



AIA
San Antonio



CITY OF SAN ANTONIO

RIVER BARGE DESIGN COMPETITION



BACKGROUND

The City of San Antonio is the seventh largest city in the United States. A large city with a small town feel, San Antonio's fabled River Walk is one of its most distinguishing features. Designed by architect Robert H. H. Hugman, AIA in the 1920s, the River Walk was constructed between 1938 and 1940 and is among the highest rated tourist attractions' in the State of Texas.

Since its earliest beginnings, the River Walk has been navigated by small watercraft. Hugman's bridge designs were tall enough to allow Venetian gondolas to float underneath. When San Antonio celebrated its 250th Birthday during HemisFair '68, flat bottomed barges offered visitors rides up and down the length of the river. The same river barge design continues to be used today for tourist cruises, river taxis, and dinner barge excursions, all of which have a combined annual ridership of over 1.5 million.

In 2018, San Antonio will celebrate its 300th anniversary. This occasion prompted a desire by the City's elected leaders to re-imagine the river barge experience with a newly designed, more sustainable, modular fleet using innovative technology that can respond to the needs of both tourists and residents. The river barge must provide a feasible transportation option for daily commuters as well as a quality experience to the estimated 11.5 million visitors to the River Walk every year.

COMPETITION OVERVIEW

The San Antonio River Barge Design Competition will be determined in two phases. The first phase is an open call, from which a jury will select up to three finalists. Finalist teams will receive a \$7,500 stipend to allow for development of their conceptual design as well as a \$2,500 travel stipend to enable an in-person presentation to members of the jury and the general public, which will take place in San Antonio on February 8-9, 2016. Additionally, they must develop a presentation that will include the following:

- 3-D physical model (1/10 scale)
- Renderings
- Technical specifications with solutions for battery-powered propulsion
- Cost Estimate
- Modular component options and material samples

All submittal information becomes the property of the City of San Antonio, including all moral and intellectual

property rights. The City of San Antonio reserves the right to incorporate any design element from submitted proposals in any final design without regard to its source in any of the original submitted proposals. The City of San Antonio reserves the right to reject any and all proposals and not proceed with the second phase of finalist candidates.

PRIZE

Cash prizes will be awarded to the top three finalist teams in the amounts of \$20,000 for first place, \$10,000 for second place, and \$5,000 for third place. The selected team will be awarded a professional services contract with the City of San Antonio to complete construction documents for watercraft design in an amount of at least five percent of the initial barge procurement. The City of San Antonio will procure at least 44 barges and the newly constructed river barge fleet is anticipated to go into operation on the River Walk in January 2017.

SITE CONTEXT

The San Antonio River is a major waterway that originates in central Texas in a cluster of springs in San Antonio, approximately four miles north of Downtown. It follows a roughly southeastern path through the state and eventually feeds into the Guadalupe River about five miles from San Antonio Bay on the Gulf of Mexico. The river is 240 miles long and crosses five counties: Bexar, Wilson, Karnes, Goliad, and Refugio.

The San Antonio River is central to the City's history. Archeological excavations have shown evidence of human habitation more than 10,000 years ago. Hundreds of years ago, the river was a gathering place for Native Americans. The first Spanish settlers built their homes along its banks in the 1700s. In the next century, German immigrants saw opportunity in placing breweries and grain mills adjacent to the river.

In the late 1920s, a series of disastrous floods prompted a plan to pave the river into a concrete storm sewer. San Antonio government officials, businessmen, and members of the San Antonio Conservation Society recognized an opportunity for a different solution. In 1938, with funds from the federal Works Progress Administration, visionary local architect Robert H.H. Hugman, AIA, transformed the river into a linear park that today is the envy of cities all over the world. The first 21-block section completed in 1941, stretching from Nueva to Lexington Streets, has 31 unique

staircases, bridges, water features and an outdoor theatre.

The historic downtown section of the San Antonio River Walk is a verdant oasis of cypress-lined paved paths, arched stone bridges, and lush landscapes. It is the heart and soul of the downtown of the seventh largest city in the United States. Its charming human scale beckons visitors to its banks where a myriad of dining, cultural attractions, and historic sites can be found. Open 365 days a year, this three-mile network of walkways along the banks of the San Antonio River is located one story below street level in downtown San Antonio. Lined by shops, restaurants and bars, the River Walk is an essential part of the city's urban fabric and attracts visitors from around the world.

Additional revitalization of the River Walk took place in 1968 as San Antonio prepared to host the World's Fair in celebration of the City's 250th Anniversary. New hotels were built along the river's banks and many historic buildings were renovated. The River Walk was extended from South Alamo Street to the new Convention Center. It was at this time that the City launched a fleet of passenger river barges for sightseeing tours and dining. The River Walk received international attention and set the stage for what has become one of the state's top visitor destinations.

In 1998, city leaders initiated the \$384.1 million San Antonio River Improvements Project, which included flood management, amenities, ecosystem restoration, and recreational improvements to over 13 miles of the San Antonio River. The project's northern section—the Museum Reach—extends approximately four miles from Hildebrand at Brackenridge Park to Lexington Street. The Urban Segment of the Museum Reach opened in May 2009 and extends approximately 1.3 miles and extended navigation by river barge through the addition of a lock and dam and created access along a linear park featuring hike and bike trails, lush landscaping, overlooks, boat landings, stairs, water features, and pocket parks. The Museum Reach also links major historic, commercial, and cultural institutions to downtown via the river.

The Mission Reach transformed an eight mile stretch of the San Antonio River south of the original River Walk into a quality riparian woodland ecosystem and it connects 4 of the 5 San Antonio Missions which were

recently collectively designated as a World Heritage Site. Construction of this \$271.4 million Mission Reach extension of the River Walk was completed in October 2013.

An economic impact study released in May 2014 on the five year anniversary of this grand opening indicated the Museum Reach section of the River Walk has an annual economic impact of \$139 million. The project has also been a catalyst for the development of more than 50 new businesses and over 2,000 new housing units currently online or under construction along this stretch of the river. This represents over \$331 million in private investment, making a commuter barge shuttle a feasible transportation option for residents along the river.

The total navigable part of the San Antonio River Walk by river barge is approximately 3.4 miles, which includes the historic river bend that was developed in 1941, the 1968 extension, and the 1.3 mile Museum Reach Urban Segment. River barges navigate throughout the river bend area and through the length of the route passing through the Museum Reach lock and dam to their final destination at the Pearl turning basin (see appendices).

More than 11.5 million people visit the River Walk annually. Of these, 9.3 million are from outside Bexar County and 2.2 million River Walk patrons are locals, approximately two thirds of which visit the River Walk more than twice a year. These visitors stimulate an overall economic impact of \$3.1 billion and support 31,000 jobs. The River Walk, including the recently completed San Antonio River Improvements Project, is a key element of the city's tourism infrastructure that also improves quality of life for locals and businesses, enhancing the vibrancy of San Antonio.

DESIGN CHALLENGE

This design challenge is being underwritten by the San Antonio River Authority and the Convention and Visitors Bureau. AIA San Antonio, in partnership with the City of San Antonio, seeks an innovative, visionary approach to the 21st century watercraft experience on the San Antonio River. The design solution should support a ridership that includes tourists, residents, and daily commuters, and responds to the competition goals listed below:

- All-electric, battery-powered, 50 barge fleet (*hybrid propulsion will not be considered*)

- Motor propulsion choice of inboard, inboard/outboard, or outboard
- Provides for a 15-20 year barge lifespan, at a cost of \$40,000 to \$65,000 per barge
- Utilizes innovative materials in the construction of the barges
- Accommodations for disabled riders, including companion seating for riders in wheelchairs
- Accommodations for commuters
- Accommodate up to 40 passengers per barge tour
- Accommodations for dining and other events
- Ability to traverse through the lock with a barge size no larger than 9 feet by 27 feet
- Provides a safe ride with minimal wake
- Complements City of San Antonio branding

ADDITIONAL CHALLENGE CONSIDERATIONS

- Provides modularity for boats in a variety of sizes and uses (*small standing options to large 'linked barge' options*)
- Provisions for sun shading innovation
- Provisions for self-leveling technology to accommodate level boarding

EVALUATION CRITERIA

- Constructability to include, but not limited to, the economic feasibility of manufacturing the barge.
 - The goal is to have a majority of the fleet in operation by January 2017.
- Functionality including durability and longevity of the barge and batteries.
- Maintenance
- Design
- Innovation

ELIGIBILITY

The San Antonio River Walk Barge Design Competition is open to all interested parties, provided that the team includes an architect, engineer, or design professional licensed in the State of Texas to seal construction and permitting documents.

REGISTRATION

To register for this design competition, visit the AIA San Antonio website at www.aiasanantonio-riverbarge.org.

A \$250 entry fee applies. Questions about the competition should be sent to info@aiasanantonio-riverbarge.org.

JURY

The jury will be comprised of up to 11 jurors that represent a variety of interests. Of the 11, 3 will include the following: Nationally Recognized Architect; Internationally Recognized Boat Designer; and a Naval Architect or Marine Engineer.

The jury will be announced at the November 18 PreSubmittal Conference. Technical advisors may advise the jury as needed.

SUBMISSION REQUIREMENTS

Attendance of the mandatory Pre-Submittal conference to be held November 18, 2015 at 10:00 AM CST in the Board Room of the San Antonio River Authority offices at 100 E Guenther Street, San Antonio, Texas 78204. Attendance can be in person or through GotoMeeting. Applicants should indicate their preferred method of attendance upon registration. The GotoMeeting can be accessed using the following link: <https://global.gotomeeting.com/join/643624461>. Alternatively, attendees may dial in at (408) 650-3123 using the access code: 643-624-461.

River barge tours are strongly encouraged and can be arranged in advance. Applicants should indicate their desire to participate in a barge tour on the registration form.

Phase I submission entries are due December 11, 2015 by 4:00 PM CST and must be submitted in digital format (zip file no larger than 10 MB in size) and include 2 separate PDF files, to AIA San Antonio's competition Dropbox, dropbox@sanantonio-riverbarge.org, and include the following requirements outlined below:

PHASE I

Design Team Information – single PDF file

1. Project Title
2. Team Name
3. Team Members (*with physical address, email address, and telephone number for each member*)

Project Narrative – single PDF file

So that AIA San Antonio can maintain anonymity of the teams for the jurors we ask that these documents be submitted free of team member names, firm names, logos, or any other proprietary indicators.

1. Project Title
2. Design Concept Rendering(s) – limited to (5) five 8 ½ x 11" or (5) five 11x17" pages
3. Detailed design concept narrative limited to (5) five 8 ½ x 11" pages that briefly addresses the evaluation criteria listed on page 4 and the following:
 - Technical specifications with solutions for battery-powered propulsion
 - Cost estimate
 - Modular component options (if any)

PHASE II

Three finalist teams will be notified that they have been selected to move into phase II. Each finalist team will receive a \$7,500 stipend to allow for development of their conceptual design as well as a \$2,500 stipend to travel to San Antonio to present their concept and design to members of the jury.

Finalist teams must submit the following:

1. 3-D physical model of proposed barge solution (at 1/10 scale)
2. Renderings, to include site context
3. Technical specifications with specific solutions for battery-powered propulsion
4. Cost estimate
5. Modular component options
6. Barge material samples

Finalist teams must be available to be in San Antonio February 8-9, 2016. No team member names, firm names, logos, or any other proprietary indicators are permitted. All components for Phase II submissions should be sent to the following address no later than **January 25, 2016 by 4:00 PM CST**:

AIA San Antonio
ATTN: Torrey Stanley Carleton, Hon. AIA
Executive Director
1344 S Flores St #102
San Antonio, TX 78204

Scoring

Phase II submissions scoring will be broken down as follows:

- 60% Constructability, functionality, and maintenance
- 40% Design and innovation

SCHEDULE

October 30, 2015

Competition Registration Opens

November 16, 2015

Competition Registration Closes

November 18, 2015

Mandatory Pre-Submittal Conference - 10:00 AM CST (see Submission Requirements section for details).

December 11, 2015

Phase I Submittals due - 4:00PM CST

December 18, 2015

Jury Announces Short List Teams

January 25, 2016

Phase II Submittals due – 4:00PM CST

February 8, 2016

Open House for public to view the submittals and meet the teams – 6:00PM CST

February 9, 2016

Presentation by short listed teams to Jury in San Antonio

February 10, 2016

Competition winner announced and City Council B Session Presentation

February 18, 2016

City Council Action on Professional Services Contract with winning team to assist in the manufacturing of the barges and authorization for staff to issue an RFP for the Barge Operation.

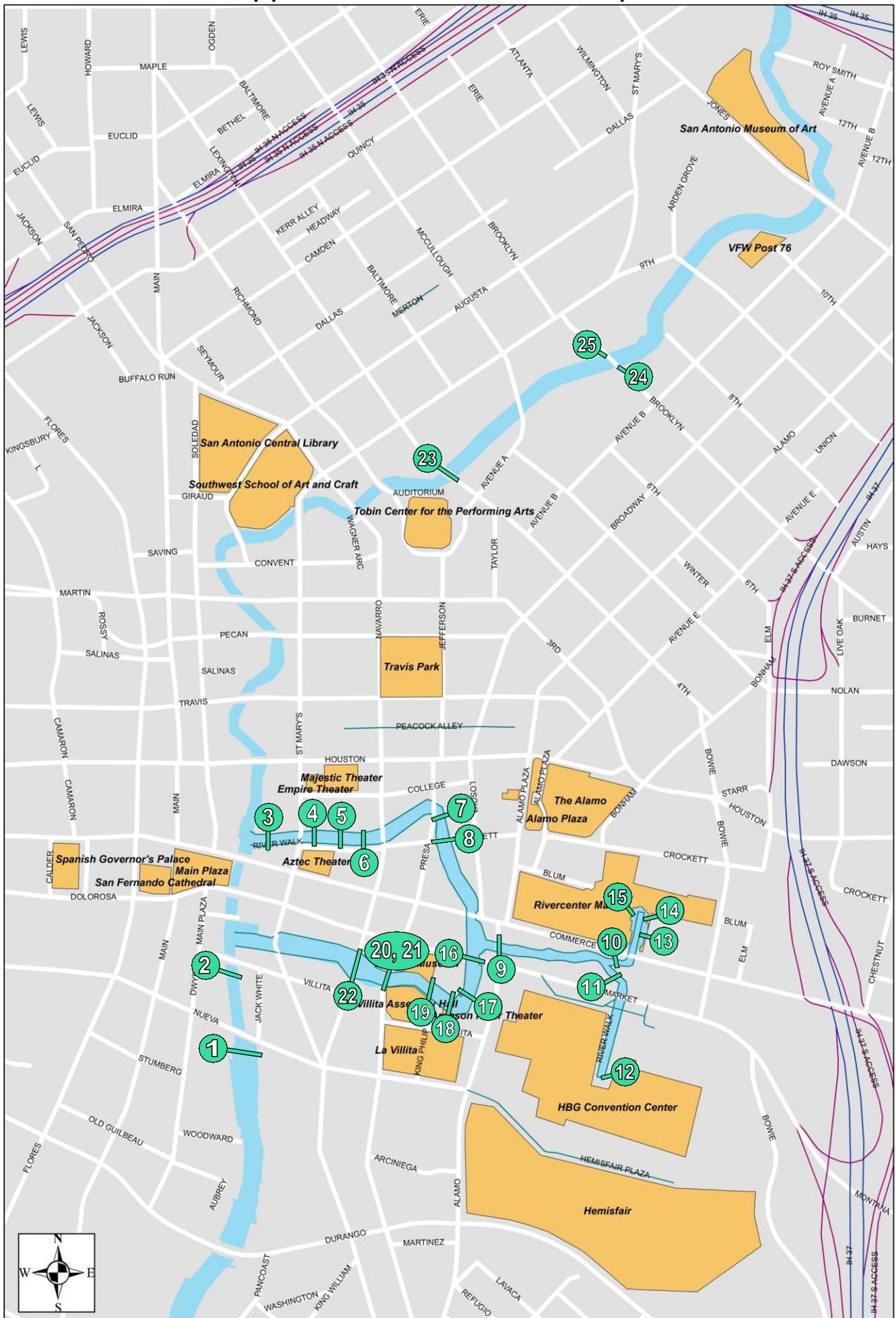
INQUIRIES

Questions about the competition should be sent to info@aiasanantonio-riverbarge.org.

RESOURCES

- **Appendix A:** River Walk Map
- **Appendix B:** River Walk Measurements
- **Appendix C:** River Walk Fact Sheet
- <http://www.sanantonioriver.org/>
- <http://www.thesanantonioriverwalk.com/history/history-of-the-river-walk>
- www.riosanantonio.com/rivertours
- www.sariverfoundation.org
- http://www.sanantonioriver.org/museum_reach/museum_reach.php
- <http://www.lib.utexas.edu/taro/utaaa/00027/aaa-00027.html>
- <http://www.uiw.edu/sanantonio/RiverWalk.html>

Appendix A: River Walk Map





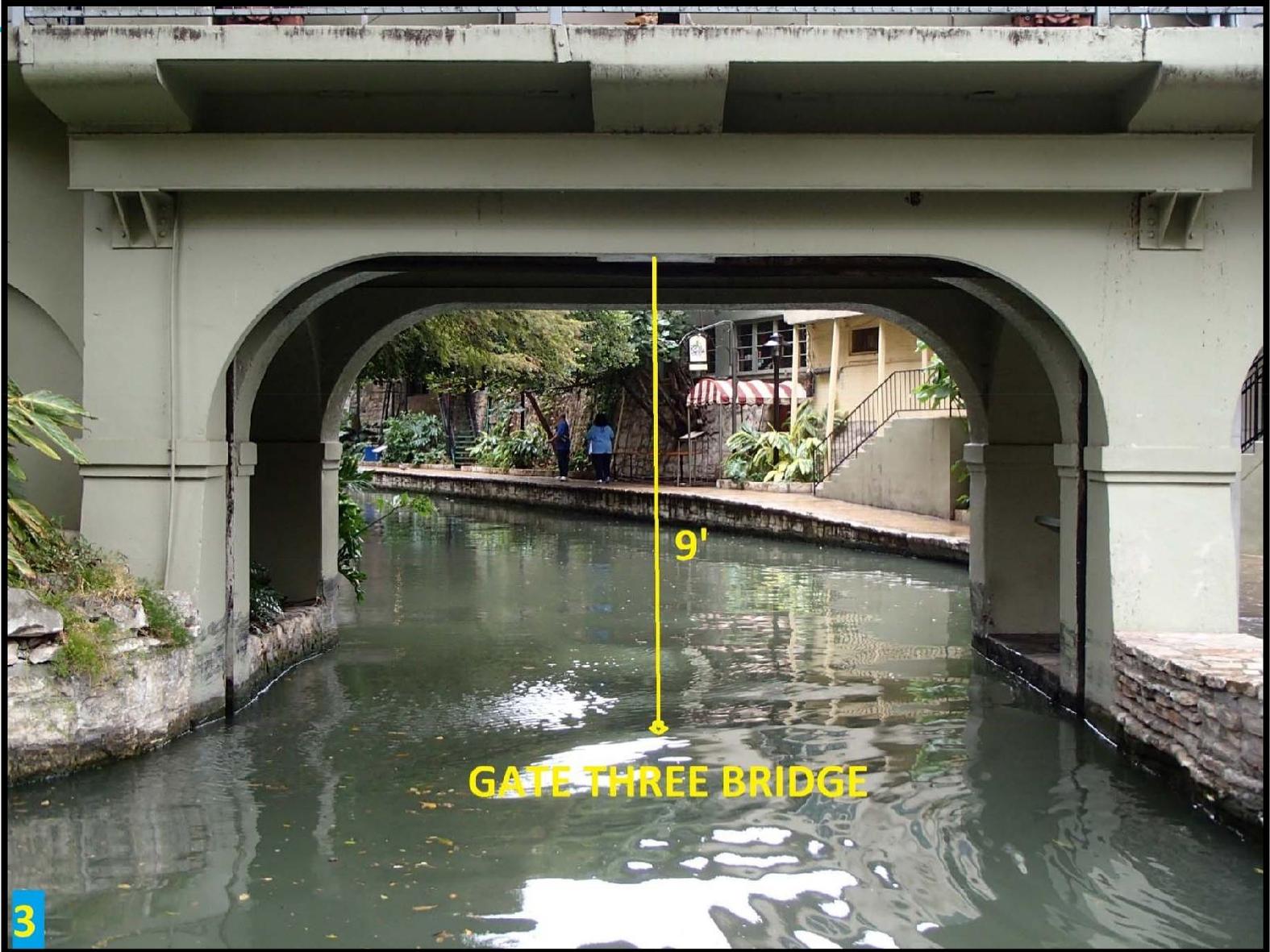
Appendix B:
RIVER WALK
MEASUREMENTS



MARINA BOAT STALL



LOWEST TYPICAL BRIDGE



3

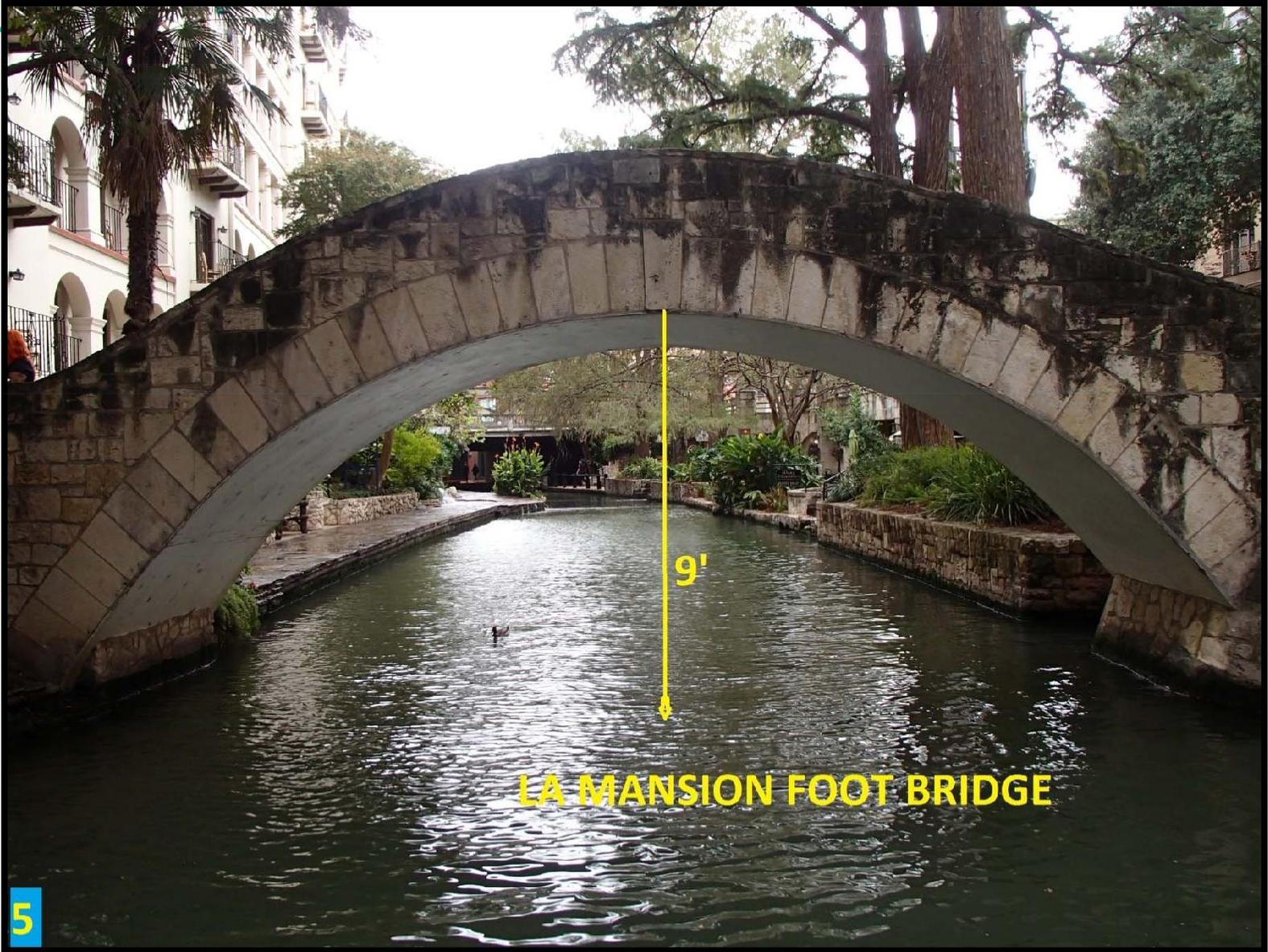
GATE THREE BRIDGE

9'



**AZTEC LOADING AREA
ONE LOADING DOCK**

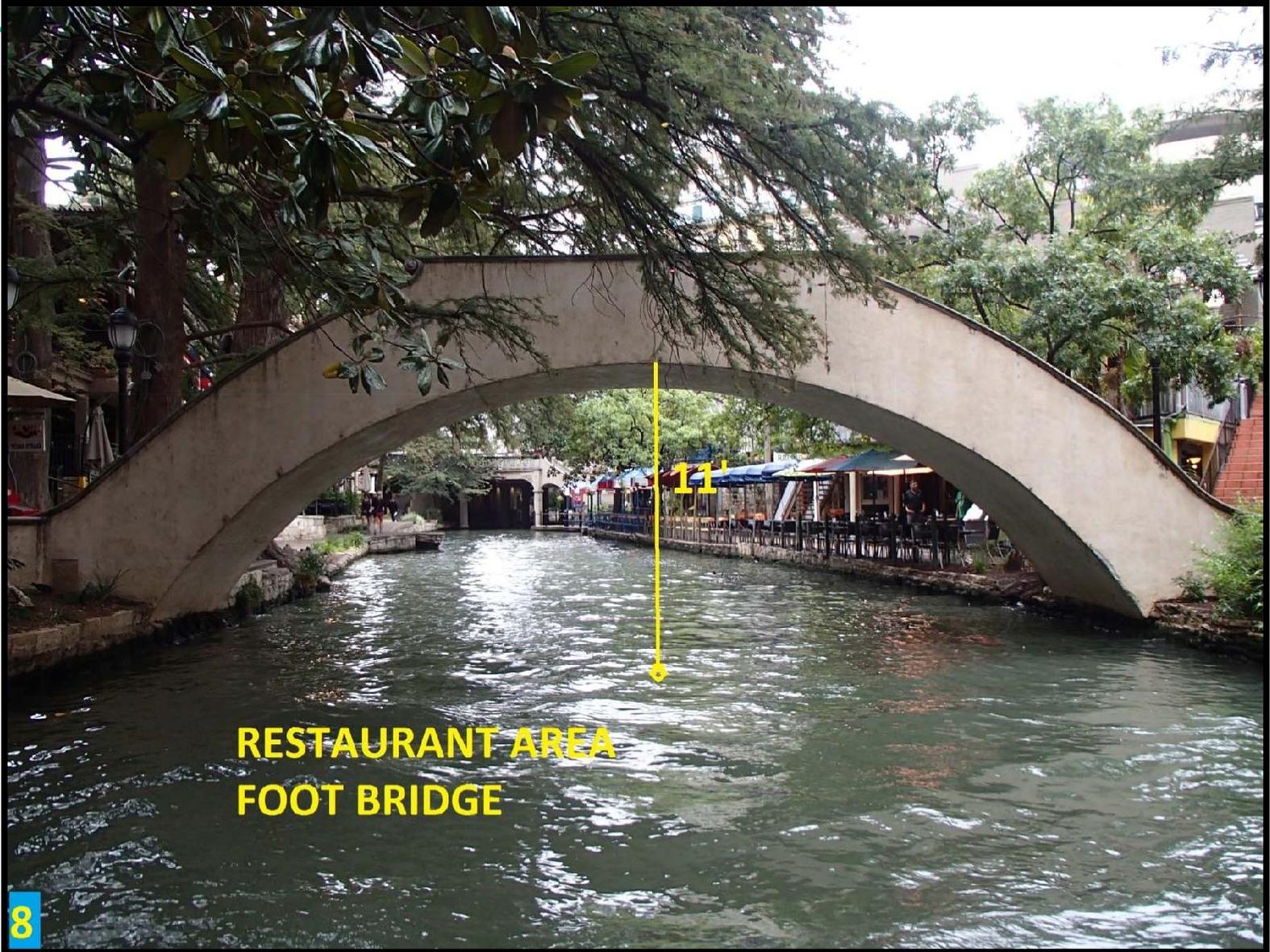
17"



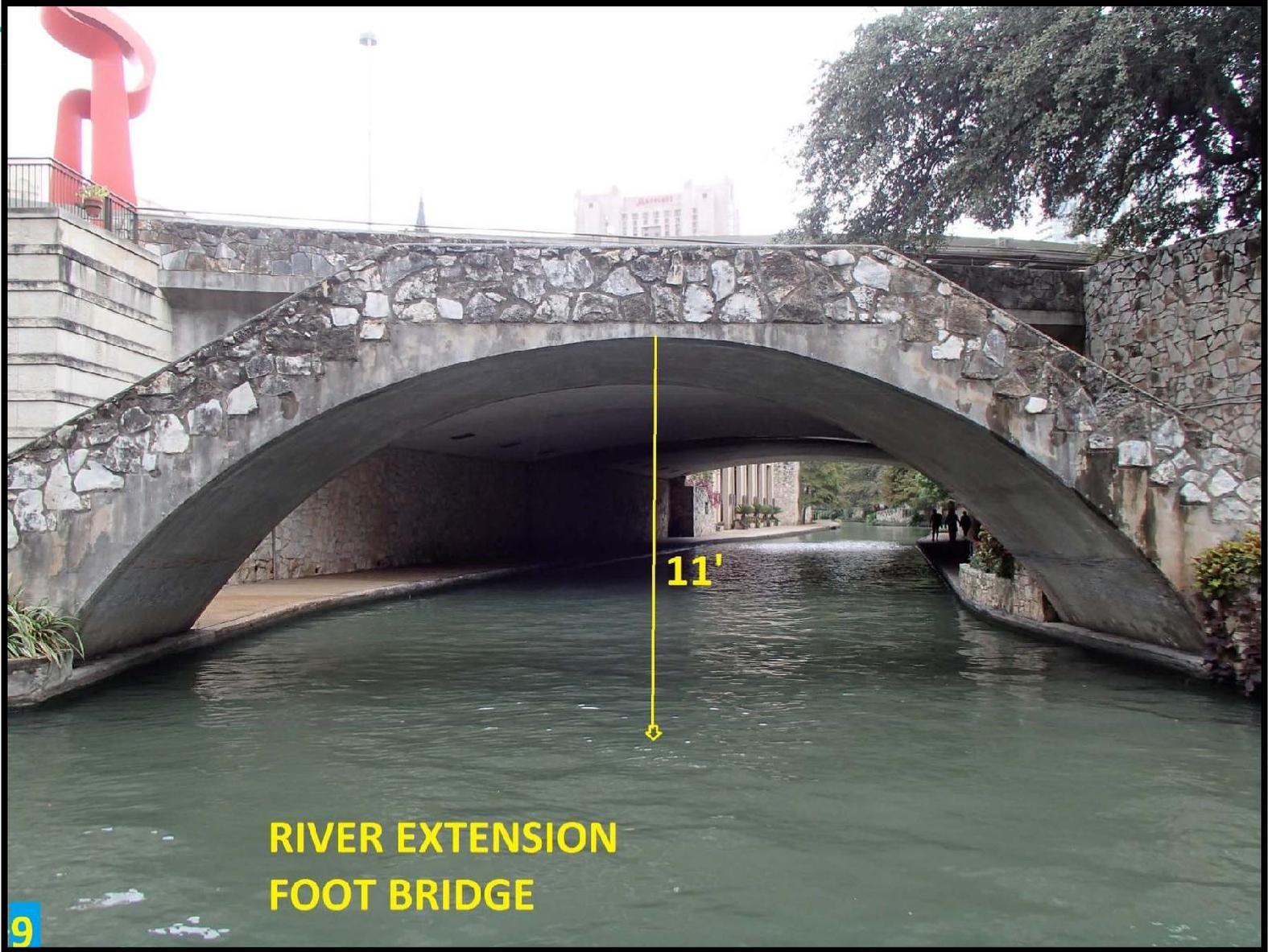
LA MANSION FOOT BRIDGE



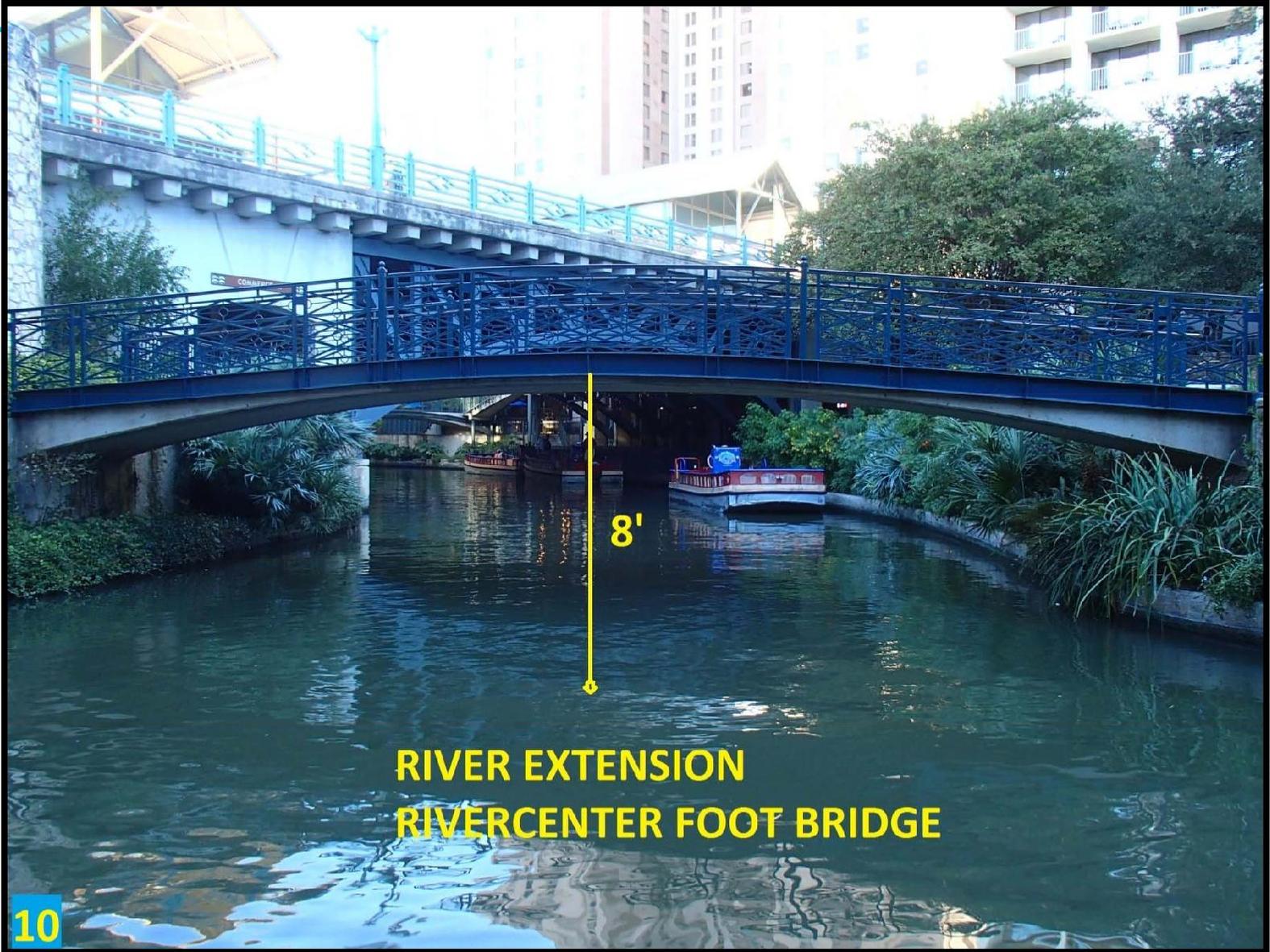
**PRESA ST. BRIDGE
NORTH**



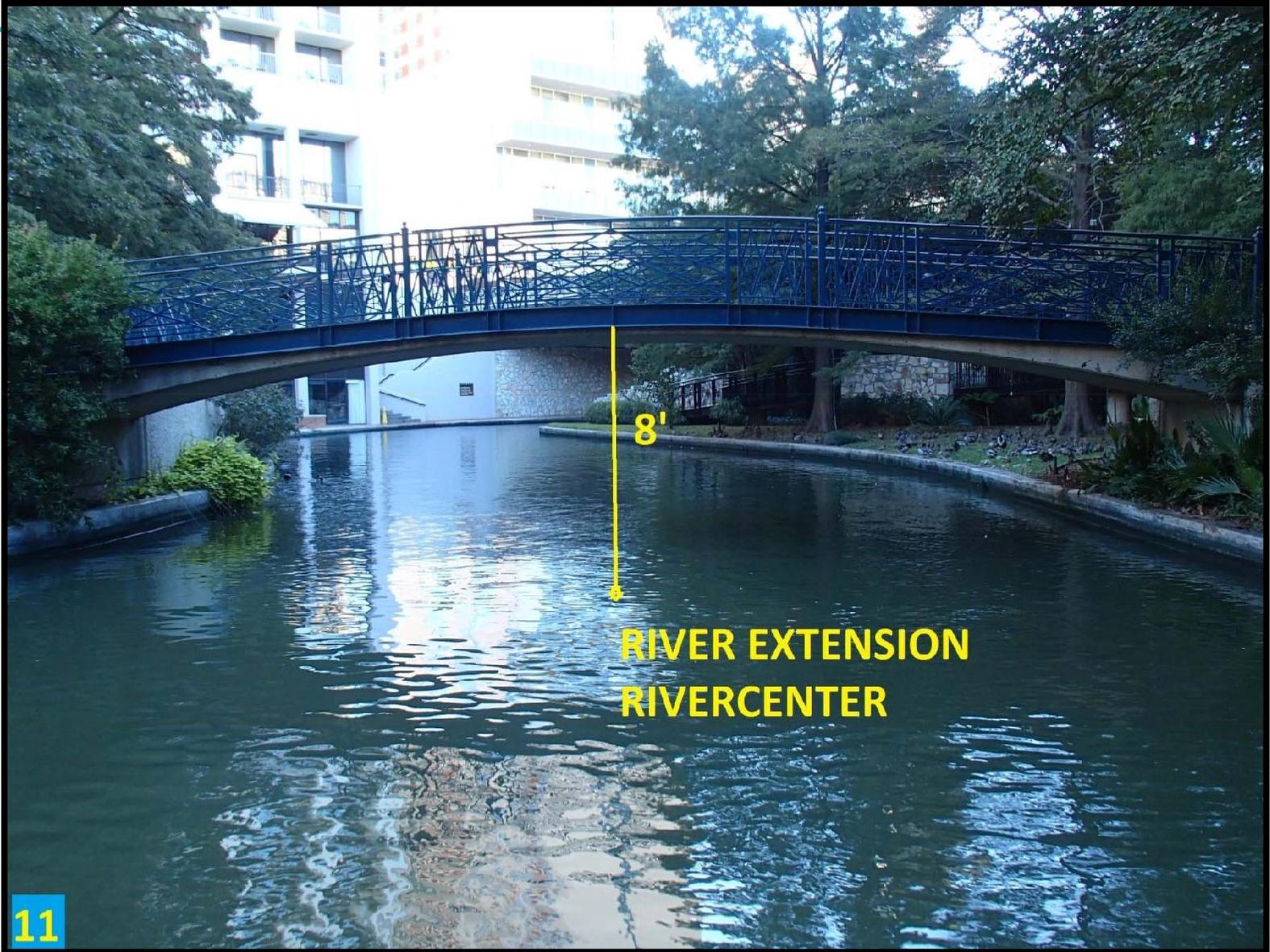
**RESTAURANT AREA
FOOT BRIDGE**



**RIVER EXTENSION
FOOT BRIDGE**



**RIVER EXTENSION
RIVERCENTER FOOT BRIDGE**



8'

**RIVER EXTENSION
RIVERCENTER**



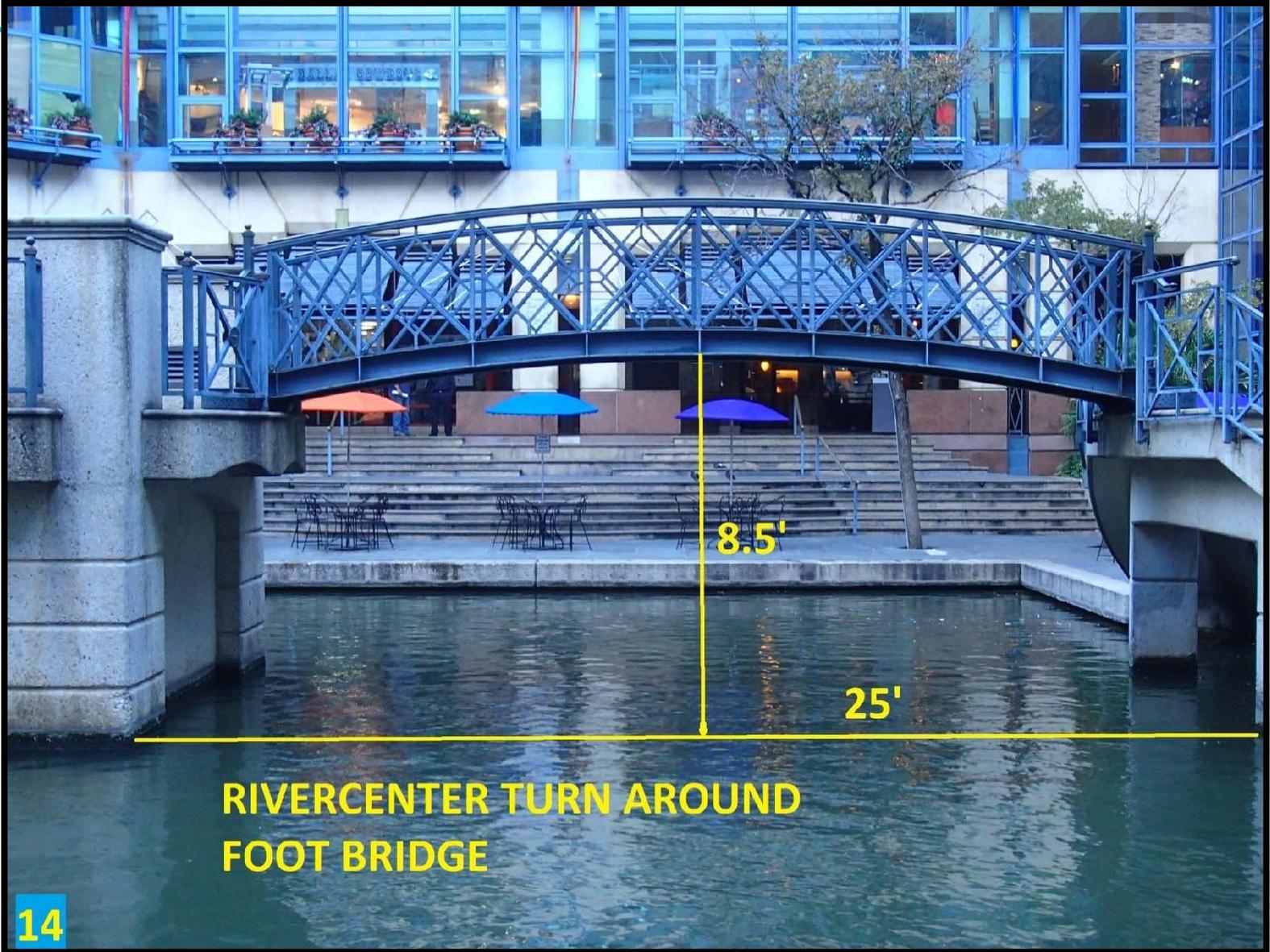
12'

CONVENTION CENTER TURN
AROUND BASIN

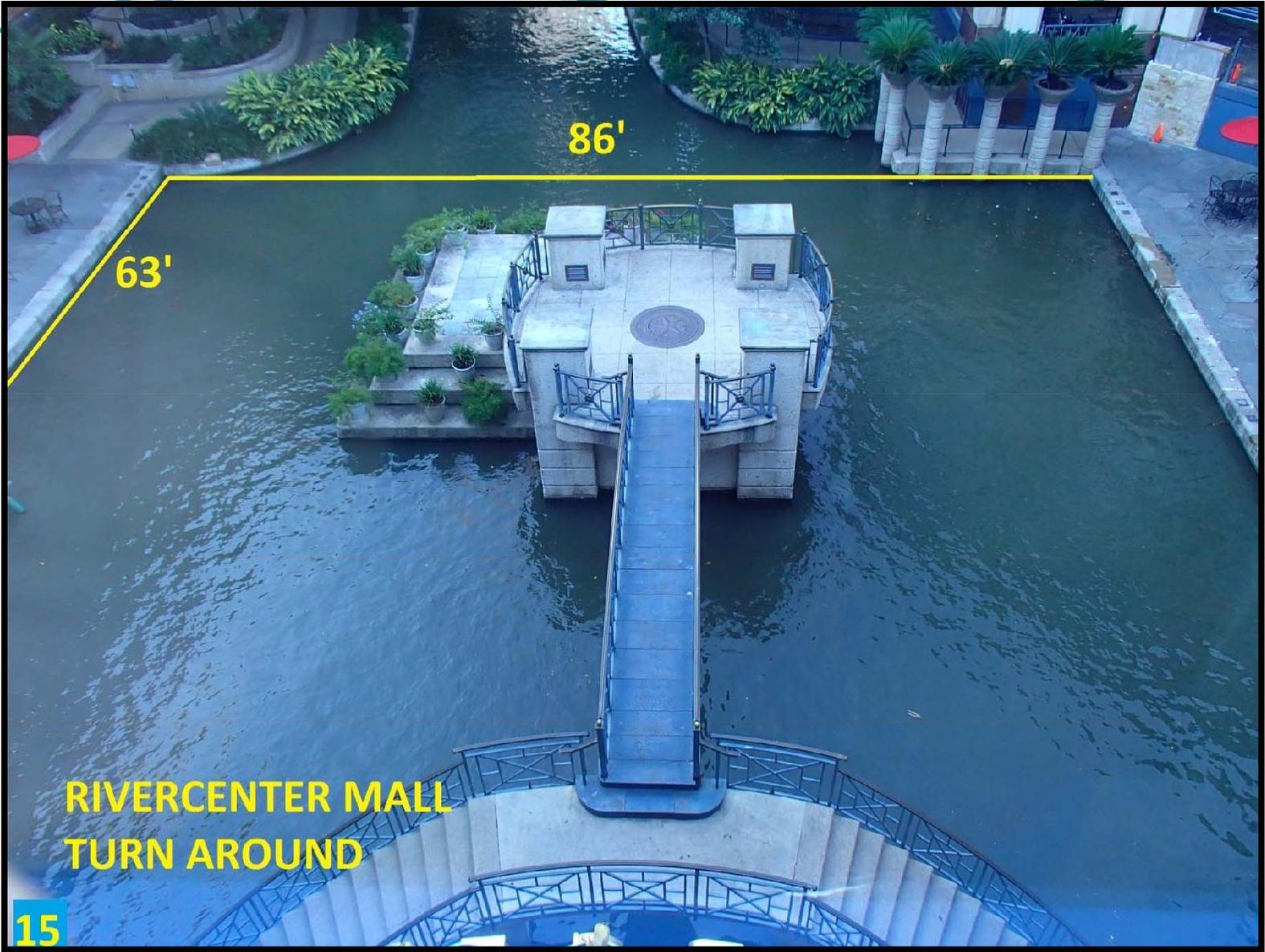
12



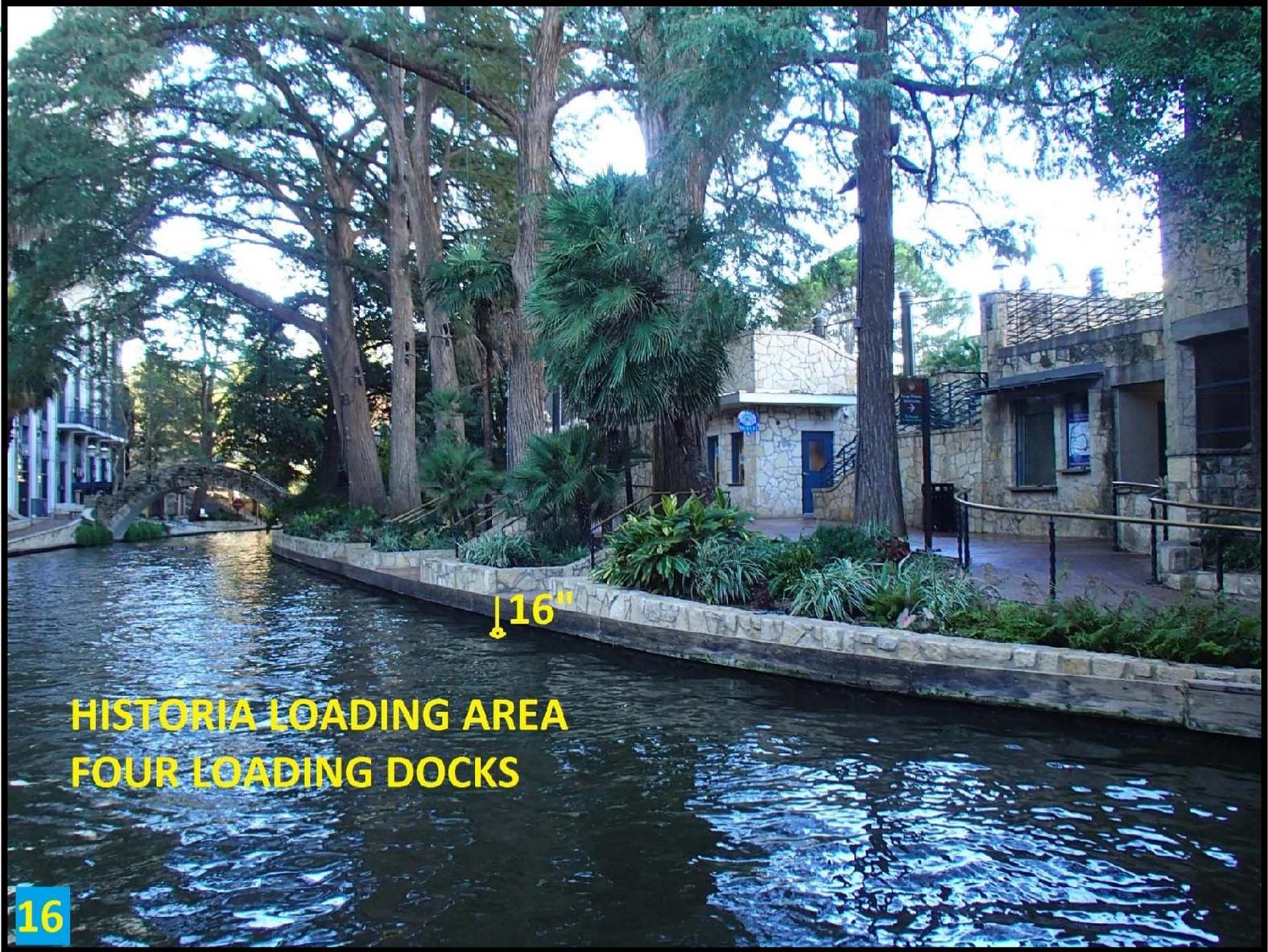
**RIVERCENTER LOADING AREA
THREE LOADING DOCKS**



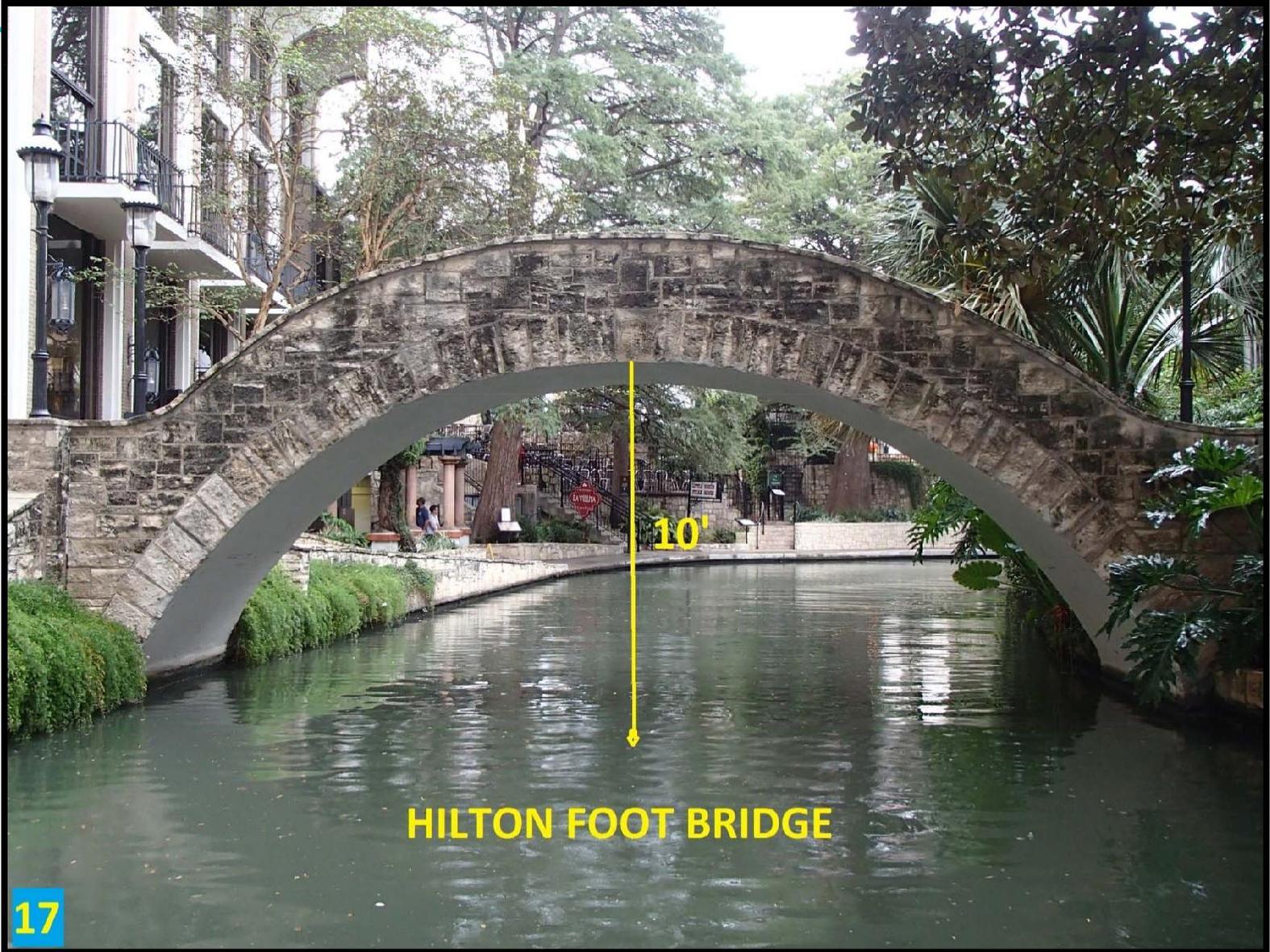
**RIVERCENTER TURN AROUND
FOOT BRIDGE**



**RIVERCENTER MALL
TURN AROUND**

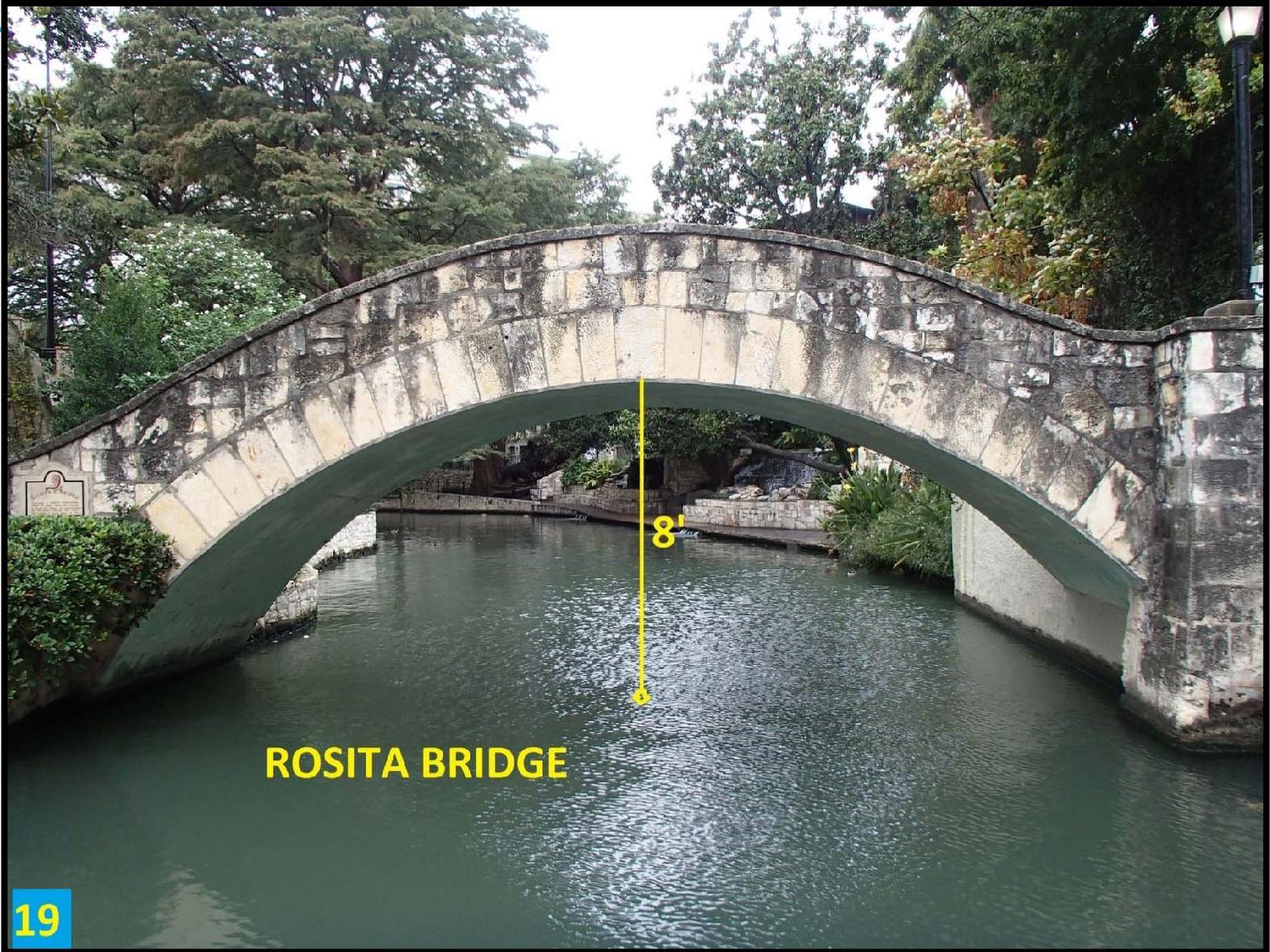


**HISTORIA LOADING AREA
FOUR LOADING DOCKS**





AREN SON THEATRE CURVE



ROSITA BRIDGE



PRESA IRON BRIDGE



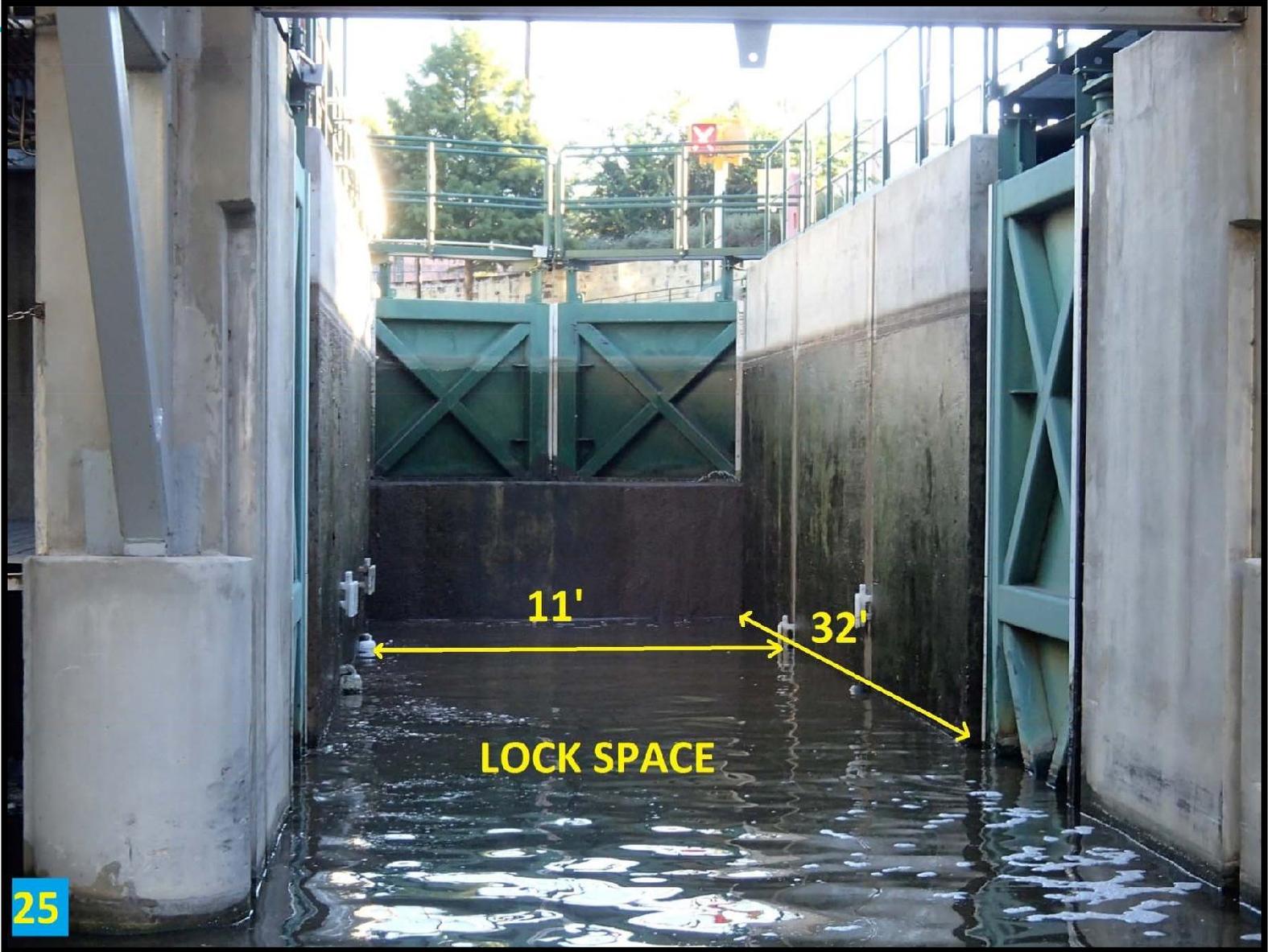
**PRESA ST. IRON BRIDGE
BEAM SPAN 13'**







LOCK/DAM



25

Appendix C: River Walk Fact Sheet

- Existing Rio San Antonio Cruise tour boat – 27'L x 9'W
- Existing Lady Eco water way cleaning vessel – 29'x10'
- Lock and Dam – 32'L x 11'W: Slide 25
- Minimum depth of River – 32" – La Mansion: Slide 6
- Maximum depth of River – 18' – Villita Street : Slide 2
- Minimum width of River – 12' – La Mansion, Convention Center lagoon: Slide 6 & 12
- Maximum width of River – 44' – Westin Hotel area
- Minimum height from water surface to lowest bridge – 6'5" – S. Presa St. metal bridge: Slide 21
- Maximum boat size of 28'L x 9'W
- Maximum draft of 24"
- Ability to execute a 360° turn in an area 85'x 65' square

Appendix D: San Antonio Disability Access Office Preferred ADA Compliance Criteria

Final barge designs must be able to comply with the following ADA compliance criteria. In addition, finalist teams must identify the slope and stability of the wheelchair load/unload area on the barge decks; openings, width and length of wheelchair spaces; turning specifications for wheelchairs for entry and exit of the barge; device(s) to secure wheelchairs; protrusions into wheelchair spaces, and shoulder to shoulder companion seating adjacent to wheelchair space.

Transition from dock to deck:

1. Ramp running slope from dock to deck no steeper than 1:12 (8.3%).
2. Ramp width minimum 36".
3. Ramp edge protection on both sides no less than 4" high.
4. Ramps with rises greater than 6" include handrails on both sides.
5. Clear width of boarding entry minimum 36".
6. Handrails on both sides at boat entry.

General criteria:

1. 30" minimum by 48" minimum clear space for wheelchair.
2. Securement devices and seatbelts for wheelchairs provided and secured by staff.
3. Barges easily adaptable to provide wheelchair and shoulder-to-shoulder companion seating.
4. No less than 50% of taxi stops accessible and publicized as such.
5. Regular training for assistance and evacuation of persons with all types of disabilities integrated in the customer safety program.
6. Any step risers 4" high minimum and 7" high maximum; step treads 11" deep minimum.

Companion Seating:

Shoulder to shoulder companion seating adjacent to the wheelchair space is REQUIRED. It is preferred that shoulder to shoulder companion seating be incorporated with the general ridership.

In addition to the San Antonio Disability Office ADA Compliance Criteria, barge designs must comply with Department of Justice 2010 Standards for Accessible Design and the United States Access Board's June 2003 Guidelines for Accessible Amusement Rides for barge design and operation.