

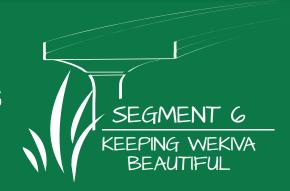
CHARETTE SUMMARY REPORT

SR 429/SR 46 Wekiva Parkway

Final Design of Wekiva River Bridges

February 27, 2014

Financial Project ID: 238275-7-32-02 Lake and Seminole Counties



Prepared for: Florida Department of Transportation, District Five

Prepared by: Figg Bridge Engineers, Inc.





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1.0 EXECUTIVE SUMMARY

1.1 Introduction, Goals and Objectives

This Charette Summary Report highlights the process and results of a Bridge Design Workshop and two (2) Bridge Design Charettes for the Final Design of the Wekiva River Bridges. A Bridge Design Workshop started the process and was held with the National Park Service (NPS) and Florida Department of Transportation (FDOT).

Following the Bridge Design Workshop, two FIGG Bridge Design Charettes were held with the NPS and Wekiva stakeholders. Each Charette provided a full day of discussion and voting on aesthetic concepts for the proposed Wekiva River Bridges. The process of discussing and determining these aesthetic concept options is called a Design Charette which is like a workshop where consensus preferences are determined by the participating stakeholders.



Schematic of Bridge Design Charette

The goals of this process were:

- Gain input from the stakeholders through open communications throughout design
- Through the Design Charettes, participants come together to select key aesthetic features and incorporate Outstandingly Remarkable Values (ORV's) for the new bridge

The objectives of this process were:

- Develop a solution that recognizes and protects the Outstandingly Remarkable Values (ORV's) of the Wekiva River
- Achieve a design that allows for streamlined Section 7(a) approval
- Create a bridge that is beautiful, functional and complements the landscape with context sensitive design while minimizing contrast



1.2 Description

1.2.1 Bridge Design Workshop

The Bridge Design Workshop was held on June 18, 2013 at the FDOT Urban Office located in Orlando, Florida starting at 2:00 p.m. ET. The FDOT hosted the workshop, with help from consultants FIGG Bridge Engineers, Inc. and GAI Consultants, Inc. Participants included the NPS and the Florida Department of Environmental Protection, and other interested organizations. A copy of the signin sheets for the Workshop can be found in Appendix A.

Large banners placed around the room displayed images of various bridge types and aesthetic elements of example features used on other bridges. Participants were encouraged to review the banners as they entered the room and throughout the day, to assist them in discussions concerning developing ideas for project themes and bridge features.

The Workshop began with several presentations including an overview of the goals and objectives for the design of the proposed Wekiva River Bridges, bridge layout and geometry and elements contributing to aesthetically pleasing bridges. The presentations were followed by group discussions on the subject matter presented and then by smaller group brainstorming sessions. During the brainstorming discussions, lists were developed on possible thematic consideration for the aesthetic features. After a presentation of all of the group theme ideas, the Workshop concluded with a discussion of the next steps in the process. A copy of the Agenda can be found in Appendix B. A copy of the presentation can be found in Appendix C and photos of the display banners can be found in Appendix D. The comment forms submitted by the participants are located in Appendix E.

1.2.2 Final Bridge Design Charette 1

Final Design Charette 1 was held on December 11, 2013 in Deland, Florida at the FDOT District 5 Office. The Charette was attended by members of the NPS, Florida Department of Environmental Protection and other interested organizations similar to the Workshop.

As participants arrived at the Charette, they were asked to sign in. There were a total of 32 attendees including participants, FDOT and consultants. A copy of the sign in sheets is included in Appendix F. Inside the Charette presentation room, tables and chairs were arranged to seat six people per table (to allow optimal viewing) with participant notebooks, including agendas and note taking material for each participant. An agenda is included in Appendix G.

The Project Theme and the Bridge Style Preferences were the items discussed at this Charette. Large banners placed around the room displayed images of each of



the four (4) key themes along with other bridge elements to be discussed during the Charette. Participants were encouraged to review the banners as they entered the room and throughout the day, to assist them with selecting their preferences. Photographs of the banners are included in Appendix I.

During the Charette, the attendees were given a brief overview of the project site by video and photographs, site characteristics, and general layout. Then various options were presented and attendees were given time to have open discussion and express opinions about each topic. At the completion of each section, copies of the presentation were distributed to participants to insert into their notebooks for future reference. The presentation is included in Appendix H of this report.

At the conclusion of discussions on each topic, a preference form was distributed to all voting participants. The preferences chosen were shared with all the participants throughout the day.

The preference forms provided space for participants to write in comments or additional thoughts on each topic. All voting forms and written comments were kept for future reference. Copies of the voting forms are included in Appendix J of this report.

1.2.3 Final Bridge Design Charette 2

Final Design Charette 2 was held on January 28, 2014 in Deland, Florida at the FDOT District 5 Office. The Charette was attended by members of the NPS, the Florida Department of Environmental Protection, other interested organizations and several members of the local community.

As was the case for the first Charette, as participants arrived at the Charette, they were asked to sign in. There were a total of 30 attendees including participants, FDOT and consultants. A copy of the sign in sheets is included in Appendix K. Inside the Charette presentation room, tables and chairs were arranged to seat six people per table (to allow optimal viewing) with participant notebooks, including agendas and note taking material. An agenda is included in Appendix L.

Pier concepts, bridge color and bridge railing options were discussed at the second Charette. Large banners placed around the room displayed images of each of these bridge elements and voting options to be discussed during the Charette. Participants were encouraged to review the banners as they entered the room and throughout the day, to assist them with selecting their preferences. Photographs of the banners are included in Appendix N.

During the Charette, the attendees were given a brief overview of the project features and general layout. Then various options were presented and attendees were given time to have open discussion and express opinions about each topic.



At the completion of each section, copies of the presentation were distributed to participants to insert into their notebooks. The presentation is included in Appendix M of this report.

At the conclusion of discussions on each topic, a preference form was distributed to all voting participants. The preferences chosen were shared with all the participants throughout the day.

The preference forms provided space for participants to write in comments or additional thoughts on each topic. All voting forms and written comments were kept for future reference. Copies of the voting forms are included in Appendix O of this report.

1.3 Summary of Bridge Preferences Selected

1.3.1 Final Bridge Design Charette 1

The following is a summary of the preferences determined by the voting participants of Final Design Charette 1. Refer to the results sections of this report for details on each topic. The preferences identified at the Final Design Charette 1 are as follows:

Project Theme: Celebration of Trees on the River's Edge

Style Preference: Shape – Angular or Rounded/Organic Shape

Texture – Abstract Texture

Color – Eco-staining

1.3.2 Final Bridge Design Charette 2

The following is a summary of the preferences determined by voting on Final Design Charette 2 bridge features built off of decisions made at Final Design Charette 1. Refer to the results sections of this report for details on each topic. The preferences identified at the Final Design Charette 2 are as follows:

Pier Concept: Pier Concept B

Color Tone Preferences: Brown/Tan Tones

Lighter Tan or Earthy Blue Tone Underside

Bridge Railing Preferences: Fully Open



1.4 Bridge Renderings Incorporating Preferences Selected



Final Rendering of Preferred Pier Concept B



Final Rendering of Bridge Elevation View Looking North





Final Rendering Underneath Bridge Looking West with Light Tan Underside



Final Rendering of Multi-Use Trail Pedestrian Railing on Service Road Bridge



2.0 BRIDGE DESIGN WORKSHOP

2.1 Participant Comments on Native Environment

List 3 or more things that best describe the native environment around the bridge, such as particular types of flora and fauna. This is part of the brainstorming to create possible natural thematic approaches for the bridge design shapes and features.

- Dense vegetation; low-lying trees over the water; river grasses
- Openness of river looking toward darkness of split river around island; cypress trees; contrast of evergreen & deciduous trees; wildlife that can be seen on approach (Beth Jackson says – What's not to like?)
- Trees including cypress, cabbage palms, oaks; birds; turtles; ferns; black bears; white-tailed deer; otters; raccoons
- Trees; birds; alligators; turtles; palms; cypress knees & trees; bird nesting
- Trees oaks, maples, floodplain hardwoods; shrub layer color; birdlife large wading birds
- Floodplain hardwoods; palmettos; wading birds
- Cypress/hardwood swamp; cabbage palms; vines; ferns; wading birds; turtles; flowing tannic-colored river water
- Lush aquatic flora; cypress trees & wading birds; surprises around every corner
- Palms; birds; water; blooms; trees
- Hanging vines from leaning trees; wading birds; rippling water
- Trees (floodplain hardwoods); palmettos; ferns; large wading birds
- The abundance of trees & plant life; wildlife such as alligators, turtles & wading birds that utilize the river; the slow flow of the water & the way the sunlight reflects off the surface & the shadows that creates
- Trees; palmettos; ferns; wading birds
- Trees; water reflections; aquatic plants in water away from shoreline



The following are additional comments provided by the participants during the workshop that pertain to the native environment:

- Trees (Floodplain Hardwoods)
- Palmettos
- Ferns
- Large Wading Birds
- Dense Vegetation
- Low-lying Trees over the Water
- River Grass
- Lush Cypress
- Water Flow & Reflection
- Wildlife
- Lily Pads
- Turtle Shell

2.2 Participant Comments on Important Aspects of the Bridge

Describe considerations that are important to you for this new bridge.

- Pedestrians' view/experience
- Recreational river users' view/experience
- Harmony with nature & blends with the environment
- Should not be of high contrast
- Wide span bridge below tree line
- Water quality
- Provide effective wildlife corridor for terrestrial animals
- Minimize intrusion into river
- Design with visual elements that would maximize river user enjoyment –
 I like idea of user surprise when below bridge.
- Will there be any access to river adjacent to bridge?
- Blend into the existing environment from river view.



- Less piers vs. shorter/lower bridge
- Tree shape for piers, i.e., cypress tree
- Noise
- The beauty of the bridge will last
- Not to give up integrity over aesthetics
- Minimize tree removal during construction
- Water quality
- Some planter boxes on the bridge
- Wildlife corridors protecting wildlife from vehicles
- Aesthetics
- No exotics in the landscape
- Sophisticated design
- Agree we should "minimize visual contrast"
- I liked the "celebration of trees at water's edge"
- I liked the surprise blue under bridge should be reflective, not comic like.
- Blend with environment
- Like waterside trees for piers
- Like long span at 60' elevation
- Ecologically-sensitive design provides a functional passageway for wildlife
- Aesthetically blends with surroundings
- Potential impacts to birds
- Aesthetics
- Cohesiveness with natural environment
- Interaction between people and their environment
- I like the idea of the blue ceiling underneath the bridge to look like the sky
- Blending into the environment
- Safety for wildlife



- Wildlife corridors; water quality; aesthetics; restoration of natural habitats (post construction)
- The bridge needs to be designed to disappear into the landscape
- Design of the structure so that it minimizes the impact on the river users' experience.
- Minimization of noise
- Wildlife corridors
- Water quality
- Wildlife protection
- View from the river
- Sound buffering
- Curves of nature simple design is my choice for the theme so it blends in with the surrounding area

The following are additional comments provided by the participants during the workshop that pertain to important aspects of the bridge:

- Wildlife Corridors
- Water Quality
- Aesthetics
- Restoration of Natural Habitats (post construction)
- Pedestrians' View/Experience
- Recreational River Users' View/Experience
- Harmony with Nature
- Blend in with Environment
- Planter Boxes, etc. on bridge
- Timeless / Beauty
- Plant Life with Piers
- Quiet/Noise Reduction



2.3 Participant Comments on Other Suggestions

Any other ideas or suggestions?

- Organic structural shapes -> celebration of trees at water's edge looks great
- A unique experience for the recreational river users ("surprise") -> Under bridge on bottom of girder an imprinted mural (like a soundwall but unique & more elaborate). Similar to the unique experience that pedestrians experience on the Broadway Bridge with the tile murals. More specifically with the tile murals on the pedestrian walkway the hidden stars that pedestrians really enjoy. And the hidden stars is a very specifically unique experience to only the pedestrians walking/biking over the bridge. I think canoers would love a unique experience while going under the bridge.
- Shade and shadow extremely important
- Remember fire & smoke impact
- Can we have more info on best distance between decks 10' best?
- Pond on N.E. guad
- Good job thus far keep those ideas coming . . .
- Like it to be quiet
- Like eco stain
- Like ideas of: piers sculpted like trees (celebration of trees); concrete stains similar to native vegetation/river color; perhaps vines/ferns texture highlights
- Cypress knees provide support for cypress trees bridge supports could mimic this effect and appearance
- As far as theme I like the curves of nature. As far as color should blend with environment.
- Camo the bridge from underneath with vegetation hanging from the bridge
- Celebration of trees at water's edge
- Surprise blue underside bridge



- Coloring & texturing should mimic the dappling effect that occurs when sunlight hits the leaves of the trees.
- Piers could be constructed to look like the buttresses of cypress trees
- I am not worried about views from the road in vehicles because the trip across the river will be a matter of seconds
- I like the natural finish under the bridge rather than the "surprise" blends in more than the colored panels

The following are additional comments provided by the participants during the workshop that pertain to other suggestions:

- Celebration of Trees at Water's Edge
- Surprise Blue under Bridge (as long as it's not cheesy)
- Organic Structural Shapes



3.0 FINAL BRIDGE DESIGN CHARETTE 1

3.1 Bridge Theme

3.1.1 Description of Options

Voters were presented with four theme options based on theme related input received from the Bridge Design Workshop. These themes were "Blooms Along the River", "Celebration of Trees on the River's Edge", "Tribute to Nature on Wekiva", and "Tribute to Water on Wekiva". "Blooms Along the River" highlighted the wild flowers that are found along the Wekiva River. "Celebration of Trees on the River's Edge" celebrated the great variety of tree types in the Wekiva River area. "Tribute to Nature on Wekiva" paid tribute to the wide variety of birds, flora, and animals that inhabit the area around the Wekiva River. "Tribute to Water on Wekiva" celebrated the flow of the water within the river and recreational activities on the river.

3.1.2 Voting Results

NOTE: 1 = Lowest Score (dislike); 10 = Highest Score (like)

Blooms Along the River	=	6.8
Celebration of Trees on the River's Edge	=	8.2
Tribute to Nature on Wekiva	=	6.0
Tribute to Water on Wekiva	=	4.8

Theme of "Celebration of Trees on the River's Edge" was identified as the preferred theme.

3.1.3 Participant Comments on Bridge Theme Preferences

Blooms Along the River

- I like the simple design of both bloom examples. Staying away from trying to look like a tree/bloom: more subtle.
- Not sure blue works but the structure is simpler than the tree design.
 (We do not have the species of lily depicted in the photo, we have yellow cow lily or spatterdock nuphar luteum)
- Blooms are a very minor aspect on the water
- I am of the mindset to keep it simple, but still pleasing to the eye. Not just round or squares.



- Given location of columns (piers) at a significant distance from the river, I
 do not believe that an artistic treatment is meaningful or a useful
 expenditure of public funds.
- Natural
- Like blooms a lot
- Designs on piers will only be seen close up. Color & bridge shape will dominate.
- Simple / subtle design
- Not enough knowledge on types of blooms; blooms are not perennial; too difficult to see on piers

Celebration of Trees on the River's Edge

- I like the way this design mimics the appearance of the trees found along the river
- Color will also be an important component of this "tree" design
- When I think of cypress trees, I think of structure and support. I think a
 vague mimic of cypress on the bridge supports would be thematic and
 aesthetically pleasing
- Columns/piers will eventually be at least partly covered by vegetation
- Vertical lines reflect shoreline
- Like simplistic design that blends in with environment
- Only if it's not a lot more expensive. #62 or #63 without the hole so there is 3D on approach. For cleaning, they will not be in the river & could be pressure cleaned with water if structurally compromised. Otherwise, leave them alone. Normal aging/graying will look more like trees.
- Like this but don't want it to look too much like a tree. Subtle!
- As long as it is not palm trees



Tribute to Nature on Wekiva

- I like this design, especially the one that mimics a great blue heron standing at the river's edge. It was simple. The ultimate theme that is selected should be kept as simple as possible.
- This is a broad topic and would encompass all of these ideas
- Column designs with relief or crevices may present maintenance problems
- OK
- Wildlife is more popular among those who visit the river

Tribute to Water on Wekiva

- I do not like the blue
- We are already offering tribute to water by considering the users of the water. We should focus on other aspects.
- Unsure of color, but like the design
- Could be effective maintenance consideration
- Like "a little" blue like water reflection
- Focus on water is redundant

General Comment

 The piers will be too far from those who use the river to notice the themes

3.2 Bridge Style Preferences

3.2.1 Description of Options

Stakeholders were presented with options for several elements of style. Options for pier shape types were angular shapes or rounded/organic shapes. For texture, the options were abstract texture or no texture. For the color of the bridge, they were given the option of either utilizing the natural color of the materials used to construct the bridge or to use an eco-stain to blend the bridge into the environment. Examples were shown of each option for each style element as it has been used in existing bridges.



3.2.2 Voting Results

NOTE: 1 = Lowest Score (dislike); 10 = Highest Score (like)

Pier Shape Type

Rounded / organic shape = 5.1

Angular shape = 5.1

Equal Neutral Response

Examples from other Bridges





Rounded/Organic

Angular

<u>Texture</u>

Abstract texture	=	6.9
No texture	=	5.1





Abstract texture

No texture

Color of the Bridge

Natural Color of Materials	=	3.6
Eco-Staining	=	8.4





Natural Color

Eco-Staining

"Abstract texture" and "Eco-Staining" of the bridge were identified as Bridge Style Preferences by the participants. The participants were neutral on their preference of Pier Shape Type.



3.2.3 Participant Comments on Bridge Style Preferences

SHAPES - Rounded / Organic Shapes

- Too bland
- Do not like perfection in forms
- No rounded piers, consider rounded box/cantilever
- Kind of boring
- Preferred the rounded pier or sculptural pier structure. Curved/open pier would address to some extent light penetration under the bridge
- I like the organic shape. The example bridge is not attractive.
- I feel this would be too abrupt in the Wekiva setting
- Too wide, not consistent with environment
- I lean more toward curvy, organic lines but not round

SHAPES - Angular Shapes

- Like #62/63 not squared like this (Wabasha)
- Combine
- Vertical angular may be good to repeat linear tree trunks
- More interesting
- I do not think an angular shape reflects the flow of the river, stands out too much
- Maybe example doesn't show well, like angles in tree type design
- I don't like this example for Wekiva but other angular bridges are attractive
- This looks manmade. Would not look good in natural setting
- Too urban too blocky not consistent with environment. Prefer tree shape & motif. This seems in contrast to that option.
- Crisp lines will create contrast
- Not for our application



TEXTURE - Abstract Texture

- Like "trees" = 10; bumpy = algae = 2
- · Out of character for Wekiva area
- Depends on resolution. Need some texture to avoid contrast
- Consider variegated texture on entire pier. Orient texturing vertically
- I like this better than no texture
- Concerned that if the bridge has abstract texturing that it may increase the growth of mold & algae
- Like texture, natural colors of environment
- I feel this would better capture the façade of tree trunks
- Yes, but more like slide 62 from previous presentation <u>Subtle</u>
- Texture and lines that complement the trees nearby Texture in design but not surface texture
- Less depth/layers. More like slide 62. Would the base look like this slide or continue with the design all the way down?

TEXTURE - No Texture

- Smooth = no algae = 10; smooth like example = boring = 3
- It's OK
- I do not see the need for texture
- If tree is used, this could work.
- This will be more abrasive and unnatural
- Less maintenance in the long run due to less algae/mold growth

COLOR - Natural Color of Materials

- 6 because we're not using limestone or wood
- Cypress bark might be a good source of color
- Need some color
- I like the staining better
- I feel it needs to have some kind of blending color



- Too stark, inconsistent with environment. Subtle tree-like texture OK if not a maintenance nightmare.
- Sand or limestone would be too bright and contrasting
- Too much contrast

COLOR - Staining

- If really eco-friendly
- OK
- Of natural color
- Variegated staining is essential
- Staining should be done in such a way that bridge blends into the landscape
- I like the idea of coloring the bridge in a way that will reduce its visual impact, however I am nervous that dark, earth tones will make the bridge look old and dingy
- Colors to blend in with natural surroundings. Need color samples for blending. More greys & browns, not so much green, blue under bridge, sky & clouds
- Like natural color in environment
- Undecided what may be the best color
- Conduct the color swatch experiment as described with slide 23 (this
 presentation) to determine a suitable color suggest tree bark not
 green or brown

General Comments

- The eco stained color like used in the US191 Colorado Bridge, Moab, Utah blends well with the environment
- Also, using the accent in eco-stain texture like variegated stone shown in the Allegheny River Bridge, Pennsylvania really fits well within the natural environment
- A combination of (1) and (2) is the most conducive to blending with the natural environment
- No blue underneath unnatural
- Steel truss still should be explored as a design option!



3.3 Outstandingly Remarkable Value (ORV) Initiatives

Outstandingly Remarkable Values are items that are important to the Wild and Scenic River designation that has been given to the Wekiva River. The ORV initiatives discussed were "Scenic", "Recreation", "Wildlife and Habitat", "Historic and Cultural", and "Water Quality and Quantity". Valuable feedback from the participants was received. The comment forms can be found in Appendix J.

3.3.1 Participant Comments on ORV

How important to you are the Outstandingly Remarkable Values (ORV) for the new bridge? Describe what makes them important.

"Scenic"

- Very important nature is beauty
- ALL are equally important
- Essential
- Ultimate design needs to blend into the surrounding landscape to minimize the impact on this ORV
- I think it's more important to be scenic from the river versus the bridge
- Blend into the character of the Wekiva area; make for a more pastoral, pleasant experience
- Already gave my color, etc. comments
- The wider span of the bridge should greatly improve the vista
- Maintain aesthetics
- Scenic views are important BOTH from the ground and the bridge. A glimpse of the river, no matter how short, is worth it to some!
- Very important to keep noise level reduced
- This is a top tier ORV and is important specifically for people on the river and on the bank. I don't believe the bridge will impact the scenic values when compared to existing bridge.

"Recreation"

- Very important to have people enjoy our resources
- Maintain or enhance aesthetic values as best as possible
- Though important, water quality & quality is necessary for this value



- Ultimate design needs to blend into the surrounding landscape to minimize the negative impact & to ensure that the user experience is an enjoyable one
- I grew up in Lake County & this area has always had a recreational use for my family
- Provide a larger area of water body to traverse
- There will always be people enjoying the river
- Removal of the bridge supports in the water will improve the experience from the water
- Minimize contrast of structure with environment
- · Canoe/kayak, fishing, photography, bird watching
- Very important that unobstructed passage allow use of river during construction
- Also a top tier ORV, access to the river is important to our citizens

"Wildlife and Habitat"

- Very important to preserve what habitat is left
- As discussed, cannot lessen the wildlife corridor due to the lack of it now
- I believe that considering greater height for the bridge structure will substantially benefit wildlife habitat, enable light to reach the island and reduce noise impacts
- All are connected
- Increasing the span widths will have a positive impact on the movement of wildlife through the region
- Continue to protect & improve wildlife habitat
- Protect habitat and provide needed transportation facilities
- Construction will be disturbing. End product will hopefully be lots better
- The expansion of the corridor will be a great improvement for all wildlife
- 1750' span good need additional span on Seminole County side
- Well considered, so far
- The proposed improvement will provide a tremendous benefit to wildlife/habitat and habitat connectivity when compared to the existing condition.



"Historic and Cultural"

- Very important cultural resources!
- Not applicable for this location
- This is an education issue traditional forms & colors are important
- Do not destroy the wild & scenic character of the river
- Maintain the rural character of the Wekiya area
- Not applicable at this location as far as we know. There may be mastodon bones or ancient canoes or more modern artifacts. Wouldn't hurt to have ARM around & have construction workers keep an eye out for artifacts.
- Let's create history with a successful project that can meet these goals.
- Very important
- The ORV is a lower tier ORV in the bridge area

"Water Quality and Quantity"

- Don't want to degrade an OFW and Wild and Scenic River
- Most important value. River MF&L is set at 150 CFS this week it was at 130 CFS
- Storm water design needs to meet or exceed the criteria to ensure that the water quality is not impacted
- It's pristine, let's keep it that way
- Do not negatively reduce water quality or quantity; provide protection to this valuable asset
- Extremely important
- Retention ponds, natural contour, natural vegetation, fence not necessary on state lands
- Ensure no turbidity violations during construction
- Minimize erosion, people getting out of their boats to access the land under the bridge
- Also important to sustain the "Scenic", "Recreation" and "Wildlife/Habitat" components

Other comments

• All ORV's are important – see Mgmt. Plan for details



3.4 Participant Comments on Charette

At the conclusion of Final Design Charette 1, the participants were asked for comments about the Charette. The comment forms can be found in Appendix J.

What did you think about today's activities towards creating your new bridge?

- Very informative somewhat redundant on some issues
- I am not an expert on bridge building but it's nice you appreciate our opinion
- Excellent job; planning process was well done
- Very informative and productive to narrow down design & concerns
- It is really great to have the opportunity to be so involved in the planning
- Very good job

What parts of today's activities were most meaningful to you?

- Discussion of group
- Discussion of bridge elements
- Obtaining votes/surveys for design that can be put to use immediately
- When the group was able to have open discussion and discuss thoughts and ideas
- Height seems optimal!

If you could give the bridge designers one piece of advice in consideration of your new bridge, what would that advice be?

- Consolidated width
- Try to continue to keep the focus of the process on the design of bridge
- Don't try to please everyone, perhaps fewer choices are better
- There is a need to address other issues such as impacts to the island and access which may impact the profile
- Avoid alternatives that impact the island

Any other ideas or comments?

 Thank you for understanding our area and spending so much time on a thorough understanding



4.0 FINAL BRIDGE DESIGN CHARETTE 2

4.1 Bridge Pier Shape

Stakeholders were presented with four pier concepts based on the project theme selected at the first Charette, "Celebration of Trees on the River's Edge". All four pier concepts were of pier shapes that flared transversely from the pier base to extended vertical elements that framed the superstructure, and each concept was developed to represent a "Celebration of Trees on the River's Edge."

4.1.1 Description of Options

Pier Concept A consisted of a wide pier with multiple layers representing crossing trees. The innermost layer on the pier included surface texture which was an abstract representation of tree surfaces.

Pier Concept B consisted of multiple layers appearing like trees fanning out transversally. While this concept did not include surface texturing, the multiple layers of the pier created texturing using the depth of the different layers. This pier was more slender at the top of the pier.



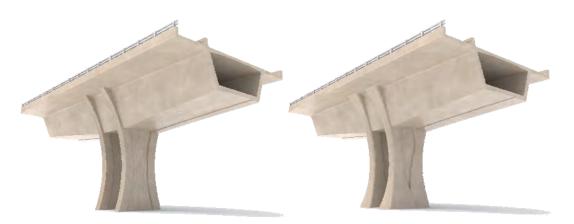
Pier Concept A

Pier Concept B



Pier Concept C consisted of a uniformly curved pier but included surface texturing on all of the pier faces. The texture on the recessed portion of the pier was made up of large scale tree-like texturing while the rest of the pier was made up of smaller scale tree-like texturing.

Pier Concept D consisted of abstract shapes inspired by the occasional cypress tree that is seen along the Wekiva River. This pier shape is made up of organic lines to mimic the natural lines that occur in nature.



Pier Concept C

Pier Concept D

4.1.2 Voting Results

Rather than voting on a scale of 1 to 10, it was decided to rank the concepts in order of preference with #1 representing the participant's top choice. The results for the average ranking for the first round of voting are provided below. Concepts with lowest ranking are the preferred options.

Round 1

Pier Concept	Avg. Rank
Concept A	2.67
Concept B	2.17
Concept C	3.17
Concept D	2.00



Because the results of Round 1 voting showed a preference for concepts B and D, a second round of votes were taken for Pier Concepts B and D only. Of the 15 participants who voted in Round 2, eight (8) preferred Pier Concept B while seven (7) preferred Pier Concept D. Therefore, Pier Concept B was identified as the preferred pier shape. After Pier Concept B was identified as the preferred pier concept, the group was asked if there was anyone who was opposed to Pier Concept B being used for the bridge. There were no comments or opposition from the participants to Pier Concept B.



Preferred Pier Concept B - Isometric View



Preferred Pier Concept B - Underneath View



4.1.3 Participant Comments on Pier Concept Preferences

Round 1 Comments

Pier Concept A

- Bulky wide shape
- Sides of superstructure are too wide
- A little busy & crowded
- I like the fact that this design reflects the character of the forest, random, scattered, non-uniform. The lines mimic the lines of the forest the best.
- Still like this the best. <u>Unless</u> the cypress one can be adjusted per artwork. Then I'd like the cypress.
- Overall close second, but 3-D rendering shows it as being pretty big and noticeable
- Like form
- Good pattern reflects much of river edge

Pier Concept B

- Fits the overall appearance of the rivers edge
- Like, but given the scale, I think would look too much like "giant" palms
- Like slimmer style with the shapes
- Favorite
- I like design of side on superstructure box girder
- I feel this design would look the best with the surroundings
- Less busy but the bridge looks heavy at top
- This design is too pointy, not enough curves
- Looks like cattails not palm boots to me
- Mimics tree trunks and cabbage palm boot pattern. 3-D rendering illustrates relative delicateness and minimal visibility overall
- Looks too much like a palm frond and I don't like the thickness
- Like form
- Good pattern would be very good. Graceful



Pier Concept C

- 1970's aesthetic!
- Want texture though model doesn't show
- Dislike
- Good scale, mimics how tree is shaped; textured
- Too symmetrical
- Nah
- Like this one
- Not as busy as #1 but not graceful
- Don't like Form 4 industrial
- Looks too busy. Looks like someone making poor copy an imitation
- Texturizing did not play well

Pier Concept D

- This fits in a way that shows the strength of the structure as a mature cypress
- Keeping in mind the actual size and scale of the pier, this shape works best.
- Concerned about wide bottom thickness.
- Dislike! Looks like a uterus!
- Sides of superstructure box girder too thick. Incorporate sides of Pier Concept B into this version.
- Good shape, also mimics natural shape of cypress without being too much.
- This does not make me think of a tree
- I suggested/wanted cypress but the center of this is empty/boring. The bottom is very cool with 4" difference in thickness. See my artwork.
- Like the cypress look but overall something doesn't win out over A & B
- Subtle and graceful but when the shrub layer grows up we won't see the bottom so I think the image will be lost
- Like buttressing



- · Like boldness. Recall strength in form
- I prefer this because it mimics the buttressing in cypress

Other Comments

Kudos to all of you for your patience with group! Well done!!!

Round 2 Comments (Pier Concepts B & D only)

Pier Concept B

- While it's not supposed to be a tree, it is representational enough that it would look unnatural in its actual size and scale, too narrow at base.
- Complements trees
- Less visually distracting and eye catching
- My 1st choice

Pier Concept D

- Simple & clean design.
- Size is more in scale with what it represents. Provides visual "weight".
- Too bulky and uniform
- Large bulky looks like bridge pillar
- Too bulky. Tries to mimic nature not repeat form, line, color, texture.
- My 2nd choice
- I like this better with tweaks from previous vote
- Box girder area too "pier like". Upright edge could be rounded too.



4.2 Bridge Color

Stakeholders were presented with three (3) color tone options based on the selection of eco-staining for the bridge during the first Charette. The stakeholders were also given the option of the utilization of a light, earthen blue stain on the underside of the superstructure to blend into the sky and provide a surprise for recreational users of the Wekiva River.

4.2.1 Description of Options



4.2.2 Voting Results

NOTE: 1 = Lowest Score (dislike); 10 = Highest Score (like)

Green Tones	=	6.4
Brown/Tan Tones	=	7.9
Gray Tones	=	5.3

The Brown/Tan Tones were identified as the preferred option as shown by the results above.





Blue Tones (underside of superstructure)

Yes	MANAGEM MANAGEM	8
No	=	5
Neutral	=	2





Blue Tones were to be further evaluated along with the lighter neutral tones.

4.2.3 Participant Comments on Bridge Color Preferences

Green Tones

- Thinking of appearance as darker
- Too much contrast in the winter months
- Darker shades could work, but it is generally very difficult to reproduce Mother Nature's green
- Over seasons it will look weirdly out of place
- Might try some green on a higher vertical section of the bridge
- Green seems to blend well best for the various views
- My 1st choice. My preference would be medium dark/light.
- Could the superstructure be more this tone and the piers be more the brown/tan tones (tree trunk vs. foliage)
- Green tones make the structure disappear into background. 1st Choice!!
- Medium color on top, lighter underneath
- Light green
- Green on green is hard to blend can be very contrasting. Shades would help to kill contrast.
- Lightest end of range
- Would look starkly in contrast to vegetation (or lack) in winter

4-8



Brown/Tan Tones

- Lighter end of the scale darker end of scale
- Use lighter tone underneath the bridge surface. Avoid darker end of tone for the bridge face.
- Shadows dominate natural landscape. Darker browns best for facing & piers.
- This may match best in any season
- Stain a few upright sections with grey tones, combine brown/tan with grey tones if concept B is preferred pier
- I do feel the lighter of these tones would look the best (middle area designated)
- Seems to have the most contrast to greenspace
- My 2nd choice
- Could the piers be more this tone and the superstructure more green tones (tree trunk vs. foliage)
- If this is chosen I like the darker shades.
- Light gray perhaps on bottom
- Light to medium brown
- Brown with black not with reds is most neutral. Green & Brown work well together.
- Ash-brown tone (not gold) this would be the best "4 season" choice. Use slight variations on the planes of the piers and lighter on the underside of the box.

Gray Tones

- Darker end of scale
- Use lighter tone underneath the bridge surface. Avoid darker tone for the bridge face.
- IF (not likely) the cypress pier wins, this might look best
- Stain a few upright sections with grey tones, combine brown/tan with grey tones – if concept B is preferred pier. Also see how background (recessed area) would look with brown/tan tone



- · Grays are a close second in my mind
- Least favorite
- Goes too much back to concrete gray
- Least favorite, existing bridge is a gray tone & it doesn't look good.
- Light to medium
- If use gray why stain?
- Only if a warm gray.

Blue Tone (Underside)

- Consider lighter shades of preferred tone.
- Maybe. If it can be done without looking like strips from underneath OR at a distance.
- Include the strips that are on each side of what is depicted as blue in this image
- I do think the band of blue looks good while underneath
- I like the potential for decreased insect damage and the breakup of the giant structure from underneath.
- Keep it subtle
- Not blue or white but lighter shade of chosen tone
- Only if not a strip effect. Like idea of lighter underneath!
- Maybe; depends on final colors
- Would prefer lighter under bridge of same bridge color.
- Yes if underside of entire structure
- No. However, lighter (slightly) under the box.

Other comments

- Underside Lighter color/shade of Chosen tone
- Yes. Makes sense once again, without striping

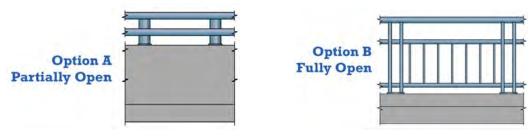


4.3 Bridge Railing for Multi-Use Trail

Stakeholders were presented with the choice of a fully open pedestrian railing or a partially open pedestrian railing. This railing is to be used on the southern edge of the Multi-Use Trail on the service road bridge. All other barrier rails feature an FDOT standard concrete railing.

4.3.1 Description of Options

The fully open railing option is 42" tall and has vertical bars with open spaces between them mounted on a 6" (min) concrete curb. The partially open railing option is also 42" tall, but has two bullet rails mounted on a 27" concrete parapet.



4.3.2 Voting Results

NOTE: 1 = Lowest Score (dislike); 10 = Highest Score (like)

The fully open pedestrian rail was identified as the preferred option as shown by the results above.



Preferred Option B - Fully Open Pedestrian Rail



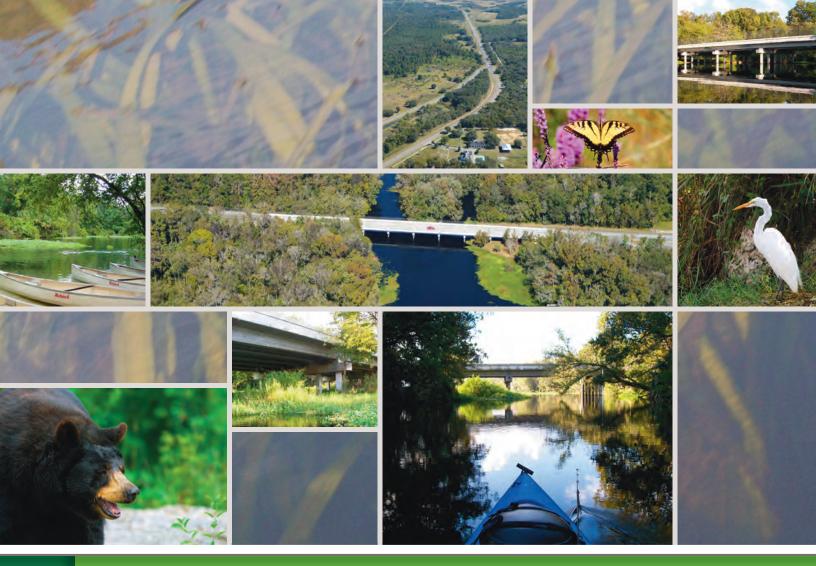
4.3.3 Participant Comments on Bridge Railing Preference for Multi-Use Trail

Option A – Partially Open

- Not inviting
- 2nd choice

Option B – Fully Open

- Best!
- Green color
- Like green railing but a lot depends on color choice
- Open airy concept allows pedestrian & bicyclists to see river
- This provides a better view for drivers and pedestrians. The view from the water does not impact my decision, the difference from the water is negligible.
- This should look better from the water. Better view of the river from the trail.
- My 1st choice
- Nice
- Would like vertical rails to extend to top rail with no middle horizontal rail



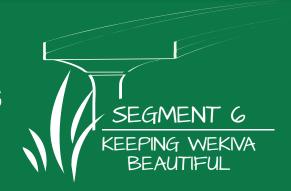
CHARETTE SUMMARY APPENDICES

SR 429/SR 46 Wekiva Parkway

Final Design of Wekiva River Bridges

February 27, 2014

Financial Project ID: 238275-7-32-02 Lake and Seminole Counties



Prepared for: Florida Department of Transportation, District Five

Prepared by: Figg Bridge Engineers, Inc.





APPENDICES

Bridge Design Workshop

- A. Sign-In Sheets
- B. Agenda
- C. Presentation
- D. Display Banners
- E. Participant Comment Forms

Final Bridge Design Charette 1

- F. Sign-In Sheets
- G. Agenda
- H. Presentation
- I. Display Banners
- J. Participant Comment Forms

Final Bridge Design Charette 2

- K. Sign-In Sheets
- L. Agenda
- M. Presentation
- N. Display Banners
- O. Participant Comment Forms



APPENDIX A

Bridge Design Workshop SIGN-IN SHEETS











Bridge Design Workshop with the National Park Service and FDOT

Wekiva River BridgesEnvironmental Park Bridge in Harmony with the Scenic River

June 18, 2013

Sign-In

Names	Fax 20	Di
Name NANCY PRINE	Email NPLA@ AOC. COM	Phone 407 8989200
Joe Bishop	loseeh hishaad freshfrom	352-360-6677
Virginia oras	Joseph bishop freshfrom	55+0-025-50V
STEPHANIE GHEZZI	stephonical saherzia	407 4238398
Beth Jackson	beth jack so v a oct.	Net 407836-1481
Amy Conyers	Amy. Congers@depstate. Fl.	
Tara McCu	tara Dechepc. ORg	407-262-7772
Lisa Prather	DEP/WEKINA DEGORAN Shalloy ady	407-897-2947
DEBORAH SHELLEY	DEP/WEKIVA Deborah Shelloy aday	407.330.6727
Alice Berkley	OC/Brummer	901-006-5850
DEBRA CABURE	FDEP	407 897 2953
Jonathan Jastremsky	FDOT-Structures	386-943-5159
MARK TREBITZ	FDOT - STRUCTURES	386-949-5157
Aluxes Alones	alvaro, alons go us o	om 407 422 0353
Tony Matthews	trutther Eminicot May	1407-665-7936
Dan Smith	dis 30 081 edu	386-785-1565
Rebecca geny	to rperryating.	org 407-389-
Alan lyman	5117-12MAW 151 ~~	
CHRIS FERRARD	christerraroedp.	stak flus
	The second control of	407-897-4114













Bridge Design Workshop with the National Park Service and FDOT

Wekiva River Bridges
Environmental Park Bridge in Harmony with the Scenic River

June 18, 2013

Sign-In

Name	Email	Phone
Brian Stanger	Brian stengar Quatrolet 41.	386 943 - 539,
KEVIN MOSS (FDOT)		
DWIGHT DEMPSEY (FIGG)		
DENNEY PATE (FIGG)		
LINDA FIGG (F166)		
DANIEL MUNDIE (FIGG)		
STEVE BOYLAN (GAI)		
LLOND GURR (GAI)		
DR. JEFF DUNCAN (NPS)		





APPENDIX B

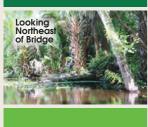
Bridge Design Workshop

AGENDA











Bridge Design Workshop with the National Park Service and FDOT Wekiva River Bridges

Environmental Park Bridge in Harmony with the Scenic River

June 18, 2013

Agenda

2:00 PM Welcome and Introductions

2:10 PM Overview

Design Workshop Process
Goals and Objectives

Project Overview

New Bridge Viewsheds

2:25 PM How Aesthetically Pleasing Bridges are Created

Final Bridge Design Charette Process

2:35 PM Bridge Types

Approach Structures
Main Span Structures
Construction Operations

2:50 PM Bridge Geometry

3:00 PM Group Discussion on Bridge

Geometry (Vertical Height)

3:30 PM Theme Ideas/Distribute Form to Solicit Written Comments

3:55 PM Discussion of Next Steps

4:00 PM Adjourn







APPENDIX C

Bridge Design Workshop PRESENTATION



Bridge Design Workshop

with the National Park Service and FDOT

Wekiva River Bridges

Environmental Park Bridge in Harmony with the Scenic River

June 18, 2013





Welcome & Introductions



Lead Agency

Design Team

Project Management,



Roadway Design, Stormwater Design gai consultants



Wekiva River Bridge Design

Environmental Sciences



ETP Noise Analysis

Roadway Design, Stormwater Design





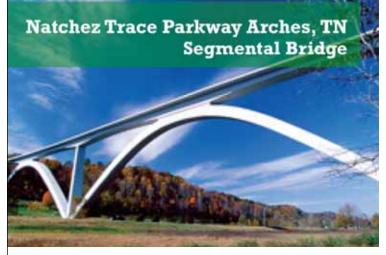


CREATING BRIDGES AS ART®

You will receive an Environmentally Integrated Park Bridge in Harmony with the Scenic River



National Park Service Bridges



348 Design Awards for our Customers

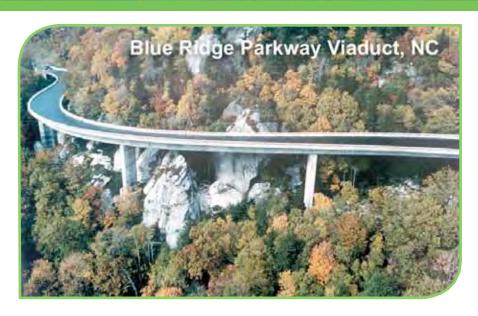
- 3 Presidential Awards through the National Endowment for the Arts -
- 2 for National Park Service



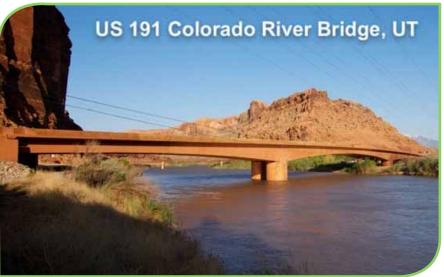


FIGG Bridges for the National Park Service and National Parks

Linda Figg
President / Director Of Bridge Art
Denney Pate, P.E.
Bridge Design Technical Lead
Dwight Dempsey, P.E., S.E.
Bridge Design Manager







Today's Workshop Goals and Objectives

Discuss the final bridge design charettes and aesthetic features to be selected

Resolve final bridge vertical profile and its position within the viewshed

Final Bridge Design Charette Process Goals & Objectives

GOALS

Gain input from the stakeholders through open communications throughout design.

Through the Final Design Charettes, participants come together to select key aesthetic features for the new bridge.





Bridge Aesthetics for a



Final Bridge Design Charette Process Goals & Objectives

Develop a solution that recognizes and protects the Outstanding Remarkable Values (ORVs) of the Wekiya River

Achieve a design that allows for streamlined Section 7(a) approval

Create a bridge that is beautiful, functional and compliments the landscape with

context sensitive design

A Sustainable Bridge That Achieves NPS Goals For This Scenic River Crossing

Main span length of at least 300' to clear span the Wekiva River

Design principals to blend the bridge with the environment repeating the landscape's visual element of form, line, color and texture

Limit auditory and light intrusion

Enhance recreational experience for river users

Optimize connectivity of wildlife corridor under bridge

Preserve water quality





Bridge Terminology Schematic Bridge For Illustration Of Terms



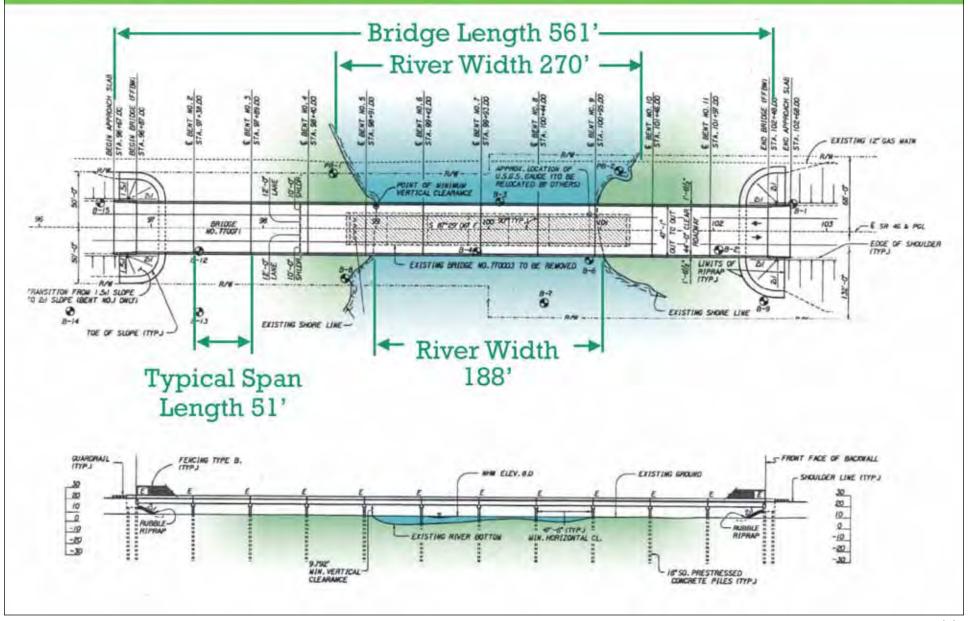


Existing Bridge Layout



Total Bridge Length – 561'
(11) 51' Spans
River Width - 188' at existing bridge (270' just north)
Three (3) pier bents located in the river

Existing Bridge Layout



Summary of PD&E Phase

Prior Preliminary Design Charettes

> March 2 & 3, 2011 April 20, 2011 July 13, 2011

Viewsheds of the bridge site were identified

Vertical bridge profile to maximize wildlife movement and minimize site contrast, 60' above the river

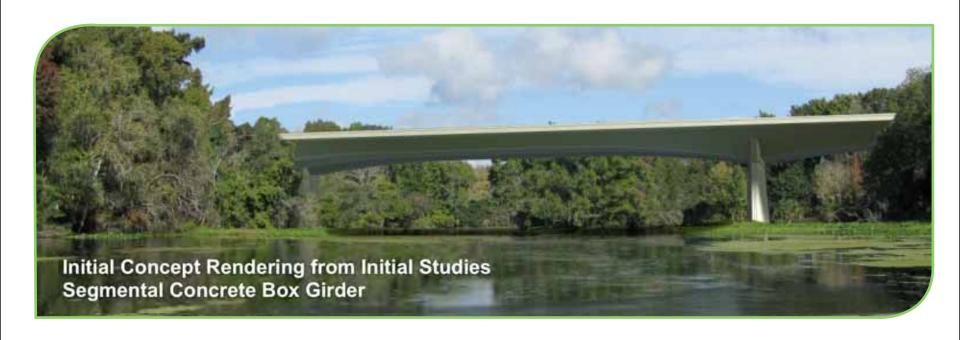
New service road alignment to the South of the mainline Parkway bridges

Natural Inspiration as a common theme for development for aesthetics

Separated bridges for light penetration

Summary of PD&E Phase

The Segmental Concrete Box Girder was the preferred bridge type by a substantial margin as selected by the attendees at the July 11, 2011 Charette



Summary of PD&E Phase

National Park Service representatives said that they had no opinion yet on a preferred bridge type or were neutral

Viewshed and noise concerns by NPS were identified as outstanding issues and will be evaluated and addressed during the next phase of design

Like to see some type of treatment and/or color applied to the bridge fascia and piers

Commitments as stated in FONSI, May 2012

FDOT has made the following commitments to the National Park Service (NPS):

To clear span the waters of the Wekiva River with the proposed Wekiva River bridges

To coordinate with the Wekiva River System Advisory Management Committee on final design

To obtain the Wild and Scenic Rivers Act Section 7(a) determination from NPS prior to approving the final design Federal Highway Administration Florida Division

ADMINISTRATIVE ACTION FINDING OF NO SIGNIFICANT IMPACT

U.S. Department of Transportation Federal Highway Administration and Florida Department of Transportation, District Five In cooperation with the Orlando-Orange County Expressway Authority Financial Management Number(s): 238275 1 22 01 and 240200 1 22 01 Federal Aid Project Number(s): TCSP 025 U and TCSP 024 U

> Wekiva Parkway (SR 429)/SR 46 Realignment Orange, Lake, and Seminole Counties, Florida

Wektva Parkway (SR 429)

Frum US 441 (SR 500)/John Land Apopika Expressway (SR 429/SR 434) Interchange, Grange County

to SR 417/I-4 (SR 400) Interchange, Semipole County

SR 46 Realignment
From US 441 (SR 500)/SR 46 Interchange, Lake County
to Webva Pariway (SR 429), Orange County

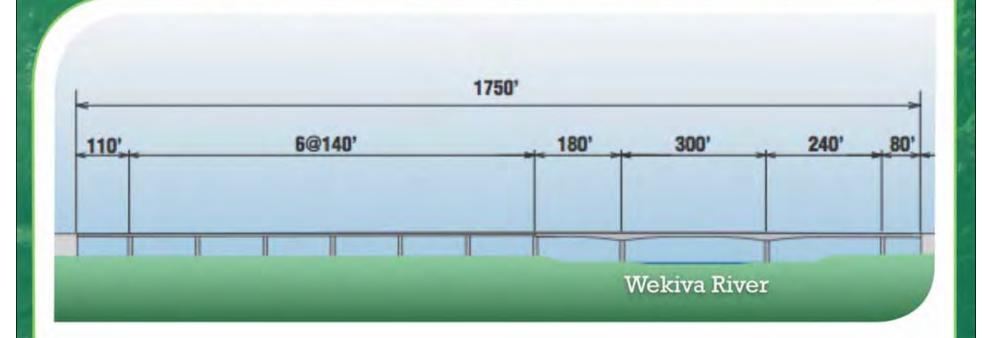
The proposed action is construction of the Wicklya Parkway, a new lour rane/sin-tame divided limited access tolled expressway to complete the Western Bellowy (SR 429) around the metropolitical principal step from Apopha in Orange County to Sanford in Seminole County, realignment of CR 464 in take County as part of the Western Parkway project, reconstruction of the existing SR 46 faceby in take County and Attenut bors to provide six lare divided controlled-access them US 441 to east of found take Road; and the realignment of SR 46 as a limited access tofted expressway from east of Sound take Road in a new systems interchange with Wekha Parkway can't the Orange/Lake County line.

Submitted pursuant to 42 U.S.C. 4332 (2Nc)

5/11/12 Dete Ovision Addinistrator
Federal Highway Administration

Tim Federal Highway Administration (FHWA) has determined that this project will not have any agailitant impact to based on the attached Environmental Assessment which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the environmental hasses and impacts of the proposed project and appropriate malgation measures. It provides sufficient evidence and analysis for determining that an Environmental impact Statement is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the attached Environmental Assessment.

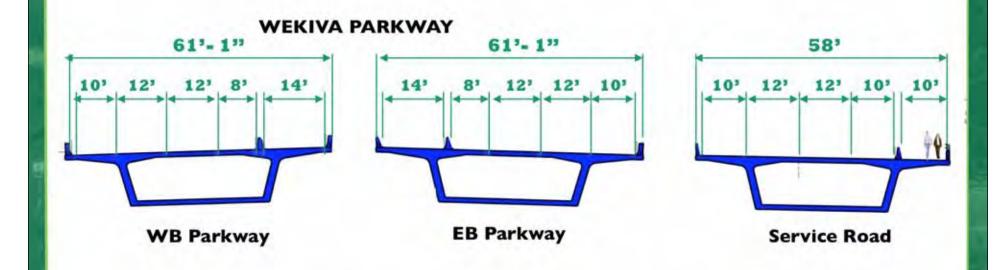
Previous PD&E Phase



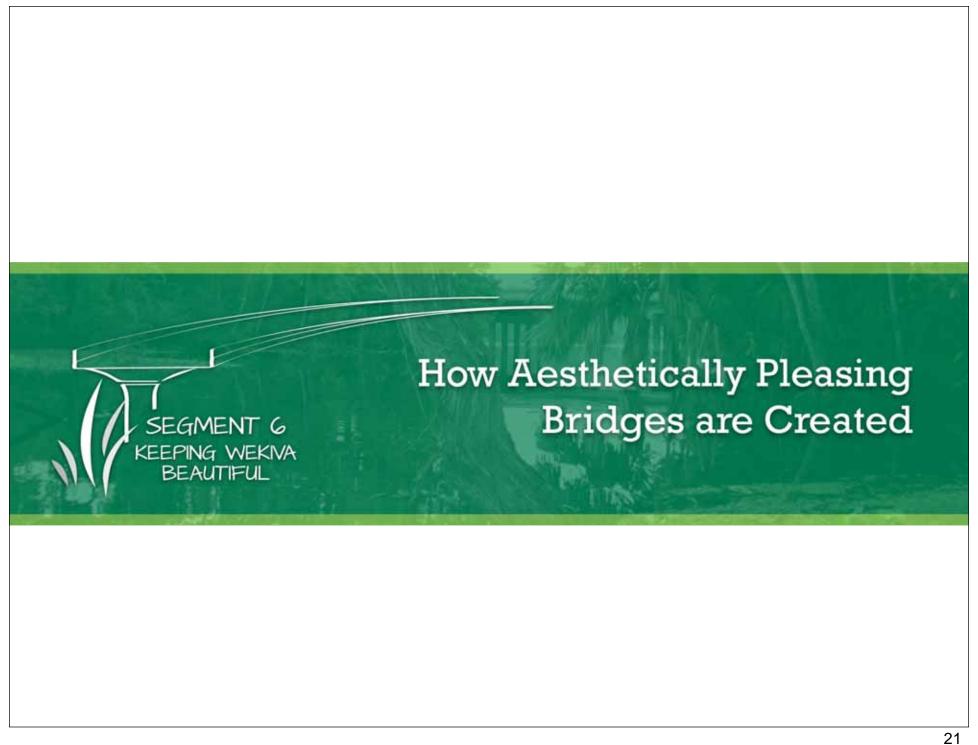
Overall length of bridge = 1750'
Minimum length of main span to fully span the river = 300'

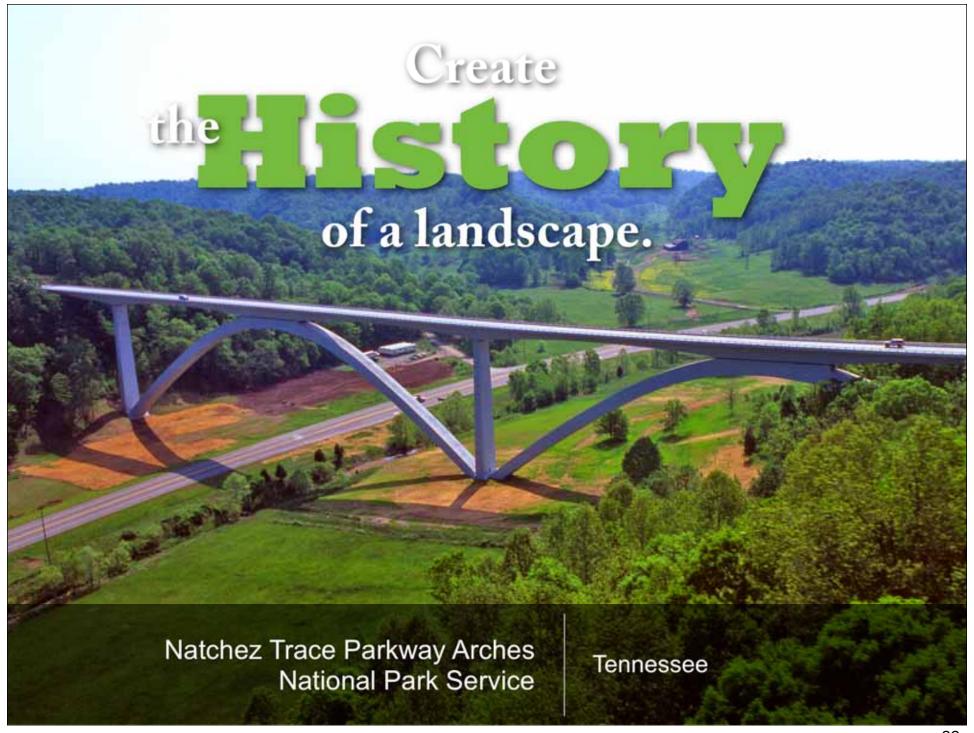
Lane and Shoulder Configurations

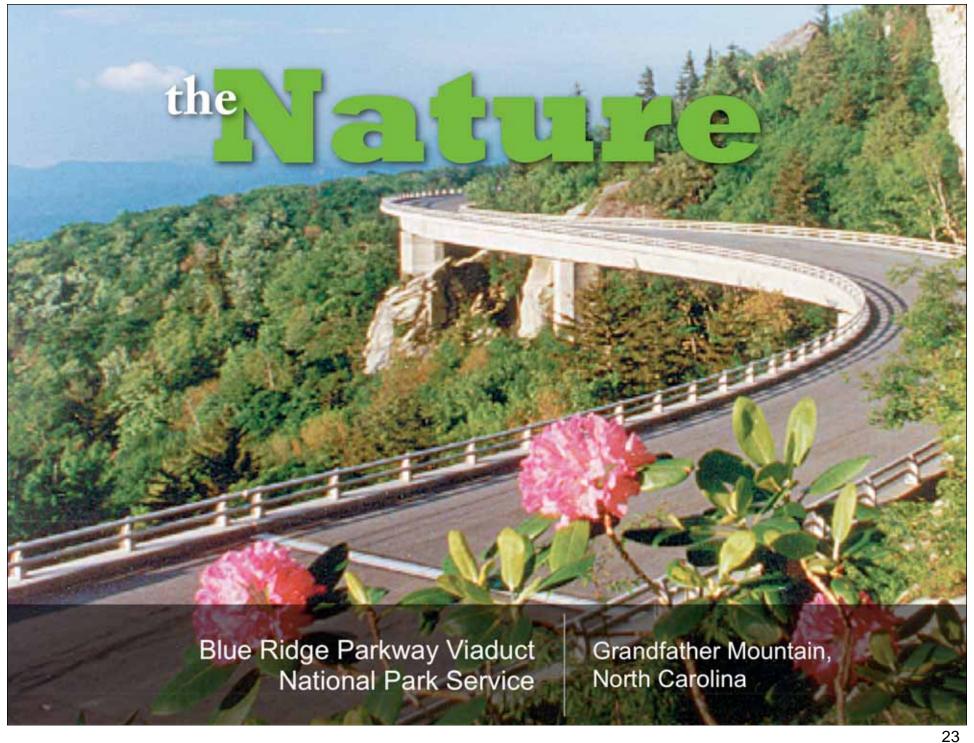
15% Line and Grade Report from the PD&E Phase: For the Main River Span

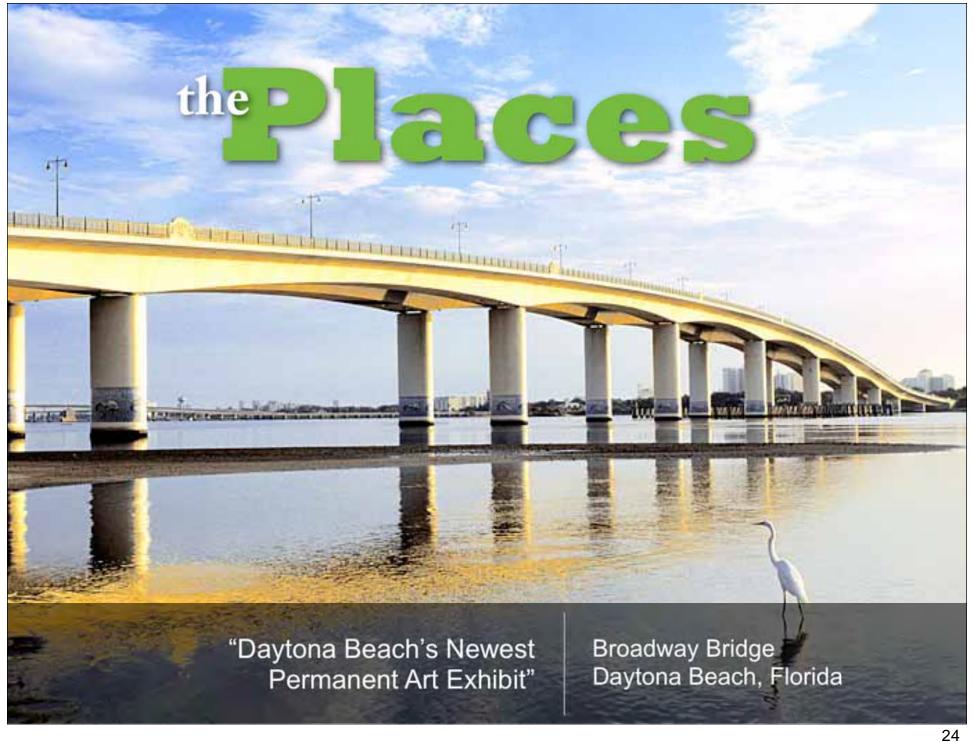


TYPICAL SECTION AT MAIN SPAN



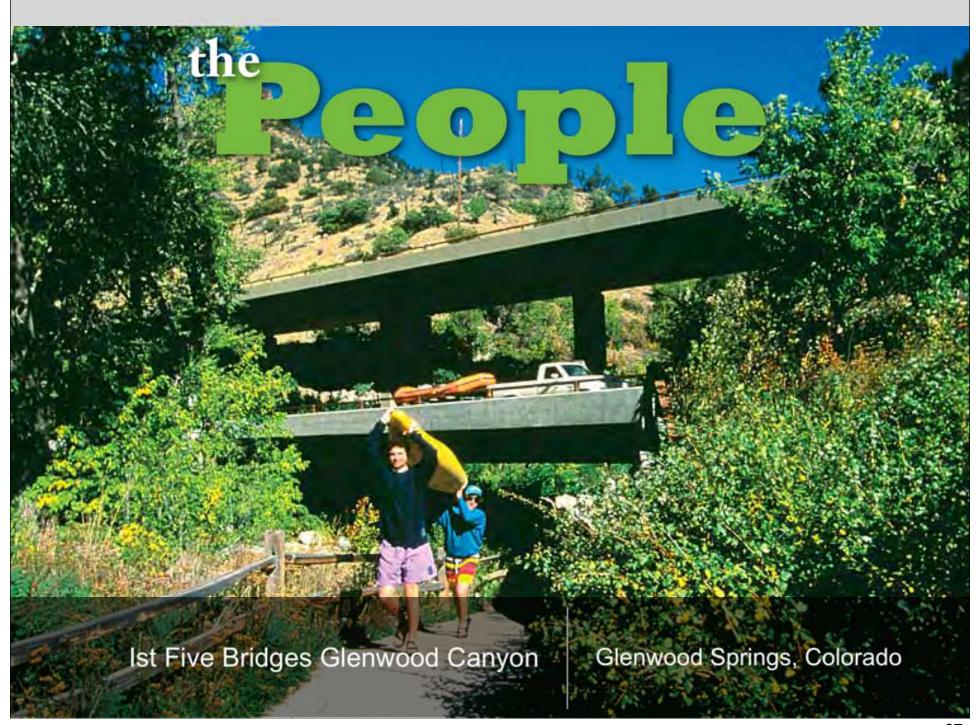


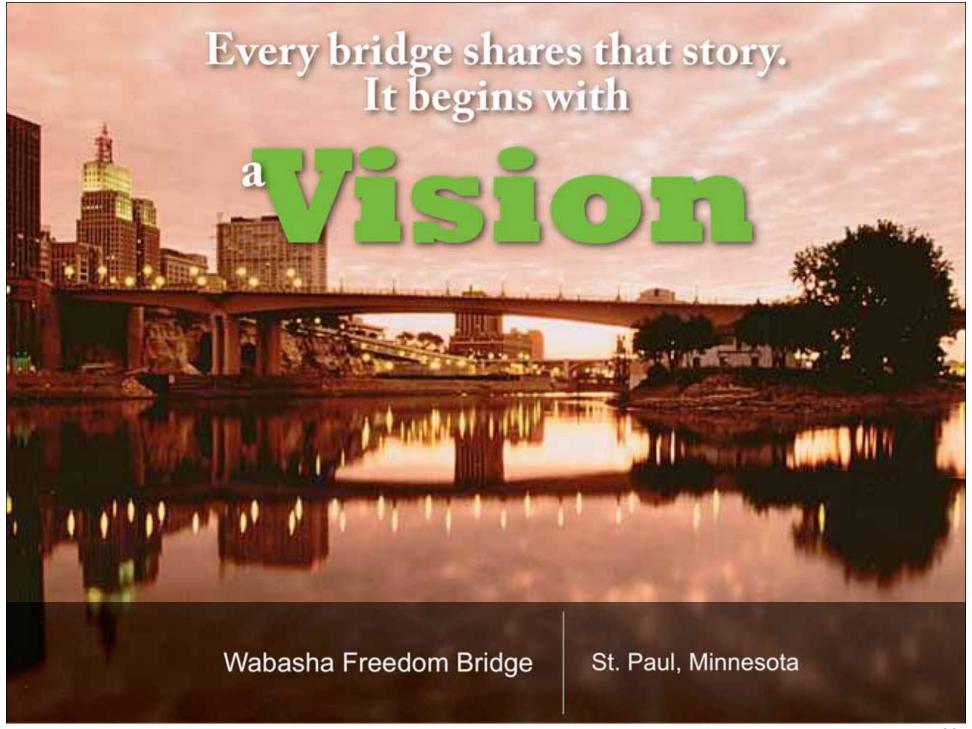


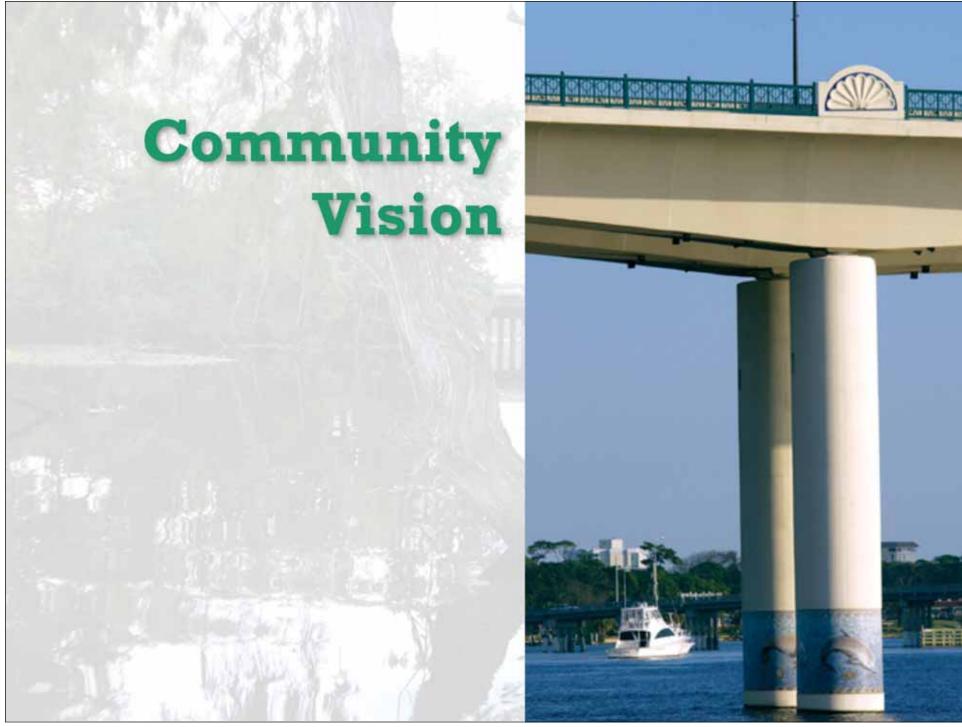


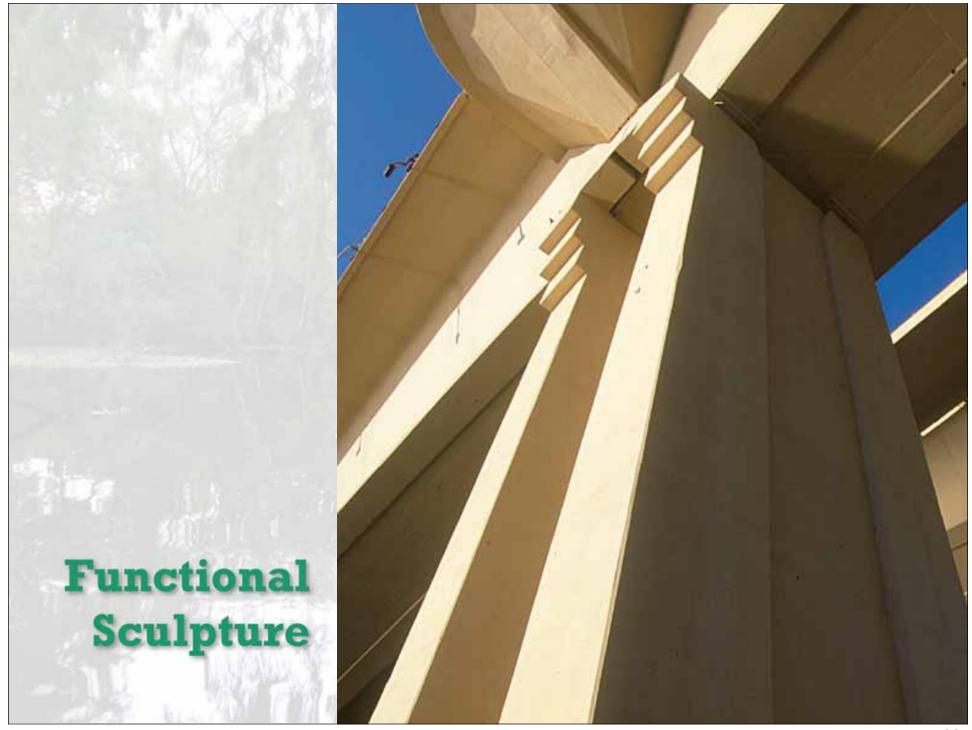


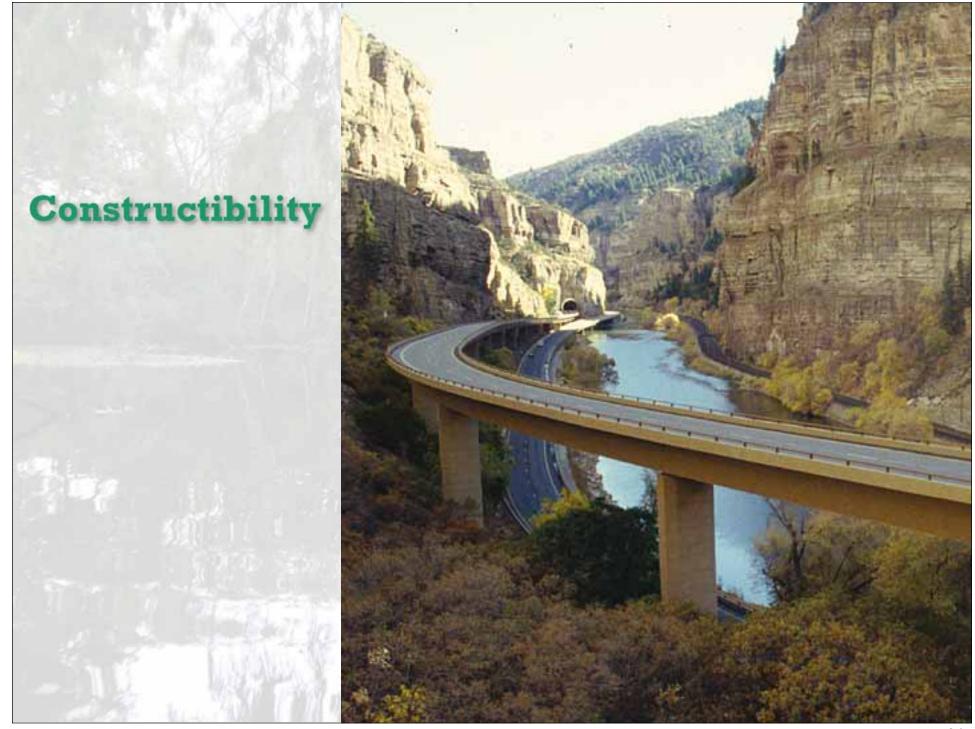


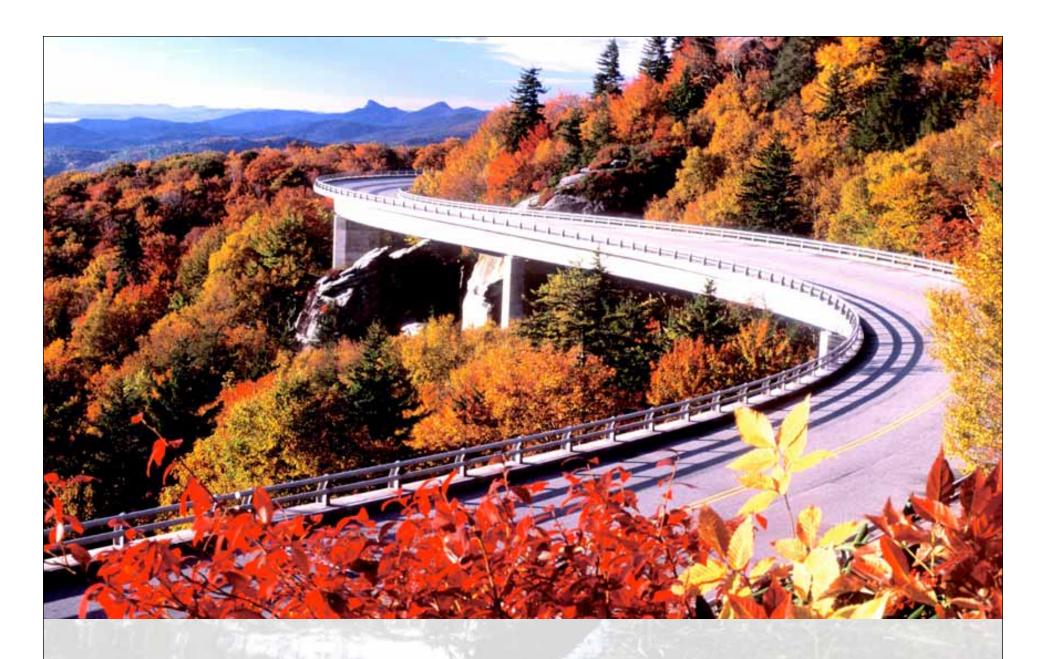




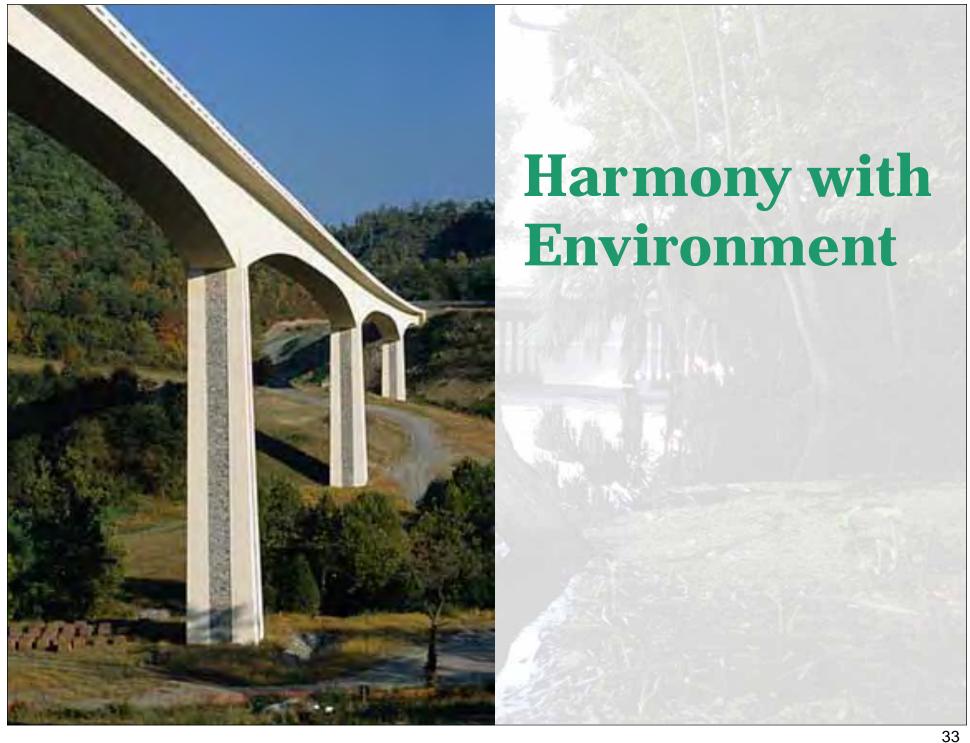






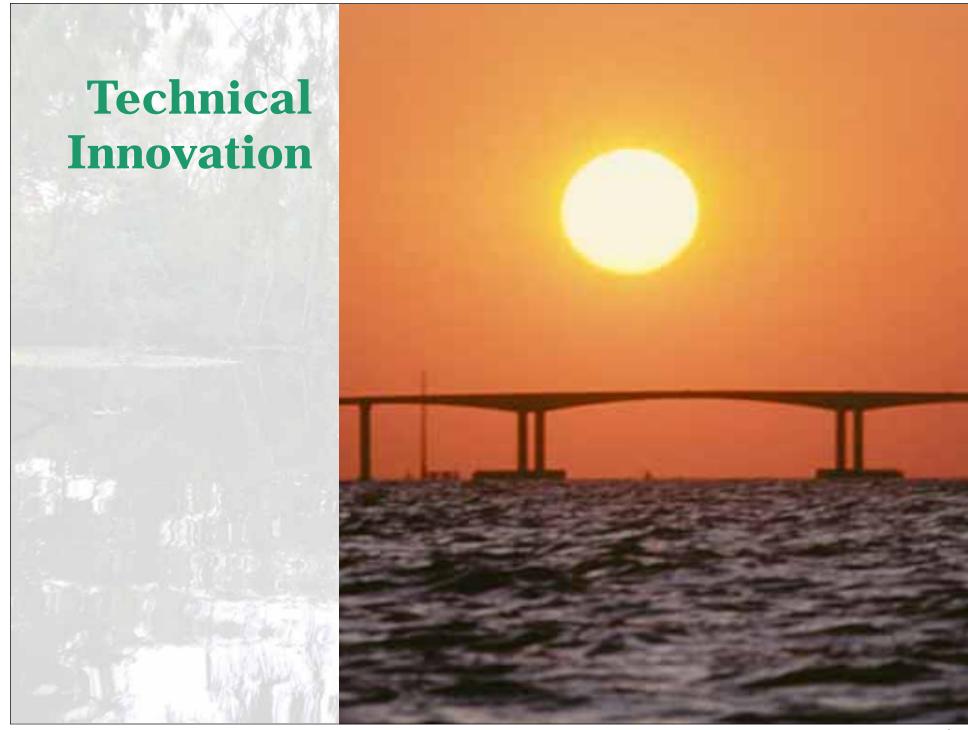


Environmental Sensitivity



Context Sensitive Design





Timeless



Applying FIGG Archetypal Design Principals

Establish a Theme

Blend Shapes

Create Shadows

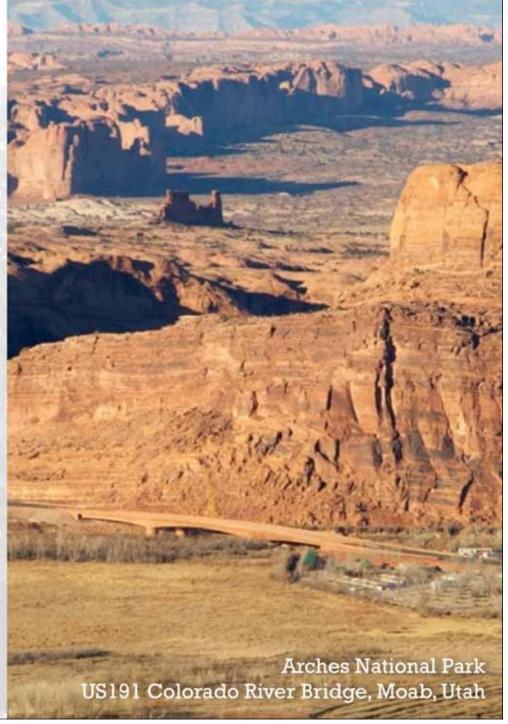
Select Appropriate Textures

Choose Pleasing Colors

Open New Vistas

Use Native Materials

Incorporate Landscaping

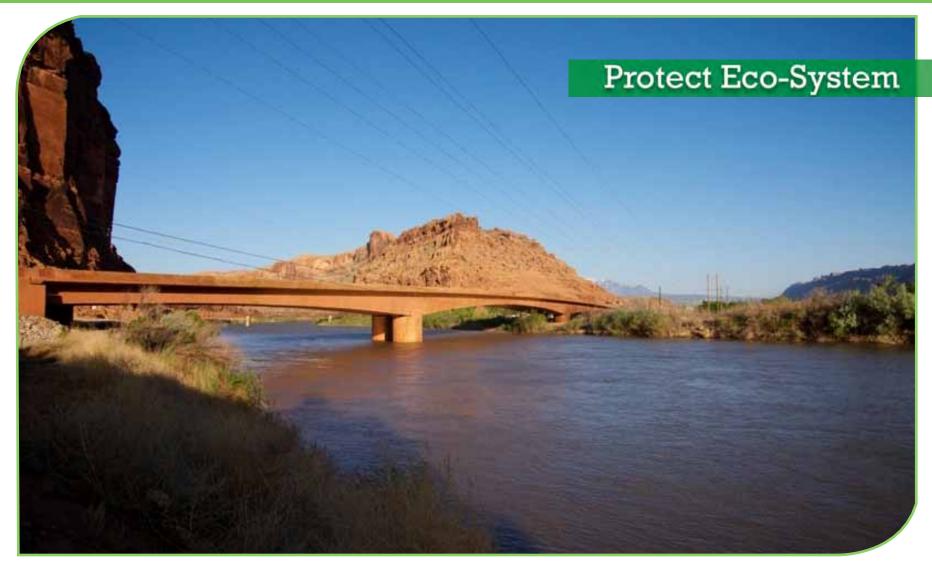




ENVIRONMENTAL

Protect Air, Water And Land
Protect Ecosystem
Reduce Green House Gases
Carbon Footprint
Low Energy Use

Arches National Park US191 Colorado River Bridge, Moab, Utah



378' spans, 1908' length. A Bridge that Disappears into its surroundings

Arches National Park US191 Colorado River Bridge, Moab, Utah

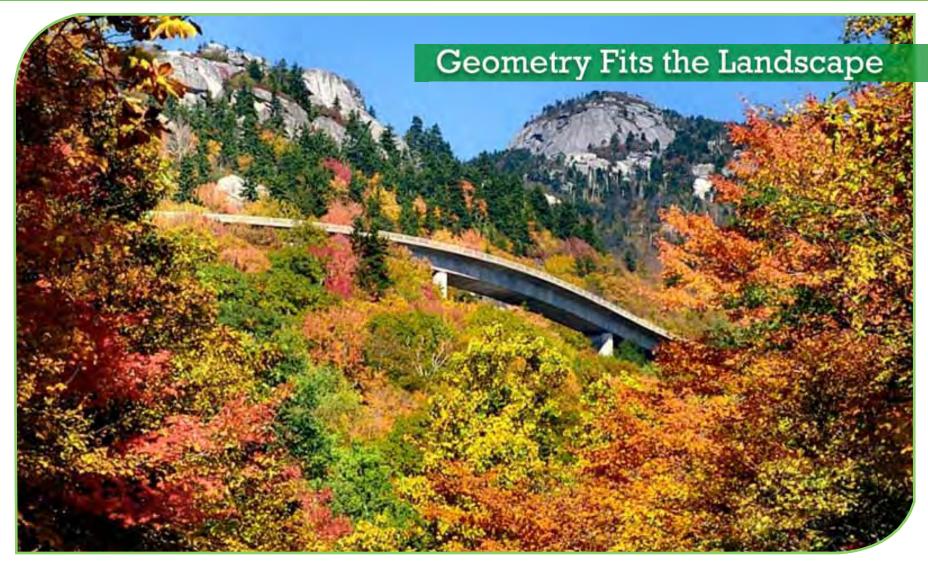


Blend in Park Setting

Arches National Park US191 Colorado River Bridge, Moab, Utah



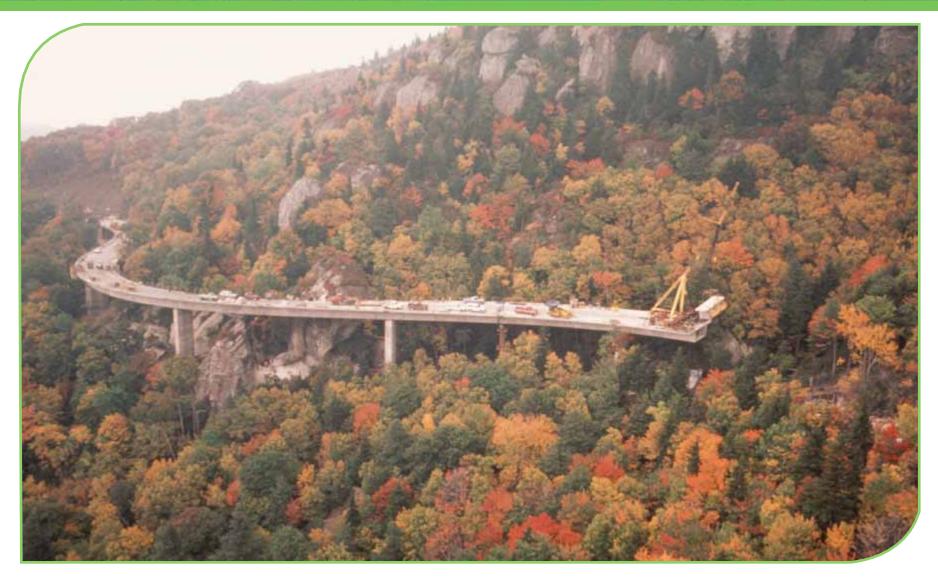
In harmony with the environment. Born of the Earth



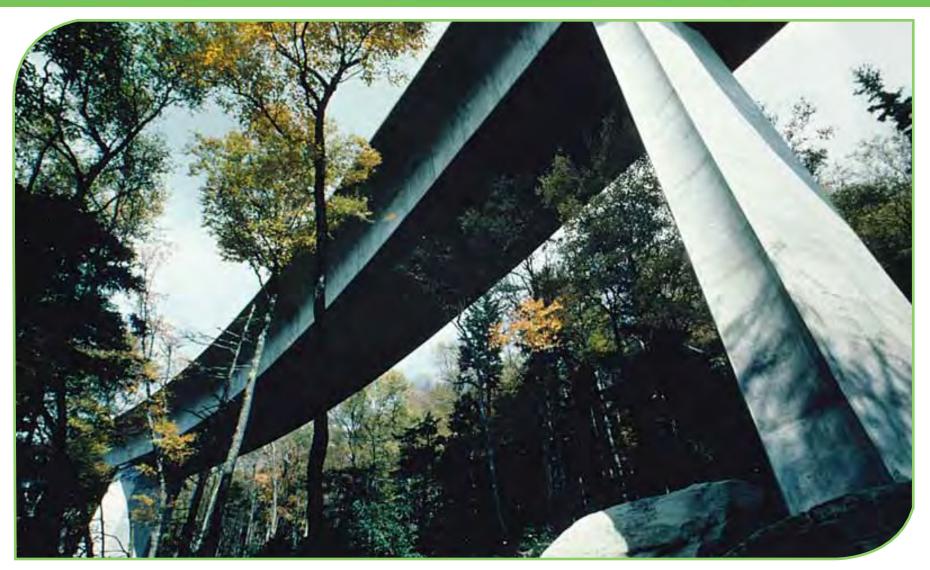
180 ft spans, 1248'-10" length, 250' Radii



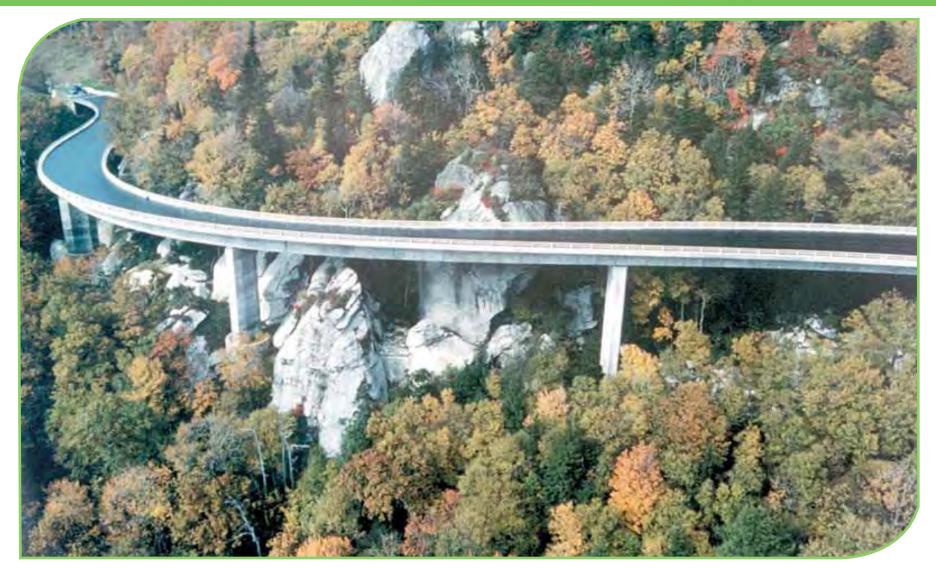
Precast segments assembled to protect environment



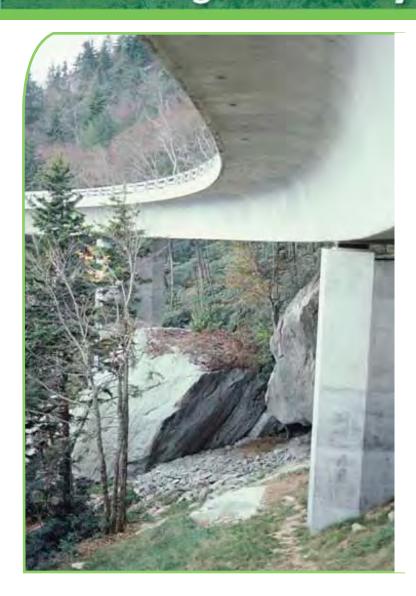
Harmony with Environment

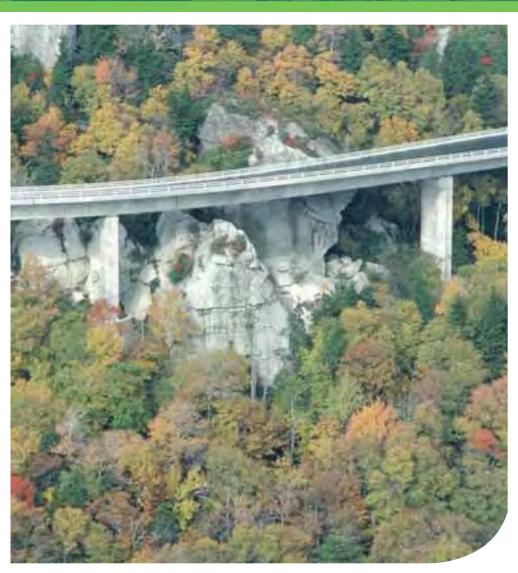


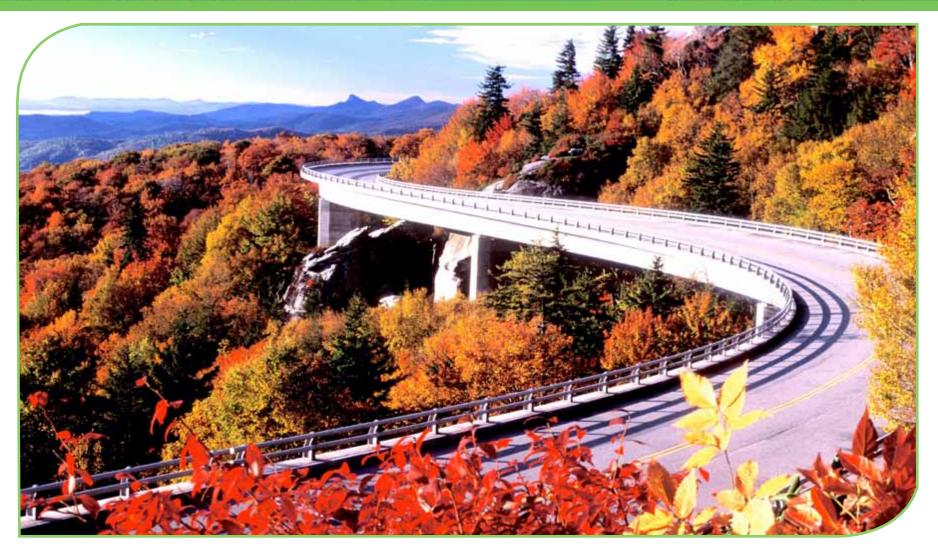
Octagonal Shape with curvilinear faces, 65' piers



Blending With The Site - Concrete With Black Iron Oxide Matches Boulders

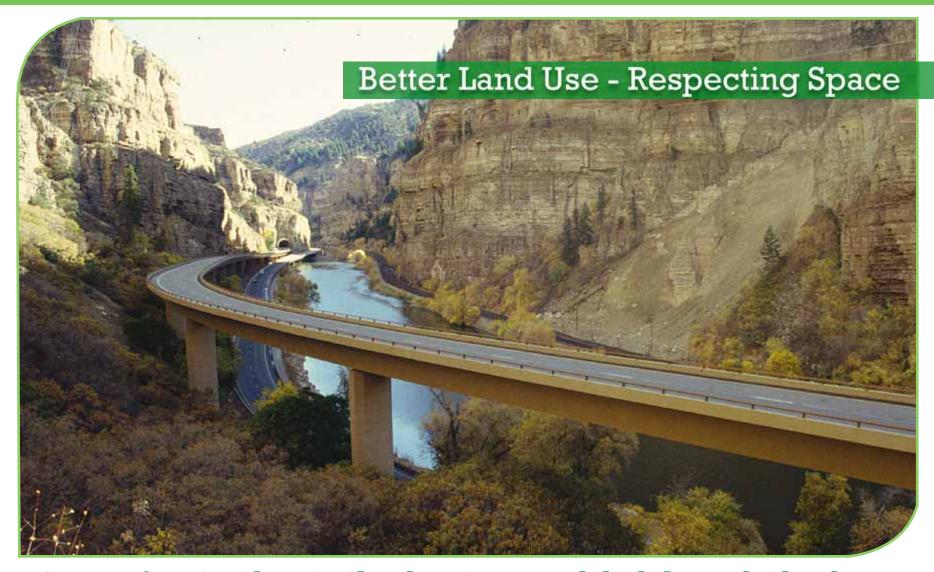






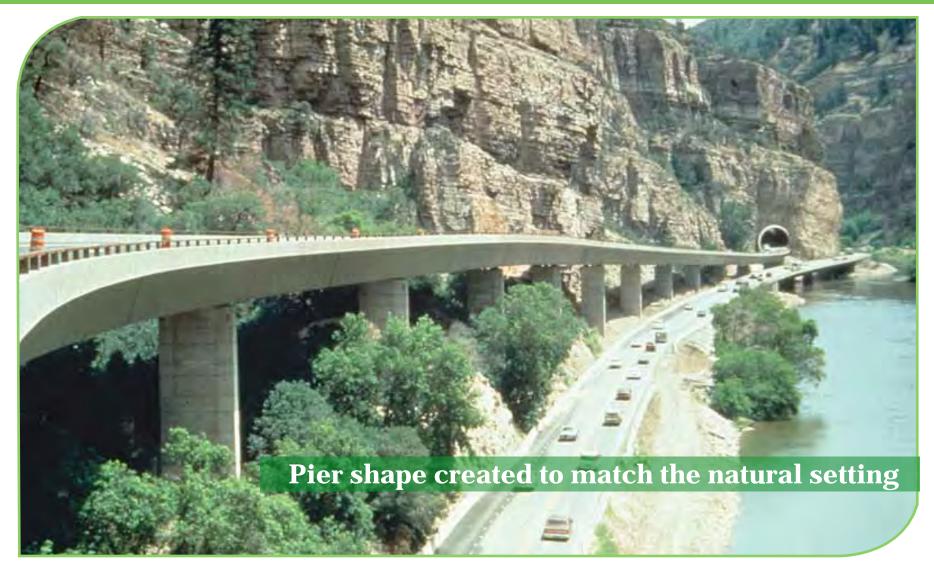
Complements the Physical Setting While Preserving Scenic, Aesthetic and Environmental Resources

I-70 Hanging Lake Viaduct, Colorado



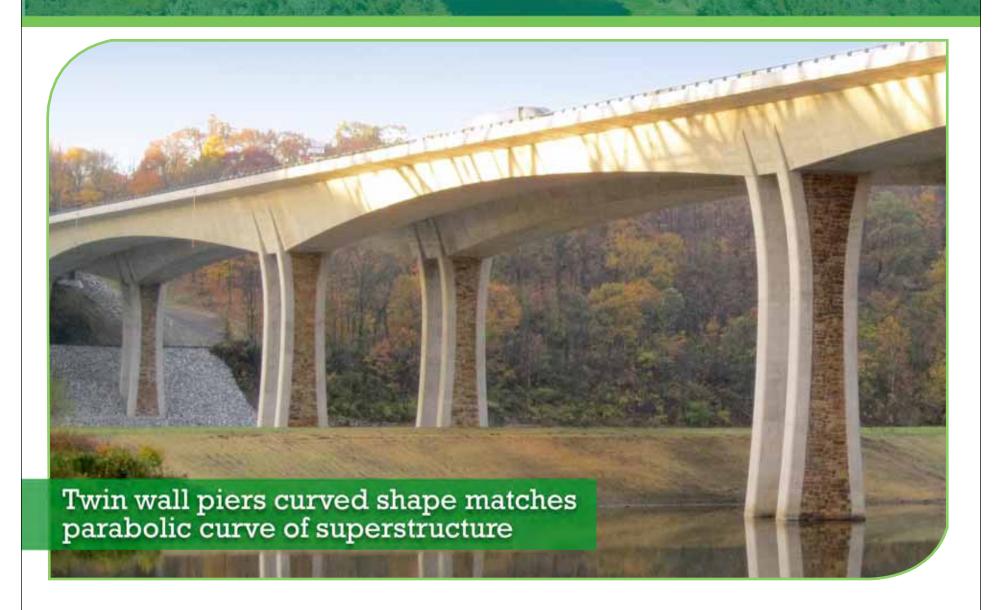
Spans of 200' and 300' - Slender piers touch lightly on the landscape

I-70 Hanging Lake Viaduct, Colorado

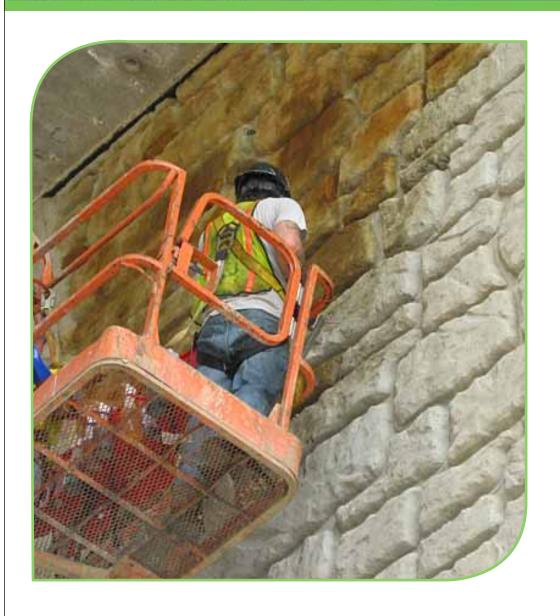


Angular piers compliment rocky terrain

Allegheny River Bridge Pittsburgh, Pennsylvania



Allegheny River Bridge Pittsburgh, Pennsylvania



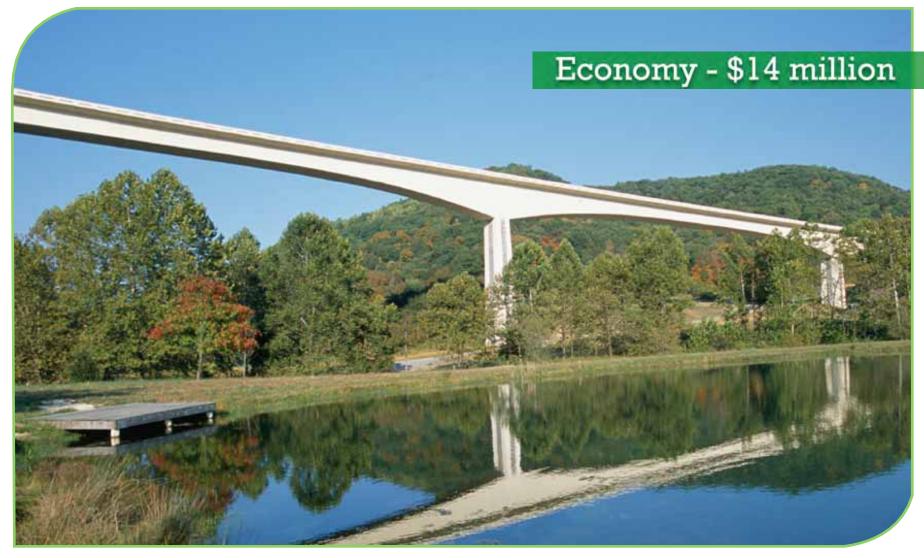




ECONOMIC

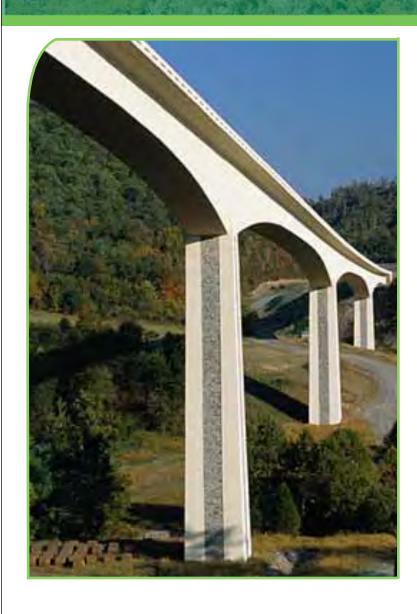
Cost And Time Savings
Local Economic Benefits
Resource Efficiency
Life Cycle Cost Benefits

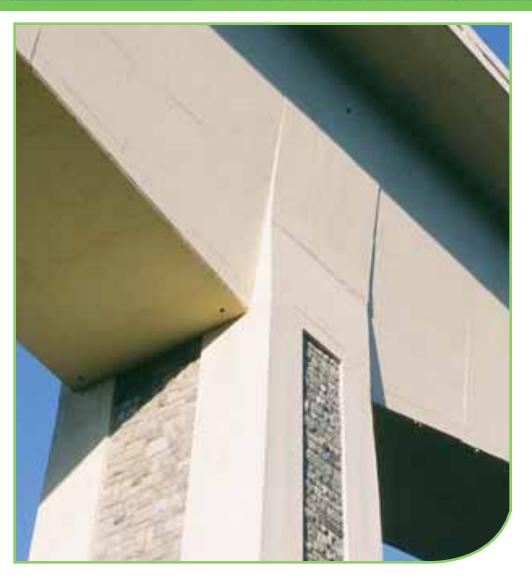
Smart Road Bridge, Virginia



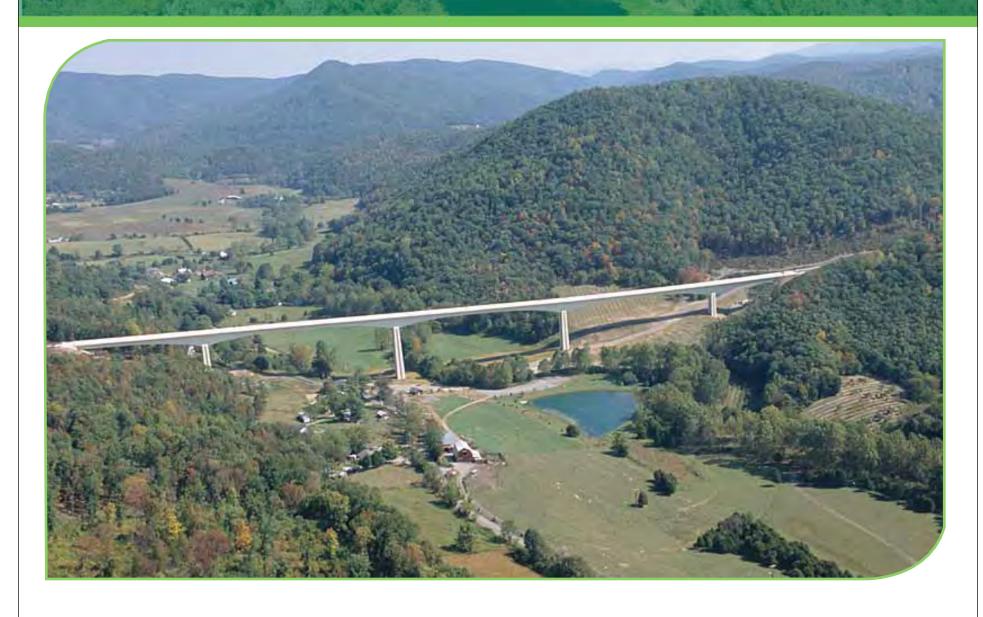
472' spans, 1,985 length

Smart Road Bridge, Virginia





Smart Road Bridge, Virginia





SOCIAL

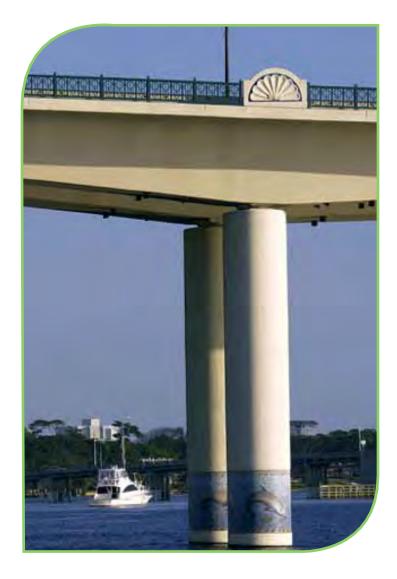
Context Sensitive Solutions
Involve Stakeholders
Better Quality of Life
Safer
Better Land Use

Broadway Bridge, Daytona Beach, Florida



Theme: Timeless Ecology

Organic Shapes







Broadway Bridge, Daytona Beach, Florida

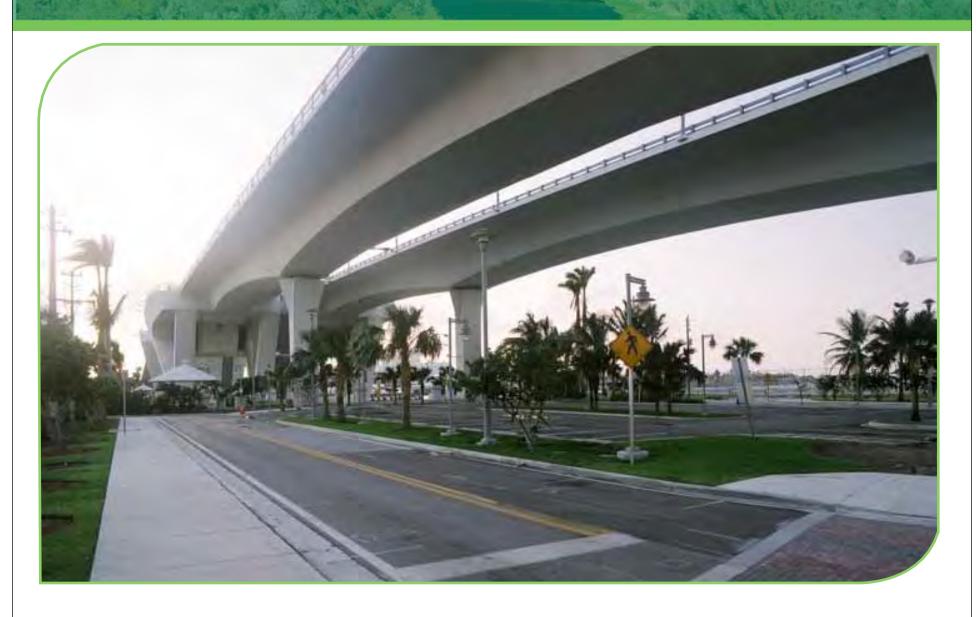


17th Street Bridge, Ft. Lauderdale, Florida



205' spans, 1908' length, maximize connectivity with openness

17th Street Bridge, Ft. Lauderdale, Florida

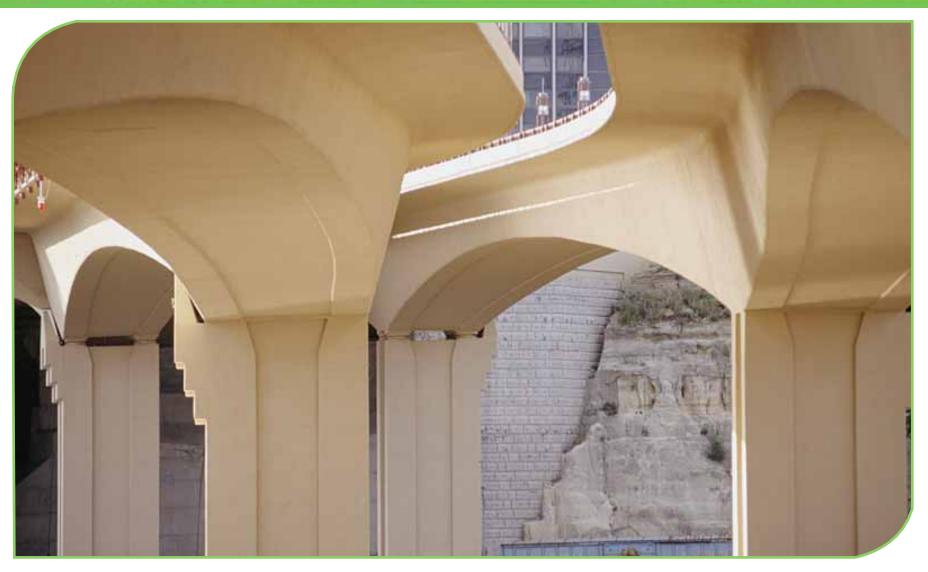


17th Street Bridge, Ft. Lauderdale, Florida

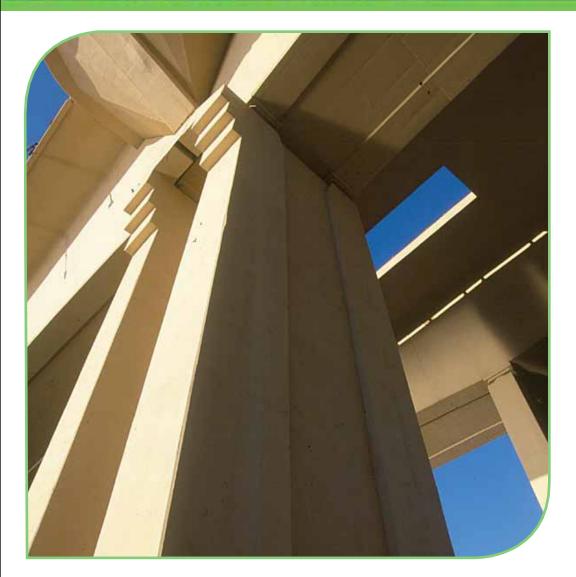


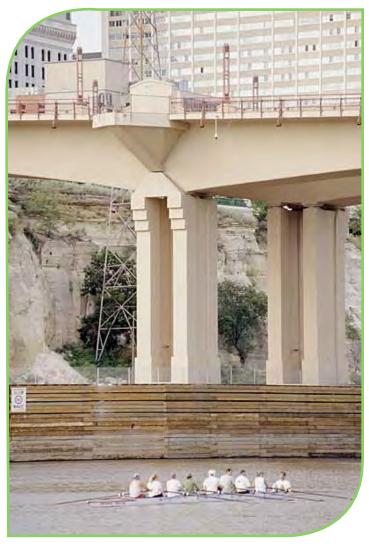


397' span length, 1248' length

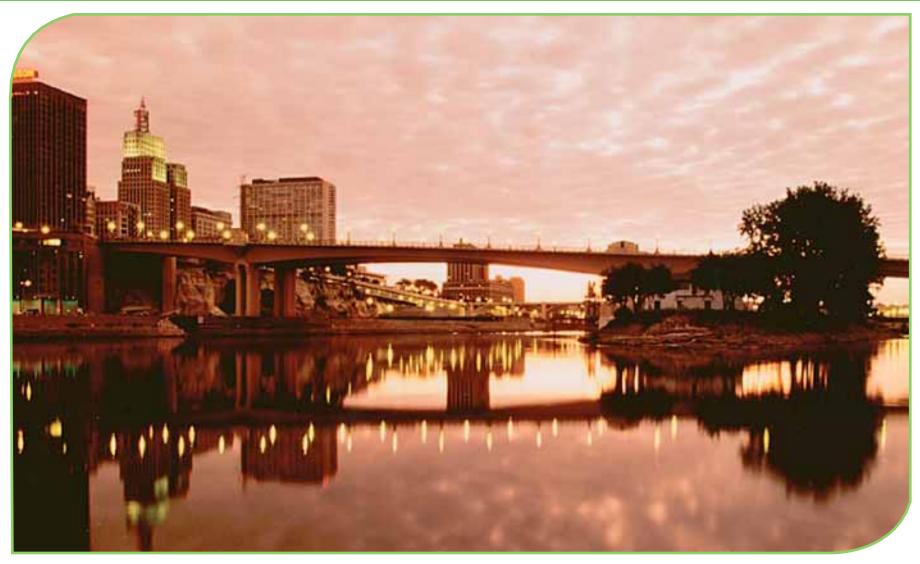


Box girder shape is versatile - Many shapes





Twin Wall Piers with Cathedral Shaping



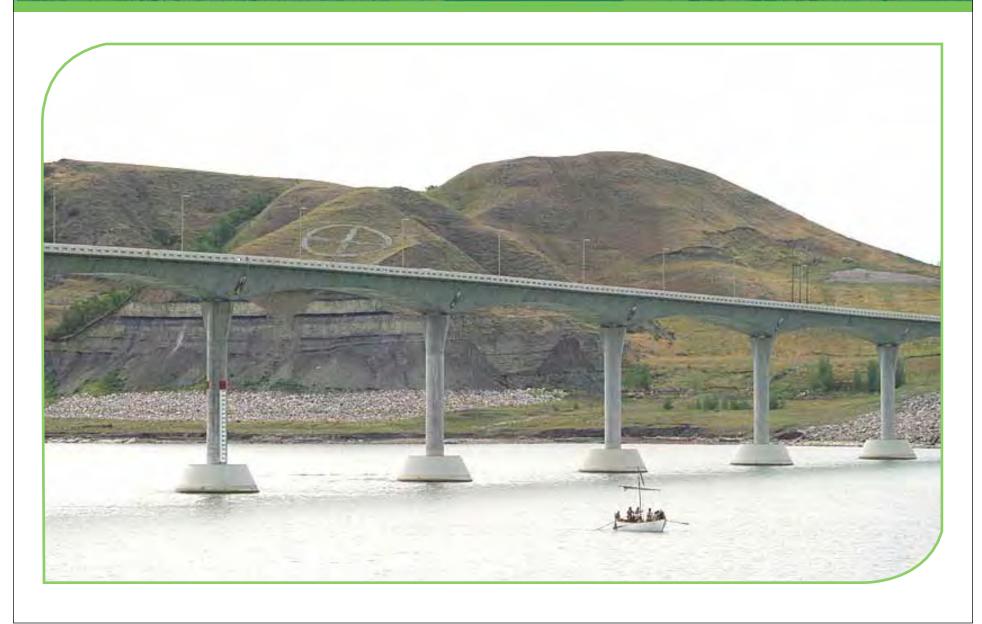
Context Sensitive Solutions

Four Bears Bridge, New Town, North Dakota

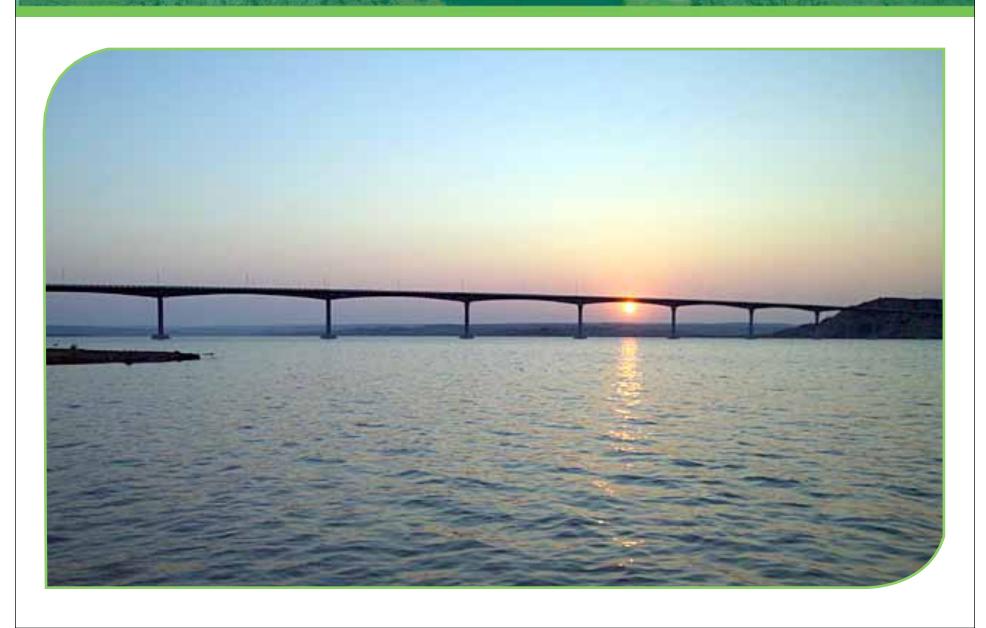


Theme: Three Tribes: Mandan, Hidatsa & Arikara

Four Bears Bridge, New Town, North Dakota



Four Bears Bridge, New Town, North Dakota



Satisfying Cultural Needs



Four Bears Bridge, New Town, North Dakota

Context Sensitive Solutions



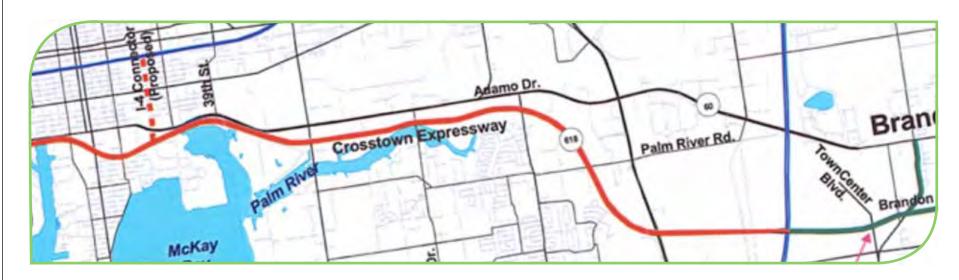
Cultural benefits of designs that capture the spirit of the community

Better quality of life. Best life cycle results in extreme climates

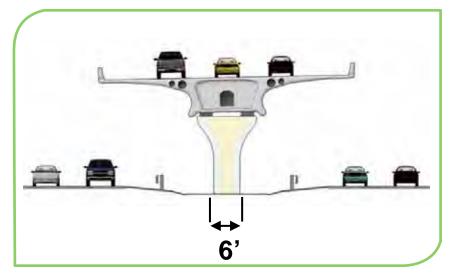


Four Bears Bridge, New Town, North Dakota

Selmon Expressway, Tampa, Florida

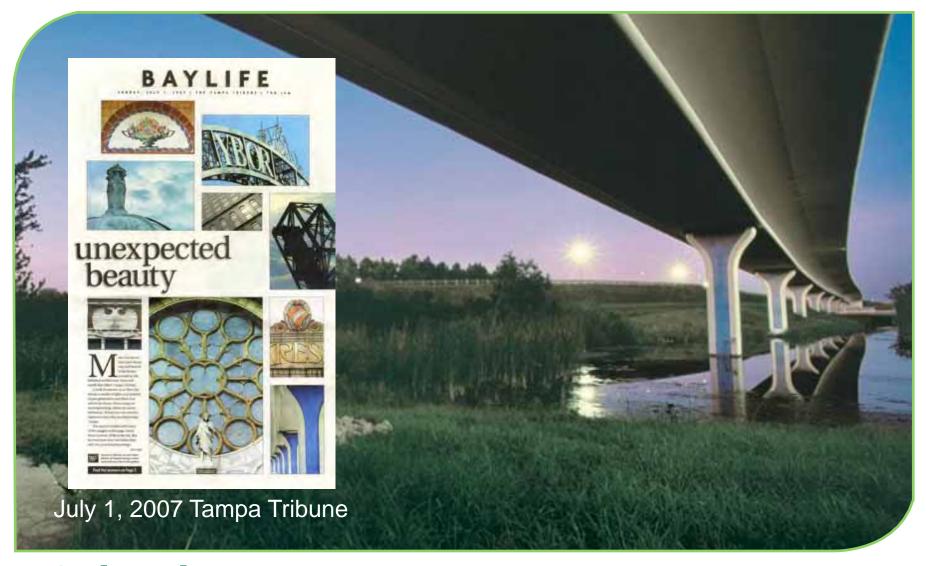






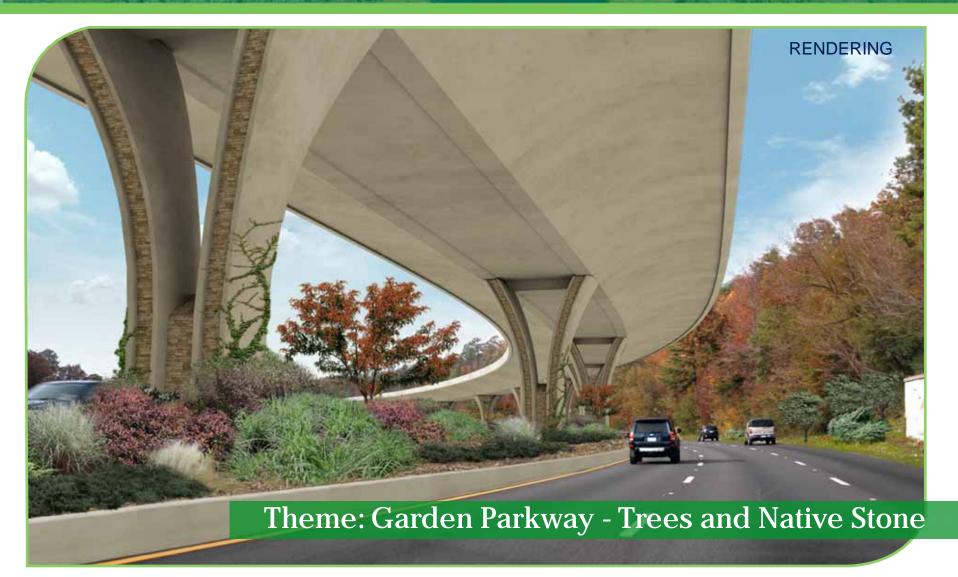
Better Land Use With Slender Piers

Selmon Expressway, Tampa, Florida



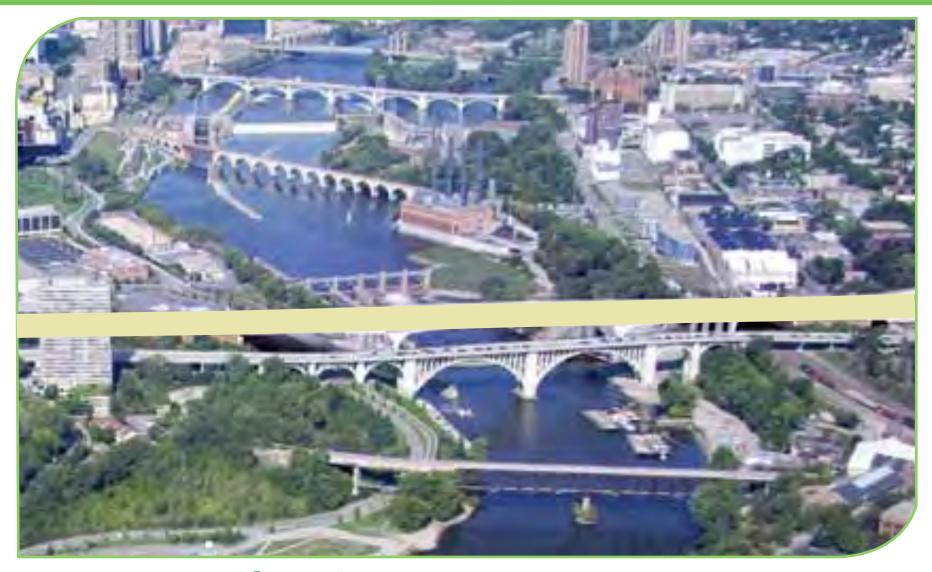
Sculptural Icon

US 280 Elevated Roadway Birmingham, Alabama



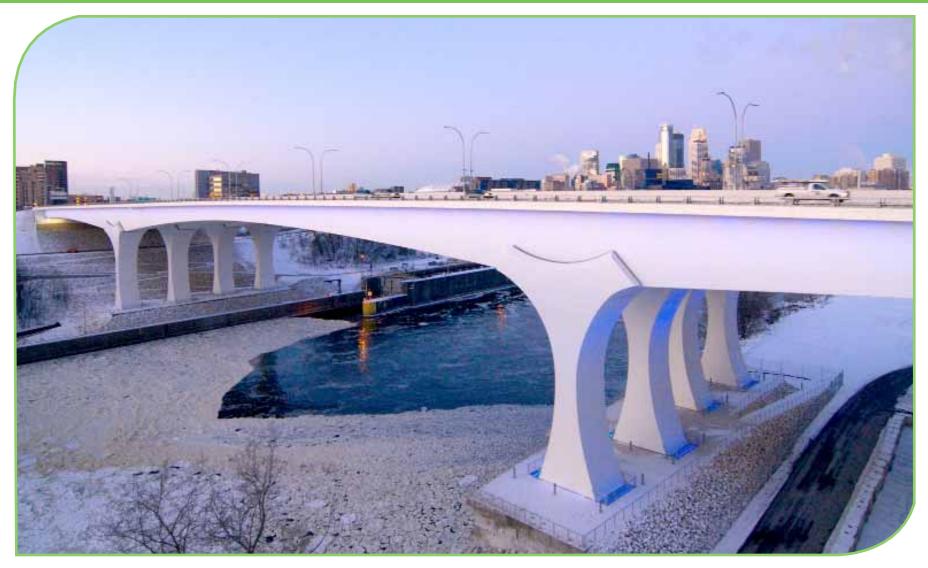
150' span length, 10 miles long

Bridges Are Created In Natural And Built Environments



New I-35W Bridge, Minnesota

New I-35W Bridge, Minnesota Mississippi River is a National Park



Theme: "Arches, Water, Reflections"

Every Bridge Should Tell The Story of the Technology of its Time



New I-35W Bridge, Minnesota

To Be Aesthetically Pleasing, A Bridge Must:





Be Functional

Be Economical

Satisfy Cultural Needs

Be In Harmony with the Environment

Creating Bridges As Art® Functional Bridge Sculpture



Final Bridge Design Charette Process











Key Steps

Follow a set agenda
Present options
Encourage open
discussion
Use microphones

Provide handouts
Record preferences

Upcoming Final Bridge Design Charette

BRIDGE AESTHETICS

Bridge Design Charette 1 (TBD - August 2013)

Select a Theme

Discuss overall bridge layout & configuration

Select direction for:

Shapes

Textures/Colors

Vistas

Railings

Other Features

Stakeholders & Design Team



Bridge Design Charette 2 (TBD - October 2013)

Based on previous Design Charette preferences multiple design options are developed for selection

Final Selection of:

Shapes

Textures/Colors

Vistas

Railings

Other Features

Bridge Aesthetics for a

Beautiful & Environmentally Sensitive Bridge







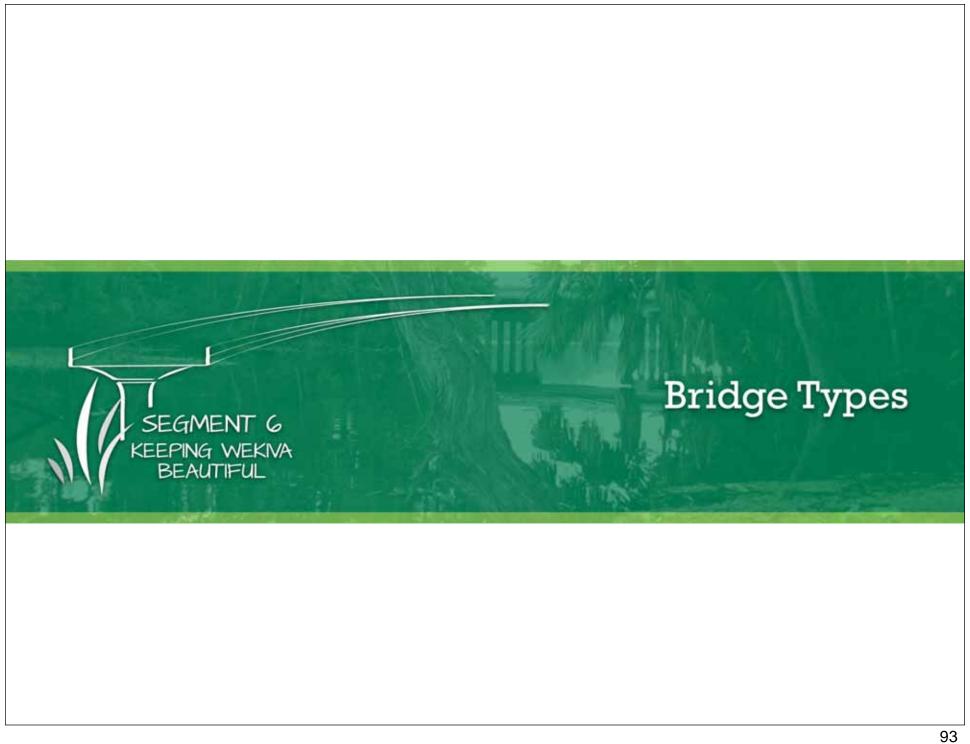












Bridge Development Report (BDR) Phase

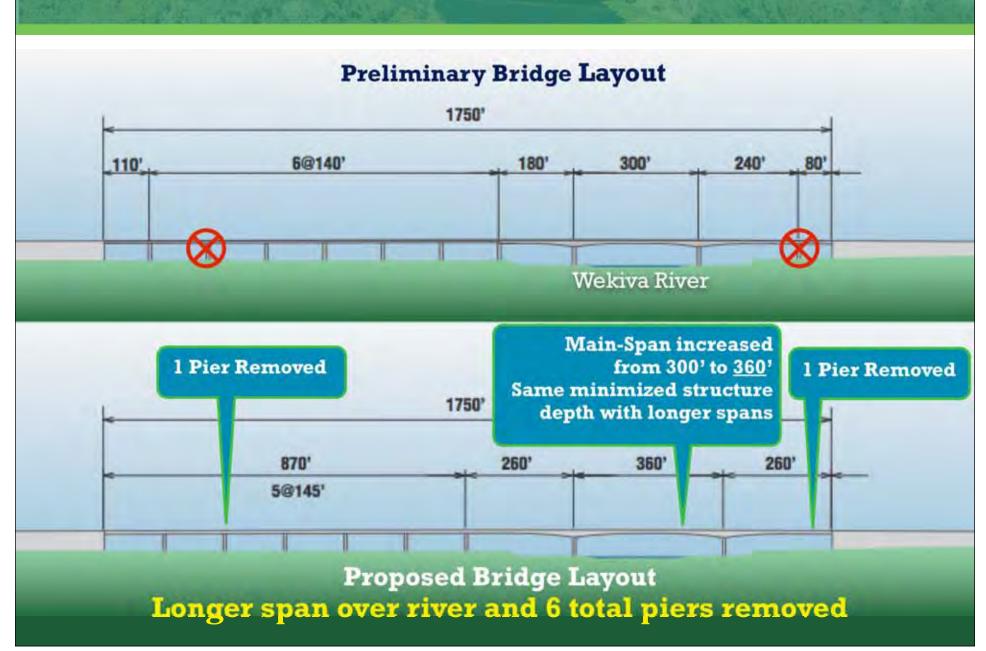
The purpose of the current BDR phase is to select the specific attributes for the bridge, including:

Span Configurations

Structure Type

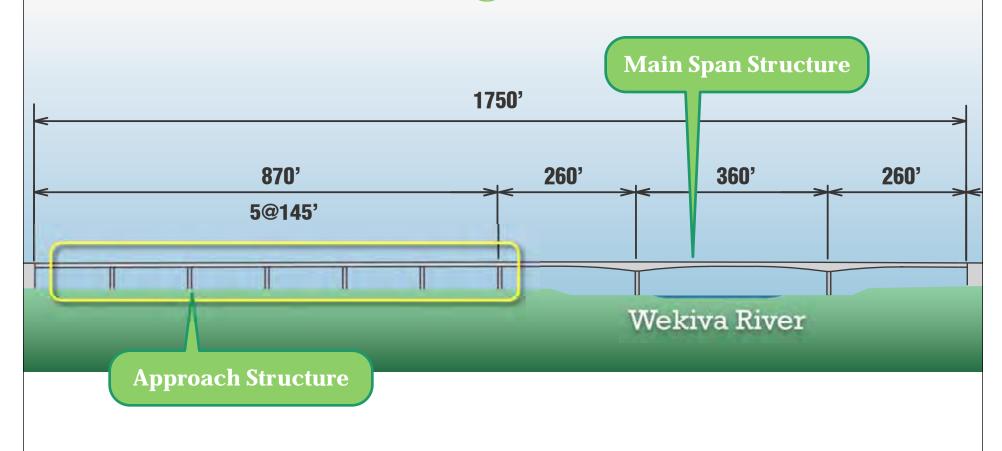
Construction Method

Enhanced Design Preserves Environment



Proposed Bridge Layout

Different structure types are being evaluated for the two sections of bridge



Approach Span Structure Type

The following approach span structure types are being studied during the Bridge Development Report (BDR)



Precast Concrete Segmental Boxes



Precast Flat Slab

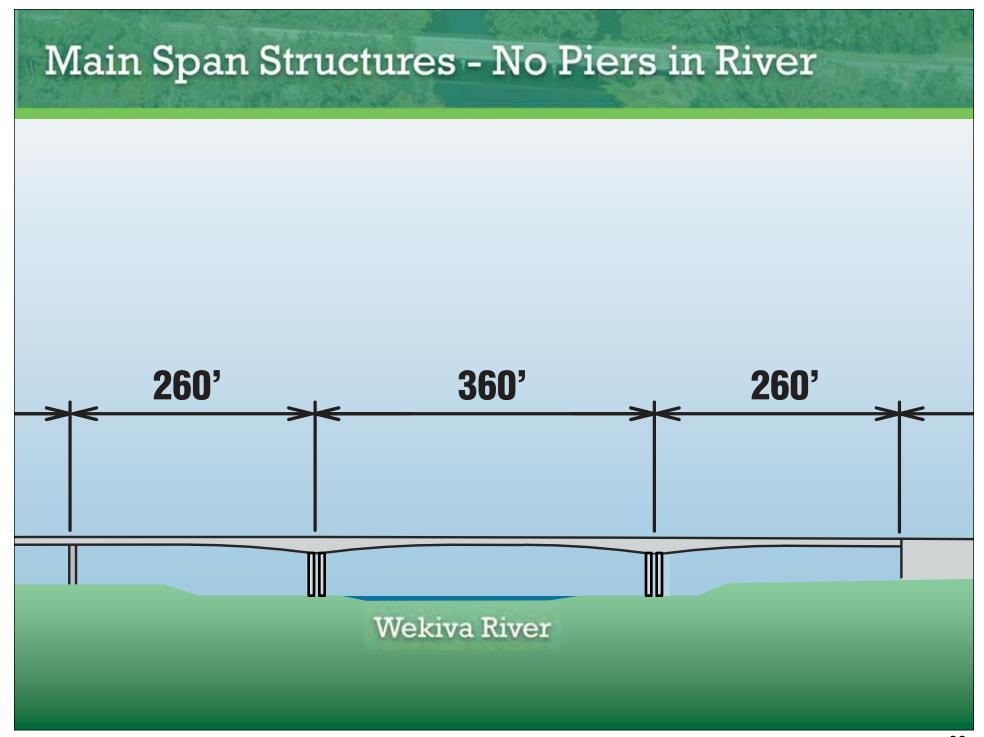


Precast Concrete "I" Girders (FIB's)



Precast Concrete "U" Girders (FUB's)



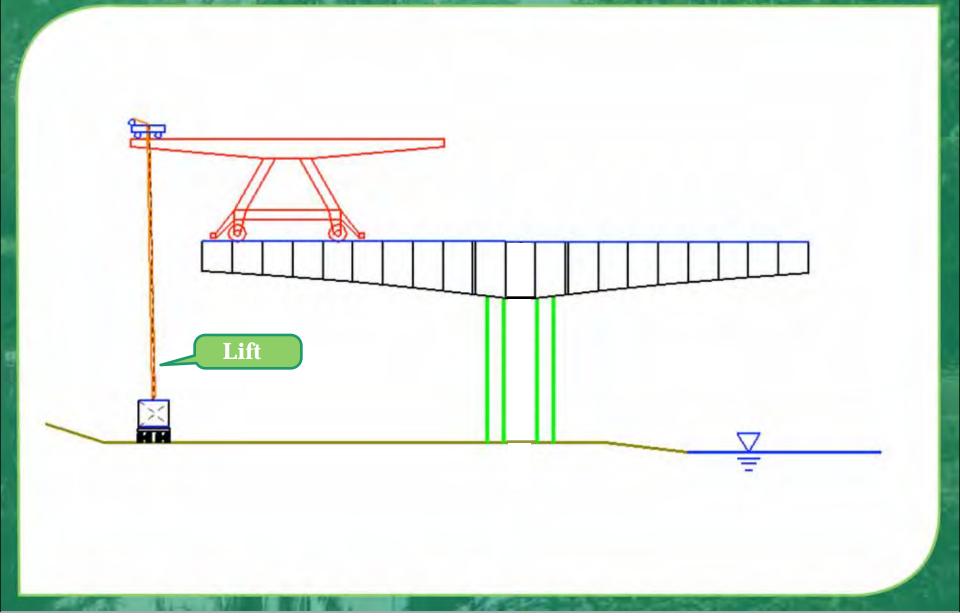


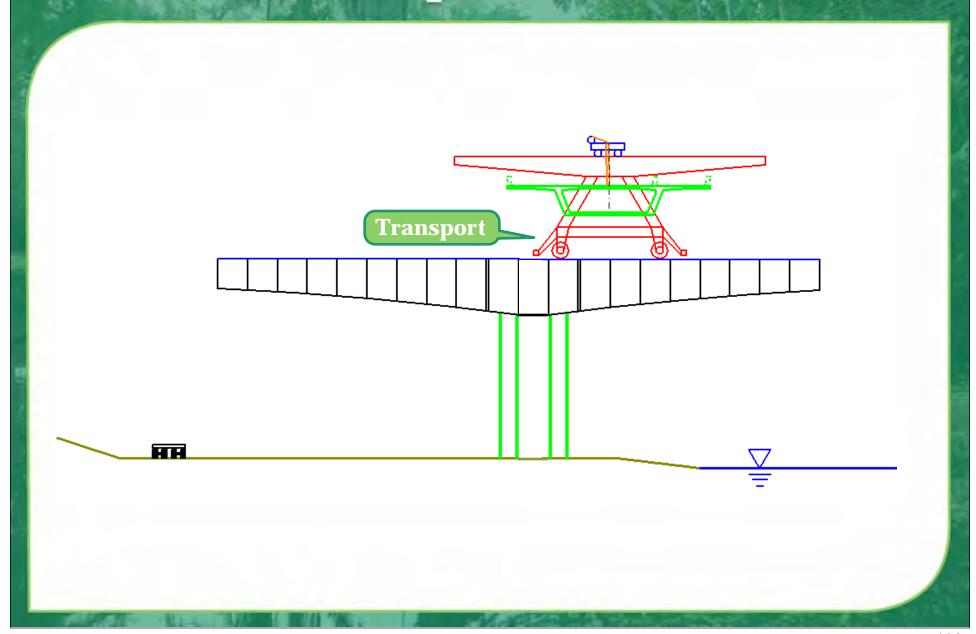
Main Span Structures

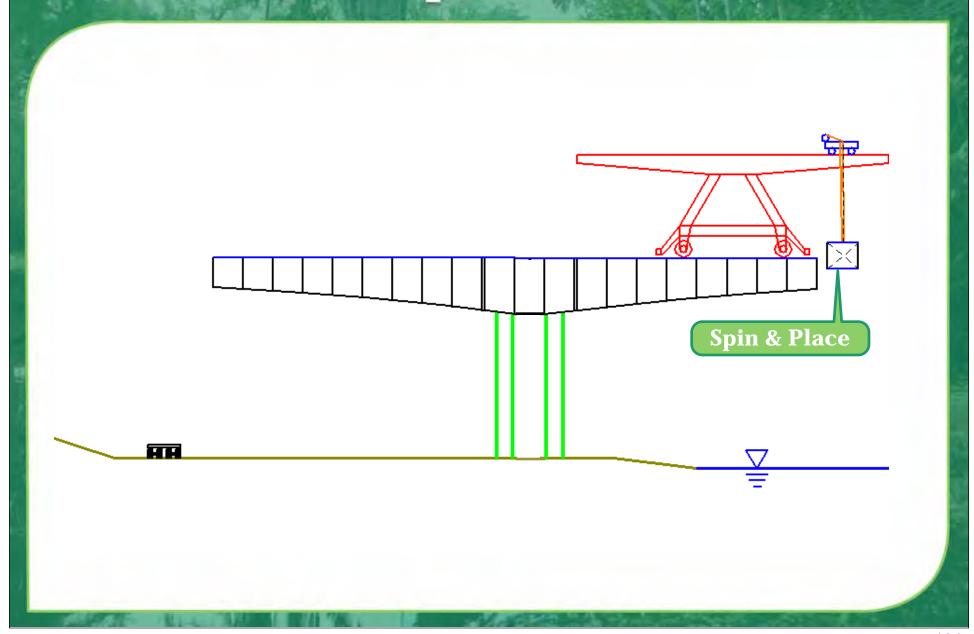
Both Precast and Cast-In-Place options are being evaluated for the main span structure.

The construction techniques for these options will eliminate the need for any equipment to be placed in the river.



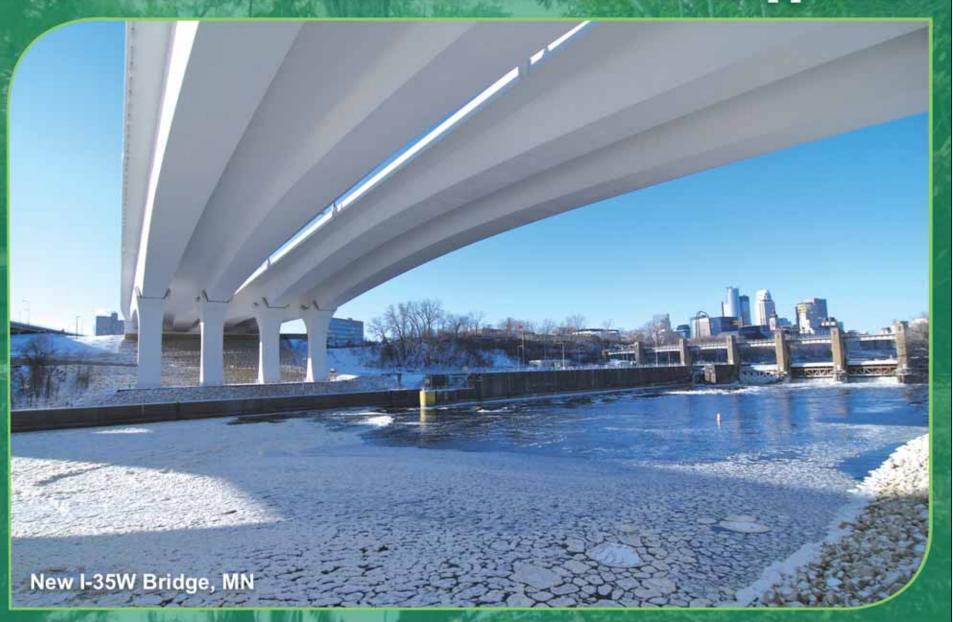








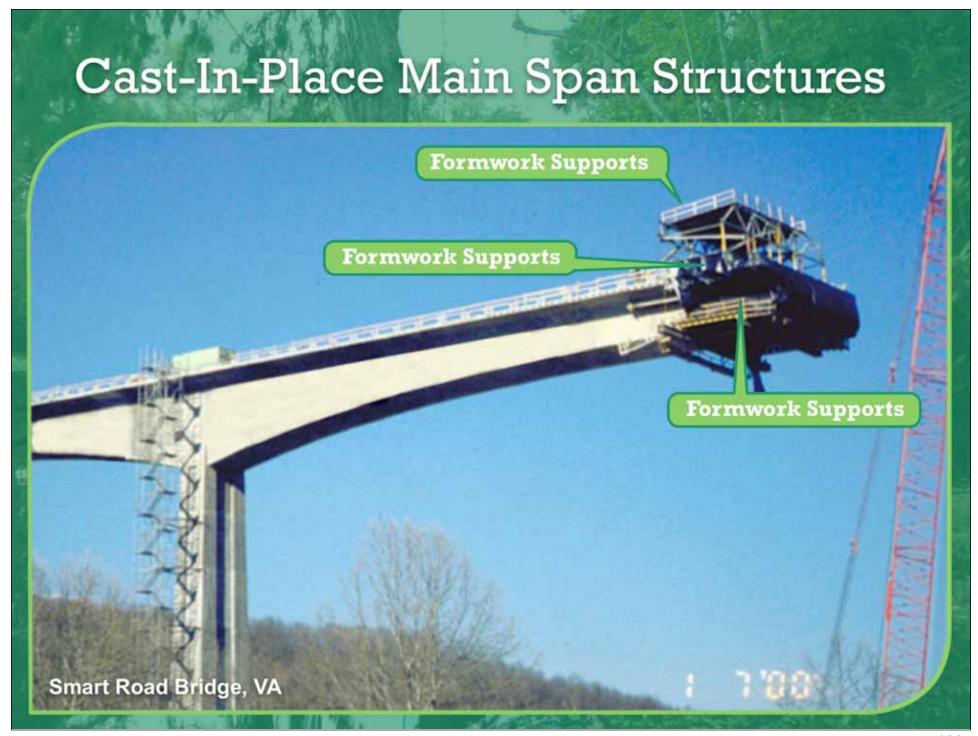
504' Precast ,10 Lane Interstate Over Mississippi River



Cast-In-Place Main Span Structures

As the name implies, the cast-in-place segments are not precast and subsequently transported to the site.

For this option, the variable depth main span segments would be cast directly at their final location on the bridge, one by one.





Keep the Scenic River Open for Recreational Users Throughout Construction







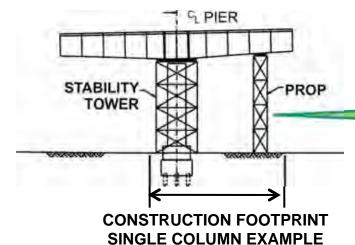


Slender Twin Columns

Create More Openness and Eliminate Any Construction Supports in the River

Twin columns eliminate the need for stability tower and prop during construction to protect the environment





Single columns require intermediate supports in construction







Preserving a Quiet Peaceful Natural Environment Around the Bridge

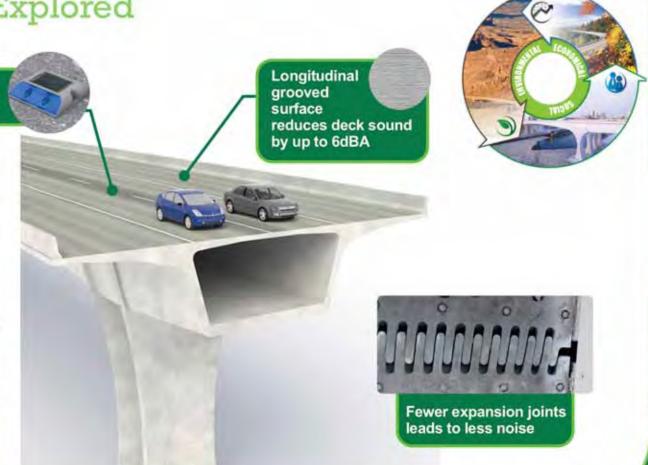


Solar powered LED lane markers

New I-35W Bridge – Quiet under a 10 lane Interstate



A park along Mississippi River, peaceful and quiet underneath to enjoy the scenic view



Sustainable Success

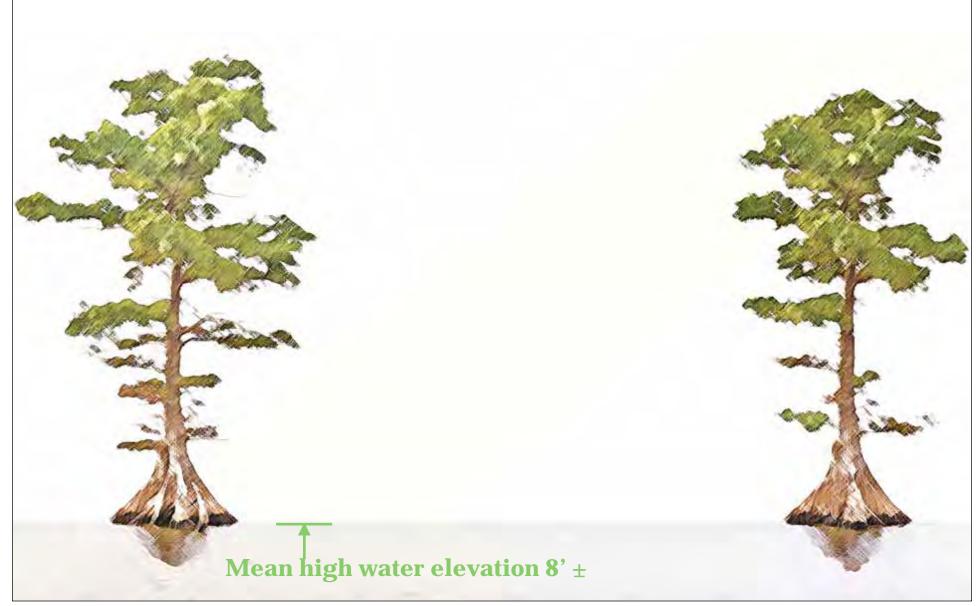


Recommendation for Bridge Vertical Profile

Important Criteria From Preliminary Design Charette "Provide a bridge profile where the bridge and vehicles on top are kept below top of tree canopy"



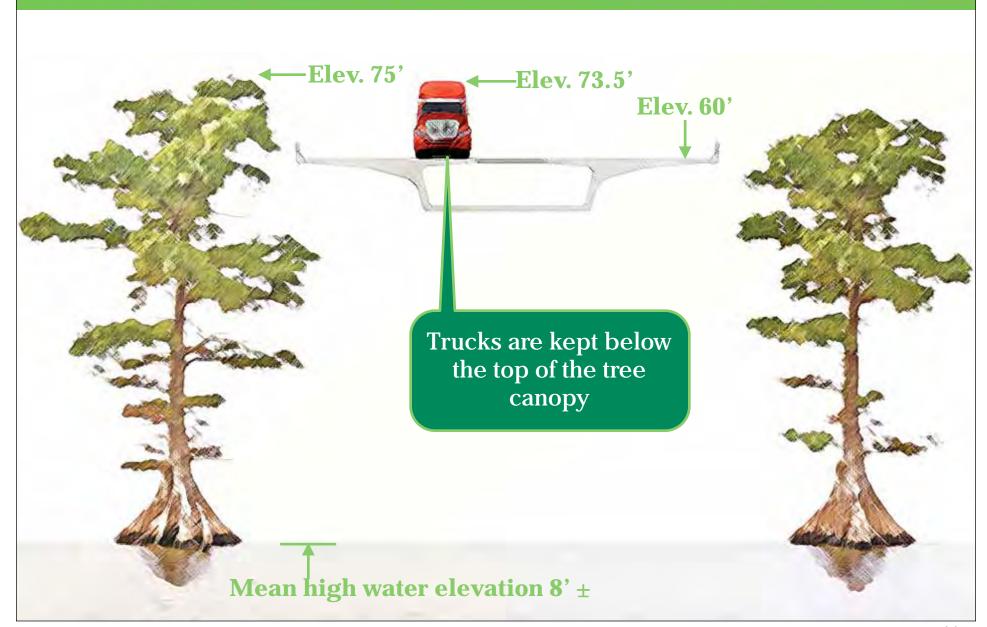
Recommendation for Bridge Vertical Profile - Mean High Water Elevation 8' ±



Recommendation for Bridge Vertical Profile - Top of Tree Canopy Height 75'



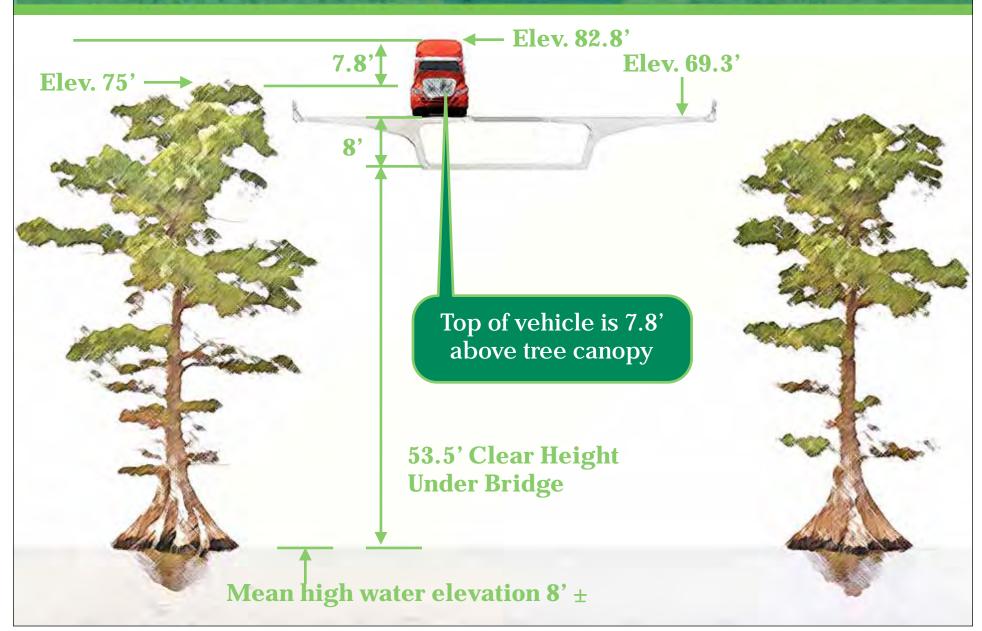
Recommendation for Bridge Vertical Profile



Recommendation for Bridge Vertical Profile



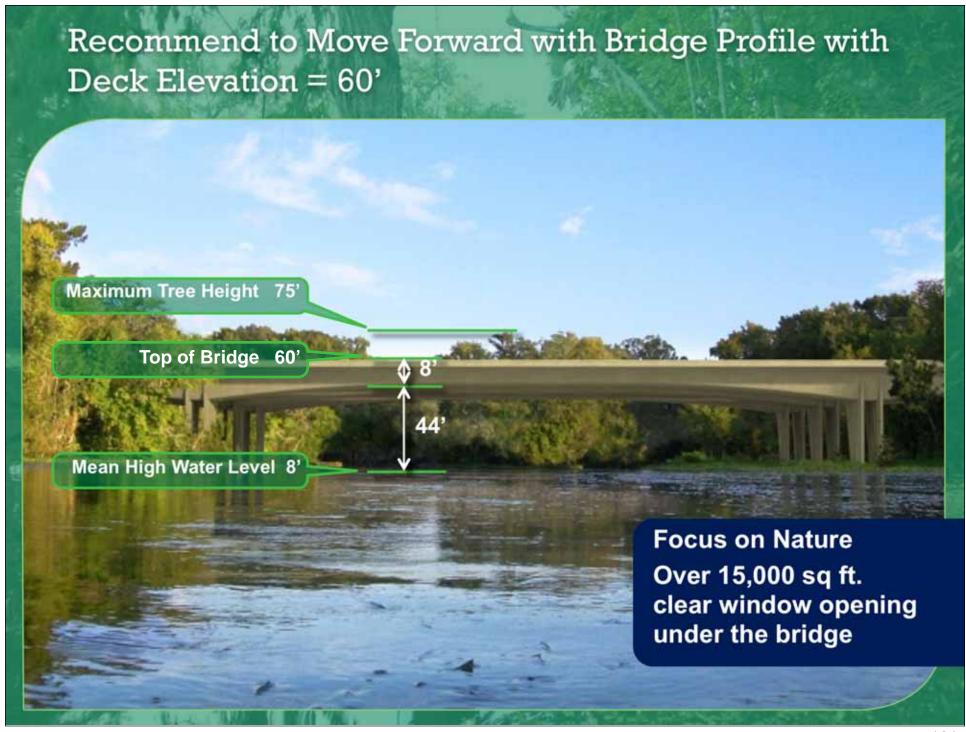
Bridge Vertical Profile as Currently Shown in 15% Line and Grade Report



Recommendation for Bridge Vertical Profile









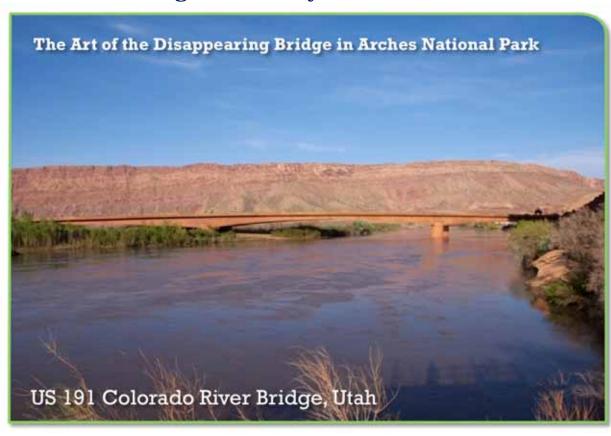


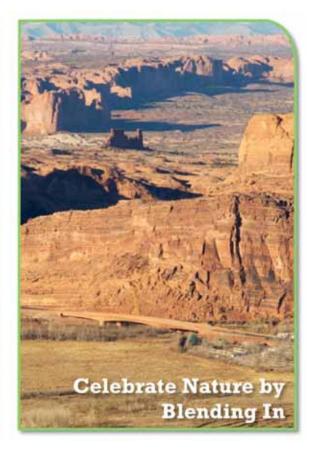
Comments on "Theme" Ideas

What is your vision for the bridge design to be in harmony with the natural environment?

Examples of "Themes"

Theme - "Bridge in Harmony with the Environment"





Comments on "Theme" Ideas

What is your vision for the bridge design to be in harmony with the natural environment?

Examples of "Themes"

Theme - "Arches, Water, Reflection"





Comments on "Theme" Ideas

What is your vision for the bridge design to be in harmony with the natural environment?

Examples of "Themes"

Theme - "Timeless Ecology"





Celebrate the Outstandingly Remarkable Values of the Wekiva River in Every Bridge Detail and View

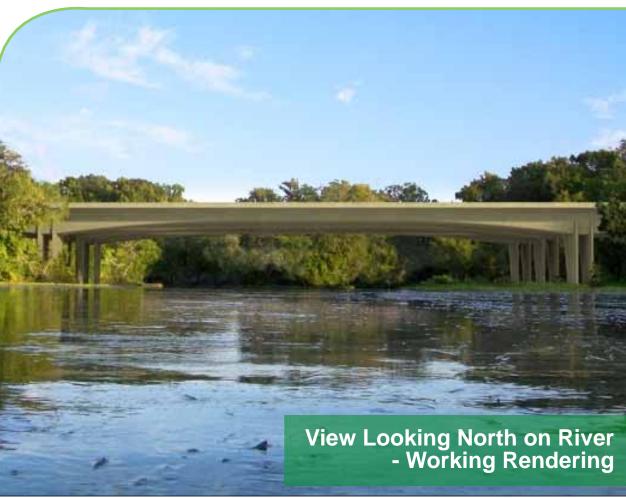
Modern pier shapes inspired by the natural environment to create a bridge in harmony with the landscape



Celebrate the Outstandingly Remarkable Values of the Wekiva River in Every Bridge Detail and View

Modern pier shapes inspired by the native environment to create a bridge in harmony with the landscape





Blending Colors for a Bridge that Appears to be "Born of the Earth"



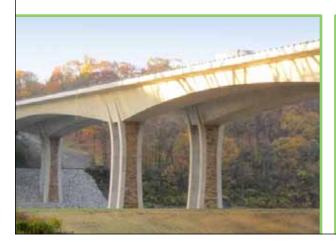
Use Colors from Nature with Eco-Friendly stains

Bella Vernici Stain (Rodney Ray in Orlando)

Variations in color just like nature

Admixtures in Concrete

Examples of Eco-Friendly Stained bridges







A Pleasant Surprise for Recreational users boating under the Bridge

A Great Thing about Nature is it's Wonderful Visual Surprises



Pier shapes with celebration of trees at waters edge

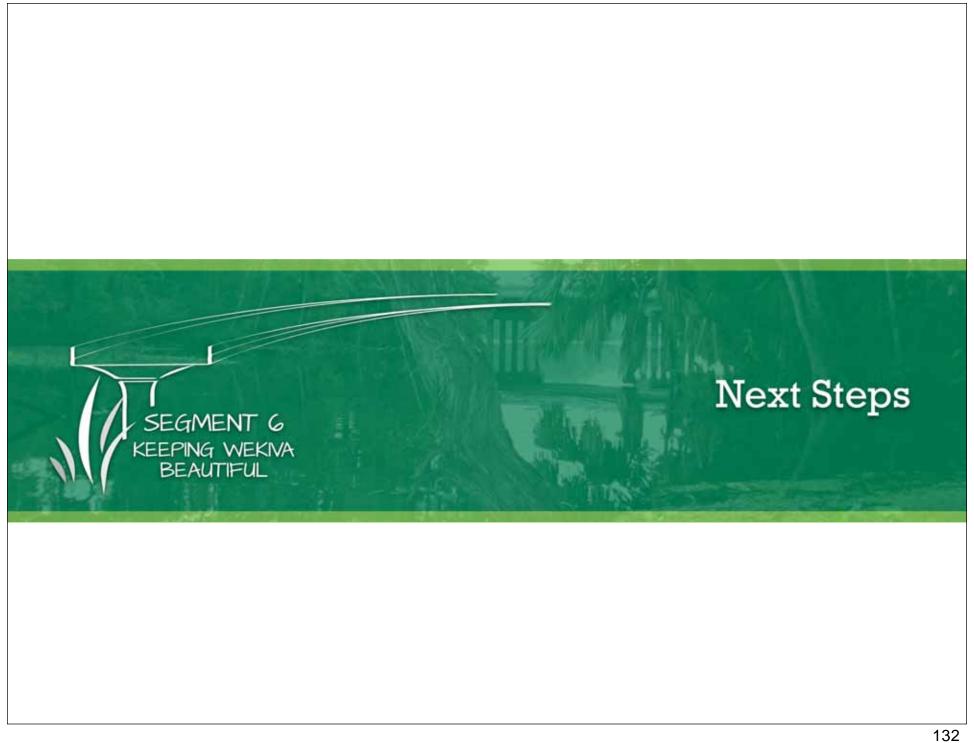
Invented a new reflective blue color for Selmon Expressway in Tampa





Please Give Us Us Your Ideas!





Meeting and Charette Schedules

NPS/FDOT Workshop	June 18, 2013
Bridge Design Charette 1	August 2013*
Bridge Design Charette 2	October 2013*
Public Information Meeting	November 2013*

^{*} Proposed schedule to be further coordinated with FDOT and NPS

Upcoming Final Bridge Design Charette

BRIDGE AESTHETICS

Bridge Design Charette 1 (TBD - August 2013)

Select a Theme

Discuss overall bridge layout & configuration

Select direction for:

Shapes

Textures/Colors

Vistas

Railings

Other Features

Stakeholders & Design Team



Bridge Design Charette 2 (TBD - October 2013)

Based on previous Design Charette preferences multiple design options are developed for selection

Final Selection of:

Shapes

Textures/Colors

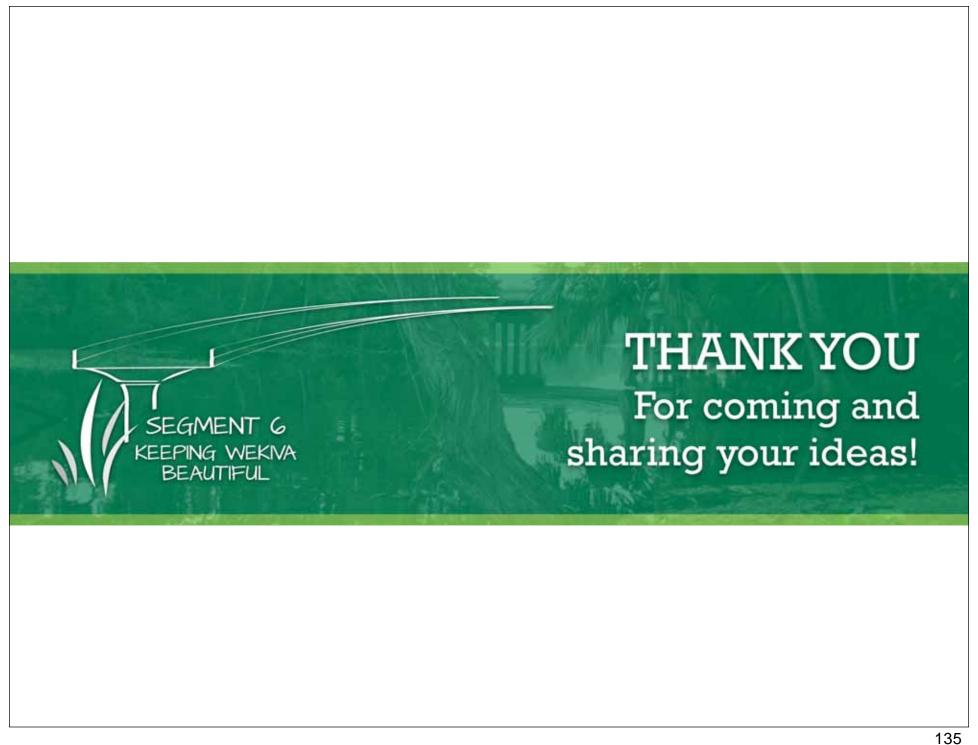
Vistas

Railings

Other Features

Bridge Aesthetics for a

Beautiful & Environmentally Sensitive Bridge





APPENDIX D

Bridge Design Workshop

DISPLAY BANNERS



FDOT and NPS will receive a sustainable bridge that achieves your goals for your scenic river crossing.



Main span length of at least 300' to clear span the Wekiva River

Design principals to blend the bridge with the environment repeating the landscape's visual elements of form, line, color and texture

Limit auditory and light intrusions

Enhance recreational experience for river users

Optimize connectivity of wildlife corridor under bridge

Preserve water quality











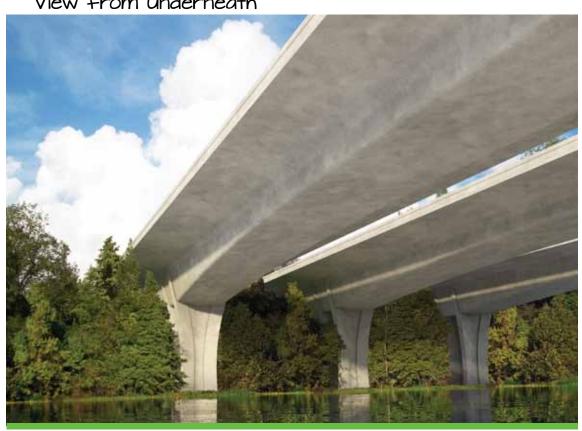


Twin Wall Options

Elevation View



View from Underneath













Page 2 of 14

Organic Shaping of Bridge in Nature form, line, and texture in Harmony with the **Scenic River**

Twin Column

A Celebration of Trees on the Waters Edge



Organic Pier Shape Options (Twin Column)



Single Column Blooms Along the River



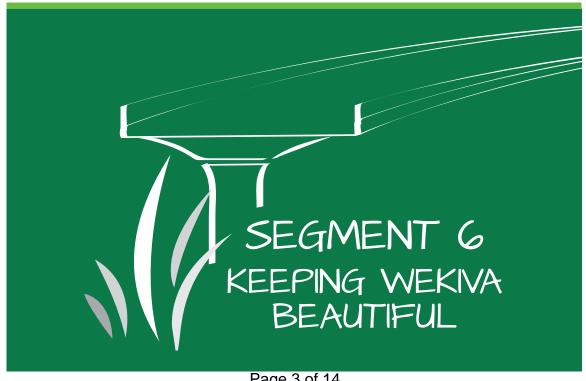






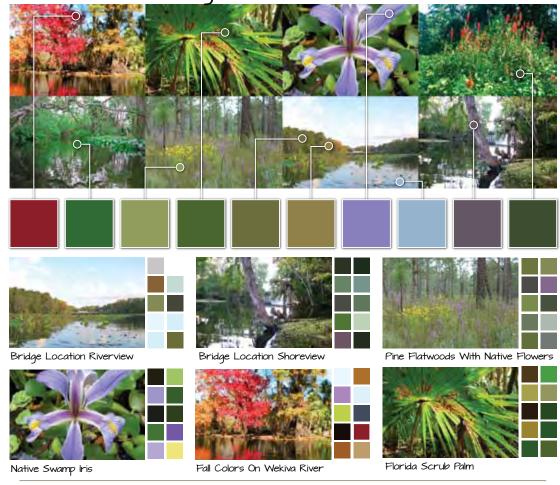






Nature's Color Palette

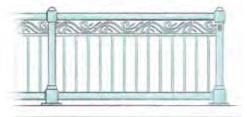
Wekiva River Bridge Area



Pedestrian Railing

Concepts – Initial Ideas

Inspired by Wekiva River Landscape



Flow of Water





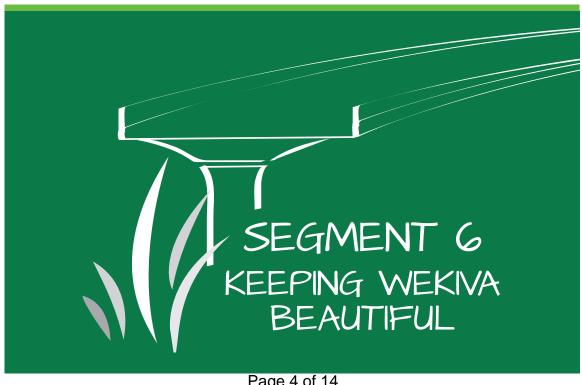










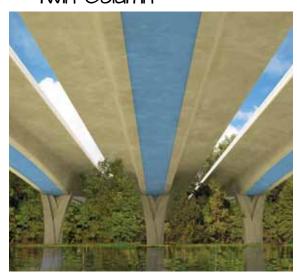


Organic Color Stain to Blend with Nature's Canopy

A Tribute to Nature on the Wekiva River

Views from Underneath

Twin Column





Single Column

Blooms Along the River













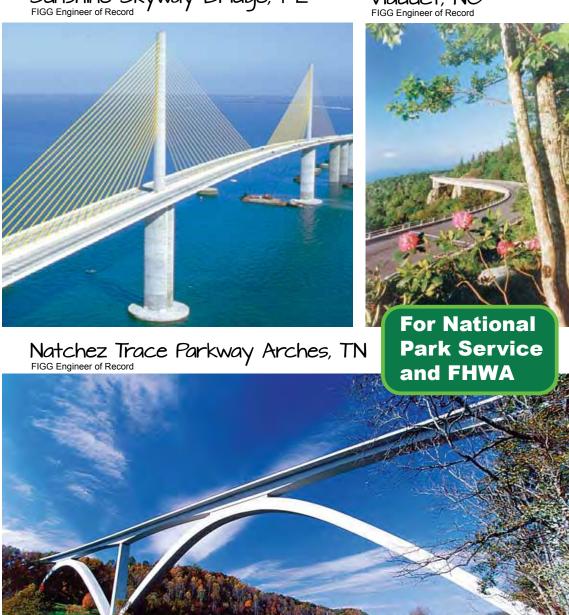
Page 5 of 14

3 Presidential Awards

through the National Endowment for the Arts - Only 5 ever for Bridges



Blue Ridge Parkway Viaduct, NC FIGG Engineer of Record

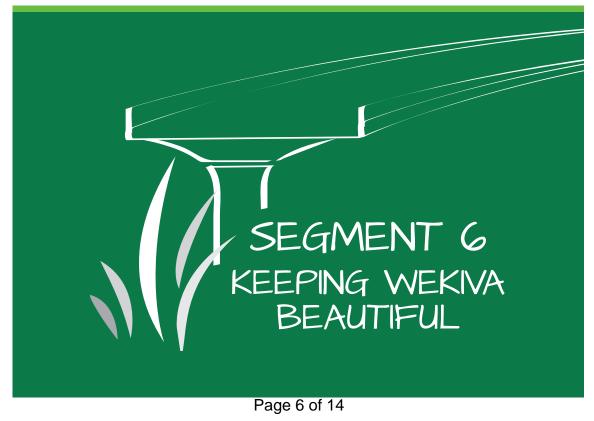








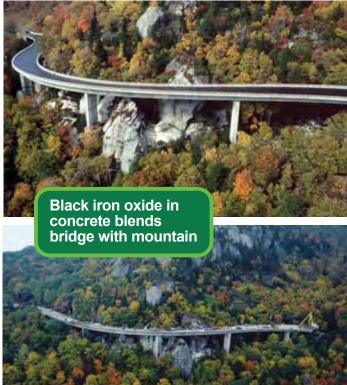




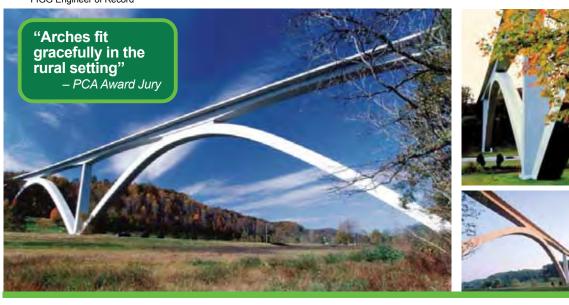
Bridges Designed for the National Park Service

Blue Ridge Parkway Viaduct, NC FIGG Engineer of Record





Natchez Trace Parkway Arches, TN FIGG Engineer of Record







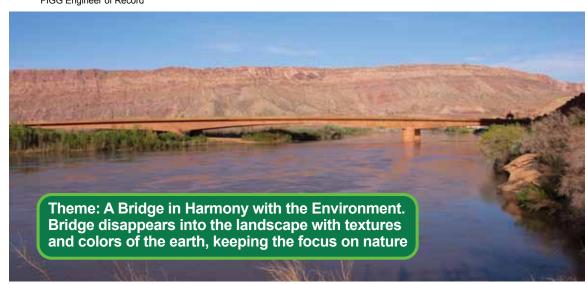






National Park Bridges

US 191 Colorado River Bridge, UT FIGG Engineer of Record



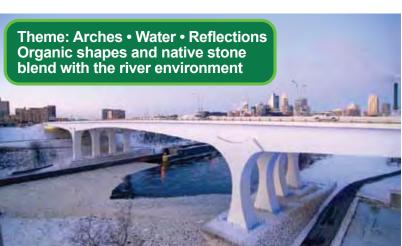






I-35W Bridge, MN FIGG Engineer of Record









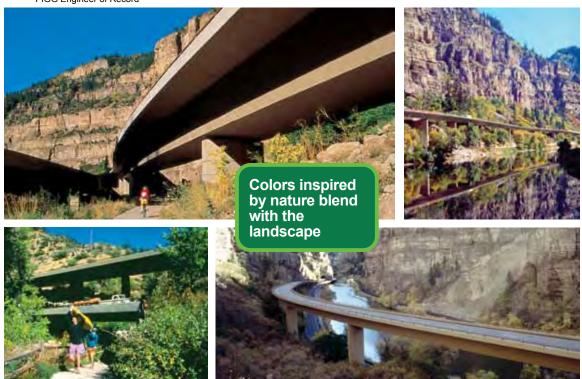




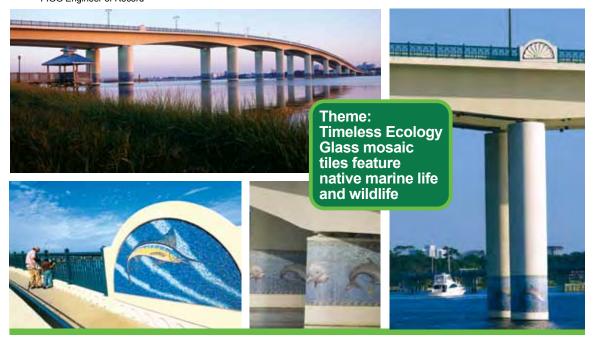


Aesthetics Inspired by Nature

Glenwood Canyon Bridges, CO



Broadway Bridge, FL FIGG Engineer of Record

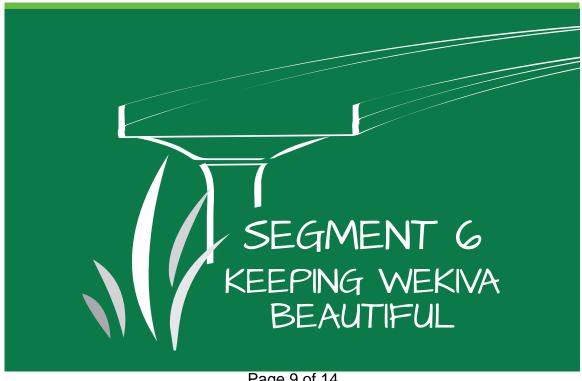








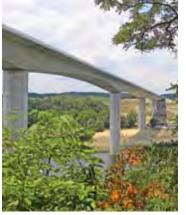




Aesthetics Inspired by Nature

Monongahela River Bridge, Pennsylvania FIGG Engineer of Record









Broadway Bridge, Florida FIGG Engineer of Record









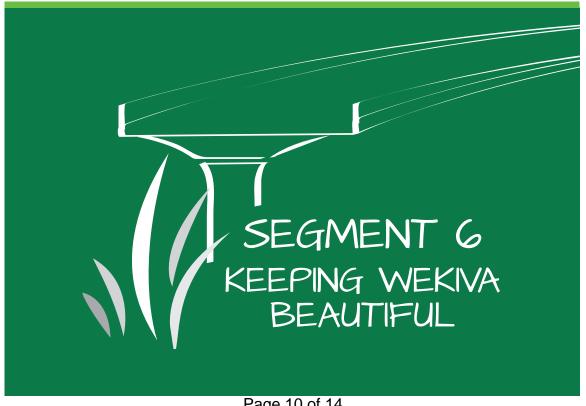










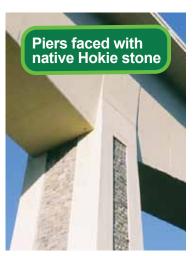


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Aesthetics Inspired by Nature

Smart Road Bridge, VA FIGG Engineer of Record









1-76 Allegheny River Bridge, PA FIGG Engineer of Record





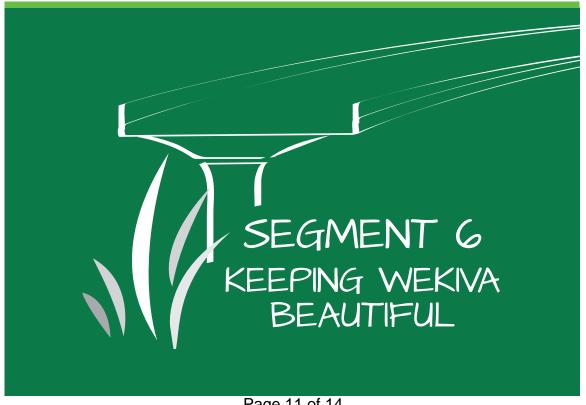










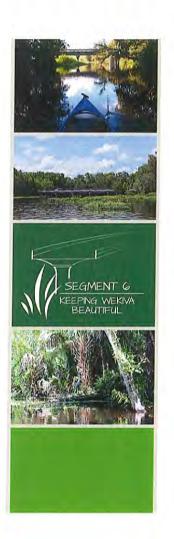




APPENDIX E

Bridge Design Workshop

PARTICIPANT COMMENT FORMS





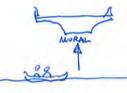
Wekiva River BridgesEnvironmental Park Bridge in Harmony with the Scenic River

June 18, 2013

Please Give Us Your Ideas!

- LOW LYING TREBS OVER THE WATER - RIVER GRASSES Describe considerations that are important to you for this new bridge. - PEDESTRIANS VIEW / EXPERIENCE - RECREATIONAL RIVER USERS VIEW / EXPERIENCE - HARMONY WITH NATURE & BLENDS WITH THE ENVIRONMENT ANY other ideas or suggestions? (Feel free to use the back for more space if you like) - ORGANIC STRUCTURAL SHAPES - CELEBRATION OF TREE AT WATERS EAGE LOW - A UNIQUE EXPEDIENCE FOR THE RECLEATIONAL RIVER USERS ("SURPRISE") - WIDER BRIDGE ON BOTTOM OF SIRDER AN IMPEN MYRAL (LIKE ON A SOUNDWALL BUT UNIQUE & M	Describe considerations that are important to you for this new bridge. - PEDESTRIANS VIEW EXPERIENCE - RECREATIONAL RUSEL USERS VIEW EXPERIENCE - HARMONY WITH NATURE & BLENDS WITH THE ENVIRONMENT Any other ideas or suggestions? (Feel free to use the back for more space if you like) - ORGANIC STRUCTURAL SHAPES - CELEBRATION OF TREE AT WATERS EDGE LOW - A UNIQUE EXPERIENCE FOR THE RECLEATIONAL RIVER USERS ("SURPRISE") - UNDER BRIDGE ON BOTTOM OF GIRDER AN IMPRIN		ematic appoaches for the bridge design shapes and features.
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MYRAL (LIKE ON A SOUNDWALL BUT UNIQUE & M	ELOBORATE). SIMILAR TO THE UNIQUE -	- A UNIQUE	STRUCTURAL SHAPES - PCELEBRATION OF TREE AT WATERS EDGE LOOK EXPELIENCE FOR THE RECLEATIONAL
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	hank You for your Input!	- A UNIQUE RIVER U	STRUCTURAL SHAPES - PCELEBRATION OF TREE AT WATERS EDGE LOOK ERPELIENCE POR THE RECREATIONAL SERS ("SURPRISE") UNDER BRIDGE ON BOTTOM OF SIRDER AN IMPRIN

please print





BOARDWAY BRIDGE WHITH THE TILE MURALS. MORESPECIFICALLY WITH THE TILE MURALS ON THE PEDESTICIAN WALKWAY THE HODEN STARS THAT PEDESTICIANS REALLY ENJOY. AND THE HODEN STARS IS A VERY SPECIFICALLY UNIQUE EXPERIENCE TO DNLY THE PEDESTICIANS WALKING/BIKING OVER THE BRIDGE. & THINK CANOERS WOULD LOVE OF UNIQUE EXPERIENCE WHILE GOING UNDER

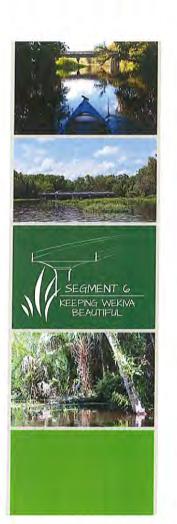
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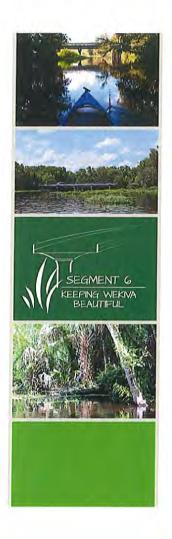
Wekiva River BridgesEnvironmental Park Bridge in Harmony with the Scenic River

Please Give Us Your Ideas!	
List three or more things that best describes the native environment around the bis such as particular types of flora and fauna. This is part of the brainstorming to creat possible natural thematic appoaches for the bridge design shapes and features.	ate
OF SPLIT RIVER AROUND ISLAND	
2. CYPRESS TREES,	
3. CONTRAST OF EVERGEEN & DECIDIOUS TREES	
4. WILDLIFE THAT GAN BE SEEN ON APPROACE	+
BETH JACKSON SAYS-WHATS NOTO LIKE?	
Describe considerations that are important to you for this new bridge. SHOULD HOT BE SE HEAL CONTRAST.	
LONG SPAT WIDE SPAN	
PERIDGE BECOW TREE LING	
WATER QUALITY	
Any other ideas or suggestions? (Feel free to use the back for more space if you like SHADE AND SHADOU EXTREMENT IMPORTANT	(e)
REMEMBER FIRE & SMOKE IMPACT	
CAN WE HAVE MORE INFO ON BEST DISTANCE	-
BETWEEN DECKE - 10' BEST?	
hank You for your Input!	
Name (optional): NAMOY PINE Email: MPLA BAOL, COM.	JAI.
iame (optional):	

POND ON M.E. QUAD.



TREES- CHPRESS AS APPROACH
- face TREES AS APPROACH
OPENINESS OF APPONICH W/ CLOSUPE
OPENINESS OF APPONICH W/ CLOSUPE
OF "SPUT" RUER AROUND ISLAND.





Wekiva River Bridges

Environmental Park Bridge in Harmony with the Scenic River

June 18, 2013

Please Give Us Your Ideas!

List three or more things that best describes the native environment around the bridge, such as particular types of flora and fauna. This is part of the brainstorming to create possible natural thematic appoaches for the bridge design shapes and features.

Describe considerations that are important to you for this new bridge.
Provide effective wildlife corridor for
provide effective wildlife corridor for terrestial animals, minimize intusion
into viver.
Design with visual elements that would maximize viver user enjoyment - I like
maximize viver user enjoyment - I like
ideal of user suprise when below bridge.
Any other ideas or suggestions? (Feel free to use the back for more space if you like)
Travels on Parkway will have a brief if any
View of river. Heed some method to have
travels' realize they are crossing a National
Wild and scenic viver and recognize the
signifocance of what was done in the design
process to maximize harmony with the
tenviron ment
Thank You for your Input!
Name (optional): Jue Bishop Email: Joseph. bishop D
please print from Florida. Co

will there we am and will there is to wind to so is a so is a







Wekiva River Bridges
Environmental Park Bridge in Harmony with the Scenic River

June 18, 2013

Please Give Us Your Ideas!

Describe considerations that are important to you for Blend into the existing snown Less pier's us to shorter low thee shape for piers, i'e: Cyps	nesting
Blend into the existing environme Less pier's us to shorter low Tree shape for piers, i'e: Cyps	
Blend into the existing environme Less pier's us to shorter low Tree shape for piers, i'e: Cyps	
Blend into the existing environme Less pier's us to shorter low Tree shape for piers. i'e: Cyps	
Blend into the existing environme Less pier's us to shorter low Tree shape for piers, i'e: Cyps	
Less pier's us to shorter low	his new bridge.
Less pier's us to shorter low	ent from Riveryions.
Tree shape for piers. ie: Cyps	
noise. The beauty of the 's	Assi Will last.
not to give up intregety ove	
Any other ideas or suggestions? (Feel free to use the b	
Safety walls that the roa	simple means.
Safety walls that the Roa	9 + caffic could
see over to view the war	as.
Thank You for your Input!	
Name (optional): Email: please_print	







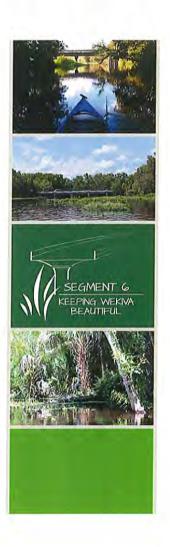
Wekiva River BridgesEnvironmental Park Bridge in Harmony with the Scenic River

Please Give Us Your Ideas!	
List three or more things that best describes the native environment around to such as particular types of flora and fauna. This is part of the brainstorming to possible natural thematic appoaches for the bridge design shapes and feat TROSS - CARS, MAPLE, FLOOD PLAID HARDWOODS	create
SHRUB LAYER- COLOR	
BURDLIFE - LARGE WADING BIRDS	
Describe considerations that are important to you for this new bridge. "WITCH QUALITY "Same planter botes of WITCH FULLIFE CORCIDURS - protecting wildlife from use of AESTHETICS "NO exotics in the Supplied the "Celebration of Theese wales edge" I Wed the "Celebration of Theese wales edge of the Supplied that the Supplied which wilder the Any other ideas or suggestions? (Feel free to use the back for more spacelly ground covers of foot of Dridge	n the brechicles landsca e visual houldbe
hosod	
one for herizontal span, another for vertically columns, a bried for base of columns (pie	ral ns)

Name (optional): Debaut Lulley Email) ebapah Julley & dep Jate Hu

good jub thus far -Keep those ideas coming...





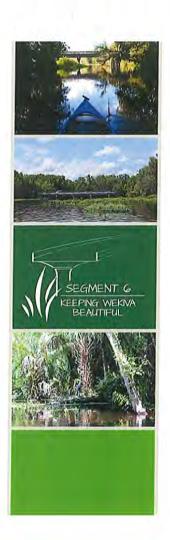


Wekiva River BridgesEnvironmental Park Bridge in Harmony with the Scenic River

June 18, 2013

	tic appoaches for the bridge design shapes and features. hardwards birds
bland Winn	s that are important to you for this new bridge. WINDIMON MONEY STILE TIDED FOR PIETS
	span @ bo' elev.
Any other ideas or sugg	pestions? (Feel free to use the back for more space if you like)
like it to	-1/1
	STOKN
	5102n)
Like Les of to Like Les of the Like Les of the Les of t	HI RS FERRARO Email: Chris. Ferraro adep.s







Wekiva River Bridges
Environmental Park Bridge in Harmony with the Scenic River

June 18, 2013	
Please Give Us Your Ideas!	
List three or more things that best describes the native environment around the bridge, such as particular types of flora and fauna. This is part of the brainstorming to create possible natural thematic appoaches for the bridge design shapes and features. Cypers had over swamp, cabbage forms with the sum of the bridge forms. They had no colored further water	
Describe considerations that are important to you for this new bridge, ecclusive colly-cencitive design portales a finctional pushings with aesthetically blends w sunor alings extential impacts to builds	الع
ny other ideas or suggestions? (Feel free to use the back for more space if you like) 1/4 ideas of: proise soul? Fed like trees (clobration concrete stourns similar to material registrations) / rivir solar perhaps vines / Ferns materials texture highlights	7
hank You for your Input! Janua (optional): Danua Smith Email: 453 @ UFI. edu please print	







Wekiva River BridgesEnvironmental Park Bridge in Harmony with the Scenic River

June 18, 2013

Please Give Us Your Ideas!

Tush age	atic flora
	s around every corner
Surprise	s around every corner
A	ns that are important to you for this new bridge.
	etics
cohesi	veness with natural environment
interact	on between people and their environ
Cypress knees	gestions? (Feel free to use the back for more space if you like) provide Support For Cypress trees supports could mimic this t and approximate.
Cypress knoes Orida essec	provide support for cypress trees of supports could mimic this it and appearance.
Cypress knoes	provide support for cypress trees of supports could mimic this it and approximance.







Wekiva River Bridges
Environmental Park Bridge in Harmony with the Scenic River

June 18, 2013

Thank You for your Input!

rkley Email: alice. Berkley@ ocfl.net Name (optional):_





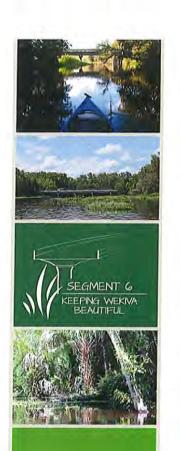


Wekiva River BridgesEnvironmental Park Bridge in Harmony with the Scenic River

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Please Give Us Your Ideas!	
such as particular types of flora and for possible natural thematic appoaches	cribes the native environment around the bridge, suna. This is part of the brainstorming to create for the bridge design shapes and features.
rippling water	
documbin)	
Describe considerations that are imported to the safety for wild	rtant to you for this new bridge. PNYVON MENT
Any other ideas or suggestions? (Feel from the band with vagatation	ree to use the back for more space if you like) gu from undense afr hanging from the
- or orge	
Thank You for your Input!	
Name (optional):	Email:
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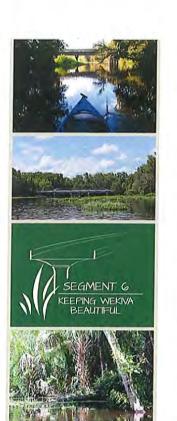


Wekiva River BridgesEnvironmental Park Bridge in Harmony with the Scenic River

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List three or more things that best describes the native environment around the bridge, such as particular types of flora and fauna. This is part of the brainstorming to create possible natural thematic appoaches for the bridge design shapes and features. TREES (FLOODPLAIN HARD WOODS) PALM ETTOS FERNS LARGE WADING BIRDS
The way of the second
Describe considerations that are important to you for this new bridge.
WATER QUALITY
AESTHETIC,
RESTORATION OF NATURAL HABITA (POST CONSTRUCTION)
Any other ideas or suggestions? (Feel free to use the back for more space if you like) <u>CECEBRATION OF TREES AT WATER'S</u> EDGE
SURPRISE BLUE UNDERSIDE BRIDGE
Thank You for your Input!
Name (optional):Email:
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Wekiva River BridgesEnvironmental Park Bridge in Harmony with the Scenic River

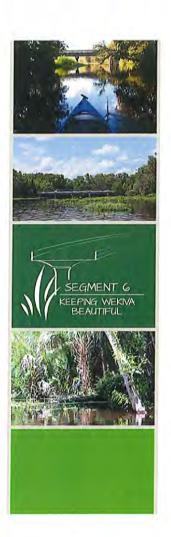
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such as particular types of flora and fauna. This is part of the brainstorming to create possible natural thematic appoaches for the bridge design shapes and features.
The abordance OF trees + plant
life, wildlife suchas alligators
turtles + wading birds that utilize
the river, the slow Flow of the water
+ the way the surlight reflects off the surface of the shadows that create,
surface of the shadows that create,
Describe considerations that are important to you for this new bridge,
The bridge Needs to be designed
The bridge Needs to be designed to disappear into the landscape
Design of the structure to so that it minimizes
the impact on the river users experience.
Minimization of Noise
Any other ideas or suggestions? (Feel free to use the back for more space if you like)
Coloring + textoring shoold minic the
to dappling effect that occurs when soulisht
hits the leaves of the trees, piers could
be constructed to look like the
buttresses OF cypress trees
0
hank You for your Input!

Name (optional): Beth Jackson Email: beth please print







Wekiva River BridgesEnvironmental Park Bridge in Harmony with the Scenic River

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Wees.		(Nadins Bi	25.
Palmetto	5	0	
Ferns.			
Describe consideration	ons that are impor	tant to you for this new	bridge.
11/0/1/e	Corri	acc	
water q	vality		
(
Any other ideas or sug	ggestions? (Feel fr	ee to use the back for n	nore space if you like)
			2000
			×
		(v)	
Thank You for your Inp	out!		
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Wekiva River Bridges

Environmental Park Bridge in Harmony with the Scenic River

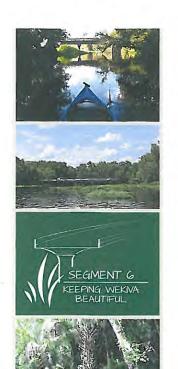
June 18, 2013

Please Give Us Your Ideas!

List three or more things that best describes the native environment around the bridge, such as particular types of flora and fauna. This is part of the brainstorming to create possible natural thematic appoaches for the bridge design shapes and features.

Describe considerations that are important to you for this new bridge. Any other ideas or suggestions? (Feel free to use the back for more space if you like) Thank You for your Input! MAN Email: NChRIST Name (optional): NANCY







Wekiva River BridgesEnvironmental Park Bridge in Harmony with the Scenic River

June 18, 2013
Please Give Us Your Ideas!
List three or more things that best describes the native environment around the bridge such as particular types of flora and fauna. This is part of the brainstorming to create possible natural thematic appoaches for the bridge design shapes and features. FLOOD PLATIN WETLANDS WETLAND HABITATS APPLICATIONS BLACK BEAR WILDLIFE CORRIDOR
Describe considerations that are important to you for this new bridge. BLENING INTO THE MATURE ENVIRONMENT
PROVIDING A VIDE ENOUGH SPAN TO ACCOMMODATE
DRENCONAGE WILDGE PASSAGE PROVIDING A PEDESTRIAN / BIKE ELEMENT
Any other ideas or suggestions? (Feel free to use the back for more space if you like)
Thank You for your Input!
Name (optional): Tony Matthews Email: tmatthews (a) please print Seminolecounty FL. gov





APPENDIX F

Final Bridge Design Charette 1
SIGN-IN SHEETS



WENIVA PARKWAY (22)









Final Bridge Design Charette #1 SR 429/SR 46 Wekiva Parkway Wekiva River Bridges December 11, 2013

Sign-In

Phone	5 296-943-56x1	178H MH 858	850 444269	40.445 8398	352.343.9641 x 5400	407-330-6727	409-836-5850	1 401-665-7536	4114 - 1897-4114	C485-789 504	W 407-69-4503	1250905TOY	w 407-330.6727		427 622-178	407 898 9200	407 884 2006	402-884-0A
Email	human homandars dot state 916 - 943-5621	latest lebertsones "	THOMAS. 4 MORES POT 5 7418: FLUE 850 44 4269	S. BOYLAN & GASCONYLANT, COM	rhartenstein Dlake countyfl. gov	Virginia, oros @ deg. state, Fi. 65, 407-330-6727	alice Berkley Orcflinet	tmattheirs @ seminale Couty Fly god	christeriar Ddesistate Ilina Un7-897-4114	Isa prather a do State P. U.S.	INFO @ WELLIMPHRELLY/CON 407-69-45 575	TRobertage Sciences inc. com	Barbara, Howello de o. state fl. w	JETF_ DUUCHUR NPS.CON	CUEFA ANDISS. 26	NPLA @ How.com	12my Conyus sate 5/15	Warren paph Odesp. state f. 1.15 407-884-2006
Name	Hannah Henrandux	lebert Reberton	TOM ANOTOS	STEVE SOVINA	KICK HARTENSTEIN	Virginia Oros	Alice Berkley	Tony Matthews	CHRIS FERRARD	Lisa Prather	Man groots	Tow Roberts	Barbara Howell	JEFF DUDGA	CHASTES CO.	HANCY PLINE	Amy Carners	Women Perju



WEKIVA PARKWAY 429 Completing Central Florida's Betway



Final Bridge Design Charette #1 SR 429/SR 46 Wekiva Parkway Wekiva River Bridges



December 11, 2013





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APPENDIX G

Final Bridge Design Charette 1

AGENDA





FINAL BRIDGE DESIGN CHARETTE #1

SR 429/SR 46 Wekiva Parkway Wekiva River Bridges

December 11, 2013

Financial Project ID: 238275-7-32-02 Lake and Seminole Counties



SEGMENT 6

Prepared for: Florida Department of Transportation, District Five Prepared by: Figg Bridge Engineers, Inc.



FINAL BRIDGE DESIGN CHARETTE#1

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013

9:00 AM-9:05 AM Sign In

9:05 AM-9:15 AM Welcome Remarks and Introductions

Alan Hyman and Kevin Moss, FDOT

Overview - Linda Figg, FIGG

9:15 AM-9:20 AM Overview of Agenda

9:20 AM-9:25 AM Charette Process Goals and Objectives 9:25 AM-9:40 AM Project Overview - Bridge Site Review

and Vistas

9:40 AM-10:00 AM Bridge Project Development Criteria and

Geometry

10:00 AM-10:10 AM Discussion on Project Development

10:10 AM-10:25 AM Break/Discussions

Bridge Aesthetics and Bridge Theme Selection

Linda Figg, FIGG

10:25 AM-10:35 AM Presentation on Bridge Aesthetics and

Review of Wekiva Bridge Items for

Selection

10:35 AM-10:45 AM Review of WRSAMC Workshop Initial

Theme Ideas

10:45 AM-11:10 AM Presentation on Project Theme
11:10 AM-11:35 AM Discussion on Project Theme

11:35 AM-11:55 AM Participants Vote on Project Theme
11:55 AM-12:10 PM Public Comments, Limited to 3 Minutes

Each, Alan Hyman, FDOT

12:10 PM-1:10 PM Lunch/Discussion

Bridge Style Preferences (Shapes, Shadows, Textures, Colors)

Linda Figg, FIGG

1:10 PM-1:30 PM Presentation on Bridge Style Preferences
1:30 PM-1:55 PM Discussion on Bridge Style Preferences
1:55 PM-2:20 PM Participants Vote on Bridge Style

Preferences

2:20 PM-2:35 PM Break/Discussion



Outstandingly Remarkable Values (ORV) Initiatives

Dwight Dempsey, FIGG, Tom Roberts, E Sciences,

Brad Bauknecht, FDOT

2:35 PM-2:55 PM Presentation on Outstandingly Remarkable Value Initiatives

2:55 PM-3:20 PM Discussion on Outstandingly

Remarkable Value Initiatives
3:20 PM-3:45 PM Participant Comment form on

Outstandingly Remarkable Value

Initiatives

3:45 PM-4:15 PM Summary of Preferences Selected and

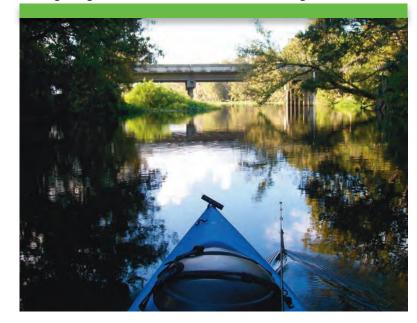
Discussion of Next Steps

4:15 PM-4:30 PM Public Comments, Limited to 3

Minutes Each, Alan Hyman, FDOT

4:30 PM Adjourn

Existing Bridge Viewed From Wekiva River Looking South





APPENDIX H

Final Bridge Design Charette 1
PRESENTATION



Final Bridge Design Charette #1

with the National Park Service and FDOT

Wekiva River Bridges

in Harmony with the Scenic River



December 11, 2013





Welcome & Introductions



Lead Agency





Project Management, Roadway Design, Stormwater Design



Wekiva River Bridge Design



Environmental



Noise Analysis



Roadway Design, Stormwater Design



Geotechnical

Welcome & Introductions



FDOT - District 5

Alan Hyman, P.E.
Director of Transportation Operations

Kevin Moss, P.E. Project Manager

Hannah Hernandez Permit Coordinator



National Park Service

Jeff Duncan, PhD Southeastern Rivers Program Manager Rivers, Trails and Conservation Assistance

Jaime Doubek-Racine Regional Program Manager Rivers, Trails and Conservation Assistance

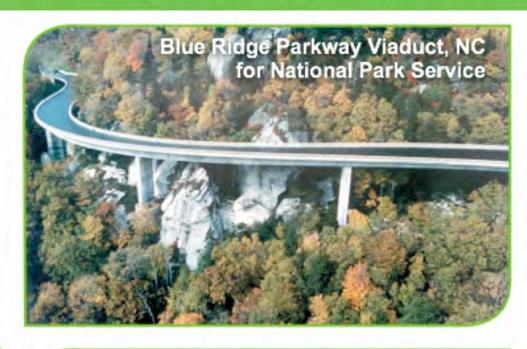


US Army Corps of Engineers

Andrew Phillips Project Manager

Your Bridge Design Team

Linda Figg
President / Director Of Bridge Art
Dwight Dempsey, P.E., S.E.
Bridge Design Manager









Design Charette 1 Agenda

Process Goals and Objectives

Project Overview

Discussion of Bridge Aesthetics and Bridge Theme Selection

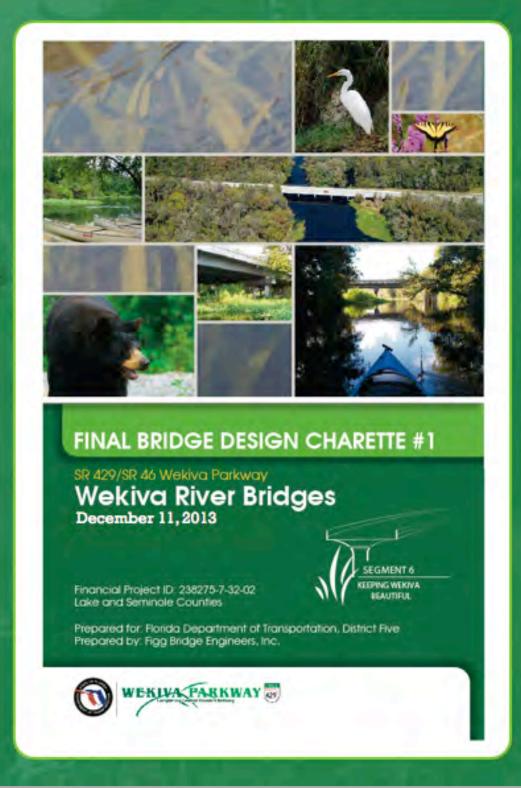
Bridge Style Preferences (Shape, Shadow, Textures, Colors)

Outstandingly Remarkable Values (ORV) Initiatives Discussion and Feedback

Summary of Design Charette #1

Discussion of Next Steps

Adjourn





GOALS

Public Involvement Process Goals & Objectives

Gain input from the stakeholders through open communications throughout design.

Through the Design Charettes, participants come together to select key aesthetic features and incorporate Outstandingly Remarkable Values (ORV's) for the new bridge.



Final Bridge Design Charette Process Goals & Objectives

TIVE

Develop a solution that recognizes and protects the Outstandingly Remarkable Values (ORV's) of the Wekiva River

Achieve a design that allows for streamlined Section 7(a) approval

Create a bridge that is beautiful, functional and compliments the landscape with context sensitive design

Bridge

and ORV's

while minimizing contrast

Summary of Project Development and Environmental Phase (PD&E)

Prior Preliminary Design Charettes

> March 2 & 3, 2011 April 20, 2011 July 13, 2011

Viewsheds of the bridge site were identified

Vertical bridge profile to maximize wildlife movement and minimize site contrast.



New service road alignment to the South of the mainline Parkway bridges

Natural Inspiration as a common theme for development for aesthetics

Separated bridges for light penetration

Summary of PD&E Phase

The Segmental Concrete Box Girder was the preferred bridge type by a substantial margin as selected by the attendees at the July 11, 2011 Charette



Commitments as stated in FONSI, May 2012

FDOT has made the following commitments to the National Park Service (NPS):

To clear span the waters of the Wekiva River with the proposed Wekiva River bridges

To coordinate with the Wekiva River System Advisory Management Committee on final design

To obtain the Wild and Scenic Rivers Act Section 7(a) determination from NPS prior to approving the final design Federal Highway Administration Florida Division

ADMINISTRATIVE ACTION FINDING OF NO SIGNIFICANT IMPACT

U.S. Department of Transportation Federal Highway Administration and Florida Department of Transportation, District Five In cooperation with the Orlando-Orange County Digitationary Audhority Financial Management Number(s): 238275 1 22 01 and 240200 1 22 01 Indexal Aid Project Number(s): TCSP 025 U and TCSP 024 U

> Weliva Parkway (SA 429)/SR 46 Buolignment Orange, Lake, and Seminole Counties. Florida

Weides Parkersy (SR 429)

From US 441 (SR 500)/John Land Apopie Expressesy (SR 429;SR 424) Incerchange, Grange County

to SR 417)-4 (SR 800) Interchange, Seminole County

SR 4E Pareligrement From US 4K2 (SR 500)/SR 45 Interchange, Lake County to Wisking Parisony (SR 429), Orange County

The geopened action is construction of the Wolden Farkway, a new four-tana/six-lane divided limited access tolled expressions to complete the Western Beltway (SK 429) around the metropelitan Orlando area from Apacita to Crange County to Senford in Senioral County; realignment of CR 46A in Lake County on gent of the Western Parkway project; reconstruction of the existing SR 46 facility in Lake County and Mount Done to previde its land divided controlled-access from US 441 to east of Round Lake found and the realignment of SA 45 as a limited access tolled aspectationy from east of Round Lake found to come systems insurchange with Weldow Parkway near the Orange/Lake County line.

Submitted pursuant to 42 U.S.C. 4332 (2Hc)

5/11/12 Date Division Administrator
Federal Highway Administration

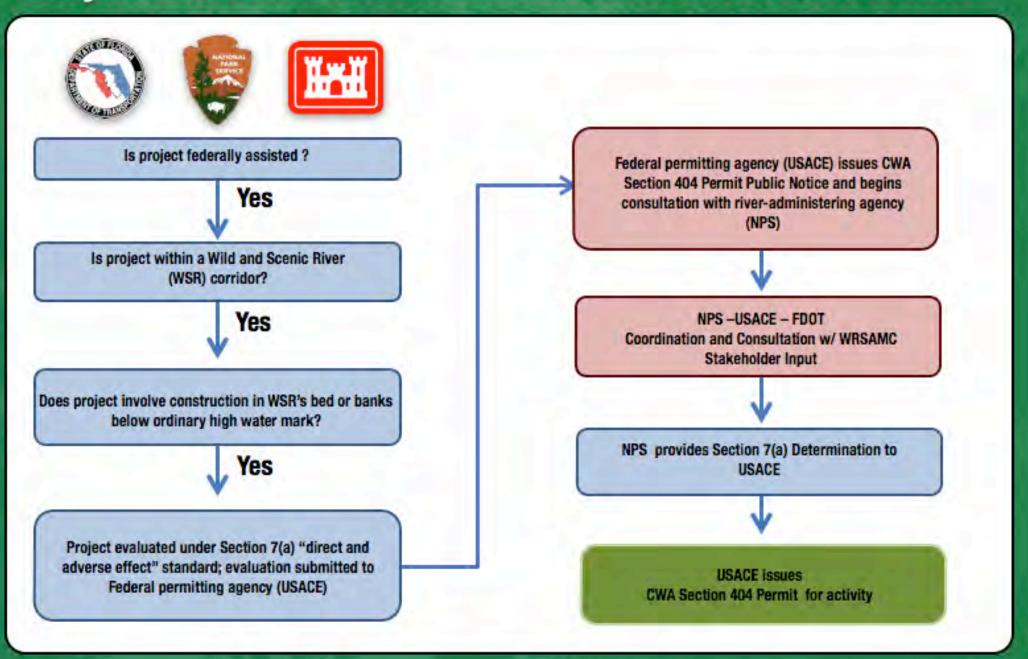
The Federal Highway Administration (FHWA) has determined that this project will not have any significant impact on the environment. This Finding of No Significant impact is based on the attached Environmental Accessment which has been independently evaluated by the FHWA and determined to administrately and accertably discass the environmental issues and impacts of the proposal project and appropriate mitigation measures. It provides sufficient evidence and shalps for determining that an invironmental impact Statements is not required. The FHWA takes fall responsibility for the eccuracy, scope, and content of the stached Environmental Assessment.

A Sustainable Bridge That Achieves NPS Goals For This Scenic River Crossing

- Main span length of at least 300' to clear span the Wekiva River
- Design principals to blend the bridge with the environment repeating the landscape's visual element of form, line, color and texture
- Enhance area through greater natural lighting and reduced auditory levels
- Enhance recreational experience for river users
- Optimize connectivity of wildlife corridor under bridge
- Preserve water quality



Section 7(a) Flowchart for a Water Resources Project "within" a Wild and Scenic River Corridor



Stakeholders Workshop - June 18, 2013

FDOT Urban Office in Orlando, Florida at 2PM.









Bridge Design Workshop with the National Park Service and FDOT Wekiva River Bridges

Environmental Park Bridge In Harmony with the Scenic River







Stakeholders Workshop June 18, 2013 - Key Discussion Items

New Bridge Viewsheds

How Aesthetically Pleasing Bridges are Created

Final Bridge Design Charette Process

Bridge Type
Approach Structure
Main Span Structures
Construction Operations

Bridge Geometry

Group Discussions on Bridge Geometry (Vertical Height)

Theme Ideas/Distribute Form to Solicit Written Comments

Stakeholders Workshop - June 18, 2013

Group brainstorming of ideas for aesthetic themes

Participants
identified local
influences to provide
design inspiration







Meeting and Charette Schedules

NPS/FDOT Workshop	Jun. 18, 2013
Bridge Design Charette 1	Dec. 11, 2013
Bridge Design Charette 2	Jan. 28, 2014
Public Information Meeting	Spring 2014

Bridge Design Charette 1 Key Steps/Procedures

Follow a set agenda

Present options

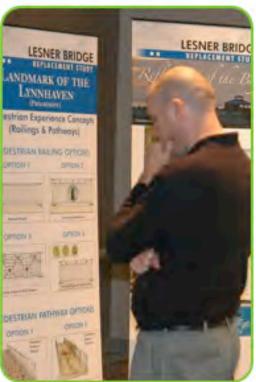
Encourage open discussion

Provide handouts on information presented

Record preferences







Recording Preferences

Voting forms to record bridge design preferences are provided on each agenda topic

Example

1	2	3	4	5	6	7	8	9	10
Disli	Dislike			Neutral				Like	

Comments:

Like =10

Neutral = 5

Dislike = 1

Design Charette Voting Forms

Please completely fill-in only one red box as shown below, and use only the black pens provided on the tables.





Site Features Katie's **Landing Park** 1 Mile from Bridge Wekiva River Lower Wekiva Aquatic Preserve State Park Seminole State Forest SR 46 Wekiva River Bridge 46 Wekiva River Oaks Foxspur **Rock Springs Run** State Reserve 46 Peachtree Lane Estates at Wekiva Park Wilson's **Landing Park** 0.5 Miles from Bridge

Katie's Landing Park (1 Mile north of bridge along the river)









Wilson's Landing (0.5 Miles from bridge along the river)

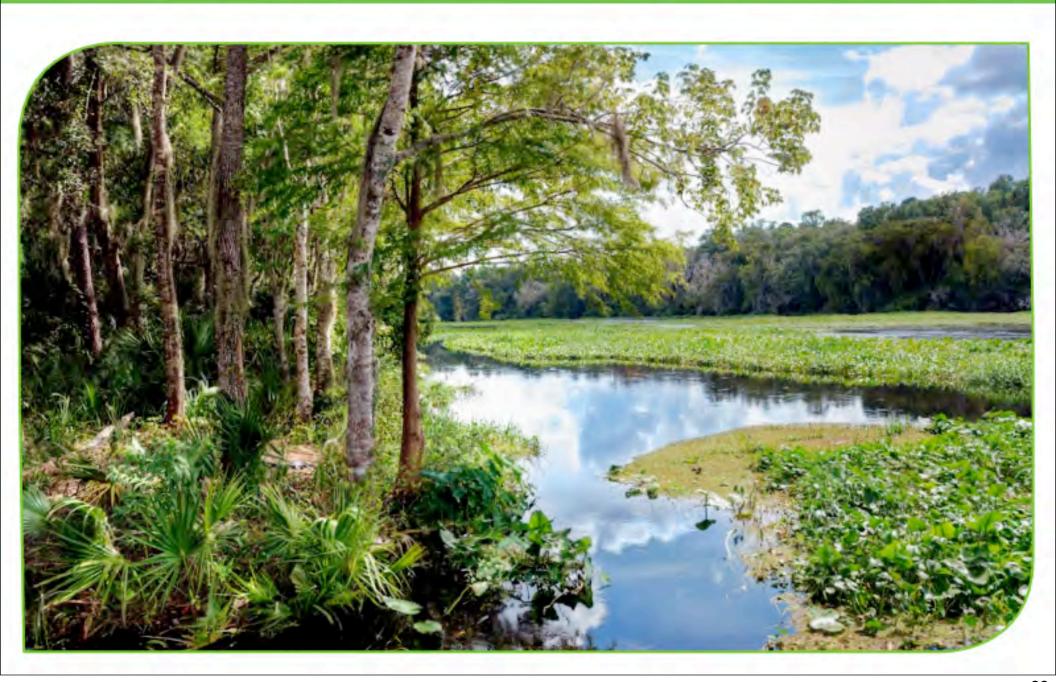








Picture Taken On East Bank From Wilson's Landing



Important Vistas Identified



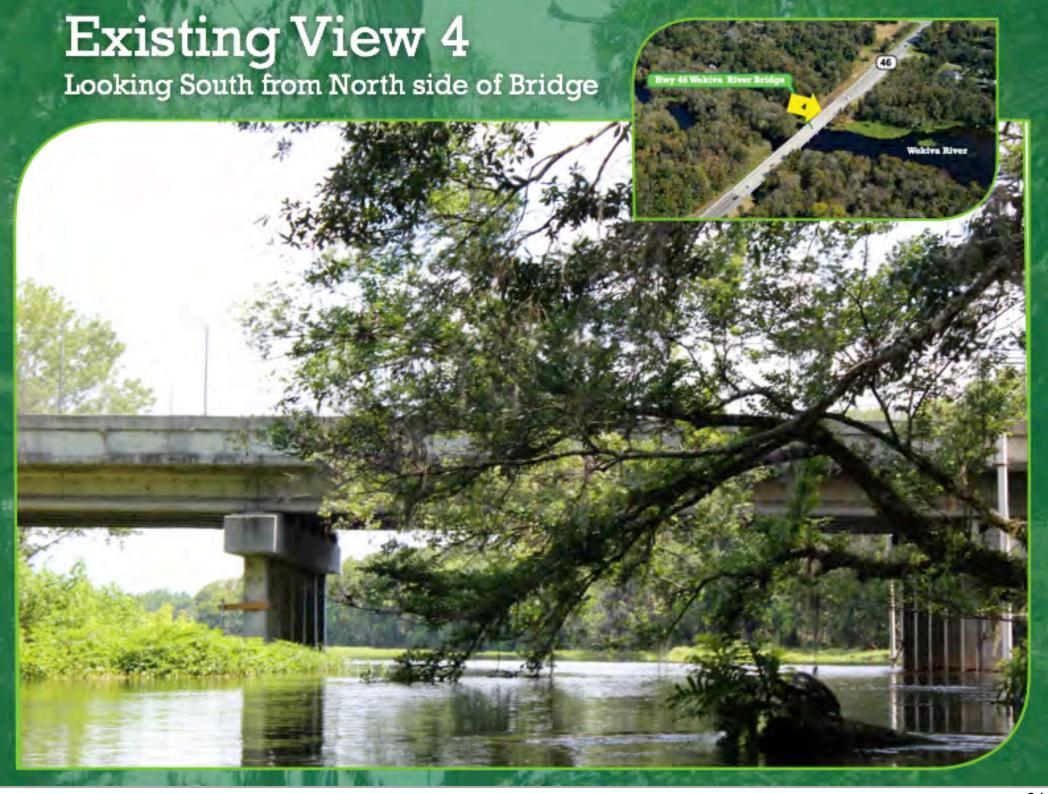
Important Vistas Identified

























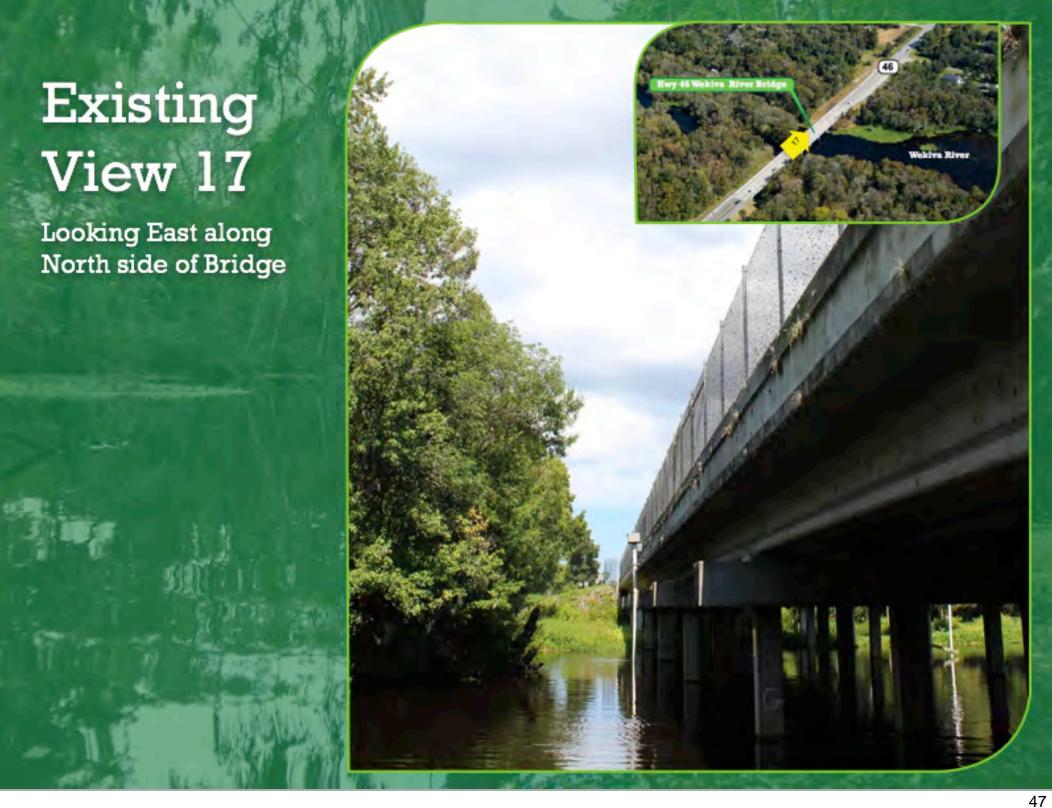






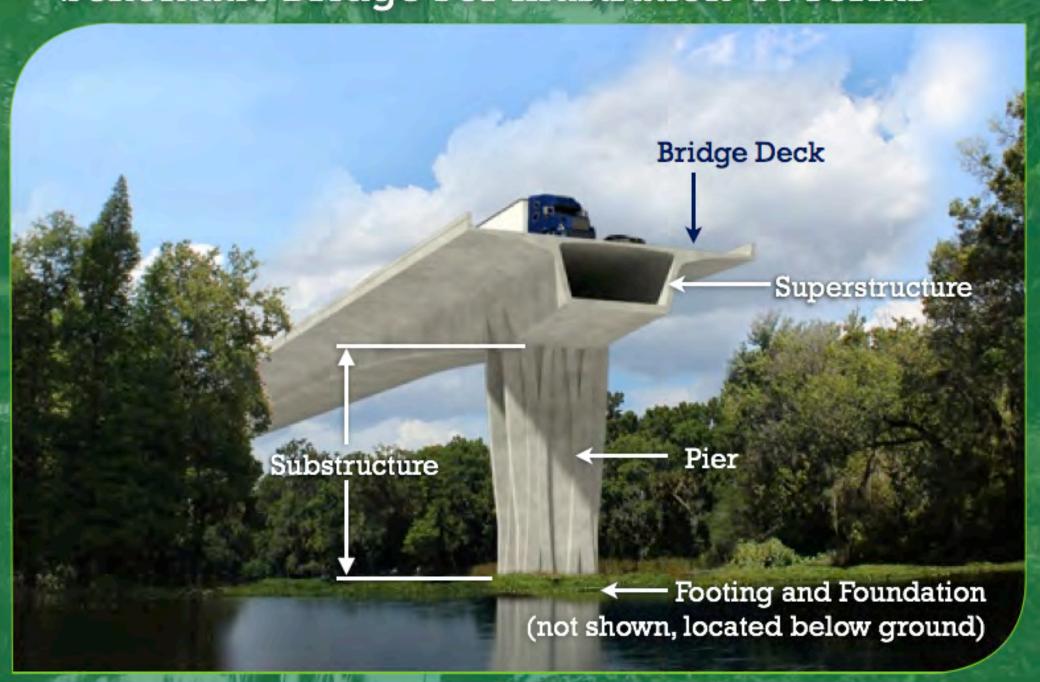








Bridge Terminology Schematic Bridge For Illustration Of Terms

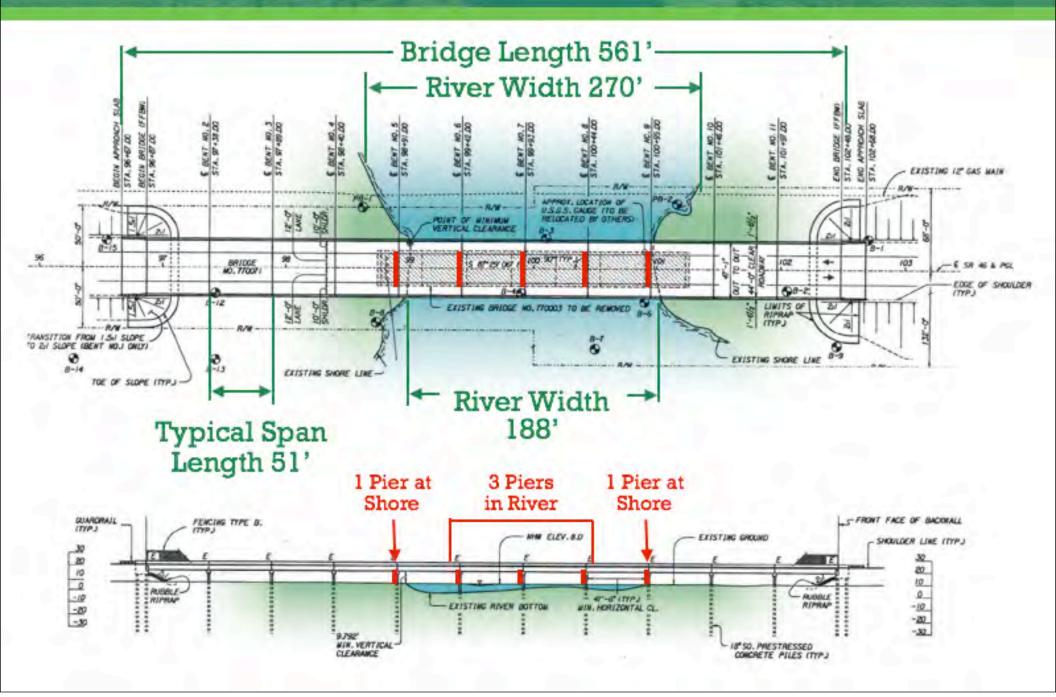


Existing Bridge Layout

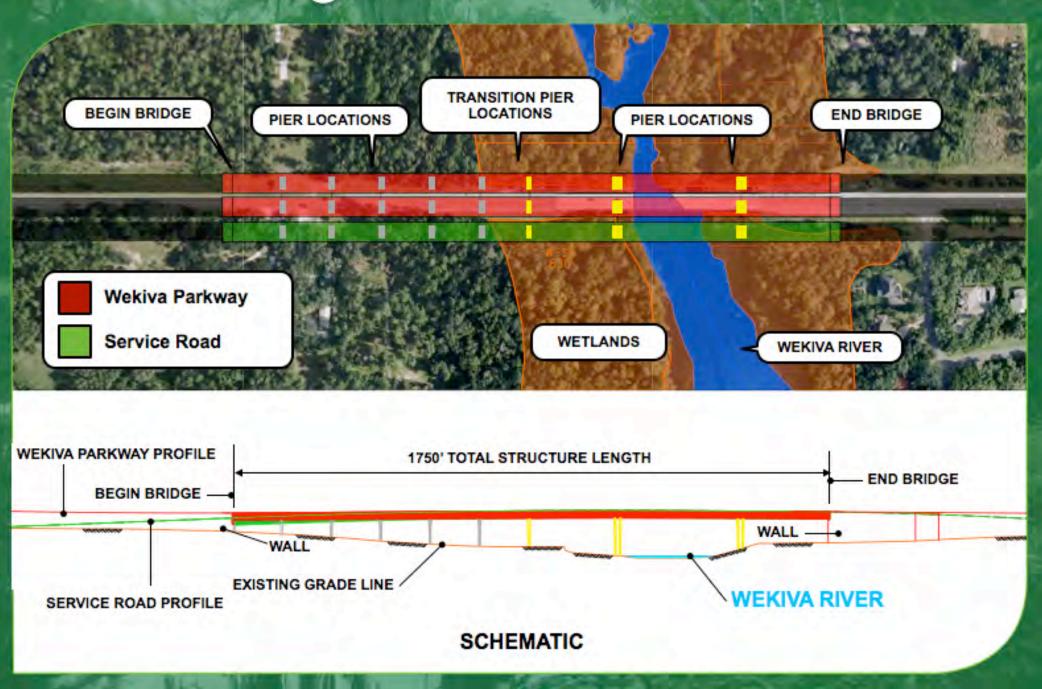


Total Bridge Length – 561'
(11) 51' Spans
River Width - 188' at existing bridge (270' just north)
Three (3) pier bents located in the river

Existing Bridge Layout



New Bridge Plan and Profile



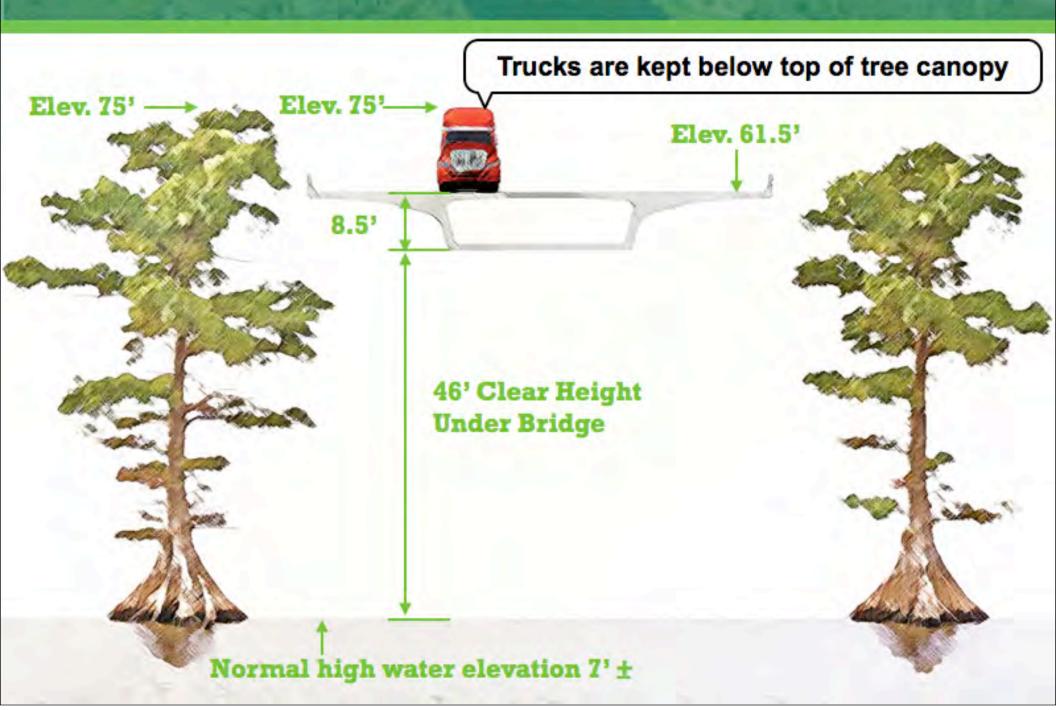
Bridge Vertical Profile

Important Criteria From Bridge Design Workshop on June 18, 2013

"Provide a bridge profile where the bridge and vehicles on top are kept below top of tree canopy"



Selected Bridge Vertical Profile

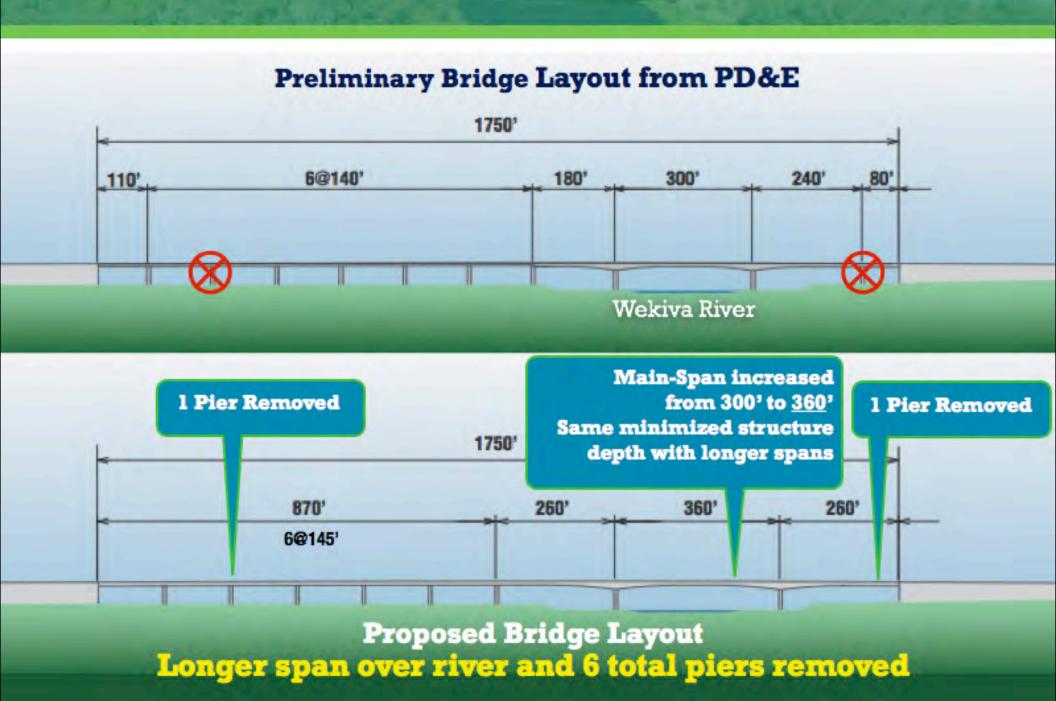


Final Bridge Vertical Profile



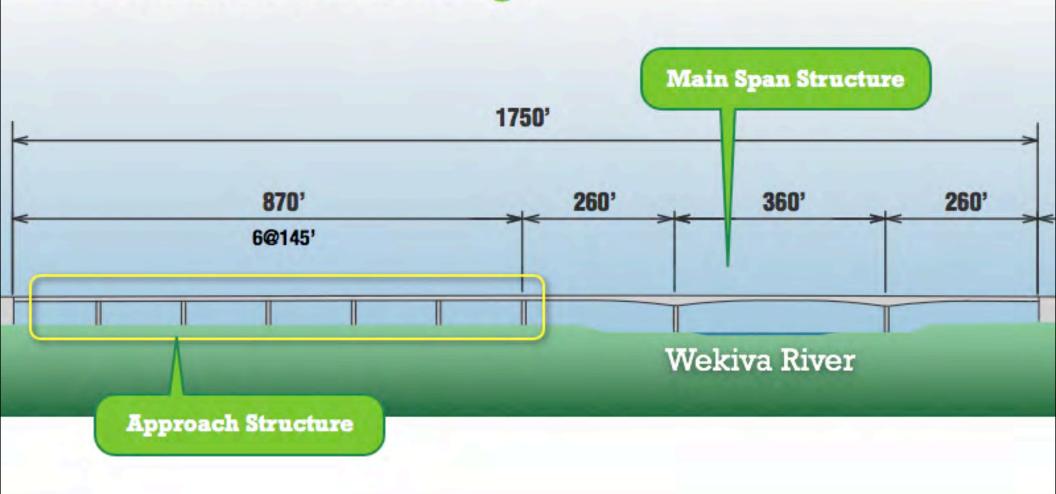


Enhanced Design Preserves Environment

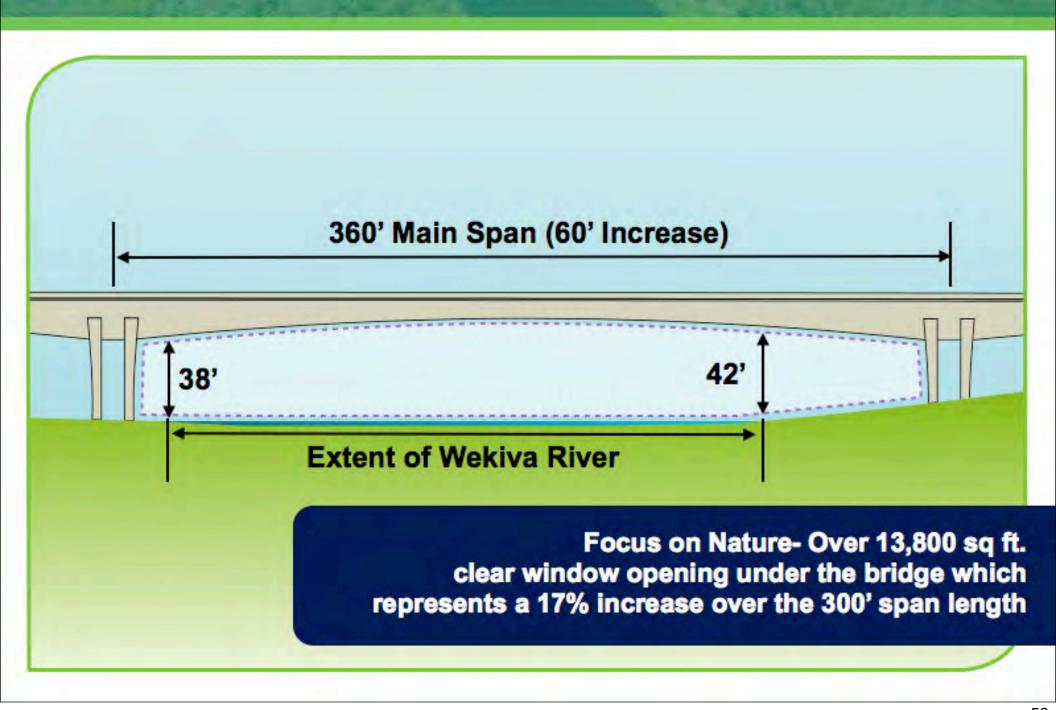


Proposed Bridge Layout

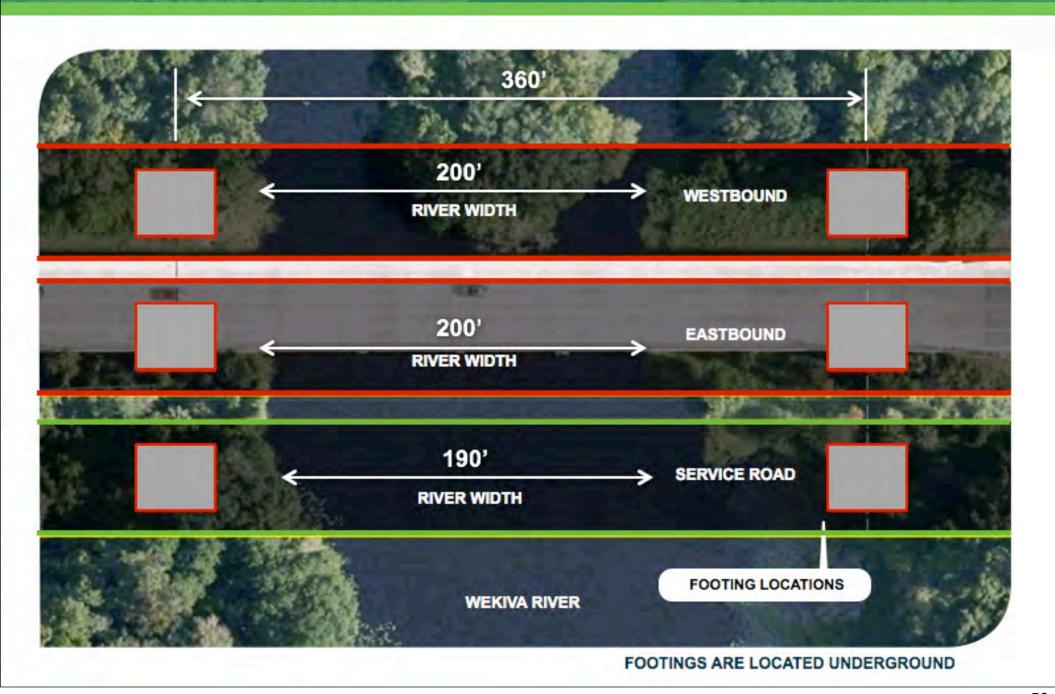
Different structure types are being evaluated for the two sections of bridge



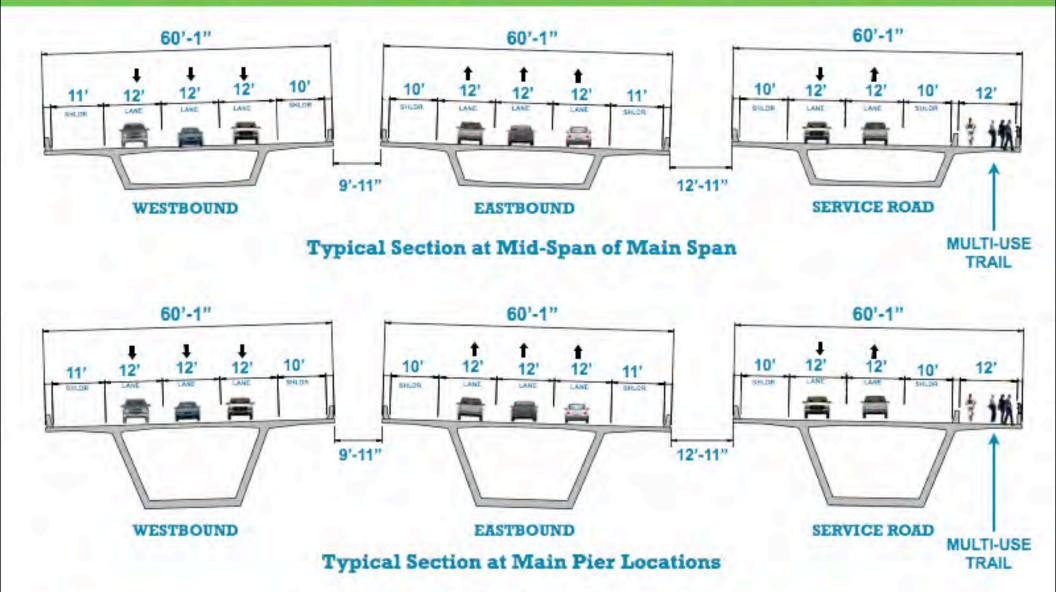
Openness of Longer Span over River



Openness of Longer Span over River



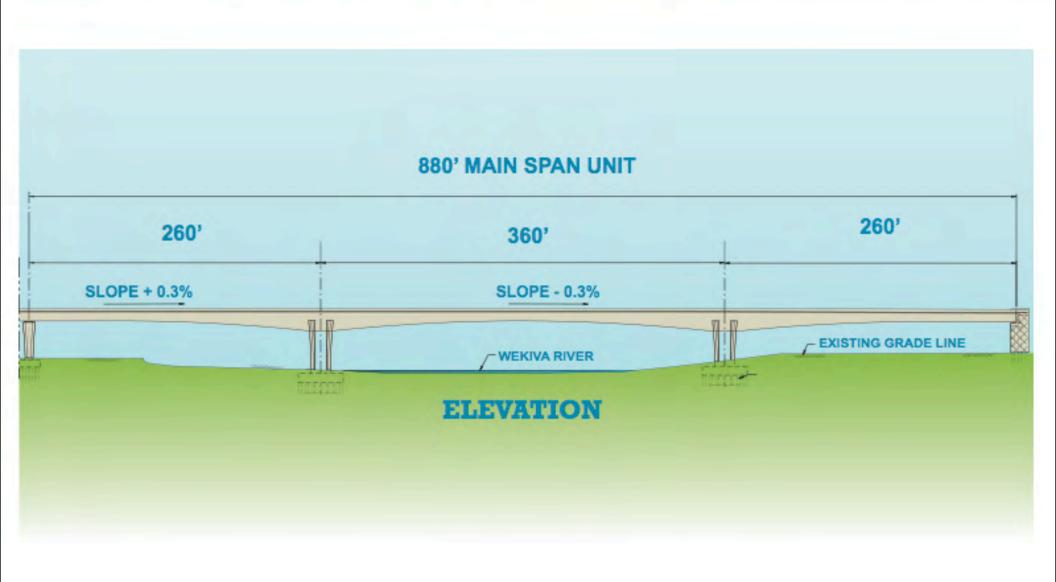
Typical Cross Sections



Showing ultimate configuration.

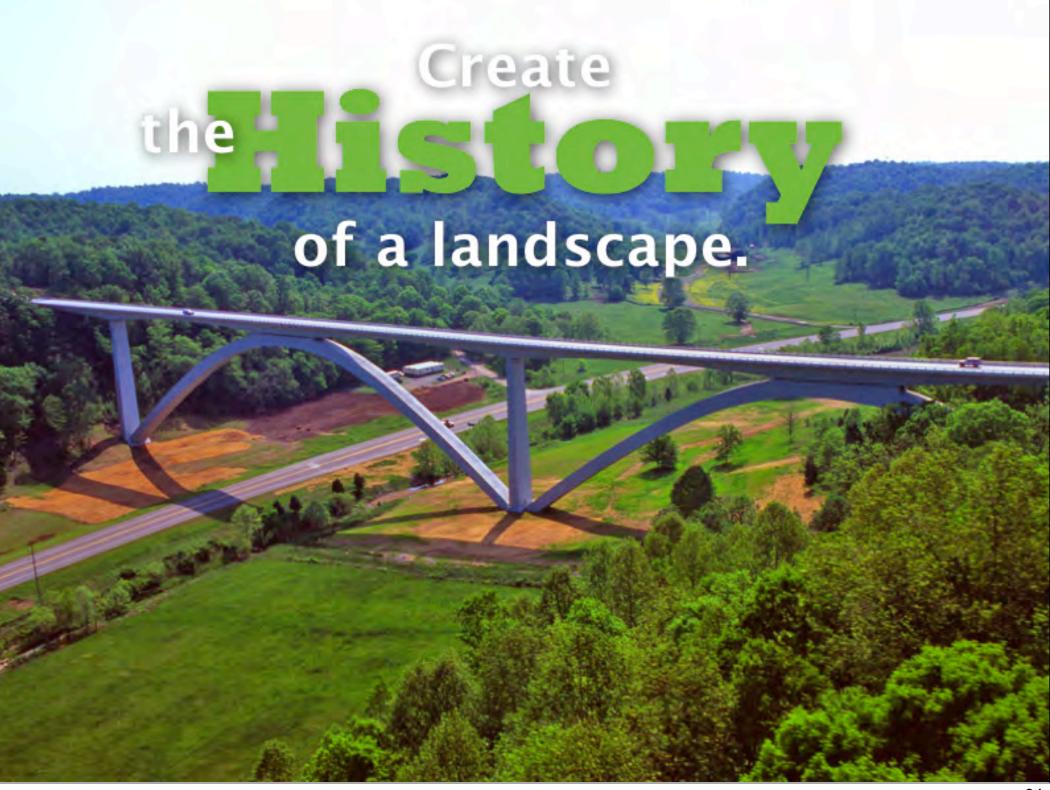
Parkway bridges will have 2 lanes in each direction for initial configuration.

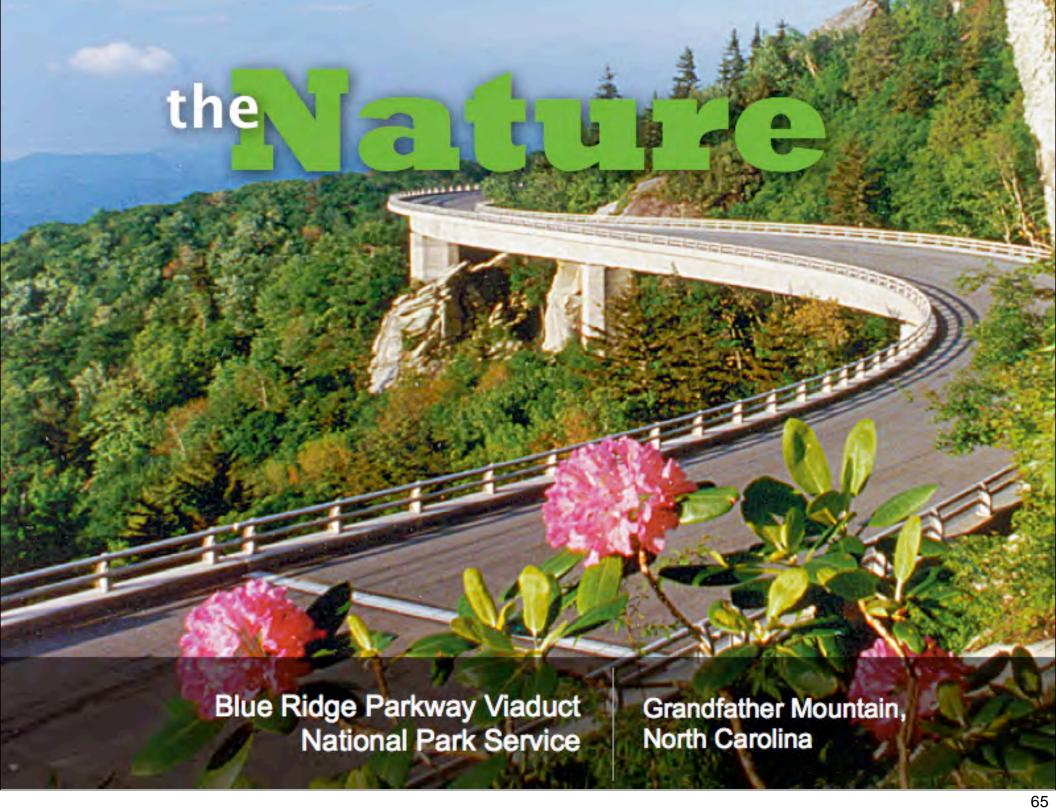
Main Span Unit Layout

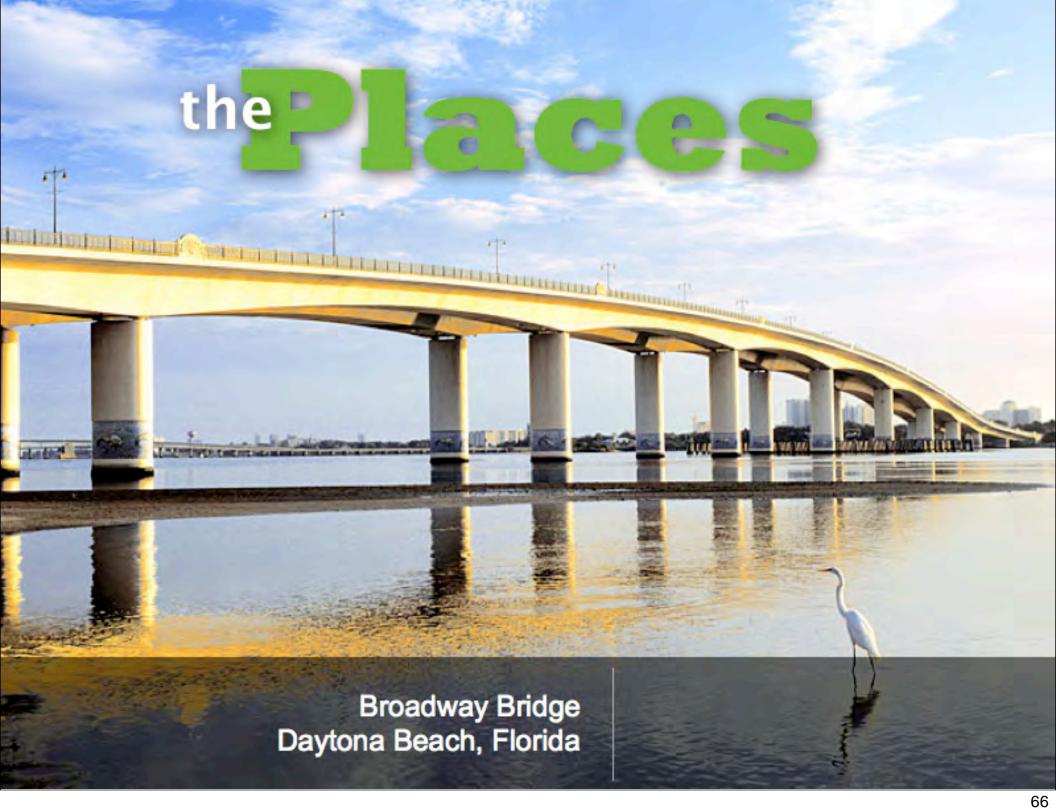






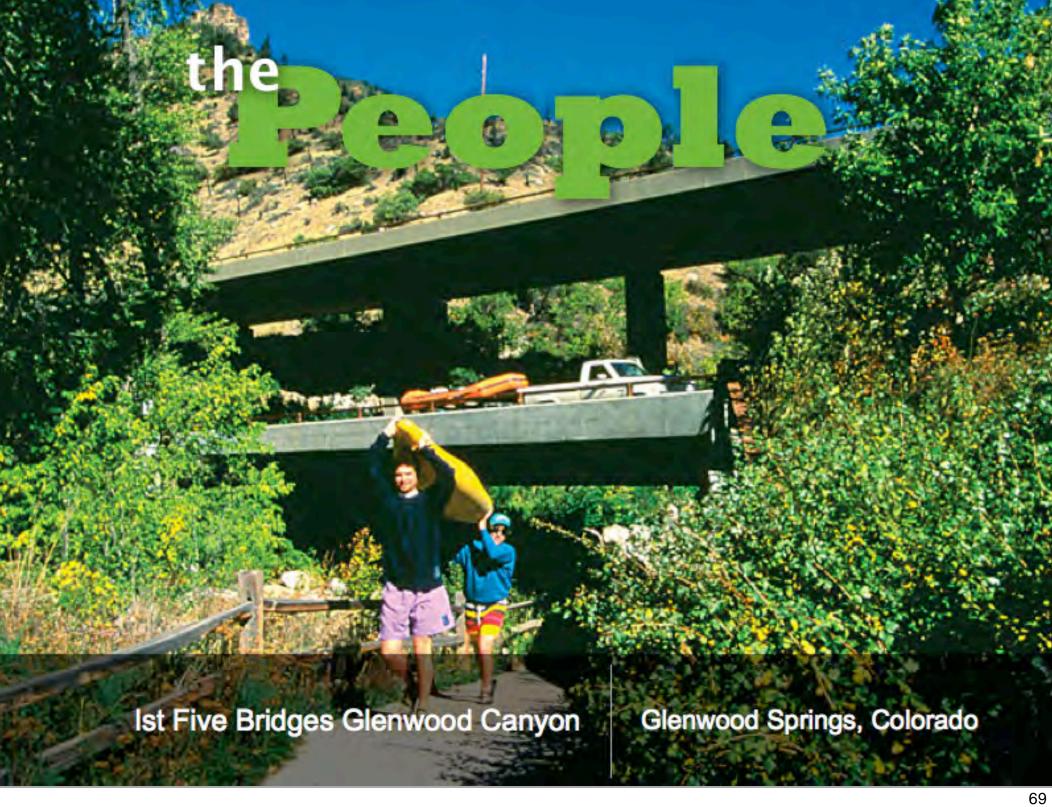


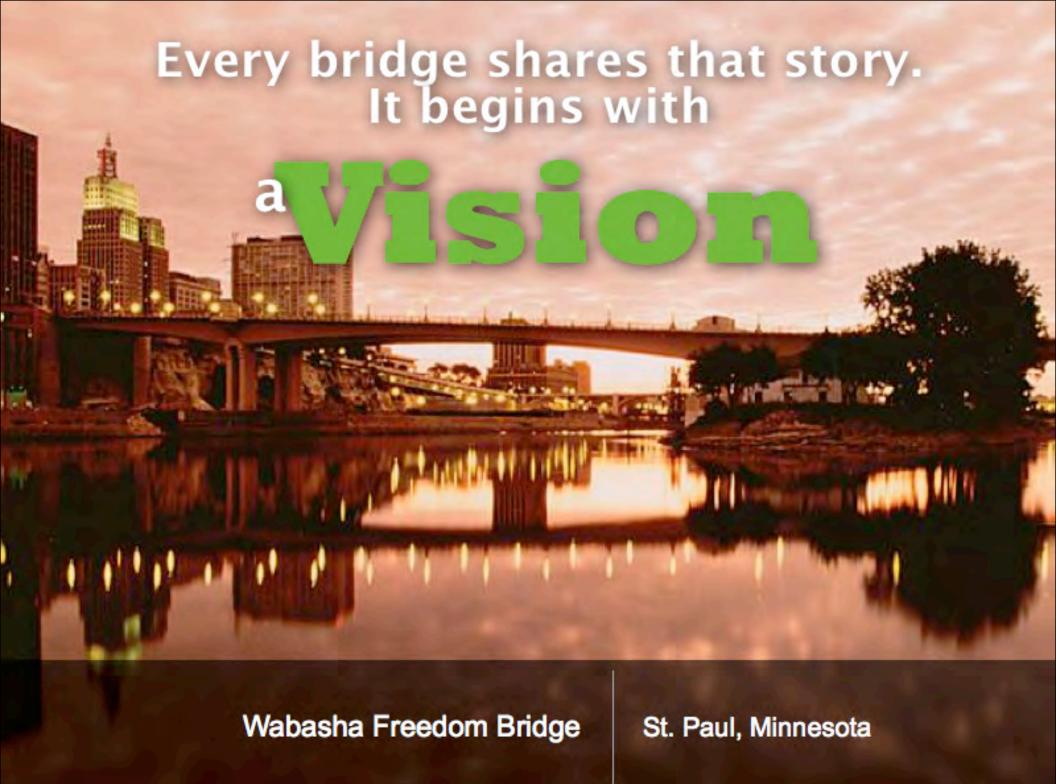






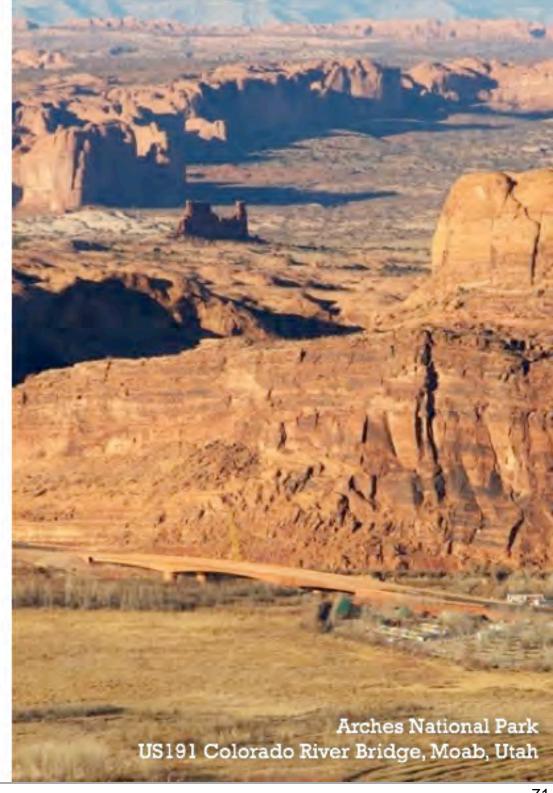






Applying FIGG Archetypal Design Principals

Establish a Theme
Blend Shapes
Create Shadows
Select Appropriate Textures
Choose Pleasing Colors
Open New Vistas
Use Native Materials
Incorporate Landscaping



To Be Aesthetically Pleasing, A Bridge Must:





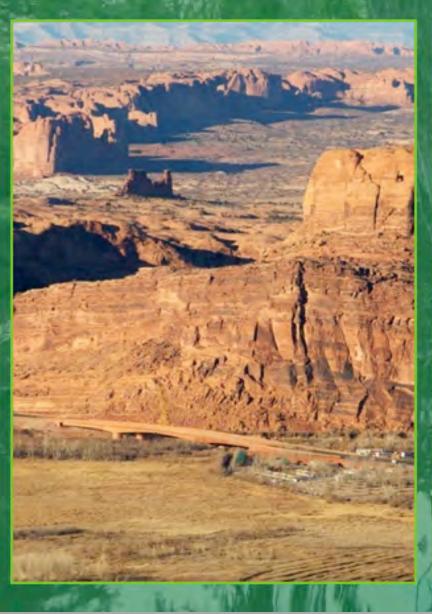
Be Functional

Be Economical

Satisfy Cultural Needs

Be In Harmony with the Environment

Functional Bridge Sculpture















Review of June 2013 Workshop Initial Theme Ideas

Question 1 -

Things that best describe local environment?

Question 2 -

Important Considerations for this new bridge?

Question 3 – Other Ideas and Suggestions?



16 comment forms were returned

Review of June 2013 Workshop Initial Theme Ideas









Reflective Blue Color Emphasizes The Open Blue Sky Background



Question 1 – Things that best describe local environment?

River

- "Openness of the river"
- "Flowing tannic colored river water"
- "Rippling water"
- "The slow flow of water and the way the sunlight reflects off the surface and the shadows it creates"
- "Water reflections"

Trees

- "Low lying trees over the water"
- "Trees; Cypress knees and trees, palms, oaks, palmettos"
- "Contrast of evergreen and deciduous trees"
- "The abundance of trees"

Question 1 – Things that best describe local environment?

Plants/Vegetation

- "Dense vegetation, River grasses, Ferns, Vines"
- "Aquatic plants in water away from shoreline"
- "Lush aquatic flora"
- "Blooms"

Wildlife

- "Birds, turtles, black bears, white-tailed deer, otters, raccoons"
- "Alligators, turtles"
- "Nesting birds, wading birds"

Question 2 – Important Considerations for this new bridge?

River User Experience

- "Design with visual elements that would maximize river user enjoyment – I like the idea of user surprise when below the bridge"
- "I liked the surprise blue ceiling underneath the bridge to look like the sky.....should be reflective, not comic like"

Blend Bridge with Environment

- "Harmony with nature and blends with the environment"
- "Should not be of high contrast, minimize visual contrast"
- "The bridge needs to be designed to disappear into the landscape"

Question 2 – Important Considerations for this new bridge?

Piers

- "Tree shape for piers, i.e. cypress tree"
- "Like waterside trees for piers"

Long Span

- "Wide span bridge below tree line"
- "Minimize intrusion into river"
- "Like long span at 60' elevation"

Noise

- "Minimization of noise"
- "Sound buffering"
- "Quiet/noise reduction"

Question 2 – Important Considerations for this new bridge?

Wildlife

- "Protect effective wildlife corridor for terrestrial animals"
- "Wildlife corridors protecting wildlife from vehicles"
- "Ecologically-sensitive design provides a functional passageway for wildlife"
- "Safety for wildlife"

Preservation of Environment

- "Water quality"
- "Minimize tree removal during construction"
- "Restoration of natural habitats (post construction)"

Wekiva River Themes







Blooms Along the River







Celebration of Trees on the Rivers Edge







Tribute to Nature on Wekiva







Tribute to Water on Wekiva



Blooms Along the River - Button Bush







Blooms Along The River - Spiked Gayfeather



Blooms Along the River - Magnolia Blossoms







Blooms Along the River - Butterweed





Blooms Along the River - Florida Bellflower



Blooms Along the River - Cardinal Flower





Blooms Along the River - Scarlet Hibiscus





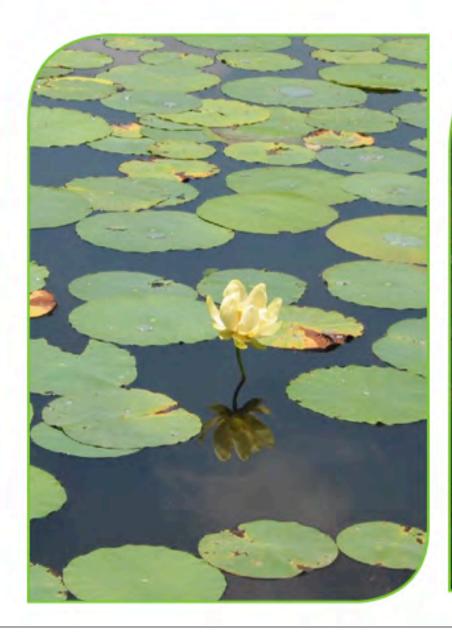


Blooms Along the River - Swamp Sunflower





Blooms Along the River - Yellow Lotus





Blooms Along the River - Shiny Lyonia



Blooms Along the River - Skyflower



Blooms Along the River - Beauty Berry









North Of The Bridge, Tree Overhanging River



Trees Near the Existing Bridge - Cabbage Palms





Trees Near the Existing Bridge - Cypress Trees





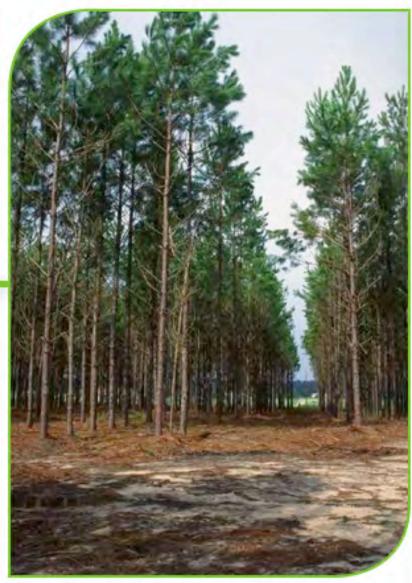
Trees Near the Existing Bridge - Longleaf Pines





Trees Near the Existing Bridge - Slash Pines

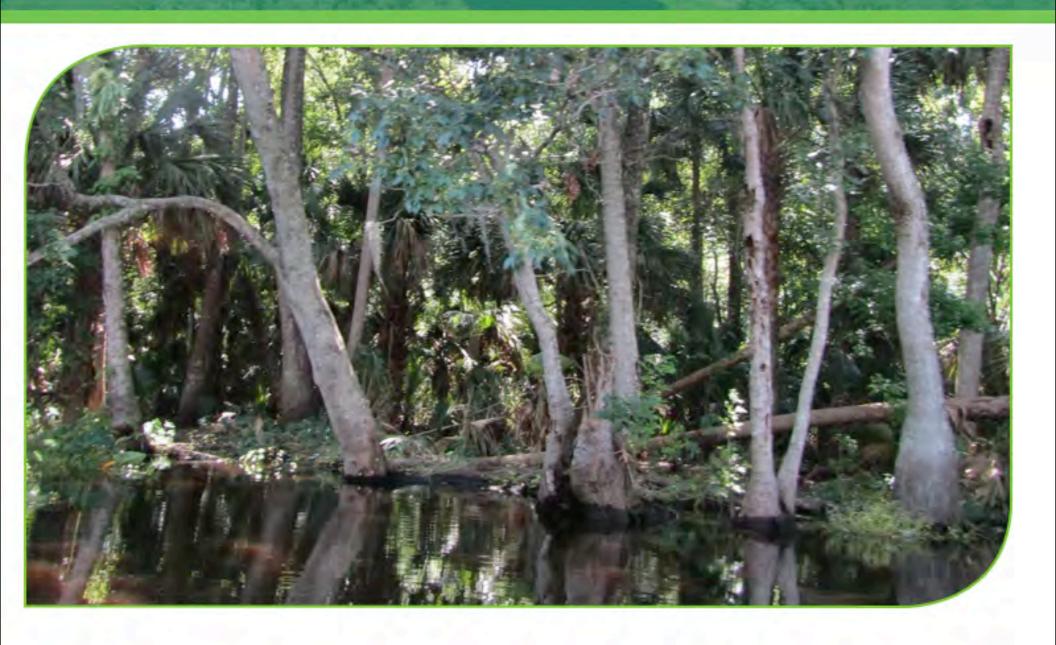




Trees Near the Existing Bridge - Oak Trees



Trees Near the Existing Bridge - Tupelo Trees



Trees Next to Existing Bridge - Overall Views









Trees Along 1 Mile Stretch of Existing Bridge









Trees Along 1 Mile Stretch of Existing Bridge







Trees Along 1 Mile Stretch of Existing Bridge







Celebration of Trees on the Waters Edge





Branches Extending over Water

Contrast between Deciduous & Evergreens



Cabbage Palm



Floodplain Hardwoods



Cypress Tree Knees



Tribute to Nature on Wekiva - Wading Birds



Florida Sandhill Crane



Great Egret



Limpkins



Great Blue Heron



Ibis



Green Heron



Red-bellied Woodpecker



Wood Duck



Osprey



Warblers





Spiked Gayfeathers

Ferns

Witch Hazel



Typical Sandhill Habitat



Flowering Dogwood



Large Mouth Bass



River Otter



Blue Gills



White-tailed Deer



Sherman's Fox squirrels



Eastern Box Turtle



Alligator



Wild Turkey



Bald Eagle



Manatee



Florida Black Bear





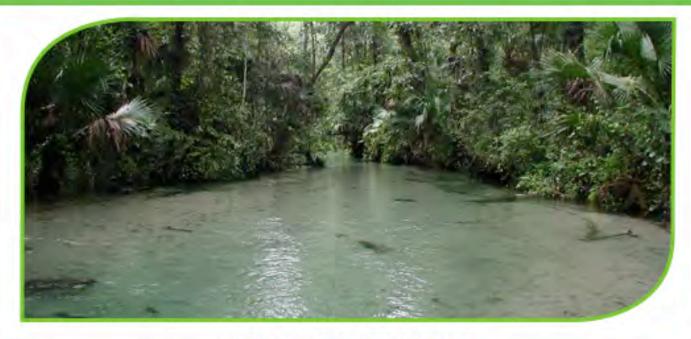
Relaxing Respite



Creating Life on the River



Adventure Awaits



The River Sparkles



Movement of Water



Serenity



Outdoor Excitement



Gathering Place



Flow of Water on the Surface



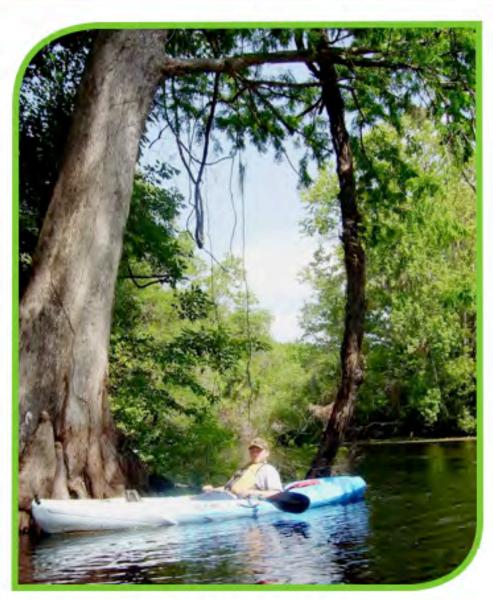
The Waters Reflection



Life in the Water



Roadway to Discovery



Kayakers Dream



Tannic Color



Rippling Water



Dappling of Colors



Soft Flow of Water



Reflections

Wekiva River Themes







Blooms Along the River







Celebration of Trees on the Rivers Edge







Tribute to Nature on Wekiva







Tribute to Water on Wekiva

Blooms Along the River





Blooms Along the River





Celebration of Trees on the Rivers Edge





Celebration of Trees on the Rivers Edge





















Discussion on Project Theme







Blooms Along the River







Celebration of Trees on the Rivers Edge







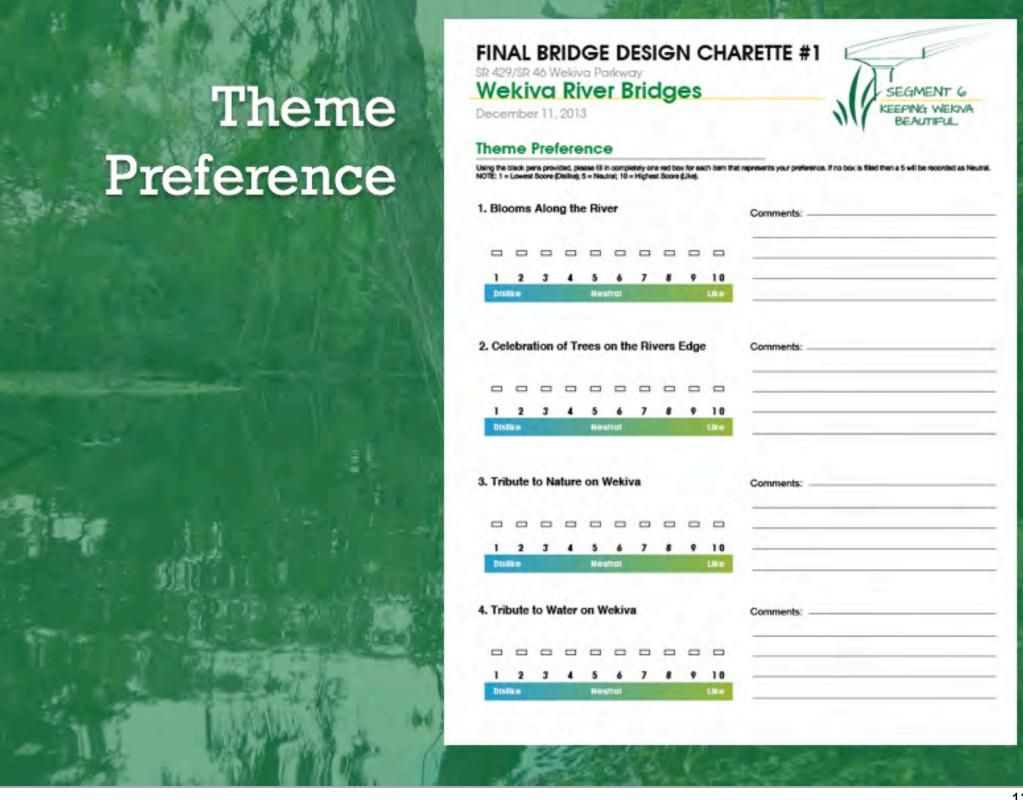
Tribute to Nature on Wekiva







Tribute to Water on Wekiva





Wekiva River Bridges In Harmony with the Scenic River

Begins With A Theme

The "Theme" will be the inspiration for creating many bridge features using bridge archetypal design principals. Various options of shapes, shadows, texture, and color will be explored with the theme in mind. These options will be presented at Final Bridge Design Charette #2 for selection of favorite design.

SHAPES & SHADOWS

Examples of bridge pier shapes with rounded/organic styles and angular styles:

Rounded/Organic



Elliptical Pier with Glass Mosaic Tiles Broadway Bridge, Florida



Rounded Pier Selmon Expressway, Florida



Curved/Open pier US 280 Elevated Roadway, Alabama



Sculptural Slender Pier New I-35W Bridge, Minnesota

Angular



Tapered Pier with Local Stone Smart Road Bridge, Virginia



Angular Pier Victory Bridge, New Jersey

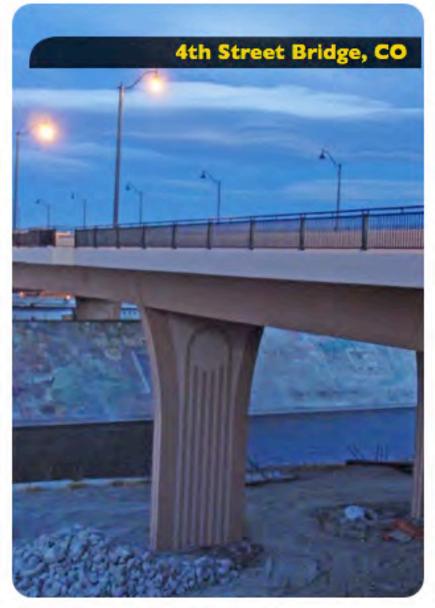


Angular Slender Pier 17th Street Bridge, Florida



Angular Pier Wabasha Freedom Bridge, Minnesota

Shapes and Shadows



Angular



Rounded

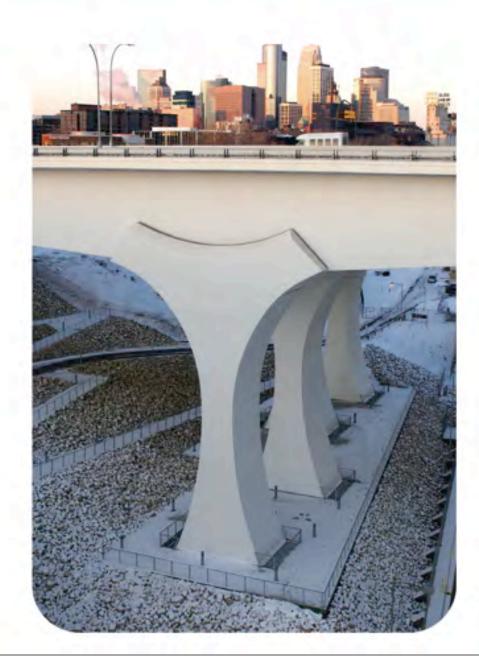
Structures are designed to compliment surrounding features

The appearance of elements can be changed using shadows cast by shapes

Example of Curved/Open pier

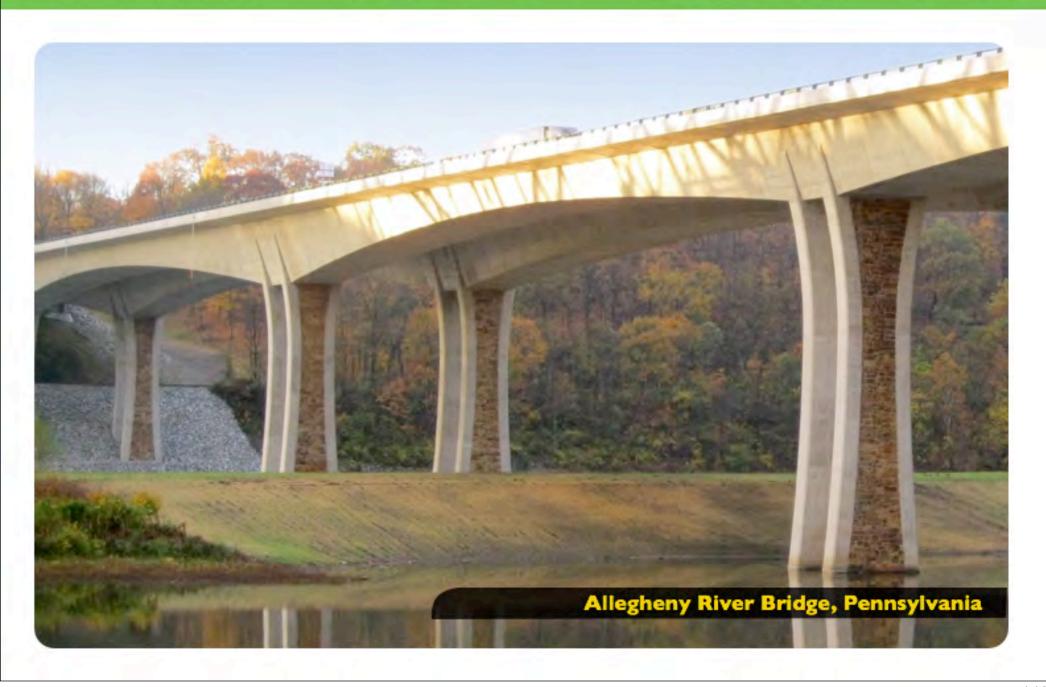


Example of Curved Pier

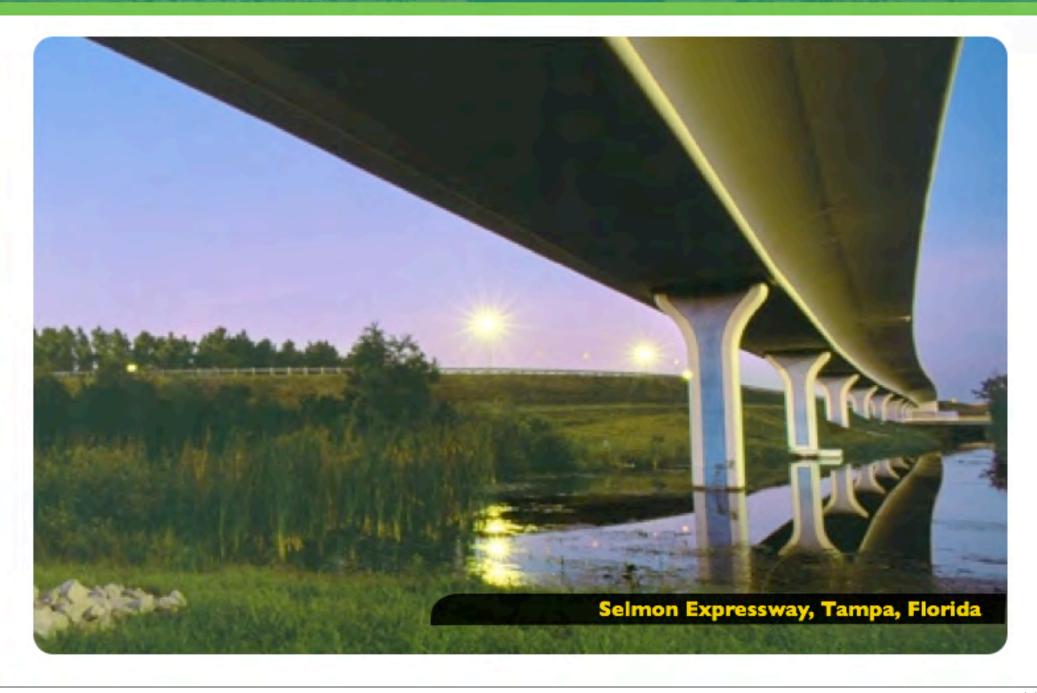


New I-35W Bridge, Minnesota

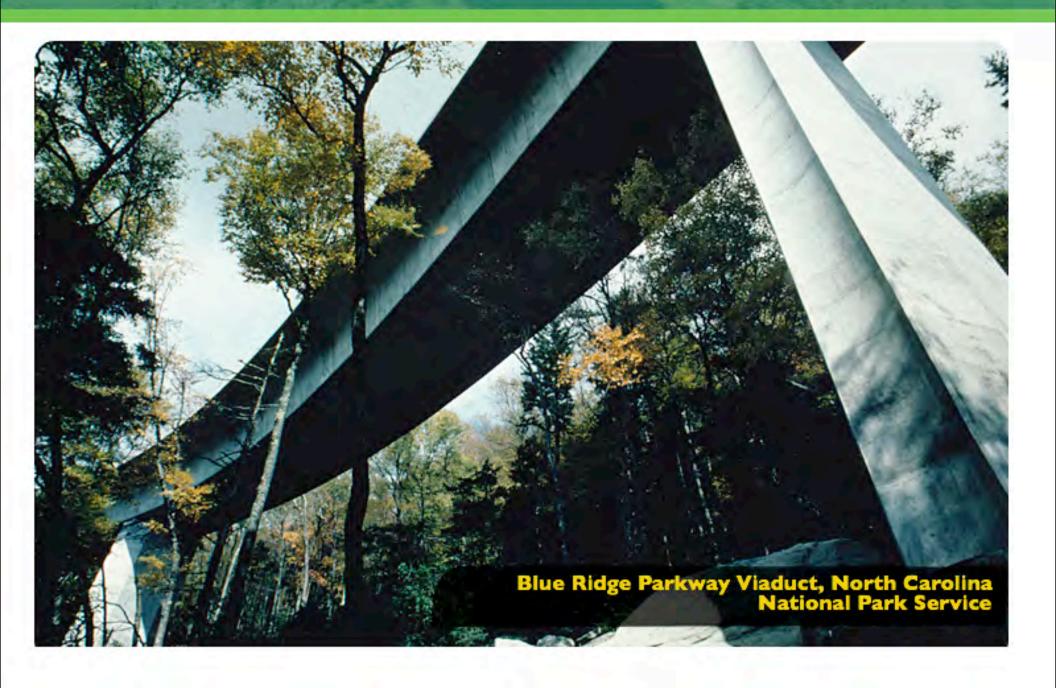
Example of continuity between substructure and superstructure Curved shape matches parabolic curve of superstructure



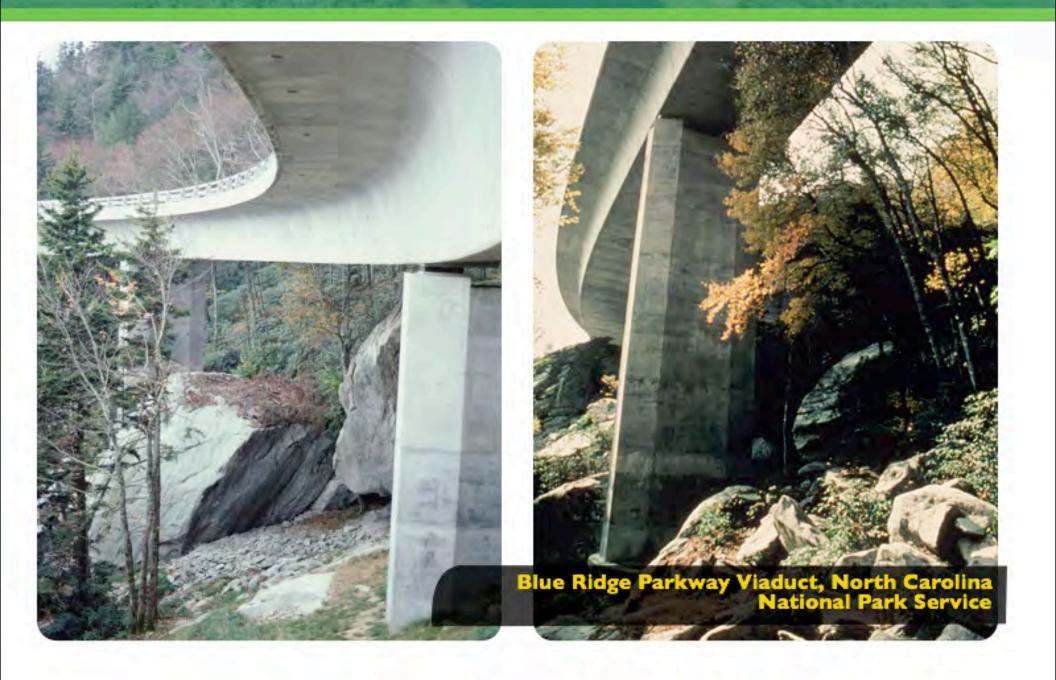
Example of round/organic shaped piers



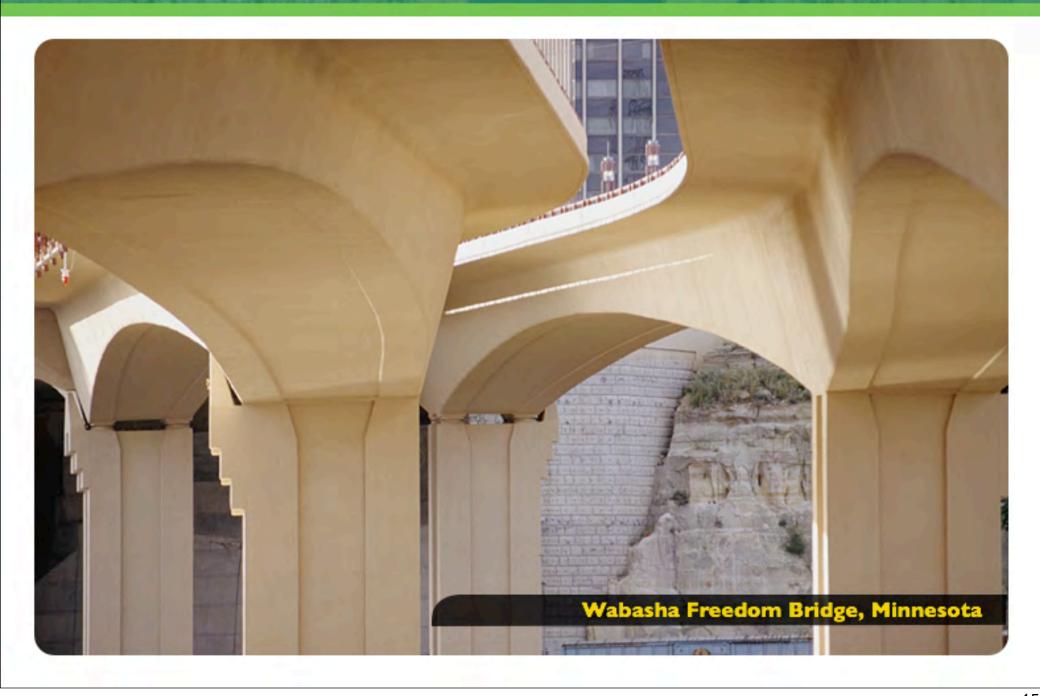
Example of octagonal shape with curvilinear faces

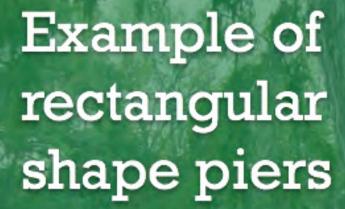


Example of octagonal shape with curvilinear faces



Example of rectangular shape piers



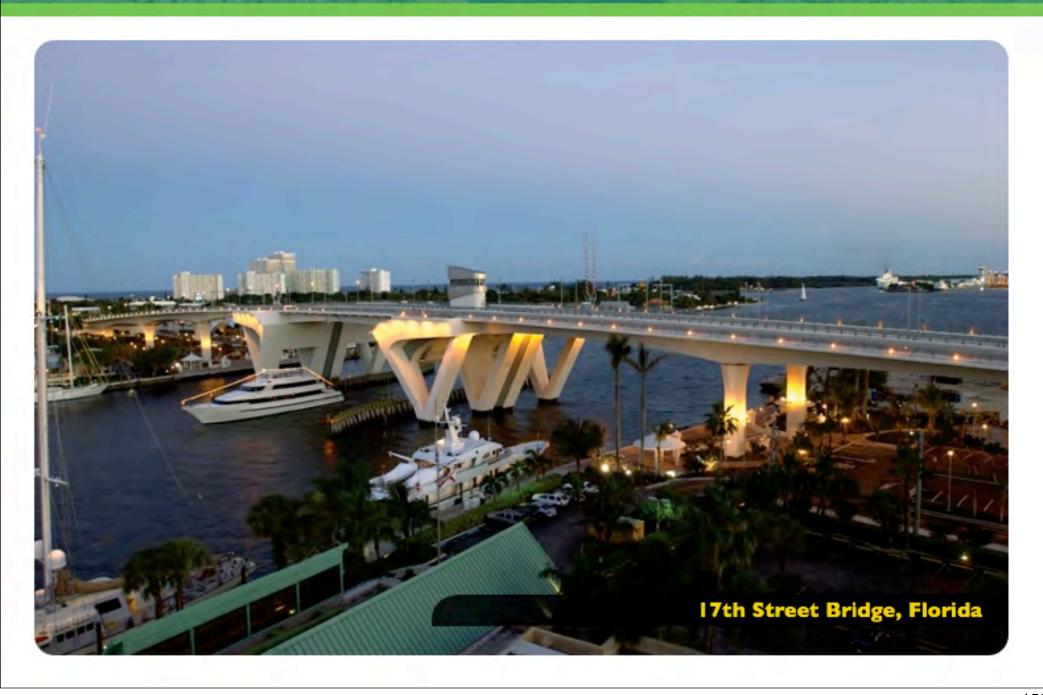




Wabasha Freedom Bridge, Minnesota

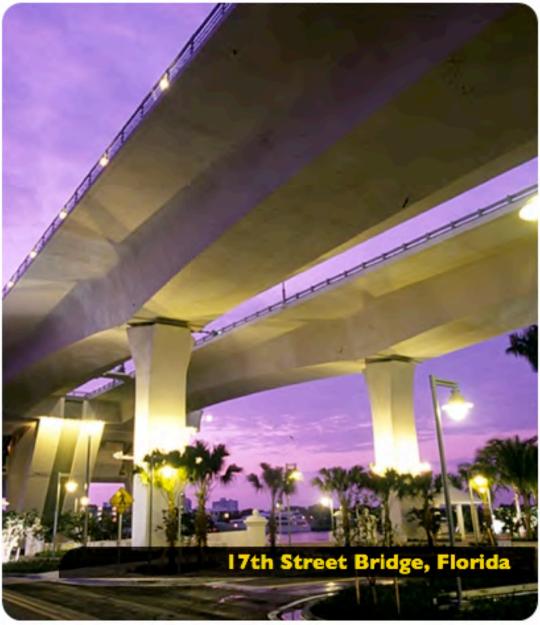


Example of slender sculptured piers

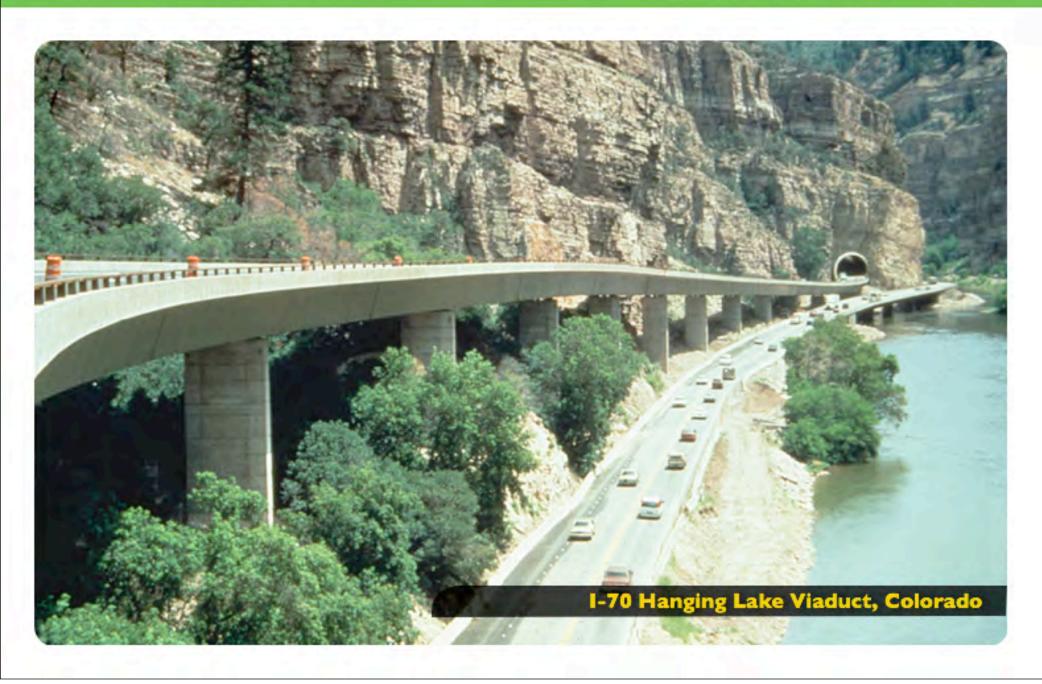


Angular Piers

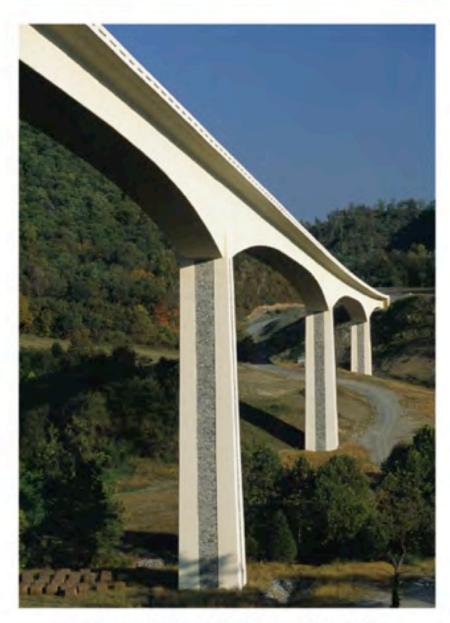




Example of angular piers to compliment landscape



Tapered and Rectangular Piers

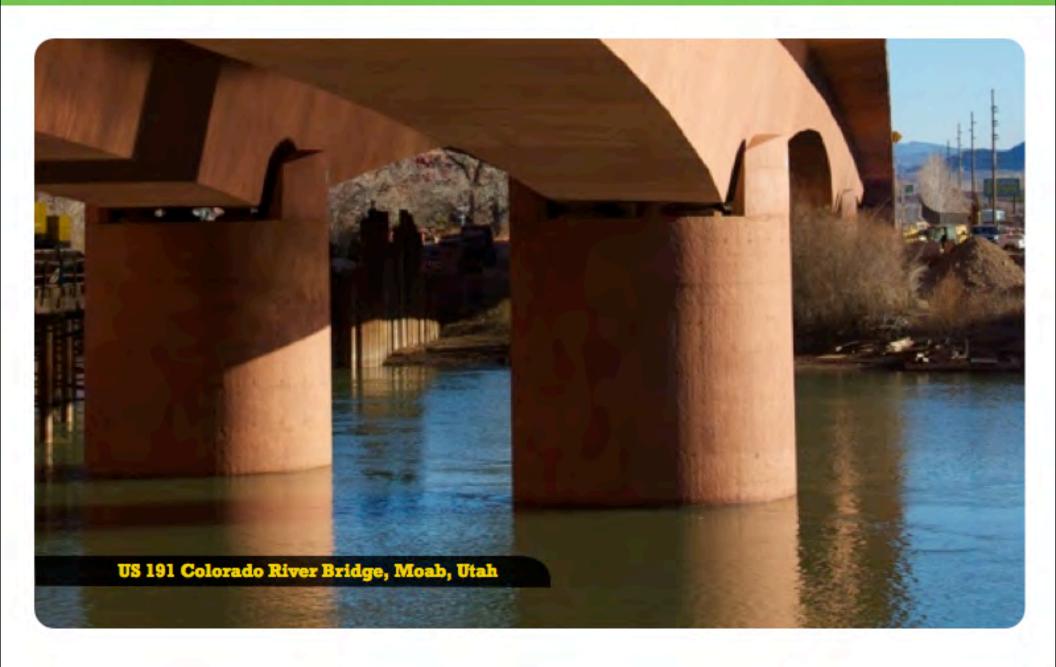


Smart Road Bridge, Virginia

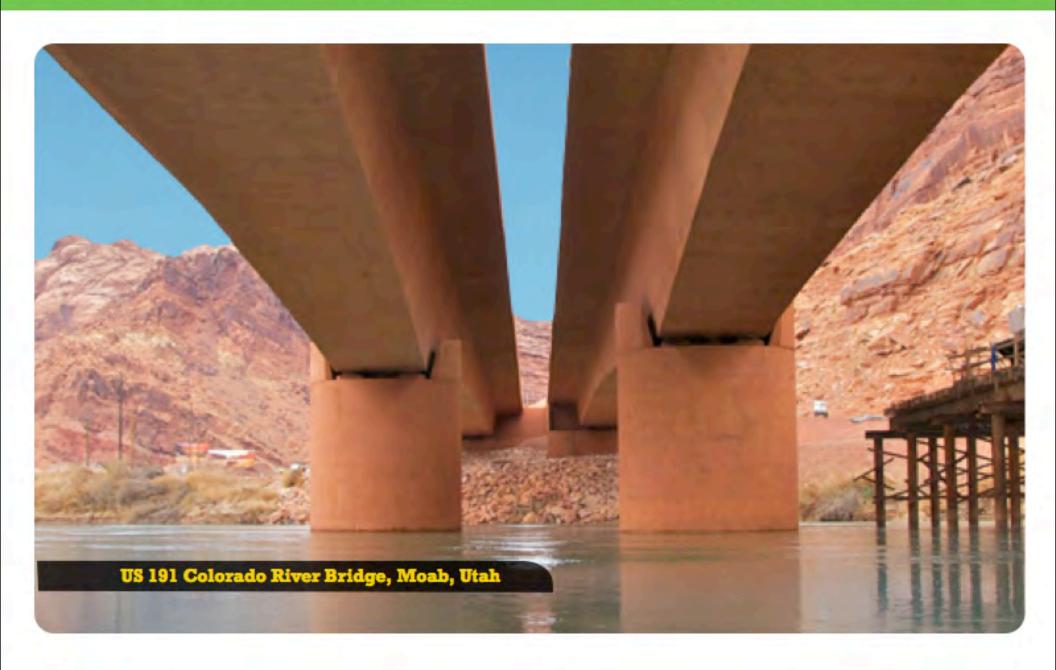


Victory Bridge, New Jersey

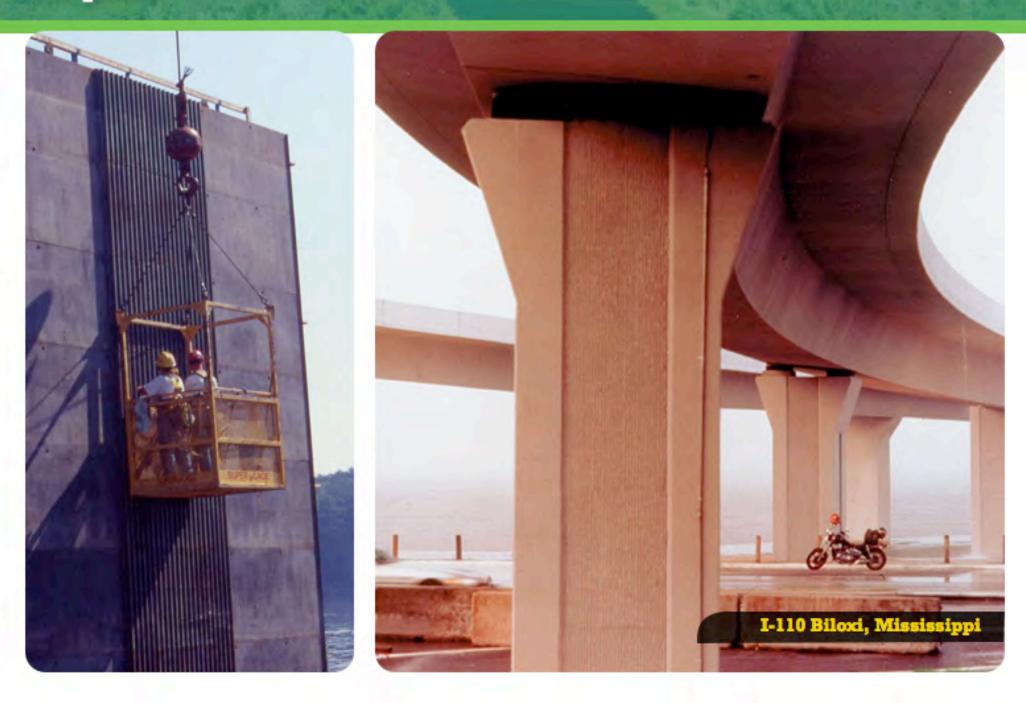
Examples of Bridges Incorporating Color and Textures



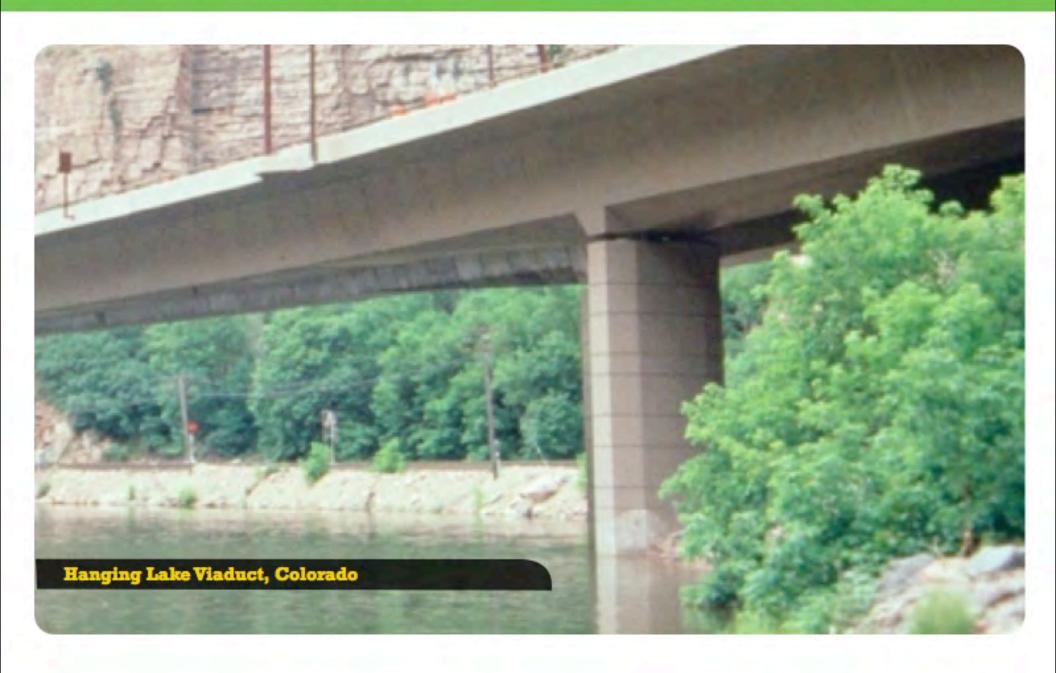
Earthen Texture Matching Landscape

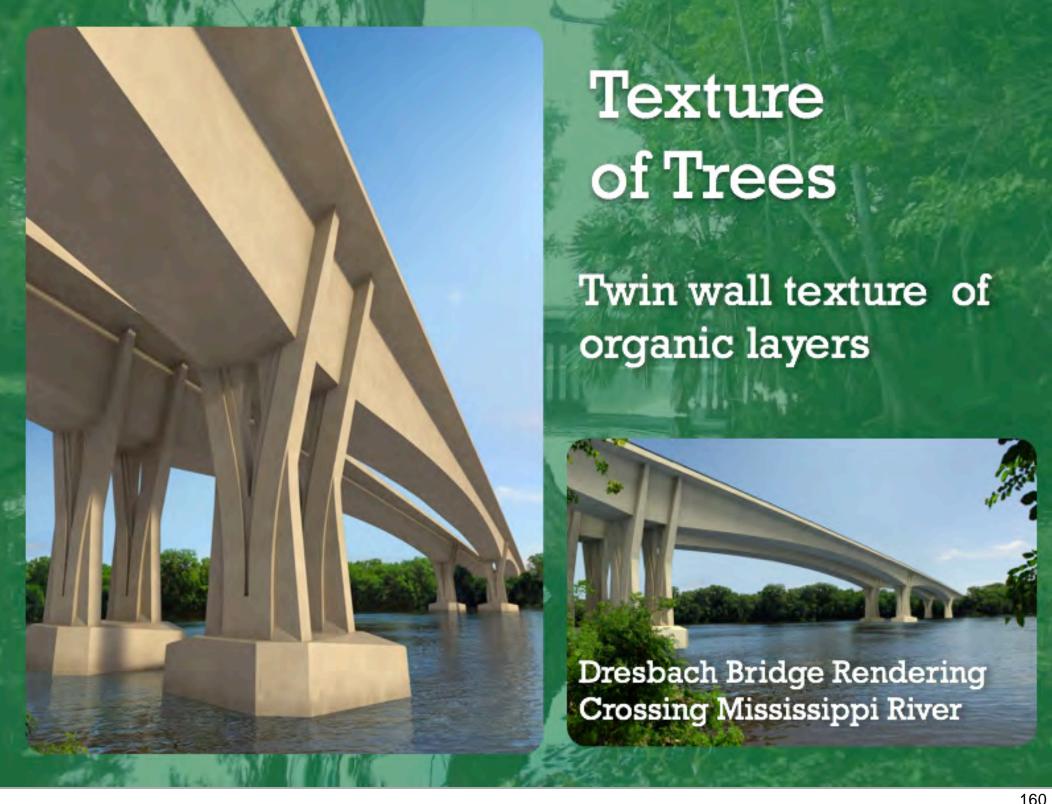


Vertical Texture placed in forms are replicated on the face of the piers



Example of Horizontal Texture





Authentic Bridge Color Comes from Local Sourcing of Materials From Nature

COLOR

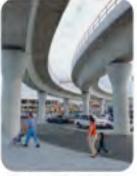
Proper use of local materials can create a bridge that blends into the natural landscape



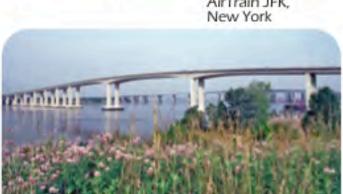
cement

gravel





AirTrain JFK New York





South Norfolk Jordan Bridge, Virginia

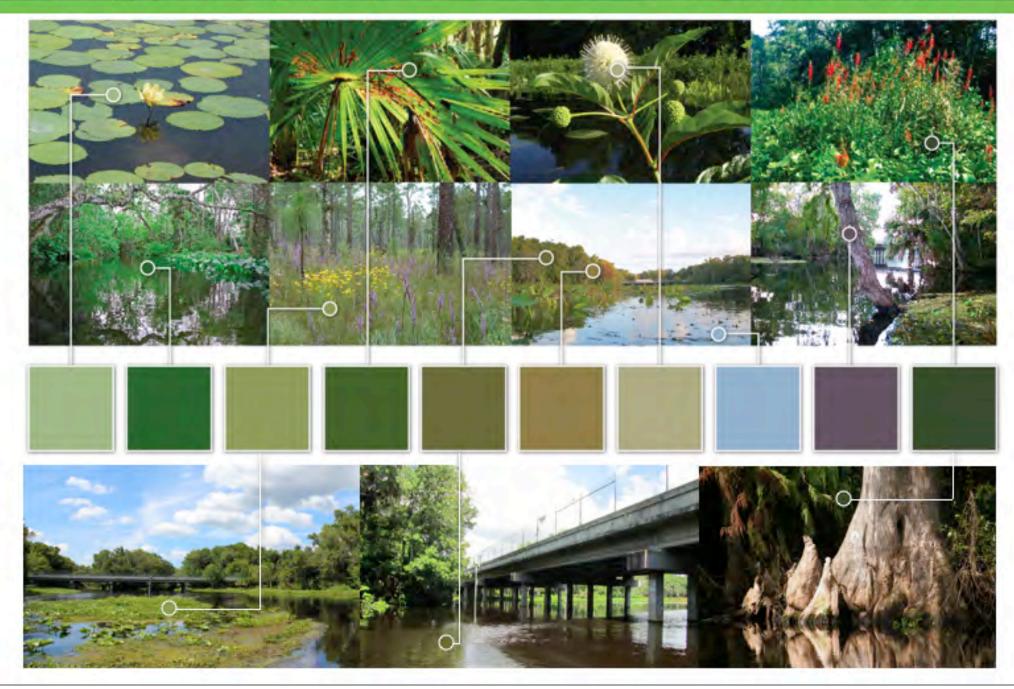
Accent in Eco-Stains



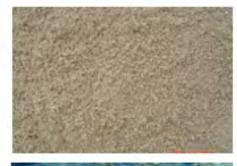


US 191 Colorado River Bridge, UT

Select Color Palette: Wekiva River Bridge Location



Natural Color of Materials - Local Sourcing



Sand



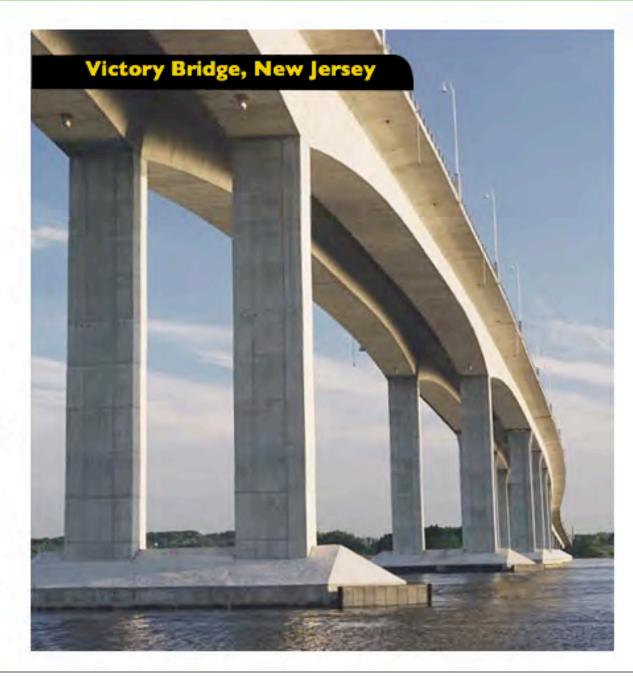
Water



Cement



Gravel

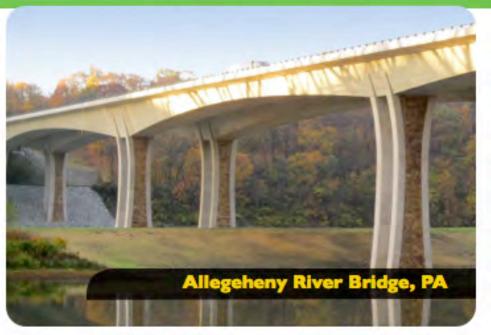


Authentic Concrete Color



Accent in Eco-Stains







Blend the Bridge with the Landscape



Blending Colors for a Bridge that Appears to be "Born of the Earth"

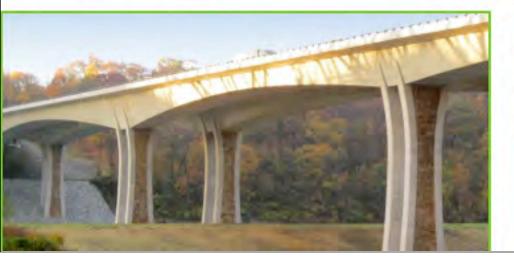


Use Colors from Nature with Eco-Friendly stains

Bella Vernici Stain (Rodney Ray in Orlando)

Variations in color just like nature

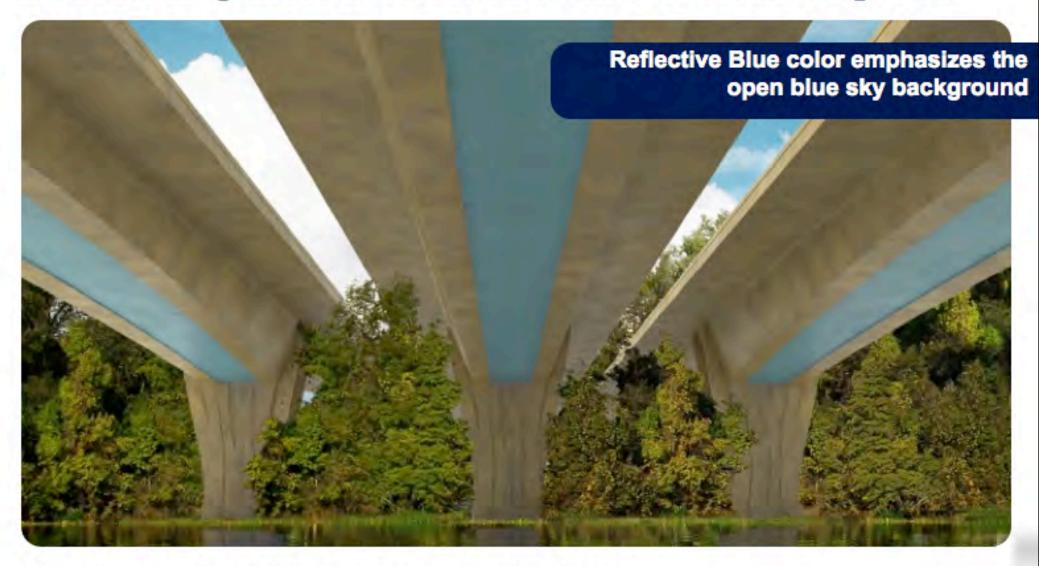
Examples of Eco-Friendly Stained bridges



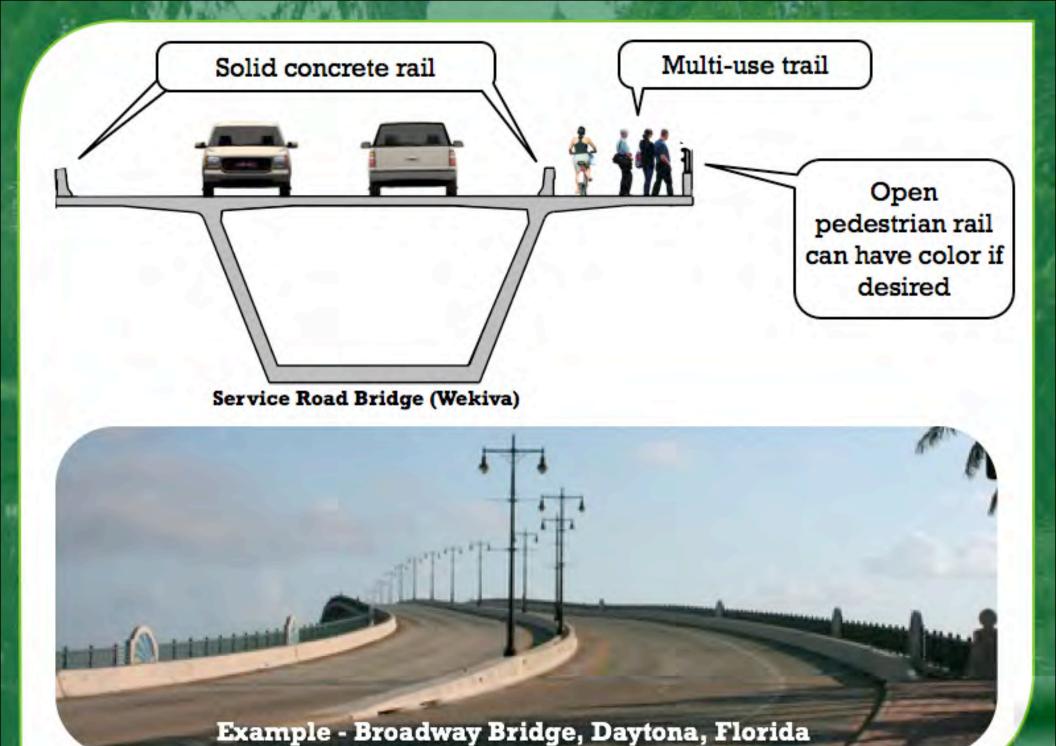


A Pleasant Surprise for Recreational users boating under the Bridge

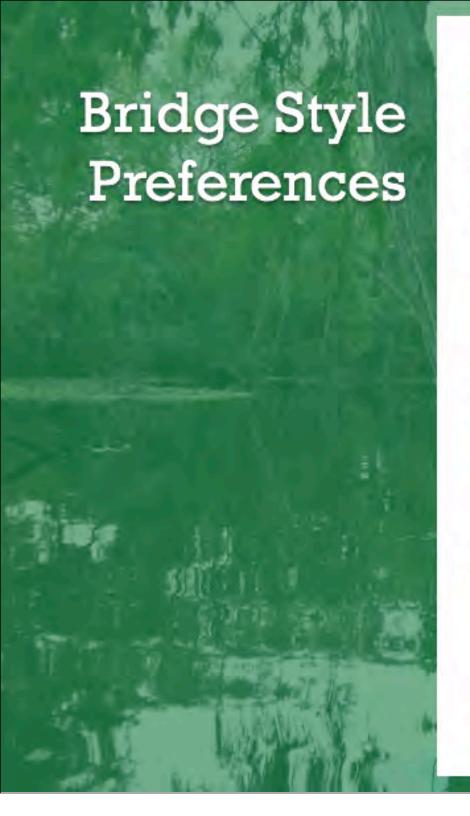
A Great Thing about Nature is its Wonderful Visual Surprises



Pier shapes with celebration of trees at waters edge







FINAL BRIDGE DESIGN CHARETTE #1

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



Bridge Style Preferences (Shapes, Shadows, Textures and Colors)

Using the black pens provided, please till in completely one red box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral, NOTE: 1 = Lowest Score-Distillat, 5 = Neutral, 10 = Highest Score (Like).

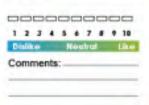
SHAPES (Please provide a preference for each item)

1a. Rounded / Organic Shapes



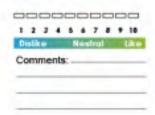


Example





2b. No Texture

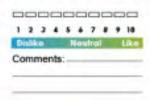


TEXTURE (Please provide a preference for each item)

2a. Abstract Texture



Example





Example

3b. Staining



COLOR (Please provide a preference for each item)

3a. Natural Color of Materials



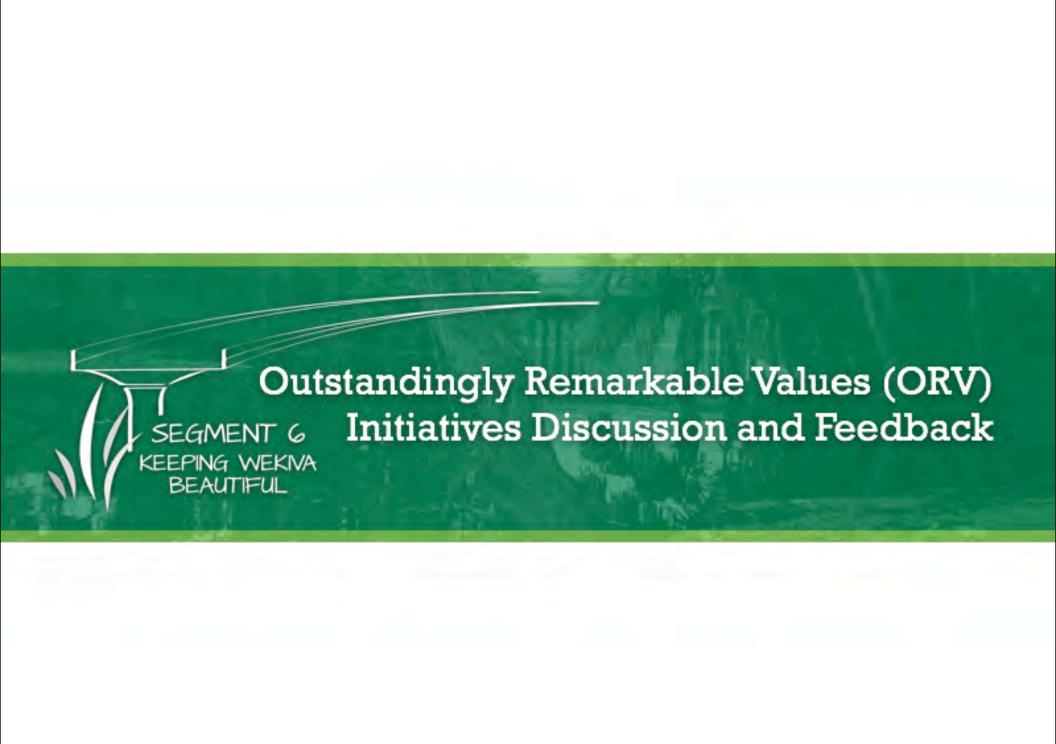
Example

1 2 3 4 5 4 7 8 9 10



Example

31								
1	2	2	4	5		7	٠	10
Di	slik				leq	fro		Like



Outstandingly Remarkable Values (ORV)

Scenic

Recreation

Wildlife and Habitat

Historic and Cultural

Water Quality and Quantity

Bridge preserves and enhances scenery by repetition of surrounding landscape's fundamental visual elements of form, line, color and texture

Visual contrasts of the bridge against the surrounding landscape is minimized through optimized vertical profile and aesthetic

Sound and light:

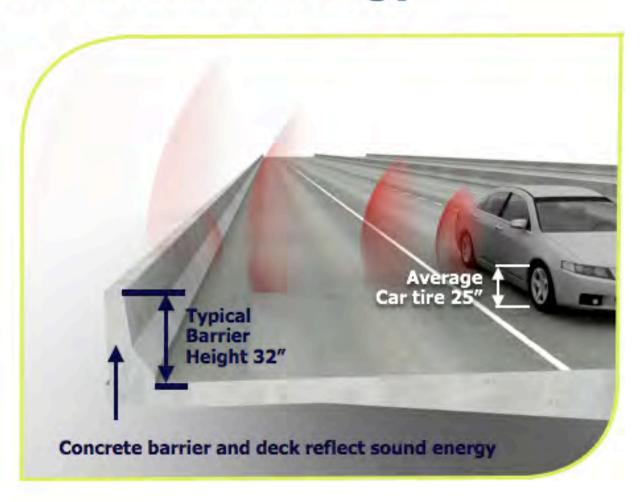
Clear distances between bridges are 9'-11" and 12'-11" to add light



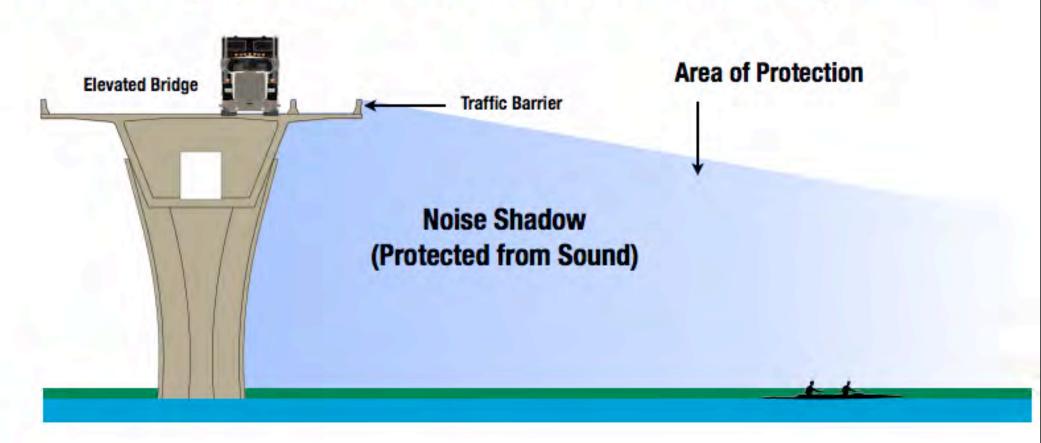
Solid Objects Reduce Noise Energy

When sound waves encounter solid objects like concrete, the waves undergo bending and reflection

Source: "Transportation Engineering and Planning," C.S. Papcostas, Ph.D. and P.D. Prevedouros, Ph.D.



New Scenic Bridge Will Be 40' Higher Than Existing, Producing Greater Area For Noise Shadowing



Noise shadows can be considered as areas protected from noise

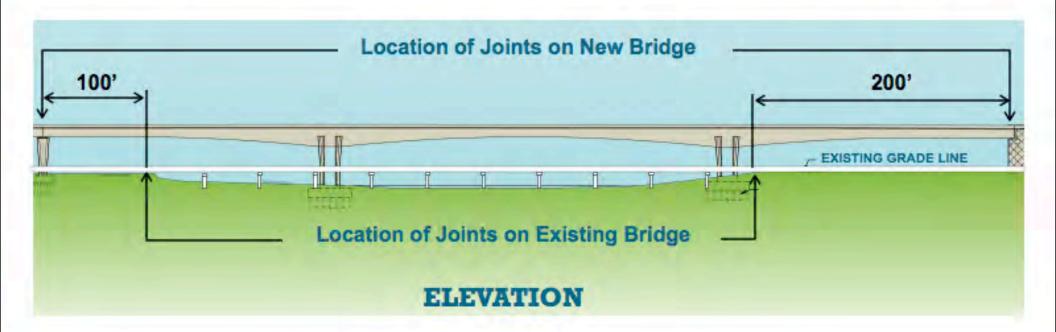
Source: "Transportation Engineering and Planning," C.S. Papcostas, Ph.D. and P.D. Prevedouros, Ph.D.

Reducing noise with expansion joints located farther from the river

Tire/pavement interaction noise will be reduced by increasing the distance of the expansion joints on the bridge to the Wekiva River.

New bridge expansion joints are located 100' farther to the West and 200' farther to the East of the river as compared to the existing bridge.

New Bridges will utilize expansion joint systems that reduce noise over the existing bridge.



Recreation

River recreation experience is enhanced by:

Pier locations being completely removed from the river and allowing unobstructed passage

Construction will allow use of the river during construction









Recreation

Openness of Longer Span over River Enhances Recreational Experience



8 Piers of the existing bridge will be replaced with 1 span and 2 piers for the new bridge

Upland and Wetland Habitats

Impacts minimized by:

Using the existing road corridor

Extending the bridge ends to span the river & floodplain will improve the connection to adjacent habitats that are currently severed by fill.

Strict erosion control measures to minimize impacts to aquatic species

Raising the bridge to reduce shading impacts and reduce noise immediately beneath the bridge

Wildlife and Habitat Connectivity

Existing

Wekiva River Bridge

Built in 1996

561-foot length x 46-foot road width encroaches into floodplain

No wildlife fence

Proposed

Spans Wekiva River

1750-foot length

Replaces existing Wekiva bridge

Spans the floodplain

Full suite of target species



Wildlife and Habitat Connectivity

Causeway Fill Removal Will:

Improve the connection to adjacent wetland and upland habitats that are currently severed by the fill

Reduce the potential for erosion and sedimentation at the bridge thereby reducing impacts to aquatic species habitats

Provide a benefit to wildlife moving upstream and downstream.
Wildlife restricted by higher than normal water levels will be capable of moving in both high and low water conditions

Result in less human activity within the wetlands and river systems by restricting access points from the road in combination with wildlife fencing.

Key Target Wildlife Species

State-listed

Florida Black Bear

Gopher Tortoise

Sherman's Fox Squirrel

Blue Nose Shiner

Federally-listed

Eastern Indigo Snake

Common Species

White-tailed Deer

Bobcat

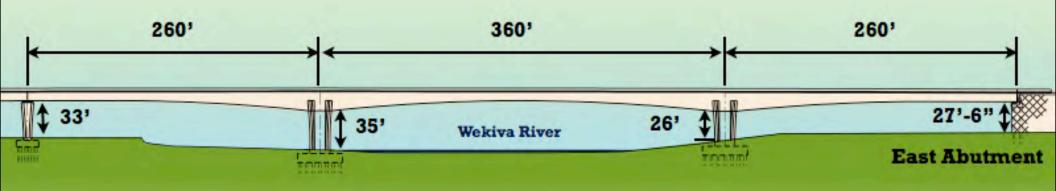
River Otter







Optimization of wildlife passage and connectivity through lengthening of back spans to maximize openness



Preliminary Bridge Layout

Historic and Cultural

Potential Impacts will be minimized by: Using the existing road corridor Spanning the river & floodplain

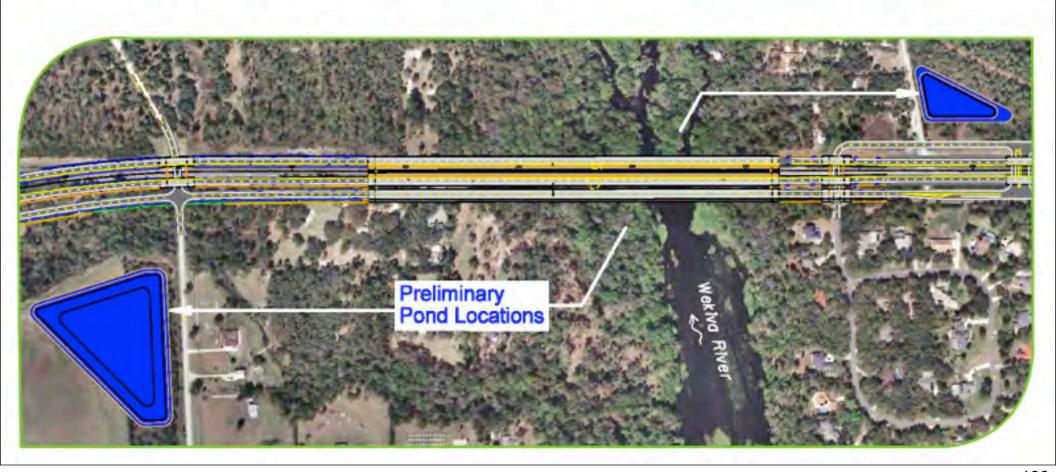
There are no documented archaeological or historic sites within the bridge footprint.

The proposed improvements are not expected to impact any archaeological or historic sites which are listed, determined eligible, or considered potentially eligible for listing in the NRHP.

Water Quality and Quantity

Water quality is protected through the capture and treatment of stormwater runoff on both sides of the river

No direct discharge of untreated stormwater runoff to the Wekiva River



Water Quality and Quantity

The project will ensure attenuation requirements are met

Attenuation of peak flows to the river

Maintain pre-development discharge

No loss of Wekiva River floodplain volume

Improved flow through clear-spanning of the river and removal of the existing bridge piers







SR 429/SR 46 Wekiva Parkway Wekiva River Bridges

December 11, 2013



COMMENT FORM - Please Give Us Your Ideas!

How important to you are the Outstar bridge? Describe what makes them in	ndingly Remarkable Values (ORV) for the new mportant?
"Scenic"	
"Recreation"	
Wildlife and Habitat"	
"Historic and Cultural"	
"Water Quality and Quantity"	
Thank you for your input!	
Name (antional):	Email

Final Bridge Design Charettes

Bridge Design Charette 1 December 11, 2013

Select a Theme

Discuss overall bridge layout & configuration

Select direction for:

Shapes
Textures and Colors
Other Features
ORV's



BRIDGE

AESTHETICS

Bridge Design Charette 2 January 28, 2014

Based on previous Design Charette preferences multiple design options are developed for selection

Final Selection of:

Shapes
Textures and Colors
Railings
Other Features
ORV's

Bridge Aesthetics and ORV incorporation for a

Beautiful & Environmentally Sensitive Bridge

Stakeholders & Design Team

Meeting and Charette Schedules

NPS/FDOT Workshop	Jun. 18, 2013
Bridge Design Charette 1	Dec. 11, 2013
Bridge Design Charette 2	Jan. 28, 2014
Public Information Meeting	Spring 2014



FINAL BRIDGE DESIGN CHARETTE #1 SR 429/SR 46 Wekiva Parkway Wekiva River Bridges

December 11, 2013



COMMENT FORM - Pleas	e Give Us Your Ideas!
	activities towards creating your new bridge?
What parts of today's activities we	ere most meaningful to you?
If you could give the bridge design of your new bridge, what would th	ners one piece of advice in consideration nat advice be?
Any other ideas or comments? (F	eel free to use the back if you need more space)
Thank you for your input!	
Name (optional):	Email:





APPENDIX I

Final Bridge Design Charette 1

DISPLAY BANNERS

A sustainable bridge that achieves NPS goals for this scenic river crossing



Main span length of at least 300' to clear span the Wekiva River

Design principles to blend the bridge with the environment repeating the landscape's visual elements of form, line, color and texture

Enhance area through greater natural light and reduce auditory levels.

Enhance recreational experience for river users

Optimize connectivity of wildlife corridor under bridge

Preserve water quality





3 Presidential Awards

through the National Endowment for the Arts - Two are National Park Service Bridges

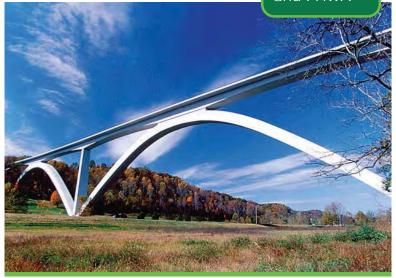
Sunshine Skyway Bridge, FL FIGG Engineer of Record Blue Ridge Parkway Viaduct, NC FIGG Engineer of Record







For National Park Service and FHWA

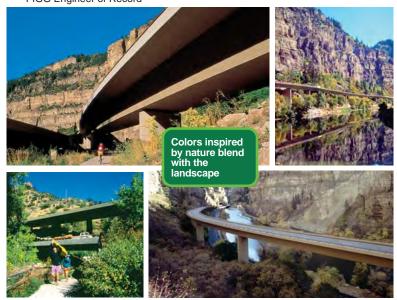




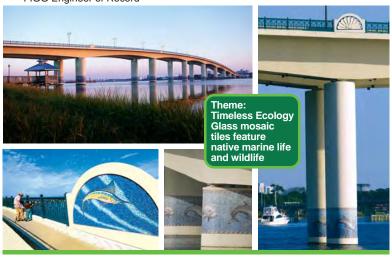


Aesthetics Inspired by Nature

Glenwood Canyon Bridges, CO FIGG Engineer of Record



Broadway Bridge, FL FIGG Engineer of Record

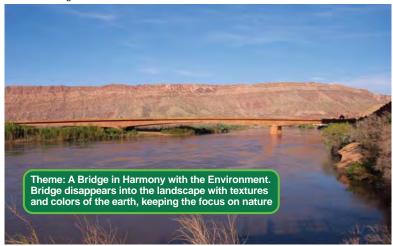






National Park Bridges

US 191 Colorado River Bridge, UT FIGG Engineer of Record



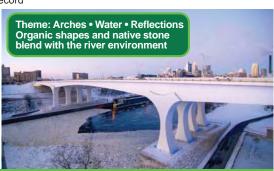






I-35W Bridge, MN FIGG Engineer of Record









Site Features

Important Vistas Identified (1-9)

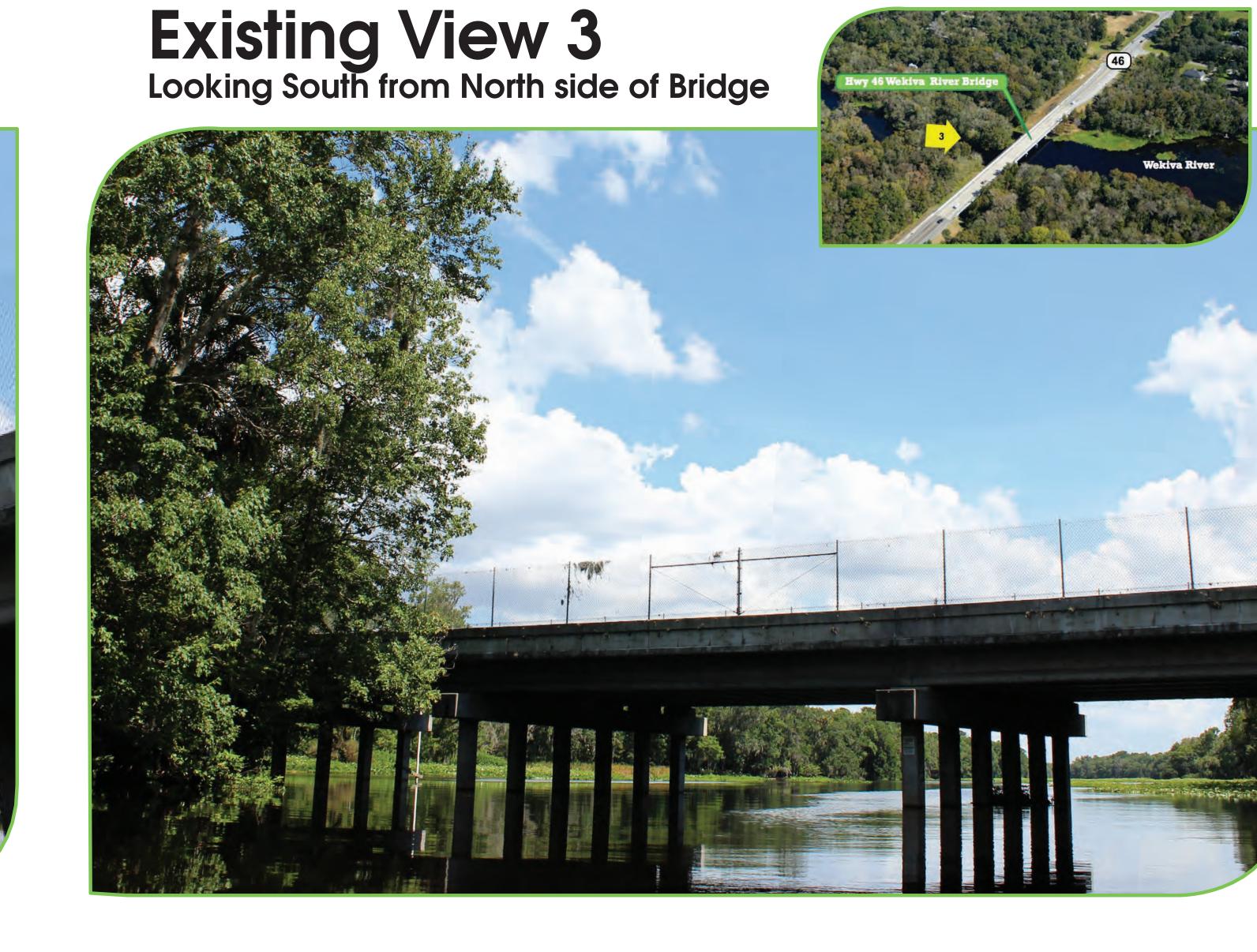


Important Vistas Identified By Workshop Participants On June 18, 2013



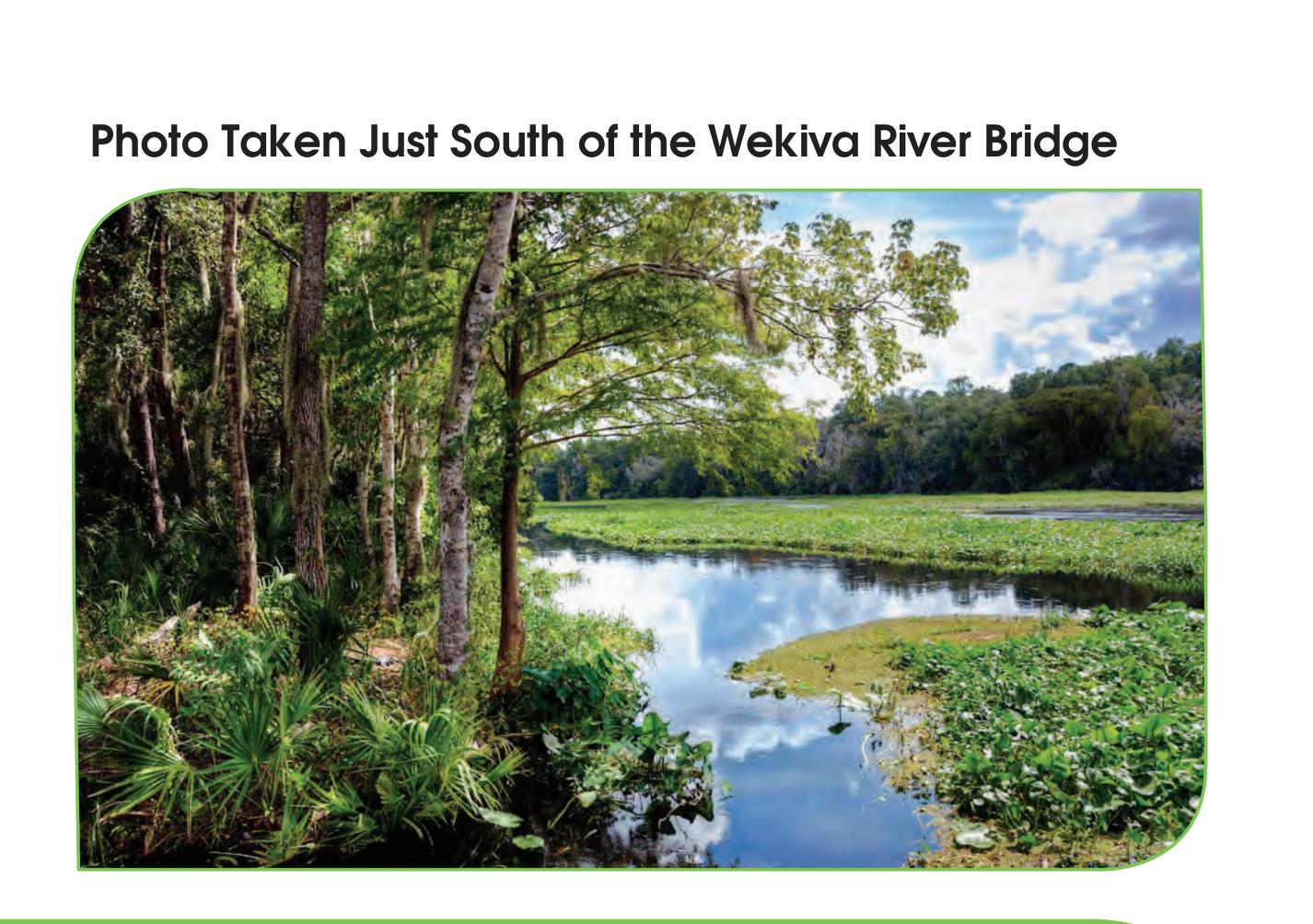


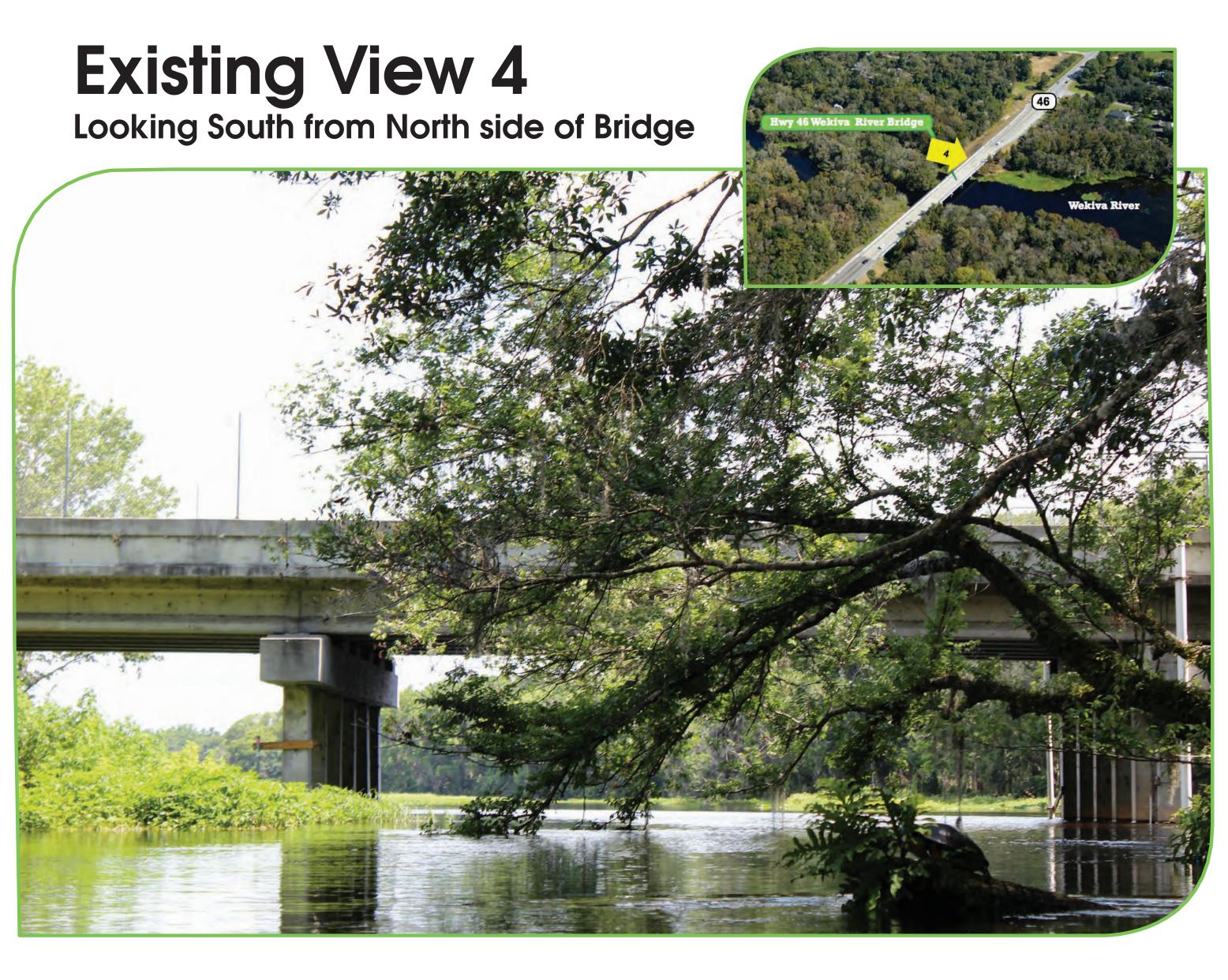


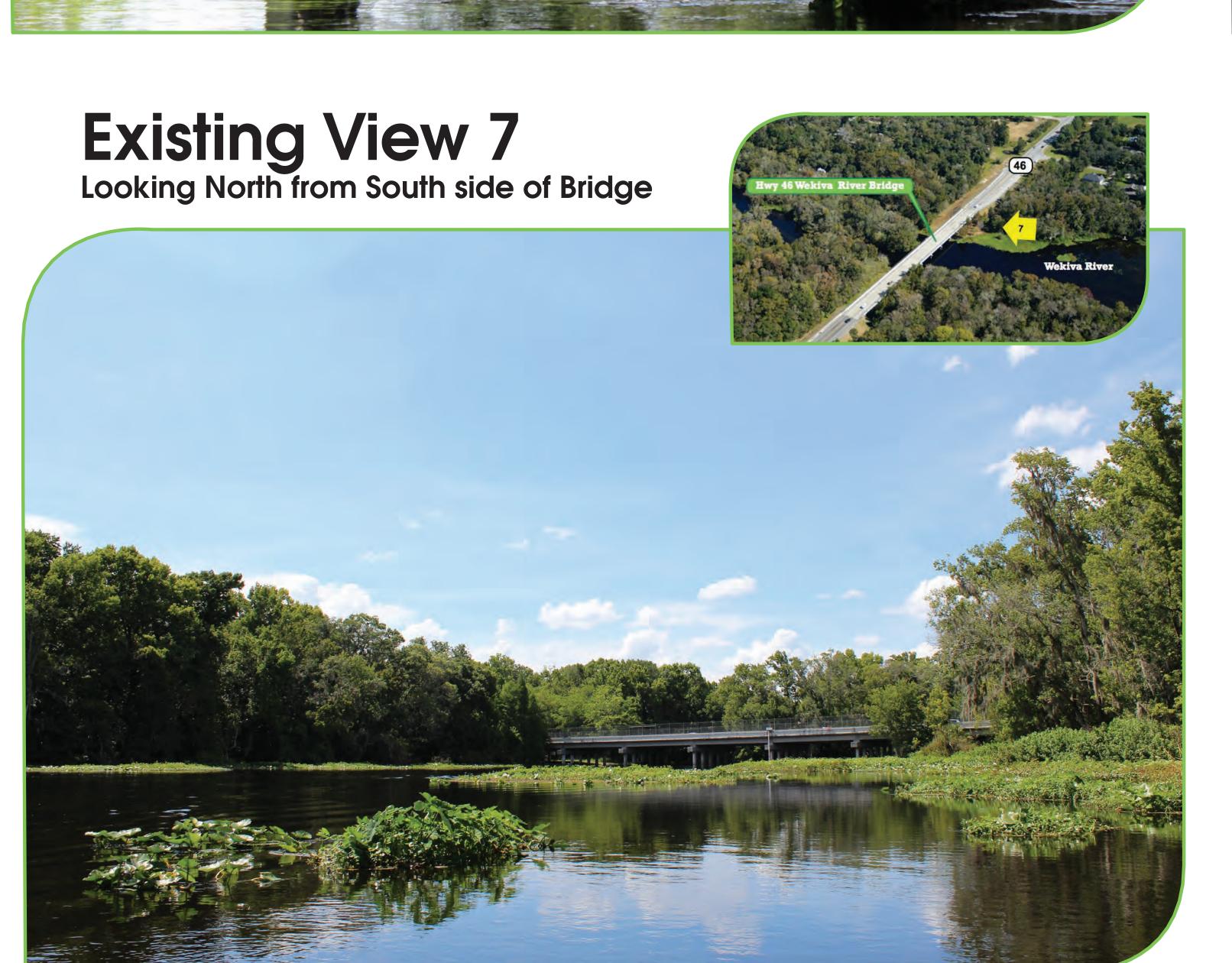






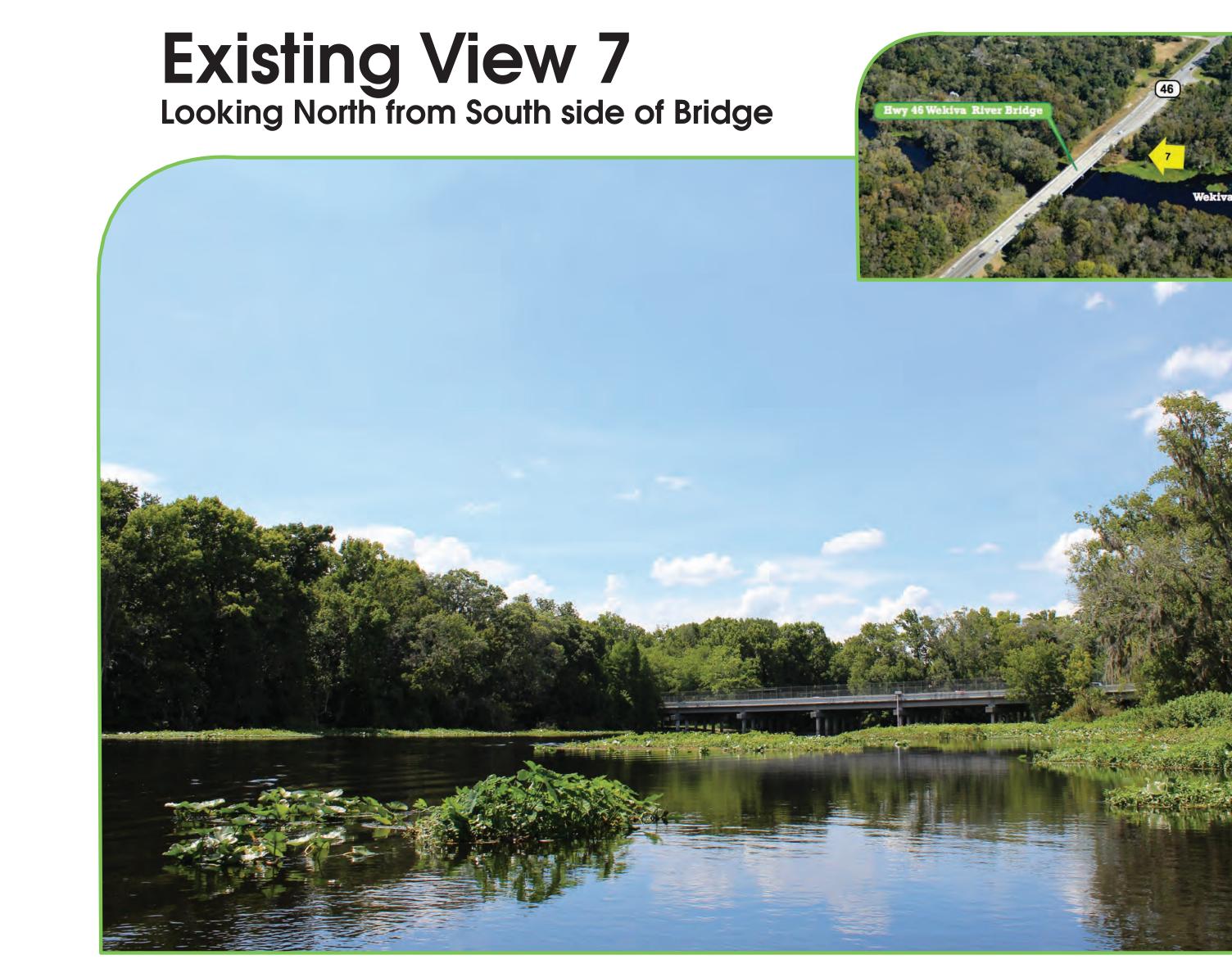


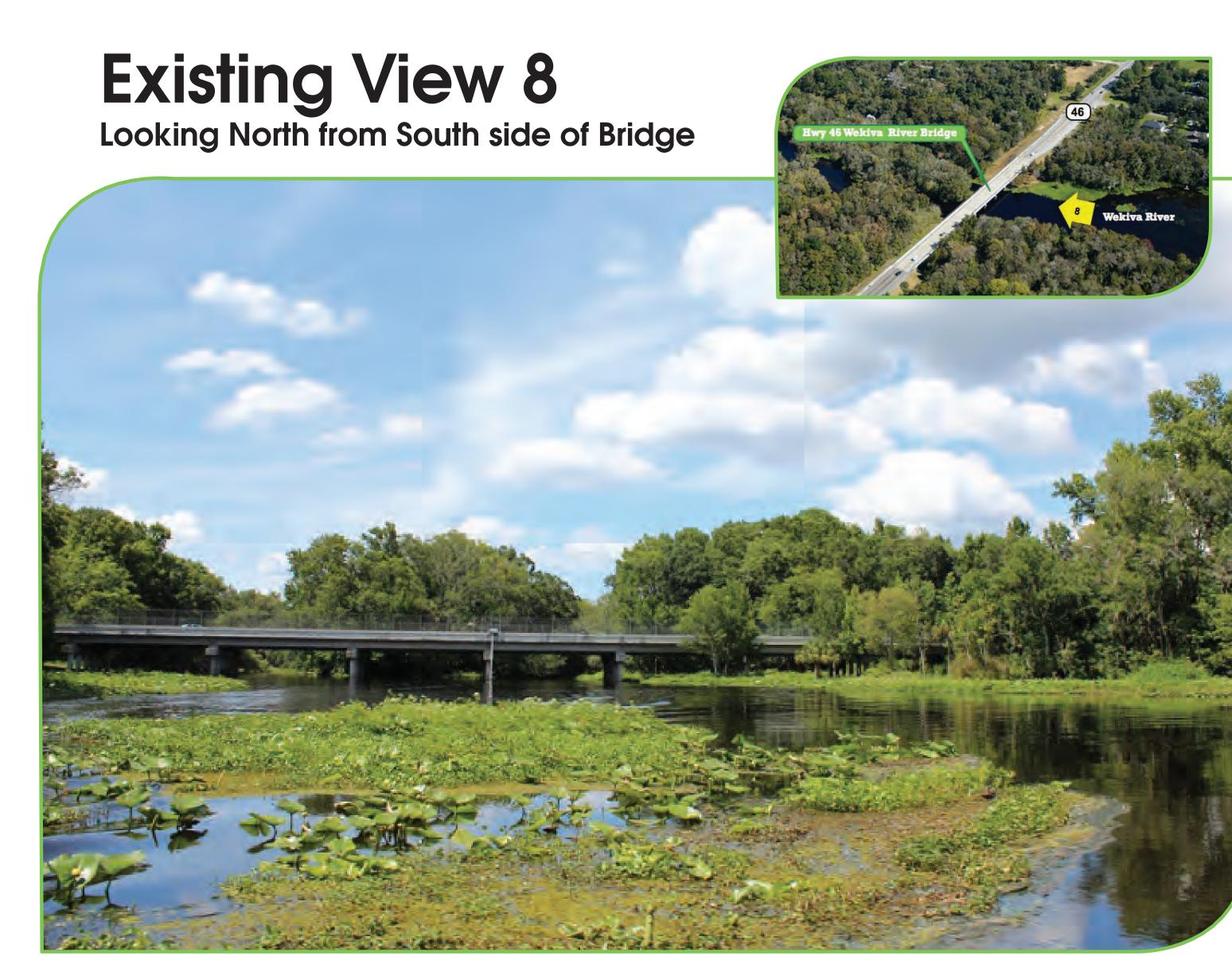


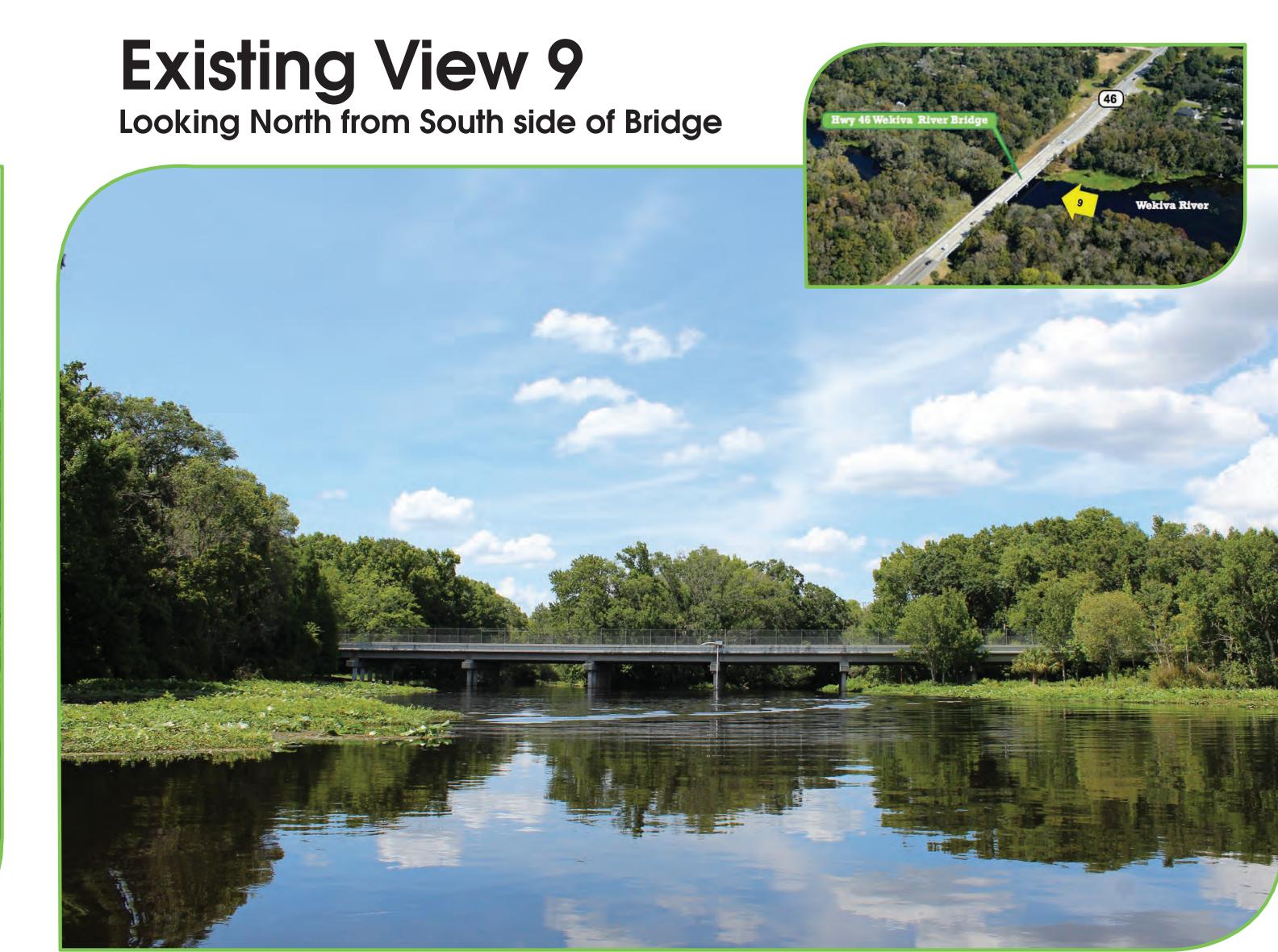


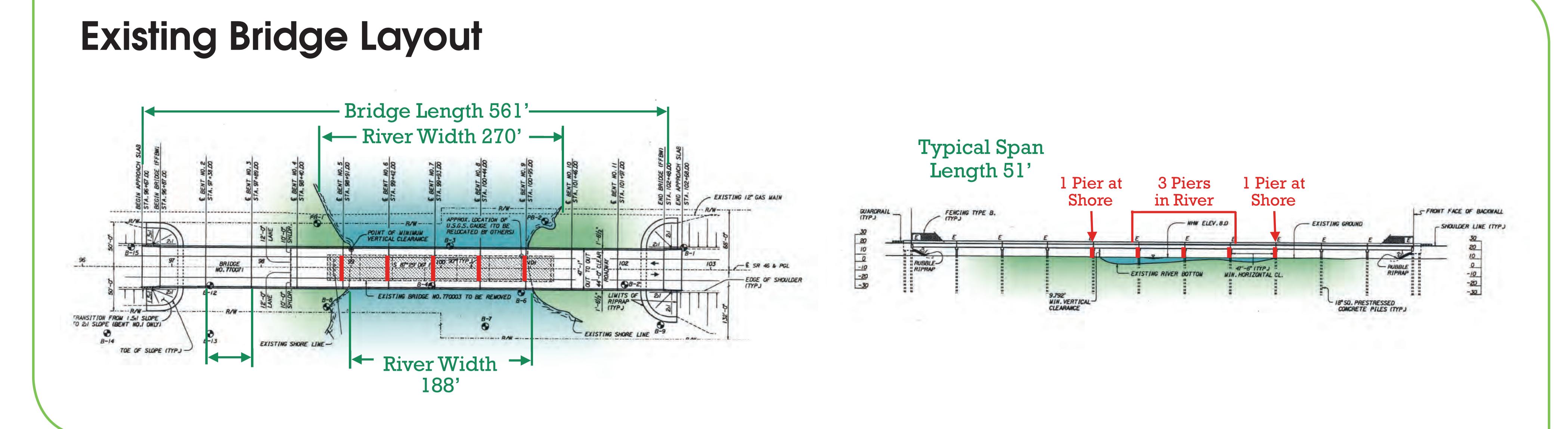












Site Features

Important Vistas Identified (10-17)

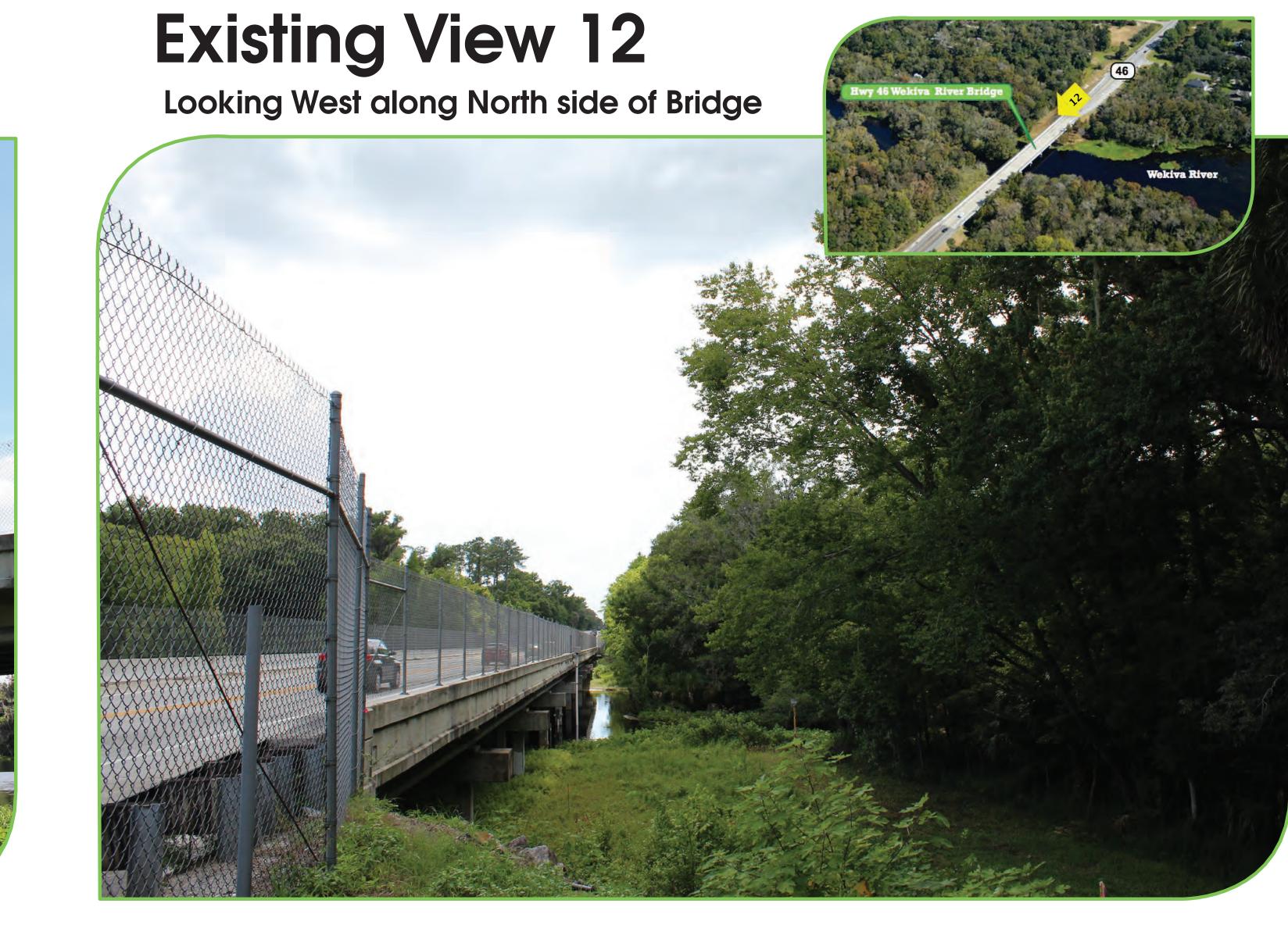


Important Vistas Identified By Workshop Participants On June 18, 2013

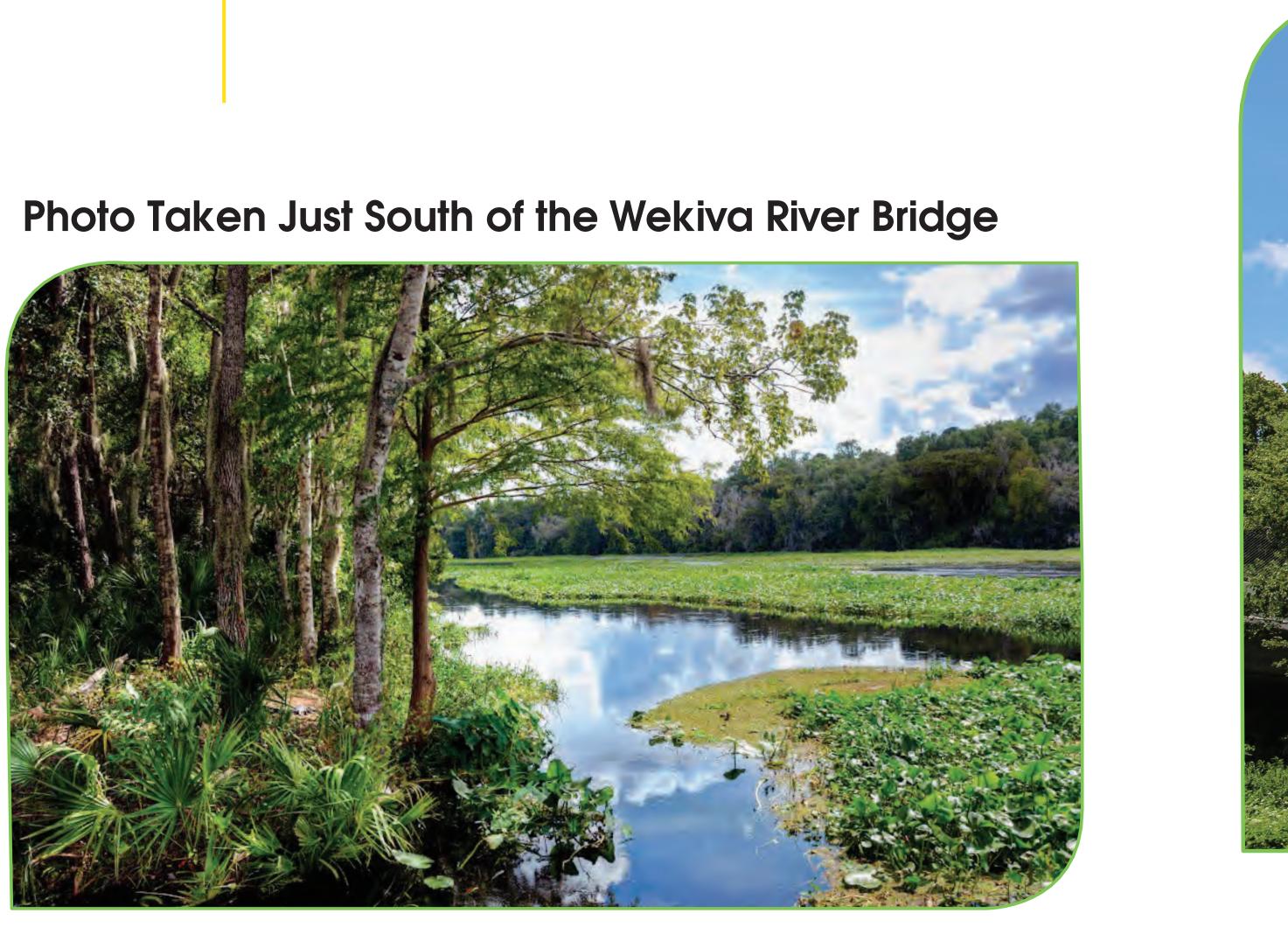














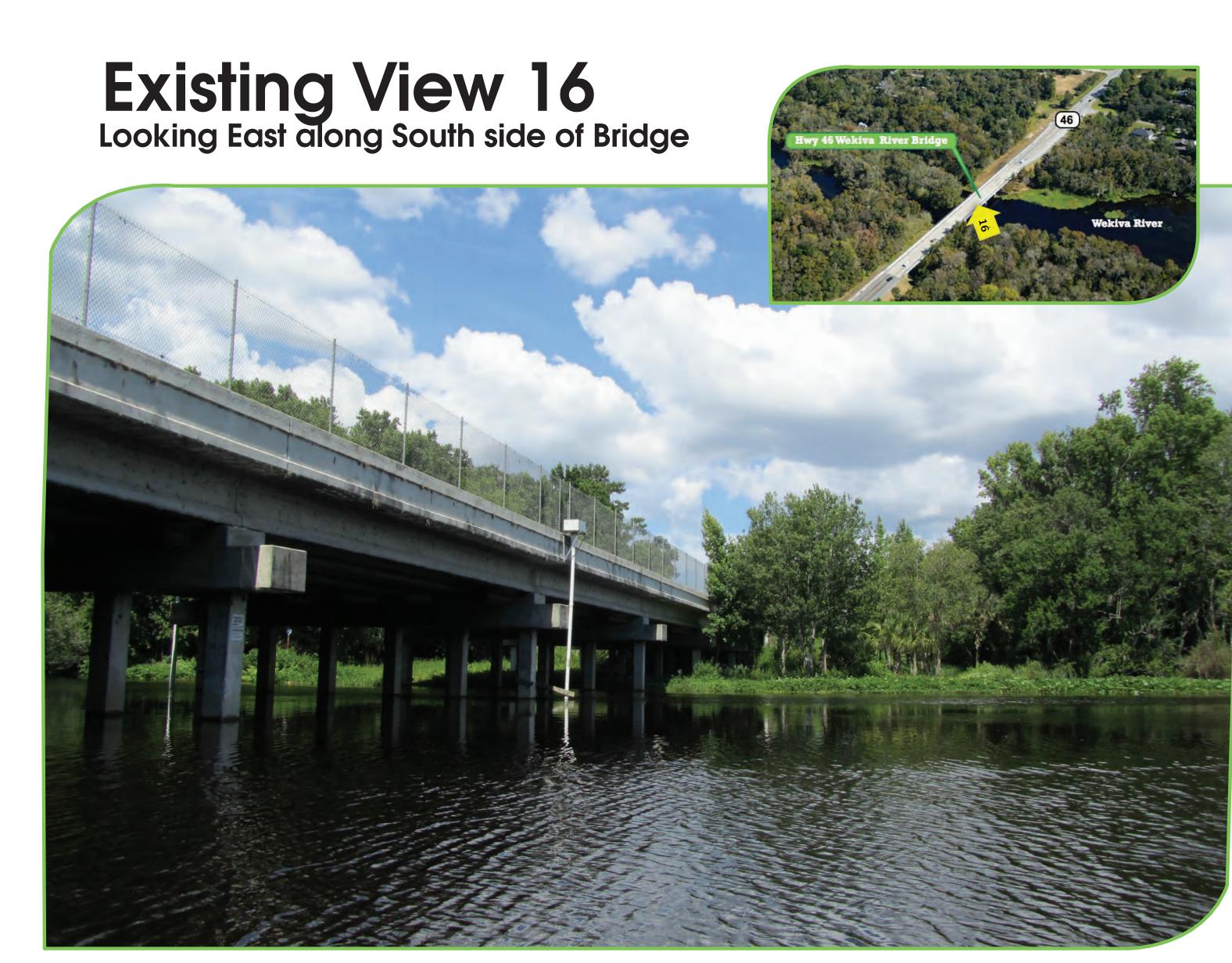


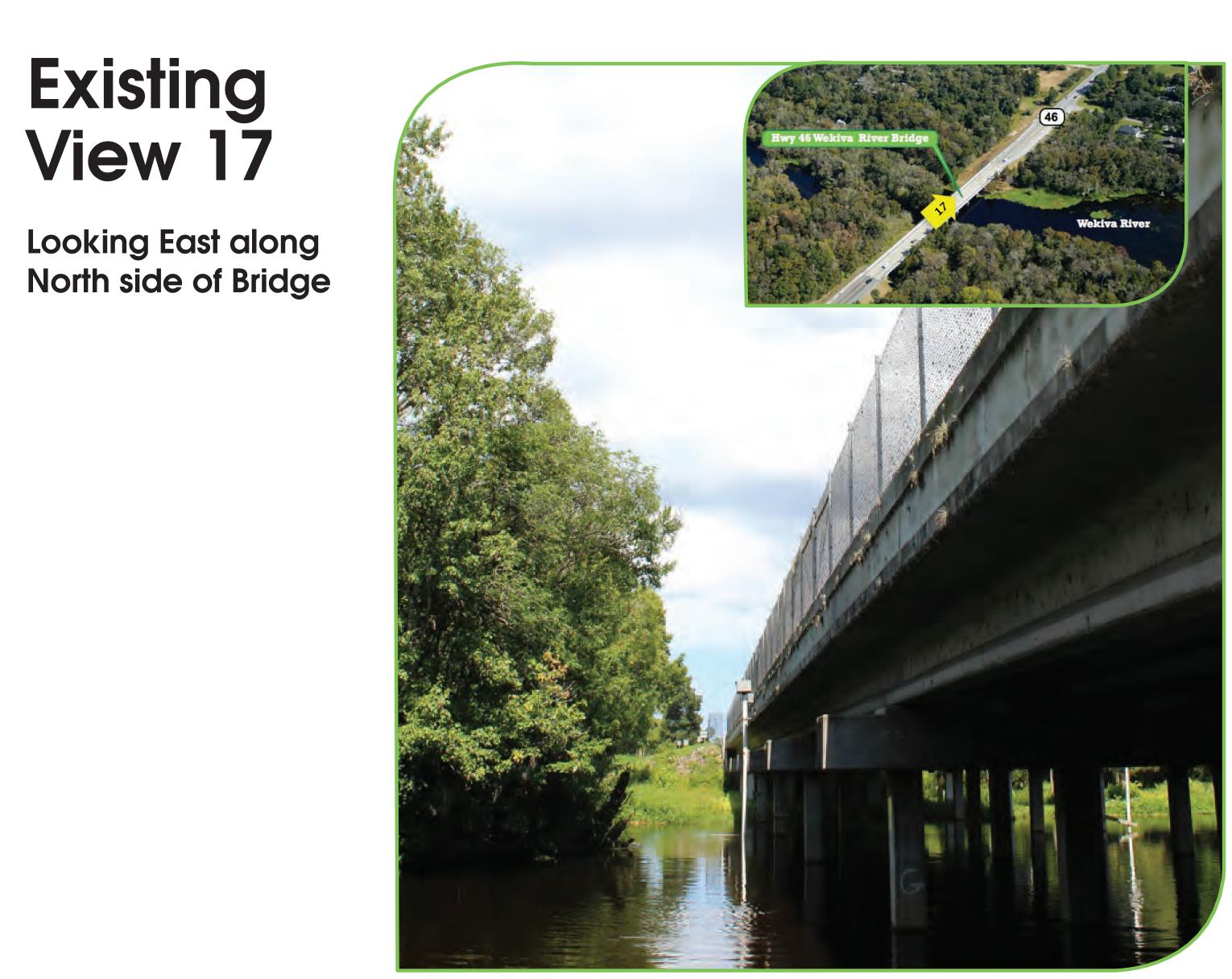
Existing

View 17



Existing Bridge Layout



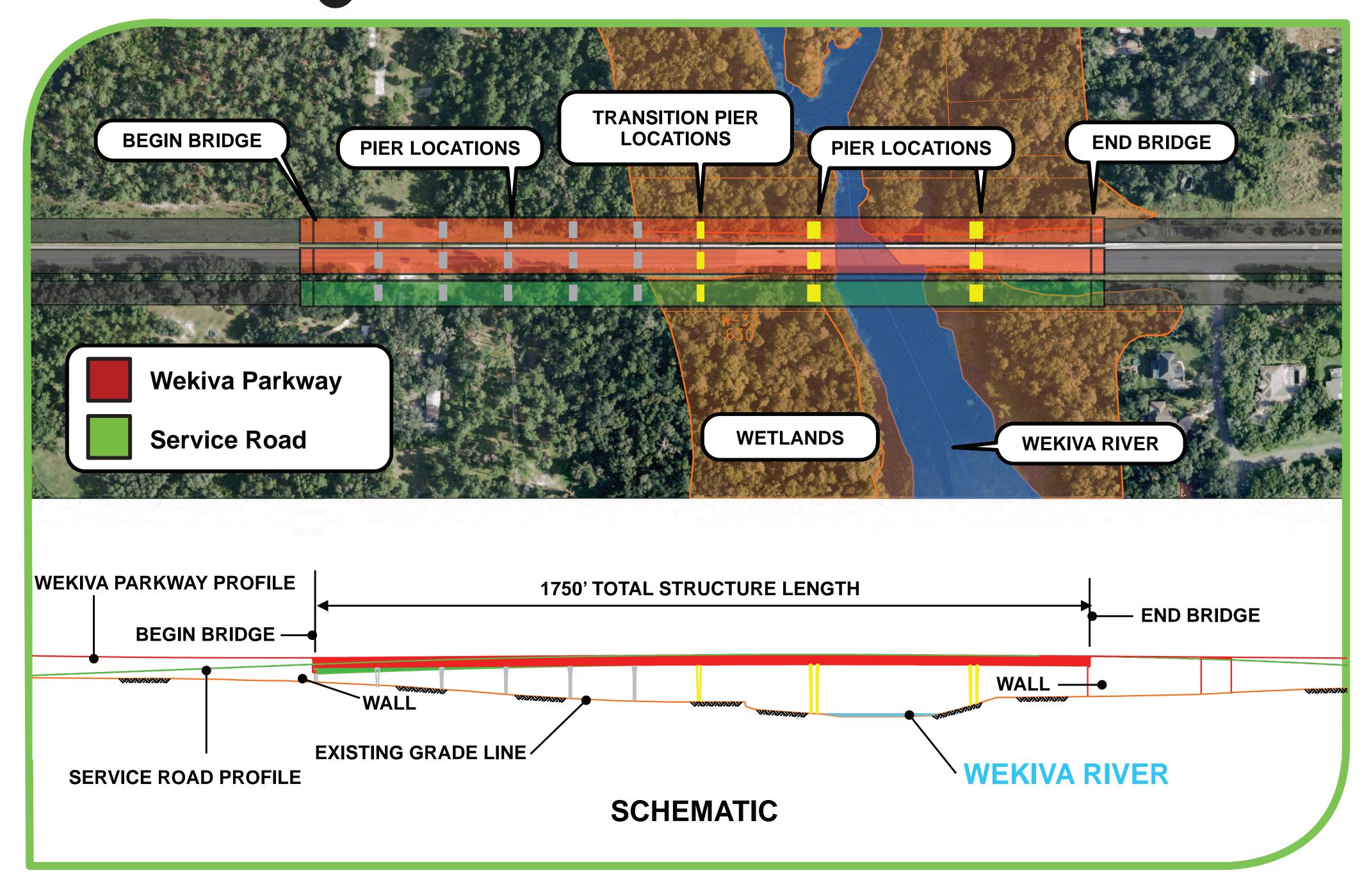




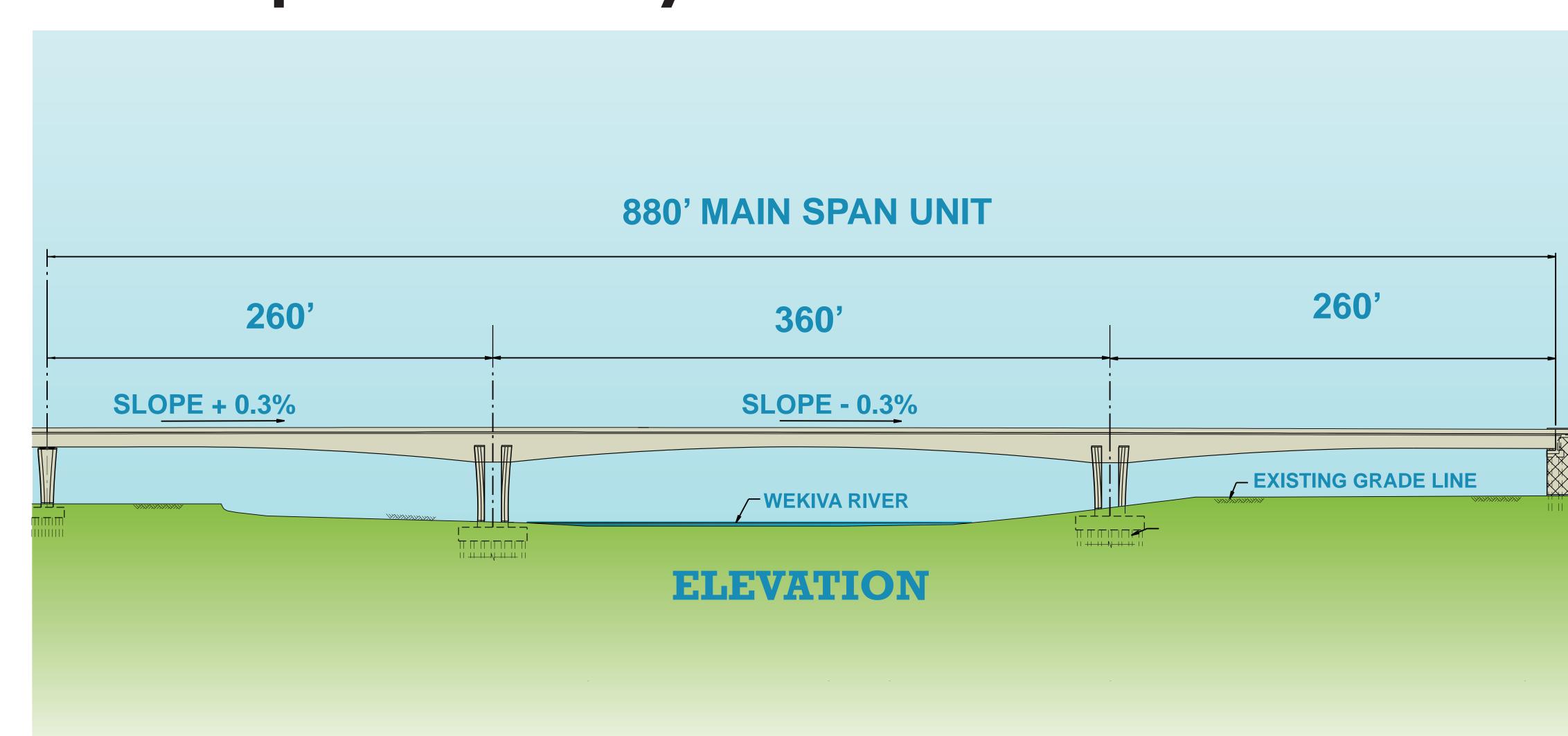


Bridge Geometry

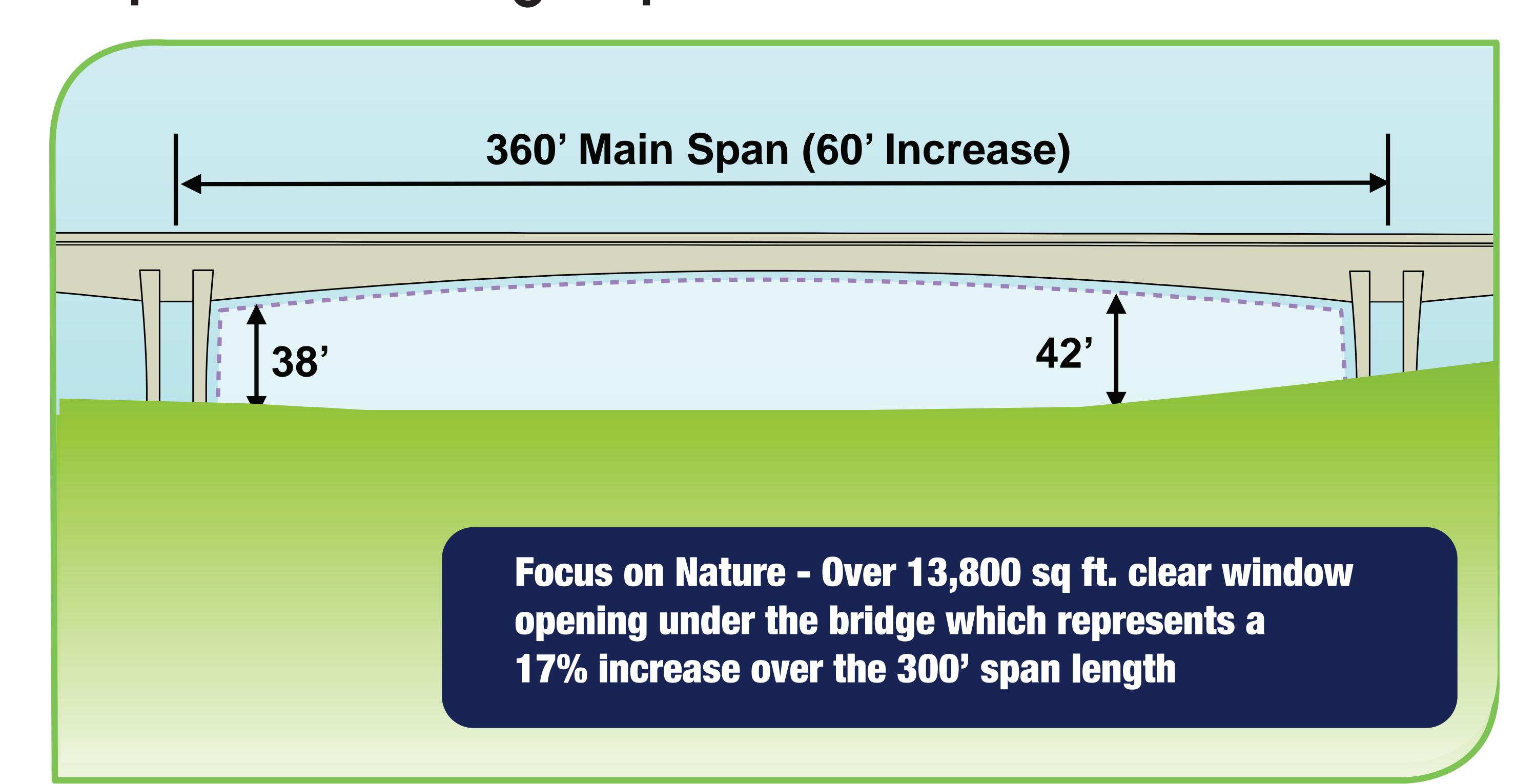
New Bridge Profile



Main Span Unit Layout



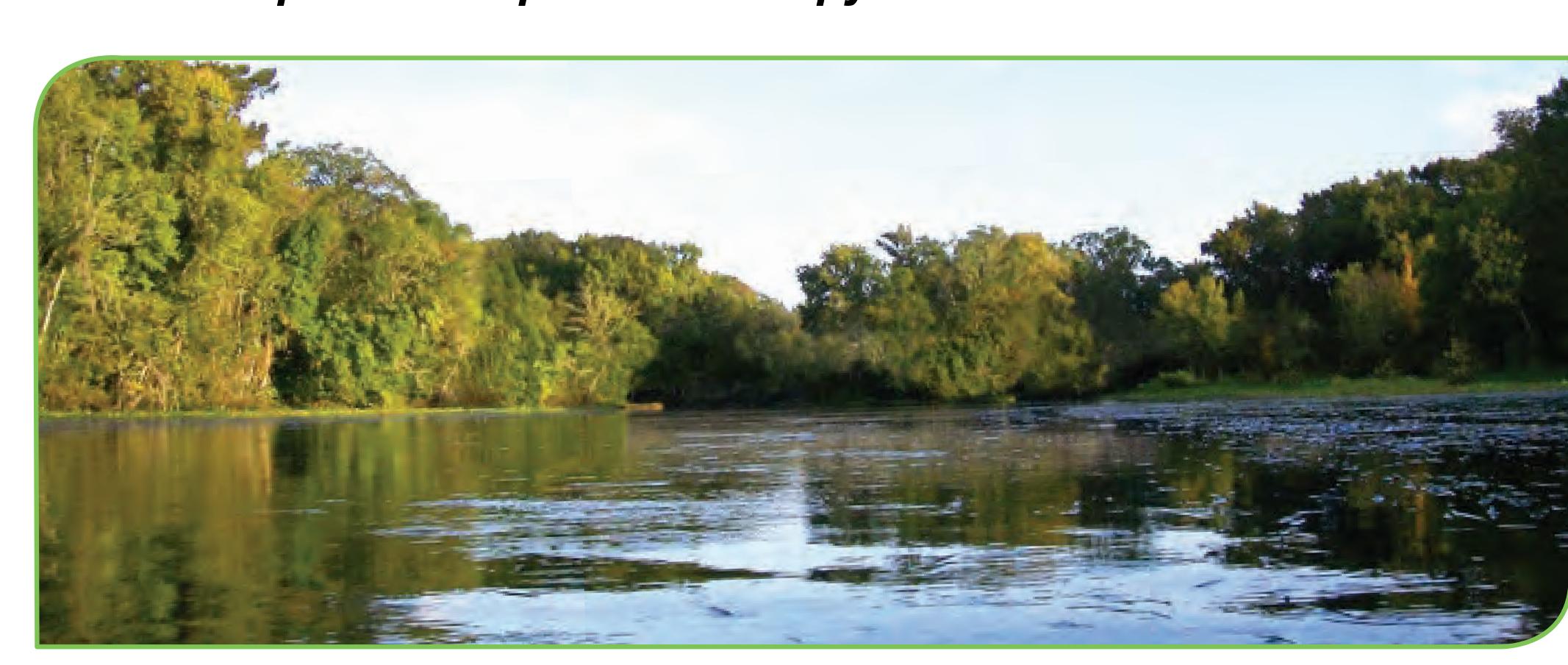
Openness of Longer Span over River



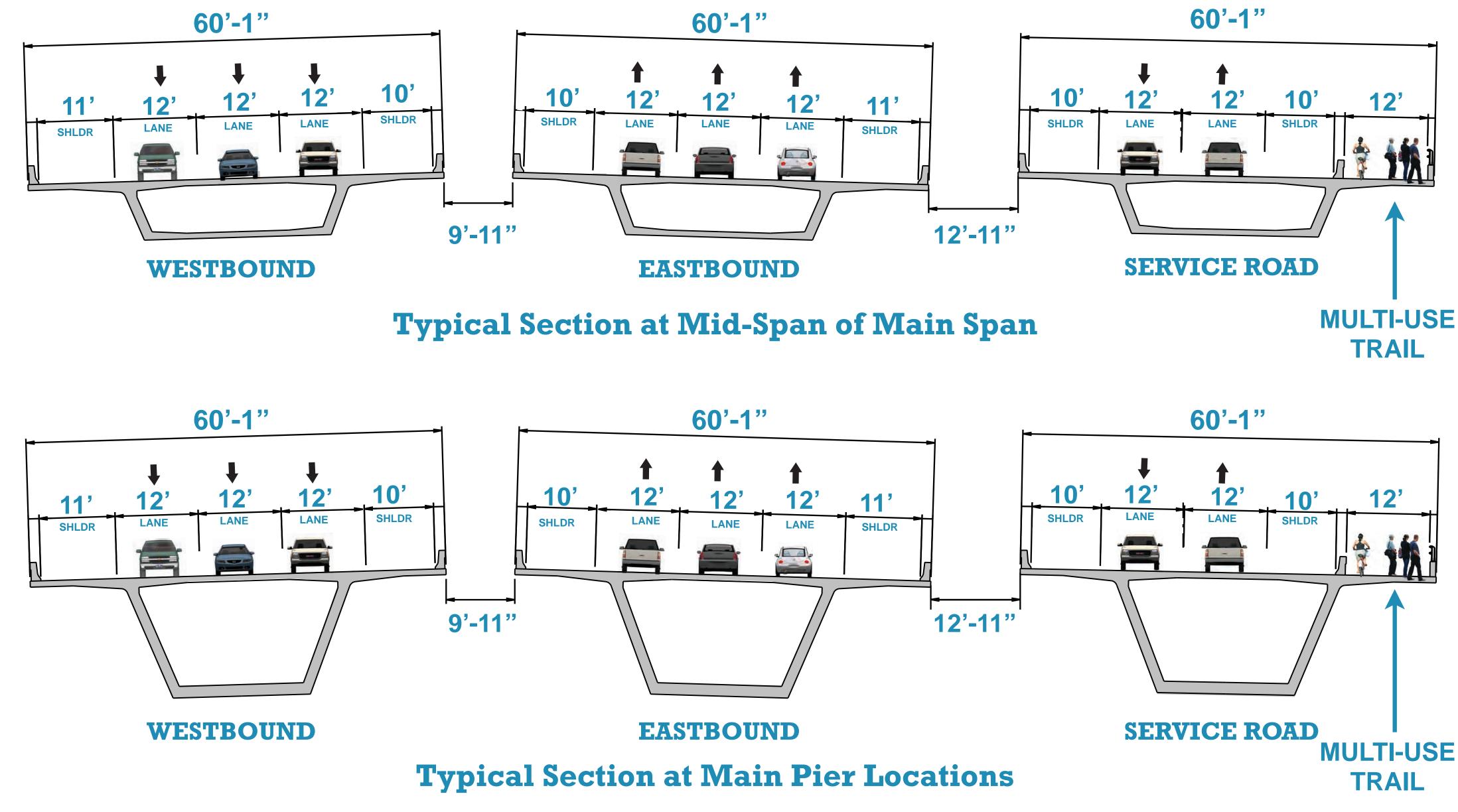
Bridge Vertical Profile

Important Criteria From Bridge Design Workshop on June 18, 2013

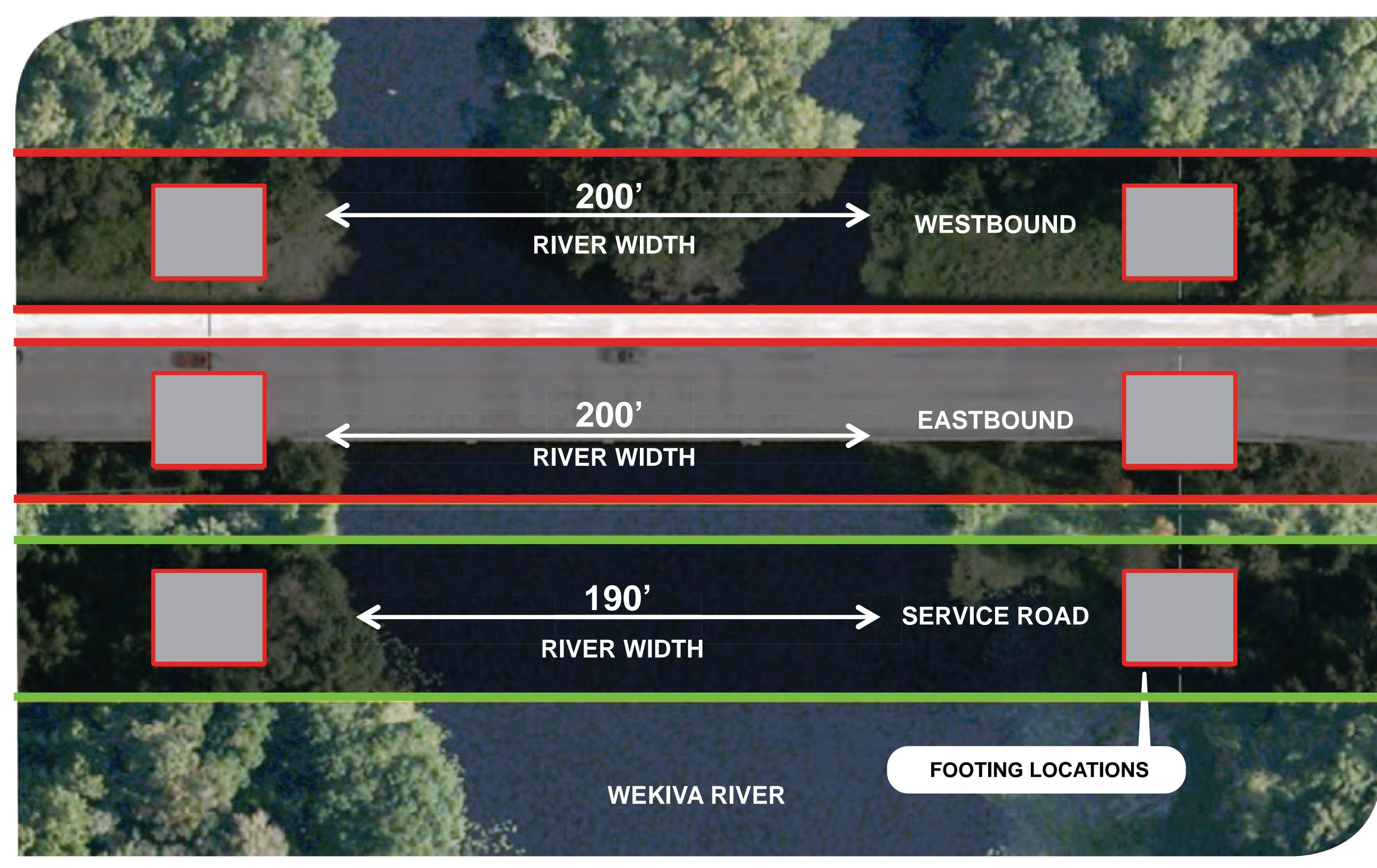
"Provide a bridge profile where the bridge and vehicles on top are kept below top of tree canopy"



Typical Cross Sections



Openness of Longer Span over River



FOOTINGS ARE LOCATED UNDERGROUND

Final Bridge Vertical Profile





Begins With A Theme

The "Theme" selected by the participants will be the inspiration for creating many bridge features using bridge archetypal design principles. Various options of shapes, shadows, texture, color and native materials will be explored with the theme in mind. These options will be presented at another Design Charette for selection of the favorite design. All options will be within budget.

At today's Design Charette, participants' preferences are shared for basic styles in key categories as shown on this banner.

SHAPES & SHADOWS

Examples of bridge pier shapes with rounded/organic styles and angular styles:

Rounded Pier

Selmon Expressway, Florida

Rounded/Organic



Elliptical Pier with Glass Mosaic Tiles Broadway Bridge,



Curved/Open pier US 280 Elevated Roadway,

Angular



Tapered Pier with Smart Road Bridge,



Angular Pier Victory Bridge,



Angular Slender Pier Sculptural Slender Pier New I-35W Bridge, 17th Street Bridge,

Angular Pier Wabasha Freedom Bridge,

Your Bridge Will Be Designed Using Archetypal Principles

Use a Theme Blend Shapes **Create Shadows** Select Appropriate Textures **Choose Pleasing Colors** Open New Vistas **Use Native Materials Create Feature Lighting**

TEXTURE Examples of bridges incorporating textures:

Vertical Texture



I-110 Biloxi, Mississippi

Horizontal Texture



Hanging Lake Viaduct, Colorado

Texture of Trees Twin wall texture of organic layers

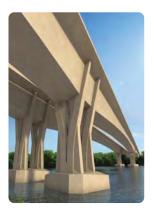


Earthen Texture Matching Landscape





US 191 Colorado River Bridge, Moab, Utah



COLOR Proper use of local materials can create a bridge that blends into the natural landscape

Examples of bridges incorporating color:

Authentic bridge color comes from local sourcing of materials from nature





cement gravel

AirTrain JFK,

Authentic Concrete Color



Accent in Eco-Stains



Allegheny River Bridge, Pennsylvania Local stone earth colors create an accent on piers



US 191 Colorado River Bridge, UT

A Pleasant Surprise For Recreational Users Boating Under The Bridge

A great thing about nature is its wonderful visual surprises



Select Color Palette: Wekiva River **Bridge** Location







Wekiva River Themes

























Cabbage Palms



Trees Along 1 Mile Stretch of Existing Bridge

Overall Views





Blooms Along the River







Beauty Berry













Swamp Sunflower



Longleaf Pines



Celebration of Trees on the Rivers Edge

Example of Possible Pier Shapes Inspired By The Theme

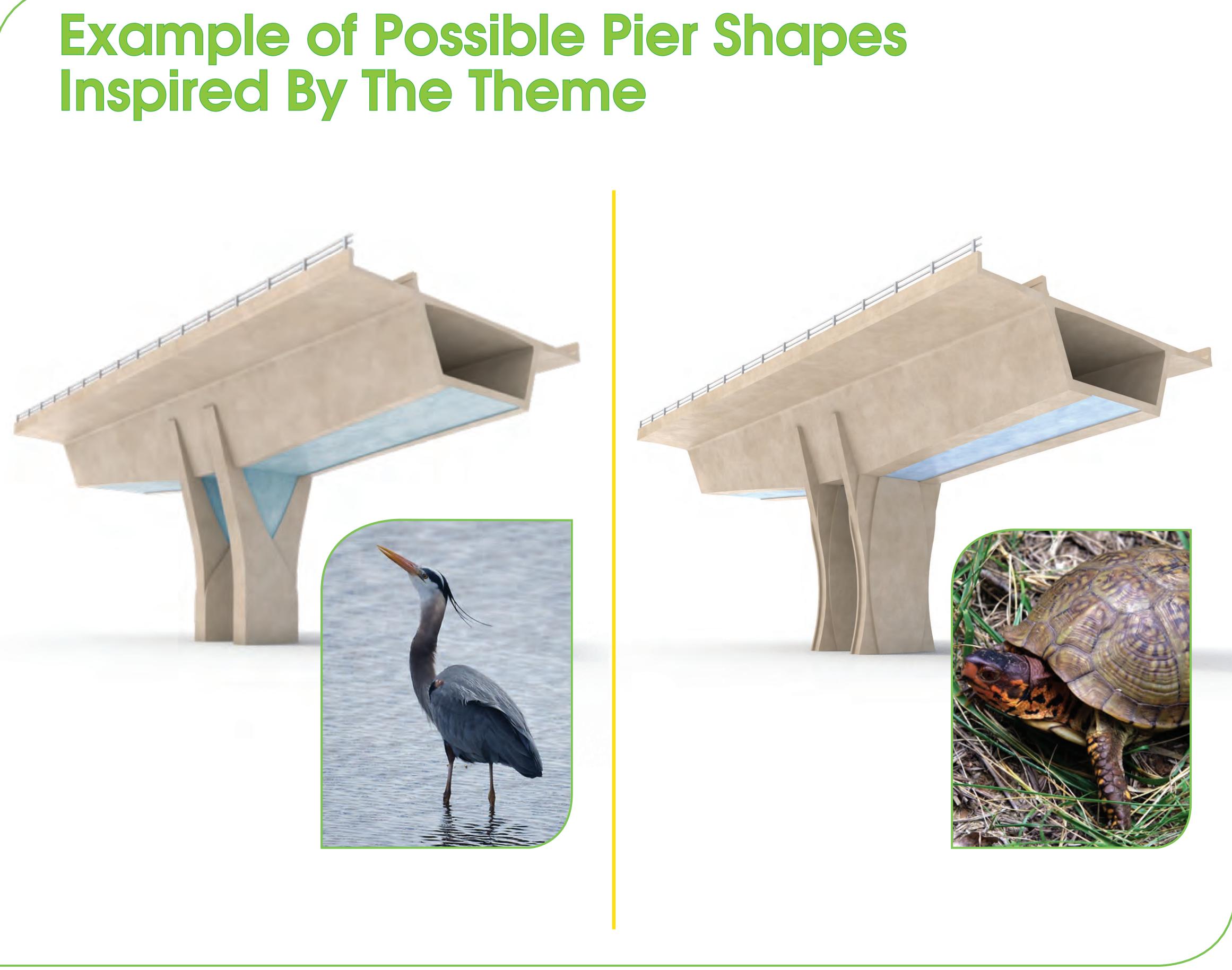






Wekiva River Themes

Tribute to Nature on Wekiva

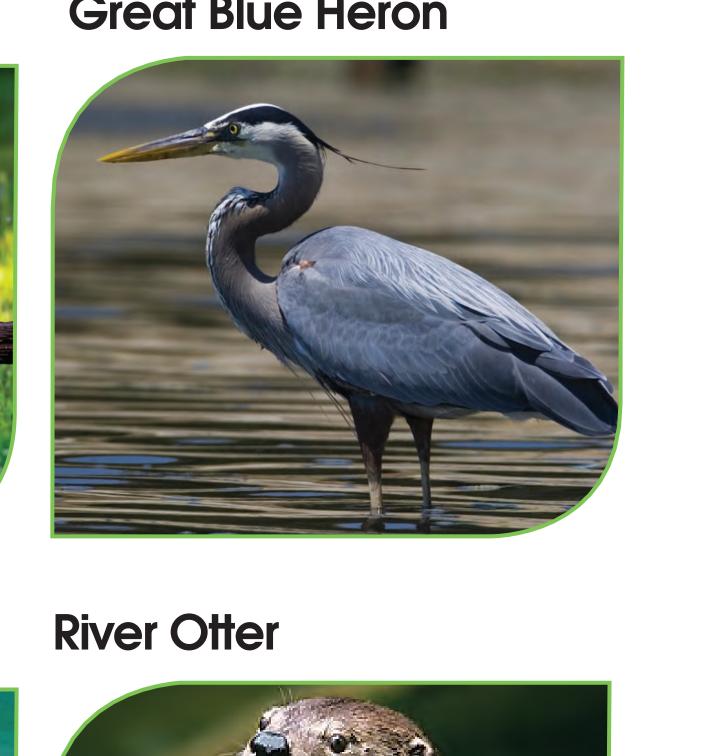






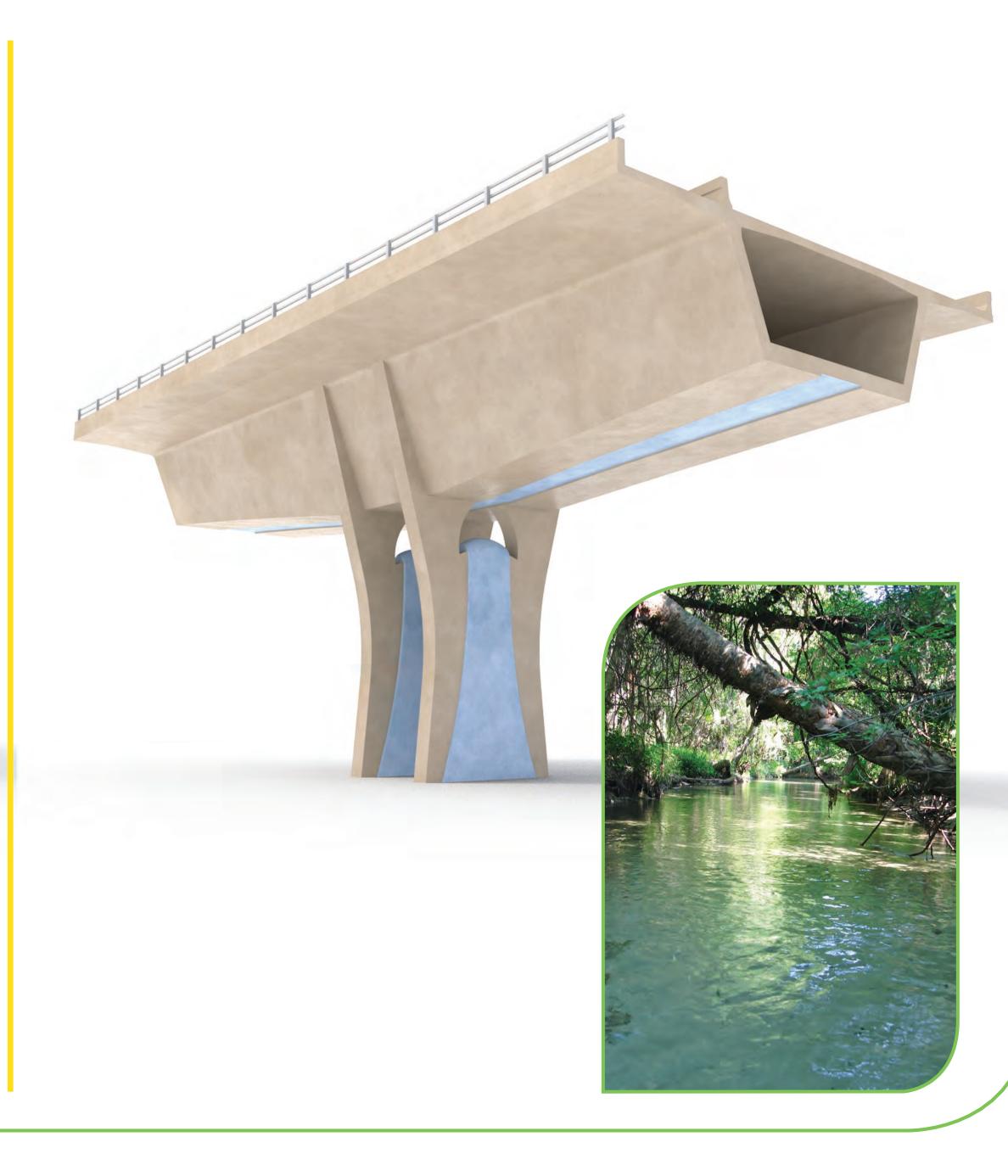
Florida Black Bear

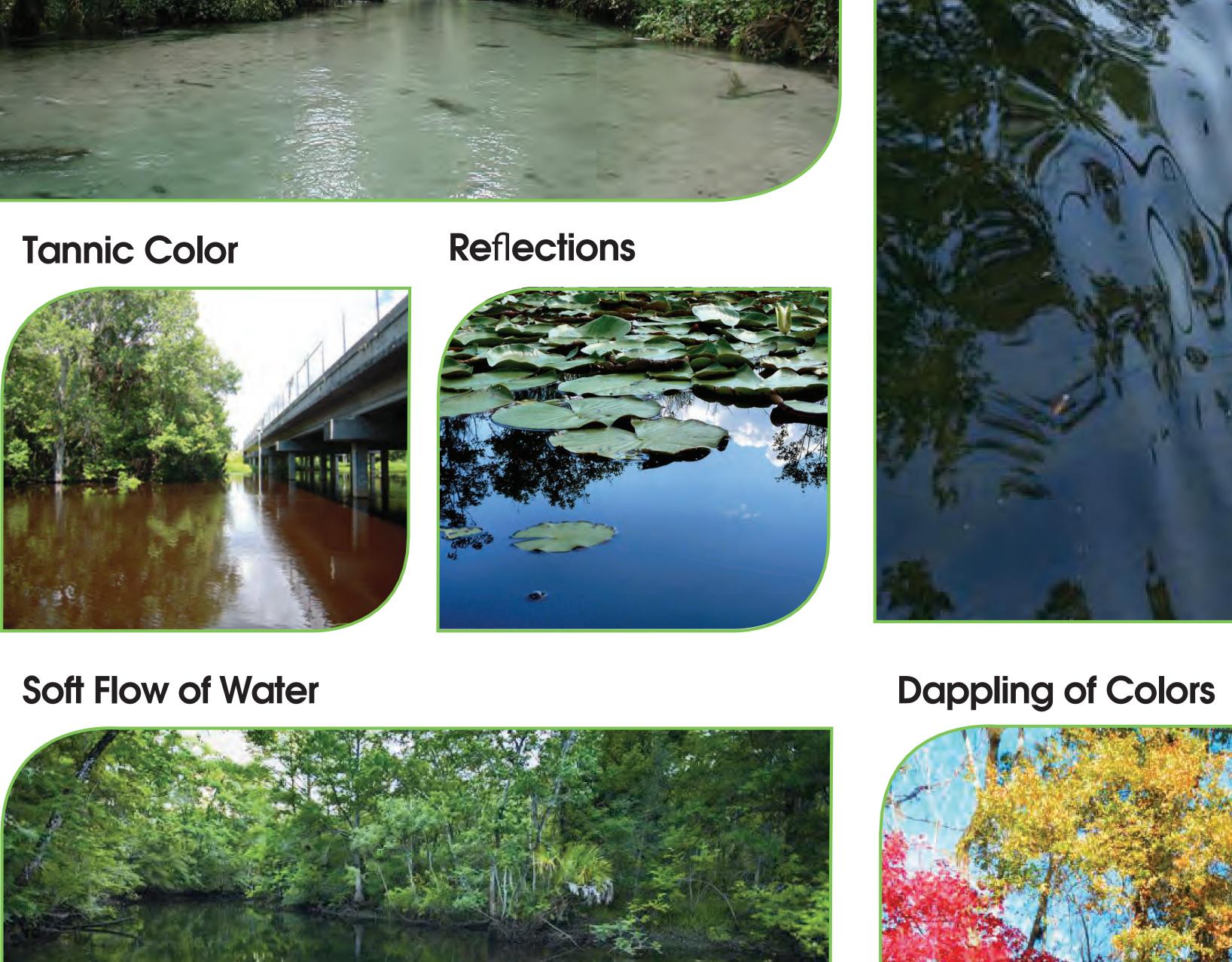






Tribute to Water on Wekiva



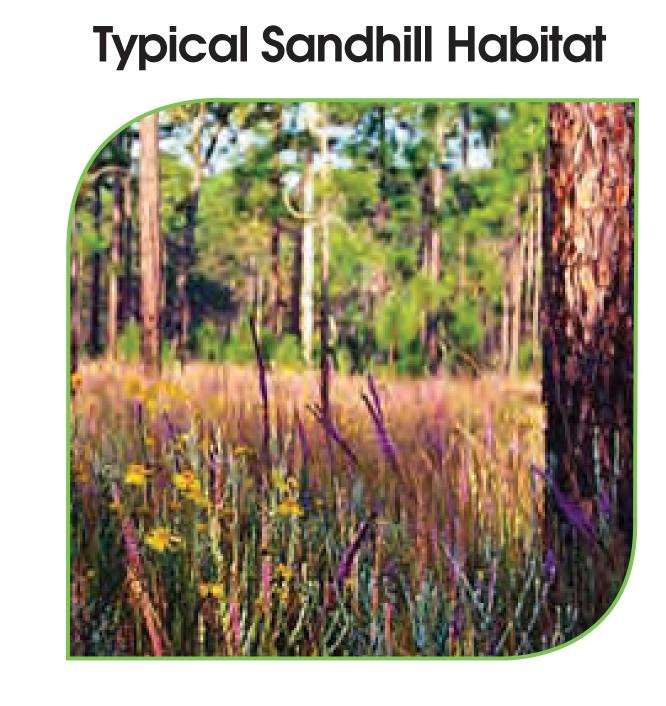








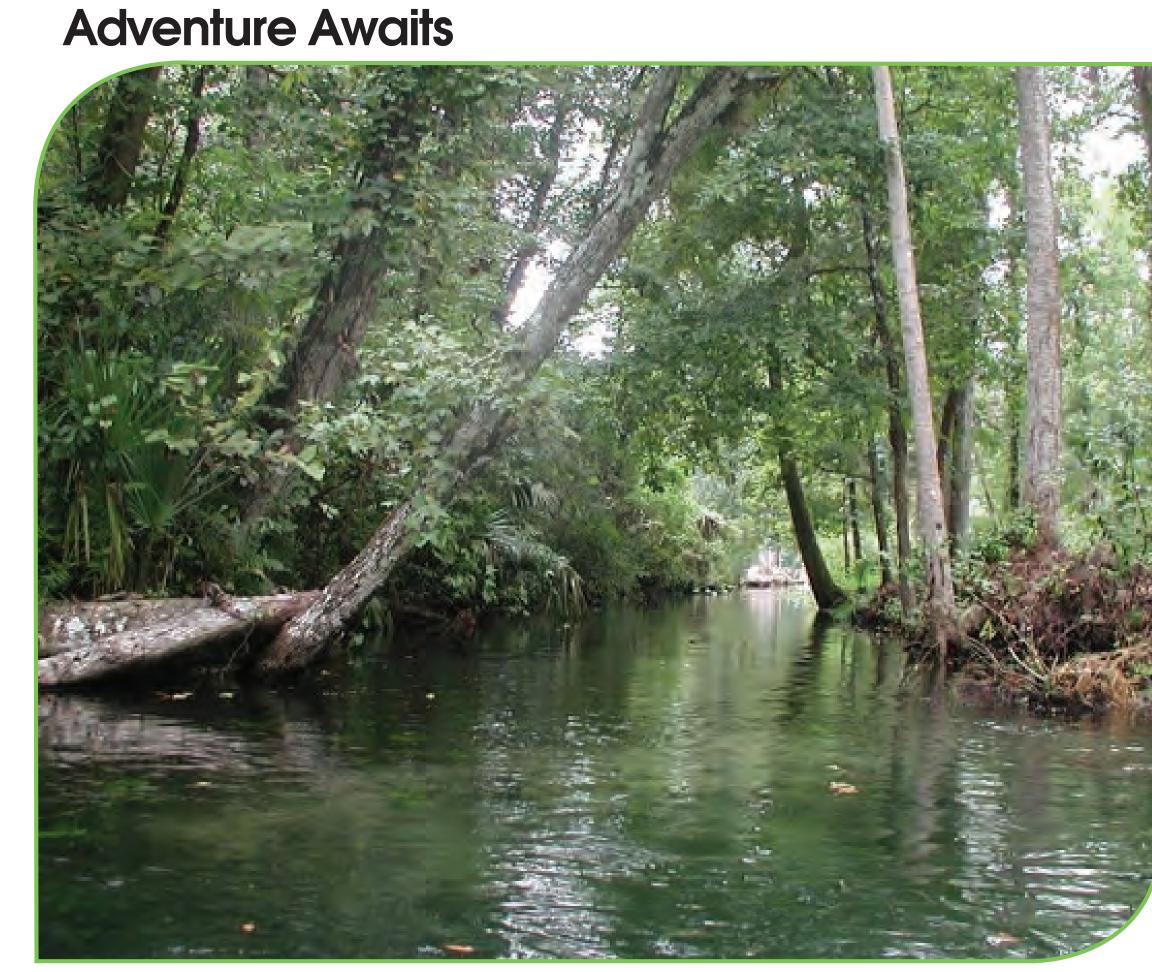




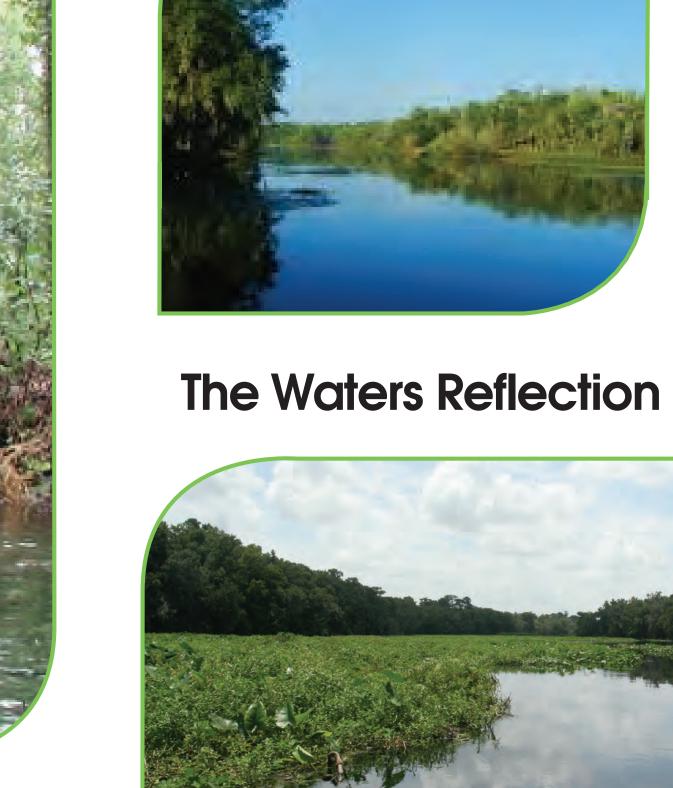










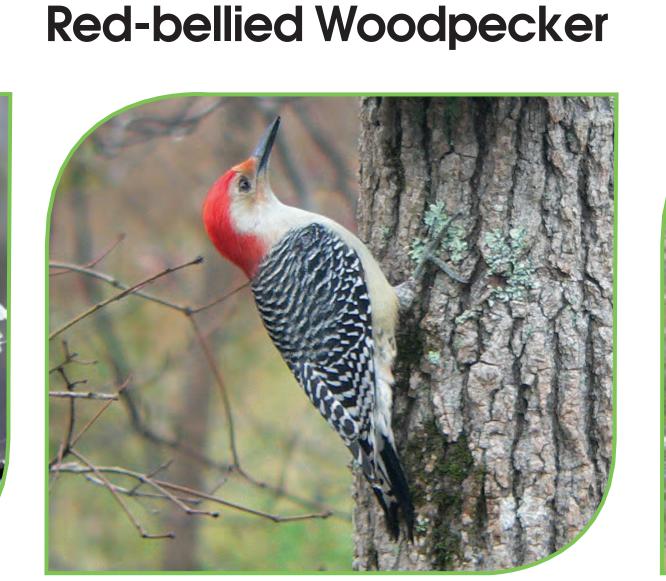


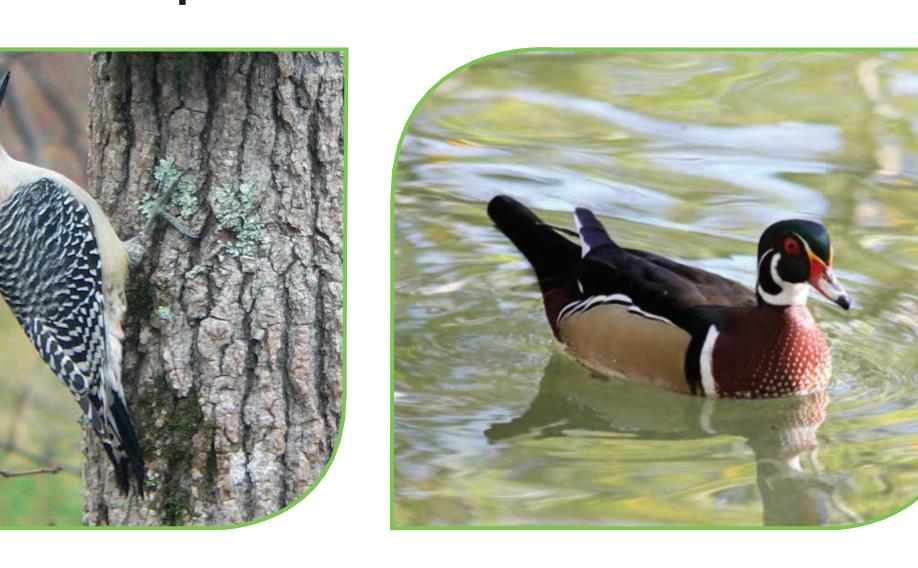
The River Sparkles

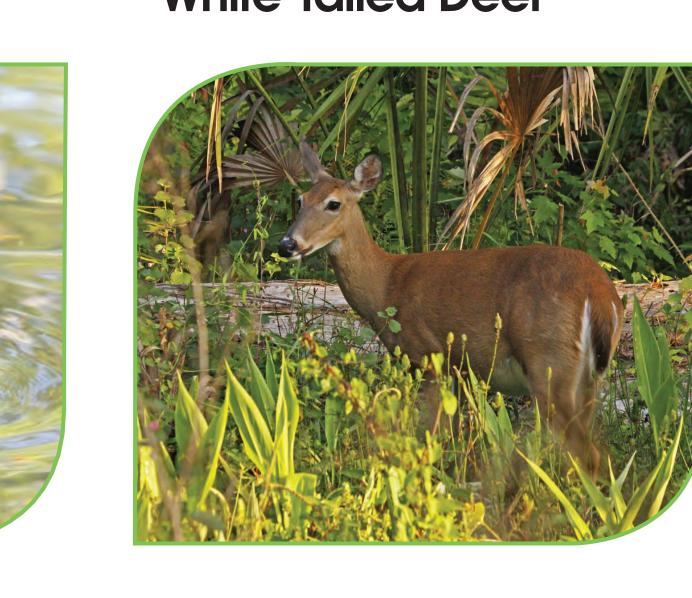


Osprey









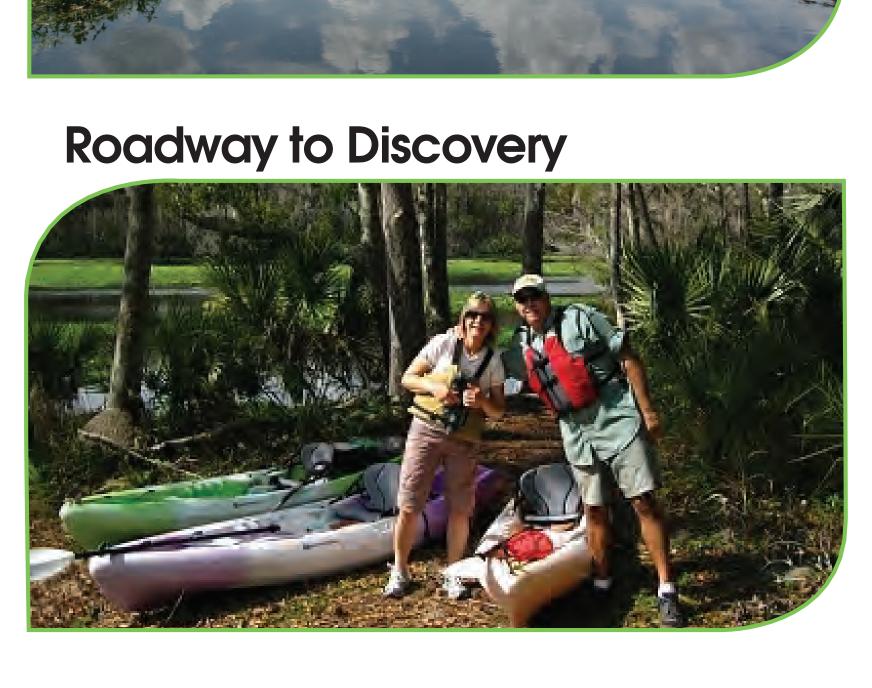




Outdoor Excitement









Rippling Water



APPENDIX J

Final Bridge Design Charette 1
PARTICIPANT COMMENT FORMS

SR 429/SR 46 Wekiva Parkway Wekiva River Bridges

December 11, 2013



Theme Preference

										at represents your preference. If no box is filled then a 5 will be recorded as Neu
	= Lowes	t Score		5 = 1460						
Die	omo	Alo	an th	o Div						T like the
, DIC	oms	Alo	ig tii	e niv	er					Comments:
										Simple design of both
										bloom examples. Staying
1	2	3	4	5	6	7	8	9	10	away from trying to look
Dis				Neu	OR STATE			3	Like	like a treel bloom : mo
	10.00			110000	ON COLUMN					subtle.
. Cel	lebra	tion	of Tr	ees (on th	e Riv	ers l	Edge	•	Comments:
										I like the way this design
_				_	_	_		_		miniscally a proposed a
	_									IVI IVI IC THE THE THEORY CONCE OF
1	2	3	4	5	6	7	8	9	10	the trees found along 4.
1 Disl	A 2000	3	4	5 Neu	DAME.	7	8	9		
	ike	3 to Na		Neu	tral		8	9	10	the trees found along 4. riven Comments:
	ike			Neu	tral		8	9	10	the trees found along 4. riven Comments: I Like this design esp
	oute 1	to Na	ature	on V	Vekiv	/a			10 Like	the trees found along to riven Comments: I like this design esp the one that mimic A Great of
. Trik	oute t			on V	Vekiv		8	9 - 9	10 Like	Comments: I Like this design esp the one that mimic A Great a Heron Standing at the niver
	oute t	to Na	ature	on V	Vekiv	/a			10 Like	Comments: I Like this design esp the one that mimic A Great a Heron Standing at the niver
. Trik	oute t	to Na	ature	on V	Vekiv	/a			10 Like	Comments: I Like this design esp the one that mimic A Great a Heron Standing at the niver
. Trik	oute t	to Na	ature	on V	Vekiv	/a			10 Like	Comments: I Like this design esp the one that mimic A Great of Heron Standing at the niver edge. It was simple, The Ultimate theme that is see Should be kept as simple
. Trik	oute t	to Na	ature	on V	Vekiv	/a			10 Like	Comments: I Like this design esp the one that mimic A Great of Heron Standing at the niver edge. It was simple, The Ultimate theme that is see Should be kept as simple
. Trik	oute t	to Na	ature 4	on V	Vekiv 6 bral	/a	8	9	10 Like	Comments: I Like this design esp the one that mimic A Great a Heron Standing at the niver
. Trik	oute t	to Na	ature	on V	Vekiv	/a			10 Like	Comments: I Like this design esp the one that mimic A Great of Heron Standing at the niver edge. It was simple, The Ultimate theme that is see Should be kept as simple
. Trik	oute to	to Na	ature 4	on V	Vekiv 6 tral ekiva	/a	8	9	10 Like	Comments: I Like this design esp the one that mimic A Great of Heron Standing at the niver edge. It was simple, The Ultimate theme that is see Should be kept as simple

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

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Theme Preference

Blo	oms	Alui	.9	20000						Comments:
_	_	*	0	_	*			0		But the structure is simpler
1	2	3	4	5	6	7	8	9	10	than the tree disign.
Disli	ike			Neu	ıtral				Like	(We do not have the species of lify depicted in the photo, we know you
										lily depicted in the photo, we to
15.0	21	Luc.	10.20		9552	لقارا				Color will also be
Cel	ebra	tion	of Tr	ees o	on th	e Riv	/ers	Edge	•	comments: Colar will also be an important component of this "tree" design.
									-83	an important component of the
									×	the disign.
	2	3	4	5	6	7	8	9	10	
1	-									
Dislii Trib		to Na	iture	Neu on V		/a			Like	Comments:
				on V	Vekiv		0			Comments:
				on V	Vekiv					Comments:
	oute t			on V	Vekiv					Comments:
Trib	oute t			on V	Vekiv				10	Comments:
Trib	oute t	3	4	on V 5 Neu	Vekiv	7			10	
Trib	oute t		4	on V 5 Neu	Vekiv	7			10	Comments:
Trib	oute t	3	4	on V 5 Neu	Vekiv 6 fral	7 7	8	9	10 Like	
Trib	oute t	3	4	on V 5 Neu	Vekiv 6 fral	7	8	9	10	Comments:
Trib	oute t	3	4	on V 5 Neu	Vekiv 6 fral	7 7	8	9	10 Like	Comments:

SR 429/SR 46 Wekiva Parkway Wekiva River Bridges

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Theme Preference

7.	_									Comments:
	•									
Dislik	2	3	4	5	6	7	8	9	10	
	е	7/1		Neu	tral				Like	
2.3		A 150	V 52.5			00.1	e de la companya della companya della companya de la companya della companya dell			
Celel	brat	tion (of Tre	ees c	on the	e Riv	ers	Edge	•	Comments:
						0		0		
1	2	3	4	5	6	7	8	9	10	<u> </u>
Dislike	8 1		_	210000	-				100	
		o No	turo	Neu					Like	
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Tribu	ute t	0	_	on W	/ekiv	•		0		
Tribu	ute to		_	on W	/ekiv	a - 7		9	10	
. Tribu	ute to	3	4	on W	/ekiv	7		9		
Tribu	ute to	3	4	on W	/ekiv	7		9	10	Comments:
Tribu	ute to	3	4	on W	/ekiv	7		9	10	Comments:

SR 429/SR 46 Wekiva Parkway Wekiva River Bridges

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Theme Preference

ыо	oms	7.10.	3		7					Comments:
								_		
1	2	3	4	5	6	7	8	9	10	
Disl	ike			Neu	tral	95			Like	
Cel	ebra	tion	of Tr	ees c	on th	e Riv	/ers	Edge)	Comments:
							_	0		
i	2	3	4	5	6	7	8	9	10	
	~	9	4	9	ų.	-	0	7	-	
Disli	ike	to Na	iture	Neu		ra			Like	Comments:
Disli	ike oute t			on W	/ekiv					
Trib	oute t		_	on W	/ekiv	0				
Disli	oute t			on W	/ekiv		8	9		
Trib	oute t	3	_	on W	/ekiv	7		9		
Trib	oute t	3	4	on W	/ekiv	7		9		
Trib	oute to 2 ke	3 o Wa	4 atter o	on W	/ekiv	7	8	9	10 Like	Comments:
Trib	oute to a contract of the cont	3	4	on W	/ekiv	7		9	10 Like	Comments:

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



Theme Preference

						Comments: Books are a
	-	_			_	the water
		7	8	9	10	'
١	leutral				Like	
of Tree	s on th	ie Riv	/ers l	Edge	e	comments: When I think of cypres: trees, I think or structure
						and support . I think a
4 5	6	7	8	9	10	vague mimic of cypress on
N	leutral				Like	the bridge supports would be thematic and aesthetically pleas
lature or	ı Wekiv	/a	-	0		comments: This is a broad topic and would encompared of these ideas.
4 5	6	7	8	9	10	-
N	eutral				Like	
/ater on	Wekiva	a				Comments: We are already Offsering tribute to water by considering the users
	n of Tree	Neutral Neutral Neutral A 5 6 Neutral Nature on Wekin	Neutral Neutral Neutral A 5 6 7 Neutral Nature on Wekiva A 5 6 7	Neutral Neutral Neutral Nature on Wekiva 4 5 6 7 8 Neutral 4 5 6 7 8 Neutral	Neutral Neutral Neutral Nature on Wekiva 4 5 6 7 8 9 Neutral 4 5 6 7 8 9 Neutral	Neutral Like n of Trees on the Rivers Edge 4 5 6 7 8 9 10 Neutral Like

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



Theme Preference

1. BI	ooms	Alor	ng th	e Riv	er					Comments: I am of the mindset
										pleasing to the eye. Not just
1	2	3	4	5	6	7	8	9	10	Round or squares.
Di	slike			Neu	itral				Like	
2. Ce	elebra	ition	of Tr	ees c	on th	e Riv	/ers	Edge	•	Comments:
				-						•
		3	4	5	6	7	8	9	10	
1	2	•							100	
Dis	slike		ature	Neu		va.			Like	Comments:
Dis	-		ature	111.92		ra 🗆			Like	Comments:
Dis	slike ibute	to Na		on W	/ekiv	ra		9	Like	Comments:
Dis	ibute	to Na		on W	/ekiv	0		9		Comments:
Dis	ibute 2	to Na	4	on W	/ekiv	7		9	10	Comments:
Dis	ibute 2	to Na	4	on W	/ekiv	7		9	10 Like	Comments: Unsure of to colony but
Dis 3. Tri Dis	ibute 2 slike	to Na	4 ater o	on W	/ekiv	7	8		10 Like	Comments:
Dis 3. Tri Dis	ibute 2	to Na	4	on W	/ekiv	7		9	10 Like	Comments: Unsure of to colony but

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013

Theme Preference



				27107			st Score	,		
. Blo	oms	Alor	ng th	e Riv	/er					Comments: GIVEN LOCATON E
		*								COLUMIAS (PIBLS) AT AS
										DISTAGLE FROM THE PL
1	2	3	4	5	6	7	8	9	10	DO NOT BELIEVE TU
Disl	ike		170	Net	utral				Like	AU ARTISTIC TREATMENT
										MEAHLHOFUL OR A USE F EXPRIDATIONS OF PUBLIC F
										EXPRIDATIONS OF PUBLIC I
. Cel	ebra	tion	of Tr	ees	on th	e Riv	ers	Edg	е	Comments:
										COLUMNS PIFES WI
										EVESTINEY BE AT LAST
1	2	3	4	5	6	7	8	9	10	PARTING OBSCURD B1
Disli	and the same	-17		Neu	itral			M	Like	VEGETATOR
1000				- Children					01/200	
										COWHO DESIGNS WITH
. Trib	uto 1	o No	turo	on V	Vakis	1 0				Comments: OR (REVACES)
	ute	IO INA	luie	OII V	VEKI	/a				Comments:
										Problems.
1	2	3	4	5	6	7	8	9	10	
Disli	ke		400	Neu	tral		-	7	Like	
			7	4,000	4910					
بالاليك	1461	: ديان (ture t					
Trib	ute t	o Wa	iter c	on W	ekiva	а				Comments:
										-
1	2	3	4	5	6	7	8	9	10	
Dislil				Neu	iral				Like	

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Theme Preference

	7-210-	Aloi	ig th	e Riv	er					Comments: NUTURAL
				OLEN	0					
1	2	3	4	5	6	7	8	9	10	, , , , , , , , , , , , , , , , , , ,
Dis	like			Neu	itral				Like	
	lakua		- 4 T-		46.	- Div		- daya		Comments: VERTICAL LINES PERCE
. ce	lebra	tion	or ir	ees c	on th	e Hiv	ers	Eage		SHOREL INE
								9	10	
1	2	3	4	5	6	7	8	7	10	
Disi	2 like bute t		30	Neu	tral		8		Like	Comments: OK
Disi	like		30	Neu	tral			-		Comments: 4
Disi	bute 1	to Na	30	Neu	tral		8	9	Like	
Disi	bute t	to Na	iture	on W	Vekiv	⁄a 🗆	0	9	Like	Comments:
Trill I Disl	bute t	to Na	uture	on W	Vekiv 6	7	0	9	Like	
Trill I Disl	bute to	to Na	uture	on W	Vekiv 6	7	0	9	Like	
Trill I Disl	bute to	to Na	uture	on W	Vekiv 6	7	0	9	Like	Comments: COULD BE EFFECTIVE
Trill I Disl	bute to	to Na	ature 4	on W	Vekiv 6 Iral	7	0	9	Like 10 Like	Comments: COULD BE EFFECTIVE

SR 429/SR 46 Wekiva Parkway Wekiva River Bridges

December 11, 2013



Theme Preference

Blo	ooms	Alor	ig til	e niv	٠.					Comments.	Uhe		400	er (e	-	9
								har E								
1	2	3	4	5	6	7	8	9	10							_
Disi	like			Neu	itral				Like							
Cel	lebra	tion	of Tr	ees c	on th	e Riv	/ers	Edge)	Comments:	like	SL	inj	1/15	ti	ر
		Á	A							Comments:	gn t	he	at	6/4	enc	ent
5	_	_	7	=					-							
	0	2	4	E		7	0	0	10							
l Disl		3 to Na	4 ature	Neu on W		7 'a	8	9	10 Like	Comments:	*					
Disl	THE REAL PROPERTY.			Neu	tral	a		9		Comments:	_					
Disl	ike	to Na	ature	Neu	tral Vekiv	a		9	Like	Comments:	_					
Trik	oute t	to Na	uture	on W	ral Vekiv □	a -			Like	Comments:						
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SR 429/SR 46 Wekiva Parkway Wekiva River Bridges

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Theme Preference

. Blo	ooms	Alor	ig th	e niv	er					Comments:
			_		-	_	_	0		
1	2	3	4	5	6	7	8	9	10	
Dis	like		7	Neu	ifral	W	Cont		Like	
	lebra	tion .	of Tr		on th	o Pi	roro l	Edaa		Comments. Duly if it's not alot more
Ce	lebra	lion	01 11	ees (JII (II	e niv	reis i	Luge	,	Comments: Only if it's not alot more expensive. 2016
										without the holo so there is
	2	3	4	5	6	7	8	9	10	3D on approach. For clear
		_	-	_	-			_	-	they will not be in the river
Disl	ike			Neu	tral				Like	The year of the last of the la
-	ike		3	Neu	tral				Like	could be pressure cleaned w/wa
Disl	ike oute t	to Na	ture			/a			Like	Structurally compromised. Comments: Otherwise, leave them al
Disl		to Na	ture			/a				Structurally compromised. Comments: otherwise, leave them al Normal aging / graying wi
Disl	oute t	_		on V	Vekiv	0				Structurally compromised. Comments: otherwise, leave them al Normal aging / graying wi
Disl	oute t	to Na	ture	on W	Vekiv 	/a	8	9	 10	Structurally compromised. Comments: Otherwise, leave them al Normal aging / graying wi look more like trees.
Disl	oute t	_		on V	Vekiv 	0	8	9		Structurally compromised. Comments: otherwise, leave them al Normal aging / graying wi
Disl	oute t	3	4	on V	Vekiv 	7	8	9	 10	Structurally compromised. Comments: Otherwise, leave them al Normal aging / graying wi look more like trees.
Disl	oute t	3	4	on V	Vekiv 	7	8	9	 10	Structurally compromised. Comments: otherwise, leave them al Normal aging / graying wi
Disl	oute t	3	4	on V	Vekiv 	7	8	9	 10	Structurally compromised. Comments: Otherwise, leave them al Normal aging / graying wi look more like trees.
Disl	oute t	3	4	on V	Vekiv 	7	8	9 9	 10	Structurally compromised. Comments: Otherwise, leave them al Normal aging / graying wi look more like trees.

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Theme Preference

. Bic	ooms	Alor	ng tn	e HIV	eı					Comments: Vestus on Yilles
			1							WILL OUTY BE SEEN CLOSE UP.
						×				
1	2	3	4	5	6	7		9		COLOR & BRIDGE SHAPE WILL
Dis	like	9		Neu	itral	Z.			Like	DOLLIDATE.
. Ce	lebra	tion	of Tr	ees d	on th	e Riv	vers	Edge	9	Comments:
								4		
		2	4	5	6	7	8	9	10	
1	2	3								
Disl					JWs				Like	Comments:
Disl	ike oute i	to Na	ature	on V	Vekiv	/a				
Disl	bute 1	to Na	ature	on V	Vekiv	/a	0			Comments:
Disi	ike oute i	to Na	ature	on V	Vekiv 	/a	0	9		Comments:
Disi	oute t	to Na	ature	on V	Vekiv 	/a	0			Comments:
Disl	oute t	to Na	ature	on V	Vekiv	/a	0			Comments:
Disli Trib	bute 1	to Na 3	ature	on W	Vekiv 6 tral	/a	8		10 Like	Comments:
Disl Trik	oute 1 2 ike	to Na 3	ature 4 ater o	on V	Vekiv 6 tral	/a	8	9	10 Like	Comments:
Disl Trib Disli	oute to a control of the control of	to Na 3	ature 4	on W	Vekive 6	/a	8	9	10 Like	Comments:

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Wekiva River Bridges

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Gadal Silla

Theme Preference

. Bloc	oms	Alor	ng the	e Riv	er					Comments: Simple Subite
			_							
1	2	3	4	5	6	7	8	9	10	
Disli	ke		. 6	Neu	tral				Like	
. Cele	obro	tion .	of Tr	000.0	n th	o Dis	ore	Edac		Comments: Like this but
. Cele	ерга	LIOIT	01 110	ees c)II LII	e niv	rers	Euge	,	don't want it to loo
										toomsch like a free.
								_		subtle!
1	2	3	4	5	6	7	8	9	10	
Dislik	ke			Neu	tral		8	y	Like	Comments:
Dislik	ke			Neu	tral		8	9		Comments:
Dislik	ke			Neu	tral		8	9	Like	Comments:
Dislik	ute t	o Na	iture	on W	/ekiv	ra 🗆			Like	Comments:
Dislik	ute t	o Na	uture	on W	/ekiv	7			Like	Comments:
Dislik	ute t	o Na	uture	on W	/ekiv	7			Like 10 Like	

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

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Theme Preference

		3,550	.5	e Riv	CI					comments: Not enough Knowledge
	0									on types of blooms; blooms are not perennial; too different
1	2	3	4	5	6	7	8	9	10	to see on peen
Disli	ike			Neu	tral				Like	
0-1			-			- Di				A love to it is
Cei	ebra	tion	or ire	ees c	on th	e HIV	ers	Eage	,	Comments: Se long as it is
0										
1	2	3	4	5	6	7	8	9	10	
200				Neu	tral				Like	
Trib		to Na	iture			/a				Comments: Will lefe Will lefe
		to Na	uture			/a	8	9		Comments: the wild life in more spelar among there who sees visit the inver
	oute i	_	-	on W	Vekiv	_	8	-	10	Comments: the wild life in more spular among there who sees visit the inver
Trib	oute t	3	4	on W	Vekiv	7	8	-	Table 1	Comments: Will be will be the winer there who was visit the winer Comments: Water Form on water in redundant
. Trib	oute t	3 so Wa	4 ater c	on W	Vekiv	7	8	-	Table 1	Comments: Water Form on water
. Trib	2 ke	3 so Wa	4 ater c	on W	Vekiv	7	8	-	Table 1	Comments: Water Form on water

See BACK.

FINAL BRIDGE DESIGN CHARETTE #1

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



Bridge Style Preferences (Shapes, Shadows, Textures and Colors)

Using the black pens provided, please fill in completely one red box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

SHAPES (Please provide a preference for each item)

1a. Rounded / Organic Shapes

1b. Angular Shapes



Example

Dislike Neutral L	Lik

h	dis				
	E	-	m	n	

1	2	3	4	5	6	7	8	9	10
Di	slik	е		N	leu	tra			Lik
			-4-						
	m	me	nts	S: —	_	_	_	_	_

TEXTURE (Please provide a preference for each item) 2a. Abstract Texture 2b. No Texture



Example

			7		8	,	10
ke		1	leu	tra			Like
me	nte						
IIIIC	1113						
_		_	-			-	_
			iments:				



Example

3b. Staining

1 2 3 4 5 6 7 8 9 10

Dislike Neutral Like

Comments:

COLOR (Please provide a preference for each item)



Example

1	2	3	4	5	6	7	8	9	10
Di	slik	е		1	leu	itra	1		Lik

1			
19	V	١	
		-	
	н	1	

Example

1 2 3 4 5 6 7 8	9 10
Dislike Neutral	Like

- The Eco STAINED CUIOR Like USED IN
 The US191 COLORADO Bridge, MOAB UTAH
 blends well with the environment
- Also, using the Accent in ECO-STAIN

 texture Like varigates Stone

 Stain in the Allegheny River Bridge

 Penksylvania really fits well

 when the NATURAL BUVINONMENT
 - A combination of Dano a) is the most conducive to blending with the national environment.
 No Blue underweath unnatural.
 - Fruss Still Should be explored!

 As A Design aprior.

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Wekiva River Bridges

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Bridge Style Preferences (Shapes, Shadows, Textures and Colors)

Using the black pens provided, please fill in completely one red box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1a. Rounded / Orga	nic Shapes	1b. Angular Shapes	- like 260 like the
	1 2 3 4 5 6 7 8 9 10 Dislike Neutral Like		1 2 3 4 5 6 7 8 9 10 Dislike Neutral Like
DOLLAR BEST	Comments:		Comments:

Example

TEXTURE (Please provide a preference for 2a. Abstract Texture – \i\u03c4 "\u03c4rees" = 10	each item) - confusing question	10
2a. Abstract Texture - like "trees" = 10	2b. No Texture > smooth like = boing =	3



Example

	5 6 7 8
Dislike	Neutral



Example

-			
-va	m	nl	0
Exa		v	C

1	2	3	4	5	6	7	8	9	10
D	slik	e		1	leu	tre	Ĩ		Like

COLOR (Please provide a preference for each item)



Exam	ple
------	-----

1	2 3	4	5	6	7	8	9	10
Dis	slike	100	100	THE PERSON NAMED IN	tra	1	Sec.	Lik

cypress bank	
cypies bank	
Source of color	1



Example

	1 2 3	4 5	6	7 8	9 10
	Dislike		Neui	ral	Lik
A)	Comme	ents: -			

SILCUMO

for below

^

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Wekiva River Bridges

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Bridge Style Preferences (Shapes, Shadows, Textures and Colors)

Using the black pens provided, please fill in completely one red box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

SHAPES (Please provide a preference for each item)

1a. Rounded / Organic Shapes

1b. Angular Shapes



Example

1 2 3 4 5 6 7 8 9	10
Dislike Neutral L	ike



Example

1			-11	-51			 9	10
Dis	lik	е		1	leu	itra		Lik

TEXTURE (Please provide a preference for each item)

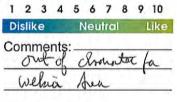
2a. Abstract Texture

2b. No Texture



Example

2	3	4	5	6	7	8	9	10
slik	е	-61	1	leu	tra			Like
			_					
mr	nę	ntş	-	0	, 5			_
0	1	OL	C	Xm	oho	101	- 1	a
	slik	2 3 slike mme	slike	slike N	slike Neu	slike Neutra	slike Neutral	slike Neutral



Example

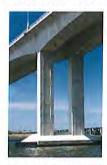


	ver	ıtrai	Lik€
			- 200
ts:_			
13. —			
	_		

COLOR (Please provide a preference for each item)

3a. Natural Color of Materials

3b. Staining



Example

•	2	3	4	5	6	7	8	9	10
Dis	lik	0		- N	Veu	tra		-	Lik

30	V	
į.		

Example

Di	slik	е		N	leu	tra	0	7	Lik
						-			-115
C	m	me	nts	:-				_	_
		AI	K						

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Bridge Style Preferences (Shapes, Shadows, Textures and Colors)

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SHAPES (Please provide a preference for each item)

1a. Rounded / Organic Shapes

1b. Angular Shapes



Example

Dislike Neutral Like Comments:	like Neutral Like		2								10
Comments:	mments:	Di	slik	е		N	leu	tra			Like
		20	mn	nei	nts	-	_	_	_	-	

Example

_		3	4	5	_	7	~	9	10
Dis	slik	е			leu	tra			Lik

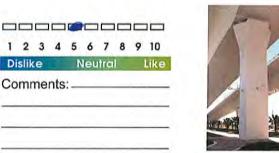
TEXTURE (Please provide a preference for each item)

2a. Abstract Texture

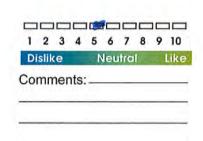
2b. No Texture



Example



Example



COLOR (Please provide a preference for each item)

3a. Natural Color of Materials

3b. Staining



Example

			4	_					10			
	slik					ire			Like			
Co	mr	ne	nts	:_			_	_			184	M
_	_	_		_		_	_	_	_			
_		-		_	_	_	_	_		0	0.0	

Example

D 1	SIIK	е		1	leu	itra		Lik
	_			-		HI.C	-	-110
Co	mi	me	nts	:-				

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Bridge Style Preferences (Shapes, Shadows, Textures and Colors)

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SHAPES (Please provide a preference for each item)

1a. Rounded / Organic Shapes

1b. Angular Shapes



Example

1	2	3	4	5	6	7	8	9	10
Di	slik	e	- 19	1	leu	tro			Lik



Example

1 2 3	4	_	_	7	10	y	Lik
Dislike		_	leu	_	10		ī

TEXTURE (Please provide a preference for each item)

2a. Abstract Texture

2b. No Texture



Example

Dislike Neutral L	Lik
Dieliko	V



Example

	2	- 1	-	-	6	-	8	7	10
Disli	lik	е		N	leu	tra			Lik

COLOR (Please provide a preference for each item)

3a. Natural Color of Materials

3b. Staining



Example

-	-	3	4	-	6		-	9	10
Di	slik	е		N	leu	tre			Lik

jin	M)	A STATE OF THE STA
10		ħ	
		ě,	

Example

1 2 3 4 5 6 7			leu			_	_	Like
---------------	--	--	-----	--	--	---	---	------

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Bridge Style Preferences (Shapes, Shadows, Textures and Colors)

Using the black pens provided, please fill in completely one red box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

SHAPES (Please provide a preference for each item)

1a. Rounded / Organic Shapes

1b. Angular Shapes



1 2 3 4 5 6 7 8 9 10

Dislike Neutral Like

Comments: Do Rauno Me

District Rouno Me

Rot / Cautelus / R



Example

1 2 3 4 5 6 7 8 9 10

Dislike Neutral Like

Comments:

VENTUAR ANUMAR

MAY BE COOD TO

MAN BE GOOD TO REPEAT LIVEARTHEE HUNKS

CONSIDER VARICATED
TEXTURE ON ENTIRE PIER
DRIENT TEXTURAL VERTILE

140	-	-1	-	4	-			-	"	١
1	2	3	4	5	6	7	8	9	10	
D					leu				Like	-

Dislike Neutral Like
Comments:



TEXTURE (Please provide a preference for each item)

2a. Abstract Texture

2b. No Texture







Example

COLOR (Please provide a preference for each item)

3 4 5 6

Comments: __

3a. Natural Color of Materials

erials 3b. Staining



		Ġ.
Exa	mple	

0000		
7 8 9 10		
tral Like		
	MA YOU	#
		1

Exam	nla	
Exam	DIE	

2 3 4 5 6 7	8 9 10
slike Neutro	I Like

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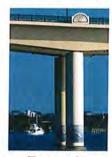
Bridge Style Preferences (Shapes, Shadows, Textures and Colors)

Using the black pens provided, please fill in completely one red box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

SHAPES (Please provide a preference for each item)

1a. Rounded / Organic Shapes

1b. Angular Shapes



Dislike Neutral Like
Comments: Kend of





Example

TEXTURE (Please provide a preference for each item) 2a. Abstract Texture 2b. No Texture



Example





Example

3b. Staining

COLOR (Please provide a preference for each item)

3a. Natural Color of Materials



Example

							b =		
1	2	3	4	5	6	7	8	9	10
Di	slik	е	1	1	leι	itra		-	Like
Co	mr	ne	nts	J	9	l	u	h	e
A	ti	7			PA	1	m	1	ne
	1	7	-	1	,)			0
	7	1	11	1 1	Λ	1			



Example

1	2	3	4	5	6	7	8	9	10
D	islik	e		1	leu	itra			Lik
	mn		10		-	_	_	4	_
20	mn	ner	its:	_0		4	_	~	-
								_	_
-									

1	2	3	4	5	6	7	8	9	10
D	islik	e		١	leu	tra			Lik€
Co	omi	me	nts	:: <u> </u>		_	_		_
٠,									

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Bridge Style Preferences (Shapes, Shadows, Textures and Colors)

Using the black pens provided, please fill in completely one red box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

SHAPES (Please provide a preference for each item)

1a. Rounded / Organic Shapes

1b. Angular Shapes



Example

1	2	3	4	5	6	7	8	9	10
Di	slik	е	O	1	leu	tra			Like



Example

1	2	3	4	5	6	7	8	9	10
D	slik	е	3	1	leu	tra			Lik

1 2 3 4 5 6 7 8 9 10

Neutral Like

Dislike

Comments:

to seme TEXTURE (Please provide a preference for each item)

2a. Abstract Texture

2b. No Texture



Example

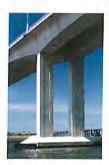
3b. Staining



Example

2 3 4 5 6 7 8 9 10 Dislike Neutral Comments:

COLOR (Please provide a preference for each item)



Example

1	2	3	4	5	6	7	8	9	10
Di	slik	е	18	1	leu	itra			Like

Example

1		
39	Y	
	ı	100
	1	

2	3 4	5	6	7	8	9	10
islike)	N	leu	tra		1	Like
omm	ents	s:_		0			
omm	min	1.0	1	K.	21	l.	1 %
1	1	1	8	_	-		0
der	re	U	1	_	se	u	K
in	. (he	1		6.	2	ul
rec		-				_	7
t		/		n		0	4

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Bridge Style Preferences (Shapes, Shadows, Textures and Colors)

Using the black pens provided, please fill in completely one red box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

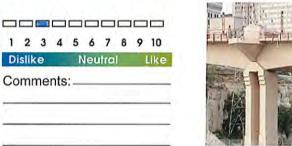
SHAPES (Please provide a preference for each item)

1a. Rounded / Organic Shapes

1b. Angular Shapes



Example



Example

1	2	3	4	5	6	7	8	9	10	
Di	slik	e		N	leu	tra			Like	
Co	mı	me	nts	: 1	Næ	4	be	1		
i	V	DN	100	10	1	ab	A	L		
	Li	M	7	W	el	P	NA.	_		
4	1	e	a	ua	le	J	W	C	hec	2
4	Ly	D	21	Ø	es	310	3/	h		
•	1					7	0			

TEXTURE (Please provide a preference for each item) 2b. No Texture 2a. Abstract Texture



Example

1	2	3	4	5	6	7	8	9	10
D	slik	е		ı	leu	itra			Like
1	mr	ne	nts l e	:- VI	lu	10			
n	a	4	u	0	<u>L</u>	C	0	0	15
		1	1						ent



Example

3b. Staining

Dislike		4	N	leu	tre	1	Like
DISIIKE	0			ieu	tra		LIK€

COLOR (Please provide a preference for each item)



Example

	2		4	5	6	7	8	9	10
Di	slik	е		N	leu	itra	ĭ		Like

Example

	1 2 3 4	5 6 7	8 9 1
	Dislike	Neutral	Lik
M #	Commen	s: We	7
	cole	He in	en

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Bridge Style Preferences (Shapes, Shadows, Textures and Colors)

Using the black pens provided, please fill in completely one red box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

SHAPES (Please provide a preference for each item)

1a. Rounded / Organic Shapes

1b. Angular Shapes



Example

1	2	3	4	5	6	7	8	9	10
Di	slik		100	N	lou	itra			Like



_____ 1 2 3 4 5 6 7 8 9 10 Comments: hielciva

TEXTURE (Please provide a preference for each item) 2a. Abstract Texture 2b. No Texture



Example

1 2 3 4 5 6	7 8	9 10
Dislike Neutr	al	Lik



Example

3b. Staining

Dislike Neutral				Veu	tro			Lik
-----------------	--	--	--	-----	-----	--	--	-----

COLOR (Please provide a preference for each item)



Example

1 2 3	4	5	6	7	8	9	10
Dislike		1	leu	itra			Like



Example

	10
Dislike Neutral	Like

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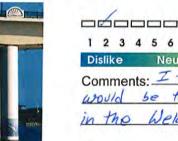


Bridge Style Preferences (Shapes, Shadows, Textures and Colors)

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SHAPES (Please provide a preference for each item)

1a. Rounded / Organic Shapes



1 2 3 4 5 6 7 8 9 10 Neutral Like Comments: I feel this would be too about Welliam setting



1b. Angular Shapes

Example

00000000 1 2 3 4 5 6 7 8 9 10 Dislike Neutral Like Comments: This looks man mude work not

TEXTURE (Please provide a preference for each item) 2b. No Texture

2a. Abstract Texture

Example



Example

	2							- 7	10
									Like
Co	mr	ne	nts		I	te	0/		1615
w	טט	H	6	20	ter		cu	pi	re
	p	-					-		
Th	eo	4	4	15	42				



Example

3b. Staining

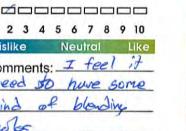
1 2 3 4 5 6 7 8 9 10 Dislike Neutral Like Comments: see The need too ture

COLOR (Please provide a preference for each item)



Example

	K								
1	2	3	4	5	6	7	8	9	10
Di	slik	е	3	1	leu	tra	I		Like
Co	mr	ne	ntş		I	fe	el		it
									ne
K	ind		0	P	b	la	Si	ne	



Example

1	2	3	4	5	6	7	8	9	10
Di	slik	е		1	leu	tra			Like
					0,				
0		200	nto		110	UE	v		1

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SHAPES (Please provide a preference for each item)

1a. Rounded / Organic Shapes

1b. Angular Shapes



Example

2a. Abstract Texture

1	2	3	4	5	6	7	8	9	10
Di	slik	a		N	leu	tro	11		Lik

TEXTURE (Please provide a preference for each item)

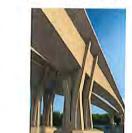


Example

2b. No Texture

Comments: too urban too blocky - not Consistent with environment prefer tree Shape & most this seems in that addition

1 2 3 4 5 6 7 8 9 10



Example

									0	
1	2	3	4	5	6	7	8	9	10	
Dis	slik	е		1	leu				Like	
Co	mr	nei	nts	. (100	1	00	+ 1	MON	Q
Col	Q	C	lid	0	6	2	6	0	n	
										•
W.	vo.						2		W. CV	1 .
0	e	110	L	_	pr	256	n-	to.	D'OV	1.



Example

1 2 3 4	1 5 6 7 8	9 10
Dislike	Neutral	Like
0		
Comments	C' .	^
Comments	oic Used),
T tree	e is Used	2
They	e is Used	2,

COLOR (Please provide a preference for each item)

3a. Natural Color of Materials

3b. Staining



Example

2 3	4 5	6	7	8	9	10
slike	1	Veu	trai	1		libe

Subtle tree like texture or if not a



Example

Dislike Neutral Like

Comments:
Conduct the colon
Swatch efferiment

as described with

Slide 22 (this presentation)

to dexermine a

so table colon

seet tree bark - not gleen

or is appear

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SHAPES (Please provide a preference for each item)

1a. Rounded / Organic Shapes

1b. Angular Shapes



Example

Comments: lean nu	1	2	3	4	5	6	7	8	9	10
	Di	slik	е	- 8	١	leu	tra			Like
	00	mr	no	nto	. 1	1	ec	20		nu
Deganic lines hi	0									100
Ocannic lines by	1,	3 6	000	16	_		A). [V	()
o feer Tives			-	2 2		14	12.4		1	1



Example

2 3 4 5 6	7 8	9 10
Dislike Neu	tral	Lik

TEXTURE (Please provide a preference for each item) 2a. Abstract Texture 2b. No Texture



Example

1	2	3	4	5	6	7	8	9	10	
Di	slik	е		1	leu	tra			Like	
									ar	
the.	0								4	
Non	K	Si	re	8	ac	2	40	19 X	tur	e.



Example

3b. Staining

		N/W								
1	2	3	4	5	6	7	8	9	10	
Di	slik	е	12		leu	itra	1		Like	į
Cor	nn	ner	its:		Th	is	5_	_		
101	1	b	2	~	عا	re				
ab	ra	15	W	e	0	س	2			
U	1		1			1				

COLOR (Please provide a preference for each item)

3a. Natural Color of Materials



Example

1 2 3 4 5 6 7 8 9 10

Dislike Neutral Like

Comments: Sand or linestone would be too bright and Contrasting.



Example

Dislike Neutral Like

Comments: Like the

idea of obloring

the bridge in a

way that will reduce

its visual impact, however

I am nervous that dark

earthtones will make

the bridge look old

and dingey.

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SHAPES (Please provide a preference for each item)

1a. Rounded / Organic Shapes

1b. Angular Shapes



Example

		3		- 5	6	7	8	9	10
Di	slik	е	3	1	leu	tra			Like
0	mr	ne	nts	:-	_		_	-	

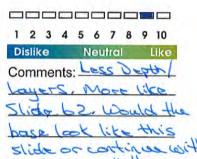
Example

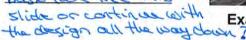
1	2	3	4	5	6	7	8	9	10
Di	islik	е		1	leu	tra	Î		Lik
_	omi	_	_	. v	-	4	C	10	
	-	- 40	4	-	In	0	te		14

TEXTURE (Please provide a preference for each item) 2a. Abstract Texture 2b. No Texture



Example







Example

3b. Staining

1 2 3 4 5 6 7 8 9 10 Dislike Neutral Like Comments: Less maintenance. in the langue or due to

COLOR (Please provide a preference for each item)



Example

1	2	3	4	5	6	7	8	9	10
D	slik	e		1	leu	tra	1		Lik
				_	and be	50/9-			
30	mr	ne	nts	: =	To	0	m	75	5
-0									





1	2	3	4	5	6	7	8	9	10		
D	islik	е		1	leu	itra			Like	•	
Co	omi	me	nts	:_0	0	0	5	4	_		
PI	ev	W	i	0	00	4	5			_	
Y	رمكا	N	10	1	5	w	20	135	S	ings	
1											
G	7 6	Su	- 1	44	70	2	SW	8	10	ta	
50	~	2	de		DE	00	25				
so	do	.0	h		Z		<	1/2	3(1	#	
					_	9	1 ,	,	7		
2	01	ra	>	1							

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"Scenic"



COMMENT FORM - Please Give Us Your Ideas!

very important - nature is beauty
"Recreation" very important to have people enfoy our resources
"Wildlife and Habitat" Were unnortant to preserve what
recy important to preserve what
"Historic and Cultural" very important cultural resources!
"Water Quality and Quantity" don't want to degrade an OFW and Wild and Blenic River
Thank you for your input!
Name (optional): Email:

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COMMENT FORM - Please Give Us Your Ideas!

"Scenic"	The state of the s
HU an	s squarey important.
"Recreation"	estaces value as best as possible
"Wildlife and Habitat"	
the granto the	I coment lesses the wildlife corridor
"Historic and Cultural"	a Location.
"Water Quality and Quant	lty"
Thank you for your input!	
Name (optional):	Email:

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COMMENT FORM - Please Give Us Your Ideas!

please print

oridge? Describe what mal	to morningonam.
'Scenic"	
Recreation"	
sulfani- de Taresto da	
Wildlife and Habitat"	* THAT COHEIDFAUX CREAT HEIGHT
IN THE BRIDGE	ETHAT COHSIDEANNE GREAT HEIGHT E STRUCTURE WILL SUBSTAUTALY BIEN EHASIE LIGHT TO REACH THE I SLA
WHER LYNGITAT	, EHAGE LIGHT TO REACH THE ISLA
THO REDICE	HOISE IMPACT
Historic and Cultural"	
,	
Water Quality and Quanti	ly"
nank you for your input!	

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December 11, 2013



COMMENT FORM - Please Give Us Your Ideas!

"Scenic"
ESENTUPL -
"Recreation"
Commence of the commence of th
THOUGH IMPOPTANT, WATER Q & Q 13 NECESSARY
FOR THIS VALUE
"\A/iidlifa and I labitat"
"Wildlife and Habitat"
ALL ON CONNECTED
"Historic and Cultural"
THE IS AN EDUCATION ISSUE - TRADITIONAL FORMS &
COLOPS ARE IMPORTANT.
and the same of th
"Matar Quality and Quantity"
"Water Quality and Quantity"
MOST IMPORTANT VALUE. PIVER MF &L 13 SET AT 150 CFS
THE WEEK IT WAS @ 130 CFS.
Thank you for your input!
Name of Constitution (IV)
Name (optional):Email:
Exercise brunt

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



COMMENT FORM - Please Give Us Your Ideas!

please print

"Scenic"
Ultimate design weeds to blend into the
surrounding landscape to minimize the
impact on this ORU
"Recreation"
Ultimate design needs to blend into the
Ditimate design needs to blend into the surrounding landscape to minimize the
Menative impact + to ensure that the user
experience is an enjoyable one. "Wildlife and Habitat"
Increusing the span widths will have
a positive impact on the movement of
wildlike through the region
with the state of the teg, or
"Historic and Cultural"
"Water Quality and Quantity"
Stormwater design needs to meet or exceed
the criteria to ensure that the Water Qualit
is not impacted.
Thank you for your input!
Name Continue Bett TACKED Emails hatte in from 10 000
Name (antional) 181 th State 100 CE

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



COMMENT FORM - Please Give Us Your Ideas!

Scanic	I THINK IT'S MORE IMPORTANT TO BE FROM THE RIVER VERSES THE BRIDGE
"Recreation	" T Geew UP To LAKE COUNTY of THIS
AREA &	LAS ALWAYS HAD A REPRESTIONAL USE FOR
My ba	muy.
Wildlife and	Habitat"
1/	12 TO PROTECT & IMPROVE WILDLIFE
HABITA	
"Historic and	CHARACTER OF THE EVER
"Water Qual	lity and Quantity" ITS PRISTINE, LETS KEEP IT
(HAT !	NAY
nank you to	r your input!
	nal): Piek HARTENSTEIN Email: rhartenstein@ lakecountyf

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013

"Scenic"



COMMENT FORM - Please Give Us Your Ideas!

Blen	do into the chainta of the Welma Dea!
maher A	a a more partoral, pleasant exponse
0	in a more partonal, pleasant expense
"Recreation"	inder a larger area of water body to traverse
"Wildlife and Habitat" Ly tunyutiten	tet habitat and prote purile needed
"Historic and Cultural" Man	than the Rual character of the Webin Jea
"Water Quality and Que	antity" rot negatively reduce water quality or greatly; tin and to the valuable assist
/ . ,	
Thank you for your inpu	t!
Name (optional):	Email:
Authority Authority and and and	please print

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



COMMENT FORM - Please Give Us Your Ideas!

please print

"Recreation" There will always be people enjoying The river "Wildlife and Habitat" Construction will be disturbing. End product will hopefully be loss better "Historic and Cultural" N/A at the location as for as we know. There maybe masted on bones or ancient cances
"Historic and Cultural" N/A at flus location as for as we know.
N/A at the location as for as we know.
on none modern anti-facts. Wouldn't hurt to have an ARM around a have construction workers keep an ex "Water Quality and Quantity"
Thank you for your input!

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



COMMENT FORM - Please Give Us Your Ideas!

"Scenic" The wider span of usta.	the bridge should growthy	informe the
"Recreation" Removal of the the experiment from the	bridge sygnests in the	actor will improve
"Wildlife and Habitat" The exposer of the anial lite.	the coordon will be	a great imporement
"Historic and Cultural"		
"Water Quality and Quantity" Retention ponds in Necessary on SHAs 16		vagetation, ferve not
Thank you for your input!		
Name (optional):	Email:	
Diease Di	ODF	

See Mgmt. Plan for details GRU'S ARE IMPORTANT

FINAL BRIDGE DESIGN CHARETTE #1

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



COMMENT FORM - Please Give Us Your Ideas!

a"Scenic"	maintain aesthetics
"Recreation	minimize contrast of structure up environment
'Wildlife and	Habitat" 1750' Span Good- need additional span on Sem. Coside
"Historic and	l Cultural"
"Water Qual	ity and Quantity" insure no turbidity violations during construction
hank you fo	ryour input! nal): Deborah Gelley Email: Deborah Gelleyadg State. fl. us

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



COMMENT FORM - Please Give Us Your Ideas!

"Scenic"	
Scenic views are important, BOTH from the gro	SAC
and the bridge. A glimpse of their river, no nather	
and the bridge. A glimpse of their river, no natture how short, is worth it to some!	_
"Recreation" Canoe/Kayak, Sishing, photography, birdwatching	_
"Wildlife and Habitat" Lively Considered, So Fac	=
"Historic and Cultural" Net's create history with a successful project that Can neet these goals.	1
"Water Quality and Quantity" Minimize erosion, seeple getting out of flair boots to access the land under the bridge.	
Thank you for your input!	_
Name (optional): Email:	_

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013

"Scenic"



COMMENT FORM - Please Give Us Your Ideas!

Very	important	to 4	reip hois	elevel r	duced.
"Recreati	, emportant	that	t unotise	ructes po	using
"Wildlife a	and Habitat"			×	-
	and Cultural"	ant			
"Water Qu	uality and Quantity"	anl			
Thank you Name (op	u for your input! otional): <u>A/, 'ce Be</u>	Kley	_ Email: <u>Wice</u>	e. Berkley@	octinet

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



COMMENT FORM - Please Give Us Your Ideas!

How important to you are the Outstandingly Remarkable Values (ORV) for the new bridge? Describe what makes them important?
In a tom ORV and 12
This is a important specifically for people
on the niver and on the bank. I don't believe
the bridge will impact the scenic values when compared to existing bridge
"Pocroation"
· Also a top for OKV, access to the viver is important to
our citizen
"\Afficilities are all Leile Heat"
"Wildlife and Habitat" The proposed improvement will provide a
tremendors benefit to wild life habitat
land habitat connectority when company
to the existing condition
"Historic and Cultural"
The OKU is a lower firer OKU in the bridge
aver
"Water Quality and Quantity"
Also important to sustain the "Seenic" Recreation and
Also important to sustain the "Scenic", Recreation and "Wild feltality" compensate
William Company
Thank you for your input!
Name (optional): Mark Callahan Email: mark. callahan @ ohzu.c
please print

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



COMMENT FORM - Please Give Us Your Ideas!

_Some 1930	DRMATIVE - SOMEWHAT REDUNDENTEN
	ay's activities were most meaningful to you? U OF OPOUP
of your new bridge	ne bridge designers one piece of advice in consideration e, what would that advice be? HTE WIDTH
Any other ideas o	comments? (Feel free to use the back if you need more space
hank you for your	input! NANCY PRINE Email: NPLACHOC.COM

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



COMMENT FORM - Please Give Us Your Ideas!

Lamnotanex	day's activities towards creating your new bridge? pert on bridge bldg but its ppreciate our opinion.
What parts of today's activit	es were most meaningful to you?
If you could give the bridge of your new bridge, what wo	designers one piece of advice in consideration ould that advice be?
Any other ideas or commer	its? (Feel free to use the back if you need more space)
hank you for your input!	e Berkley Email: alice, Berkky@ocflir

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



COMMENT FORM - Please Give Us Your Ideas!

What did you think about today's activities towards creating your new bridge?

What parts of today's activitie	ies were most meaningful to you?
	Bridge elements
f you could give the bridge of your new bridge, what wo	designers one piece of advice in consideration
process on th	ie to keep the Focus OF the
Anv other ideas or commen	nts? (Feel free to use the back if you need more space)
24 - 110 (23 2) 21 - 21 (1) (1)	

SR 429/SR 46 Wekiva Parkway Wekiva River Bridges

December 11, 2013



	ivities towards creating your new bridge?
- Voye informative an	and production to narrow down
design & concerns.	
What parts of today's activities were n	
obtaining votes sun	1045 for design that can be
put to use immedia	to lig.
The second secon	•
If you could give the bridge designers	one piece of advice in consideration
of your new bridge, what would that c	advice be?
Any other ideas or comments? (Feel	free to use the back if you need more space)
	Contraction and Applicate Applications Service States
Thank you for your input!	
· 아이들 : 1 - 이번 이 등에 1 - 이번 1	
Name (optional):	Email:

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



It is really great to have the apportunity to be so involved in the planning. What parts of today's activities were most meaningful to you? When the group was able to have open discussion and discuss thoughts and ideas. If you could give the bridge designers one piece of advice in consideration of your new bridge, what would that advice be? Don't try to please everyone perhaps fower choices are better.
When the group was able to have open discussion and discuss thoughts and ideas. If you could give the bridge designers one piece of advice in consideration of your new bridge, what would that advice be?
When the group was able to have open discussion and discuss thoughts and ideas. If you could give the bridge designers one piece of advice in consideration of your new bridge, what would that advice be?
When the group was able to have open discussion and discuss thoughts and ideas. If you could give the bridge designers one piece of advice in consideration of your new bridge, what would that advice be?
If you could give the bridge designers one piece of advice in consideration of your new bridge, what would that advice be?
If you could give the bridge designers one piece of advice in consideration of your new bridge, what would that advice be?
of your new bridge, what would that advice be?
of your new bridge, what would that advice be?
Any other ideas or comments? (Feel free to use the back if you need more space)
Thank you for understanding our area and spending so much time on a thorough understand
spending so much time on a thorough understand
Thank you for your input!
Name (optional): Email:

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



What did you think about today's activities towards creating your new bridge?
Very good jet
What parts of today's activities were most meaningful to you?
If you could give the bridge designers one piece of advice in consideration
of your new bridge, what would that advice be? There is a need to address ofler resurs such as
The is a need to address often peros such as profite impacts to the island and access which may impact the profite
Any other ideas or comments? (Feel free to use the back if you need more space)
Thank you for your input!
Name (optional): Mask Callaha Email:

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

December 11, 2013



What did you think about today's ac	ctivities towards creating your new bridge?
•	
What parts of today's activities were HEAUHT SEEMS OFTHINK	
If you could give the bridge designer	rs one piece of advice in consideration
of your new bridge, what would that Avoir Avienuatives	THAT MILLET THE ISLAND.
Any other ideas or comments? (Fee	el free to use the back if you need more space)
Thank you for your input!	
Name (optional):	Email:



APPENDIX K

Final Bridge Design Charette 2
SIGN-IN SHEETS



WEKIVA PARKWAY (23)



Final Bridge Design Charette #2 SR 429/SR 46 Wekiva Parkway Wekiva River Bridges







Sign-In

January 28, 2014

Phone	856-724-7400	428-984-6127	850.556.3444 (M)	472h HH 058	407 898 9200		407-665-7836	407-568-5893	107-836-1481	850 - 224-7400	865-469-Ch	us 407-330-6727	407-653-2439	7426-CD8-COH 8	407-384-4805	C-16-168-104 34	1002- h&& Loh		
Email	ddempsey@ Figgbridge.com	JETF-TOWNERDONK. and	LFigge flagbridge, com	Phot le the shall shake 9.10 850 4/4 4267	NPLA @ HOLL COM	troberts@ esciences in com	trusthauste saminile County FC. 500	tom. shipe@myticc. com	both, jackson over mel	DMUNDIE & FIGGERIPHE. COM	INTERPREDENTIAL OF 197-694-5878	Berbara. Howell @ dec. state flux 407-330-672	Scott. Barr @ chi Zm. www	Fisa- orather @ depostdefts 400-897-294	rpermethe.org	Debre, Laisur & daystate flur 407-897-205	19 my Congesta dop. state Fl. us	warra poply oden state. R.	chris. Erlanoedep. state.flus
Name	DWIGHT DEMPORY	TETE DISCOL	LINDA FIGG	lagent Robertson	Novey Pune	Ton laberts	Tony Matthews	Tom Shope	Beth Jackson	DANIEL MUNDE	May Brooks	Somberg Howell	Seat Beau	Lisa Prather	KODECCO PERM	Desca LAISTRE	Any Conjecs	Home Popin	CARLS FERRARD





Final Bridge Design Charette #2 SR 429/SR 46 Wekiva Parkway Wekiva River Bridges





Sign-In

January 28, 2014

Phone 407-302-5550	m 467-303-8081 (427) 120-5178	flus 586-943-5661 407,320.6727 381-142-5484	386 7435159 134 993-544	386-743-5477 386-943-5419	
Andlamation Coult hat an 407-302-5550	CLERA A Assession of the 1 202-808 (427) Los-7178	Lebrah Levnandez 2 dut 544 flus 556- 943-560 Debreah Shelley 2 dug. A. US 407,320.6727	cher lieurello a pright. I. of 184 9th- Stu	ALAM HYMANO DM. SYAKHUS	
Rub Roph	CHARLS CAR.	Hannah Hernandez Descent Sterrey Karn Smor	Honathan dastreasky	NEIL VENDS	



APPENDIX L

Final Bridge Design Charette 2
AGENDA





SEGMENT 6 KEEPING WEKIVA BEAUTIFUL

SR 429/SR 46 Wekiva Parkway
Wekiva River Bridges

January 28, 2014

Financial Project ID: 238275-7-32-02 Lake and Seminole Counties

Prepared for: Florida Department of Transportation, District Five Prepared by: Figg Bridge Engineers, Inc.





SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014

8:45 AM Sign In 9:00 AM **Welcome Remarks and Introductions** Alan Hyman and Kevin Moss, FDOT 9:10 AM Overview Linda Figg and Dwight Dempsey, FIGG a. Overview of Agenda b. Charette Process Goals and Objectives c. Project Overview - Bridge Site Review and Vistas d. Bridge Project Development Criteria and Geometry 9:30 AM **Bridge Aesthetics and Selections from** Final Bridge Design Charette 1 Linda Figg, FIGG a. Review of Selected Theme "Celebration of Trees on the River's Edge" b. Comments Received for Selected Theme c. Review of Bridge Style Preferences (Pier Shape and Texture) d. Comments Received for Bridge Style Preferences (Pier Shape and Texture) e. Review of Bridge Style Preferences (Color) f. Comments Received for Bridge Style Preferences (Color) 10:00 AM **Break/Discussions** 10:15 AM **Bridge Pier Shape** Linda Figg, FIGG a. Review Photographs of Trees on the River's Edge b. Present Color Study c. Present Thematic Pier Concepts (Pier Options A, B, C & D) d. Open Discussion on Pier Concepts e. Vote on Pier Concept Preferences **Public Comments, Limited to 3 Minutes Each** 11:45 AM Alan Hyman, FDOT 12:00 PM **Lunch/Discussions**



1:00 PM	Bridge Color
	Linda Figg, FIGG
	a. Review Concrete Staining
	b. Present Bridge Color Tone Options
	c. Open Discussion on Bridge Color Tones
	d. Vote on Bridge Color Tone Preferences
0-15 PM	Bridge Bailing for Multi-Use Trail

2:15 PM Bridge Railing for Multi-Use Trail Linda Figg, FIGG

- a. Present Bridge Railing Concepts for Multi-Use Trailb. Open Discussion on Multi-Use Trail Railing Concepts
- c. Vote on Multi-Use Trail Bridge Rail Preferences

3:15 PM Break/Discussions 3:30 PM Outstandingly Remarkable Value (ORV) Initiatives Discussion and Feedback Dwight Dempsey, FIGG and Tom Roberts. E Sciences

- Review of Outstandingly Remarkable Value Initiatives and Comments Received
- b. Open Discussion on Outstandingly Remarkable Value Initiatives

4:00 PM Summary of Final Bridge Design Charette 2 Linda Figg, FIGG a. Review of Preferences Selected b. Schedule for Public Meeting

4:30 PM Adjourn



APPENDIX M

Final Bridge Design Charette 2
PRESENTATION

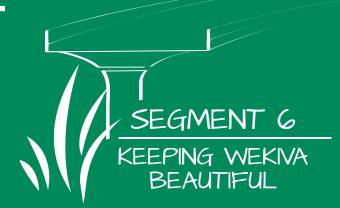


Final Bridge Design Charette 2

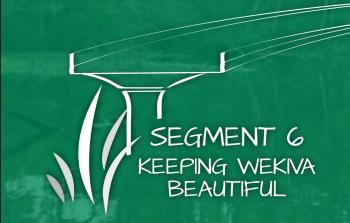
with the National Park Service and FDOT

Wekiva River Bridges

in Harmony with the Scenic River



January 28, 2014



Coordination of Today's Activities

Kevin Moss, P.E.

Project Manager
Florida Department of Transportation



Welcome and Introductions
Alan Hyman, P.E.
District Five, Director of Operations
Florida Department of Transportation

Welcome & Introductions



Lead Agency





Project Management, Roadway Design, Stormwater Design



Wekiva River Bridge Design



Environmental



Noise Analysis



Roadway Design, Stormwater Design



Geotechnical

Welcome & Introductions



FDOT - District 5

Alan Hyman, P.E. Director of Transportation Operations

Kevin Moss, P.E. Project Manager

Hannah Hernandez Permit Coordinator



National Park Service

Jeff Duncan, PhD Southeastern River's Program Manager River's, Trails and Conservation Assistance

Jaime Doubek-Racine Regional Program Manager River's, Trails and Conservation Assistance



US Army Corps of Engineers

Andrew Phillips Project Manager

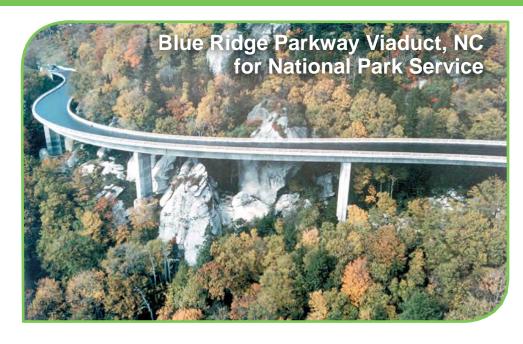
Your Bridge Design Team

Linda Figg

President / Director Of Bridge Art

Dwight Dempsey, P.E., S.E.

Bridge Design Manager









Design Charette 2 Agenda

Process Goals and Objectives

Project Overview

Discussion of Bridge Aesthetics and Preferences from Final Bridge Design Charette 1

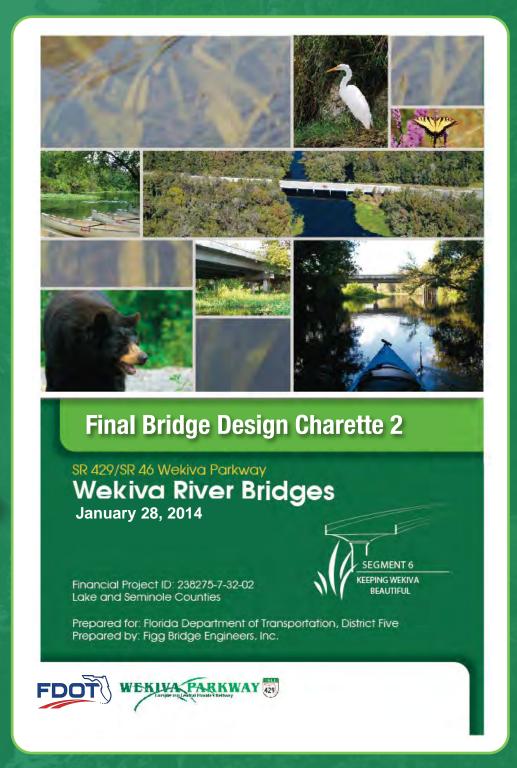
Bridge Pier Shape

Bridge Color

Bridge Railing for Multi-Use Trail

Discussion of Next Steps

Adjourn





GOALS

Public Involvement Process Goals & Objectives

Gain input from the stakeholders through open communications throughout design.

Through the Design Charettes, participants come together to select key aesthetic features and incorporate Outstandingly Remarkable Values (ORV's) for the new bridge.



Final Bridge Design Charette Process Goals & Objectives

CHIVE

Develop a solution that recognizes and protects the Outstandingly Remarkable Values (ORV's) of the Wekiva River

Achieve a design that allows for streamlined Section 7(a) approval

Create a bridge that is beautiful, functional and complements the landscape with context sensitive design

Bridge Aesthetics

and ORV's

while minimizing contrast

Final Bridge Design Charettes

Bridge Design Charette 1 December 11, 2013

Select a Theme

Discuss overall bridge layout & configuration

Select direction for:

Shapes
Textures and Colors
Other Features
ORV's

Stakeholders & Design Team

Final Design Charettes

Bridge Design Charette 2 January 28, 2014

Based on previous Design Charette preferences multiple design options are developed for selection

Final Selection of:

Shapes/Textures

Colors

Railing

ORV's

Bridge Aesthetics and ORV incorporation for a

Beautiful & Environmentally Sensitive Bridge

Commitments as stated in FONSI, May 2012

FDOT has made the following commitments to the National Park Service (NPS):

To clear span the waters of the Wekiva River with the proposed Wekiva River bridges

To coordinate with the Wekiva River System Advisory Management Committee on final design

To obtain the Wild and Scenic River's Act Section 7(a) determination from NPS prior to approving the final design Federal Highway Administration Florida Division

ADMINISTRATIVE ACTION FINDING OF NO SIGNIFICANT IMPACT

U.S. Department of Transportation Federal Highway Administration and Florida Department of Transportation, District Five
In cooperation with the Orlando-Orange County Expressway Authority
Financial Management Number(s): 238275 1 22 01 and 240200 1 22 01
Federal Aid Project Number(s): TCSP 025 U and TCSP 024 U

Wekiva Parkway (SR 429)/SR 46 Realignment Orange, Lake, and Seminole Counties, Florida

Wekiva Parkway (SR 429)
From US 441 (SR 500)/John Land Apopka Expressway (SR 429/SR 414) Interchange, Orange County
to SR 417/I-4 (SR 400) Interchange, Seminole County

SR 46 Realignment From US 441 (SR 500)/SR 46 Interchange, Lake County to Wekiva Parkway (SR 429), Orange County

The proposed action is: construction of the Wekiva Parkway, a new four-lane/six-lane divided limited access tolled expressway to complete the Western Beltway (SR 429) around the metropolitan Orlando area from Apopka in Orange County to Sanford in Seminole County; realignment of CR 46A in Lake County as part of the Wekiva Parkway project; reconstruction of the existing SR 46 facility in Lake County and Mount Dora to provide six-lane divided controlled-access from US 441 to east of Round Lake Road; and the realignment of SR 46 as a limited access tolled expressway from east of Round Lake Road to a new systems interchange with Wekiva Parkway near the Orange/Lake County line.

Submitted pursuant to 42 U.S.C. 4332 (2)(c).

5/11/12 Date

Division Administrator
Federal Highway Administration

The Federal Highway Administration (FHWA) has determined that this project will not have any significant impact on the environment. This Finding of No Significant Impact is based on the attached Environmental Assessment which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the attached Environmental Assessment.

A Sustainable Bridge That Achieves NPS Goals For This Scenic River Crossing

- Main span length of at least 300' to clear span the Wekiva River
- Design principles to blend the bridge with the environment repeating the landscape's visual element of form, line, color and texture
- Enhance area through greater natural lighting and reduced auditory levels
- Enhance recreational experience for river users
- Optimize connectivity of wildlife corridor under bridge
- Preserve water quality



Bridge Design Charette 1 - December 11, 2013 FDOT District 5 Office in Deland, FL from 9a.m to 4. p.m. 19 Participants plus FDOT and Consultants







Bridge Design Charette 1 - December 11, 2013 FDOT District 5 Office in Deland, FL at 9a.m - 4. p.m. 19 Participants plus FDOT and Consultants





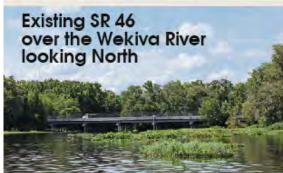


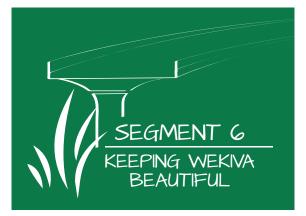


Bridge Design Workshop with the National Park Service and FDOT Wekiva River Bridges

Environmental Park Bridge in Harmony with the Scenic River







Bridge Design Charette 1 Dec. 11, 2013 - Key Discussion Items

New Bridge Viewsheds

How Aesthetically Pleasing Bridges are Created

Bridge Theme Preference Selection

Bridge Style Preferences Selection (Shape, Texture, Color)

Discussion on Outstandingly Remarkable Values (ORV)

Items Identified for Further Study During Charette 1

Lengthening bridge to remove MSE wall at east end

Feasibility of two bridge option versus three bridge option

Determine type, size, and location of trees on Wekiva River Island and investigate effects of proposed bridge on light shading

Meeting and Charette Schedules

NPS/FDOT Workshop	Jun. 18, 2013
Bridge Design Charette 1	Dec. 11, 2013
Bridge Design Charette 2	Jan. 28, 2014
Public Information Meeting	April 29, 2014 (Tentative)

Bridge Design Charette 2 Key Steps/Procedures same as Charette 1

Follow a set agenda

Present Options

Encourage open discussion

Provide handouts on information presented

Record preferences



Recording Preferences

Voting forms to record bridge design preferences are provided on each agenda topic

Example

1	2	3	4	5	6	7	8	9	10
Disli	Dislike Neutr								Like

Comments:

Like =10

Neutral = 5

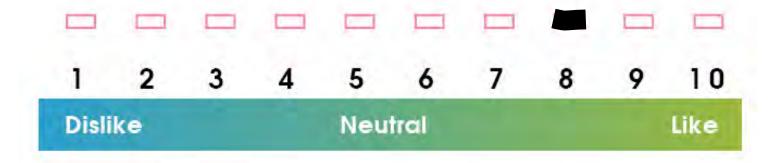
Dislike = 1

Design Charette Voting Forms

Please completely fill-in only one red box as shown below, and use only the black pens provided on the tables.

Correct

Score will be recorded as an 8



Incorrect



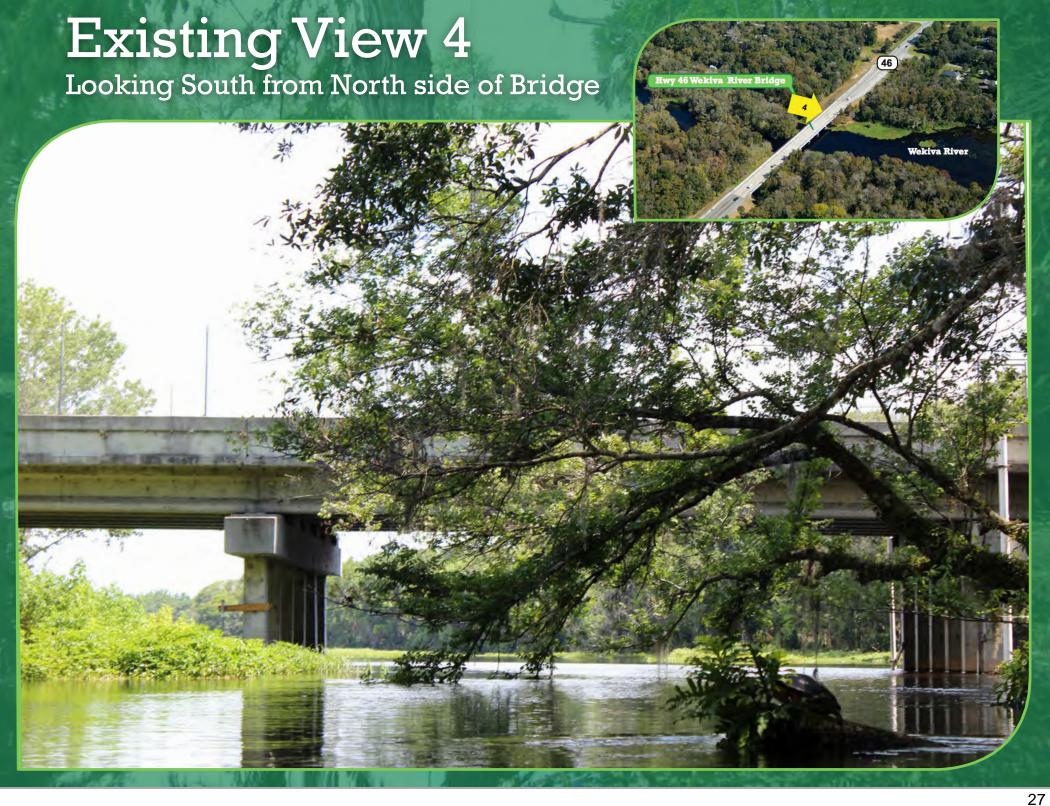


Site Features Katie's Landing Park 1 Mile from Bridge Wekiva River **Lower Wekiva Aquatic Preserve State Park Seminole State Forest** SR 46 Wekiva River Bridge 46 Wekiva River Oaks Foxspur **Rock Springs Run State Reserve** 46 Peachtree Lane Estates at Wekiva Park Wilson's Landing Park 0.5 Miles from Bridge

Important Vistas Identified

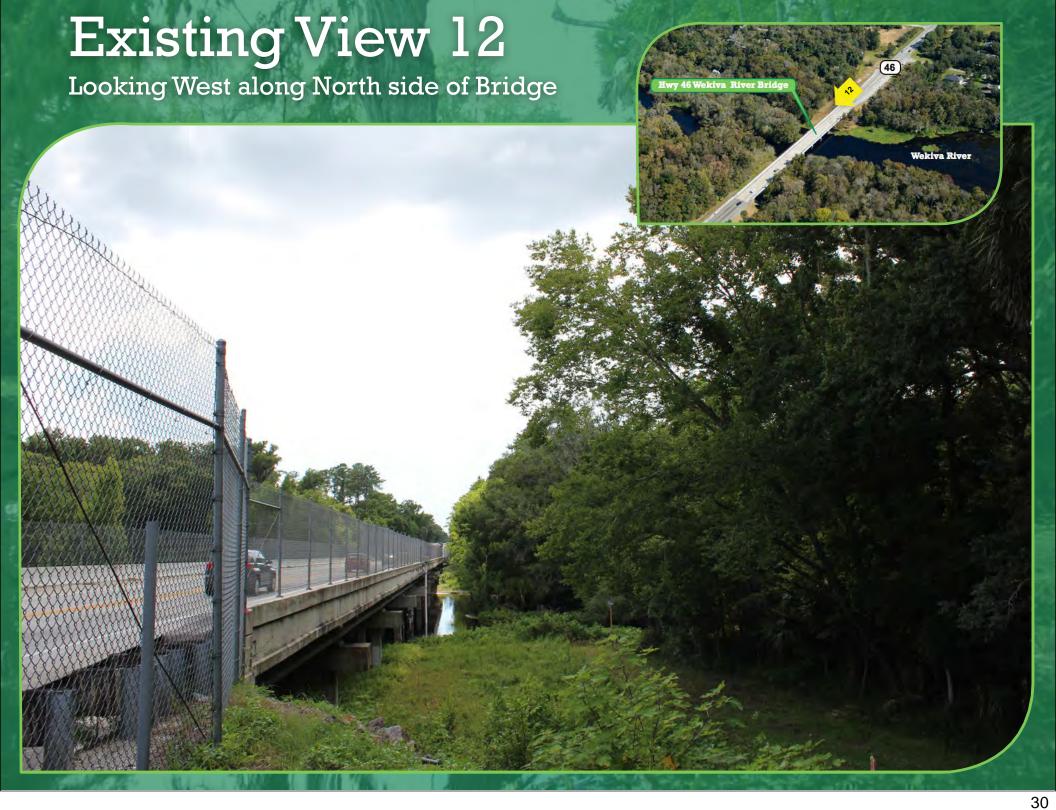




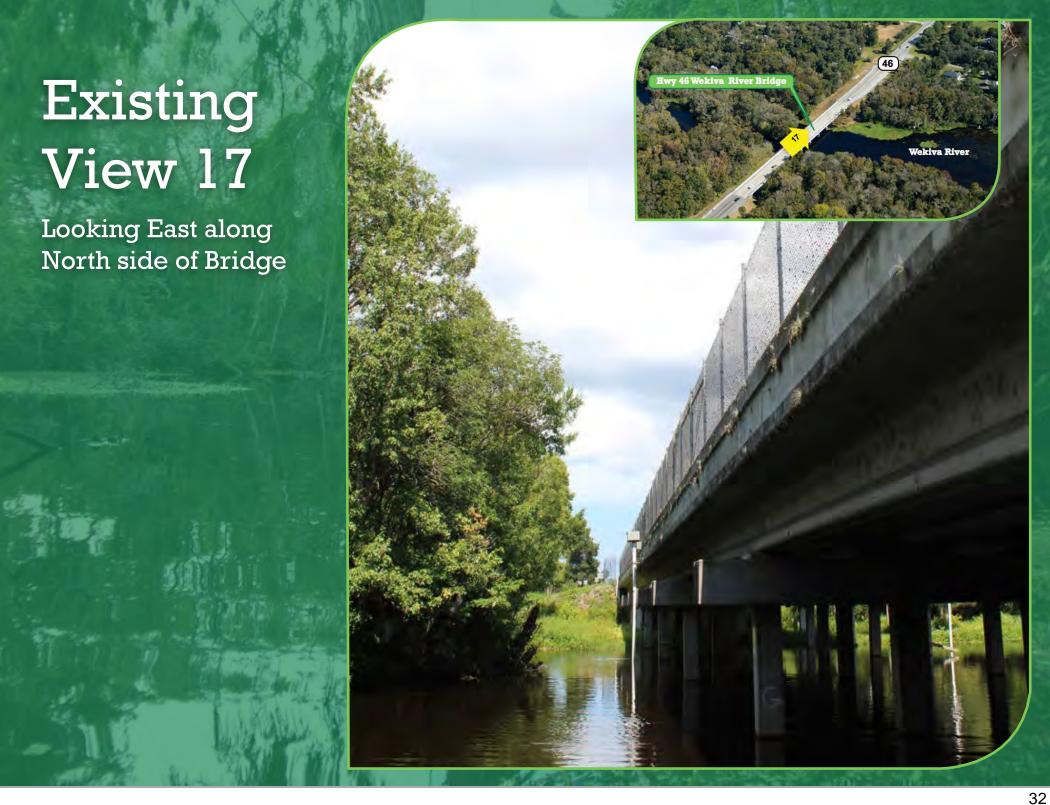






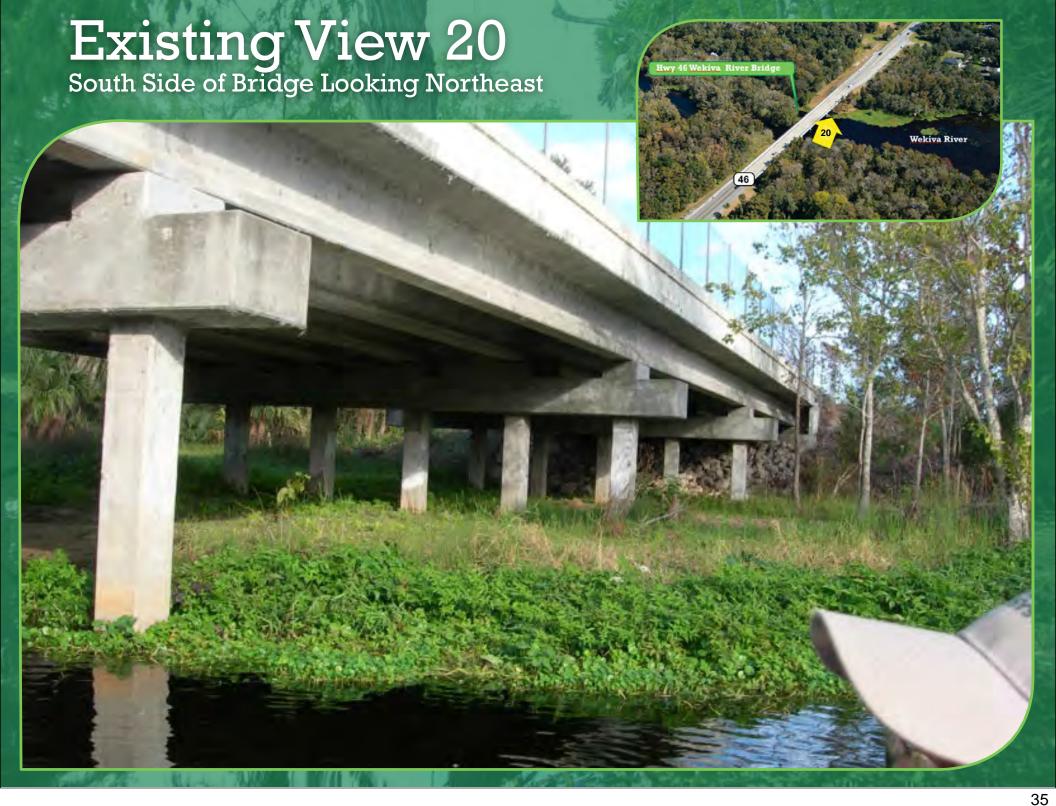






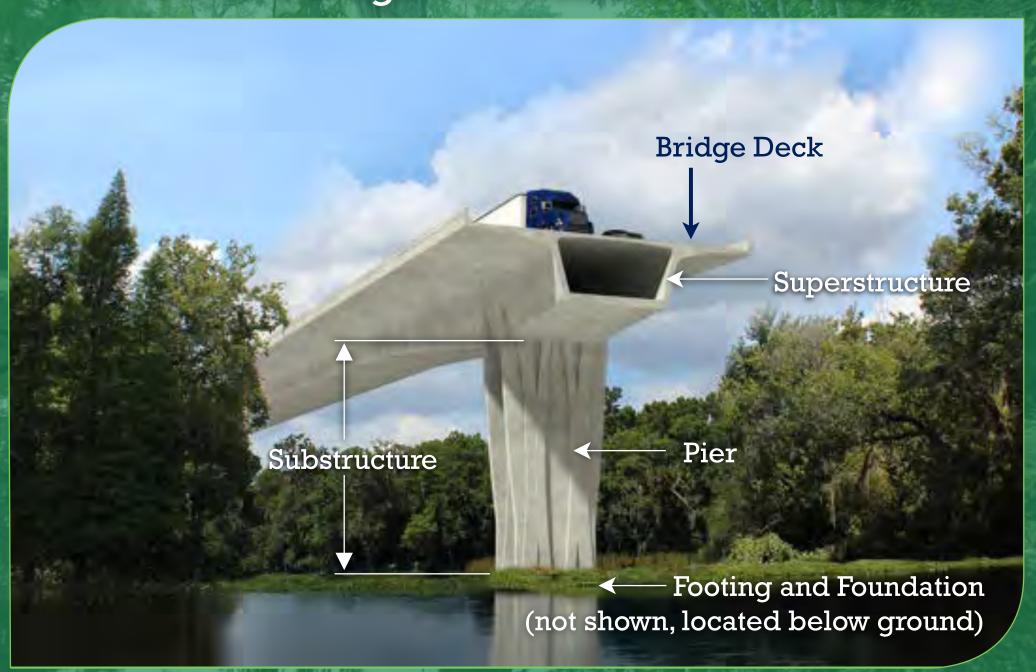




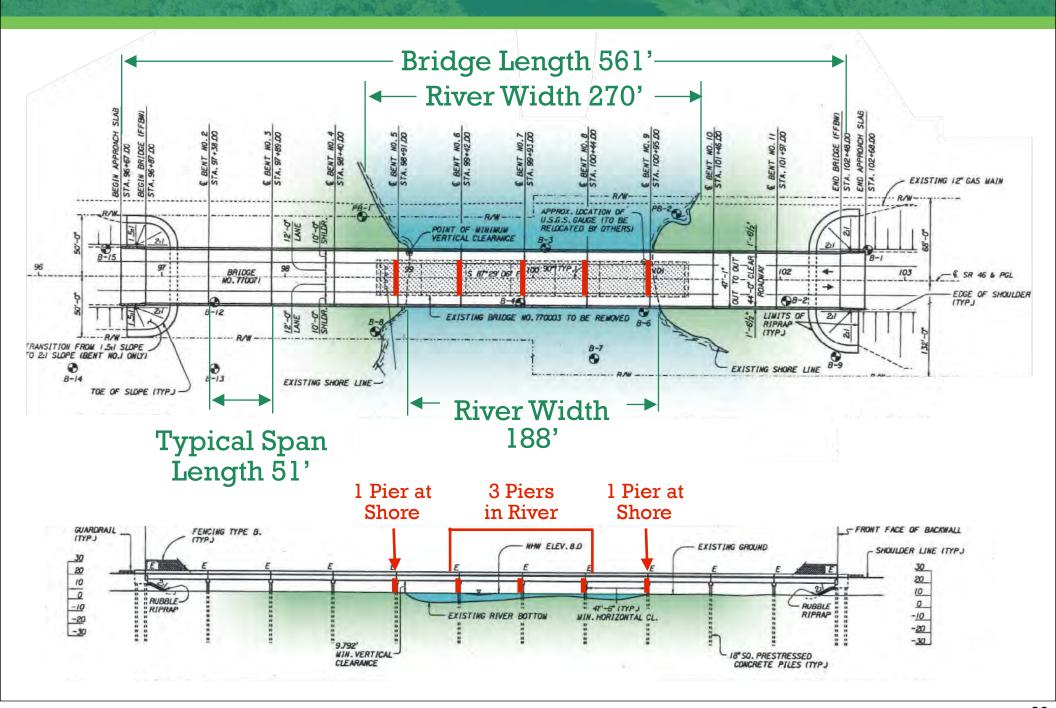




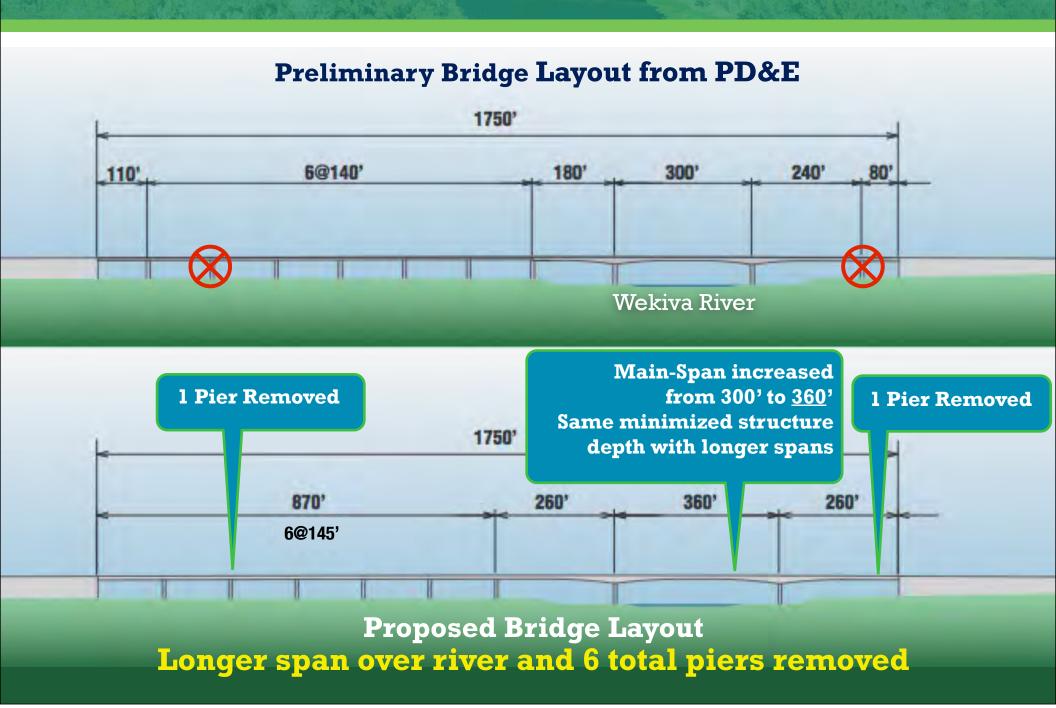
Bridge Terminology Schematic Bridge For Illustration Of Terms



Existing Bridge Layout

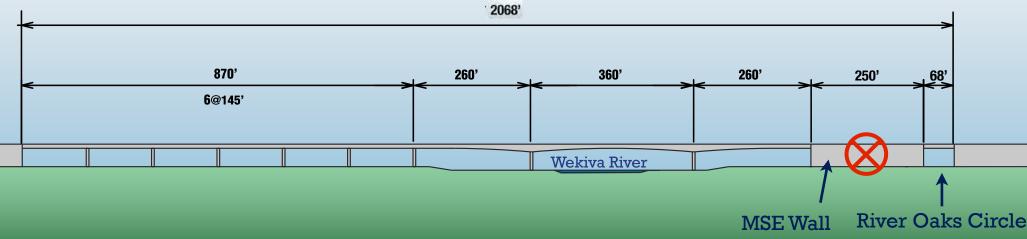


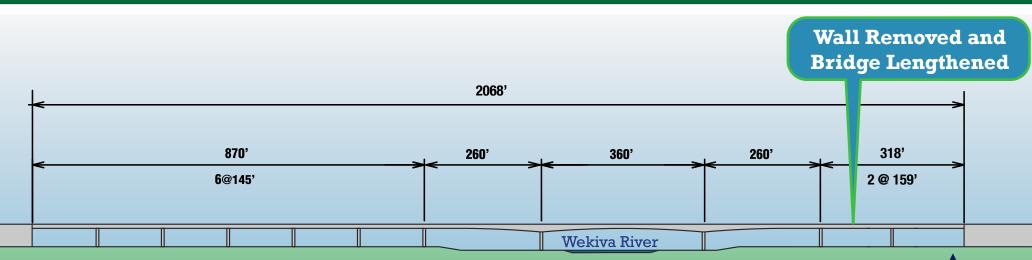
Enhanced Design Preserves Environment



Removal of MSE Wall on East End



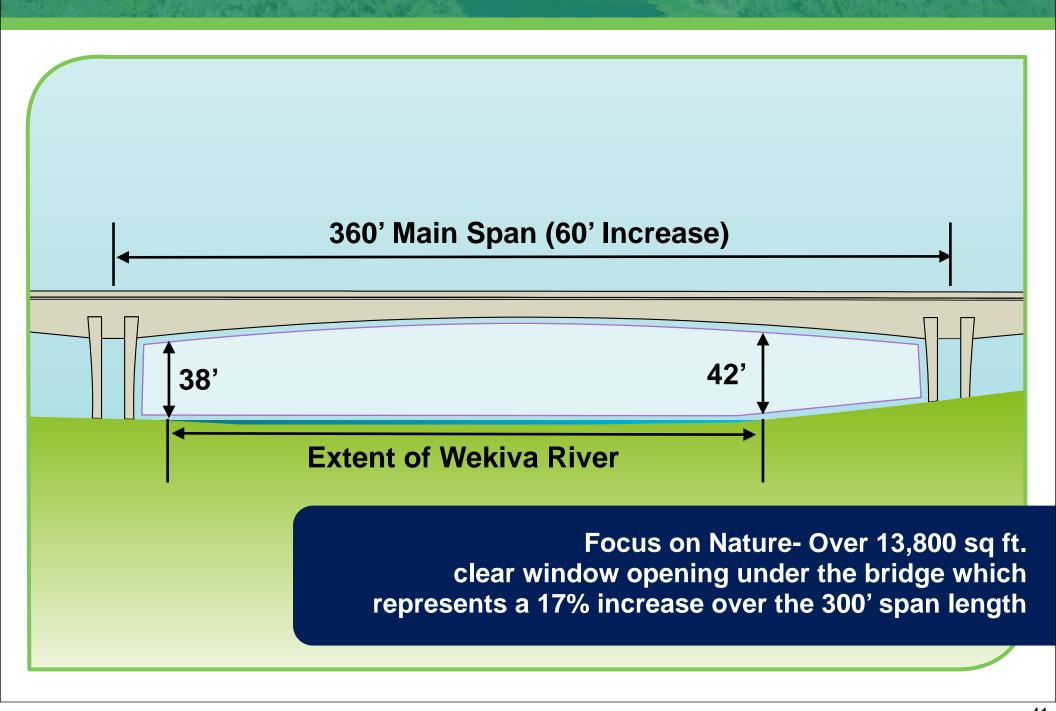




Proposed Bridge Layout River Oaks Circle

New span configuration with additional bridge spans on east end

Openness of Longer Span over River



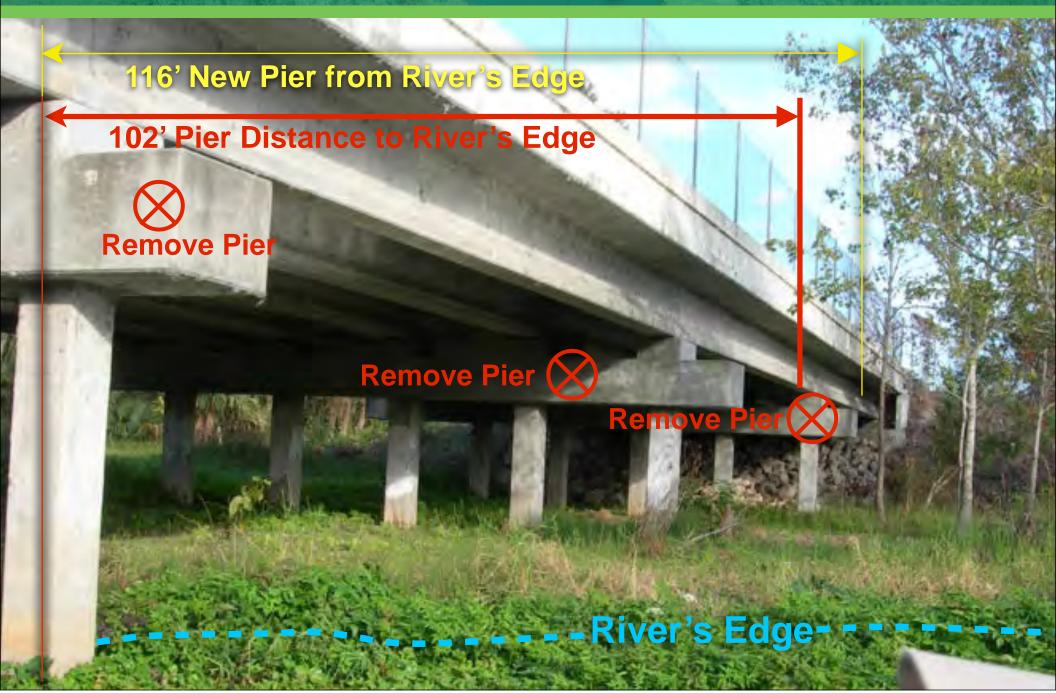
Location of Proposed Bridge Piers Distance from River's Edge



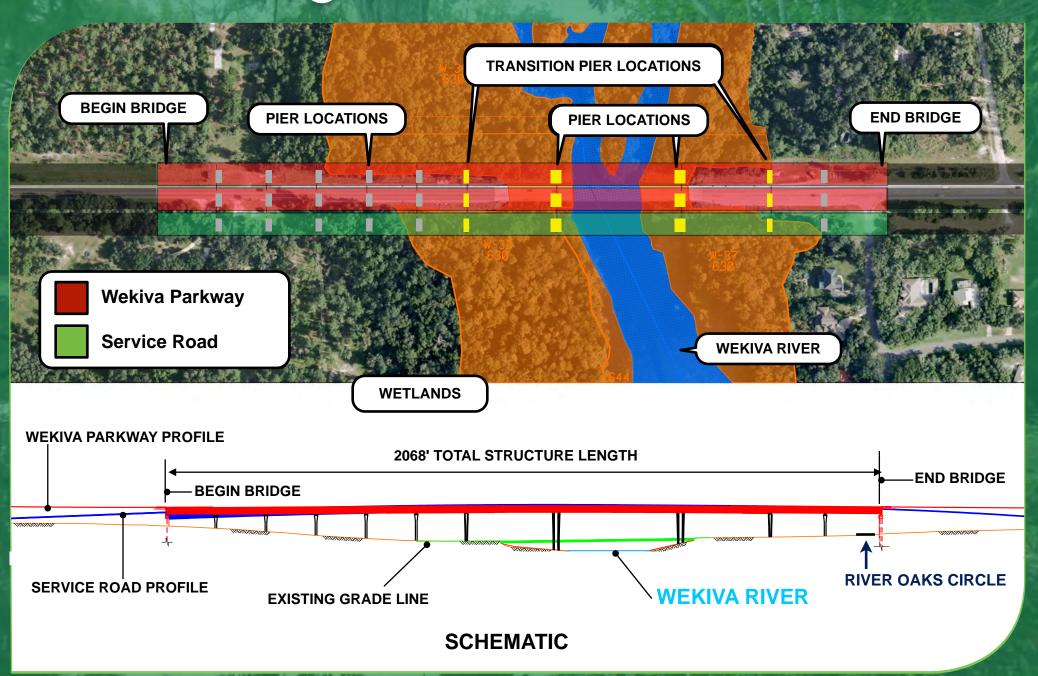
Existing View 19 South Side of Bridge Looking Northwest



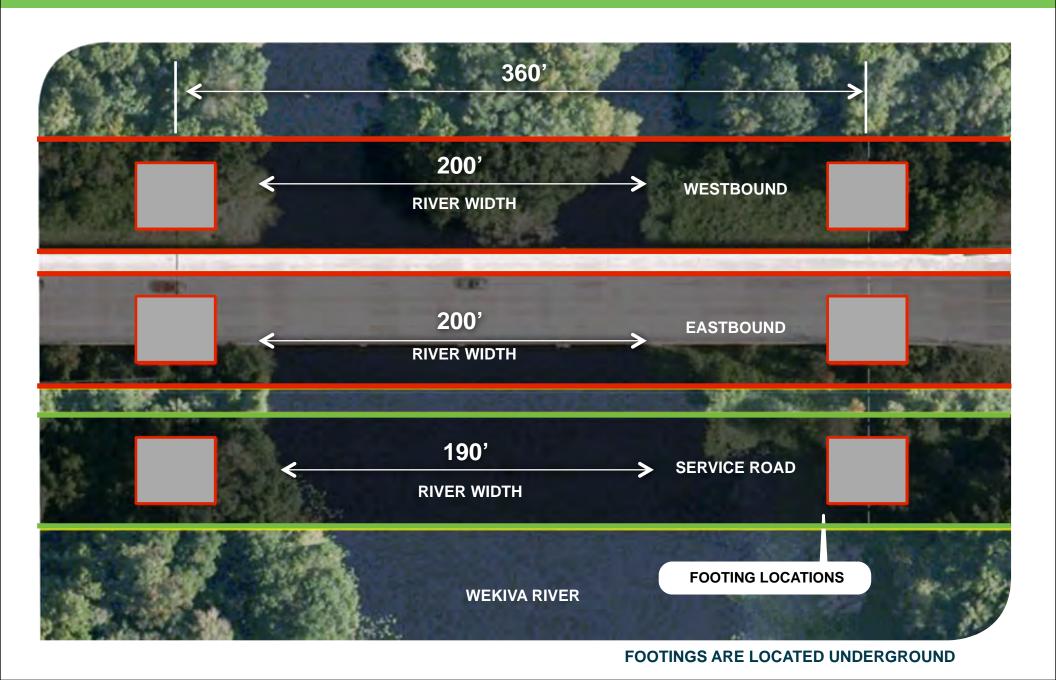
Existing View 20 South Side of Bridge Looking Northeast



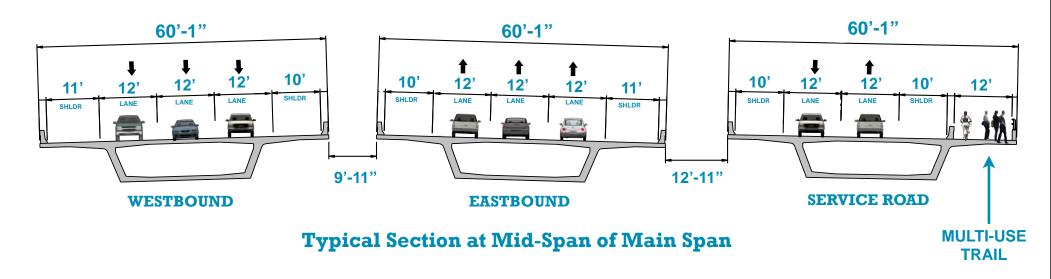
New Bridge Plan and Profile

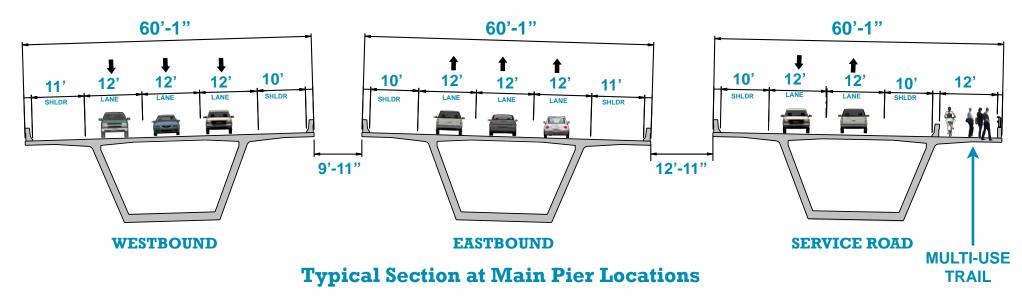


Openness of Longer Span over River



Typical Cross Sections





Showing ultimate configuration.

Parkway bridges will have 2 lanes in each direction for initial configuration.

Evaluation of Two vs Three Bridge Alternatives

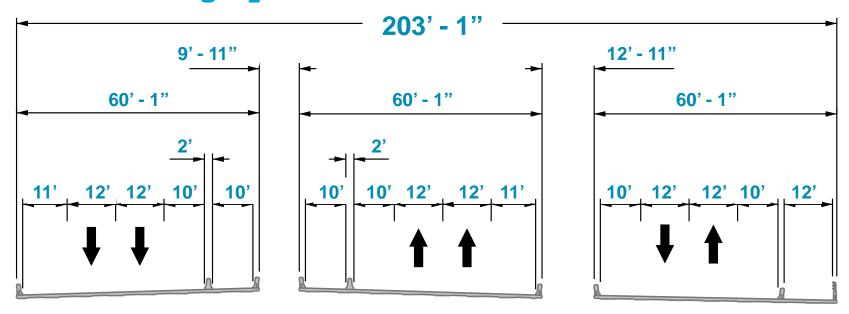
Further evaluated combined bridge alternative

Barrier wall separated lanes required for two-bridge option

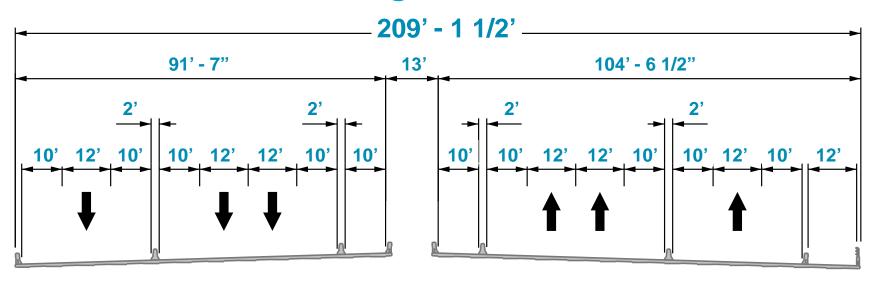
- Safety / Weave issues
- Complex geometry to accommodate necessary at-grade intersection
- Geometry Increases Right-of-Way needs and wetland impacts
- Tolling concerns
- Prior commitment to limit access points

Feasibility of Two Bridge Option

Design per PD&E Line and Grade



Two Bridge Alternative

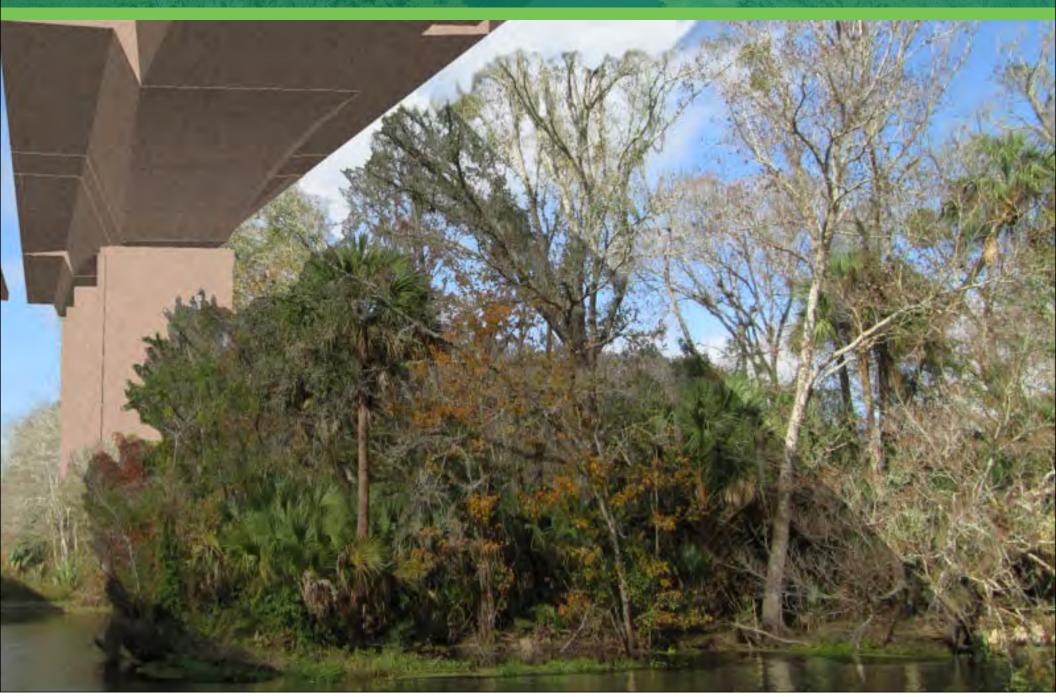


Island Tree Survey



Island Tree Survey 51

Island Light Study Rendering







Applying FIGG Archetypal Design Principles

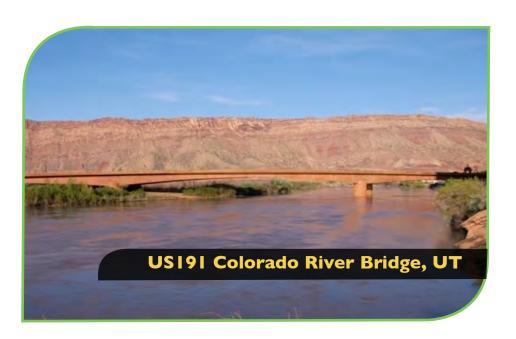
Establish a Theme
Blend Shapes
Create Shadows
Select Appropriate Textures
Choose Pleasing Colors
Open New Vistas
Use Native Materials
Incorporate Landscaping

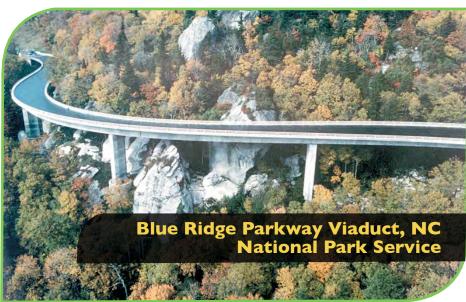


NPS Goals for Wekiva River A National Wild and Scenic River

"Project design fundamentals should include alternatives and analyses of proper site selection; reduction of unnecessary disturbance; and repeating elements of form, line, color and texture found in the immediate surrounding landscape scenery. Design strategies should include appropriate structural design and linear alignment, as well as sensitive and effective use of color, earthwork, vegetation manipulation and site restoration"

To Be Aesthetically Pleasing, A Bridge Must:





Be Functional

Be Economical

Satisfy Cultural Needs

Be In Harmony with the Environment

Functional Bridge Sculpture™

Wekiva River Bridges In Harmony with the Scenic River

Begins With A Theme

The Theme is the inspiration for creating biological design principles of states, texture, and color verse place with the theme in nimit.

Wekiva River Themes







Blooms Along the River







Celebration of Trees on the River's Edge







Tribute to Nature on Wekiva







Tribute to Water on Wekiva

Blooms Along the River





Celebration of Trees on the River's Edge





Tribute to Nature on Wekiva





Tribute to Water on Wekiva





Charette 1 Theme Preference Results

Blooms Along the River	6.8
Celebration of Trees on the River's Edge	8.2
Tribute to Nature on Wekiva	6.0
Tribute to Water on Wekiva	4.8

Celebration of Trees on the River's Edge was identified as the preferred theme

Comments received for "Celebration of Trees on the River's Edge"

"I like the way this design mimics the appearance of the trees found along the river"

"When I think of cypress trees, I think of structure and support. I think a vague mimic of cypress on the bridge supports would be thematic and aesthetically pleasing"

"Vertical lines reflect shoreline"

"Like simplistic design that blends in with environment"





Comments received for

- "Celebration of Trees on the River's Edge"
- "Color will also be an important component of this "tree" design"
- "Columns/piers will eventually be at least partly covered by vegetation"
- "Only if it's not a lot more expensive. #62 or #63 without the hole so there is 3D on approach. For cleaning, they will not be in the river & could be pressure cleaned with water if structurally compromised. Otherwise, leave them alone. Normal aging/graying will look more like trees."
- "Like this but don't want it to look too much like a tree. Subtle!"
- "As long as it is not palm trees"

Comments Addressing Other Themes Which Relate To The Design

"I am of the mindset to keep it simple, but still pleasing to the eye. Not just round or squares"

"Natural"

"Column design with relief or crevices may present maintenance problems"

"The piers will be too far from those who use the river to notice the themes"

"Designs on piers will only be seen close up. Color & bridge shape will dominate"

"Simple / subtle design"

SHAPES & SHADOWS

Examples of bridge pier shapes with rounded/organic styles and angular styles:

Rounded/Organic



Elliptical Pier with Glass Mosaic Tiles Broadway Bridge, Florida



Rounded Pier Selmon Expressway, Florida



Curved/Open pier US 280 Elevated Roadway, Alabama



Sculptural Slender Pier New I-35W Bridge, Minnesota

Angular



Tapered Pier with Local StoneSmart Road Bridge,
Virginia



Angular Pier Victory Bridge, New Jersey



Angular Slender Pier 17th Street Bridge, Florida



Angular Pier Wabasha Freedom Bridge, Minnesota

Charette 1 Bridge Styles - Shape Preferences Results





Rounded/Organic Shapes

Angular Shapes

5.1

Neutral

5.1

ROUNDED/ORGANIC SHAPES

```
"Do not like perfection in forms"
```

"Too Bland"

"Kind of Boring"

"No rounded piers, consider rounded box/cantilever"

"Preferred the rounded pier or sculptural pier structure. Curved/open pier would address to some extent light penetration under the bridge"

"I like the organic shape"

"I feel this would be too abrupt in the Wekiva setting"

"Too wide, not consistent with environment

"I lean more toward curvy, organic lines but not round"

ANGULAR SHAPES

- "Like #62/63 not squared like this (Wabasha)"
- "Combine"
- "Vertical angular may be good to repeat linear tree trunks"
- "More interesting"
- "I do not think an angular shape reflects the flow of the river, stands out too much"
- "Maybe example doesn't show well, like angles in tree type design"
- "I don't like this example for Wekiva but other angular bridges are attractive"
- "This looks manmade. Would not look good in natural setting"
- "Too urban too blocky not consistent with environment. Prefer tree shape & motif. This seems in contrast to that option"
- "Not for our application"
- "Crisp lines will create contrast"

Abstract Texture or No Texture on Piers







Charette 1 Bridge Style - Texture Preferences Results





Abstract Texture

No Texture

6.9
Consider Texture

5.1

ABSTRACT TEXTURE

- "Like "trees" = 10; bumpy = algae = 2"
- "Out of character for Wekiva area"
- "Depends on resolution. Need some texture to avoid contrast"
- "Consider variegated texture on entire pier. Orient texturing vertically"
- "I like this better than no texture"
- "Concerned that if the bridge has abstract texturing that it may increase the growth of mold & algae"
- "Like texture, natural colors of environment"
- "I feel this would better capture the façade of tree trunks"
- "Subtle Texture and lines that complement the trees nearby Texture in design but not surface texture"
- "Less depth/layers"
- "Yes, but more like slide 62 from previous presentation Subtle"

NO TEXTURE

```
"Smooth = no algae = 10; smooth like example = boring = 3"
"It's OK"
```

"I do not see the need for texture"

"If tree is used, this could work"

"This will be more abrasive and unnatural"

"Less maintenance in the long run due to less algae/mold growth"

Natural Color of Material or Eco-Stain

Proper use of color can create a bridge that blends into the natural landscape



cement

gravel





AirTrain JFK. New York

Accent in Eco-Stains







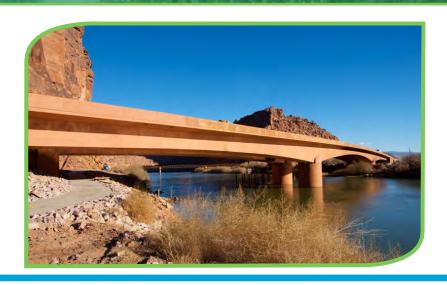
South Norfolk Jordan Bridge, Virginia



US 191 Colorado River Bridge, UT

Charette 1 Bridge Styles - Color Preferences Results





Natural Color of Materials

Eco-Staining

3.6

8.4

Eco-Staining was identified as a preference

NATURAL COLOR OF MATERIALS

- "6 because we're not using limestone or wood"
- "Cypress bark might be a good source of color"
- "Need some color"
- "I like the staining better"
- "I feel it needs to have some kind of blending color"
- "Too stark, inconsistent with environment.
 Subtle tree-like texture OK if not a maintenance nightmare"
- "Sand or limestone would be too bright and contrasting"
- "Too much contrast"

ECO-STAINING

```
"If really eco-friendly"
"OK"
"Of natural color"
"Variegated staining is essential"
"Staining should be done in such a way that bridge blends
 into the landscape"
"Like natural color in environment"
"Undecided what may be the best color"
```

ECO-STAINING

"Conduct the color swatch experiment as described with slide 23 (this presentation) to determine a suitable color – suggest tree bark – not green or brown"

"I like the idea of coloring the bridge in a way that will reduce its visual impact, however I am nervous that dark, earth tones will make the bridge look old and dingy"

"Colors to blend in with natural surroundings. Need color samples for blending. More greys & browns, not so much green, blue under bridge, sky & clouds"

General Comments

"The eco stained color like used in the US191 Colorado Bridge, Moab, Utah blends well with the environment"

"A combination of (1) and (2) is the most conducive to blending with the natural environment"

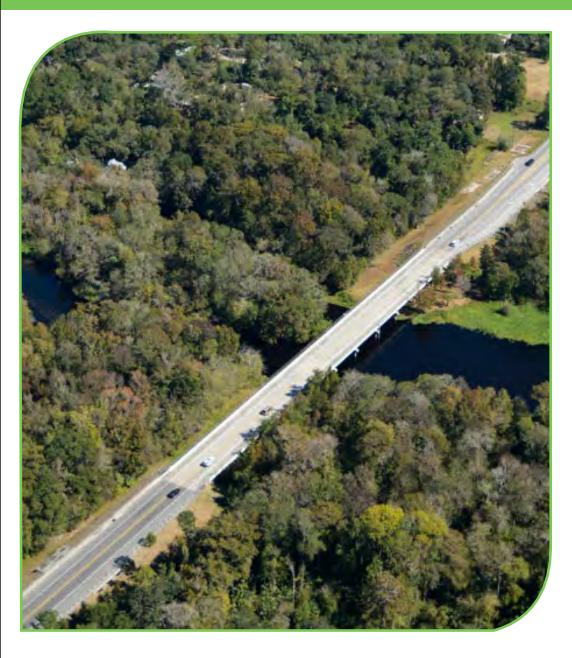
"No blue underneath – unnatural"

"Steel truss still should be explored as a design option!"

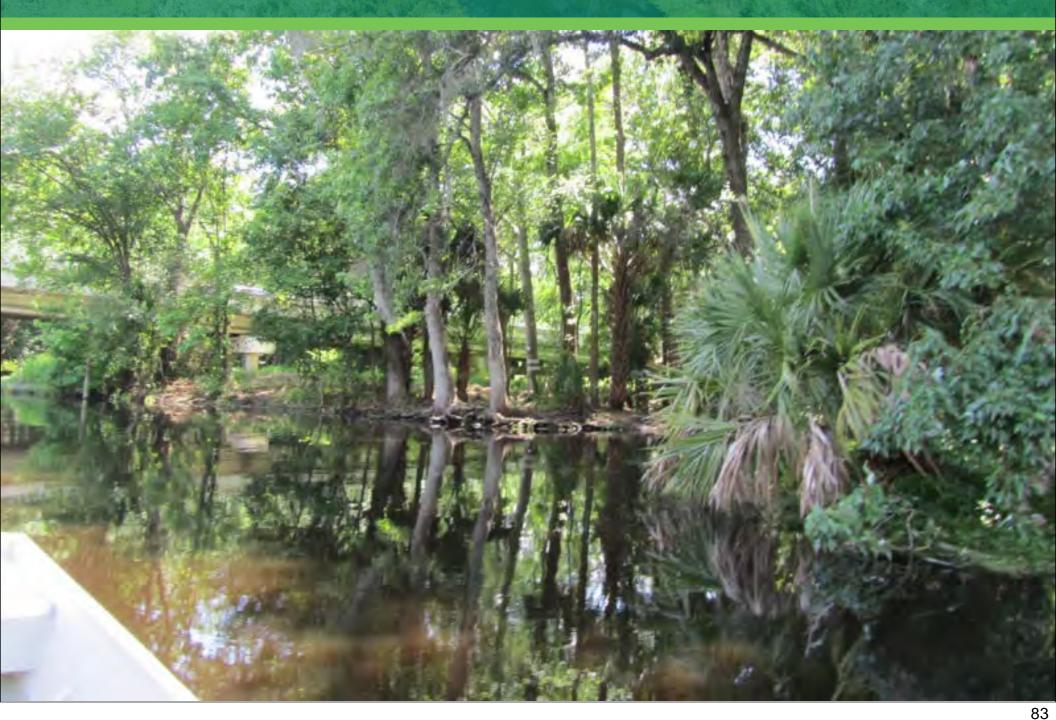
"Also, using the accent in eco-stain texture like variegated stone shown in the Allegheny River Bridge, Pennsylvania really fits well within the natural environment"

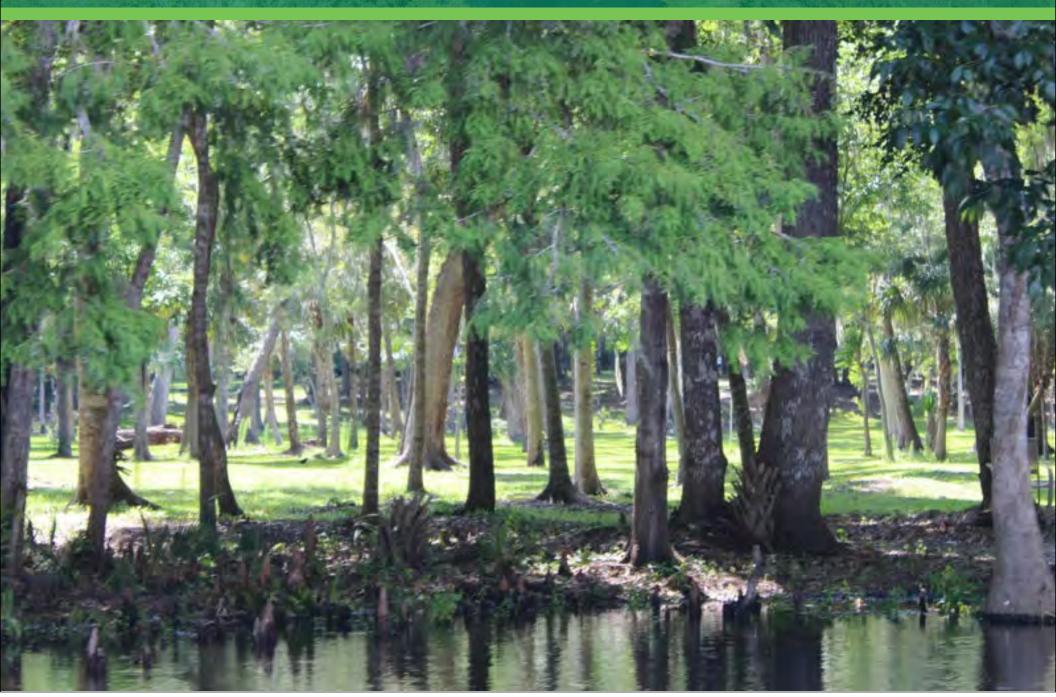


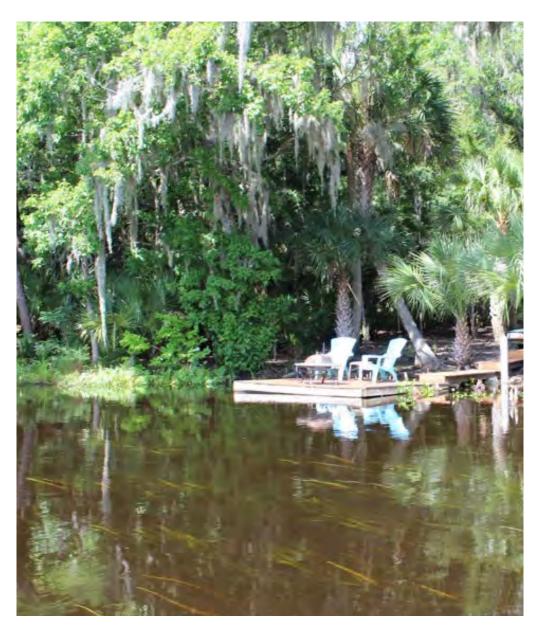














South Of The Bridge, Tree Overhanging River





Laurel Oak 65%



Red Maple 25%



Cabbage Palm 5%



Sweet Gum 5%

Dominant Trees on the River's Edge - Laurel Oak





Dominant Trees on the River's Edge - Red Maple





Dominant Trees on the River's Edge - Cabbage Palm





Dominant Trees on the River's Edge - Sweet Gum





Dominant Trees on the River's Edge - Occassional Cypress Tree

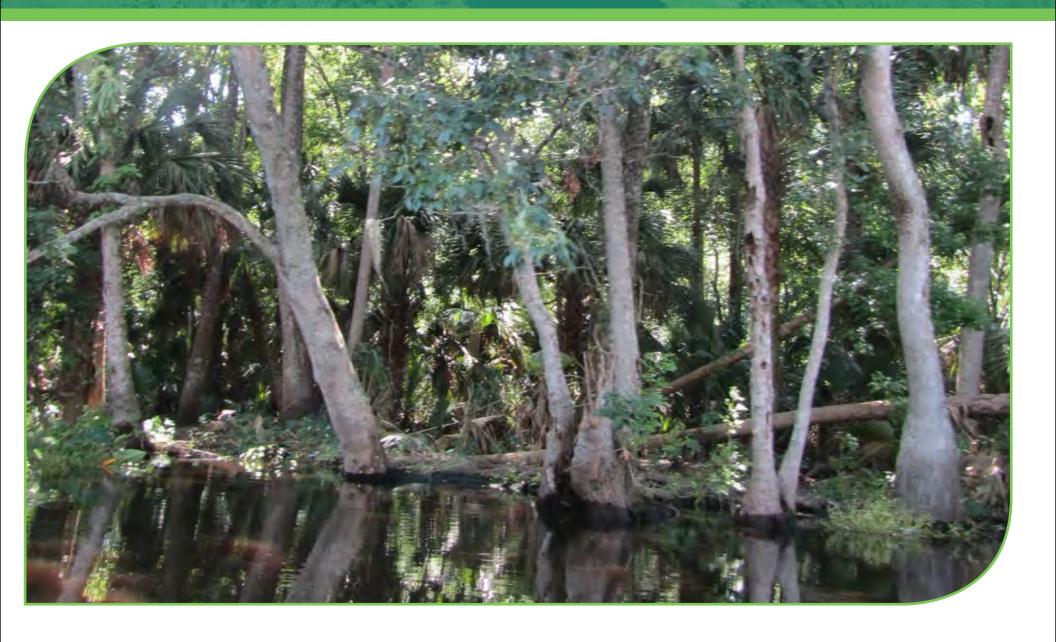




Trees Near the Existing Bridge - Oak Trees



Trees Near the Existing Bridge - Tupelo Trees



Trees Next to Existing Bridge - Overall Views

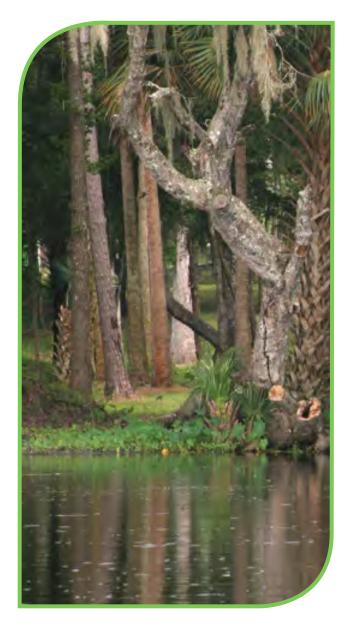








Trees Along 1 Mile Stretch of Existing Bridge









Trees Along 1 Mile Stretch of Existing Bridge







Trees Along 1 Mile Stretch of Existing Bridge







Celebration of Trees on the River's Edge





Branches Extending over Water

Contrast between Deciduous & Evergreens



Cabbage Palm

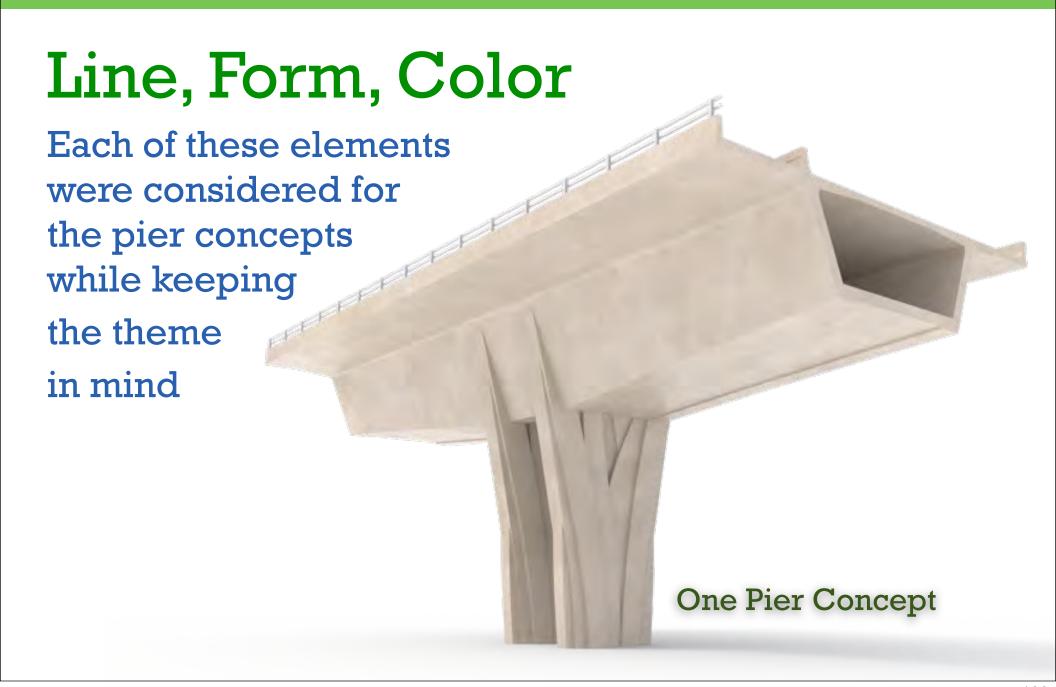


Floodplain Hardwoods



Cypress Tree Knees

Important Features Identified By The NPS:



"Line" Celebration of Trees on the River's Edge

No straight lines Crossing tree trunks





"Form" Celebration of Trees on the River's Edge

Overall Form
Wide tree bases
Irregular/Organic shapes





"Form" Celebration of Trees on the River's Edge

Overall Texture
Organic vertical
lines with variations
of surface





"Color" Celebration of Trees on the River's Edge

Variegated tree trunk coloring Blend of tans, ash, browns, grays, green



Red Maple 25%



Laurel Oak 65%

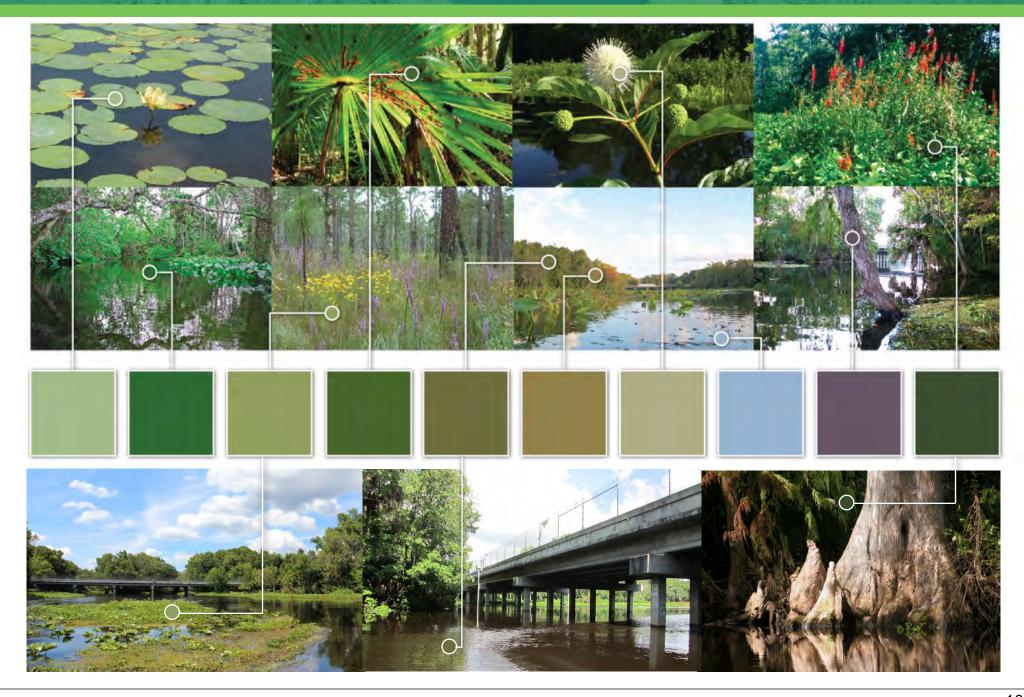


Cabbage Palm 5%



Sweet Gum 5%

Select Color Palette: Wekiva River Bridge Location





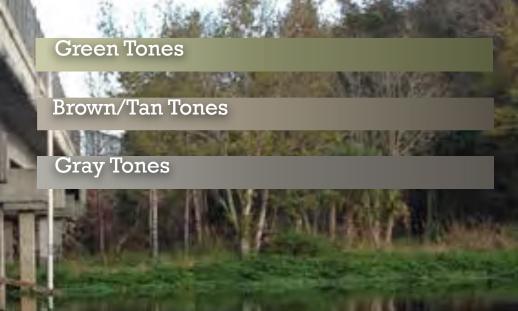




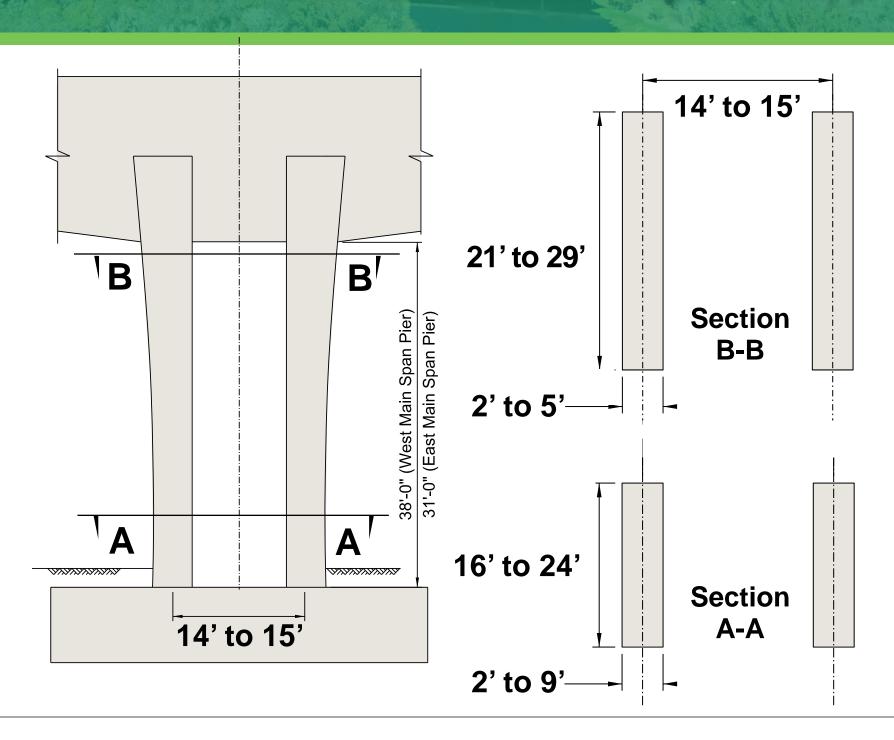








Basic Pier Dimensions (Dimension Ranges are Approx.)













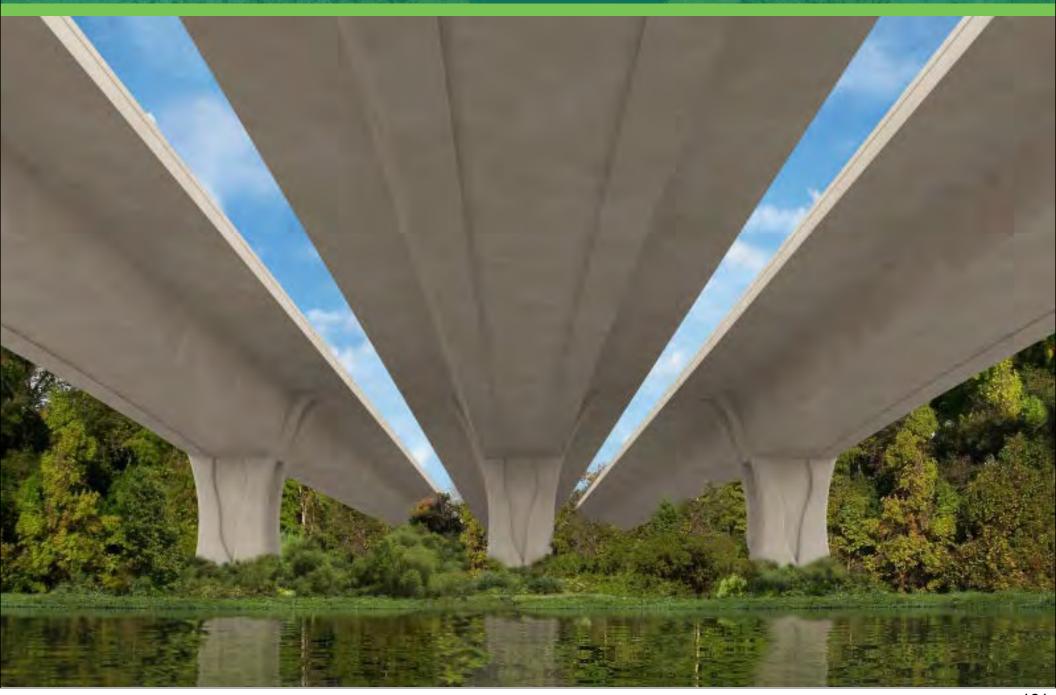








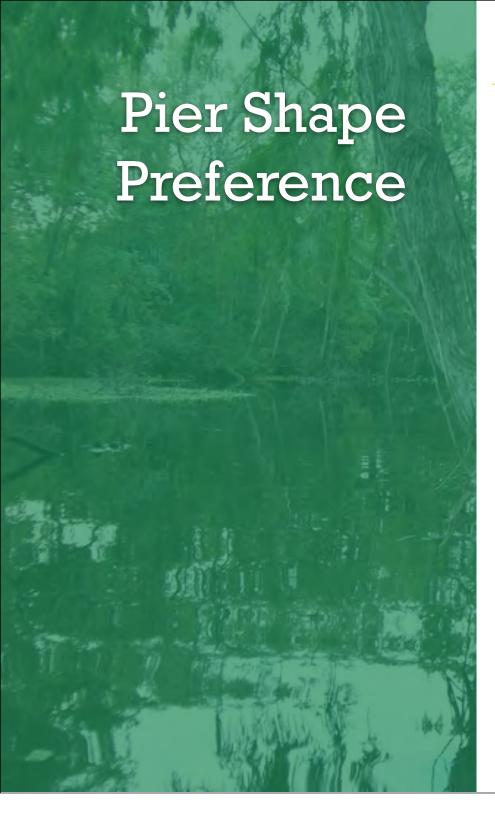






Discussion on Bridge Pier Shape





FINAL BRIDGE DESIGN CHARETTE 2

SR 429/SR 46 Wekiva Parkway

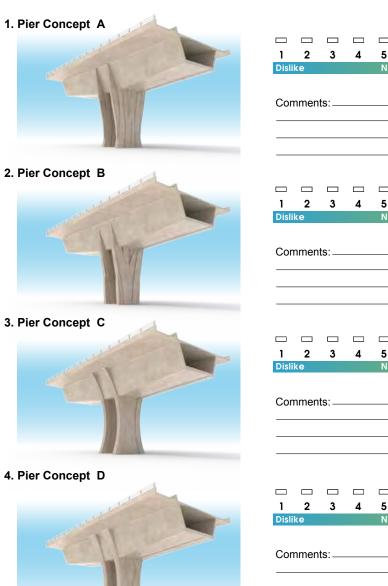
Wekiva River Bridges

January 28, 2014



Pier Concept Preferences

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).



1	 2		4	5	6	7	8	9	10
Dislike Neutral Like Comments:									
1	2 ke	3	4	5	6	7	8	9	10
Comments:									
1	2 ke			5 Net		7	8	9	10 Like
Comments:									
1		3	4		6	7	8	9	10 Like
Comments:									



Pier Shape Preference Results

FINAL BRIDGE DESIGN CHARETTE 2

SR 429/SR 46 Wekiva Parkway

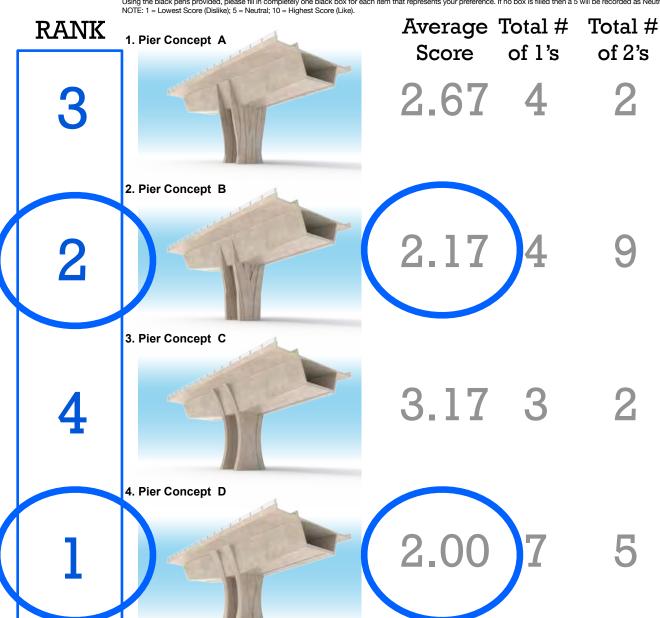
Wekiva River Bridges

January 28, 2014

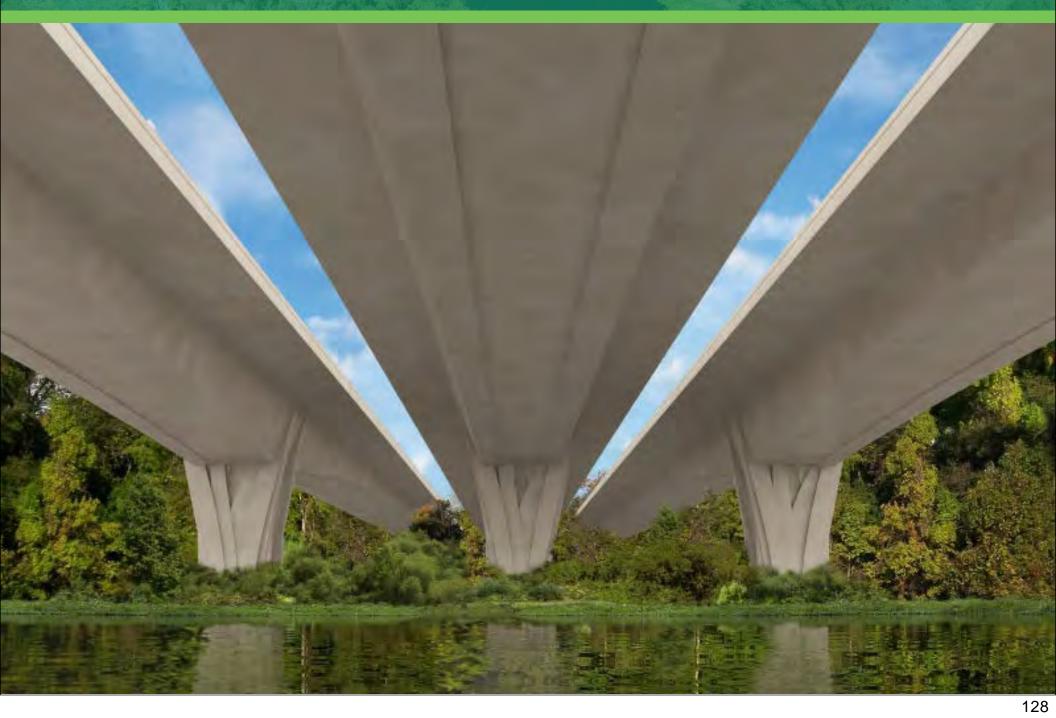


Pier Concept Preferences

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral.

















Eco-Friendly Stain







Example of Stain Durability





Original staining indoors

Thirteen years later Eleven years after building tear down.

Ten complete winters of freeze/thaw

Concrete Stain







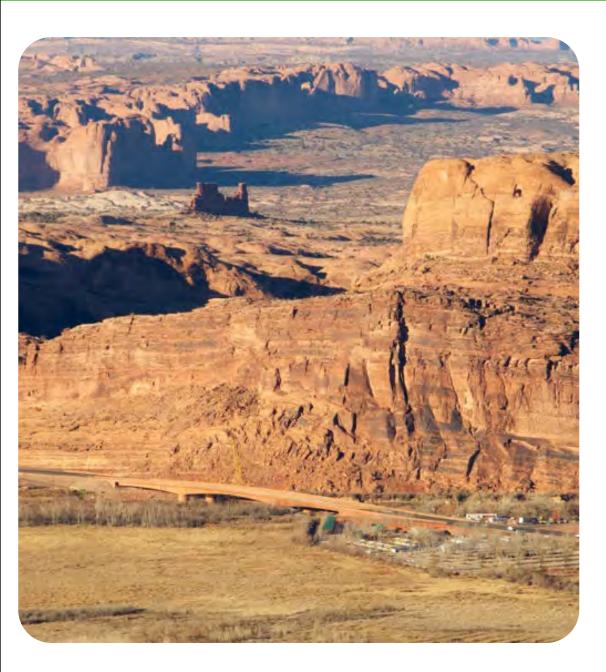
Variegated coloring can provide natural stone-like coloring

Permanent Chemical Coloration



A variety of shades and color can be achieved

Eco-Friendly Stain



The lack of acid and the quality of the salts makes for a much more predictable result and the most eco-friendly product.

Eco-Stain Application Works With Concrete And Has Naturally Variegated Shades





"Color" Celebration of Trees on the River's Edge

Variegated tree trunk coloring Blend of tans, ash, browns, grays, green



Red Maple 25%



Laurel Oak 65%

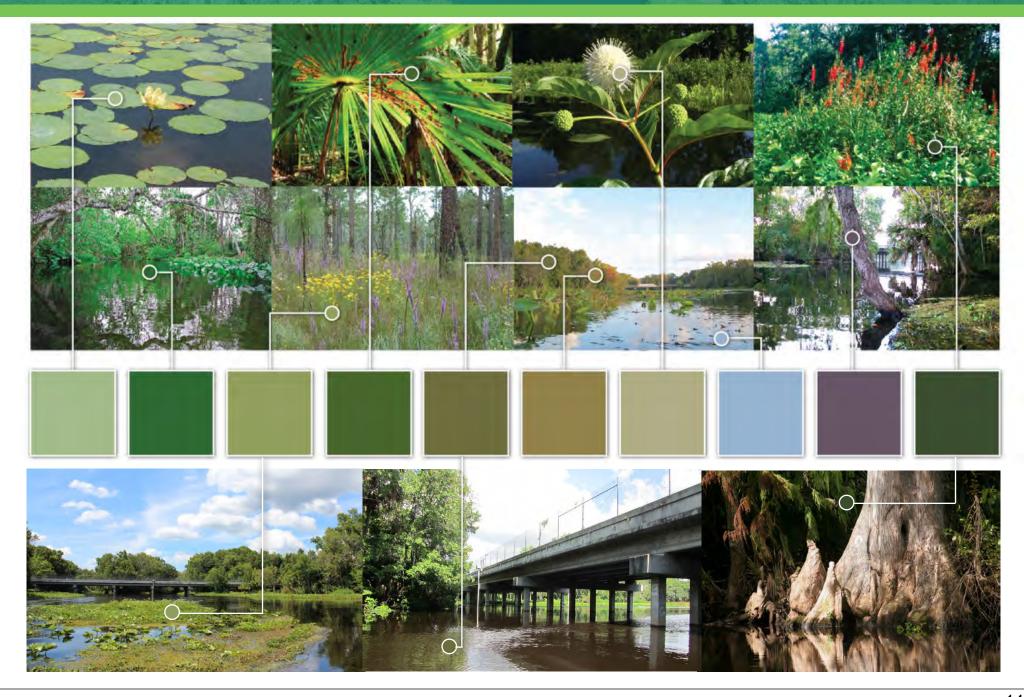


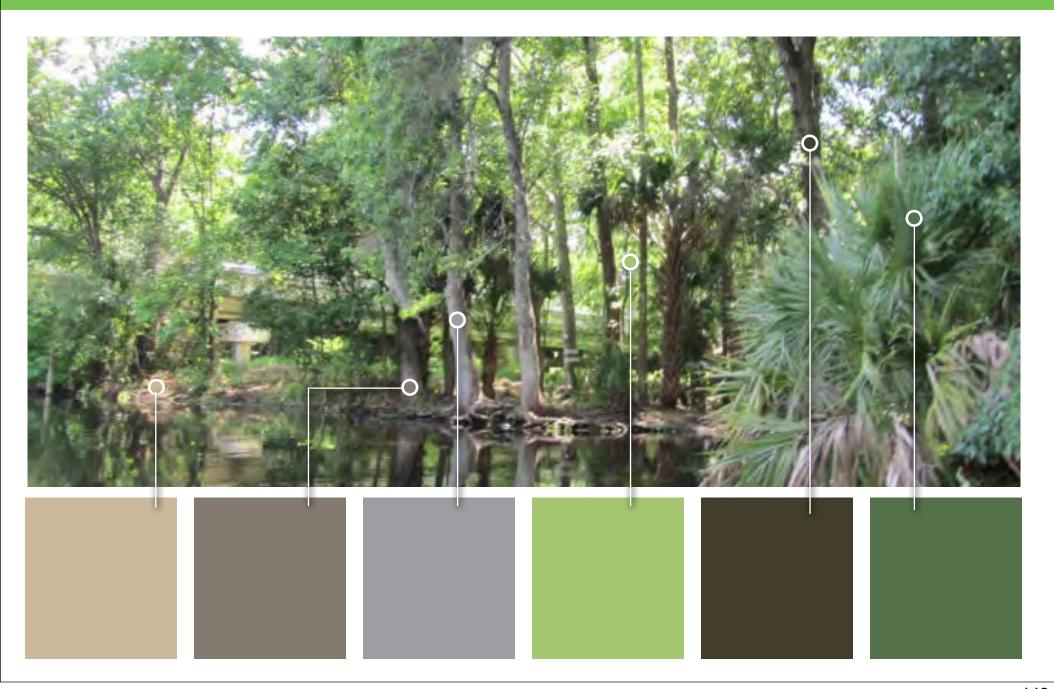
Cabbage Palm 5%



Sweet Gum 5%

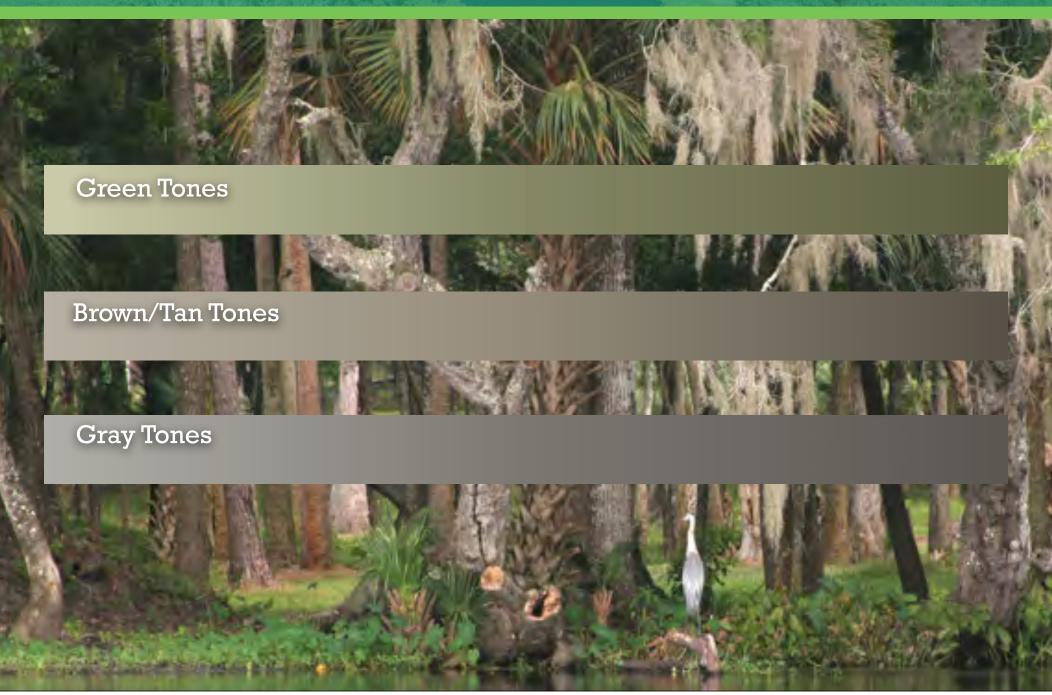
Select Color Palette: Wekiva River Bridge Location

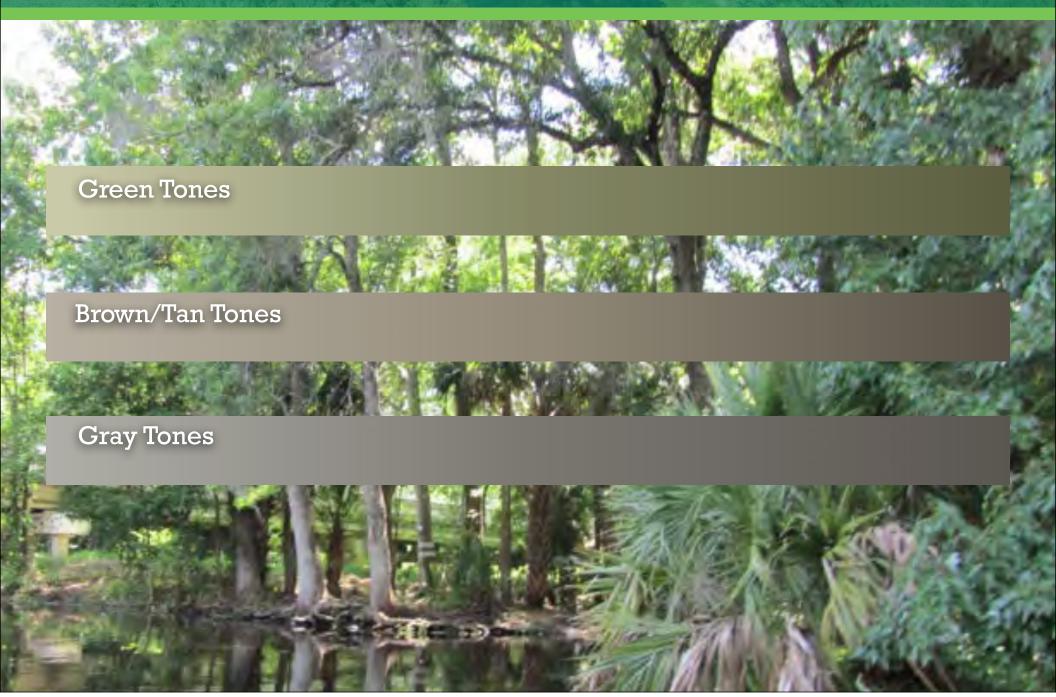


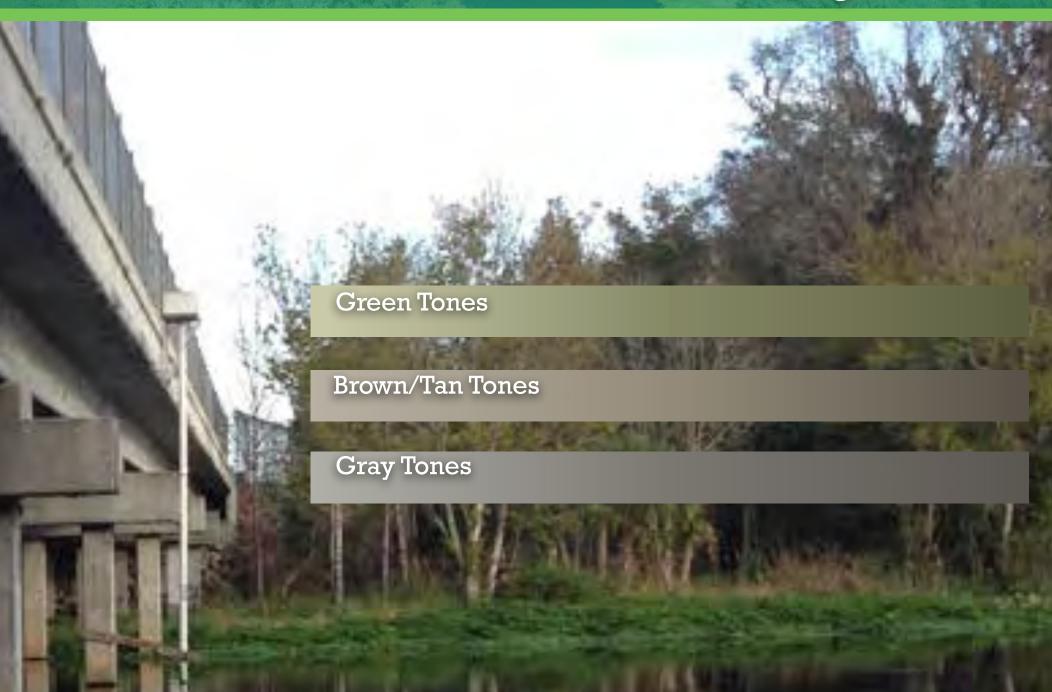


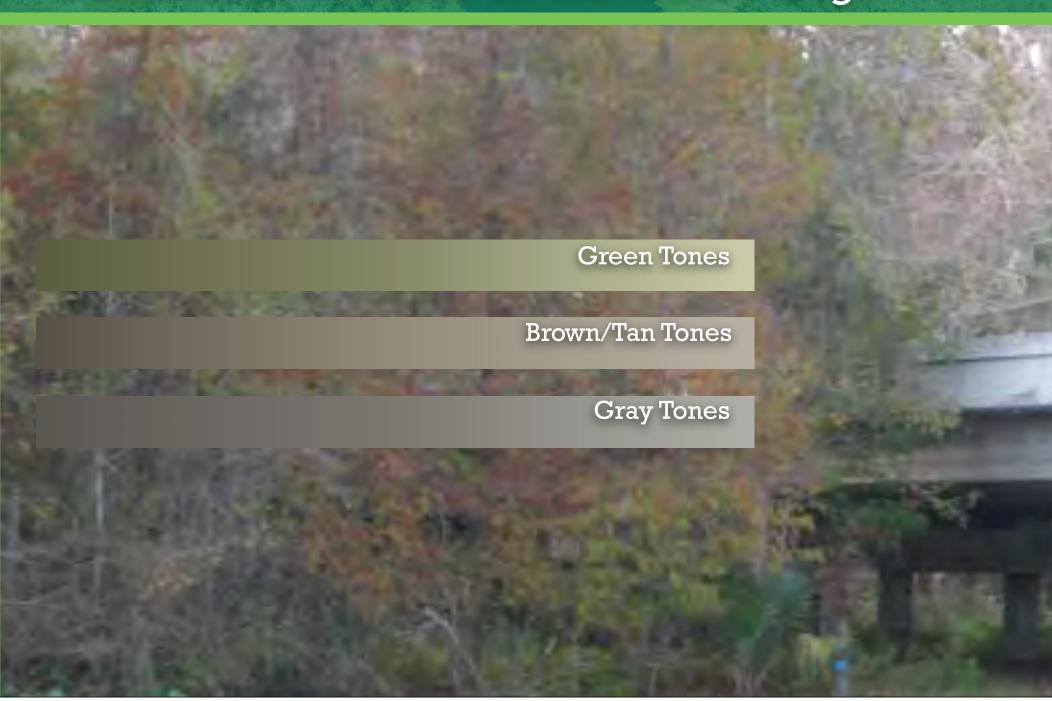




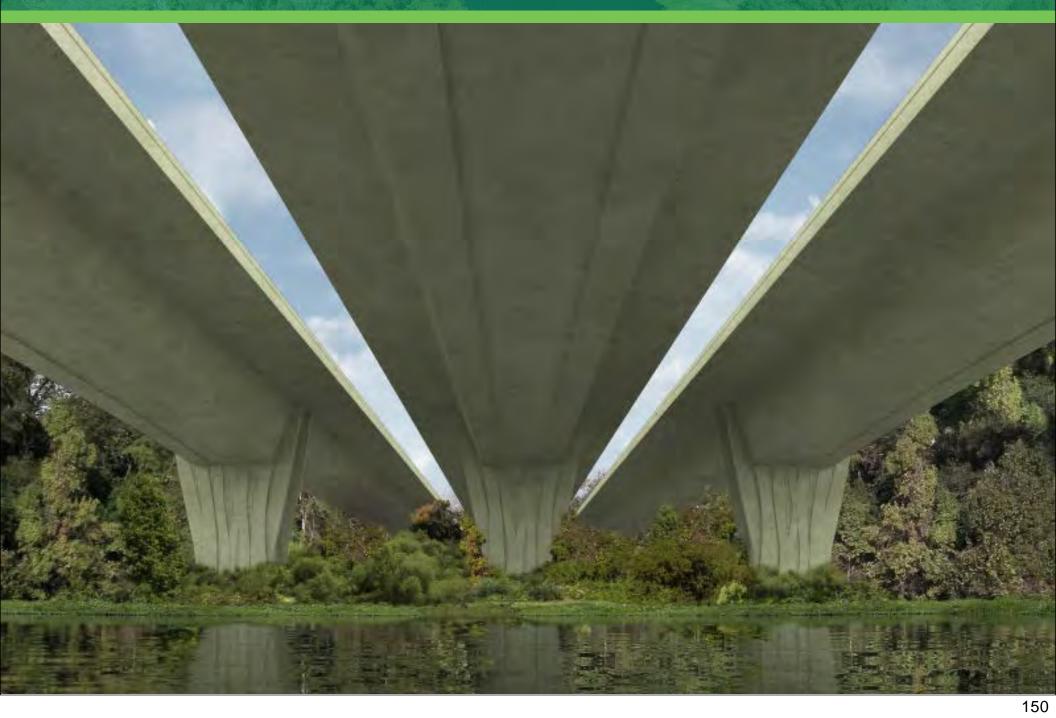




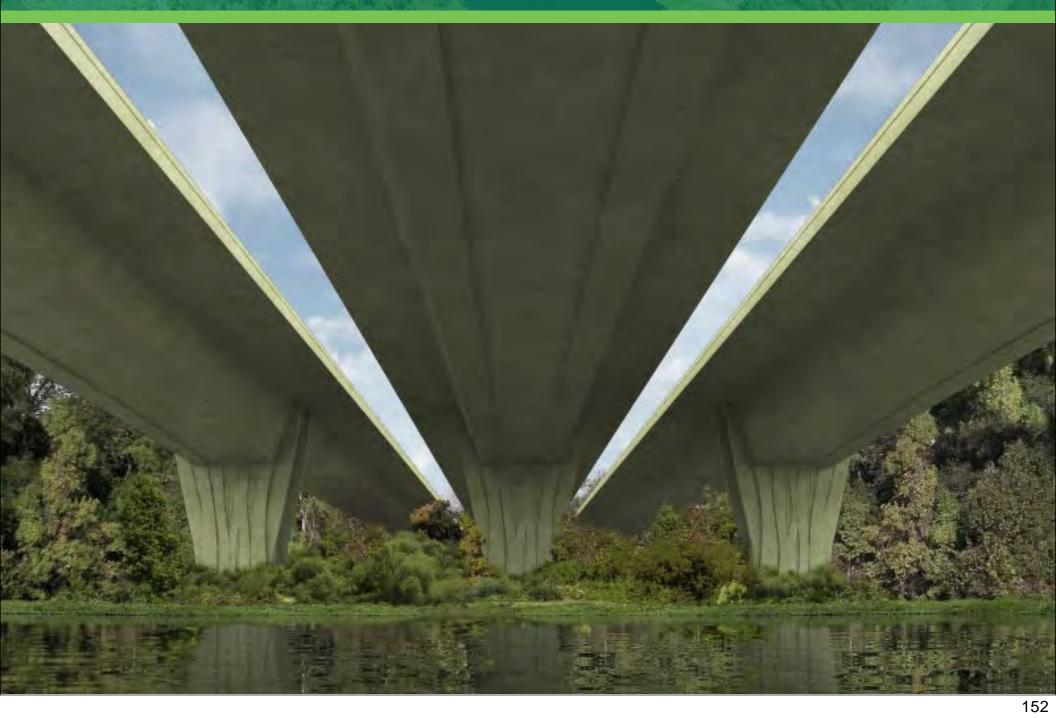






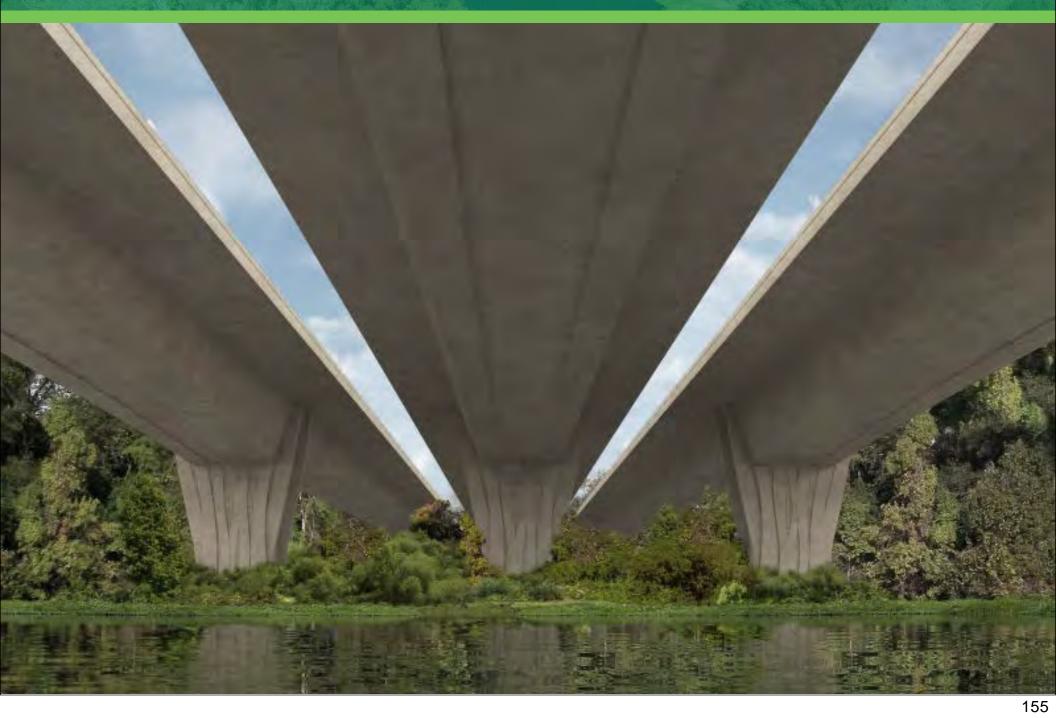






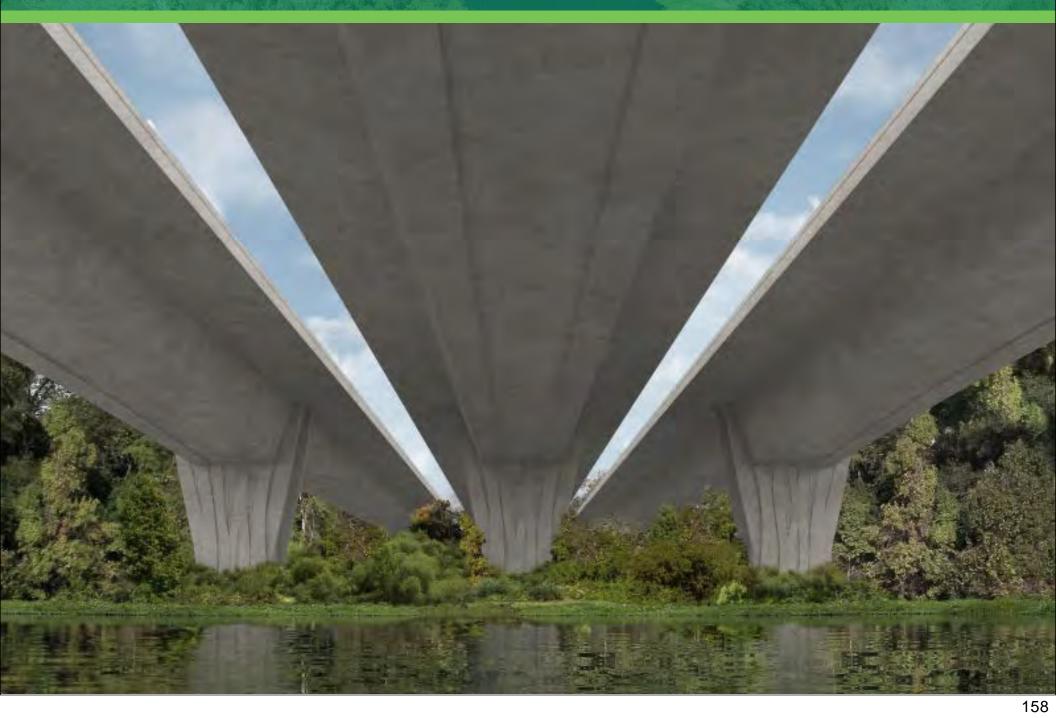
















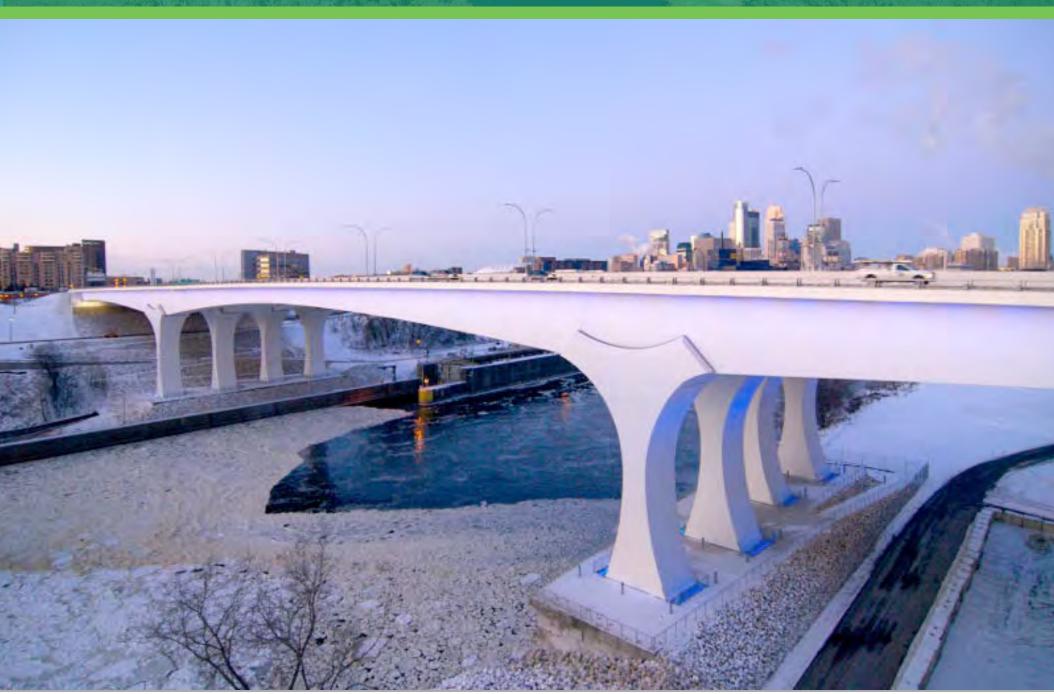
Blue Stain Under Bridge to Maximize Openness

A Great Thing about Nature is its Wonderful Visual Surprises

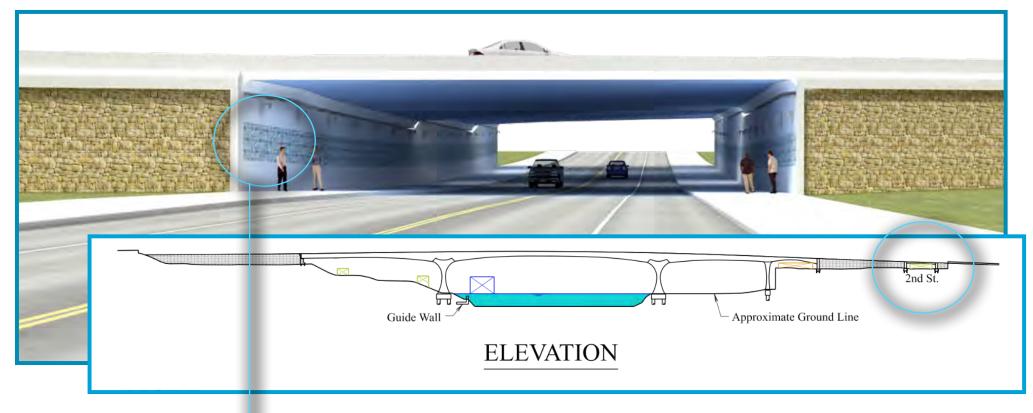


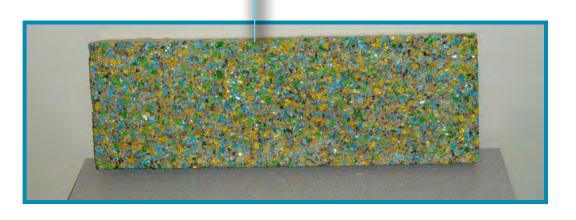
Reflective Blue color emphasizes the open blue sky background

New I-35W Bridge, Minneapolis, MN



New I-35W Bridge, Minneapolis, MN







Subtle Blue Bridge Ceiling



Subtle Blue Bridge Ceiling



Subtle Blue Bridge Ceiling



Discussion on Bridge Color Tone

Green Tones



Brown/ Tan Tones

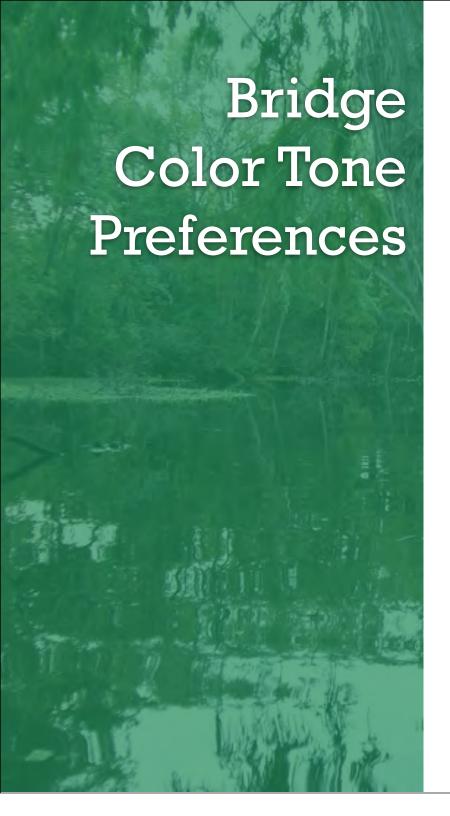


Gray Tones



Blue Tones (Underside)





FINAL BRIDGE DESIGN CHARETTE 2

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

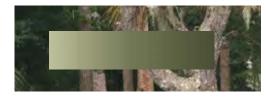
January 28, 2014



Color Option Preferences

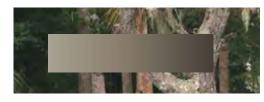
Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Green Tones



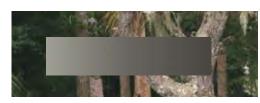
1	2	3	4	5	6	7	8	9	10
Disli	ke			Net	utral				Like
Con	nmen	ts: —							

2. Brown/Tan Tones



1	2	3	4	5	6	7	8	9	10
Disli	ke			Ne	utral				Like
Con	nmen	ts:							

3. Gray Tones



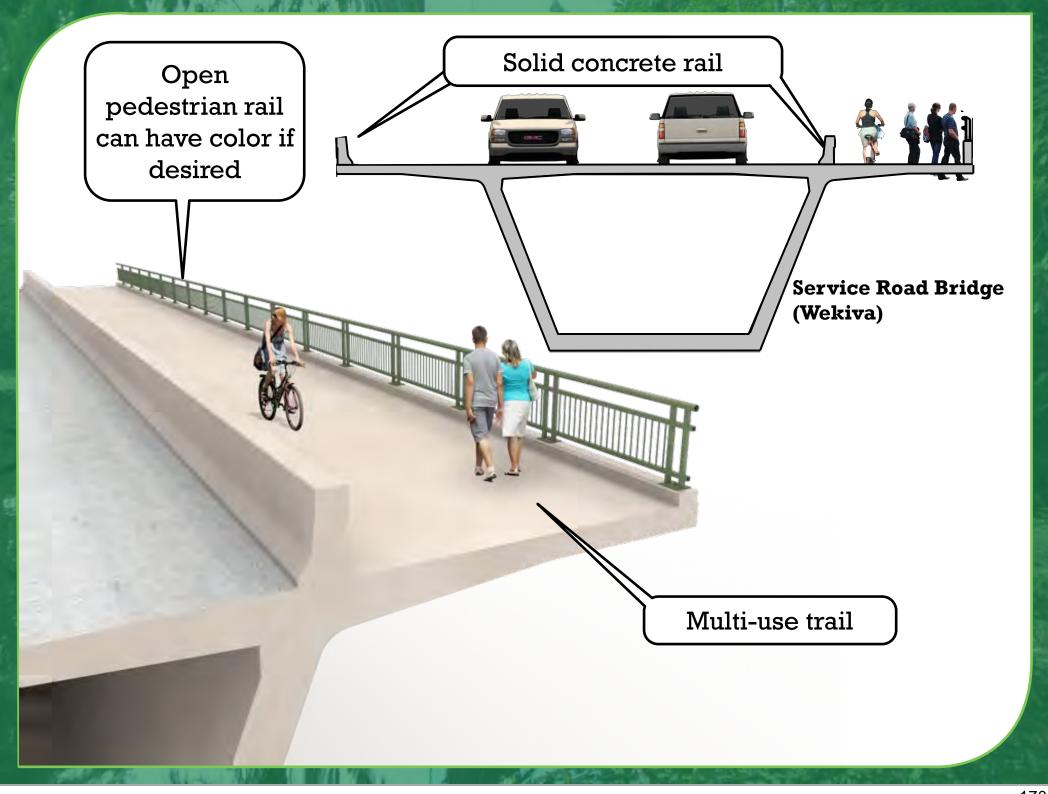
1	2	3	4	5	6	7	8	9	10
Disli	ke			Neu	ıtral				Like
_									
Cor	nmen	ts: —							

4. Blue Tone (Underside)



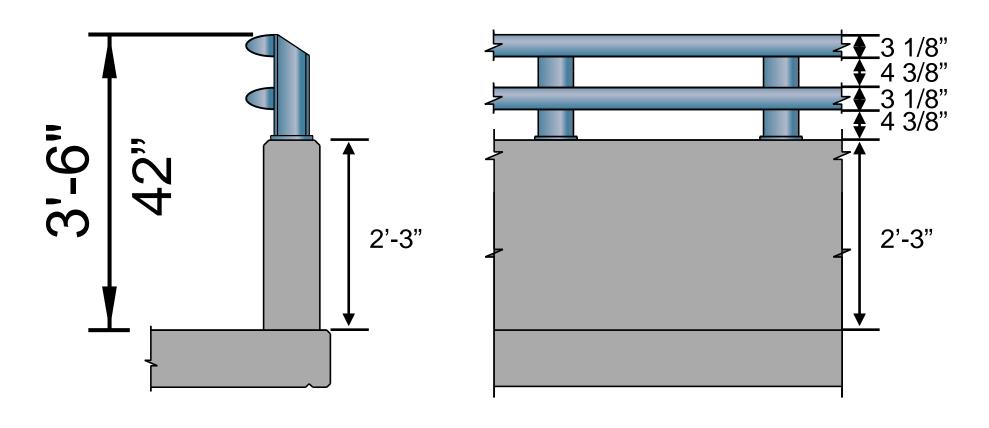
Yes	No		
Commen	ts:		





Bridge Railing Options - Multi-Use Trail

Option A - Partially Open



FDOT Index 820 Bridge Pedestrian/Bicycle Bullet Railing

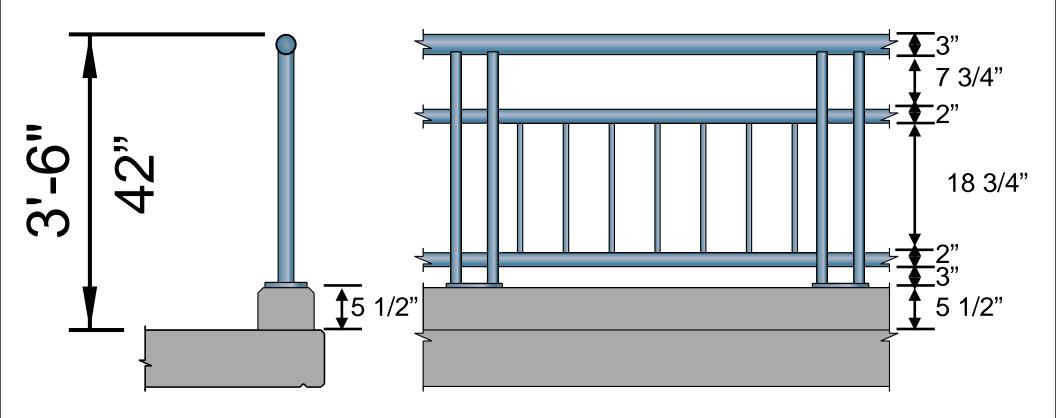






Bridge Railing Options - Multi-Use Trail

Option B - Fully Open



FDOT Index 861 Bridge Pedestrian/Bicycle Railing

Option B - Fully Open



Option B - Fully Open



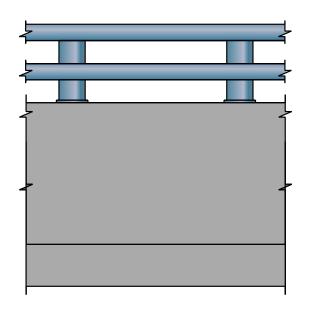
Option B - Fully Open





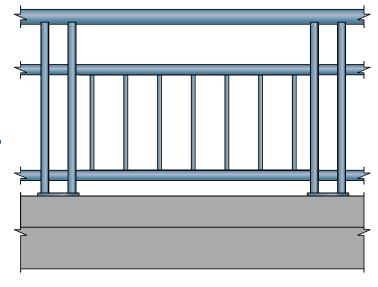
Discussion on Railing for Multi-Use Trail

Option A
Partially Open

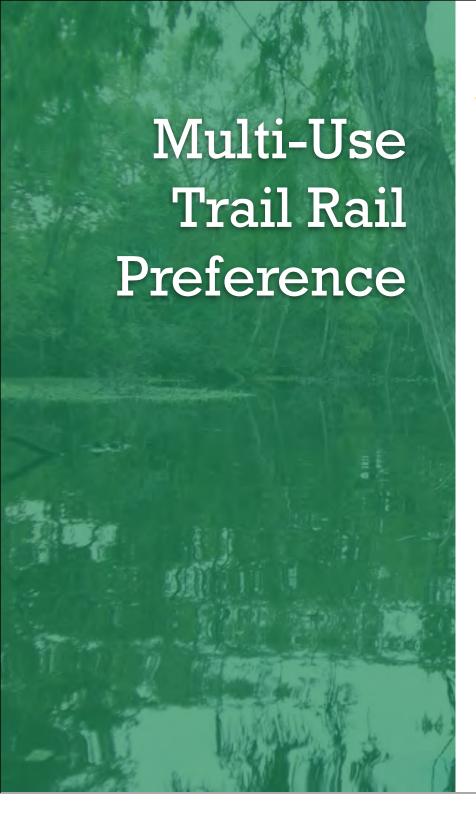




Option B Fully Open







FINAL BRIDGE DESIGN CHARETTE 2

SR 429/SR 46 Wekiva Parkway Wekiva River Bridges

January 28, 2014

Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Option A - Partially Open



42"		11	3 1
			Ť

1	2	3	4	5	6	7	8	9	10
Dislike Neutral Like									
Con	nmen	to.							
Con	IIIIICII	ເວ							

2. Option B - Fully Open

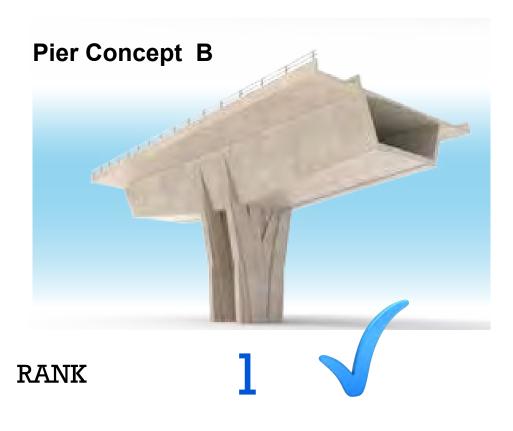


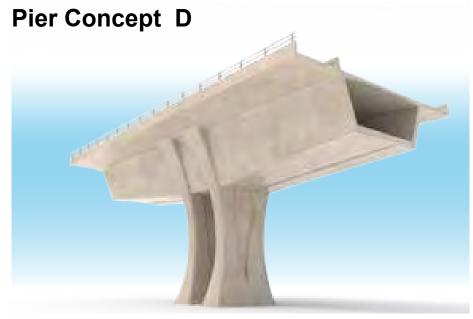
3-6	
-----	--

1	2	3	4	5	6	7	8	9	10
Disli	Dislike Neutral Like								
Con	nmen	te.							
0011									



Pier Shape Preference Results





Average Score

1.47

Total # of 1's

8

1.53

7

Bridge Color Tone Preferences Results

FINAL BRIDGE DESIGN CHARETTE 2

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014



Color Option Preferences

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Green Tones

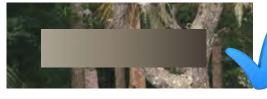
6.4



	_			_				_	
1	2	3	4	5	6	7	8	9	10
Dislike Neutral Like									
Con	nmen	ts:							

2. Brown/Tan Tones

7.9



[\neg								
	2	3	4	5	6	7	8	9	10
	ike			Neu	ıtral				Like
٠	commen	ts:							

3. Gray Tones

5.3



1	2	3	4	5	6	7	8	9	10
Dislike Neutral									Like

Comments: _____

4. Blue Tone (Underside)



8	5	2	
Yes	No	Neutral	

Comments:

Multi-Use Trail Rail Preference Results

FINAL BRIDGE DESIGN CHARETTE 2

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014

Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Option A - Partially Open

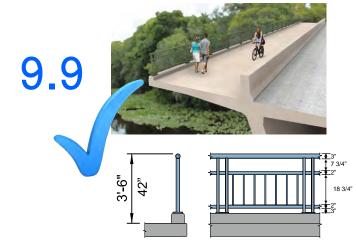




42"	2 3 1/8" 4 3/8" 3 1/8" 4 3/6" 4 3/6"
	<u>+</u>

	[
1	2	3	4	5	6	7	8	9	10
Disli	ke			Neu	ıtral				Like
Con	nment	le.							
COII	IIIICIII								

2. Option B - Fully Open



								[
1	2	3	4	5	6	7	8	9	10
Dislike Neutral Like									
Con	nmen	ts:							
0011									



Outstandingly Remarkable Values (ORV)

Scenic

Recreation

Wildlife and Habitat

Historic and Cultural

Water Quality and Quantity

Scenic

Bridge preserves and enhances scenery by repetition of surrounding landscape's fundamental visual elements of form, line, color and texture

Visual contrasts of the bridge against the surrounding landscape is minimized through optimized vertical profile and aesthetics

Sound and light:

Clear distances between bridges are 9'-11" and 12'-11" to add light



Scenic

- "Very important nature is beauty"
- "ALL are equally important"
- "Essential"
- "Ultimate design needs to blend into the surrounding landscape to minimize the impact on this ORV"
- "Blend into the character of the Wekiva area; make for a more pastoral, pleasant experience"
- "I think it's more important to be scenic from the river versus the bridge"

Scenic

- "Already gave my color, etc. comments"
- "The wider span of the bridge should greatly improve the vista"
- "Maintain aesthetics"
- "Scenic views are important BOTH from the ground and the bridge. A glimpse of the river, no matter how short, is worth it to some!"
- "Very important to keep noise level reduced"
- "This is a top tier ORV and is important specifically for people on the river and on the bank. I don't believe the bridge will impact the scenic values when compared to existing bridge"

Recreation

River recreation experience is enhanced by:

Pier locations being completely removed from the river and allowing unobstructed passage

Construction will allow use of the river during construction









Recreation

- "Very important to have people enjoy our resources"
- "Maintain or enhance aesthetic values as best as possible"
- "Though important, water quality & quality is necessary for this value"
- "Ultimate design needs to blend into the surrounding landscape to minimize the negative impact & to ensure that the user experience is an enjoyable one"
- "I grew up in Lake County & this area has always had a recreational use for my family"
- "Provide a larger area of water body to traverse"

Recreation

- "There will always be people enjoying the river"
- "Removal of the bridge supports in the water will improve the experience from the water"
- "Minimize contrast of structure with environment"
- "Canoe/kayak, fishing, photography, bird watching"
- "Very important that unobstructed passage allow use of river during construction"
- "Also a top tier ORV, access to the river is important to our citizens"

Wildlife and Habitat

Upland and Wetland Habitats

Impacts minimized by:

Using the existing road corridor

Extending the bridge ends to span the river & floodplain will improve the connection to adjacent habitats that are currently severed by fill.

Strict erosion control measures to minimize impacts to aquatic species

Raising the bridge to reduce shading impacts and reduce noise immediately beneath the bridge

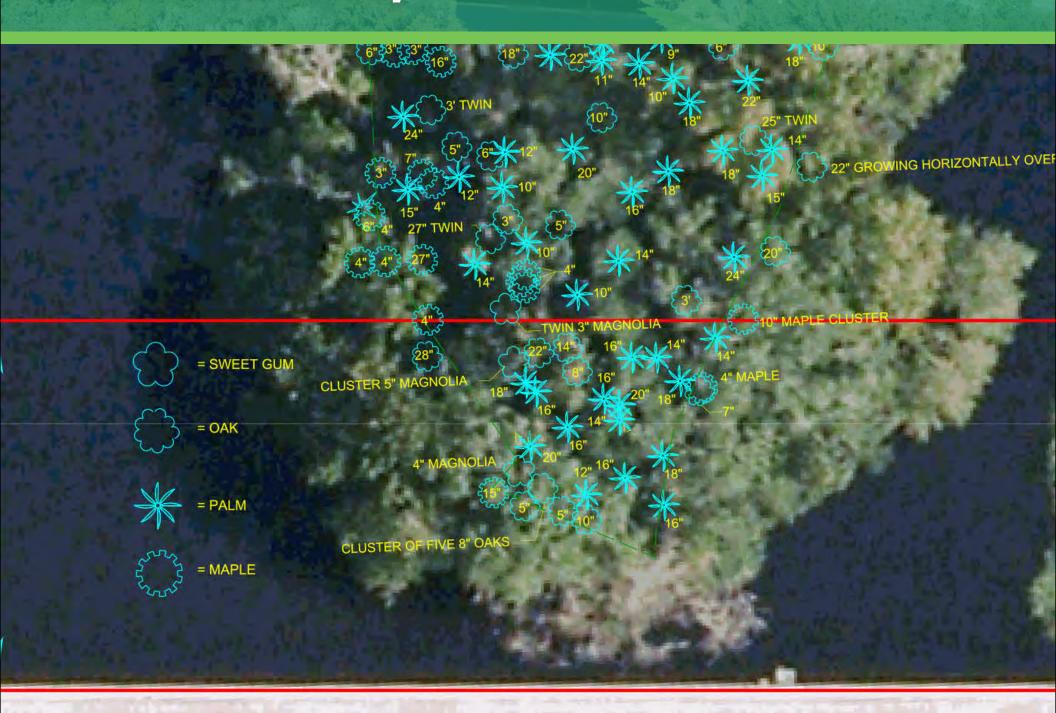
Wildlife and Habitat

- "Increasing the span widths will have a positive impact on the movement of wildlife through the region"
- "Continue to protect & improve wildlife habitat"
- "The expansion of the corridor will be a great improvement for all wildlife"
- "The proposed improvement will provide a tremendous benefit to wildlife/habitat and habitat connectivity when compared to the existing condition"
- "1750' span good need additional span on Seminole County side"

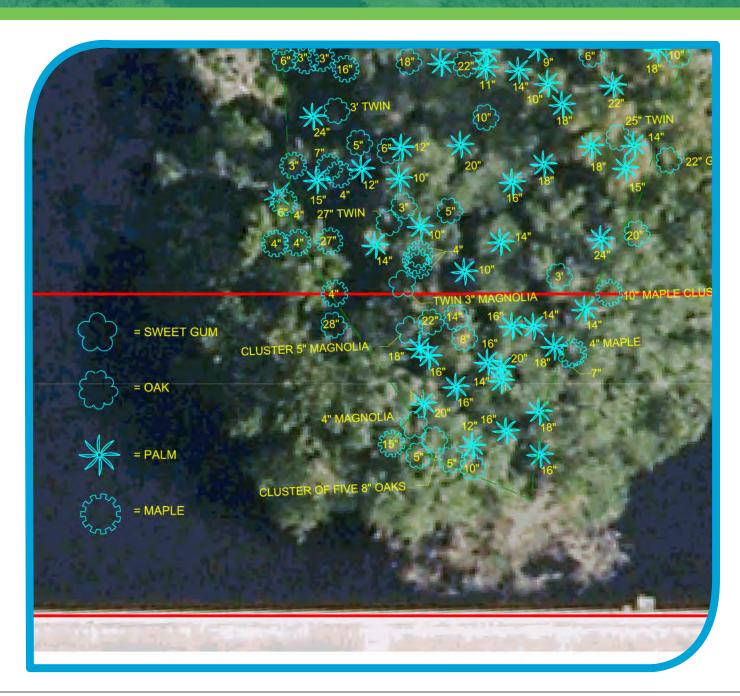
Wildlife and Habitat

- "Very important to preserve what habitat is left"
- "As discussed, cannot lessen the wildlife corridor due to the lack of it now"
- "I believe that considering greater height for the bridge structure will substantially benefit wildlife habitat, enable light to reach the island and reduce noise impacts"
- "All are connected"
- "Protect habitat and provide needed transportation facilities"
- "Construction will be disturbing. End product will hopefully be lots better"
- "Well considered, so far"

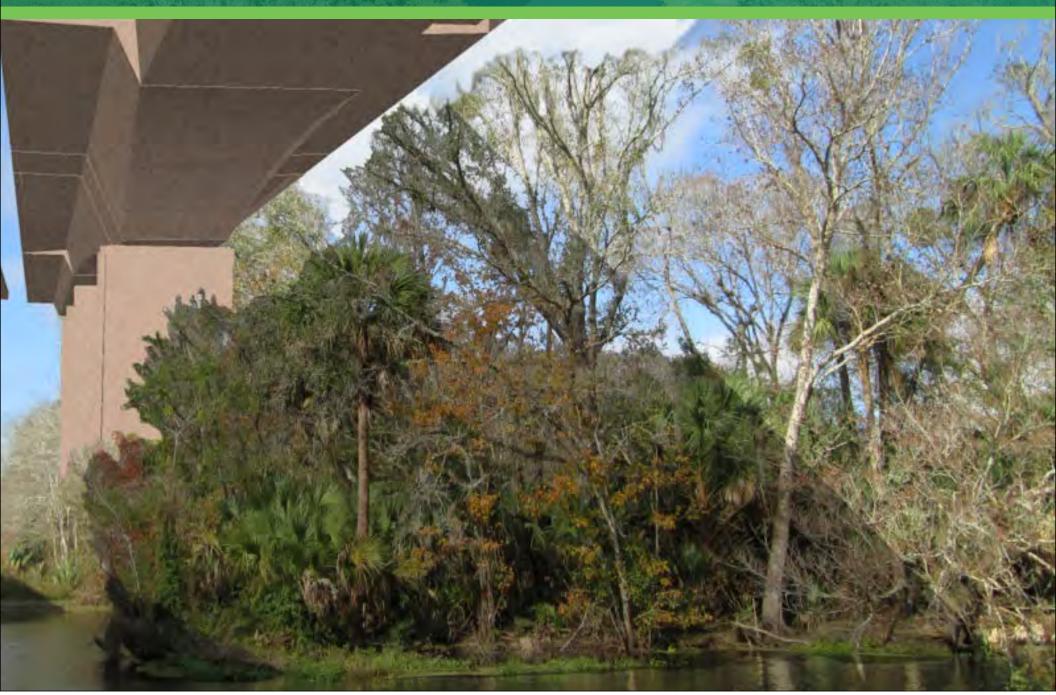




Species	#	%
Elm	1	3%
Red Maple	5	14%
Dahoon Holly	6	17%
Laurel Oak	7	19%
Sweetgum	1	3%
Cabbage Palm	16	44%
Total	36	100%

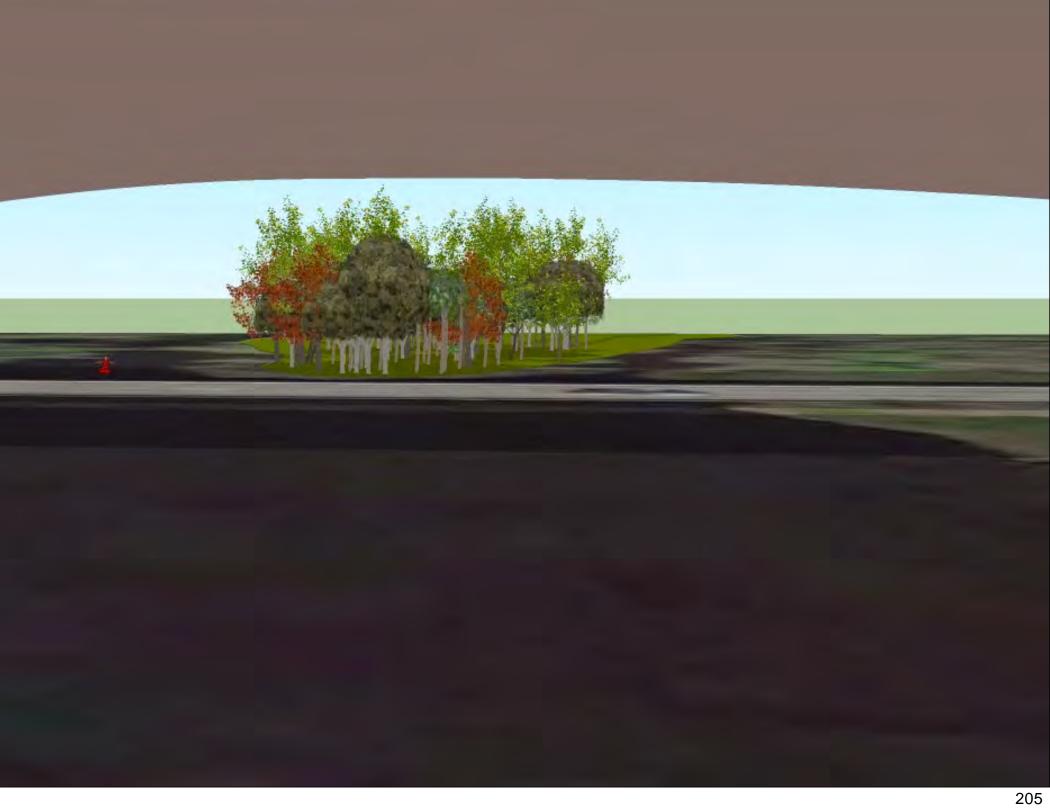


Island Light Study Rendering









Historic and Cultural

Potential Impacts will be minimized by: Using the existing road corridor Spanning the river & floodplain

There are no documented archaeological or historic sites within the bridge footprint.

The proposed improvements are not expected to impact any archaeological or historic sites which are listed, determined eligible, or considered potentially eligible for listing in the NRHP.

Comments Received on the Outstandingly Remarkable Values (ORV)

Historical and Cultural

"Very important cultural resources!"

"Not applicable for this location"

"This is an education issue – traditional forms & colors are important"

"Do not destroy the wild & scenic character of the river"

"Maintain the rural character of the Wekiva area"

Comments Received on the Outstandingly Remarkable Values (ORV)

Historical and Cultural

"Not applicable at this location as far as we know.

There may be mastodon bones or ancient canoes or more modern artifacts. Wouldn't hurt to have an ARM around & have construction workers keep an eye out for artifacts, etc."

"N/A"

"Let's create history with a successful project that can / meet these goals"

"Very important"

"The ORV is a lower tier ORV in the bridge area"

Water Quality and Quantity

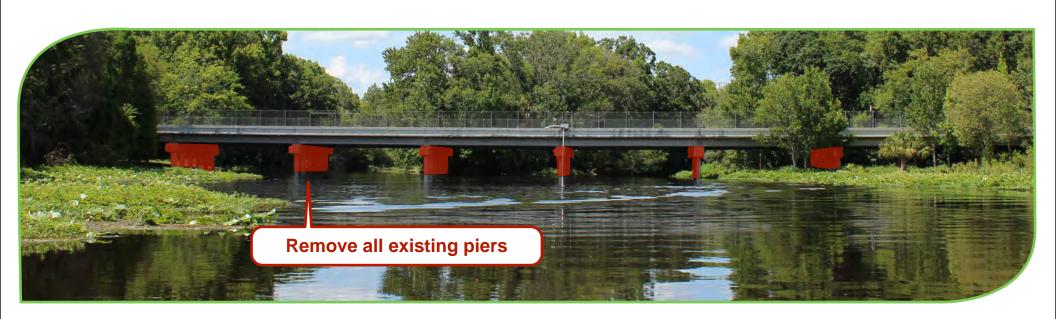
The project will ensure attenuation requirements are met

Attenuation of peak flows to the river

Maintain pre-development discharge

No loss of Wekiva River floodplain volume

Improved flow through clear-spanning of the river and removal of the existing bridge piers



Comments Received on the Outstandingly Remarkable Values (ORV)

Water Quality and Quantity

"Don't want to degrade an OFW and Wild and Scenic River"

"Most important value. River MF&L is set at 150 CFS – this week it was at 130 CFS"

"Storm water design needs to meet or exceed the criteria to ensure that the water quality is not impacted"

"It's pristine, let's keep it that way"

"Do not negatively reduce water quality or quantity; provide protection to this valuable asset"

Comments Received on the Outstandingly Remarkable Values (ORV)

Water Quality and Quantity

- "Extremely important"
- "Retention ponds, natural contour, natural vegetation, fence not necessary on state lands"
- "Ensure no turbidity violations during construction"
- "Minimize erosion, people getting out of their boats to access the land under the bridge"
- "Very important"
- "Also important to sustain the "Scenic", "Recreation" and "Wildlife/Habitat" components"









Important Dates

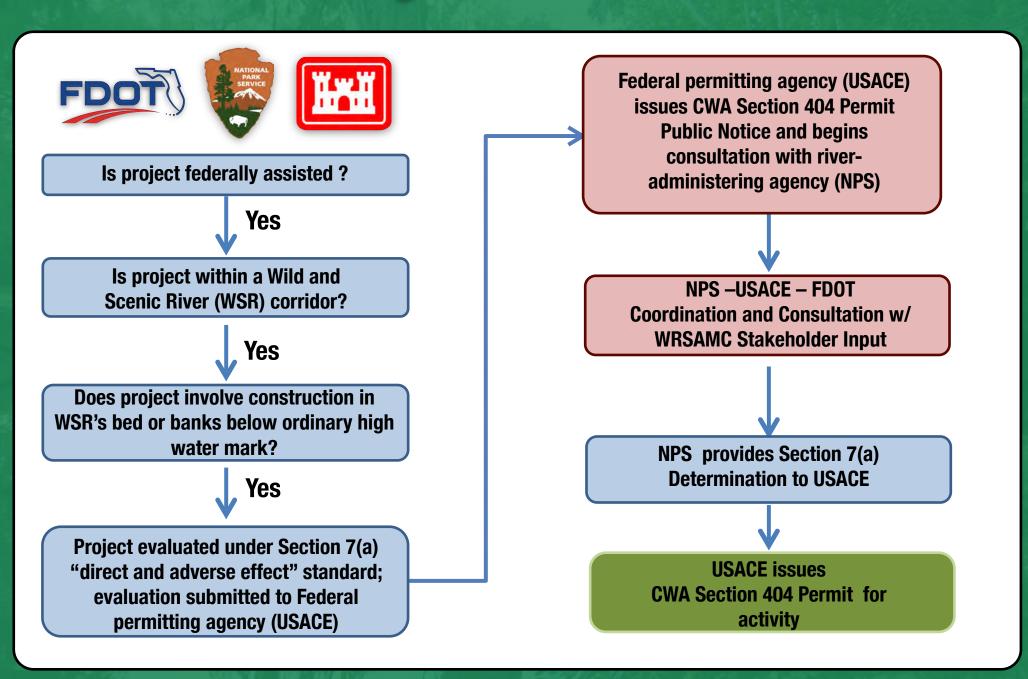
Results of Final Bridge Design Charette 2
Preferences are used to create Bridge Layout
and Renderings

Final renderings presented at February 12, 2014 WRSAMC meeting

Permit Submittal on March 3, 2014 (Tentative)

Public Information Meeting on April 29, 2014

Federal Permitting Process







APPENDIX N

Final Bridge Design Charette 2

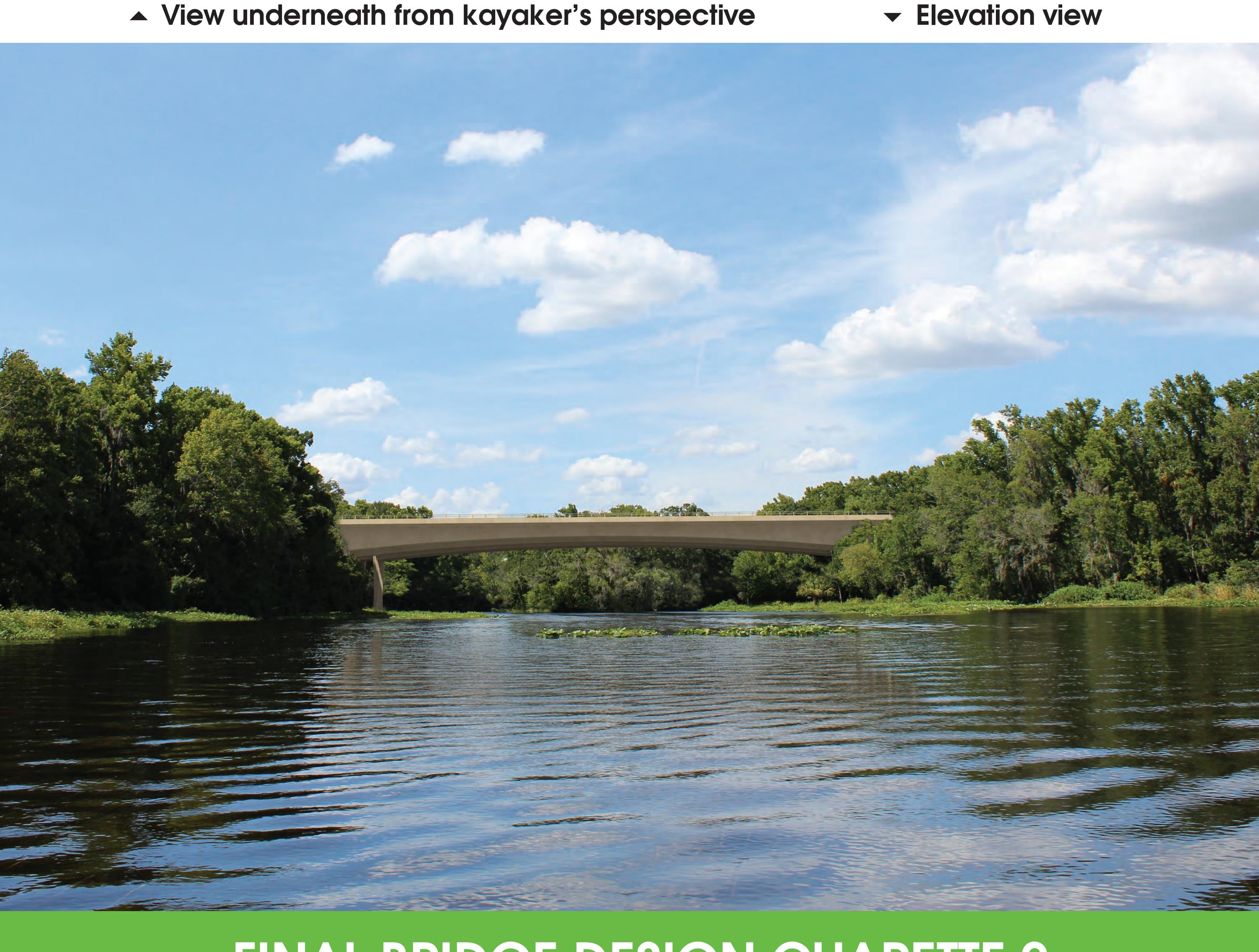
DISPLAY BANNERS

Pier Concept A

Celebration of Trees on the River's Edge







FINAL BRIDGE DESIGN CHARETTE 2





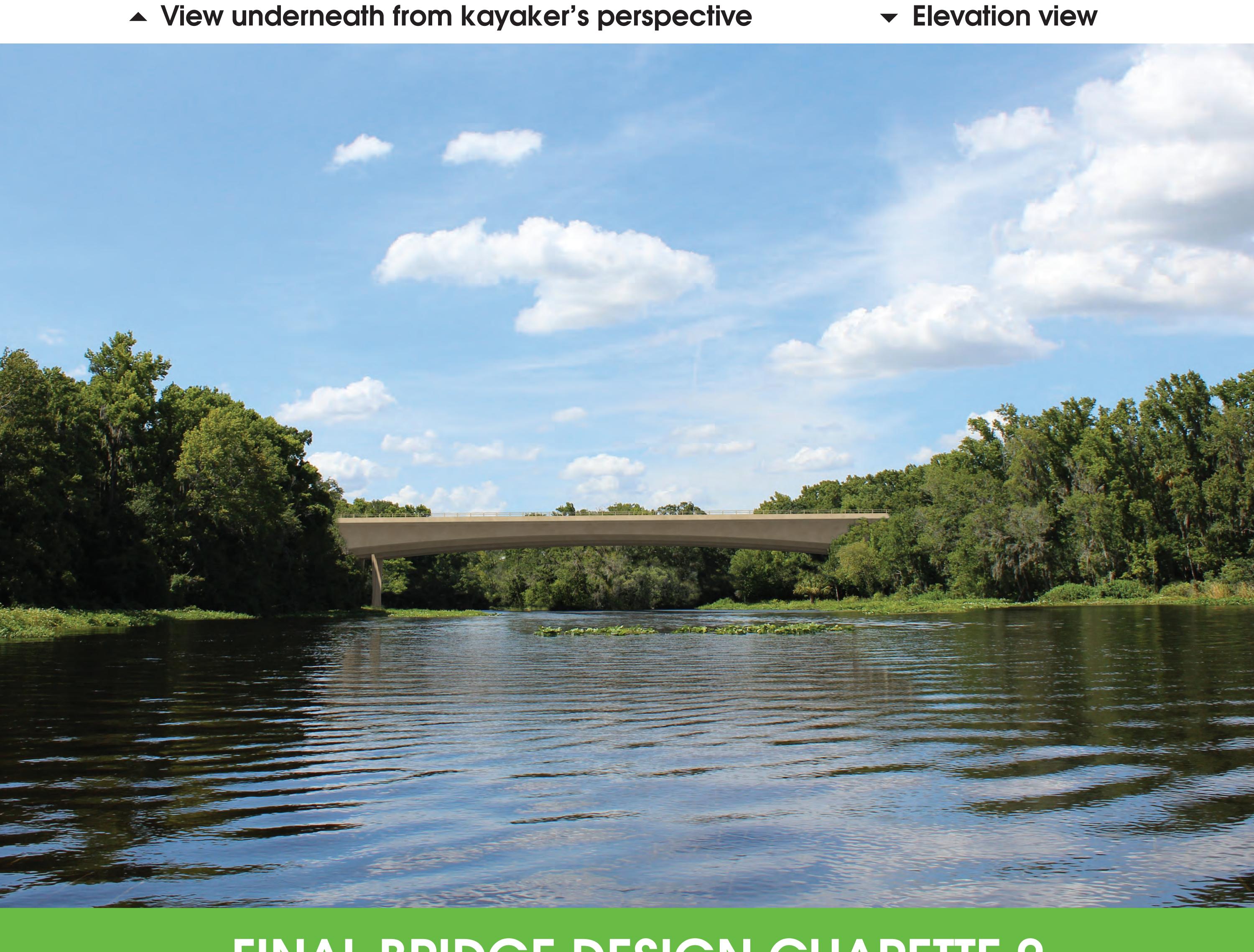


Pier Concept B

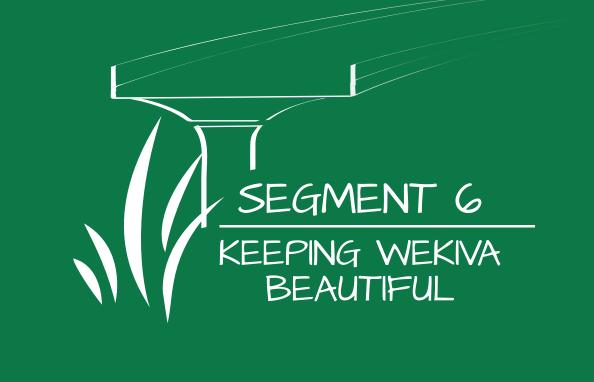
Celebration of Trees on the River's Edge







FINAL BRIDGE DESIGN CHARETTE 2





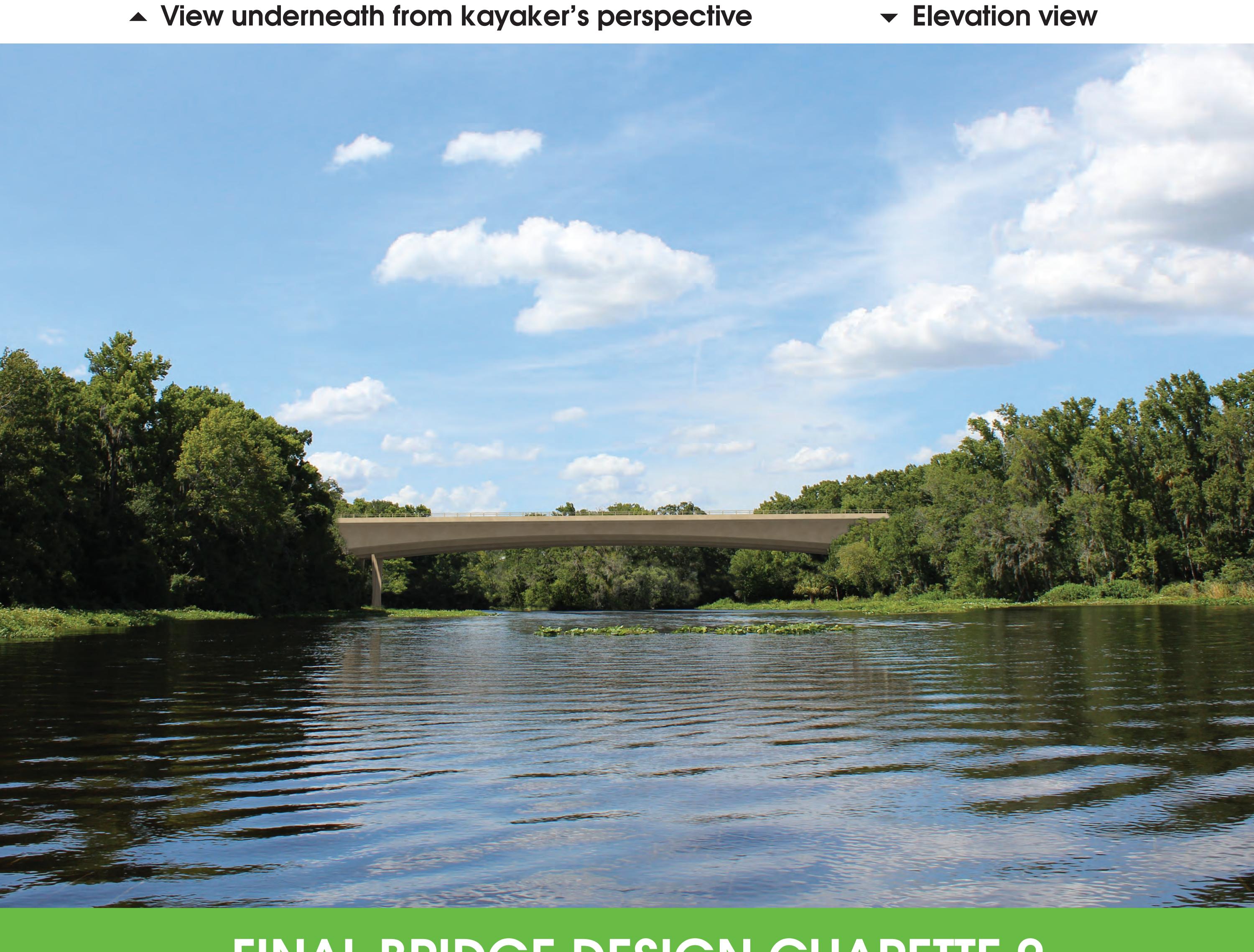


Pier Concept C

Celebration of Trees on the River's Edge







FINAL BRIDGE DESIGN CHARETTE 2





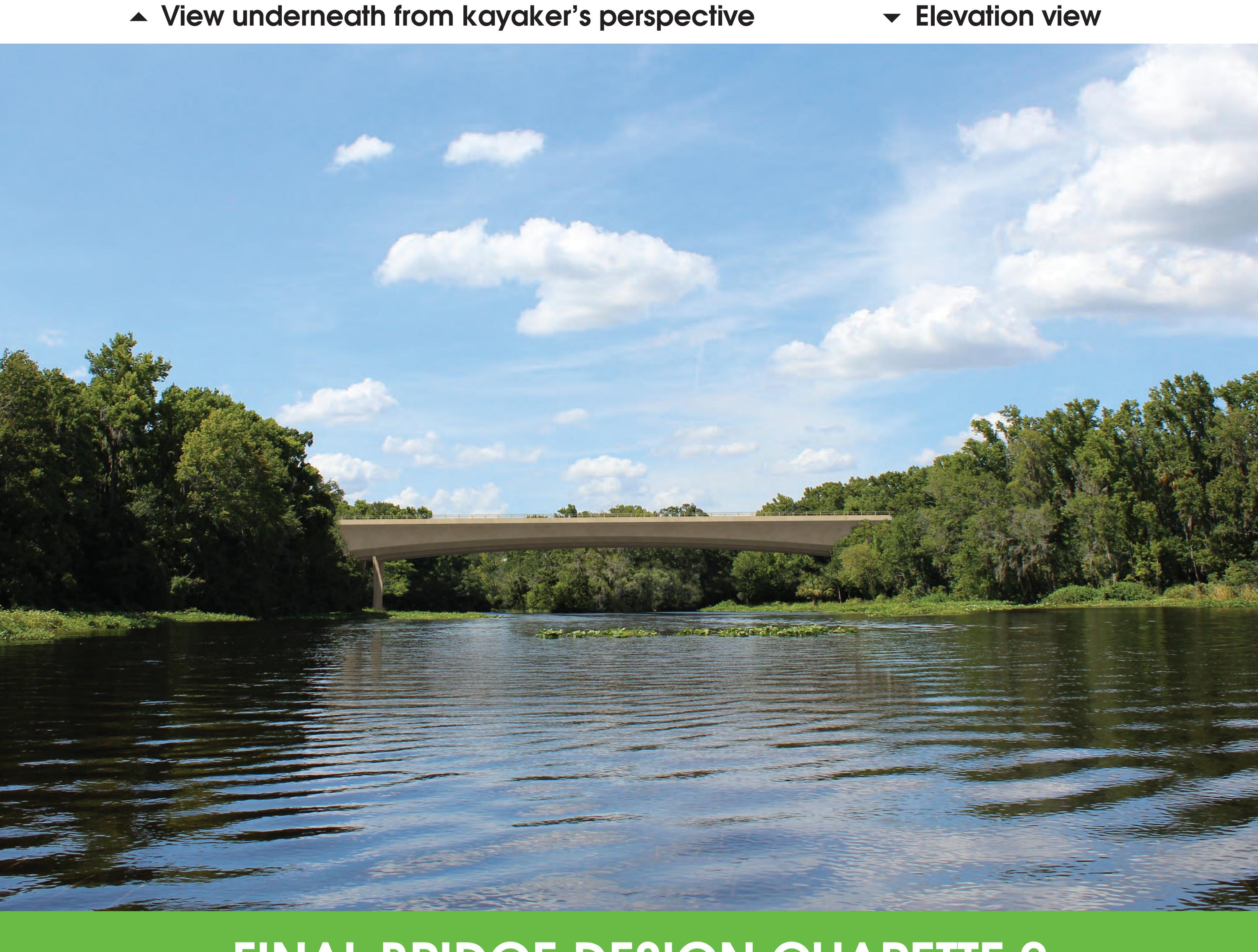


Pier Concept D

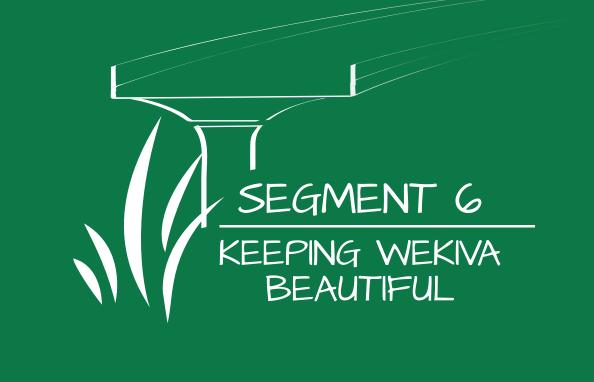
Celebration of Trees on the River's Edge







FINAL BRIDGE DESIGN CHARETTE 2

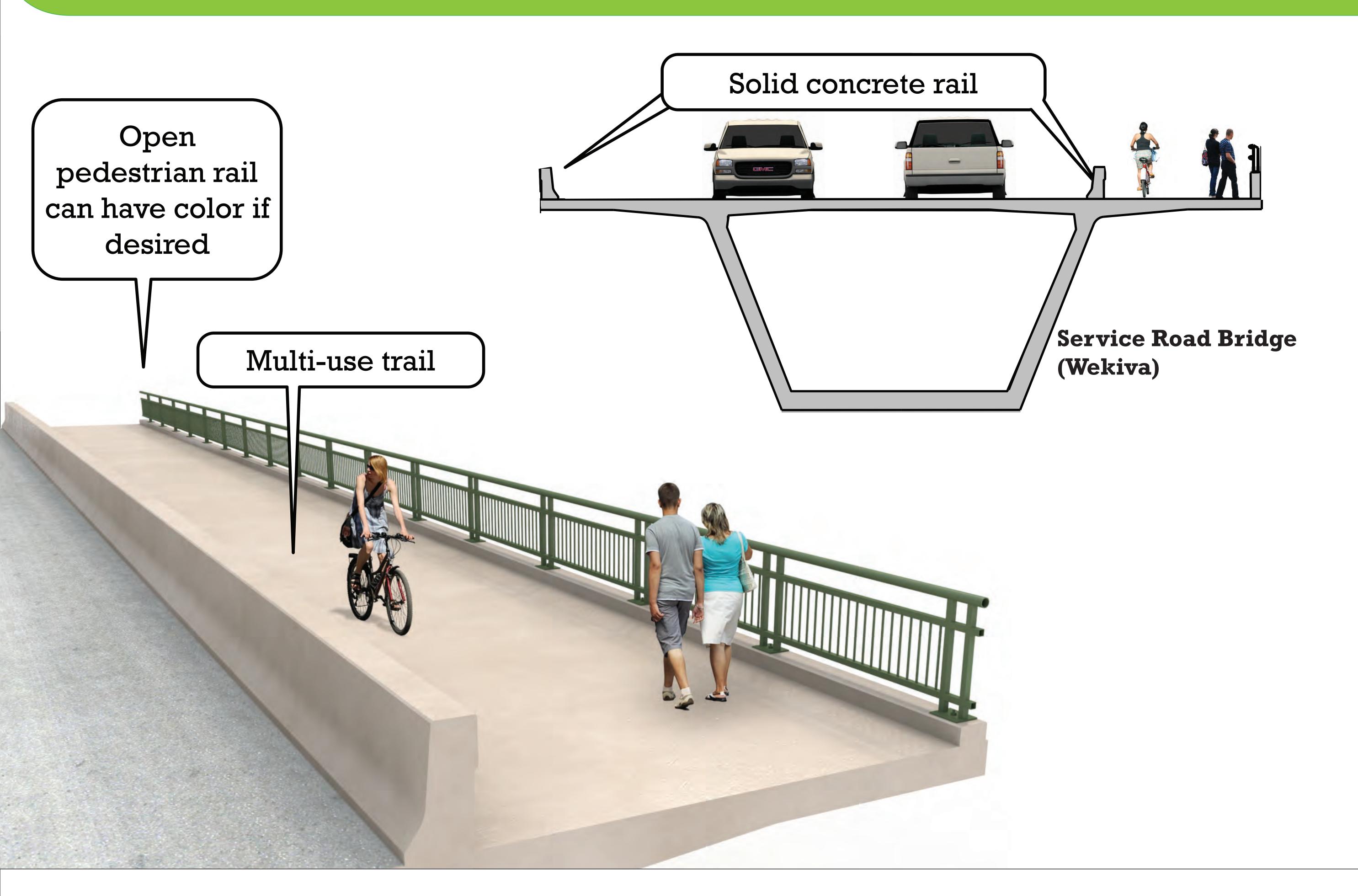




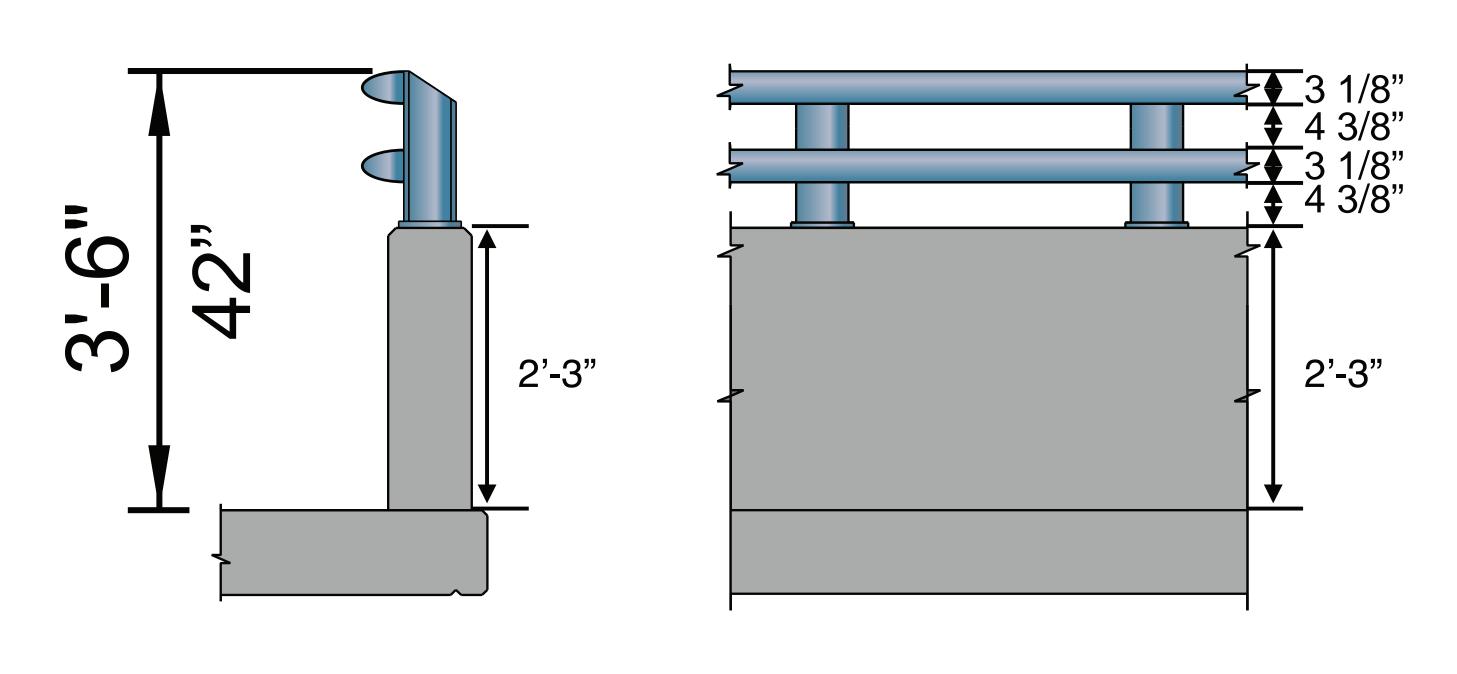


Pedestrian Multi-Use Trail Railings

For multi-use trail on service road bridge



Option A Partially Open

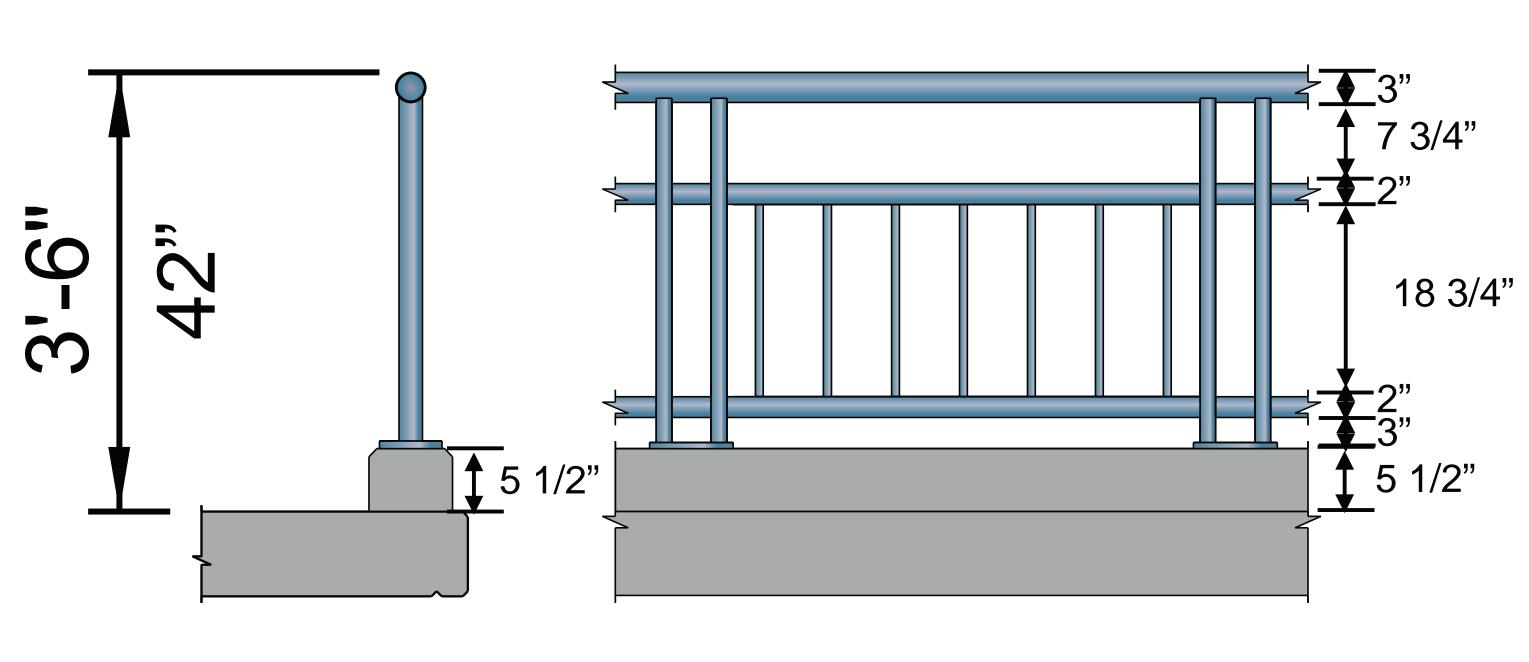


FDOT Index 820 Bridge Pedestrian/Bicycle Bullet Railing





Option B Fully Open



FDOT Index 861 Bridge Pedestrian/Bicycle Railing





FINAL BRIDGE DESIGN CHARETTE 2







3 Presidential Awards

through the National Endowment for the Arts - Two are National Park

Service Bridges

Sunshine Skyway Bridge, FL FIGG Engineer of Record

Blue Ridge Parkway Viaduct, NC FIGG Engineer of Record





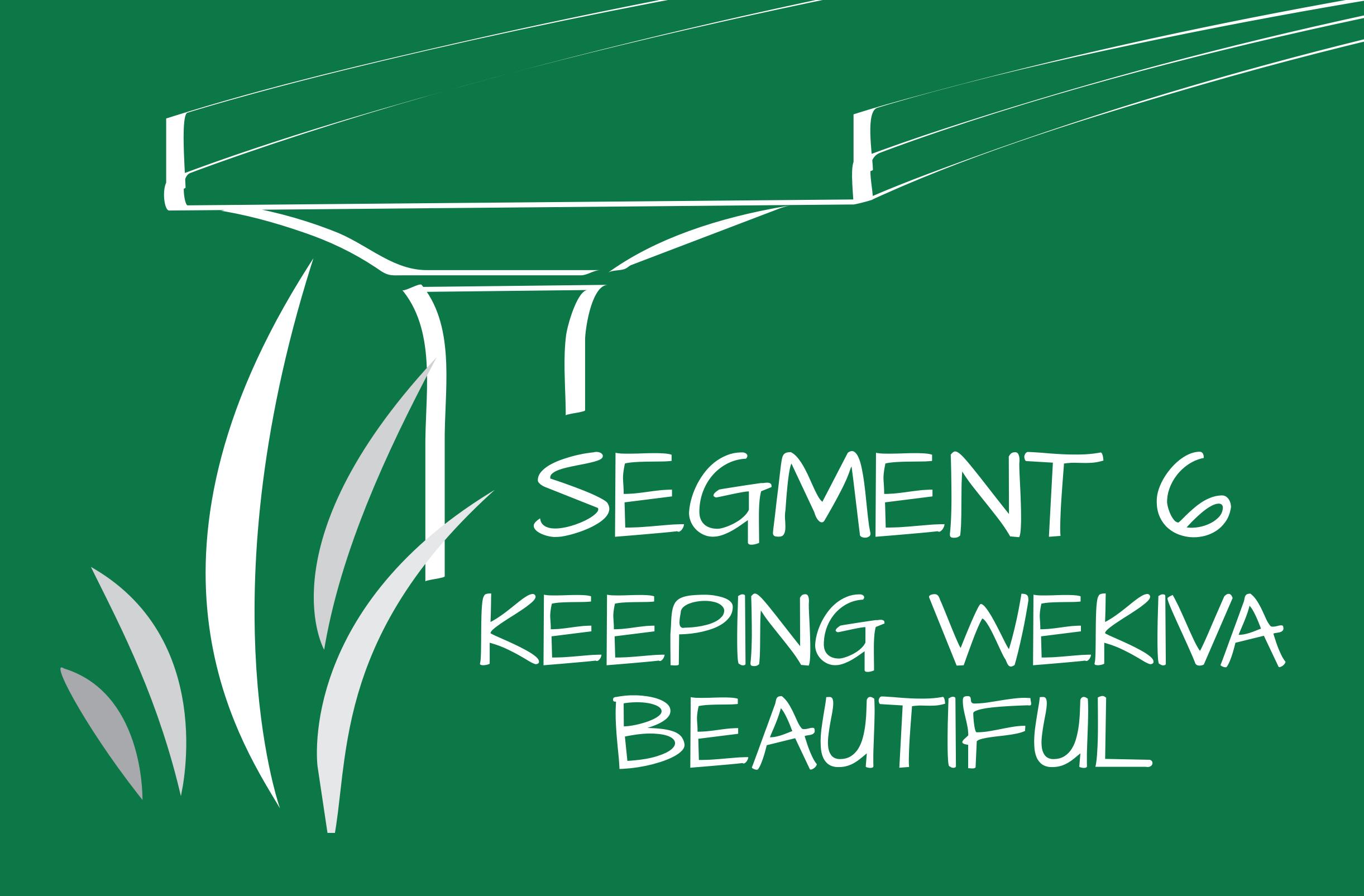
Natchez Trace Parkway Arches, TN FIGG Engineer of Record

For National Park Service and FHWA



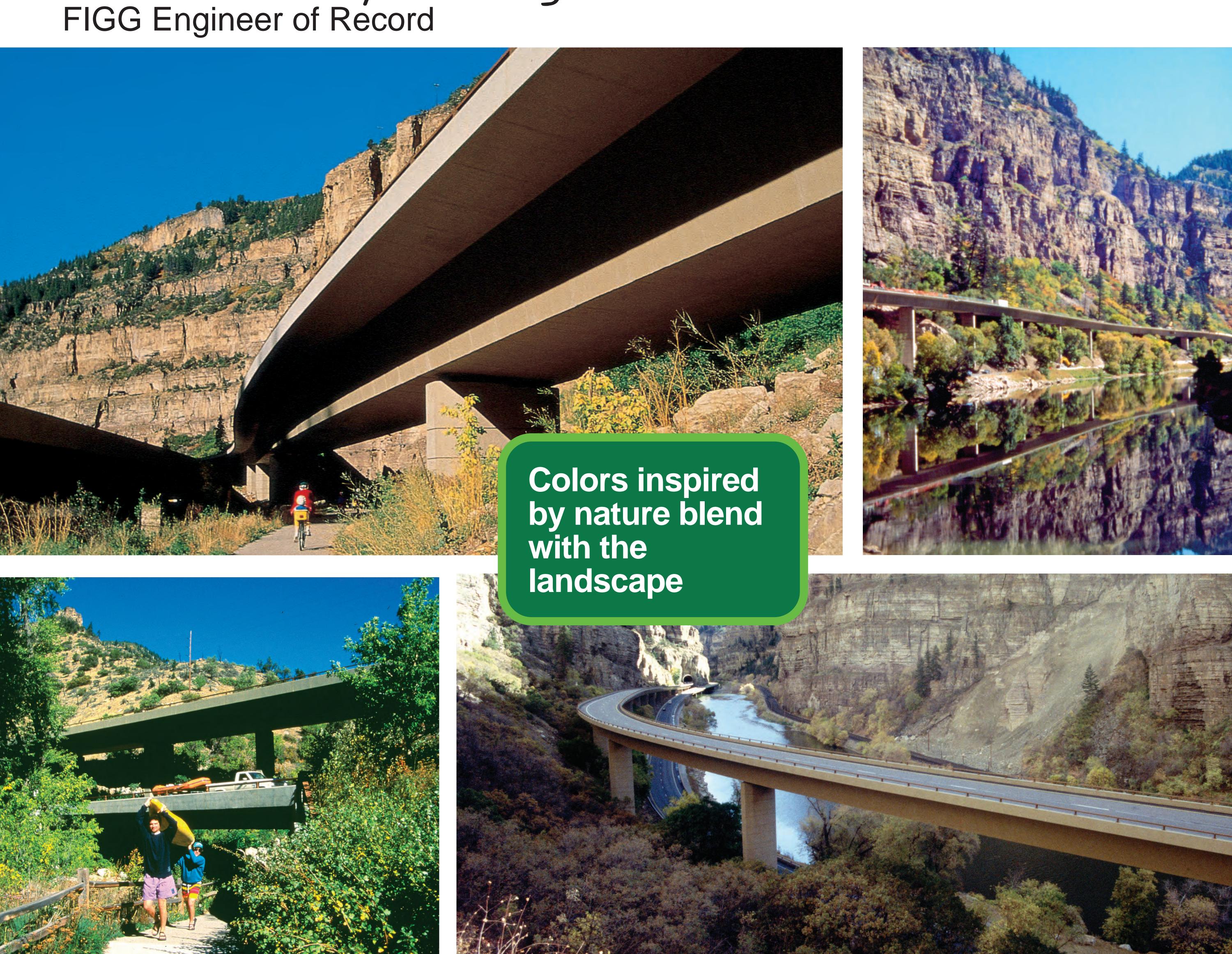




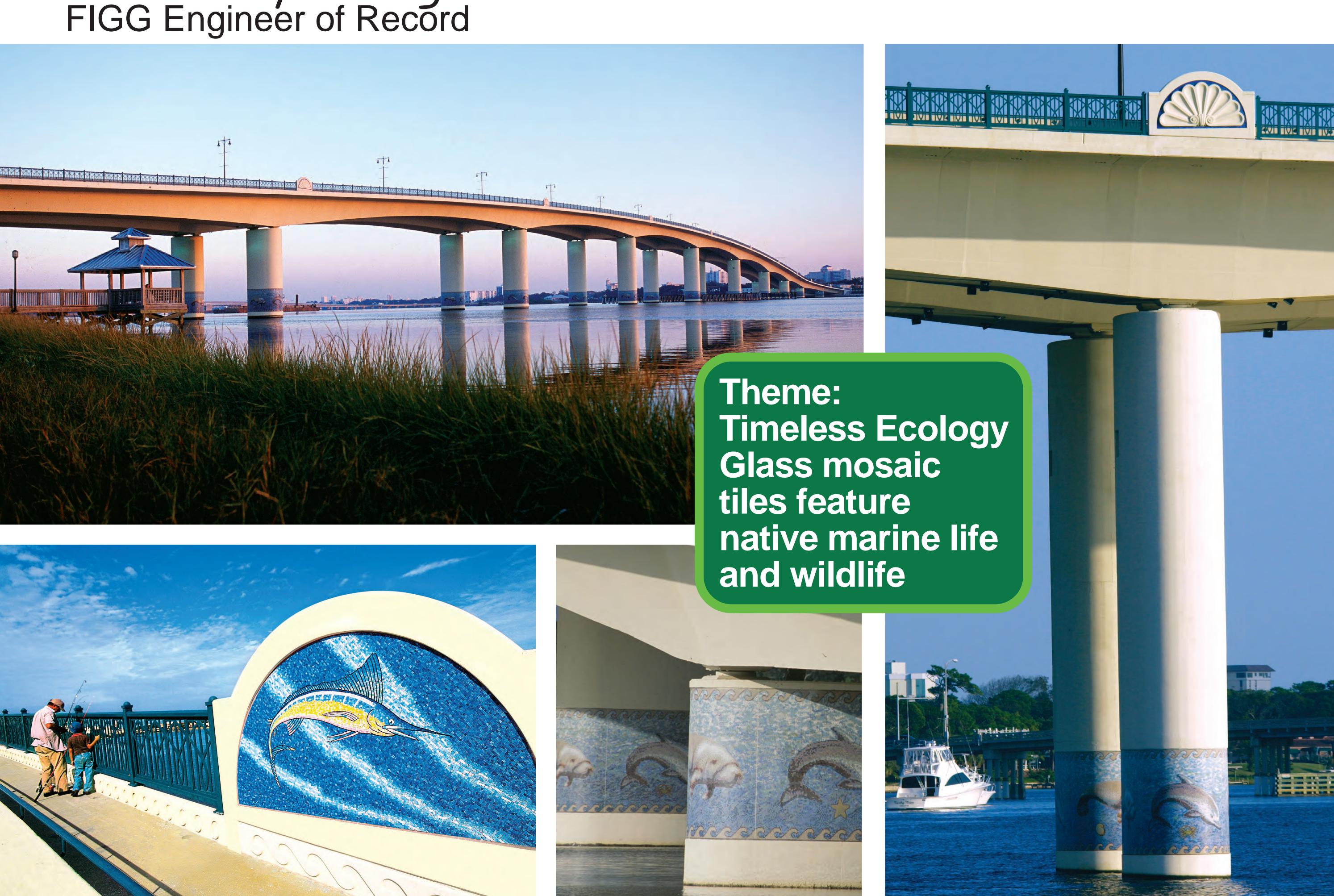


Aesthetics Inspired by Nature

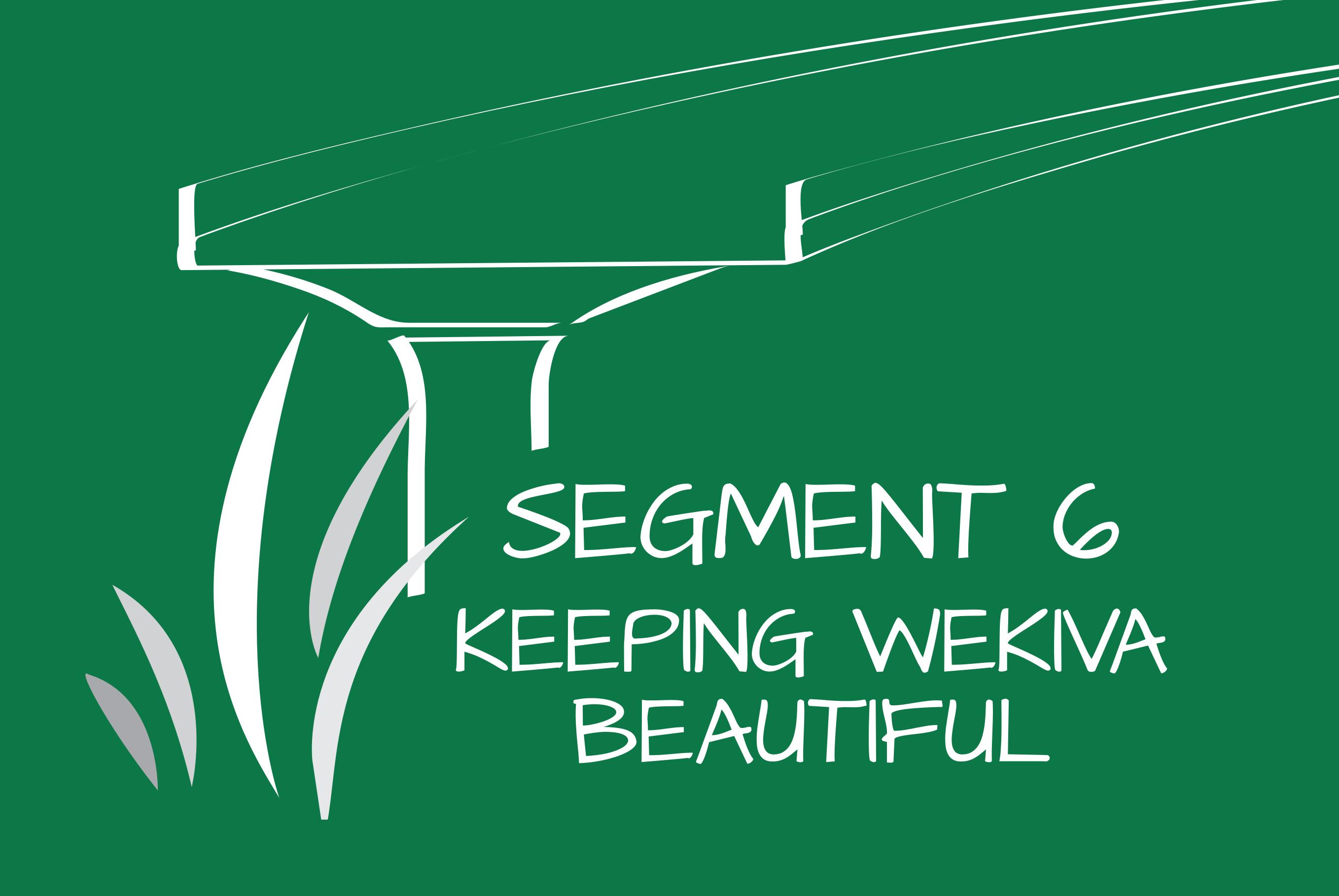
Glenwood Canyon Bridges, CO FIGG Engineer of Record



Broadway Bridge, FL FIGG Engineer of Record

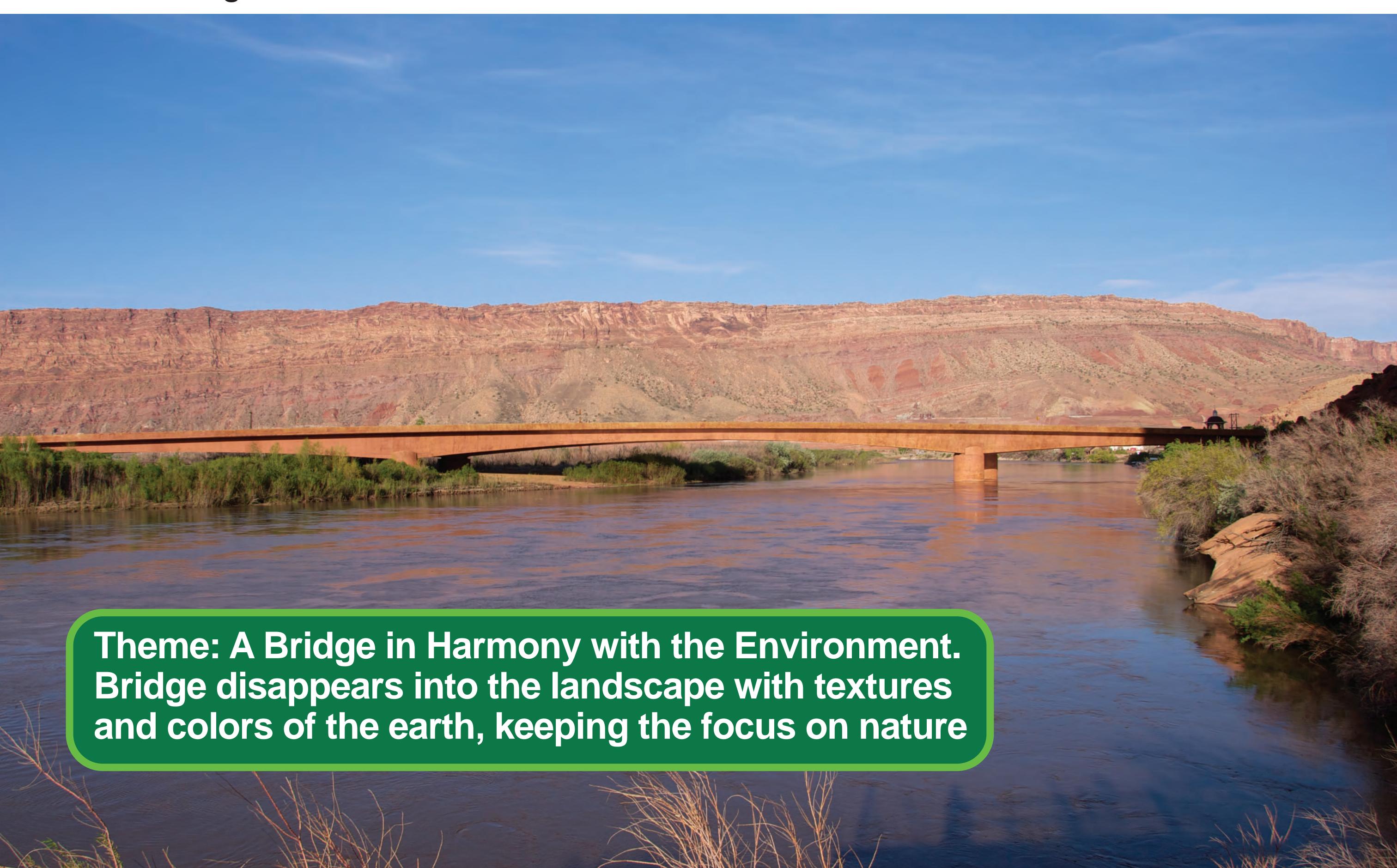






National Park Bridges

US 191 Colorado River Bridge, UT FIGG Engineer of Record



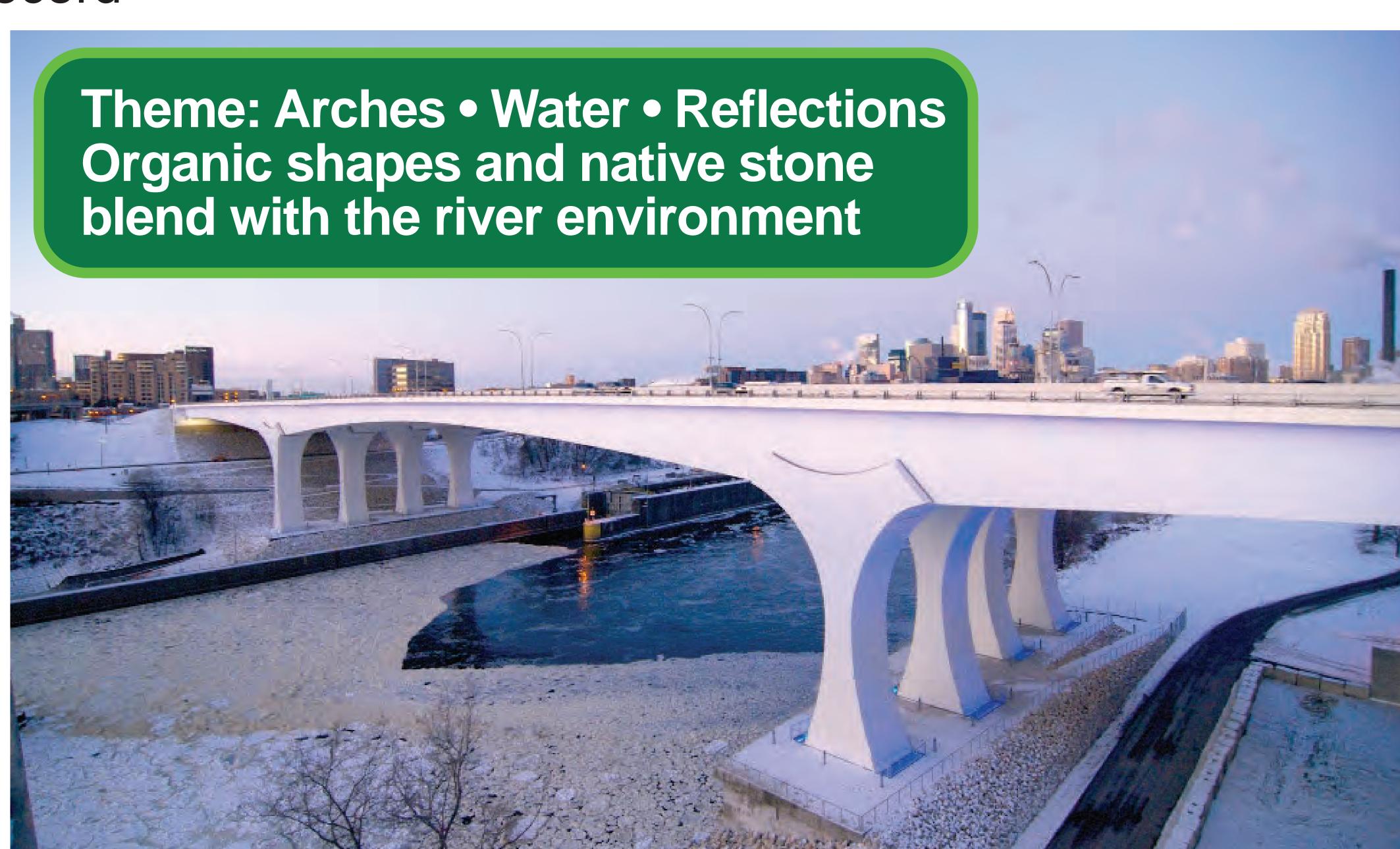






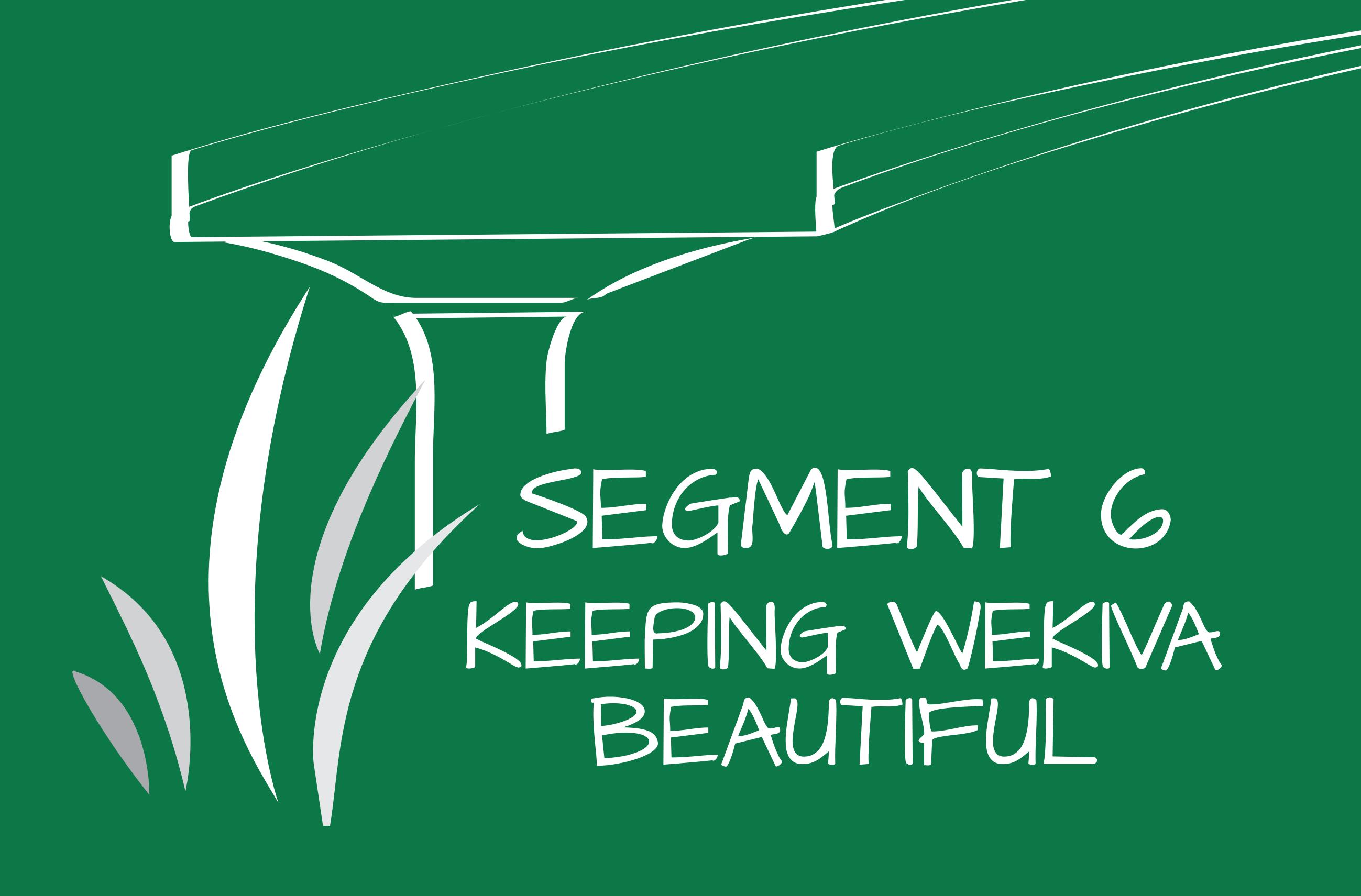
I-35W Bridge, MN FIGG Engineer of Record







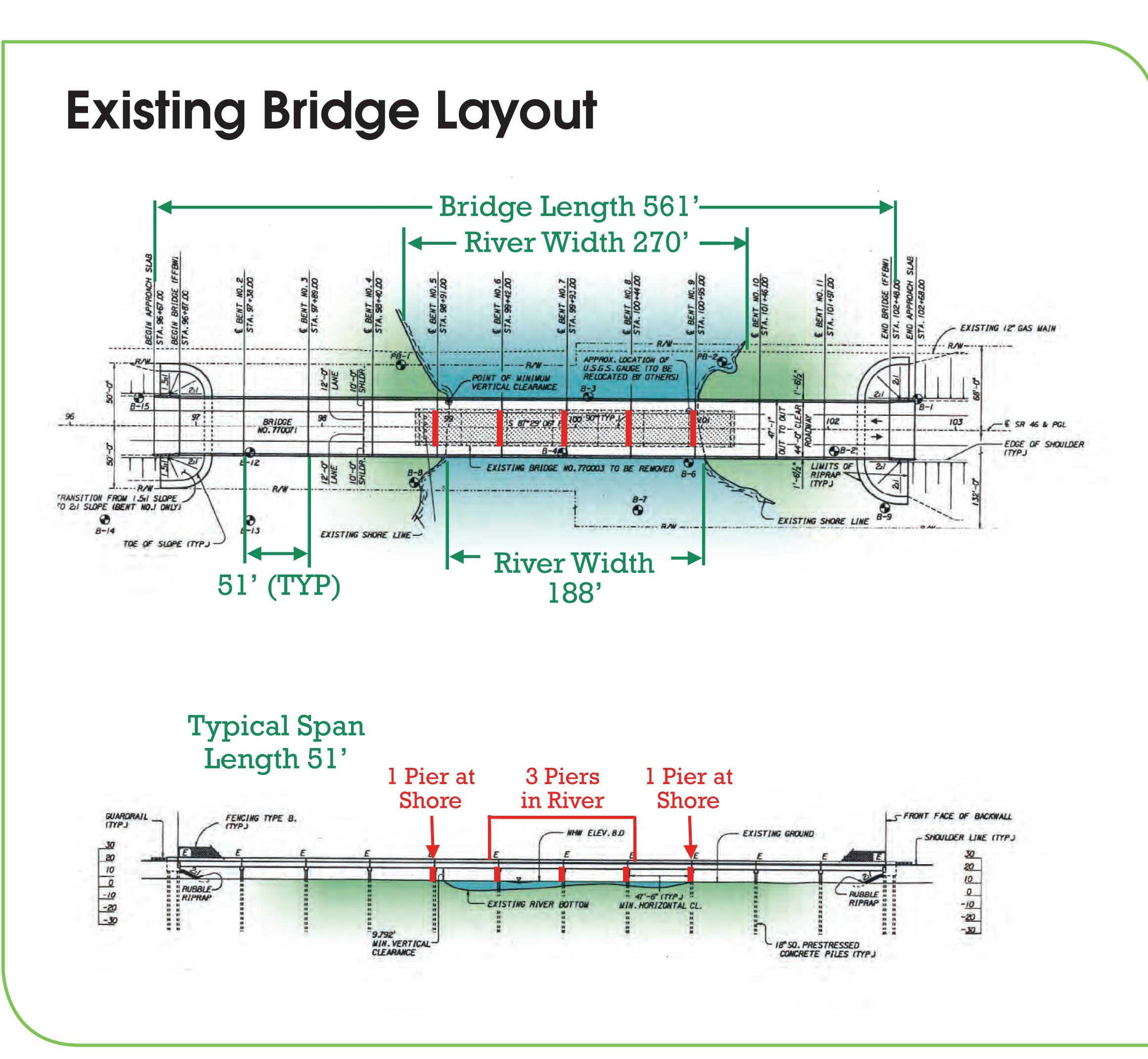




Site Features

Important Vistas Identified (1-10)





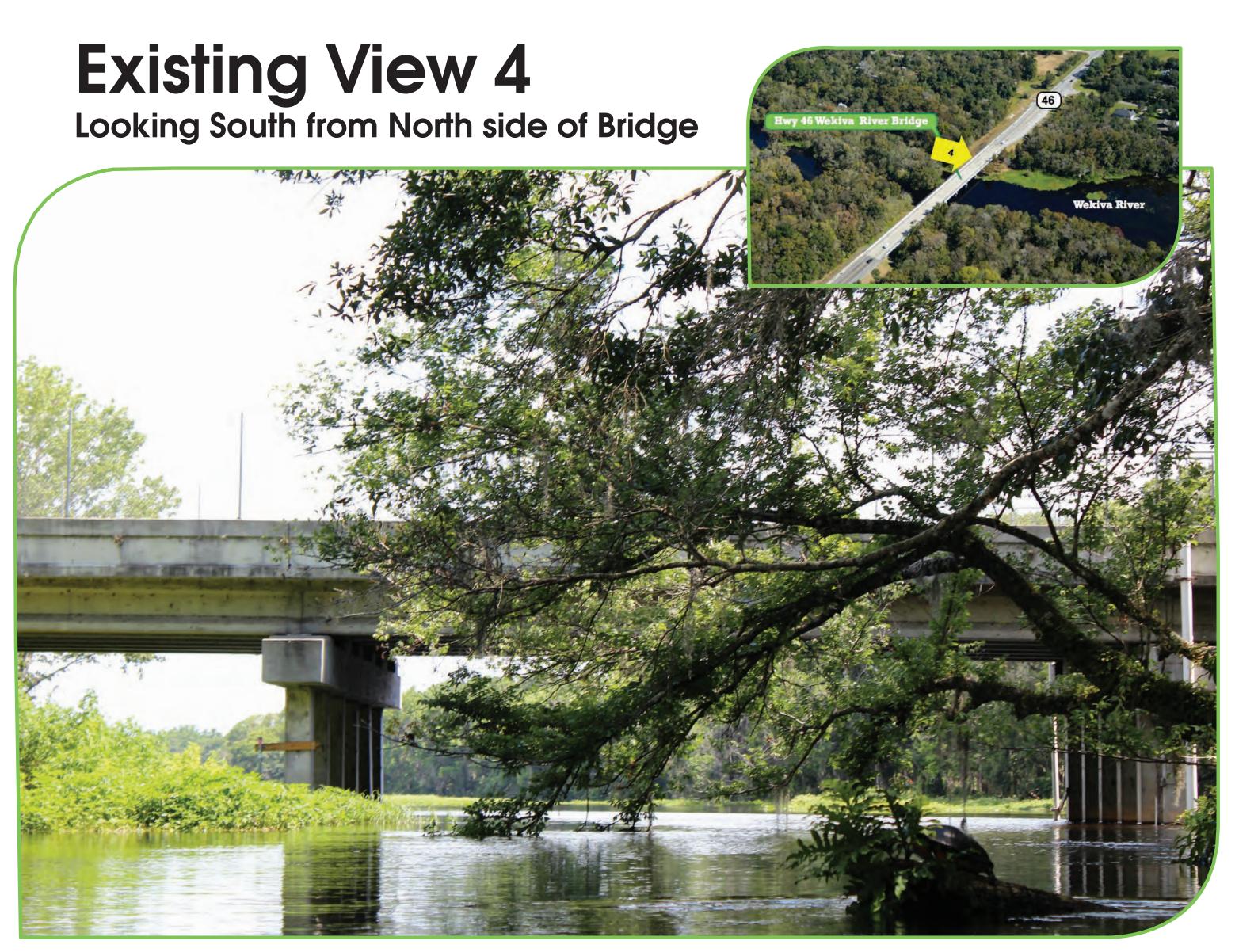
Important Vistas Identified By Workshop Participants On June 18, 2013

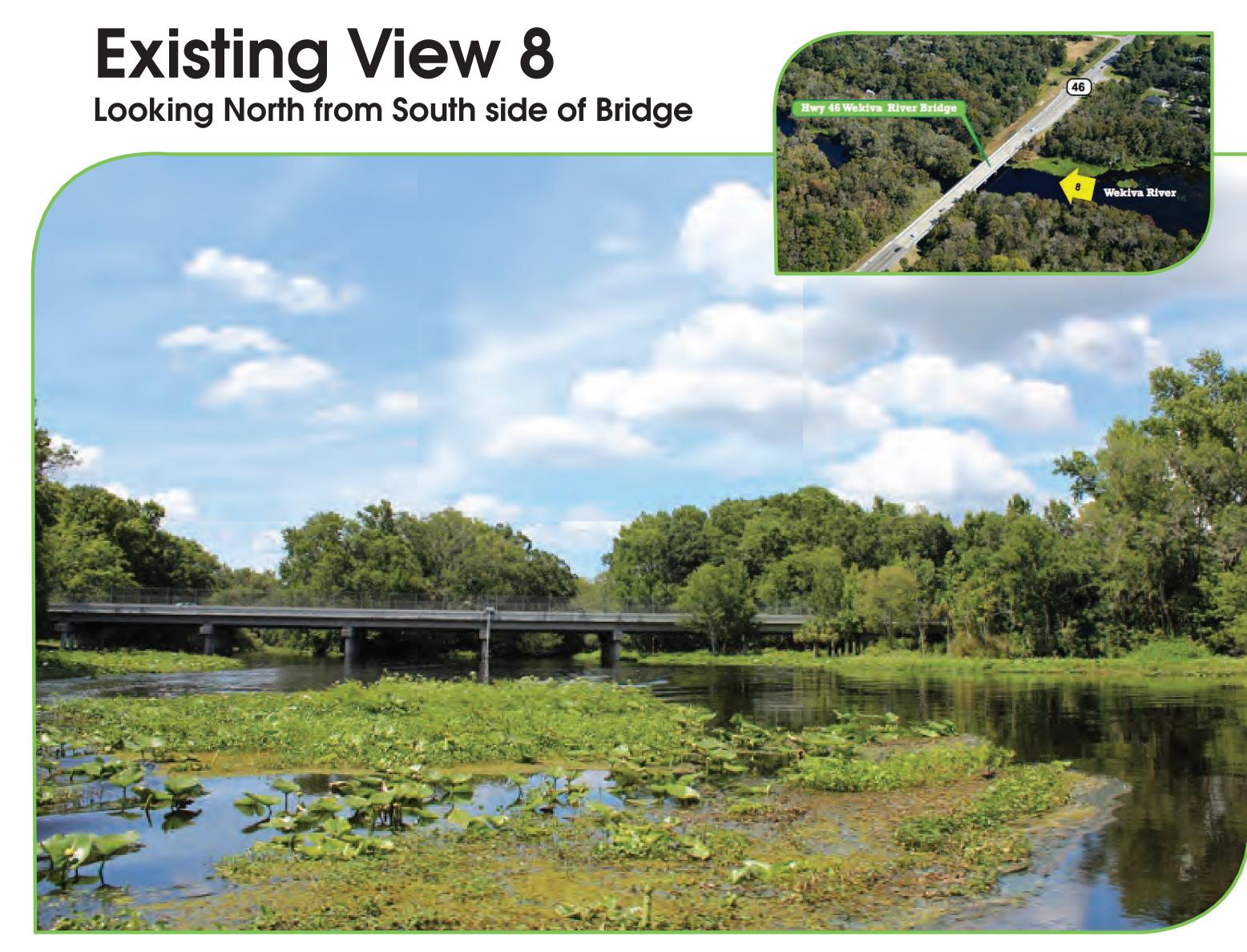












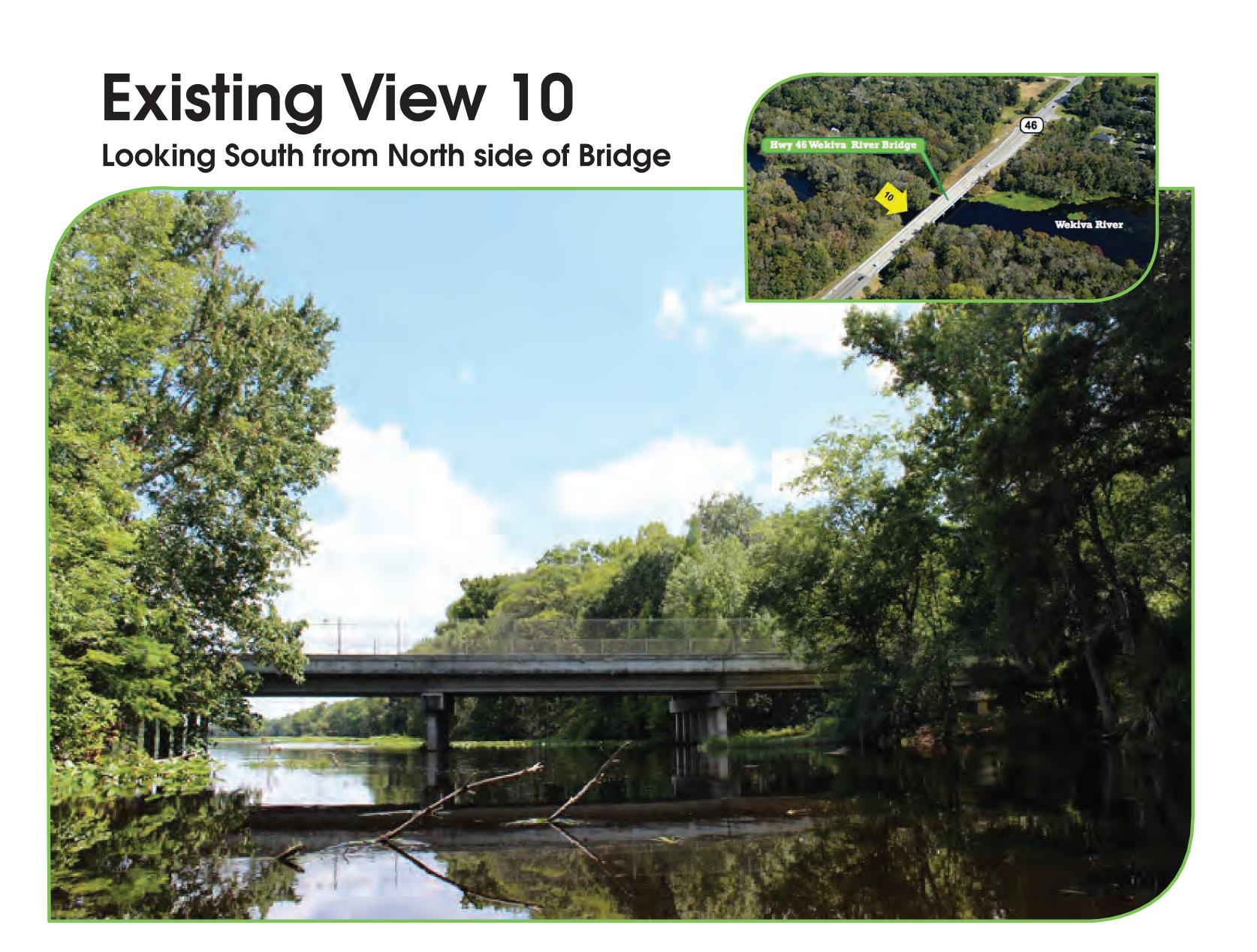


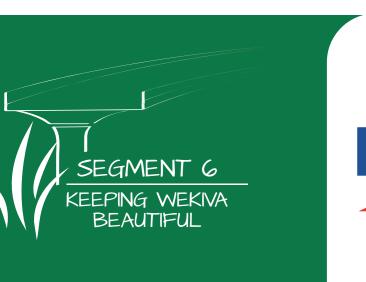










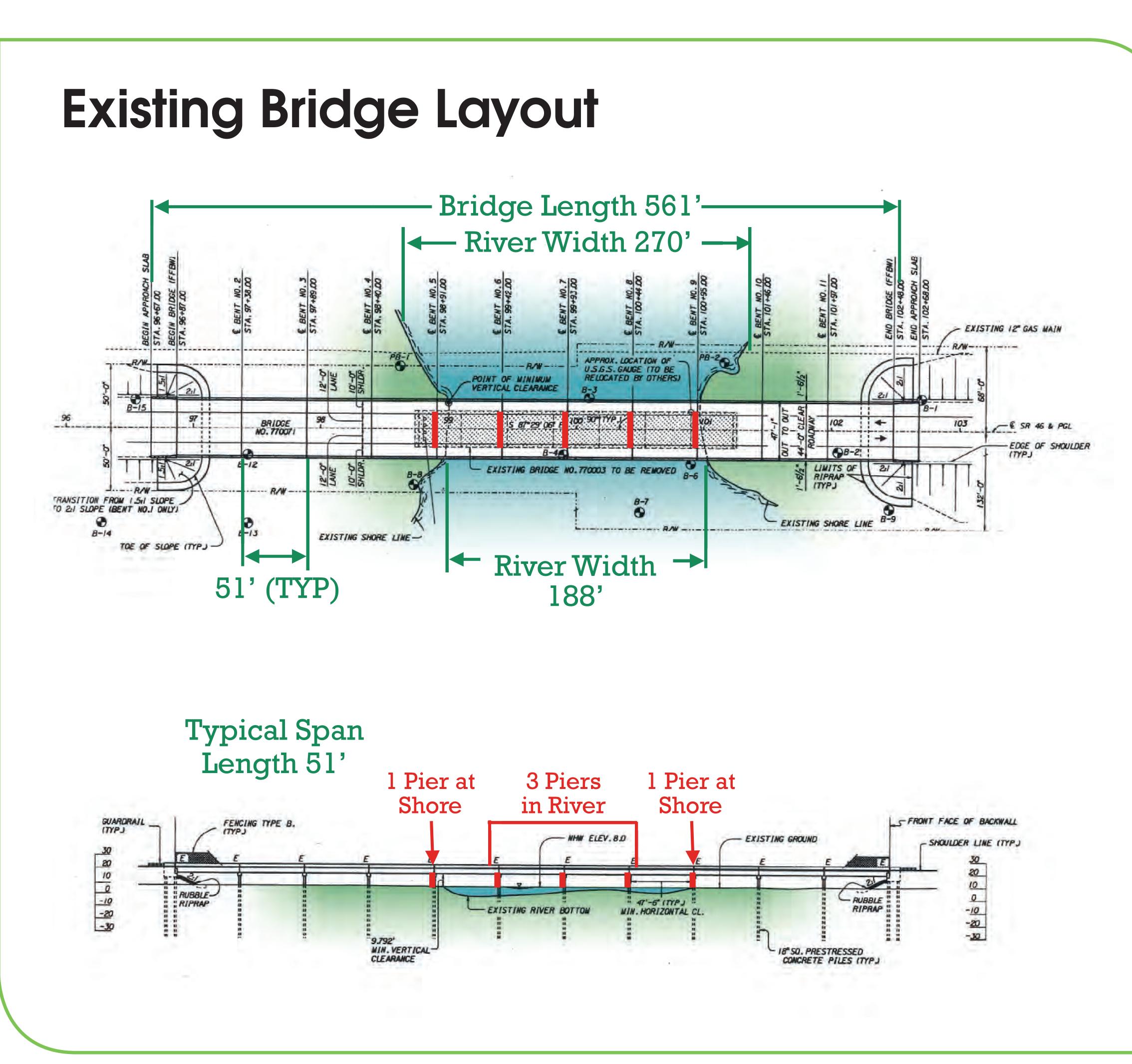




Site Features

Important Vistas Identified (11-20)





Important Vistas Identified By Workshop Participants On June 18, 2013

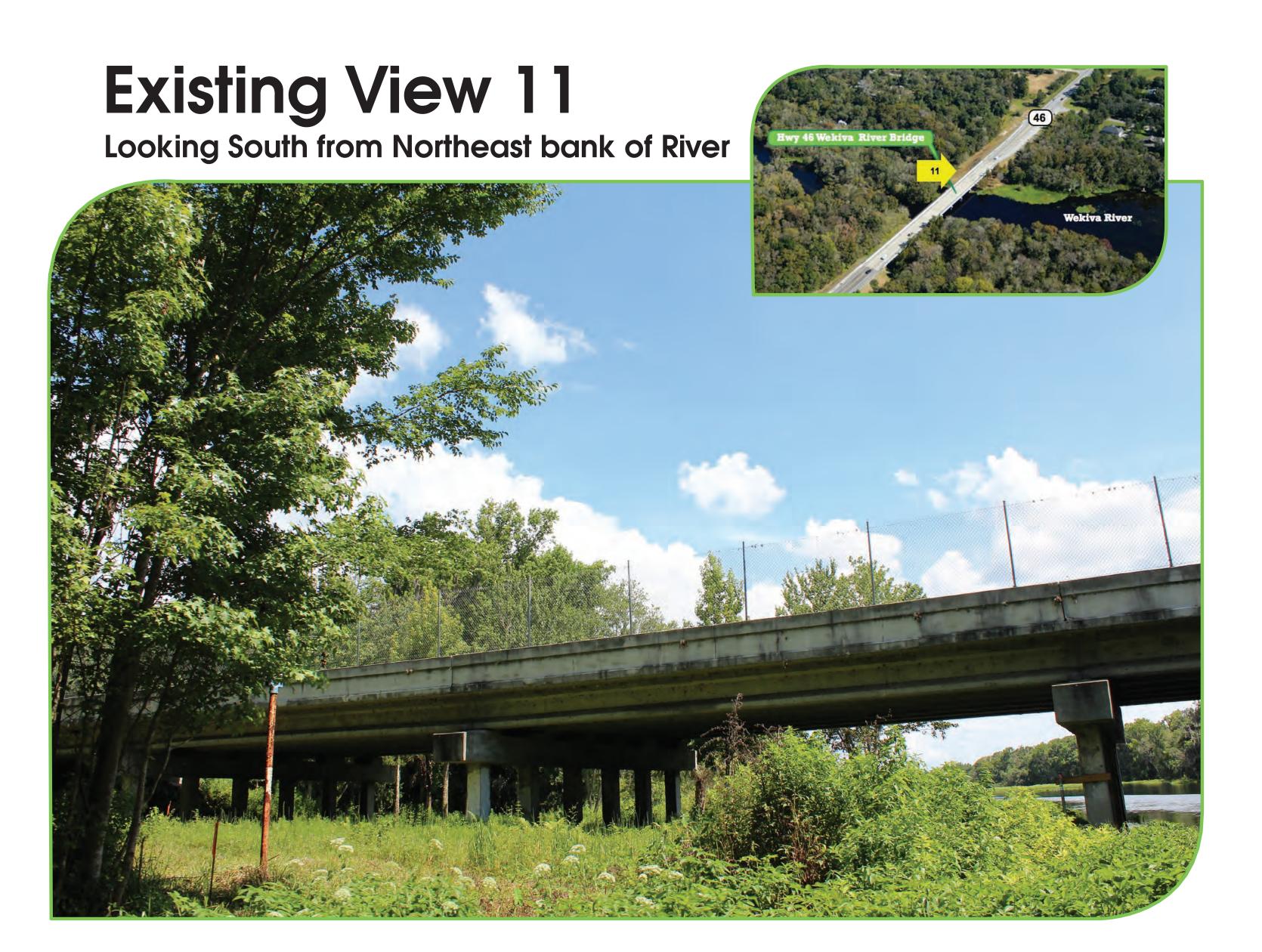


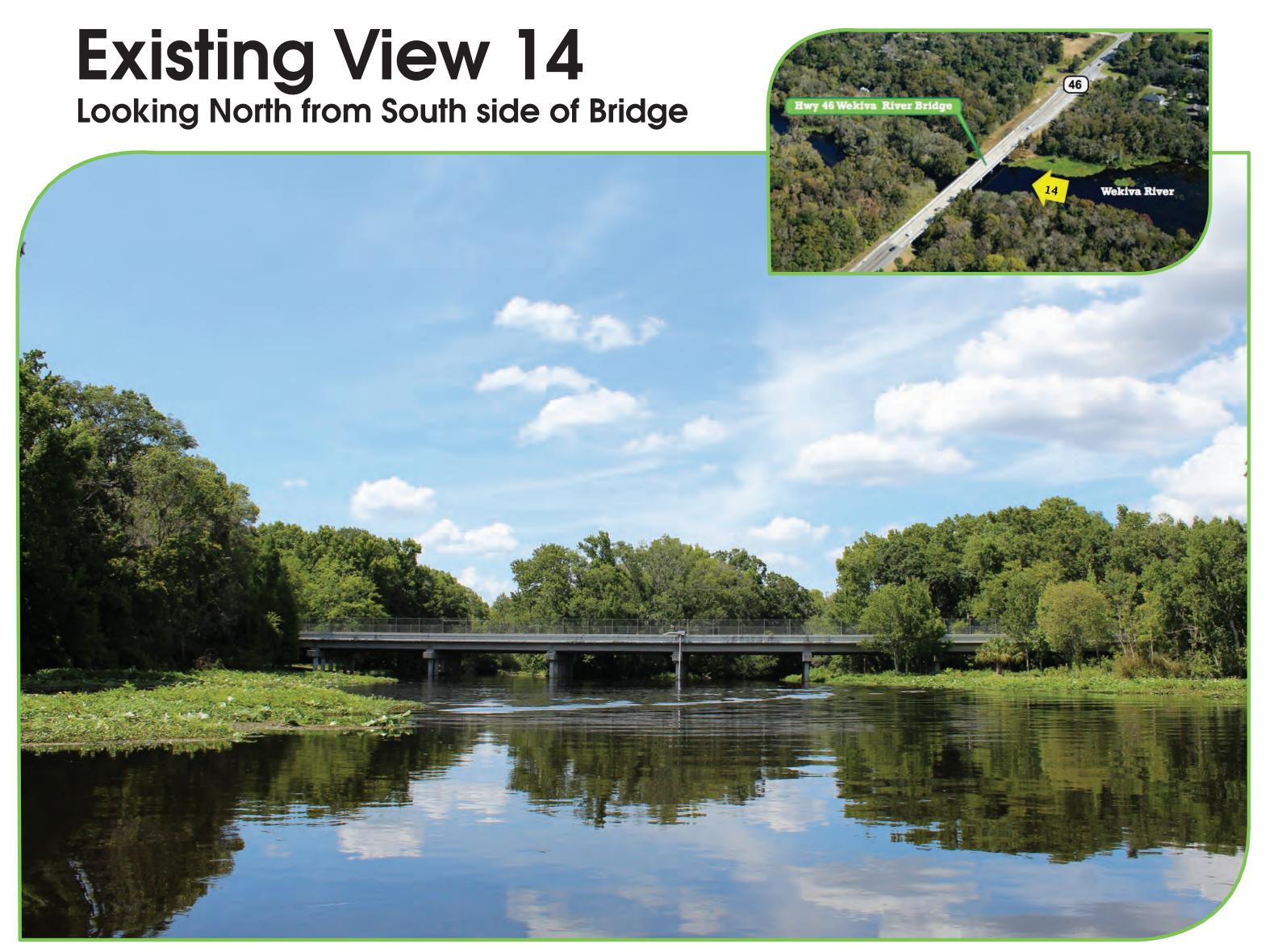


Existing

View 17

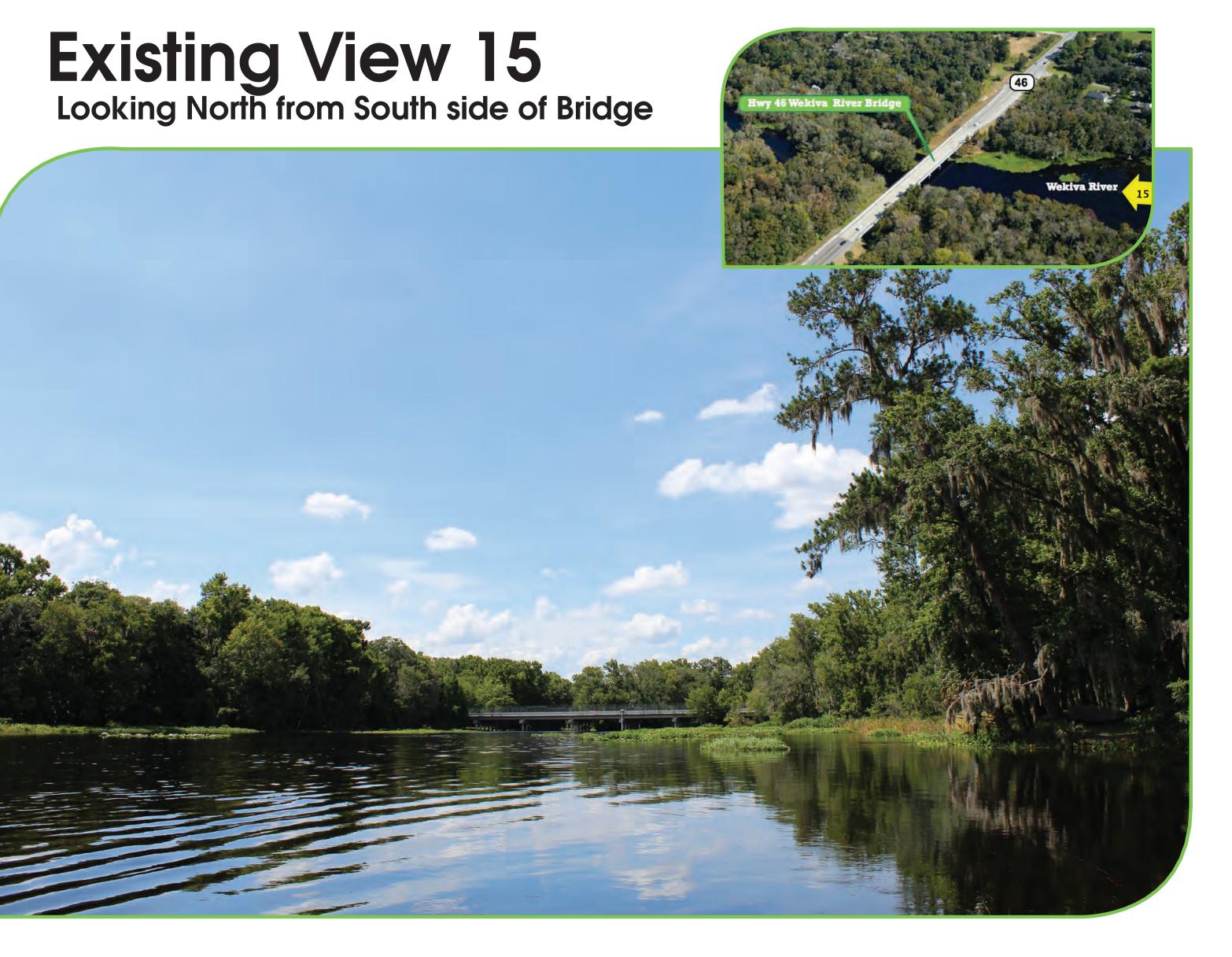


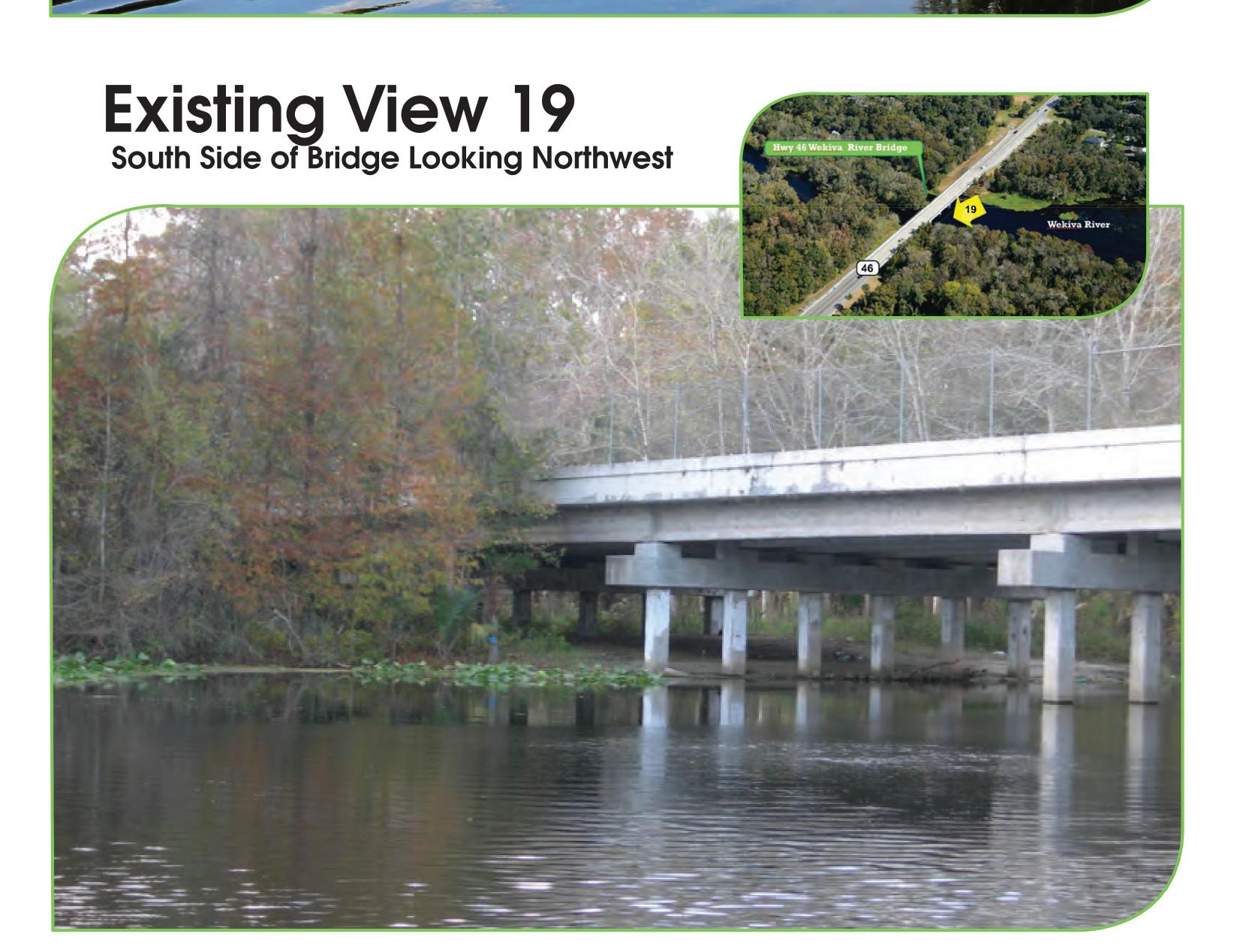




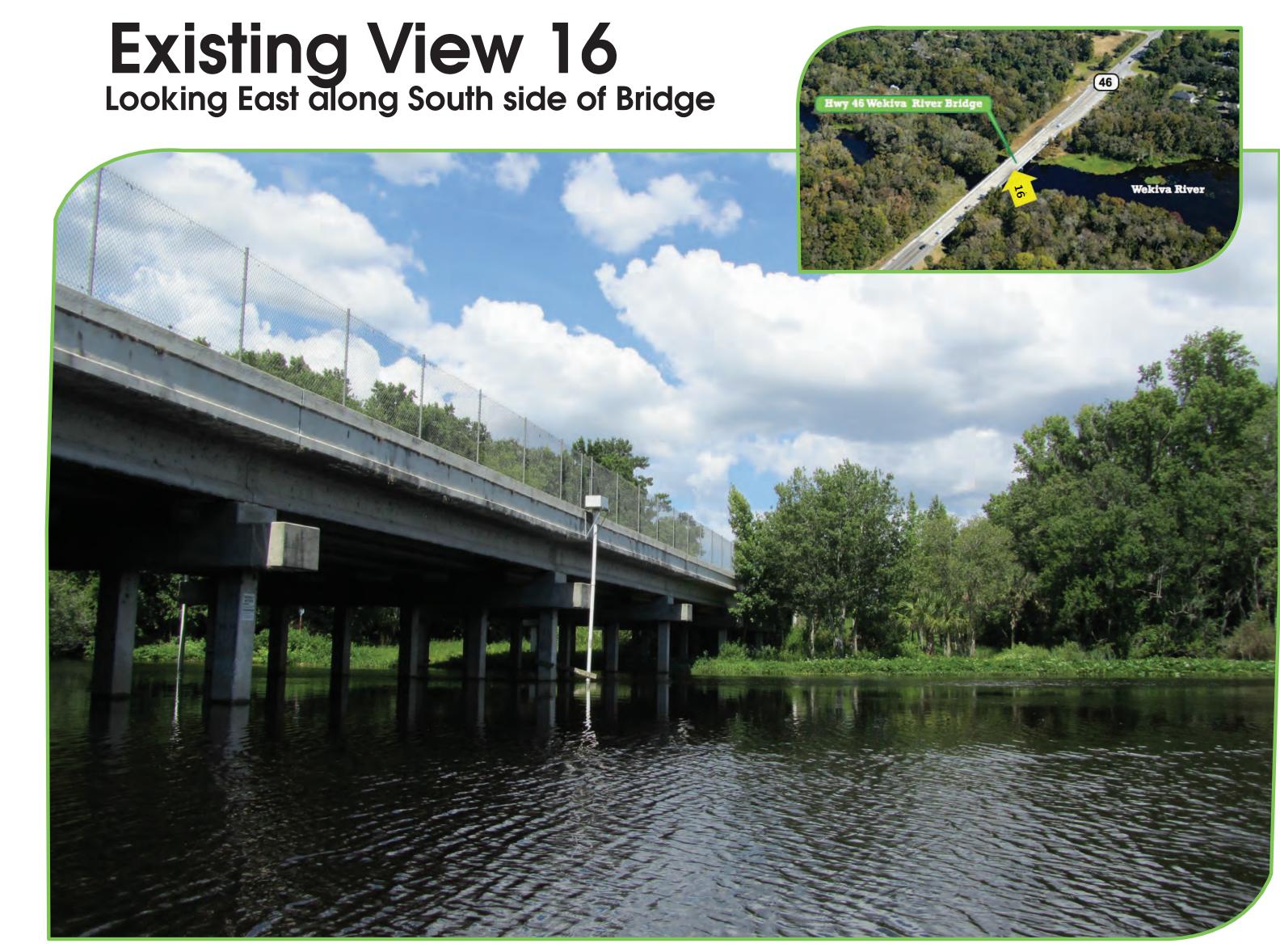


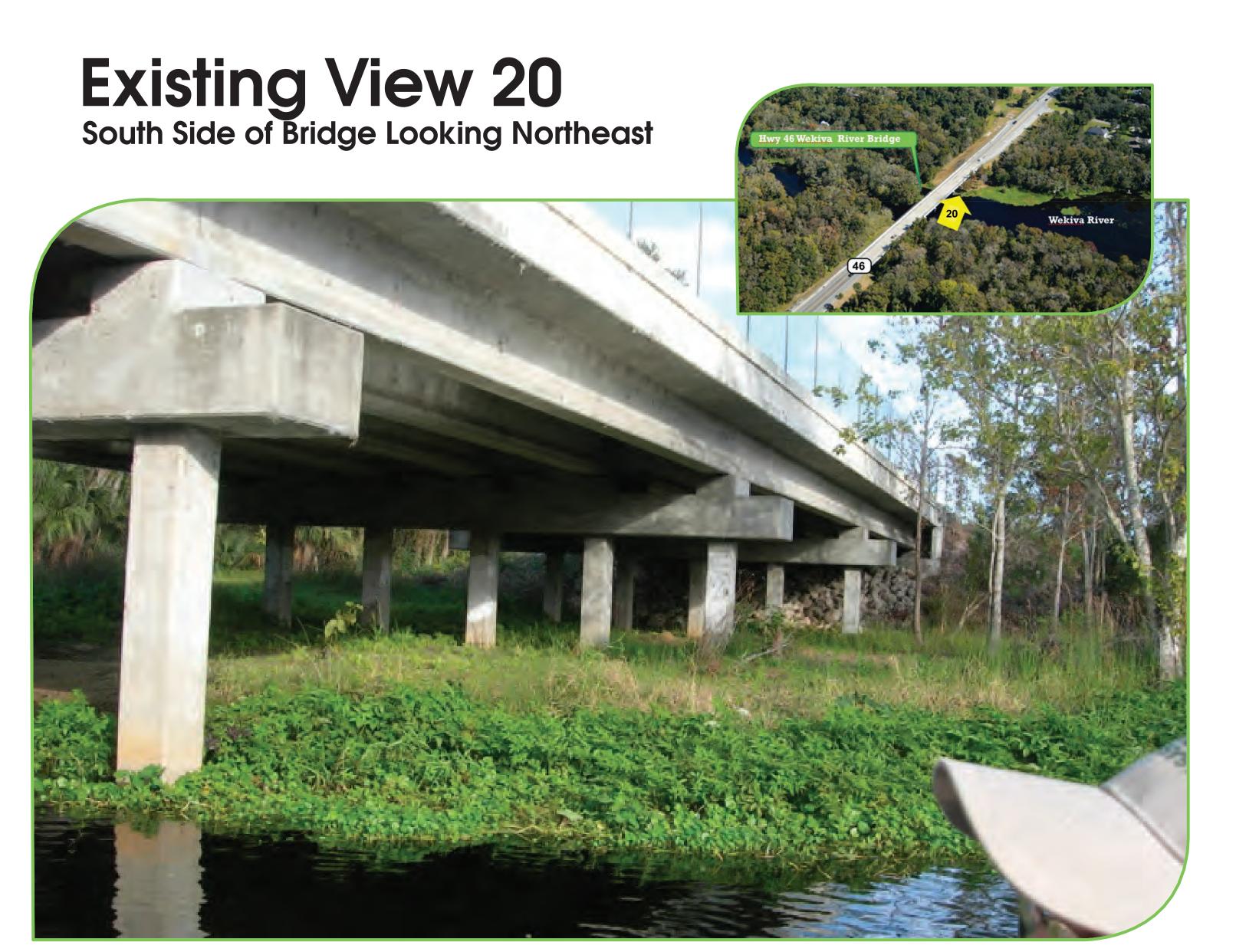


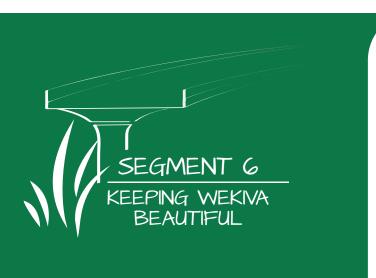








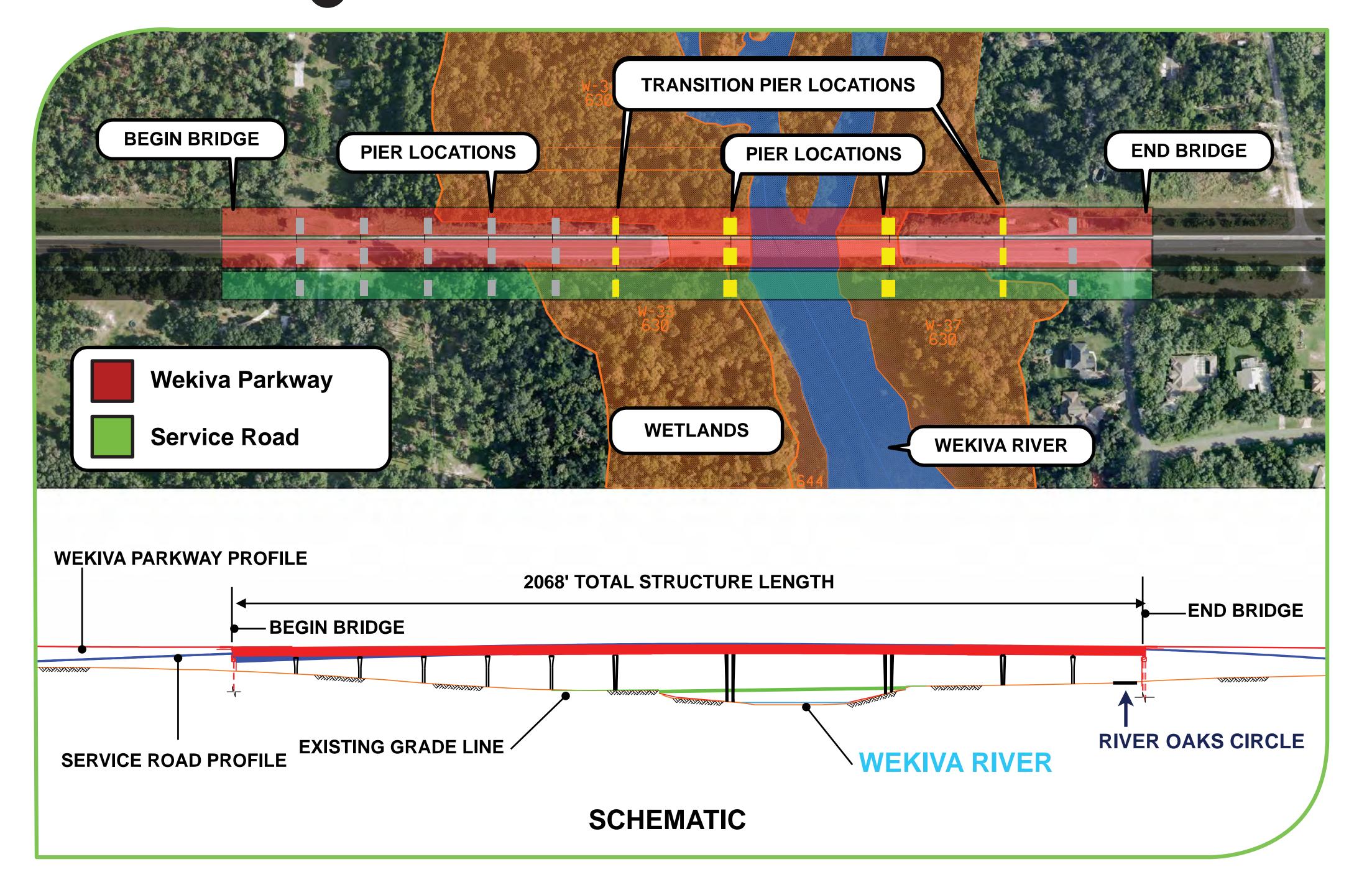






Bridge Geometry

New Bridge Profile



Bridge Vertical Profile

Important Criteria From Bridge Design Workshop on June 18, 2013

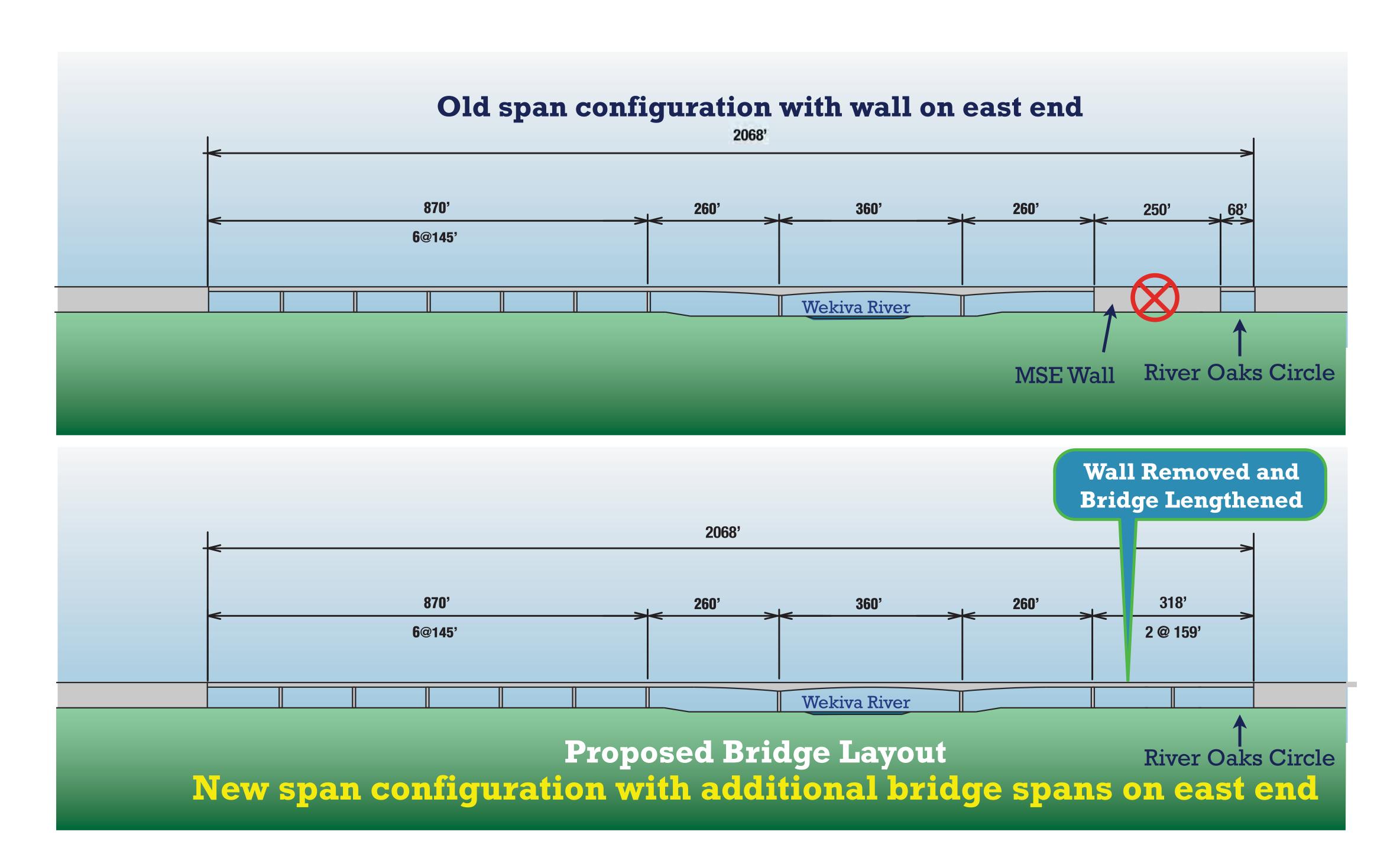
"Provide a bridge profile where the bridge and vehicles on top are kept below top of tree canopy"



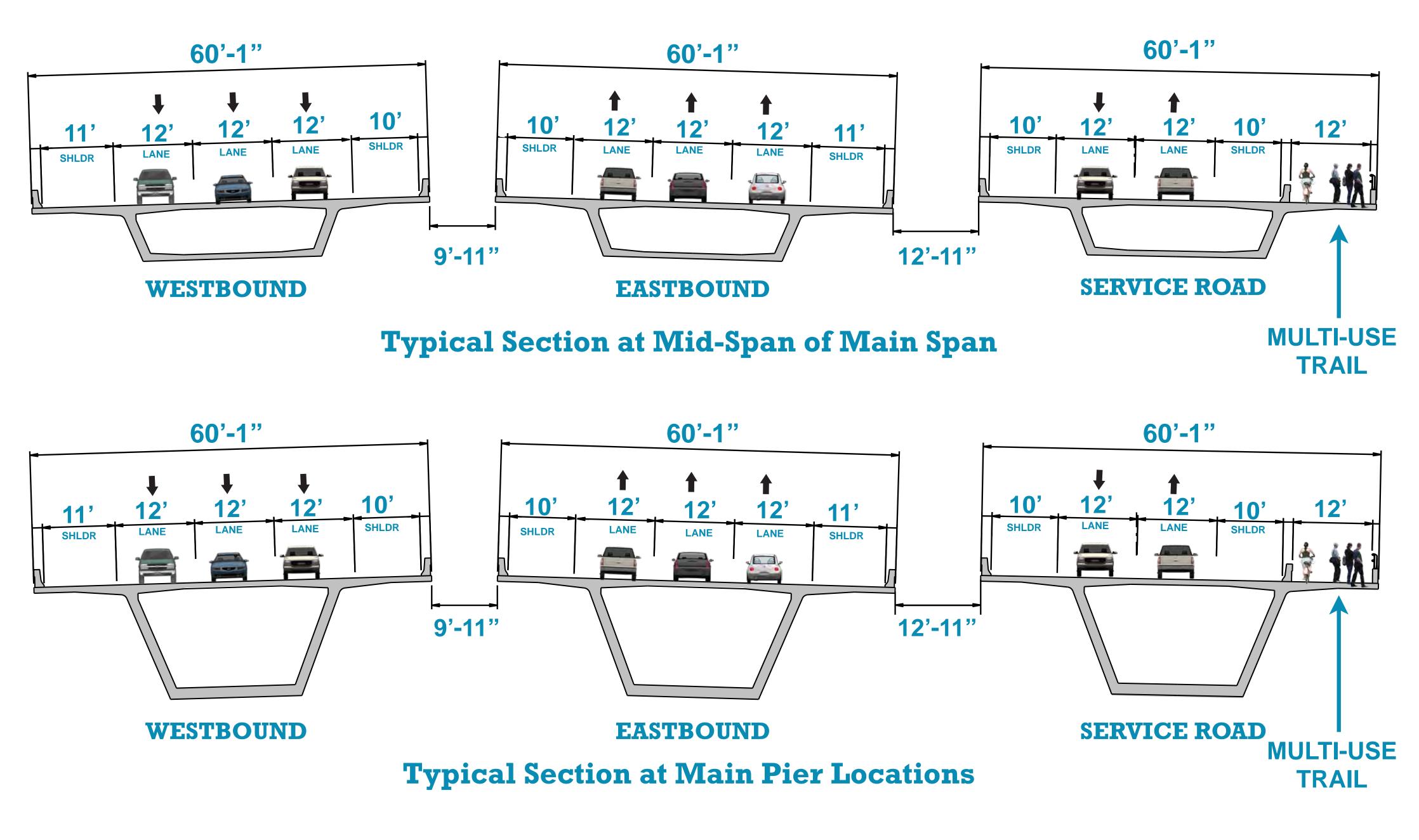
Final Bridge Vertical Profile



Removal of MSE Wall on East End

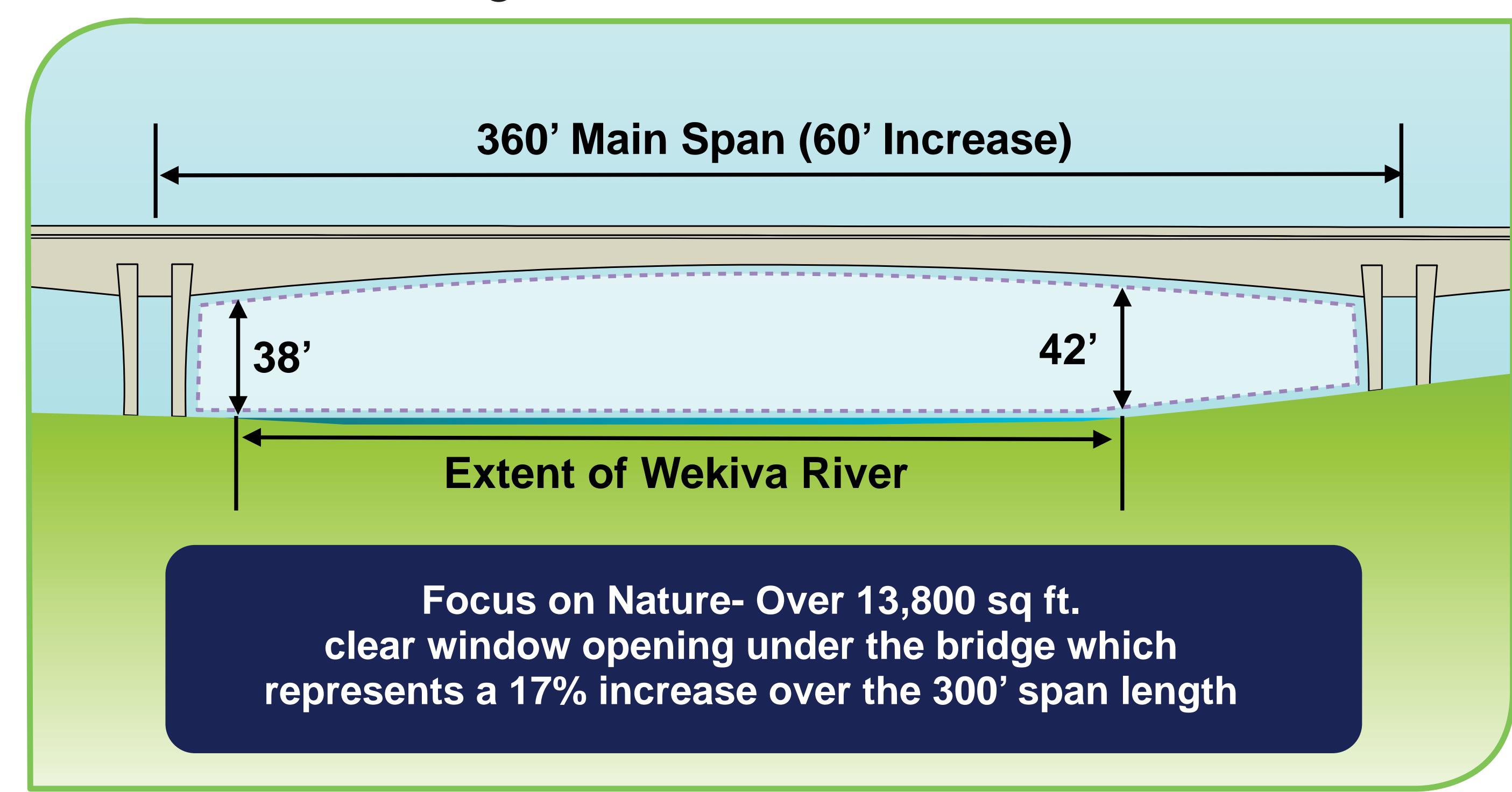


Typical Cross Sections

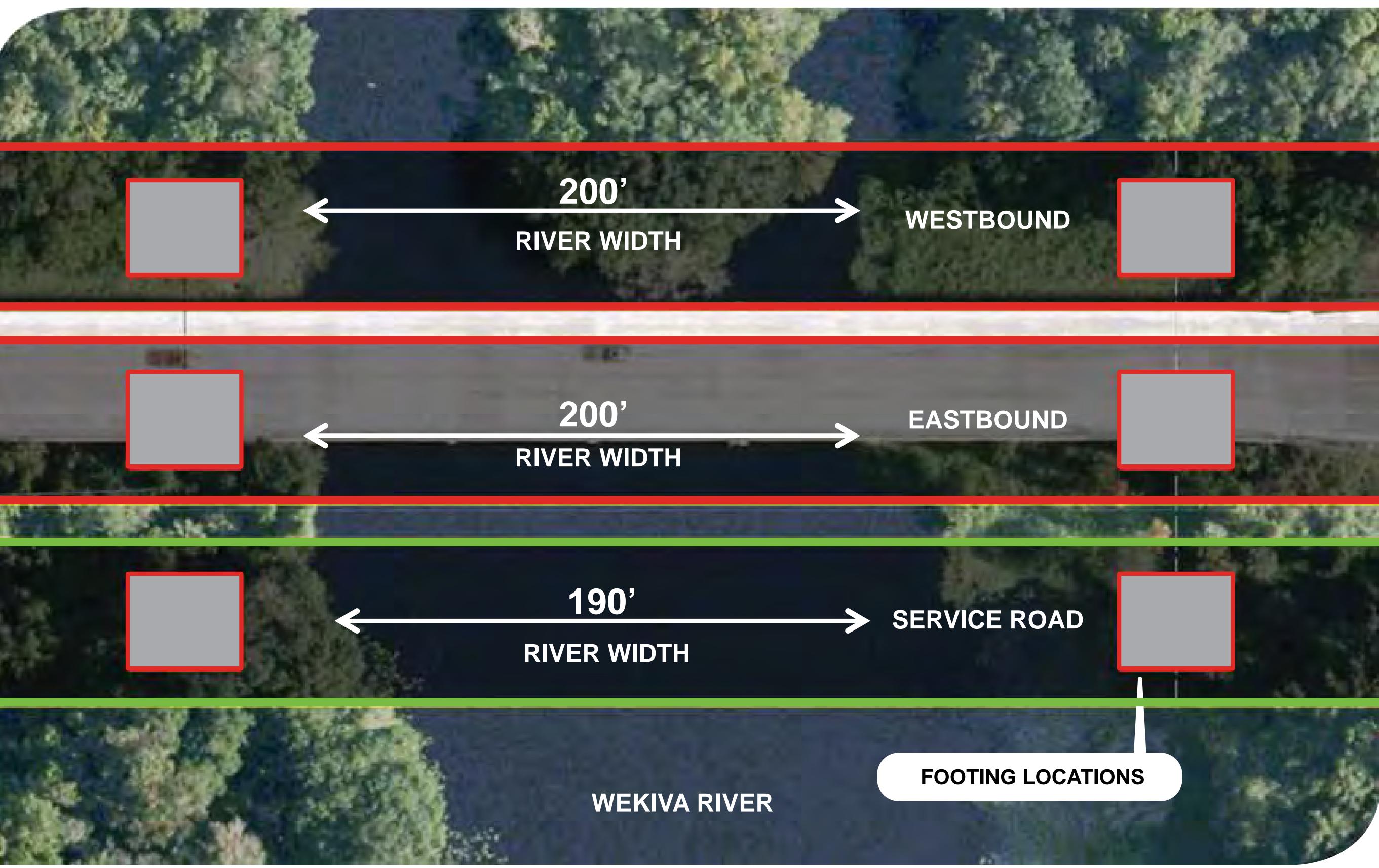


Showing ultimate configuration. Parkway bridges will have 2 lanes in each direction for initial configuration.

Openness of Longer Span over River



Openness of Longer Span over River



FOOTINGS ARE LOCATED UNDERGROUND





COLOR STUDY

Celebration of Trees on the Rivers Edge

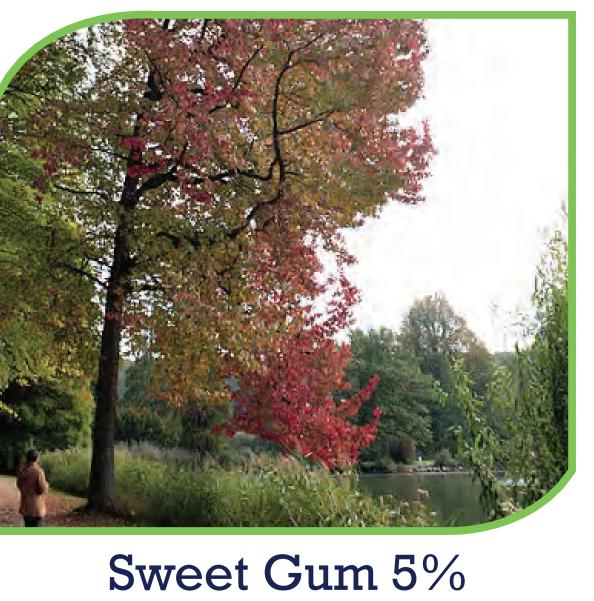
Variegated tree trunk coloring – Blend of tans, ash, browns, grays, green

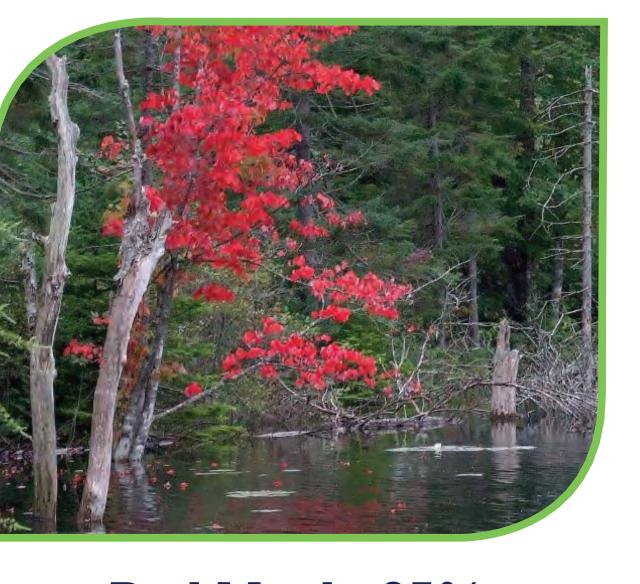




Cabbage Palm 5%







Red Maple 25%

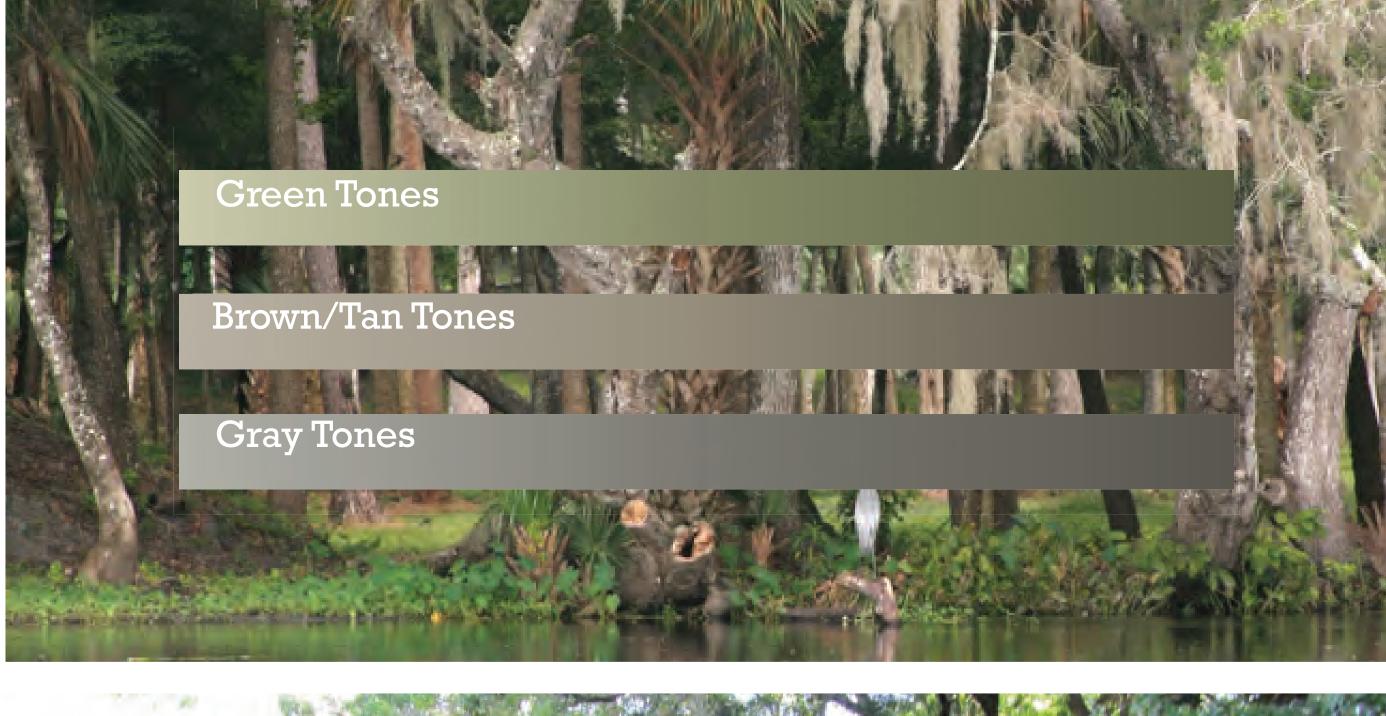
Color Studies

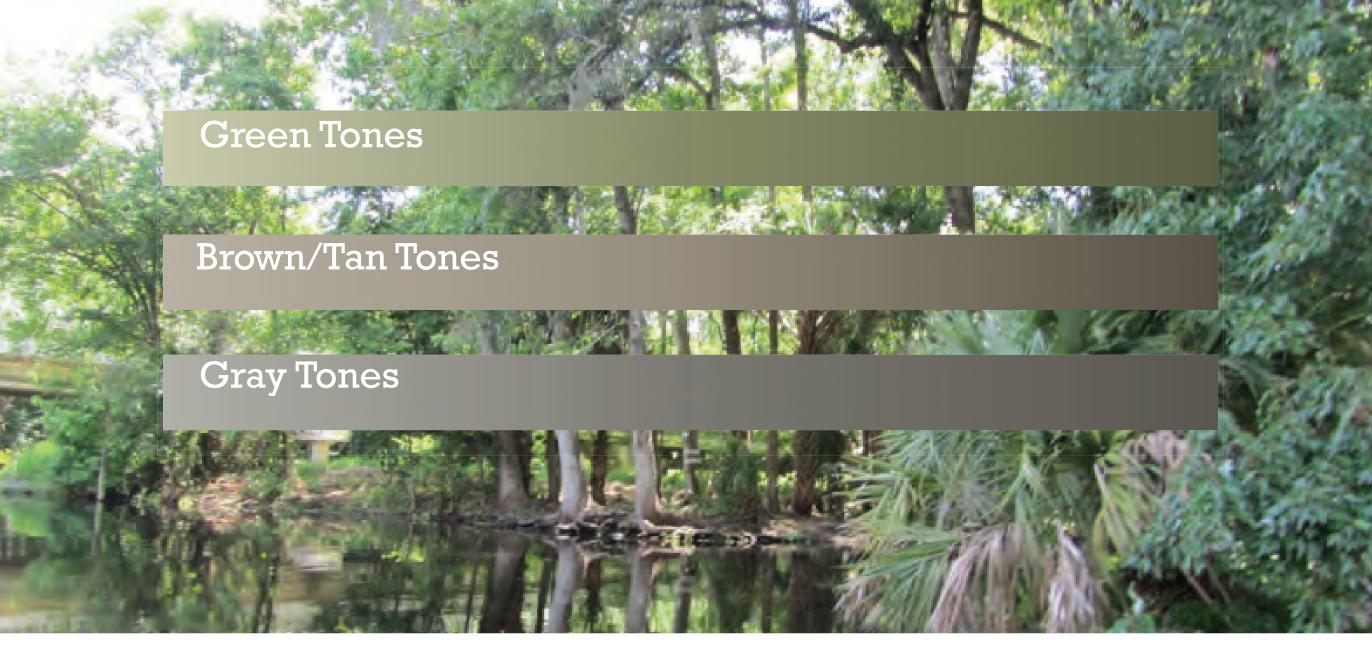


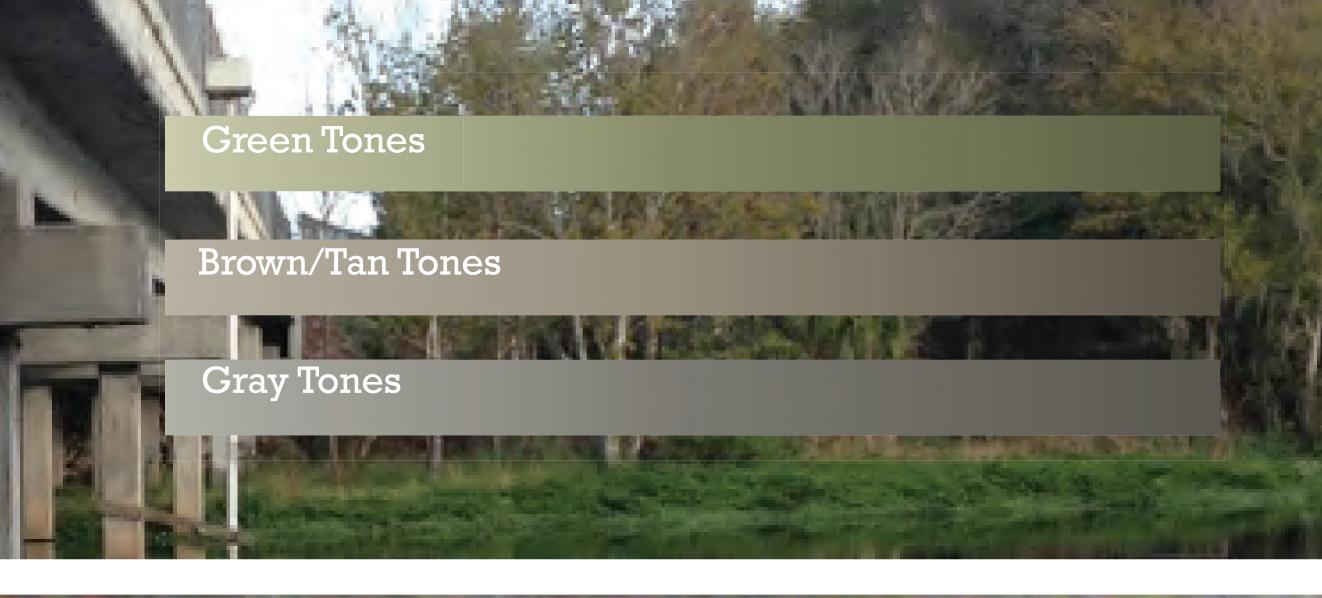


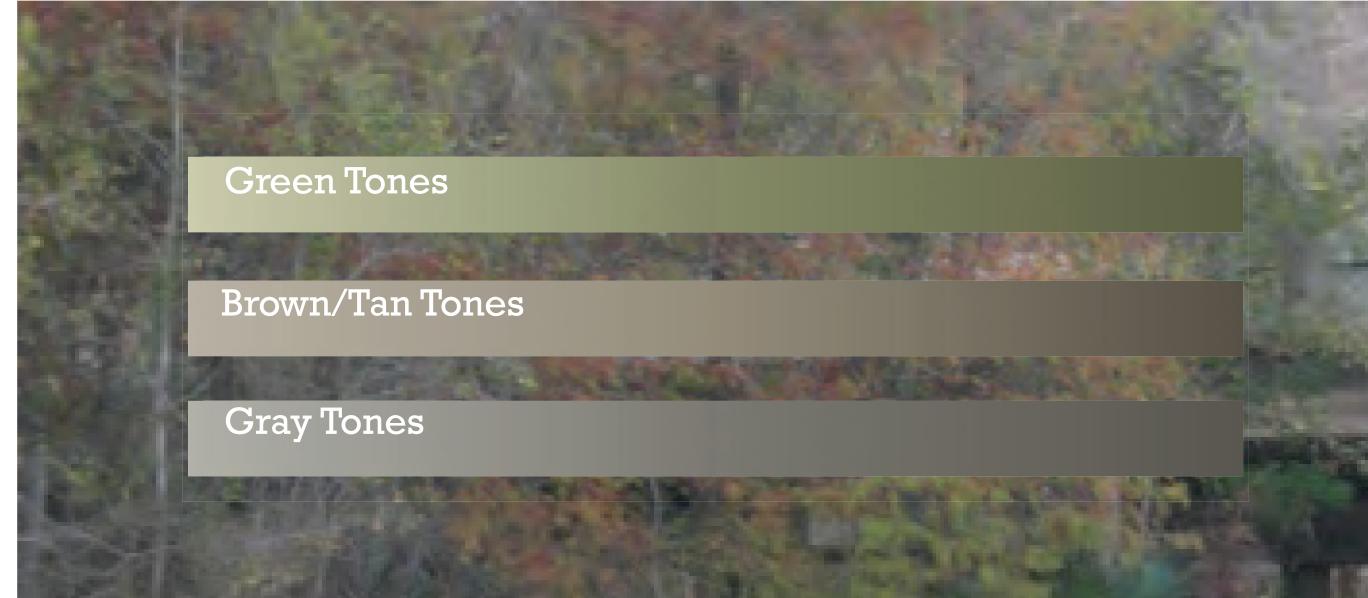












Various Color Options

Green Tones







Brown/Tan Tones

Brown/Tan Tones



















APPENDIX O

Final Bridge Design Charette 2
PARTICIPANT COMMENT FORMS

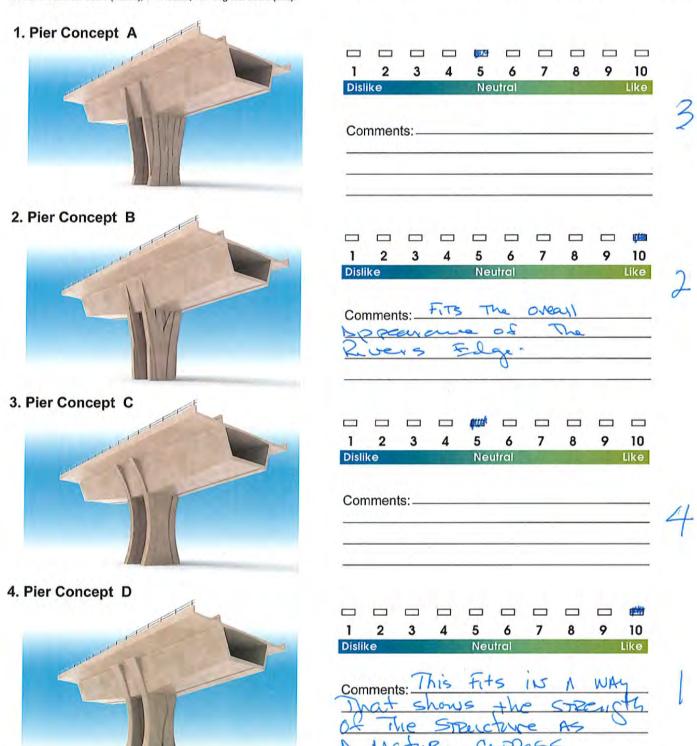
SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014

Pier Concept Preferences

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).



SR 429/SR 46 Wekiva Parkway

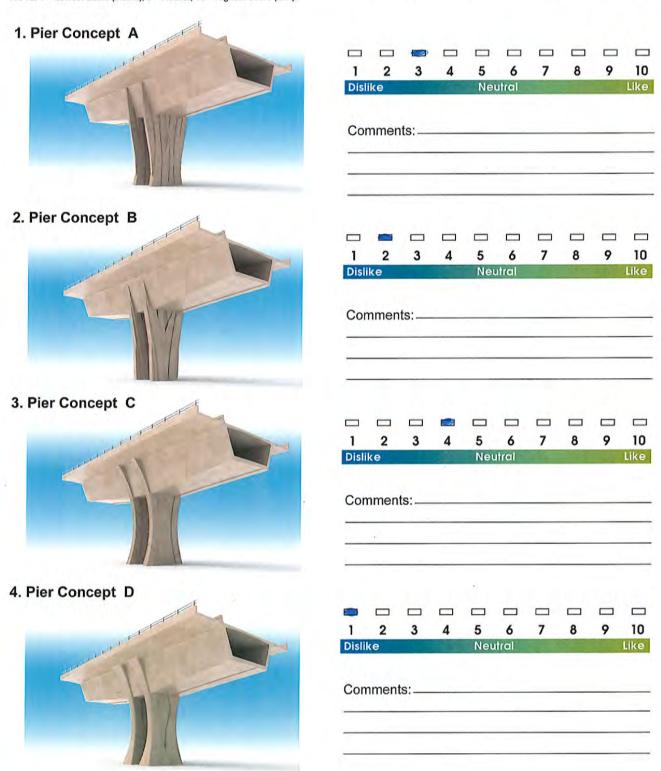
Wekiva River Bridges

January 28, 2014



Pier Concept Preferences

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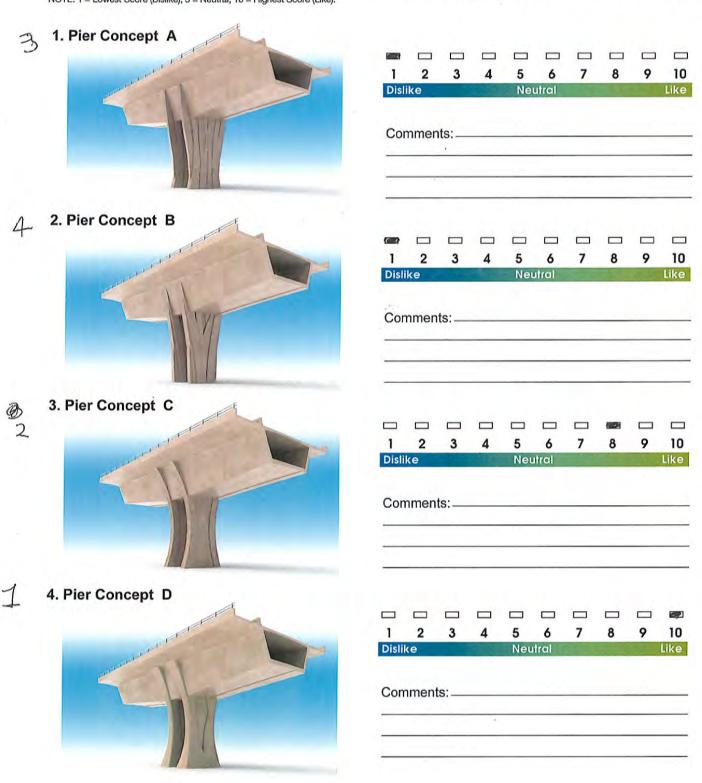
SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014

Pier Concept Preferences

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).



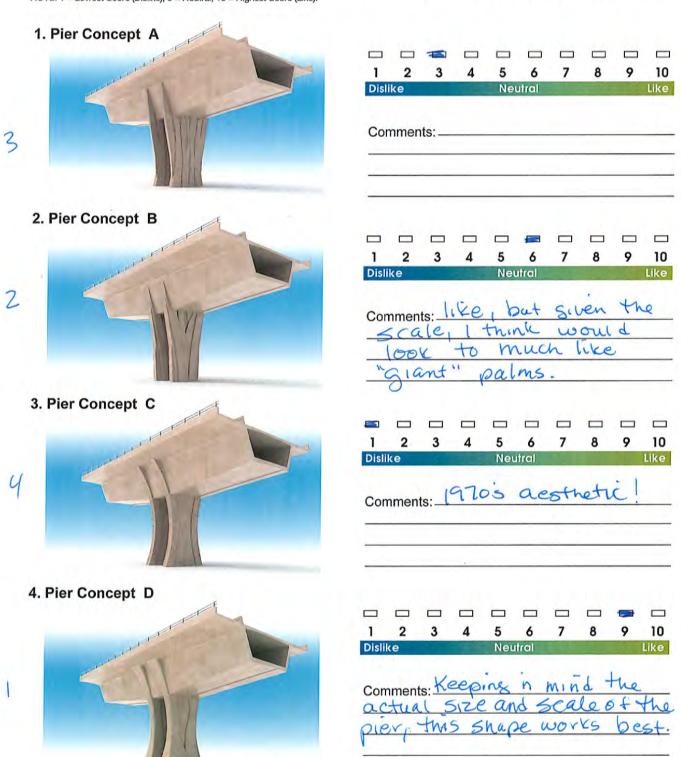
SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014

Pier Concept Preferences

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).



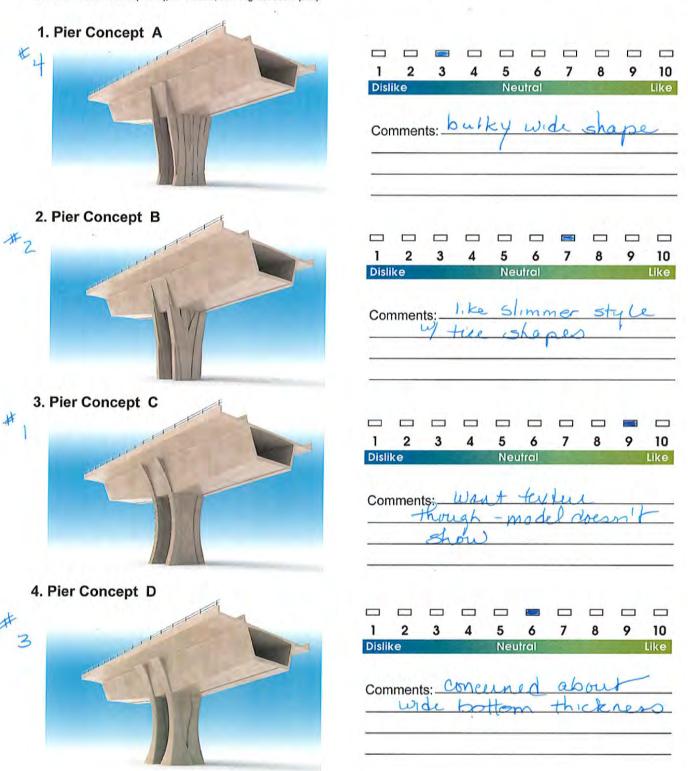
SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014

Pier Concept Preferences

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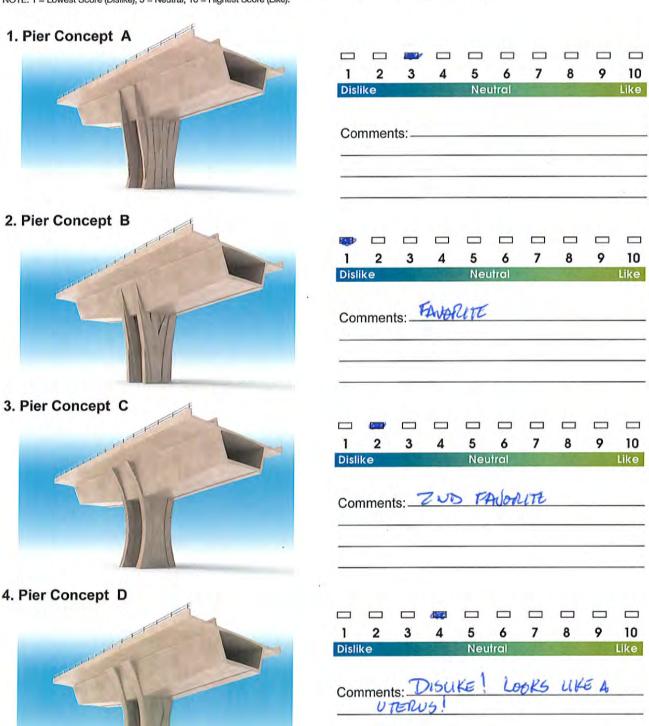
SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014

Pier Concept Preferences

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).



SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

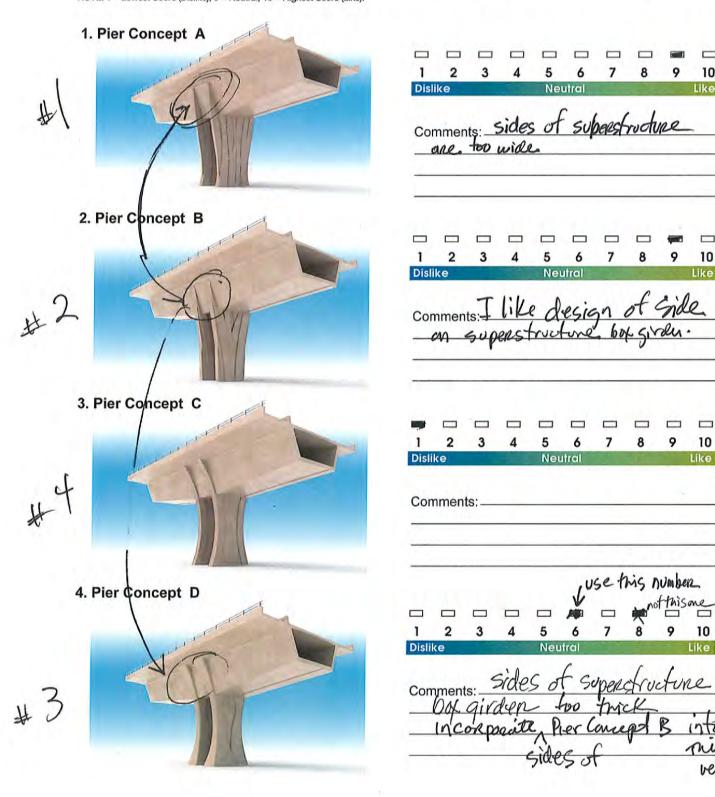
January 28, 2014

Pier Concept Preferences

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

SEGMENT 6 KEEPING WEKNA

10

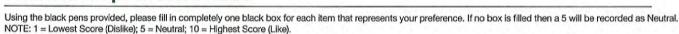


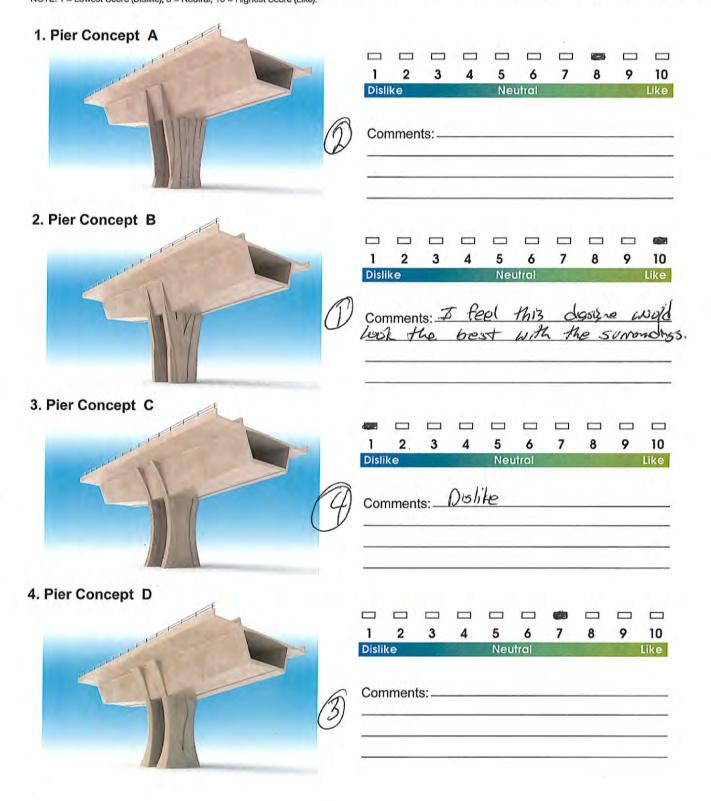
SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014







SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

Kudas to all of

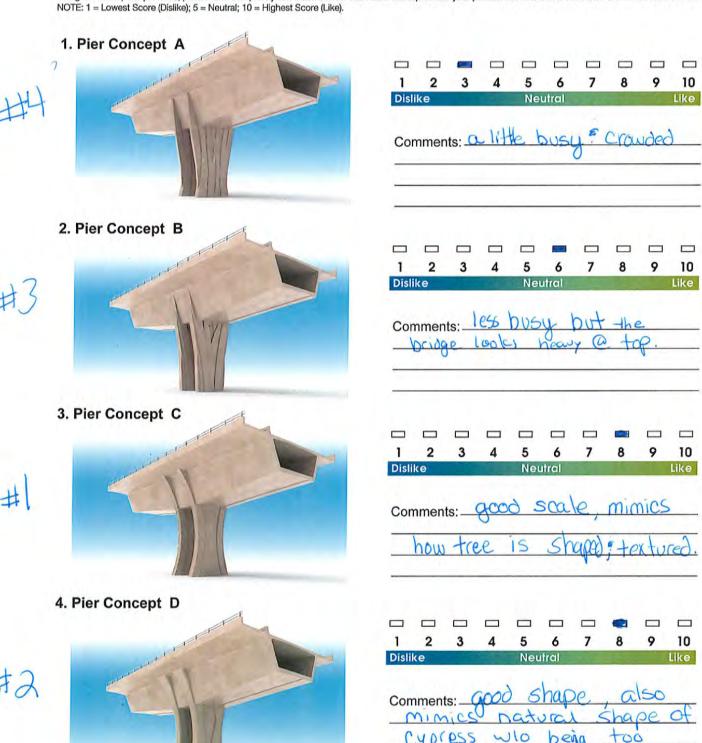
January 28, 2014

Pier Concept Preferences

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral: 10 = Highest Score (Like).

SEGMENT 6 KEEPING WEKIVA

you do for your patience with group



SR 429/SR 46 Wekiva Parkway

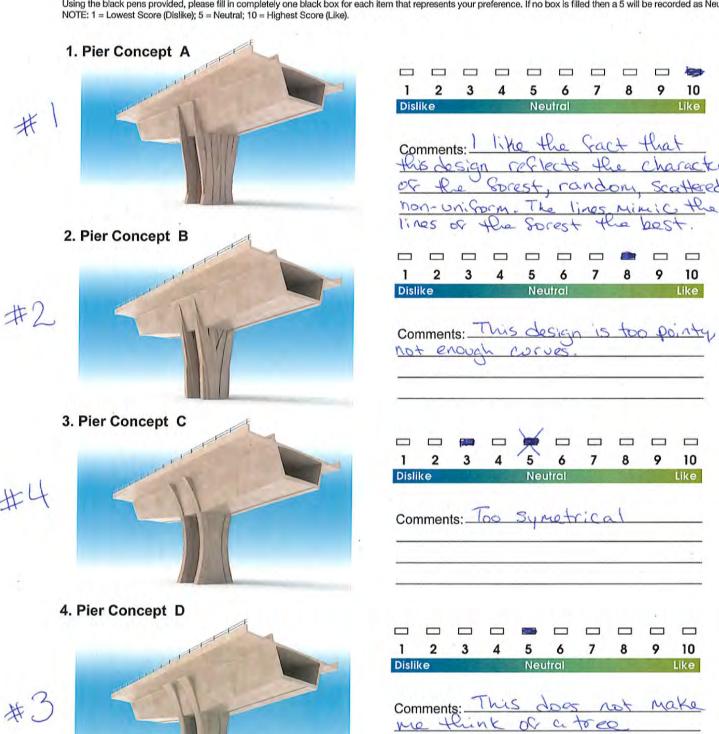
Wekiva River Bridges

January 28, 2014



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SEGMENT 6



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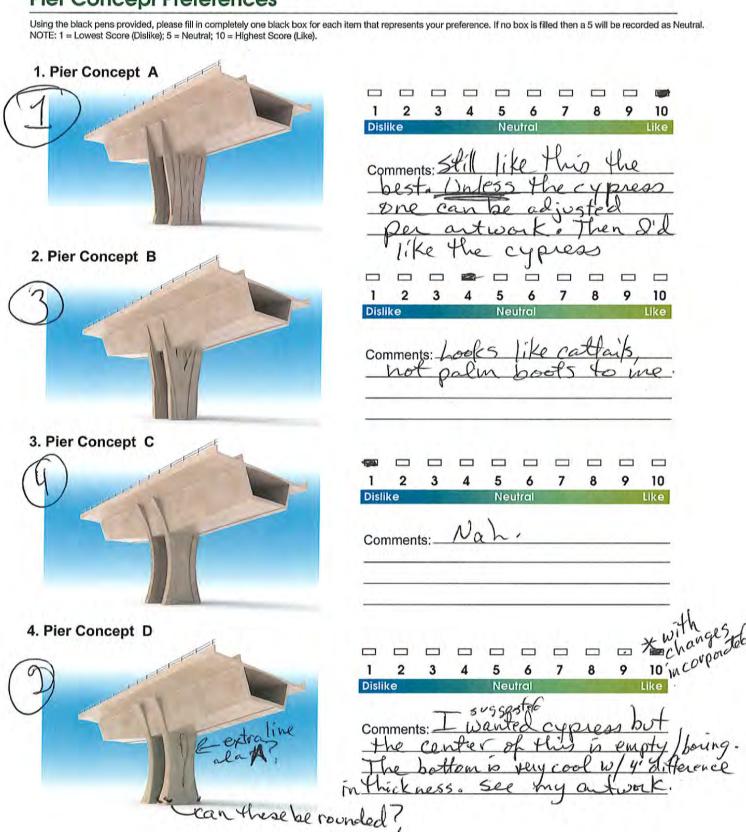
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1-Favorite



Pier Concept Preferences



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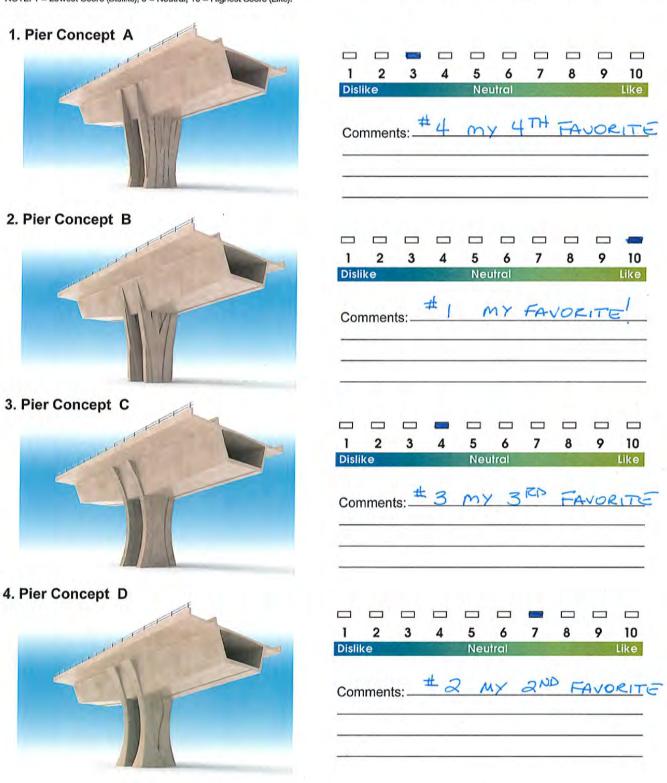
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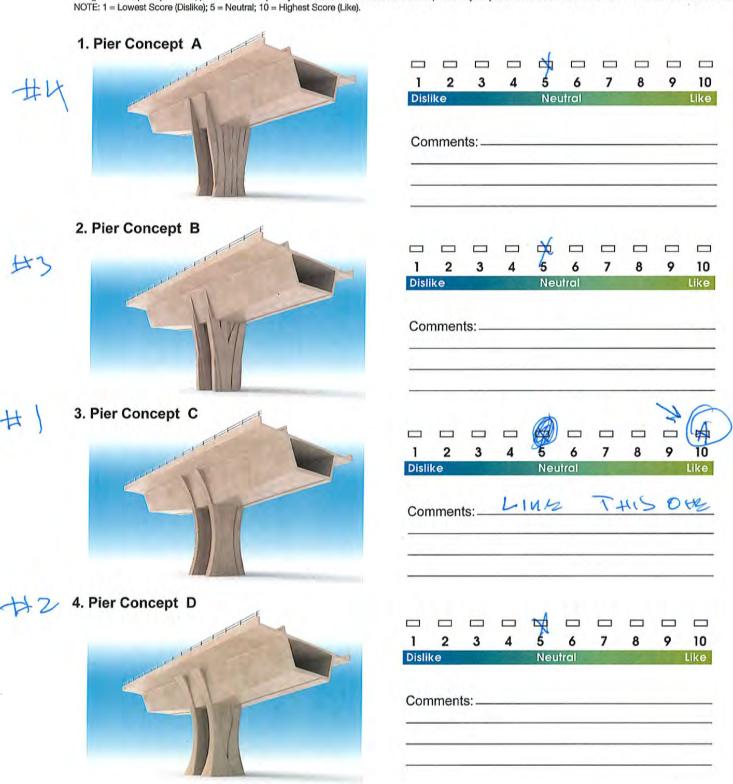
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January 28, 2014

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SEGMENT G KEEPING WEKIVA



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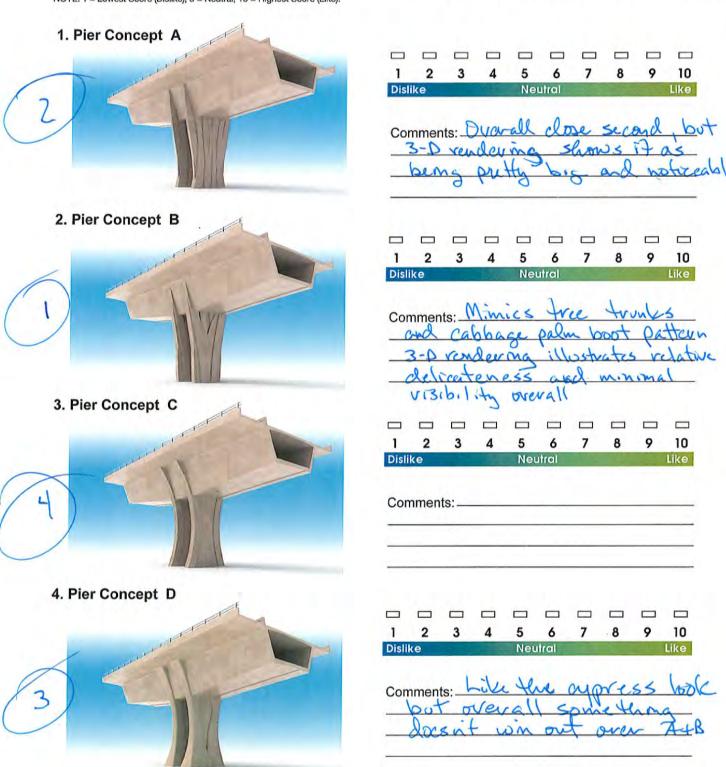
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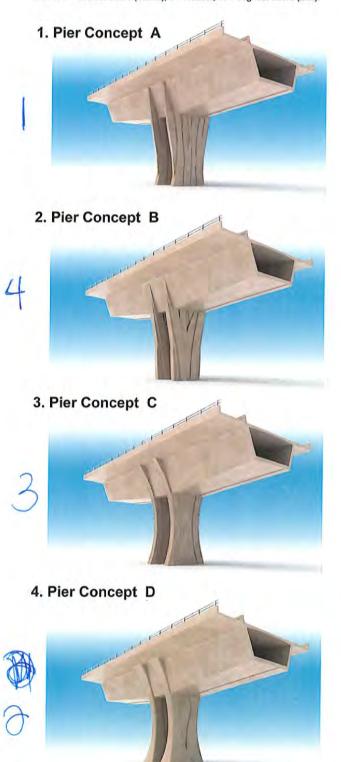
SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

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that re	presents	s your pr	reference	e. If no b	oox is fill	ed then	a 5 will t	oe recor	ded as N
_ 1	2	3	4	5	6	7	8	9	10
Disli	100				utral				Like
Con	mmen	ts:							
1 Disli		3	4		6	7	8	9	10
Con	nment pal (v	ts: lo	oks and enes	1001 a	nd	hI	like	the li	Ke.
l Dislik		3	4	5 Neu	6 trol	7	8	9	10
Com	ment	s: <u>Ni</u>	st 0	is l	OUS.	10	2 2 3	HI_	
_ 1	2	3			6	7	8	9	 10
Dislik				Neul					like

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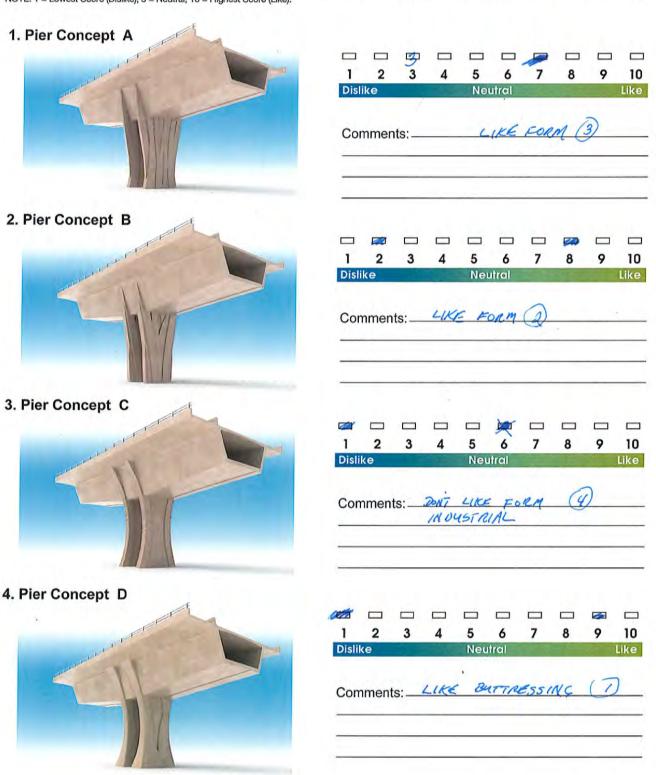
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SEGMENT 6 KEEPING WEKIVA

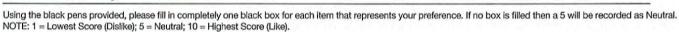


SR 429/SR 46 Wekiva Parkway

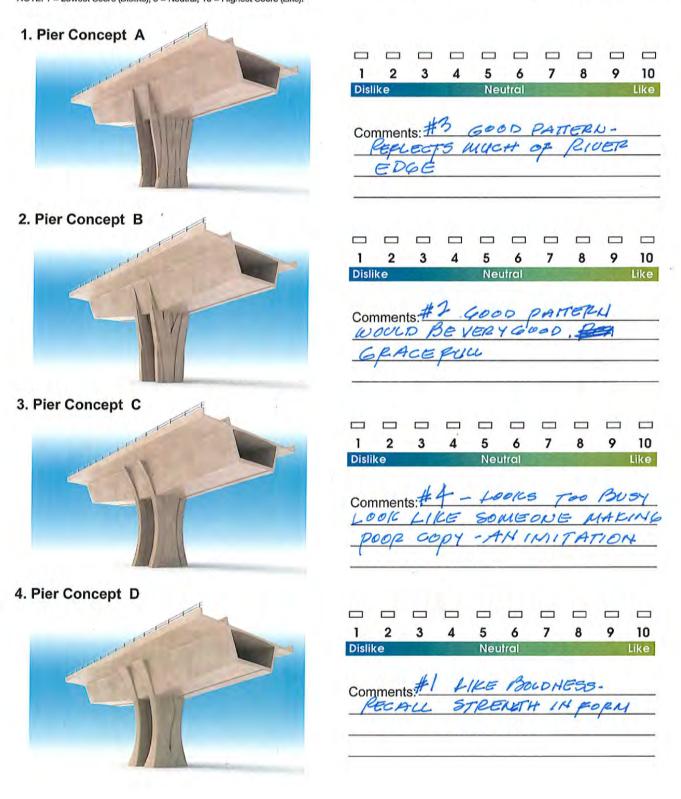
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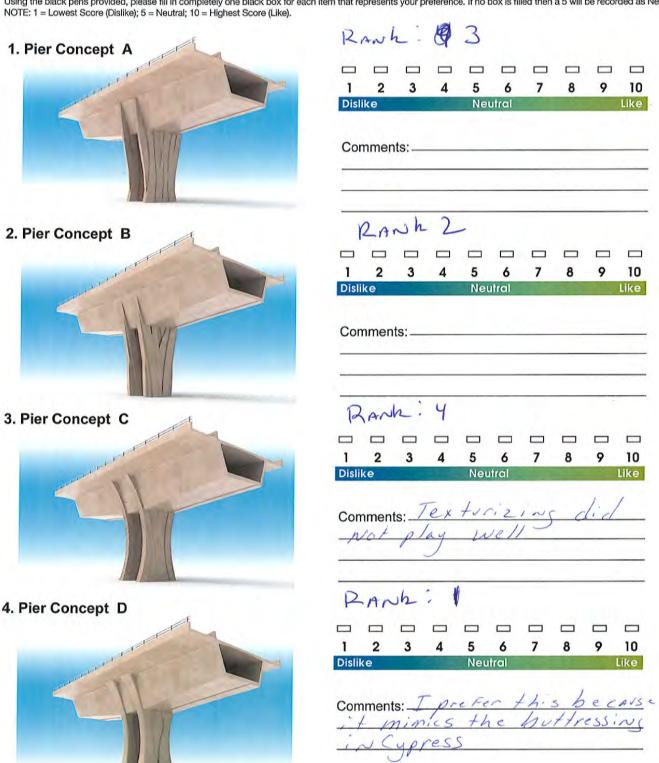
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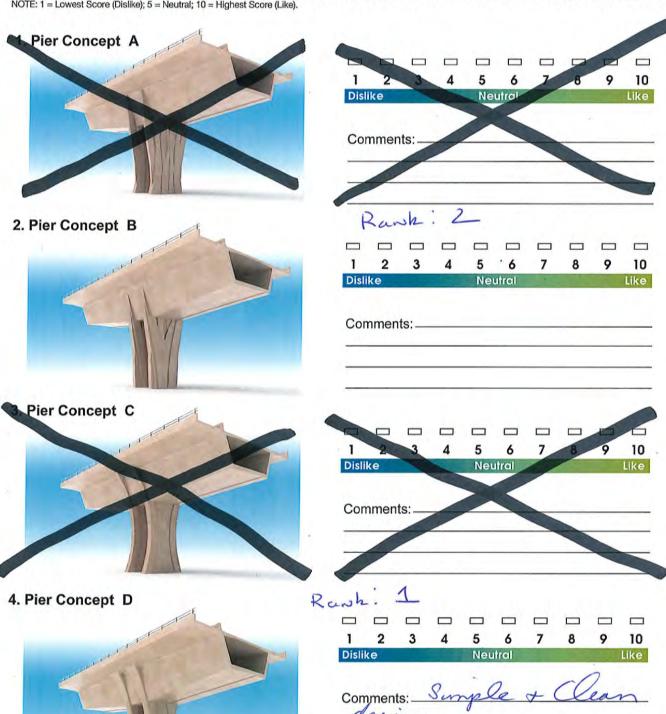
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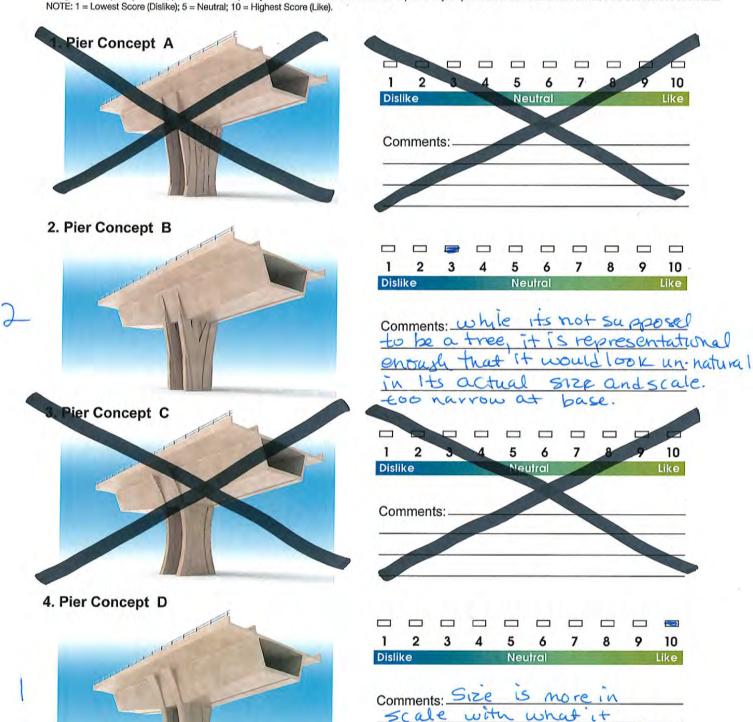
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BEAUTIFUL



represents. Provides usual

" weight"

SR 429/SR 46 Wekiva Parkway

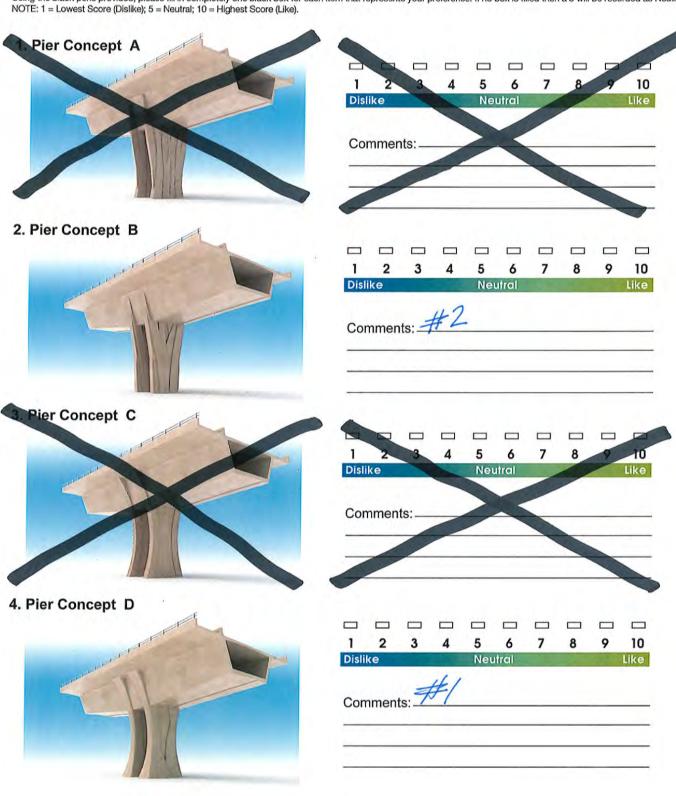
Wekiva River Bridges

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SEGMENT 6 KEEPING WEKIVA

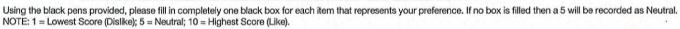


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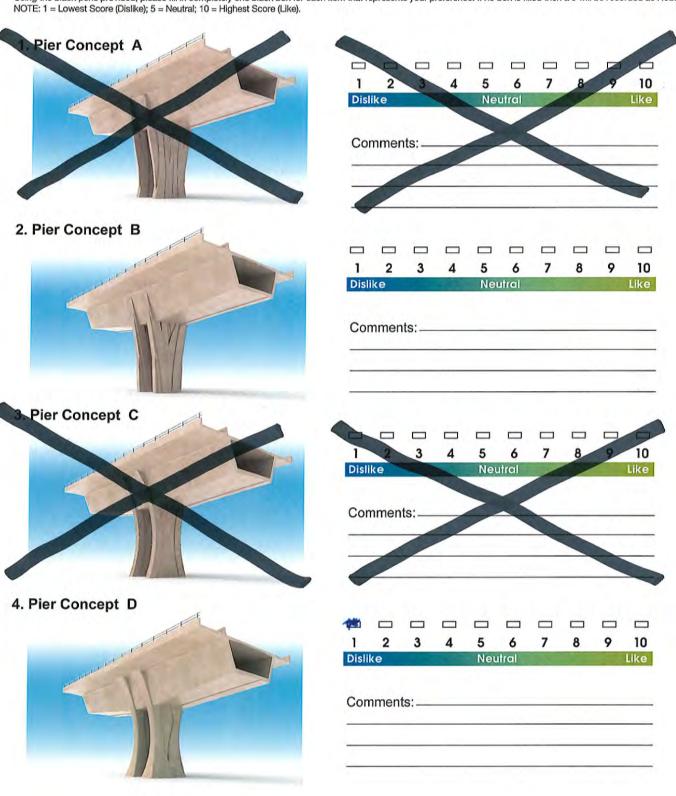
Wekiva River Bridges

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Pier Concept Preferences



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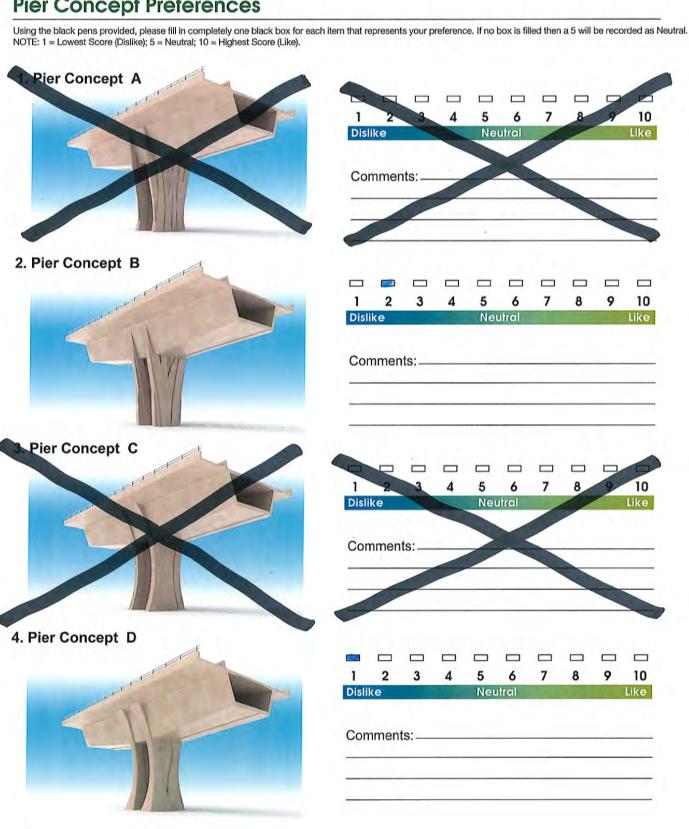
SR 429/SR 46 Wekiva Parkway

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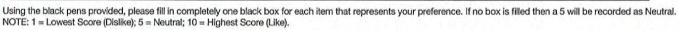


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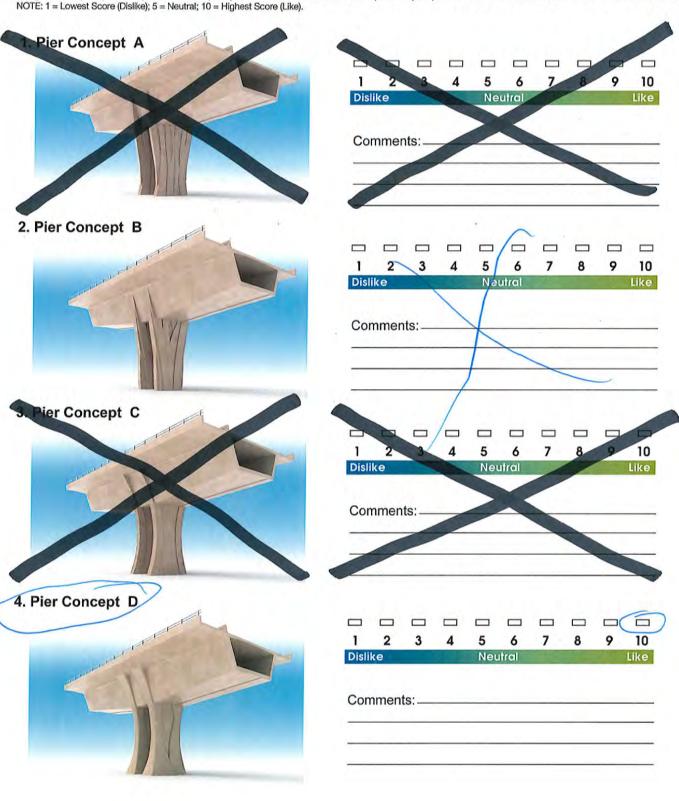
Wekiva River Bridges

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Pier Concept Preferences



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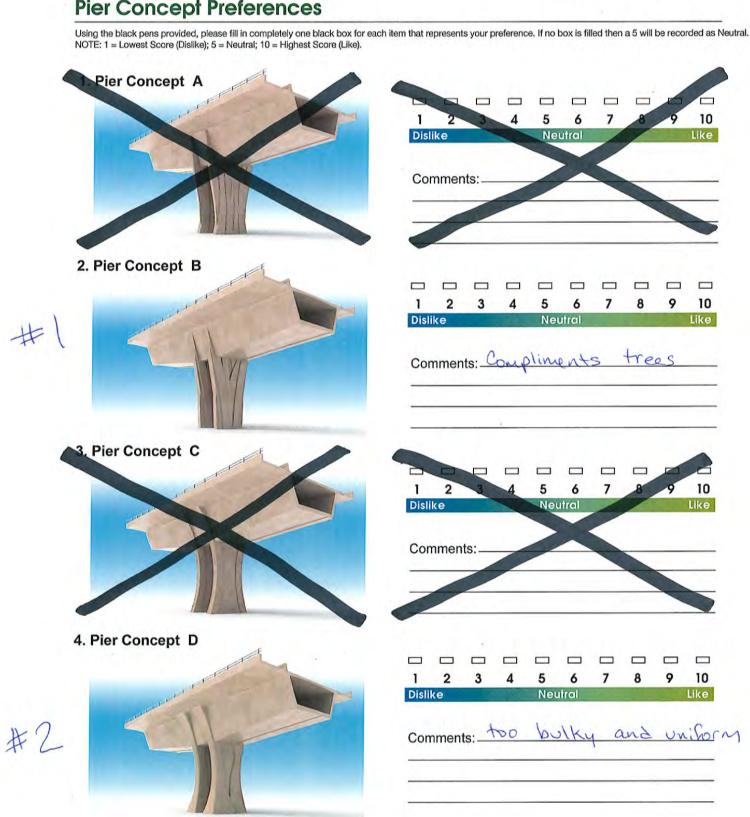


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Pier Concept Preferences



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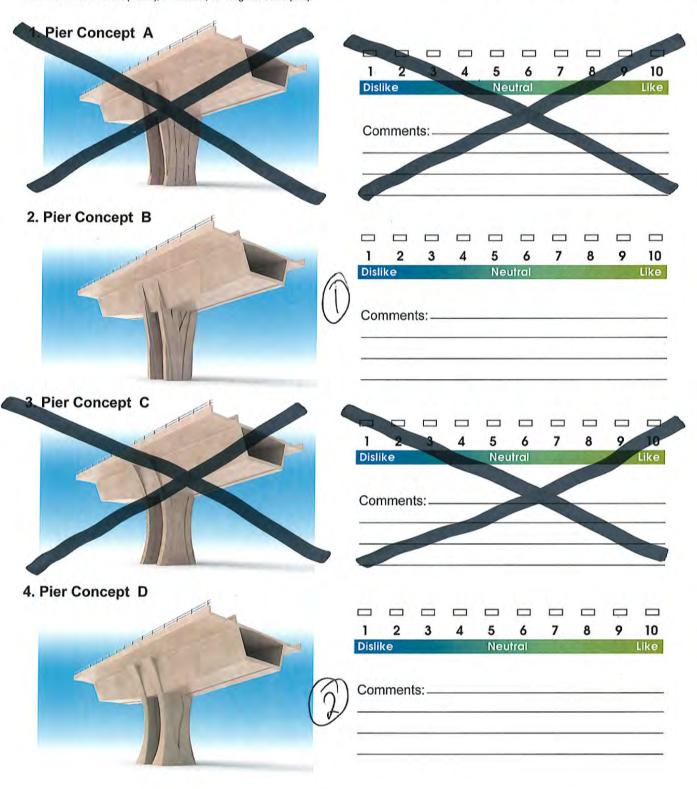
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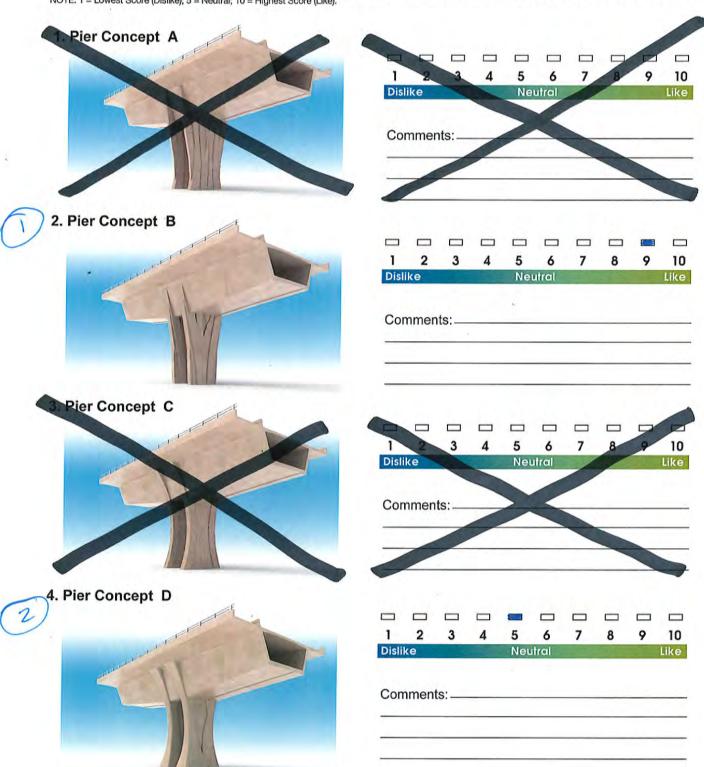
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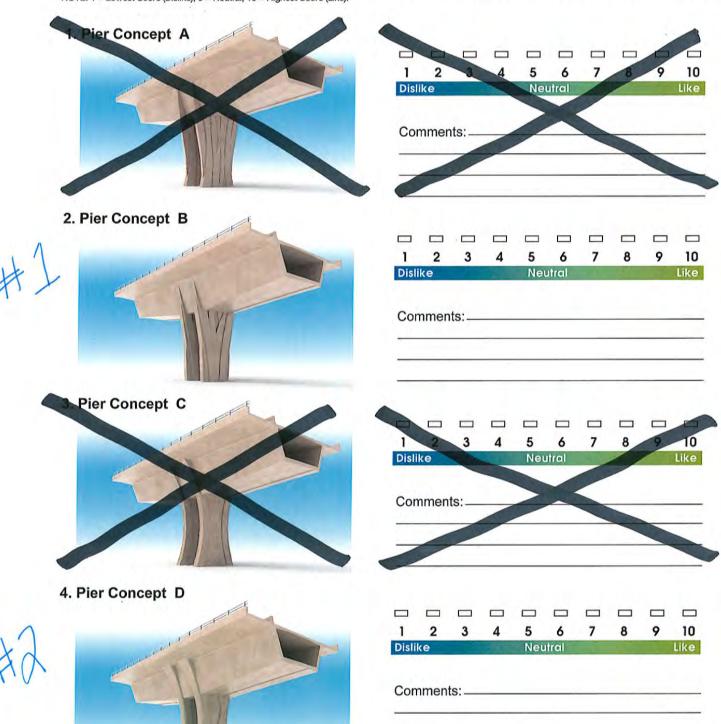
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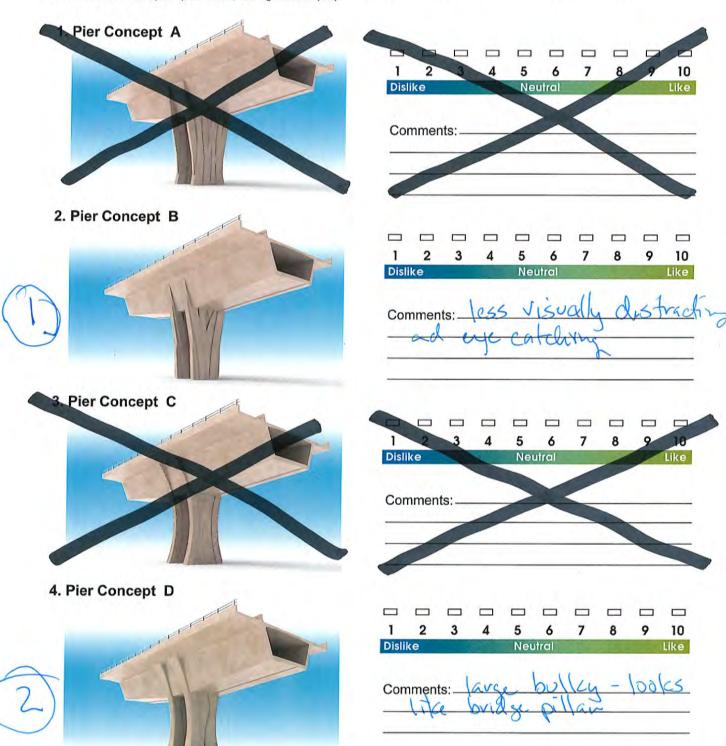
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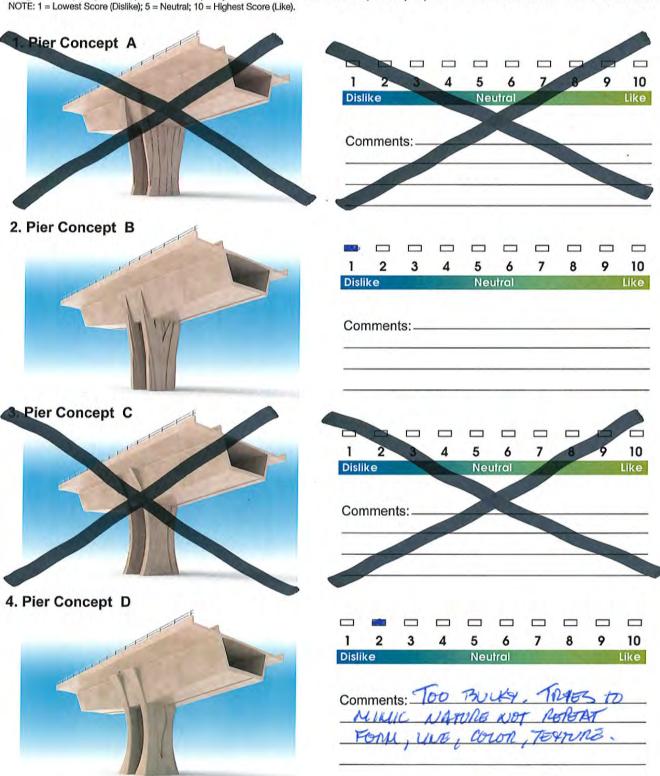
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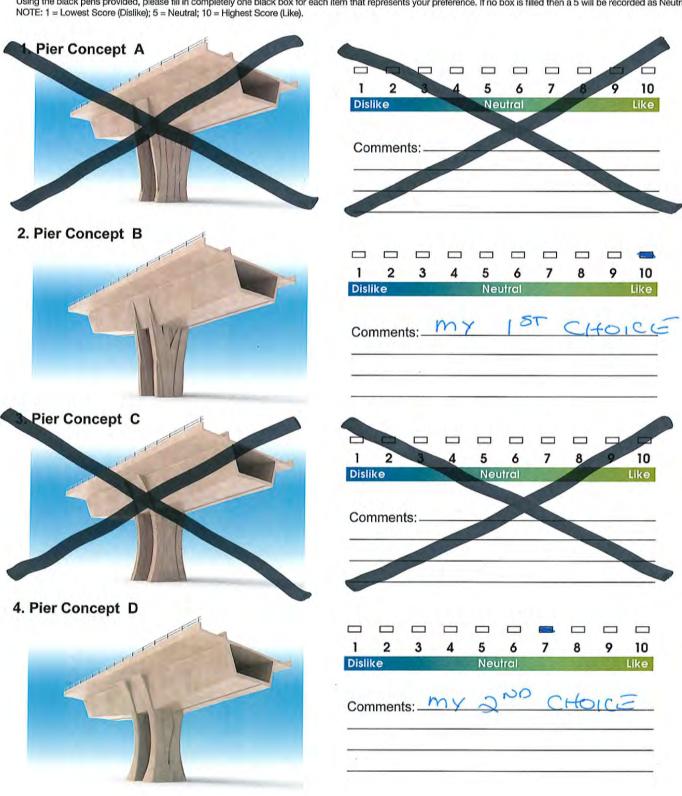
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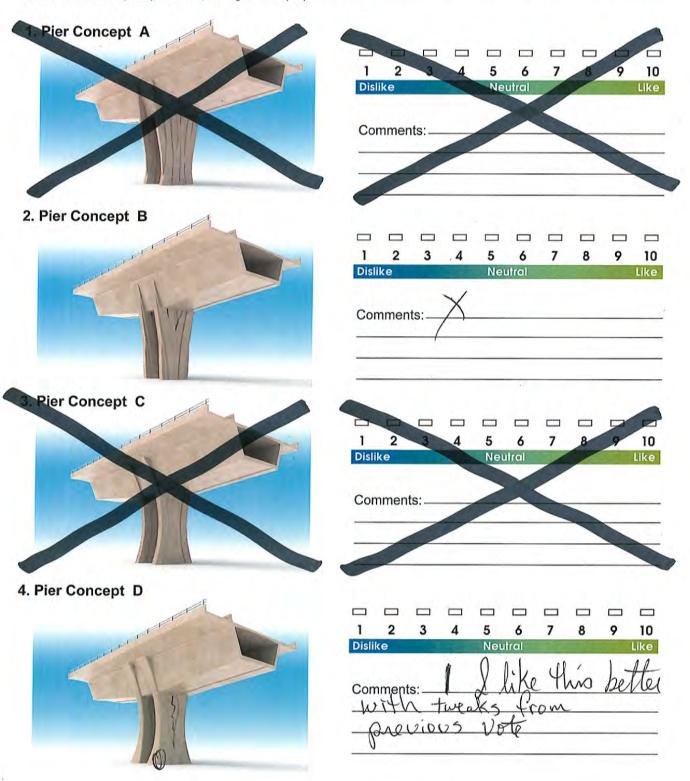
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Wekiva River Bridges

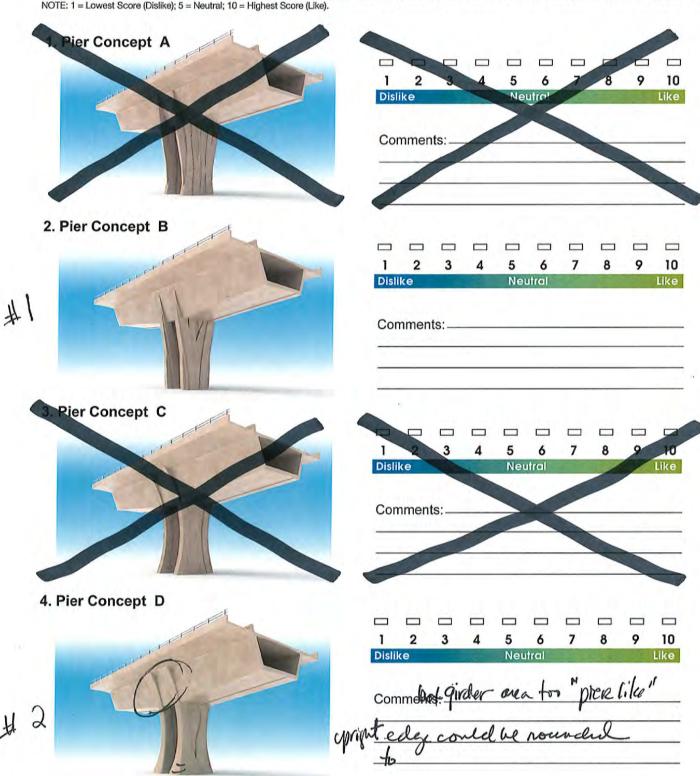
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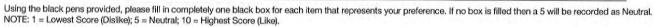


SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

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Color Option Preferences



SEGMENT 6 KEEPING WEKIVA

1. Green Tones 5 6 10 Comments: 2. Brown/Tan Tones 5 6 10 Comments: 3. Gray Tones 5 6 10 Comments: -4. Blue Tone (Underside) No Yes

Comments:

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014

Color Option Preferences

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1. Green Tones



1	2	3	4	5	6	7	8	9	10
Disli	ke			Neu	itral				Like
							0		
Com	mon		TO	0	m	u	U	0	nt
Con	men	S.		1	1 -	0 =		_	07

SEGMENT 6

2. Brown/Tan Tones

3. Gray Tones



1	2	3	4	5	6	7	8	9	10
Disli	ke			Net	utral				Like
					0		0 0	1	
Con	nment	s:	10	e	V	cy	قال	1	ine
,	nd	ero	ne	el	th	0	2	L K	ridy
.1	sei	nh	ac	2 ,					0
A	- wo.	-1	1	1	or	ON		L	tine
1	- ^	10.	V	10	te	2	h	Di	0
1	o i	0		,,,	0		()		
¬'						-			

1	2	3	4	5	6	7	8	9	10
Disli	ke			Ne	utral		100		Like

4. Blue Tone (Underside)

4		1		1
	W/A			
1811 -		T	ia)	THE STATE OF

STATE OF THE OWNER, WHEN		b fight shall be a second		
Comme	ents: U	se Oig	lli	
A	soul	Darle	se	nfure
		e orun	Je .	
Yes	No			

Comments:	

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Wekiva River Bridges

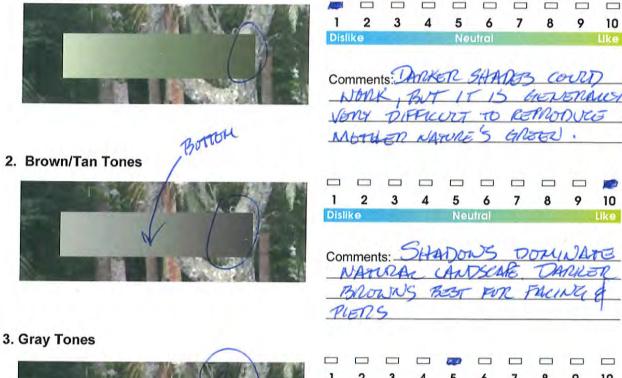
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1. Green Tones





1	2	3	4	5	6	7	8	9	10
Disli	ke	-10		Neu	itral				Like
Con	nmen	ts:							
_		_							

4. Blue Tone (Underside)



	X			
Yes	No	0		
Commer	nts:	UF PR	R EFE	MOD YONE

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

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4	-	Market St.	-	300
1	. G	reen	10	nes



1	2	3	4	5	6	7	8	9	10
Disli	ke			Ne	utral				Like
						17			
Con	nmen we	ts: _ C	net	sea	50m	it	wil	10	ok
V.V. (we	irdi	4 6	w	el c	lac	e		
		F W.3	0	10.00	11				

2. Brown/Tan Tones



1	2	3	4	5	6	7	8	9	10
Disli	ke			Net	utral				Like
							a 1		,
Con	nmen	ts: 🛨	Tris	m	54	mst	ch	best	-
Con	nmen	ts: ゴ	Tús	m	24	mst	ch	best	<u></u>

3. Gray Tones



Neutral	Like
IF (not likely) wins, this mi	the cypiess

10

4. Blue Tone (Underside)



ш			
Yes		Maybe	
Comme	nts: Blu	e comment: can be done without looking	
like	strip	ps from underneath	1
06	2 af	a distance	

5. underside - lighter color/shade of chosen tone
yes - makes sense - once again, w/out striping

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

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Color Option Preferences

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1. Green Tones



		-					_		
1	2	3	4	5	6	7	8	9	10
Disli					itral	-			Like
		11		1.	0	i de la			á
Con	nmen	ts:_W	ugw	TR	9 9	DOM	0 9	reer	1
_	on c	x Mi	ch e	RV	epti	cal	Dec	ctio	2
c	f t	re.	Brid	le	-				
	nmen Sp. C	is. IV is Mi	ghe	RV	epti	cal	Dec	ctio	'n

SEGMENT 6

2. Brown/Tan Tones



Dislike			Neu	itral	ń	m	ń	Like		
0		Zone"	d	in	n S	Pul	L)b	ear	t	
Comment — Ge	is: R	ons	wi	n	gre	24	ten	iis	Ben	nHan
com	nhi	re	Bro	un	19an	n	with	5	Bun	7.1
0-	011 .	tone o	-	_	if	(m	com	Bi	S 1.	

preferred prer

3. Gray Tones



									-	1/100
1	2	3	4	5	6	7	8	9	10	1/
Disli	ke	27		Neu	itral				Like	(1
			0				_			

Comments: See comment for Brown/Tan - also see now brown

Brown/Tan - also see now brown

would look of brown/tan time

4. Blue Tone (Underside) include these areas asblue

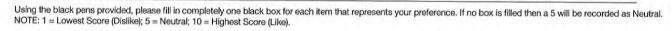


color		
Yes	No	
Comme	nts: include the strips that	
are	on each side of what.	
150	on each side of what.	1.
		,

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Color Option Preferences



1. Green Tones	
	1 2 3 4 5 6 7 8 9 10 Dislike Neutral Like
	Comments:
2. Brown/Tan Tones	
THE RESERVE OF THE PERSON OF T	1 2 3 4 5 6 7 8 9 10 Dislike Neutral Like
	Comments: I do feel the lighter of these tenes would look the bost. Approx in the area of the arrow
3. Gray Tones	
TO THE MAN AND THE	1 2 3 4 5 6 7 8 9 10 Dislike Neutral Like
	Comments:
4. Blue Tone (Underside)	
	Yes No Comments: I do think the bend of blue leaks good while undo-neath
	0

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1.	Green	Tones



1	2	3	4	5	6	7	8	9	10
Disli	ke			Neu	tral				Like
		-	1						
Con	nmen	ts:	ore	en	S	eem			iend
w	115	be	5+	Sor	+	Ra	Var	ioi	25
VI	ew	5							

2. Brown/Tan Tones



ш							4		
1	2	3	4	5	6	7	8	9	10
Disli	ke			Neu	ıtral				Like
_	dices.	5	100 W	N.C.	A ,		0	10.0	
Con	nment	s:	een	NS	to - +	hau		the	2

3. Gray Tones



1	2	3	4	5	6	7	8	9	10
Disli	ke			Net	utral	-11			Like
•	nmen	. (200	115	a	4.0	0 (dos	
Con	nmen	ts:		~ N	- 00		2	7/01	2

4. Blue Tone (Underside)



\square	
Yes	No
Comme	nts: I like the potential for
decrea	used insect damage and
the	oreak up of the grant
Stro	cture from underneath.

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January 28, 2014



Color Option Preferences

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1. Green Tones	1 2 3 4 5 6 7 8 9 10 Dislike Neutral Like
	Comments: MY 1 ST CHOICE MY PREFERENCE WOULD BE MEDIUM DARK/LIGH
. Brown/Tan Tones	
THE RESERVE TO SERVE THE PERSON OF THE PERSO	1 2 3 4 5 6 7 8 9 10 Dislike Neutral Like
	Comments: MY 2 ND CHOICE
Gray Tones	
	1 2 3 4 5 6 7 8 9 10
	Comments: CAST FAVORITE
. Blue Tone (Underside)	
	Yes No Comments: KEEP IT SUBTLE

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Wekiva River Bridges

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SEGMENT 6 KEEPING WEKIVA

Color Option Preferences

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	-		-	
1.	G	reen	Ton	les



	~	3	4	3	0	-	0	7	10
Dislil	(e			Neu	iral				Like
			۸						
Com	ment	ts:	oul	d the	L :	SUP	451	VOC	trel
				ton					Dicus
6	ev	MOV	00	Ja-	bon	COW	n/+	·~	tones
	1 h	,, (Land	1	, 1	2/10			- 7

2. Brown/Tan Tones



3	CDU		utral		8	9	10 Like	
inte:	CDU					1-	Like	
inte:	CNO	(0)	10.			1-		
nte:	CAU	(1)	10.	-		1 -		
		V/X	the	- 12	PN S	C	e e	
110.	110.	~	da		0	41	0.	
						+	ac	
sens	tru	Oh	ve	me	ve	an	een	104
16							19	1
	ve	ove the	sers tructu	ove this for	sers tructure ma	are this town and sens tructure more		sers tructure more green

3. Gray Tones



1	2	3	4	5	6	7	8	9	10
Disli	ke			Neu	ıtral				Like
		6	ne	4	m	M 110	h	har	1
Con	nmen	G.	, 00					EXAL	1
Con	nmen	co.	ACL	te	SV	an		BAC	1

4. Blue Tone (Underside)



Yes	No
Comments	not blue or whole
but	lighter Shade chosen

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014

Color Option Preferences

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Green Tones



1	2	3	4	5	6	7	8	9	10
Disli	ke			Net	ıtral				Like
Con	nmen	te: (Scee	n	tor	105	0	ake	
th	16	S	tru	CtL	re	es	liso	ippe	201
_1	nto)	ba	dea	rou	ma.		11	
		15	5+	Chr	dic	0 1	-	/	

SEGMENT 6

2. Brown/Tan Tones



			1						
1	2	3	4	5	6	7	8	9	10
Disli	ke			Net	itral	34			Like
				dia k				(
Con	nmen	ts:	It	MM	+	MIS	15	s dv	pser des.
	-11	ce-	the	00	xclo	e1	(sha	des.

3. Gray Tones



1	2	3	4	5	6	7	8	9	10
Disl	ke			Neu	utral		300		Like

Comments: Least favorite,

4. Blue Tone (Underside)



exis	oting b	ridge is	a grai
tor	ie ?	it doesn	+ took
	1		good.
Yes	No		
Comme	nts:		

SR 429/SR 46 Wekiva Parkway Wekiva River Bridges

January 28, 2014



Color Option Preferences

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Green Tones	
	1 2 3 4 5 6 7 8 9 10 Dislike Neutral Like Comments: Dack on Top 119116
2. Brown/Tan Tones	Comments: Dack on Top, lighter
	1 2 3 4 5 6 7 8 9 10 Dislike Neutral Like Comments: Determ light gray Perhaps on bottom
3. Gray Tones	1 2 3 4 5 6 7 8 9 10 Dislike Neutral Like Comments:
4. Blue Tone (Underside)	
	Yes No Comments: only if not a Stripp effect Leke idea of lighter . underneash!

January 28, 2014

SR 429/SR 46 Wekiva Parkway Wekiva River Bridges



Color Option Preferences

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral.

NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).										
1. Green Tones										
The latest and the la										
The second secon	I I	2 ike	3	4	5	6 utrai	7	8	9	10
		mmen	ıts:	LG						Like
2. Brown/Tan Tones								Ī		
	1	2	3	4	5	6	7	8	9	10
	Disli				Neu		-			Like
3. Gray Tones									rowr	
	Disliii Com	2 ce nment	3 s:	4	Neu Neu		7	8	9	10 Like
4. Blue Tone (Underside)										
	Yes Com	ments	No No	say	se	10	ele es	2000	30	_

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

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Color Option Preferences

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Green Tones

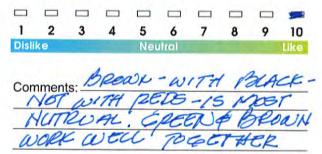


Comments: GREEN ON C	LIK SREEN
Comments: GREEN ON C	CREEN
Comments: GREEN ON C	CREEN
Comments:	PECCH
ISHARD TO BLE	WD -
7 - 7 - 11-121 0	
CAN BE VERY CO	001/2001
SHADES WOULD H	

SEGMENT 6

2. Brown/Tan Tones





KILLCONTRAST

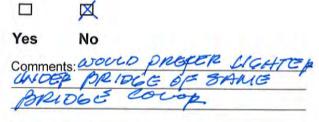
3. Gray Tones



	•	•		174			1	-	
1	2	3	4	5	6	7	8	9	10
Disli	ke			Neu	itral		OR OTHER		Like
		,	, ,	1-1-		ba	/_	0.10	1
Com	men	ts: 🟒	= 0	150	= 6	PA	y - 0	WH	Y
Con	nmen	ts:	= 0	150	= 6	PA	y - 0	WH	Y

4. Blue Tone (Underside)





SR 429/SR 46 Wekiva Parkway Wekiva River Bridges

January 28, 2014



Color Option Preferences

as Neutral.

Using the black pens provided, please fill in completely one black box for each NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).	tem that represents your preference. If no box is filled then a 5 will be recorded	ed a
1. Green Tones		
	1 2 3 4 5 6 7 8 9 Dislike Neutral	70
	Comments: LIGHTEST END &	
2. Brown/Tan Tones	✓	
	1 2 3 4 5 6 7 8 9	10 ke
	Comments:	
3. Gray Tones	✓	
THE MAN AND A STATE OF	1 2 3 4 5 6 7 8 9 1	10
	Comments:	
1. Blue Tone (Underside)		
	Yes No Comments: SIF UNDFUSING OF ENTER STANDING	

SR 429/SR 46 Wekiva Parkway Wekiva River Bridges

January 28, 2014

Color Option Preferences

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Green Tones



1	2	3	4	5	6	7	8	9	10
Disli	ke			Neu	itral	- 10			Like
0			2011	11	100	10			
Con	nmen	VIL	200	n (S	tras	st -	to	
	se	tal	To	C	n	NIN	t-en		

SEGMENT 6

2. Brown/Tan Tones

3. Gray Tones



ents:	ash	-b	utral	on Soul	to id b	ne the	10 Like
ents:_	ash	-b	vou	on	to	ne ne H	u
ents:_	ash	-b	vou	on	to	ne ne th	ne.
ents:_	ash	-b	vou	soul	to	ne th	u
ents:_	10)	th	ند د	Soul	166	e H	u
- SC	19)	th	نح د	sou	19 6	e th	re
. " 1							
			66	ALC: U	4.4		
	t sec						
int.	Javi	citic	Dia	me '	the	010	nes
1		2	-1	OK		1-10	CITCO
th	5 101	evs	a	nd	118	uto	2
Lu	nde	sid	e 0	+ +	the	601	(
3	4	5	6	7	8	9	10
100	71.0	Neu	itral	1000		1777	Like
	the u	the pi	the piers underside a second	the piers a underside o	the piers and underside of to 3 4 5 6 7	the piers and list underside of the 3 4 5 6 7 8	

- 17	· 1/4	Mal	A	A ST	4.
				F	
Marie .				1	4

Comments: Only	ifa	warm
Craz.		
0 0		

4. Blue Tone (Underside)



	Man .		
Yes	No		1
Comme	nts: However	er, lighter (slight)	<u></u>
		-	

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014

Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Option A - Partially Open



7		1	9 4 3 1 4 3 3 3 1 4 3 3 3 3
3'-6"	42"		2'4
1	-		<u></u>

1	2	3	4	5	6	7	8	9	10
Disli	ke		. 10	Neu	ıtral	R DE	100	100	Like
Con	nmen	ts:							

SEGMENT 6



. 7		7 3/4"
3'-6"	42"	18 3/4"
1		13

-				_		-			-
Disli	2	3	4	5	o itral	7	8	9	10 Like
Con	nmen	s'							
001	mich								
							_		_

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

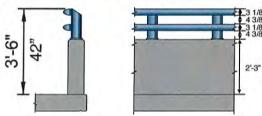
January 28, 2014

Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral, NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Option A - Partially Open





1	2	3	4	5	6	7	8	9	10
Disli	ke		100	Neu	ıtral				Like
Con	nmen	ts:							
Con	nmen	ts:							

SEGMENT 6 KEEPING WEKIVA

2. Option B - Fully Open



+		7 3/4"
3'-6"		18 3/4"
(m)	∥	13

									6-0
1	2	3	4	5	6	7	8	9	10
Disli	ke			Neu	itral	-	700		Like

Comments:



SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014

Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Option A - Partially Open



1	9		9 3 1 9 4 3
3'-6"	4		43
ج ا		-	2'-3
1			-

1	2	3	4	5	6	7	8	9	10
Dislike				Neu	utral		10		Like
Con	nmen	ts:							

SEGMENT 6



7 3/4"
18 3/4
3

1	2	3	4	5	6	7	8	9	10
Disli	ke			Neu	ıtral	1000		edjiri	Like
Con	nmen	ts: 4	reev	co	ion				

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

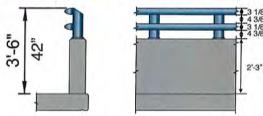
January 28, 2014

Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Option A – Partially Open

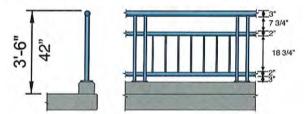


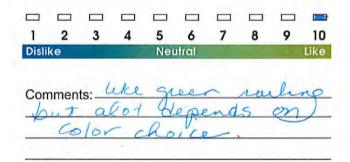


1	2	3	4	5	6	7	8	9	10
Disli	ke	6.	1000	Neu	ıtral				Like
Cor	nmen	to:							
COI	illileii	ıs. —							

SEGMENT 6 KEEPING WEKIVA







SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014

Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

2'-3"

1. Option A - Partially Open



7		3		
3-6"	5,	1		
က်	4		1	+
1	<u></u>			
	+		-	

1	2	3	4	5	6	7	8	9	10
Disli	ke	100	, pie	Neu	ıtral				Like
Cor	nmen	ts:							_
-							_		

SEGMENT 6



	7 3/4"
3'-6"	18 3/4
1_1	2.3

ш									-
1	2	3	4	5	6	7	8	9	10
Disli	ke	- 5		Neu	itral				Like
Con	nmen	ts:							_
	-								

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

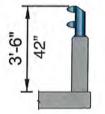
January 28, 2014

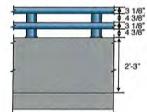
Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Option A - Partially Open







1	2	3	4	5	6	7	8	9	10
Disli	ke	J.		Neu	ıtral				Like
Con	nmen	ts:							
	+								
_									

SEGMENT 6 KEEPING WEKIVA



	7:
42"	1:
	

\Box										
1	2	3	4	5	6	7	8	9	10	
Disli	(e		100	Net	ıtral	3/57		Billy	Like	
								2		0
Con	men	ts. (Ope	n	A	M		en	con	et
a	lle	rus	1	21	est	The	in	O-	ba	in Pari
1		00		11	100	1	1			gran .
com	men	ts:	Pe	red	est	ra	in	ien	be	4

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014

Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Option A - Partially Open

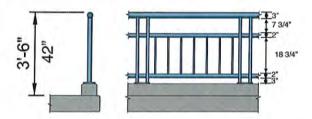


7	1	7	1 4 3
3'-6"	42"		243
1			

1	2	3	4	5	6	7	8	9	10
Disli	ke	- 1		Neu	ıtral				Like
Con	mon	to: 1	400		ni.	4. ~			
COIL	men	is.	001		1101	D.V.	1		

SEGMENT 6





_									-
1	2	3	4	5	6	7	8	9	10
isli	(e			Neu	itral				Like
	Mozidi.	T	Lis	0	CASI	605	0 }	20 44	0
on	men	ıs: —	W.		000			-11	-
k.			- 1	-1			1	1	1
1	ew		d	rive	rs	an	9 6	edo.	str.c
Th	ew e			rive	15	an	d p	edo.	otrice de
Tu	ew e i	Soc.	, S	rom	15	andre do	d p	ter	de the
Tho	ew e	sier in	pac's	rom	my	de	d p	ede.	the
The o'	ew e (sier in	pac's	rom	my	ander the	d p	ter on,	the
The sick	ew Les	sier in	, S	Sra,	my	der the	d p	edo.	the

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Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Option A - Partially Open

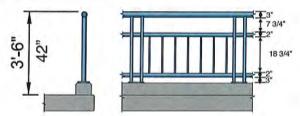


		3 1/8
3'-6"		4 3/8
<u>ω</u> 4	+	2:-3*
1		↓

1	2	3	4	5	6	7	8	9	10
Disli	ke		1.00	Neu	ıtral				Like
Con	nmen	ts:					_		
_	_		-			_		_	

SEGMENT 6 KEEPING WEKIVA





1 2 3 4	5	6 7	8	2 10
				, ,,
Dislike	Neut	ral	- V	Like
Comments: This	charle	H lenal	hoth	-
Comments:	3 3101	0	veri	2
the river	uter,	Better	View	cot

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

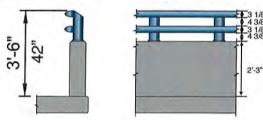
January 28, 2014

Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Option A - Partially Open





1	2	3	4	5	6	7	8	9	10
Disli	ke	3.50		Neu	ıtral	34	0.5		Like
Con	nmen	ts: 🕳	1	_	-110	PIC			
001									
				_					

SEGMENT 6 KEEPING WEKIVA



- 1	7 3/4"
3'-6"	18 3/4
<u> </u>	***

Dislike Neutral Lik

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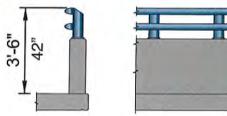
Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

2'-3"

1. Option A - Partially Open





*									
1	2	3	4	5	6	7	8	9	10
Dislik	(e			Neu	itral				Like
Com	nmen	ts:							

SEGMENT 6 KEEPING WEKIVA



Ĺ			7 3/4"
. 7		Ш	18 3/4
	1		 2".
	#		

7	2	3		3	- 6	7			
Dislike)			Neu	ıtral		8	9	10 Like
					A Company				
			110	5					
Comn	nent	s:	1 ll	-		_			_
2.5%									

SR 429/SR 46 Wekiva Parkway

Wekiva River Bridges

January 28, 2014

Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Option A - Partially Open



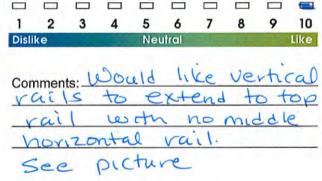
T		3 1/6 4 3/8
3'-6"		3 1/6 4 3/6
ω 4	+	2'-3"
1		<u> </u>

1	2	3	4	5	6	7	8	9	10
Disli	ke			Neu	ıtral				Like
Con	nmen	ts:							

SEGMENT 6 KEEPING WEKIVA







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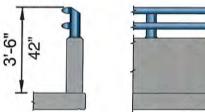
Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

2'-3"

1. Option A - Partially Open





1	2	3	4	5	6	7	8	9	10
Disli	ке	-	-747	Neu	itrai	. ·			Like
Con	nmen	ts:	-						_
10.00									

SEGMENT 6



	7 3/4"
3'-6"	18 3/4
,	2:

									4
1	2	3	4	5	6	7	8	9	10
Disli	ke		3.5	Neu	utral		- Num		Like
Con	nmen	ts:		_	_				

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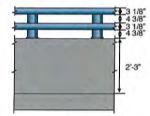
Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Option A - Partially Open



1		0	
3-6"	42		
1			



1	2	3	4	5	6	7	8	9	10
Disli	ke		100	Neu	ıtral		12		Like
Con	nmen	ts:							

SEGMENT 6 KEEPING WEKIVA



1		ı	-				
3'-6"	45,,			П			
e,			±	H	_	Ц	
7	-		+			-	

1	2	3	4	5	6	7	8	9 10
Disli	ke	SV _B	100	Neu	ıtral	-		Like
Con	nmen	ts:		_				
Con	nmen	ts:						

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Wekiva River Bridges

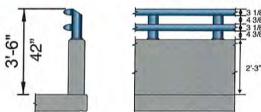
January 28, 2014

Bridge Railing Preference

Using the black pens provided, please fill in completely one black box for each item that represents your preference. If no box is filled then a 5 will be recorded as Neutral. NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

1. Option A - Partially Open





1 Dislike	2	3	4	5		-	-		
Dislike	,			3	6	7	8	9	10
				Neu	itral	0.00		1	Like
Comn	nent	s:							
_	_								

SEGMENT 6 KEEPING WEKIVA



_ T		1 7 3/4"
3-6	45	18 3/4
1		# 5 ·

1	2	3	4	5	6	7	8	9	10
Disli	ke		- 100		utral				Like
Con	nmen	te.							
	milen			+					