool

Barton Springs Road Bridge

Downtown Austin



REPLACEMENT BRIDGE CONCEPT

Looking NorthEast



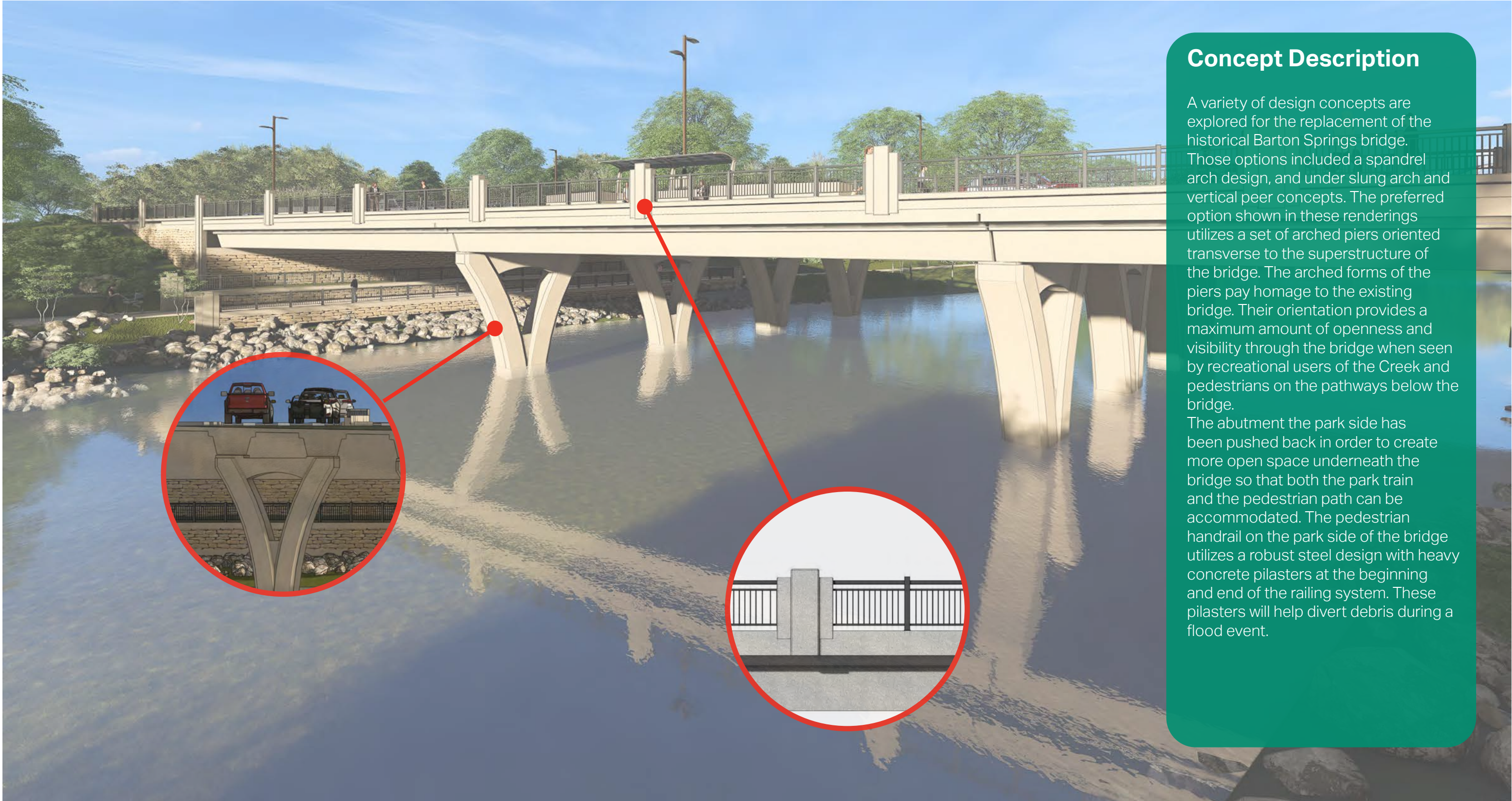
REPLACEMENT BRIDGE CONCEPT

Looking NorthEast (River Level)



REPLACEMENT BRIDGE CONCEPT - KEY ELEMENTS

Looking NorthEast



Concept Description

A variety of design concepts are explored for the replacement of the historical Barton Springs bridge. Those options included a spandrel arch design, and under slung arch and vertical pier concepts. The preferred option shown in these renderings utilizes a set of arched piers oriented transverse to the superstructure of the bridge. The arched forms of the piers pay homage to the existing bridge. Their orientation provides a maximum amount of openness and visibility through the bridge when seen by recreational users of the Creek and pedestrians on the pathways below the bridge.

The abutment the park side has been pushed back in order to create more open space underneath the bridge so that both the park train and the pedestrian path can be accommodated. The pedestrian handrail on the park side of the bridge utilizes a robust steel design with heavy concrete pilasters at the beginning and end of the railing system. These pilasters will help divert debris during a flood event.

Plan View



Section View



Pedestrian View

Looking North East



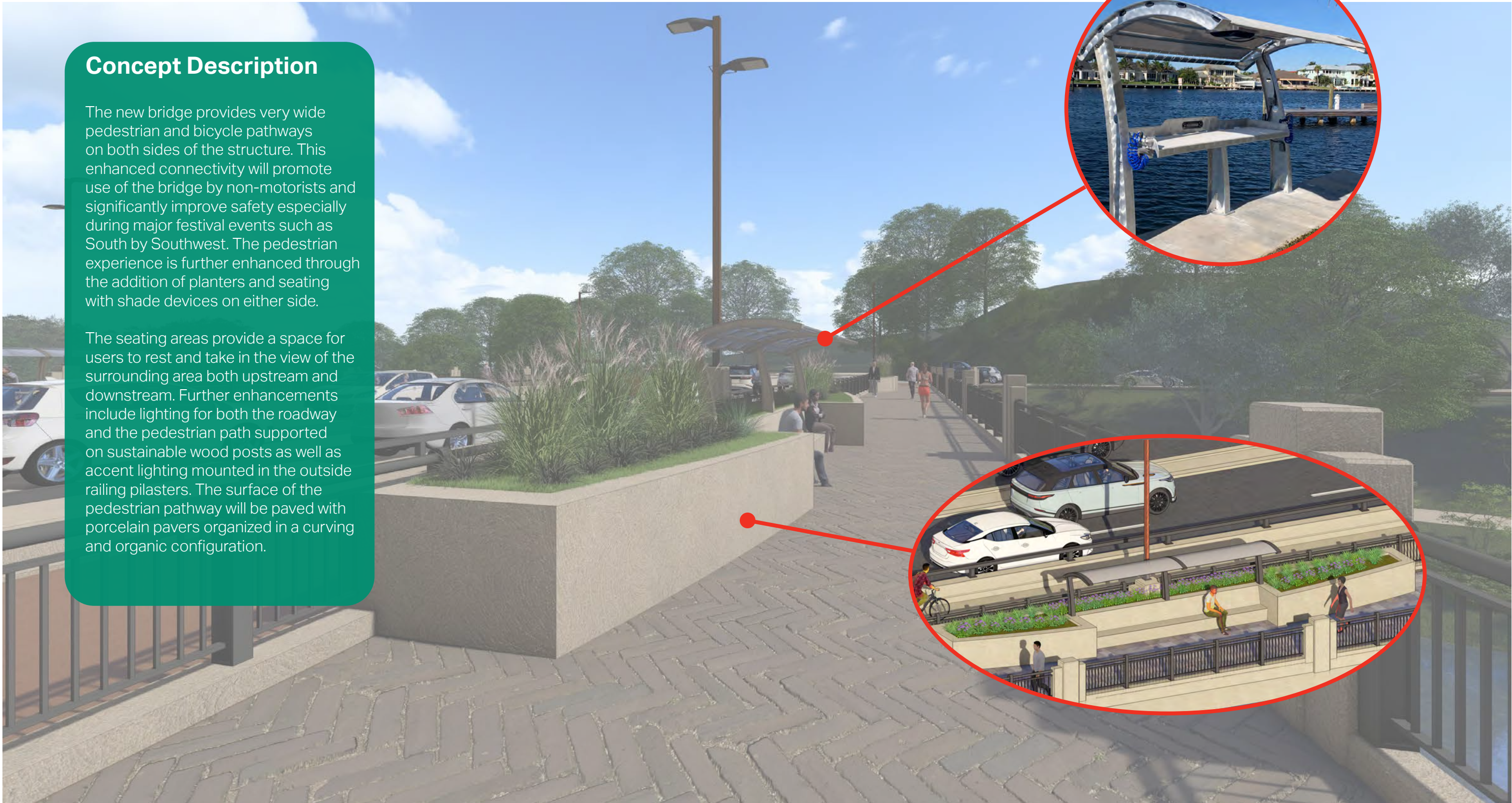
Pedestrian View

Looking North East

Concept Description

The new bridge provides very wide pedestrian and bicycle pathways on both sides of the structure. This enhanced connectivity will promote use of the bridge by non-motorists and significantly improve safety especially during major festival events such as South by Southwest. The pedestrian experience is further enhanced through the addition of planters and seating with shade devices on either side.

The seating areas provide a space for users to rest and take in the view of the surrounding area both upstream and downstream. Further enhancements include lighting for both the roadway and the pedestrian path supported on sustainable wood posts as well as accent lighting mounted in the outside railing pilasters. The surface of the pedestrian pathway will be paved with porcelain pavers organized in a curving and organic configuration.



Pedestrian View Below Bridge

Looking North East



River View

Looking NorthEast



Pedestrian View

Looking North East



PRODUCT CUT SHEETS

03

Barton Springs Pool

Barton Creek

Zilker Park

Barton Springs Road Bridge

Barton Springs Road

Colorado River

Downtown Austin



Lighting Equipment



Lightpole

Structura Sine Wood Pole



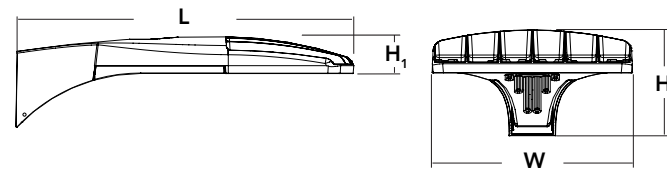
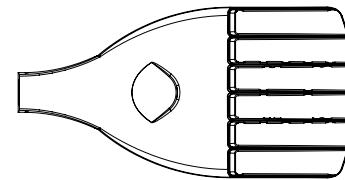
D-Series Size 0 LED Area Luminaire



d^{series}

Specifications

EPA:	0.95 ft ² (.09 m ²)
Length:	26" (66.0 cm)
Width:	13" (33.0 cm)
Height ₁ :	3" (7.62 cm)
Height ₂ :	7" (17.8 cm)
Weight (max):	16 lbs (7.25 kg)



Pole Mounted Fixture

Lithonia Lighting D-Series



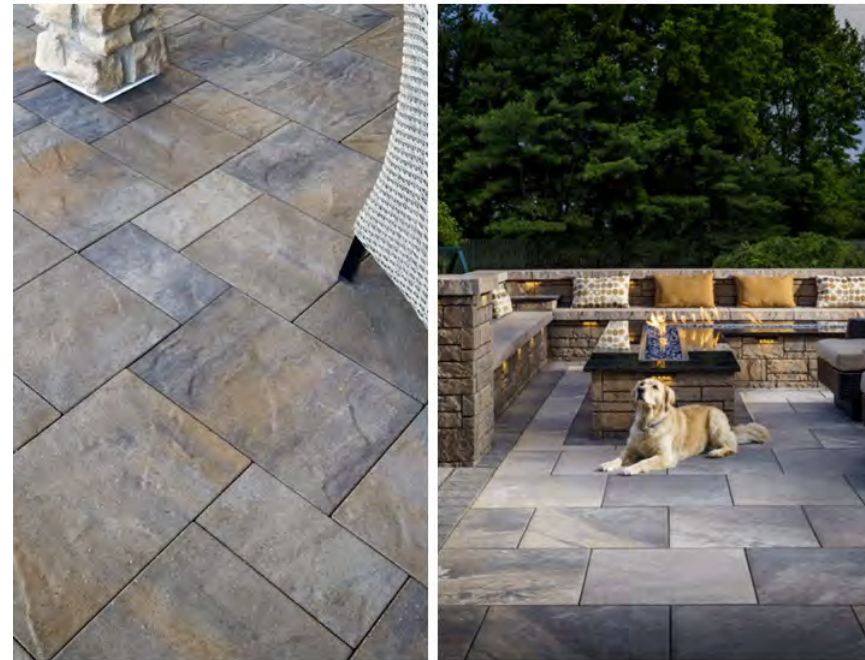
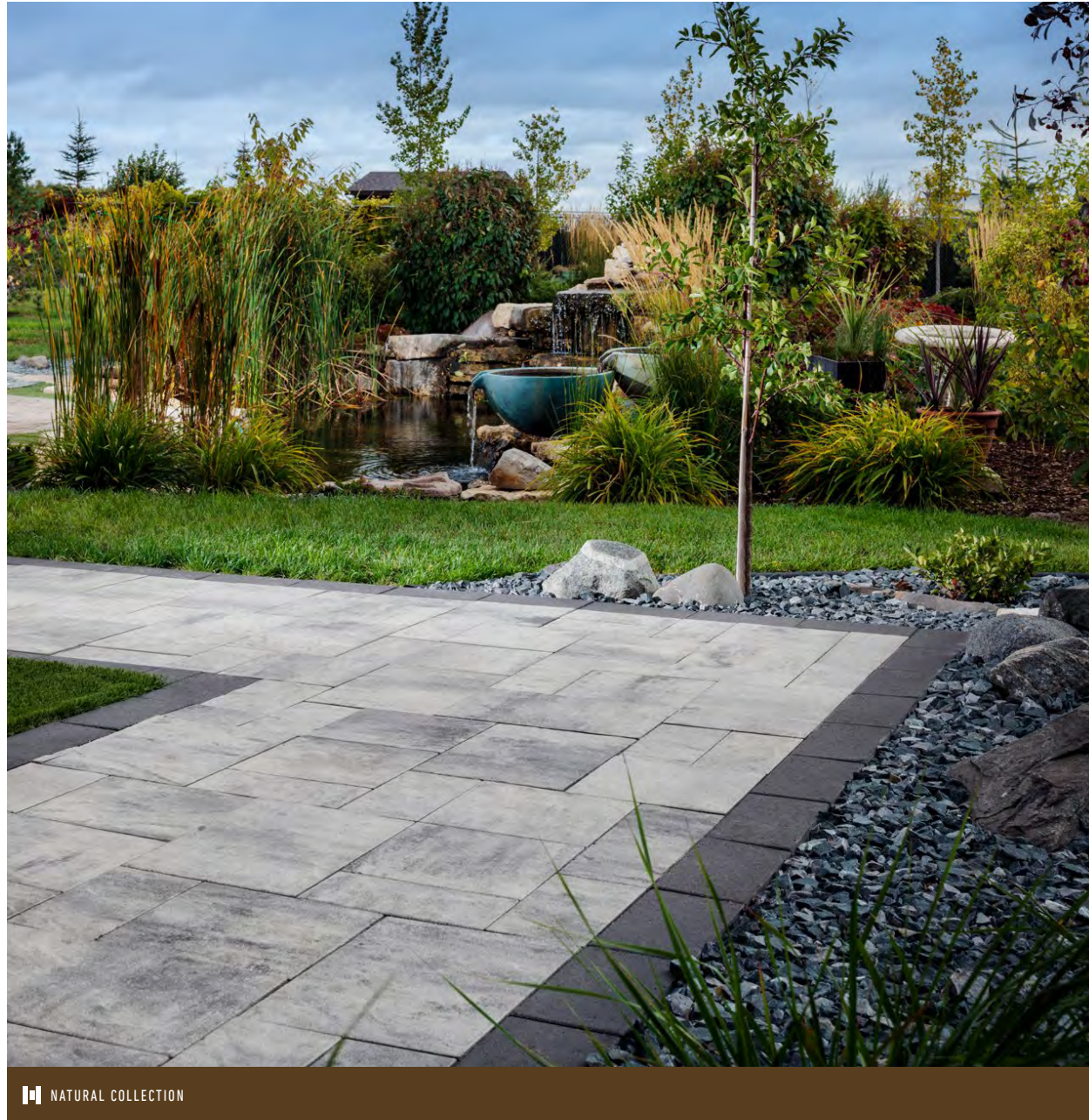
Pilaster Light

Williams S10 Hood Step Light

Surface Material

ORIGINS™ 3-PIECE SYSTEM

EMULATES THE LOOK AND TEXTURE OF NATURAL STONE WITH THE CONVENIENCE OF MODULAR SIZING



ORIGINS™ 3-PIECE SYSTEM

EMULATES THE LOOK AND TEXTURE OF NATURAL STONE WITH THE CONVENIENCE OF MODULAR SIZING

FEATURES & BENEFITS

- Look and feel of natural stone
- Maximized pallet layout for jobsite efficiencies
- Reduced cuts, installation time and waste
- Increased options for creative patterns
- Simplified quoting and design of projects
- Uniform dimensions compatible with other Origins paver sizes
- Sizing compatible with Dimensions™ smooth-face paver line

SHAPES & SIZES

ORIGINS 6

- 3 x 6 x 2 3/8"
- 6 x 6 x 2 3/8"
- 6 x 9 x 2 3/8"

ORIGINS 12

- 6 x 12 x 2 3/8"
- 12 x 12 x 2 3/8"
- 12 x 18 x 2 3/8"

ORIGINS 18

- 9 x 18 x 2 3/8"
- 18 x 18 x 2 3/8"
- 18 x 27 x 2 3/8"

Check with your local Belgard Representative for product availability and color options.

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Oldcastle APG - A CRH Company
400 Perimeter Center Terrace, Ste. 1000
Atlanta, GA 30346
Ph: (678) 461-2838



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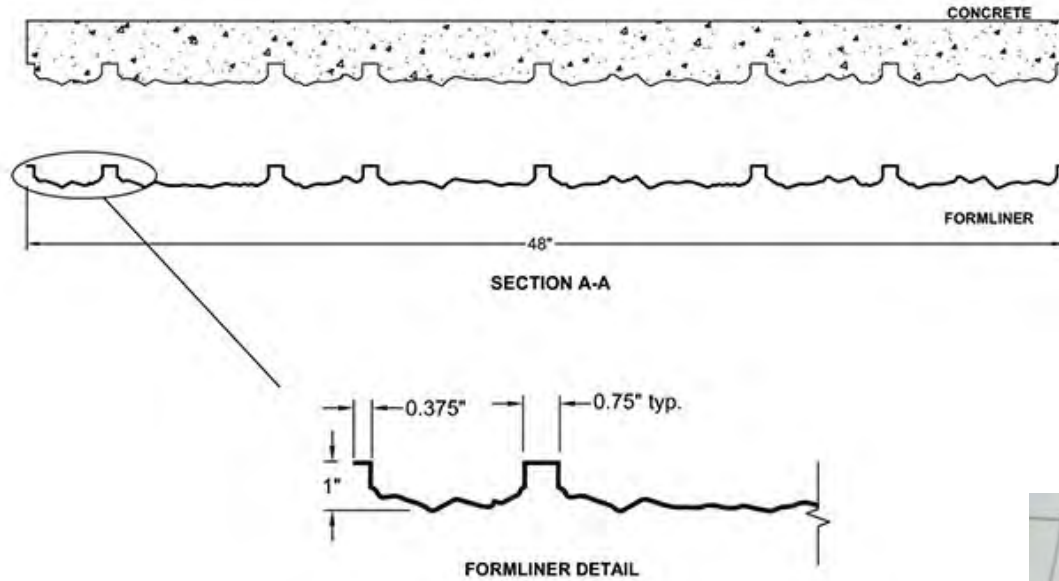
Sidewalk Paver

Belgard "Origins" Porcelain Paver

Wall Finish



17000 Florida Ashlar - Linear cut ashlar stone, 1" deep



Vac-U-Form™
Styrene - Single use.
ABS Plastic - Up to 15 reuses.

Part Size:
96"W.x 48" H

[Click here for cut-sheet](#)

Max Depth: 1.000"
Stone Size: 7"-28"W. x
3"-12"H.

Notes: This pattern has
continuous grout at 2' high
mark, it is good for barrier rails.
Match points on all four sides



17000 Florida Ashlar -
Post & Panel Wall



17000 Florida Ashlar -
FLDOT RMTc Building:
Haskell



Wall Formliner

Fitzgerald "Florida Ashlar"

