



**THE LOUISVILLE-SOUTHERN INDIANA OHIO RIVER BRIDGES PROJECT
SECTION 2, DOWNTOWN BRIDGE**

**KENNEDY INTERCHANGE AND DOWNTOWN INDIANA
AREA ADVISORY TEAM/GENERAL PUBLIC DESIGN WORKSHOP
THE FRAZIER INTERNATIONAL HISTORY MUSEUM
829 WEST MAIN STREET, LOUISVILLE, KY
AUGUST 14, 2007
6:00 - 8:00 PM**

SUBJECT: Three Tower Cable-Stayed Downtown Bridge Workshop – Round One

MEETING ATTENDEES

(AAT Members)

Barry Alberts – Downtown Development Corporation
Emily Boone – Clifton Community Council
Linda Cordy – Clarksville Community Schools
Peggy Duffy – City of Jeffersonville
David Karem – Louisville Waterfront Development
Steven Kersey – Phoenix Hill Neighborhood Association
Doug Magee – Metro Housing Coalition
Mohammad Nouri – Louisville Metro Government
Joe Rafferty – Rose Hill Neighborhood Association
Evelyn Umbach – Clarksville Parks Department
Mary Vanderpool – Southern Indiana Realtors Association

(Other Organizations)

Saaed Assef – Metropolitan Sewer District
Laurence Gettleman – University of Louisville
Jackie Green – Bike Couriers Association
Ted Pullen – Metro Public Works

Ohio River Bridges Project Team Members

Paul Boone – Indiana Department of Transportation, Bi-State Management Team
Gary Elder – Section 5 Design Team/New West Agency
Kristen Leggett – Community Transportation Solutions-General Engineering Consultant
Carl Percy – Indiana Ombudsman
Sam Raies – CTS-GEC
John Sacksteder – CTS-GEC
Jadie Tomlinson – Kentucky Transportation Cabinet, Bi-State Management Team

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Section 2 Design Team

Rick Fitch – Burgess & Niple
Robert Bondi – Michael Baker Jr., Inc.
Stephanie Brooks – Michael Baker Jr., Inc.
Patrick Osborne – Michael Baker Jr., Inc.
Skip Smallridge – Crosby Schlessinger Smallridge
Aaron Stover – Michael Baker Jr., Inc.
J.B. Williams – Michael Baker Jr., Inc.
Joe Cosby – Niche Marketing
Charles Davis – Niche Marketing
Michelle Henderson – Niche Marketing
Keiron Bailey – Preference Polling Team
Ted Grossardt – Preference Polling Team
John Ripy – Preference Polling Team

MEETING SUMMARY

At 6:00 PM, the meeting was called to order. J.B. Williams, project manager for the consultant team for the Downtown Bridge, welcomed the Area Advisory Teams and introduced members of the Section 2 Design Team as well as representatives from Community Transportation Solutions and the Bi-State Management Team. The assembled members of the Design Team then presented the following information, shown below as abridged.

Meeting Agenda:

- Welcome/Introductions
- About the New Bridge
- Workshop Design Issues
 - Viewshed Changes
 - Tower Shapes
 - Bridge Design Continuity
 - Indiana Approaches

About the New Bridge

Downtown Parameters

- Prescribed Alignment
- Immediately next to and east of existing Kennedy Bridge
- Slight skew with Kennedy Bridge
- Navigational Configuration required by United States Coast Guard
 - Primary and Secondary channels
 - 750' from Kentucky shore to fixed pier
- Bridge cross-section includes pedestrian walkway/bikeway

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Selected Bridge: Three Tower Cable-Stayed



- Three towers with vertical legs
- Span arrangement symmetric about the center tower
- Harped cable arrangement
- Per public feedback:
 - Open; nothing overhead
 - “Low profile”
 - “Visually interesting”



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Comparative Vertical Scale



- Low towers, yet strong presence
- Mediating scale – not too overpowering
- Reflects rhythm of existing bridges
- Towers complement Kennedy Bridge
- Triangular geometry of cables reflects truss angles of existing bridges

Bridge Type Selection Sensitive to:

- Aesthetic values
- Cultural landscapes
- Historic context

Bridge Type Selection Utilizing:

- Historic Preservation professional

Bridge Type Final Design Shall:

- Include aesthetic treatments
- Complement historic contexts
- Minimize dispersion of light
- Minimize adverse noise effects

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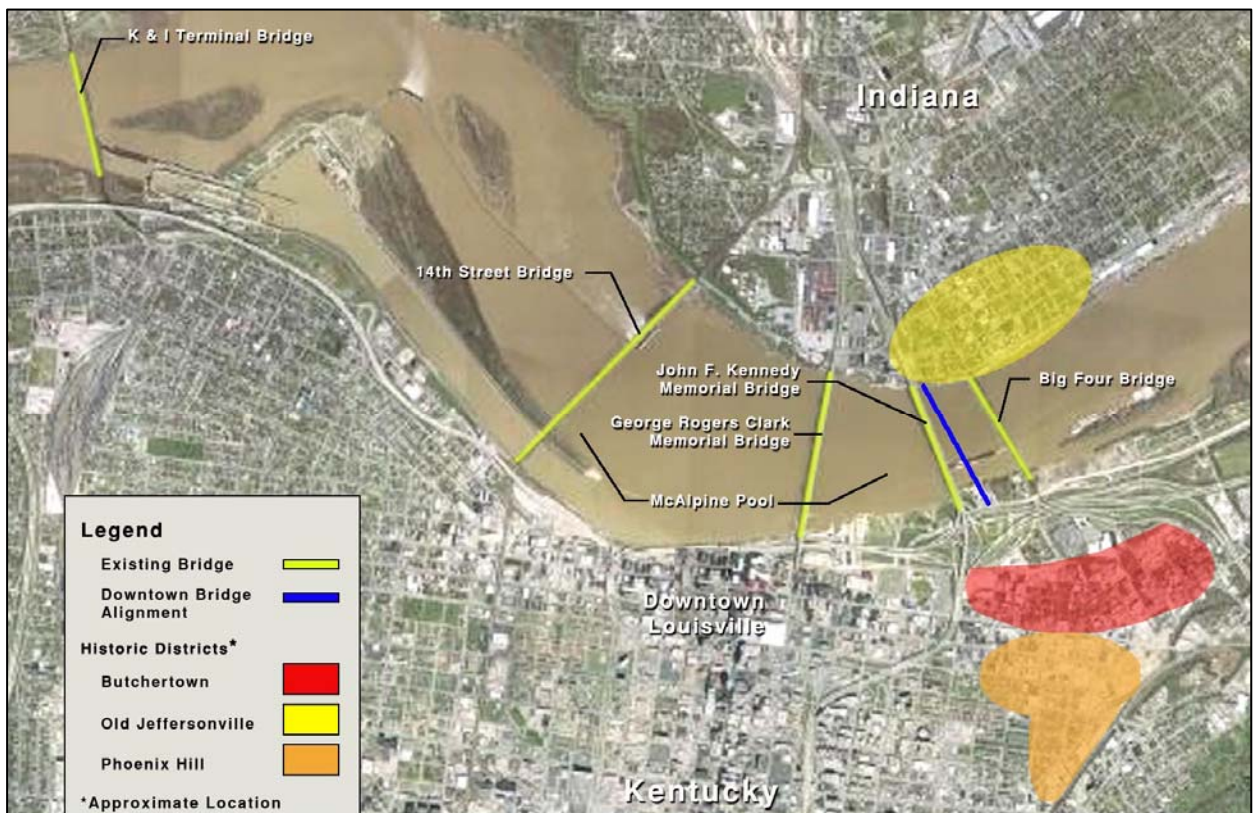
Round One Workshop Design Issues

- Viewshed changes
- Tower shape
- Bridge design continuity
- Indiana approaches

Future Workshop input on design details such as

- Pier and tower details
- Colors and texture
- Railings and barriers
- Lighting
- Aesthetic treatment

Historic Resources



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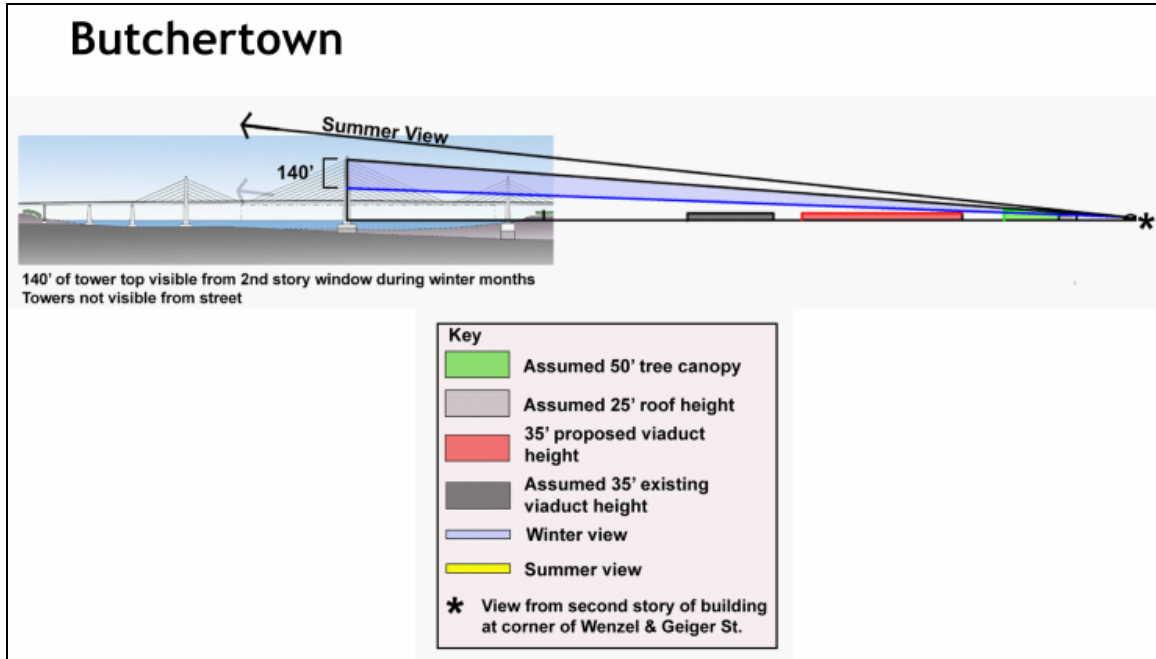
Bridge Views



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Viewshed



Viewshed Changes



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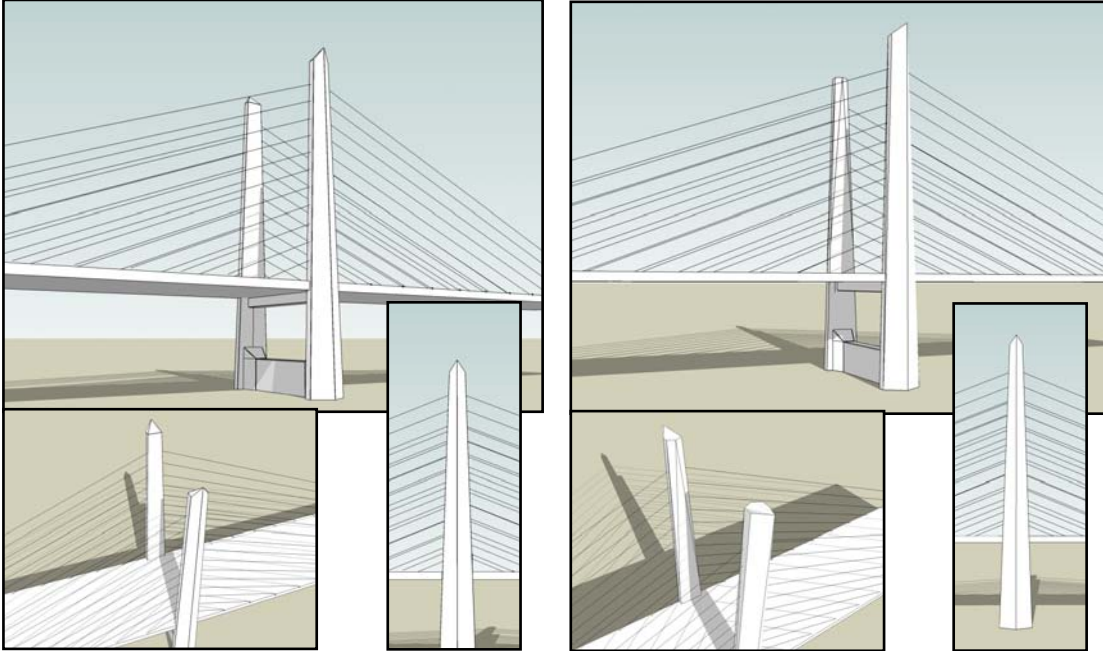
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Tower Shapes

Attendees were polled on the preferences for the following three sample tower shape possibilities:

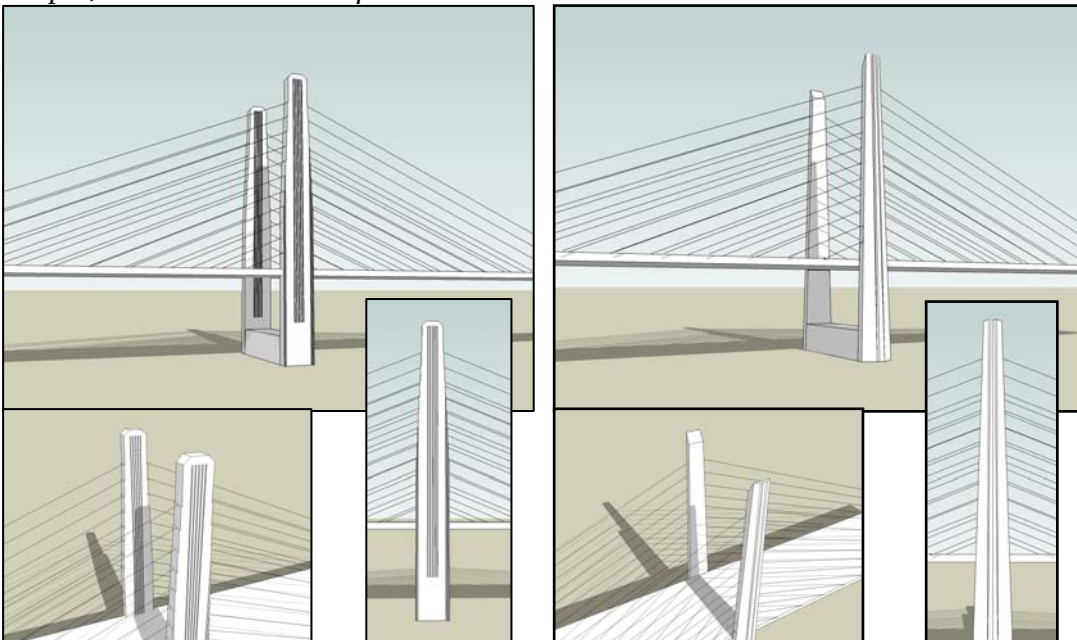
Possible Tower Forms – Sample A

Simple; no architectural features



Possible Tower Forms – Sample B

Simple; some architectural features

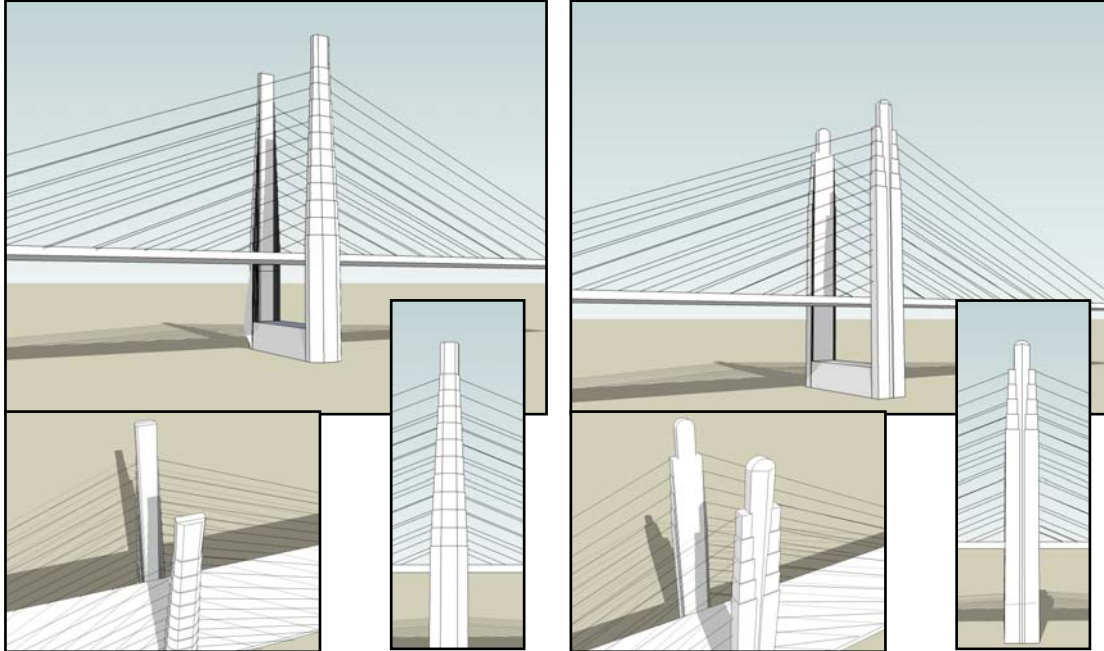


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Possible Tower Forms – Sample C

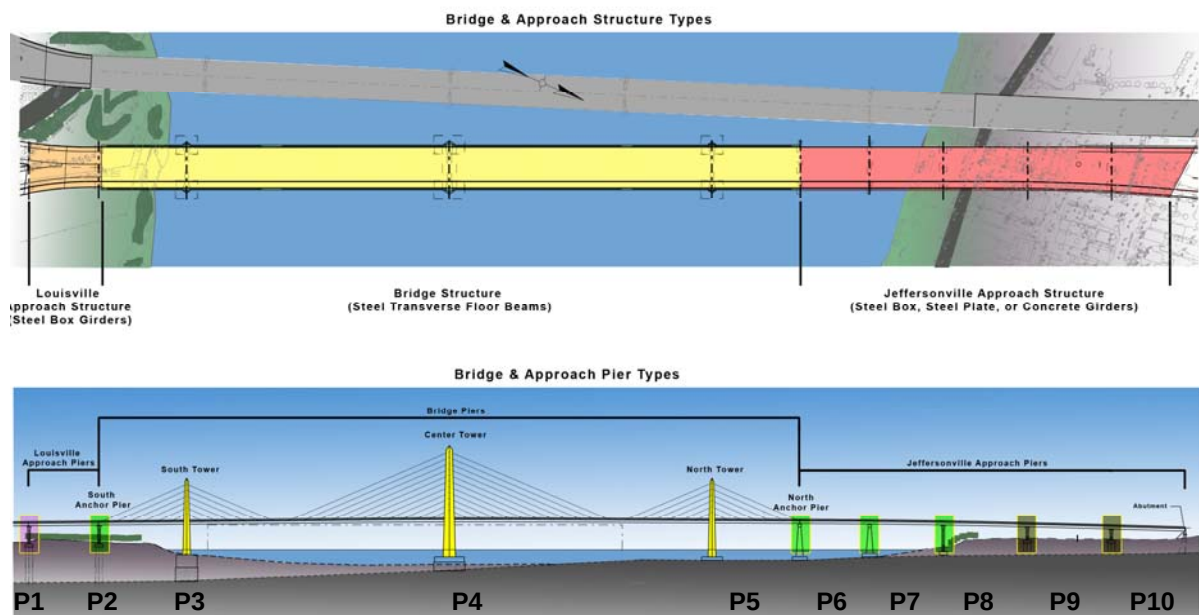
Complex – detailed architectural features



Bridge Design Continuity – Pier Shapes

Attendees were then polled to determine preferences for:

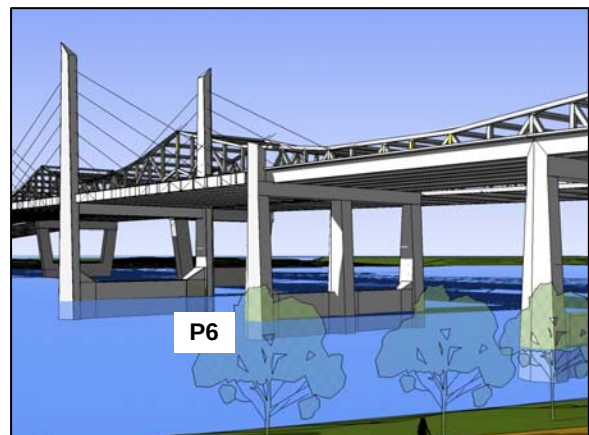
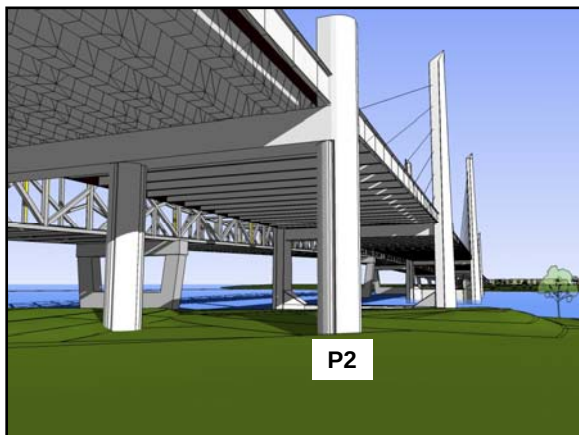
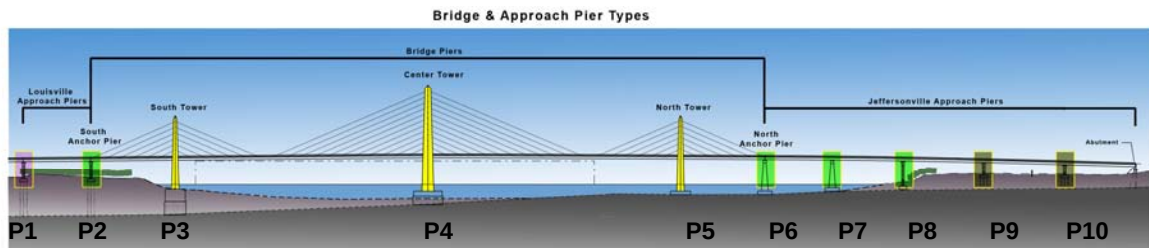
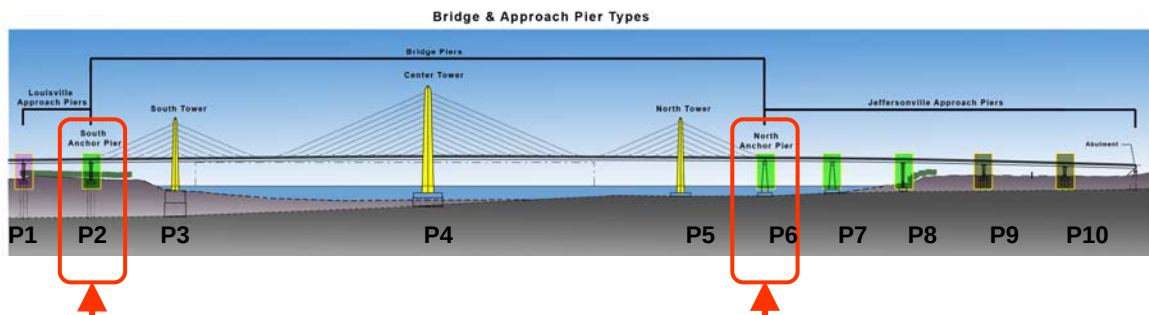
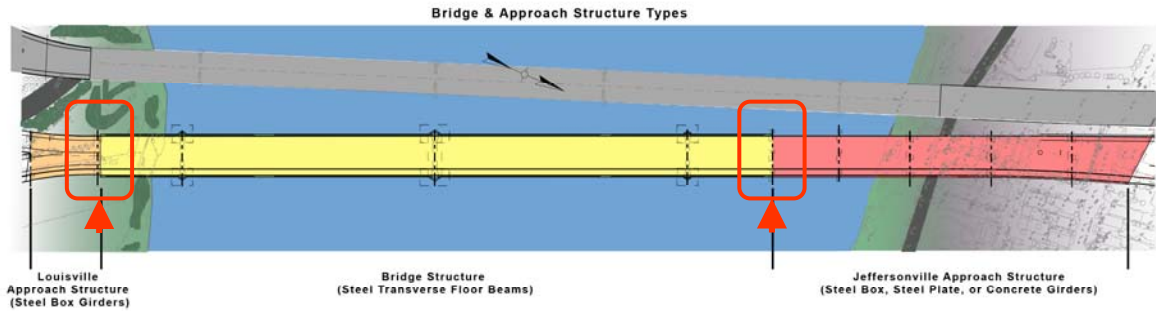
- Whether or not Piers 2 and 6 should match the shape chosen for the tower
- Whether or not Piers 7 through 10 should match the shape chosen for the tower



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Pier 2 and 6 Continuity

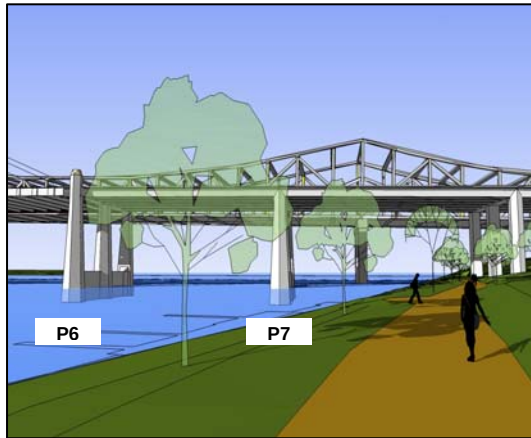
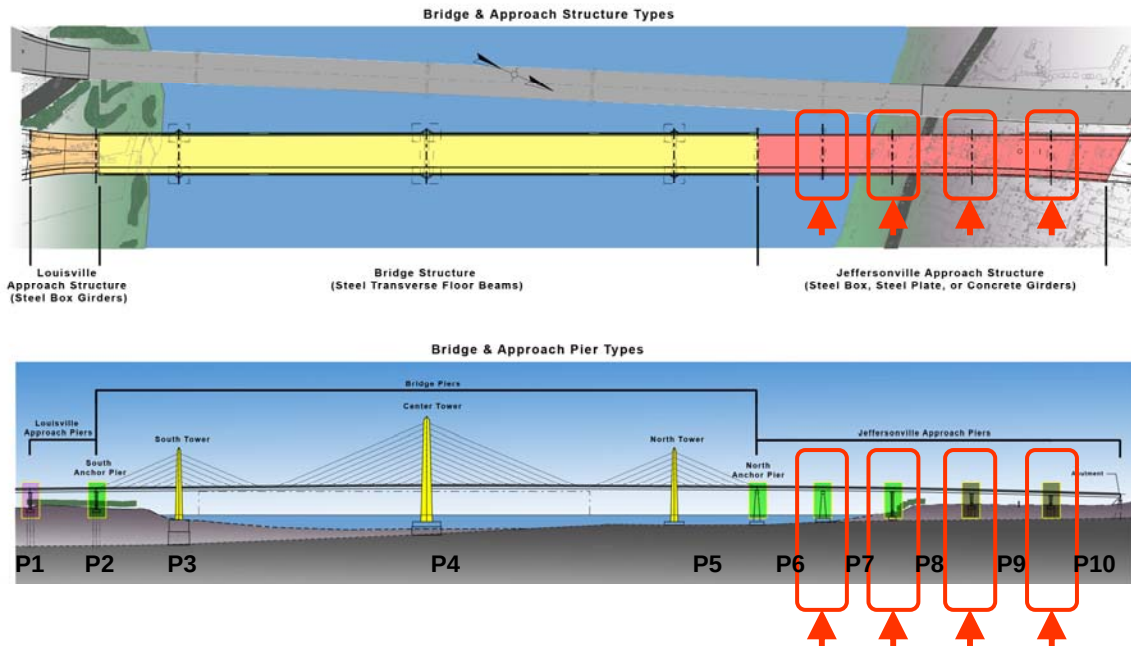


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Piers 7 to 10 Continuity

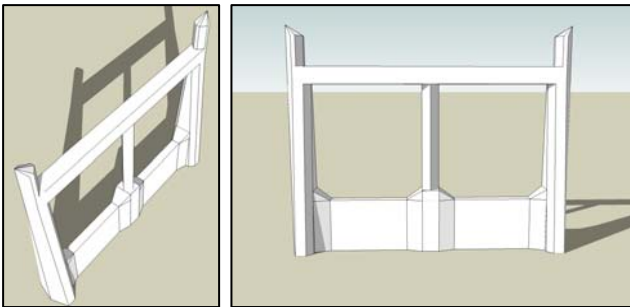
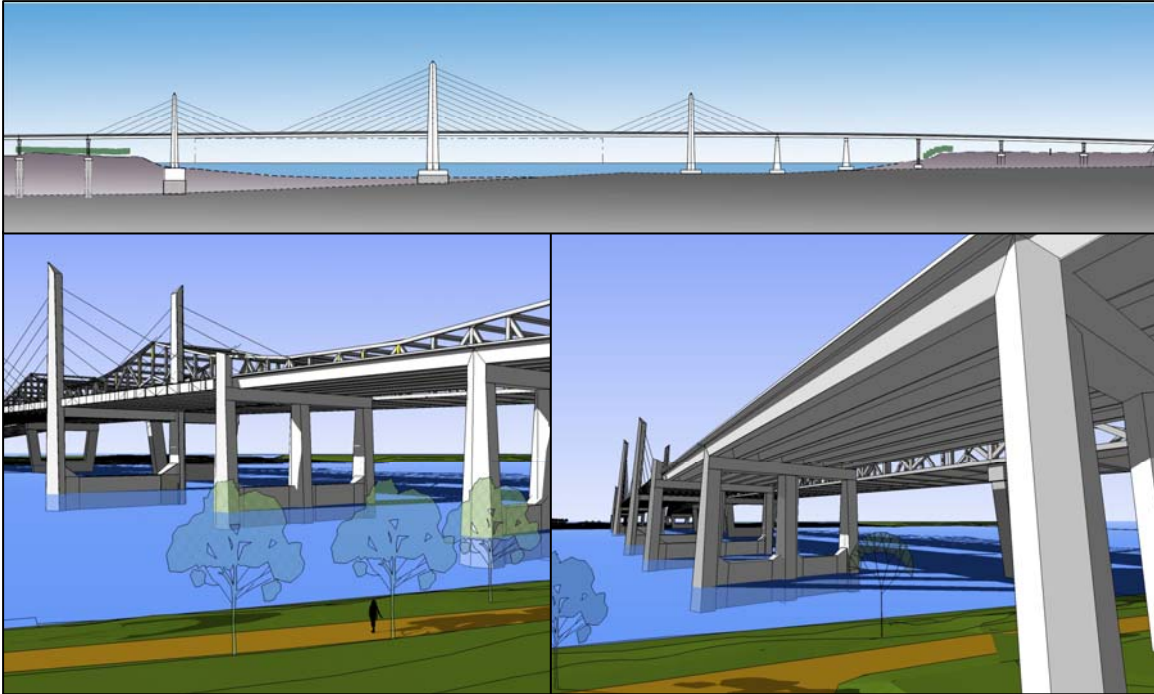


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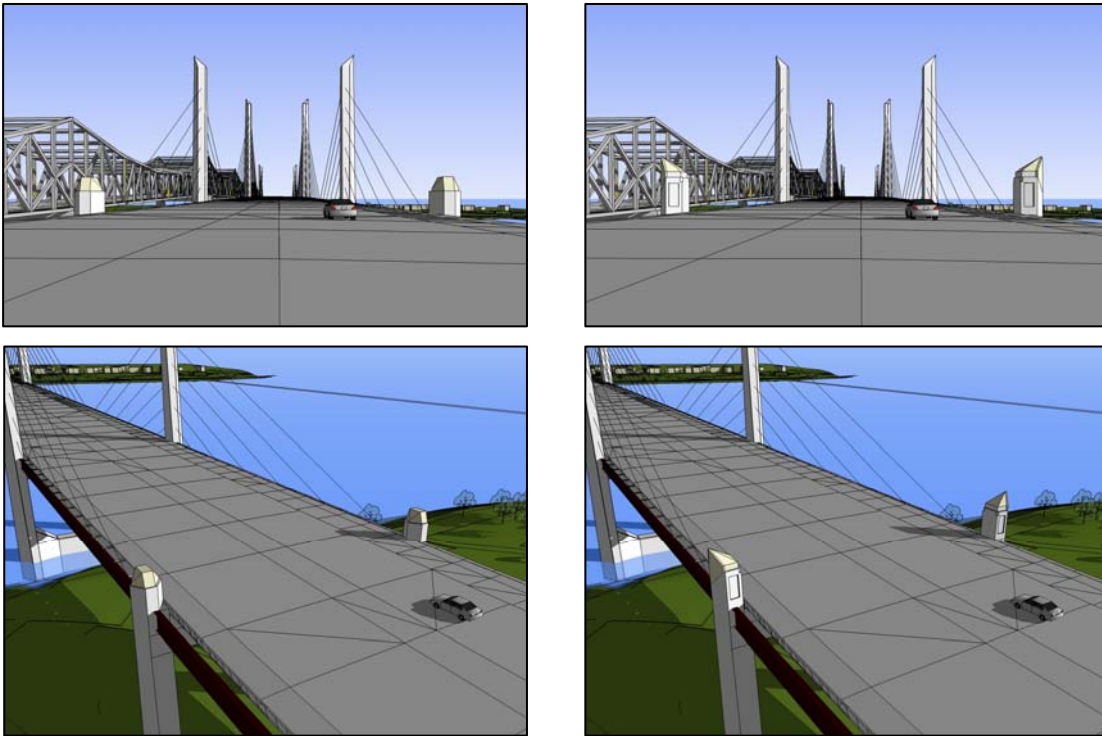
Extend Piers Above Deck

Attendees were polled on the preferences for whether or not designs should incorporate piers extending above the bridge deck.



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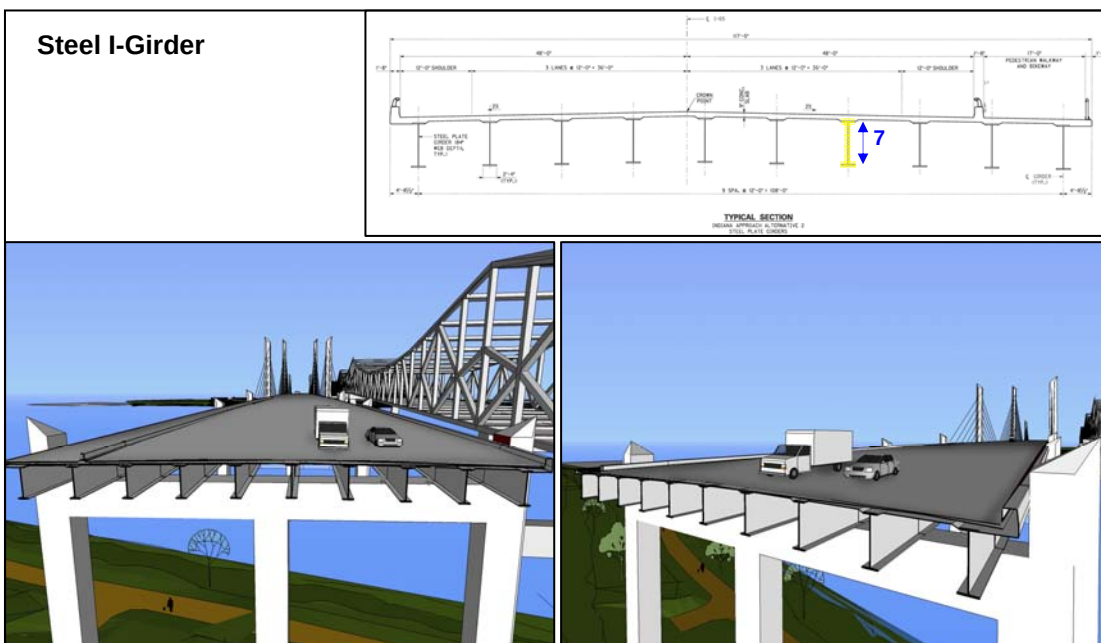
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Indiana Approaches

Attendees were then polled on preferences of three Basic Indiana Approach Structures:

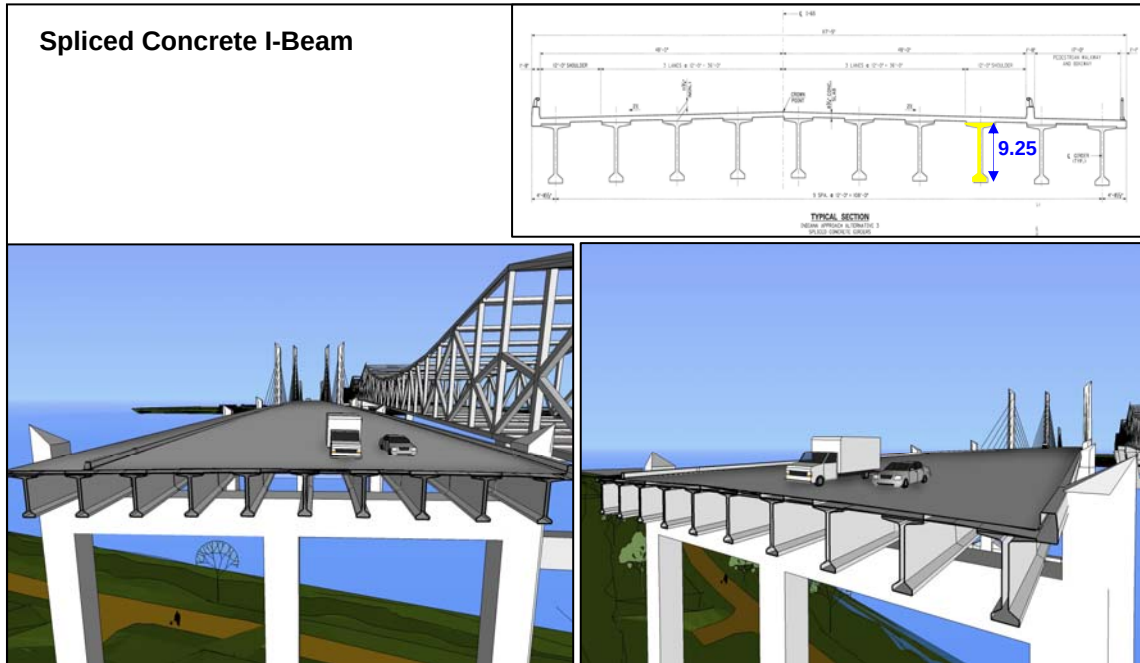
Steel I-Girder – 8 ft deep (7' web actual)



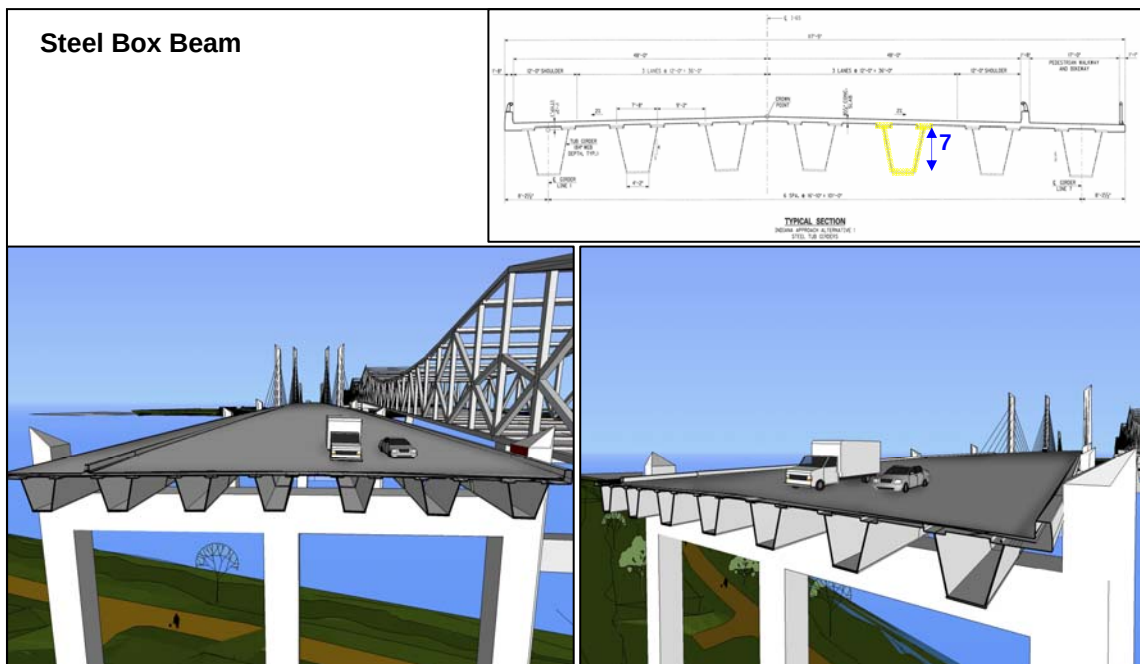
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Spliced Concrete I-Beam – 12 ft deep (9'-3" actual)



Steel Box Beam – 8 ft deep (7' web actual)



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What's Next?

Workshop #2

✓ December 2007

Workshop #3

✓ March 2008

Future input on design details, such as:

- Pier and tower details
- Colors and texture
- Railings and barriers
- Lighting
- Aesthetic treatment

AAT/General Public Comments:

Tower Forms - General

- Need to be sure that towers are wind resistant and stable
(Engineers responded that all towers will undergo same bridge wind study)
- As maintenance-free as possible
- Ensure that towers are safe from New Madrid Fault, only 200 miles away
(Engineers replied that all towers will be designed to take earthquake loads)
- Like the Art Deco presence, but it is dramatically different from the piers and pier caps from the Section 1 approach.
- Should have done the designs in reverse – bridge first then Spaghetti Junction
- Are costs of different towers more or less than the cost of a bicycle/pedestrian walkway? *(Designers responded that costs differences are negligible)*
- The simpler the better

Tower Forms – Tower A Samples

- Like the simplicity, durability, minimalist qualities; need to reinforce these
- Color is concern; want to be sure to discuss this in the next Round of workshops

Tower Forms – Tower B Samples

- The fluted look is nice
- Decorative applied fenestration to the piers is a positive

Tower Forms – Tower C Samples

- No comments; not appealing to anyone

Bridge Design Continuity

Should Piers 2 and 6 reflect the tower design?

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- If similar, it keeps the attention on the river and less on the piers; a good quality
- River should remain the main focus
- Piers should minimize maintenance

Should Piers 7 through 10 reflect the tower design?

- Need to be sure that these piers somehow reflect the Kennedy Bridge piers
- Would like to keep the same look throughout
- Minimal maintenance

Piers Above Bridge Deck

- Will be affected by signage; designers need to consider this
- Want to be sure that the piers do not block river views
- Why waste money on them if they are not technically required? Form should follow function

Indiana Approaches

- May be a good idea to continue the Section 1 steel box girder to ensure consistency
- Would like as little maintenance as possible
- Maintenance such as painting would be offset by reducing the bird problem
- Steel box beam is most preferable since it does not allow room for bird roosting
- Steel box is a cleaner, simpler design

Other Comments

- Is the bicycle/pedestrian lane still on the table? *(Answer: yes, at this point)*
- Is there possibility of future light rail? *(Answer, no; not provided for in the project Record of Decision, also bridge loads cannot allow the additional weight)*

There being no other questions or comments; the meeting was adjourned.

Downtown Bridge

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Multiple Choice

1) Are you a member of the AAT?

20 Votes

1	Yes	11	55%
2	No	9	45%

Rating Scales

Mean

Item	Text	Combined	AAT	Public
Group: Bridge Issues		6.5	6.8	6.2
1	Tower Form A	7.7	8.1	7.2
2	Tower Form B	3.8	3.7	4.1
3	Tower Form C	5.2	5.9	4.3
4	Pier 2 and 6 Continuity	9.1	9.5	8.6
5	Pier 7 to 10 Continuity	7.8	8.1	7.5
6	Piers Extending Above the Deck	5.2	5.2	5.5
Group: Indiana Approaches		4.8	4.7	5.2
7	Steel I-Girder	2.1	2.1	2.1
8	Spliced Concrete I-Beam	3.6	2.8	5.2
9	Steel Box Beam	8.7	9.1	8.4

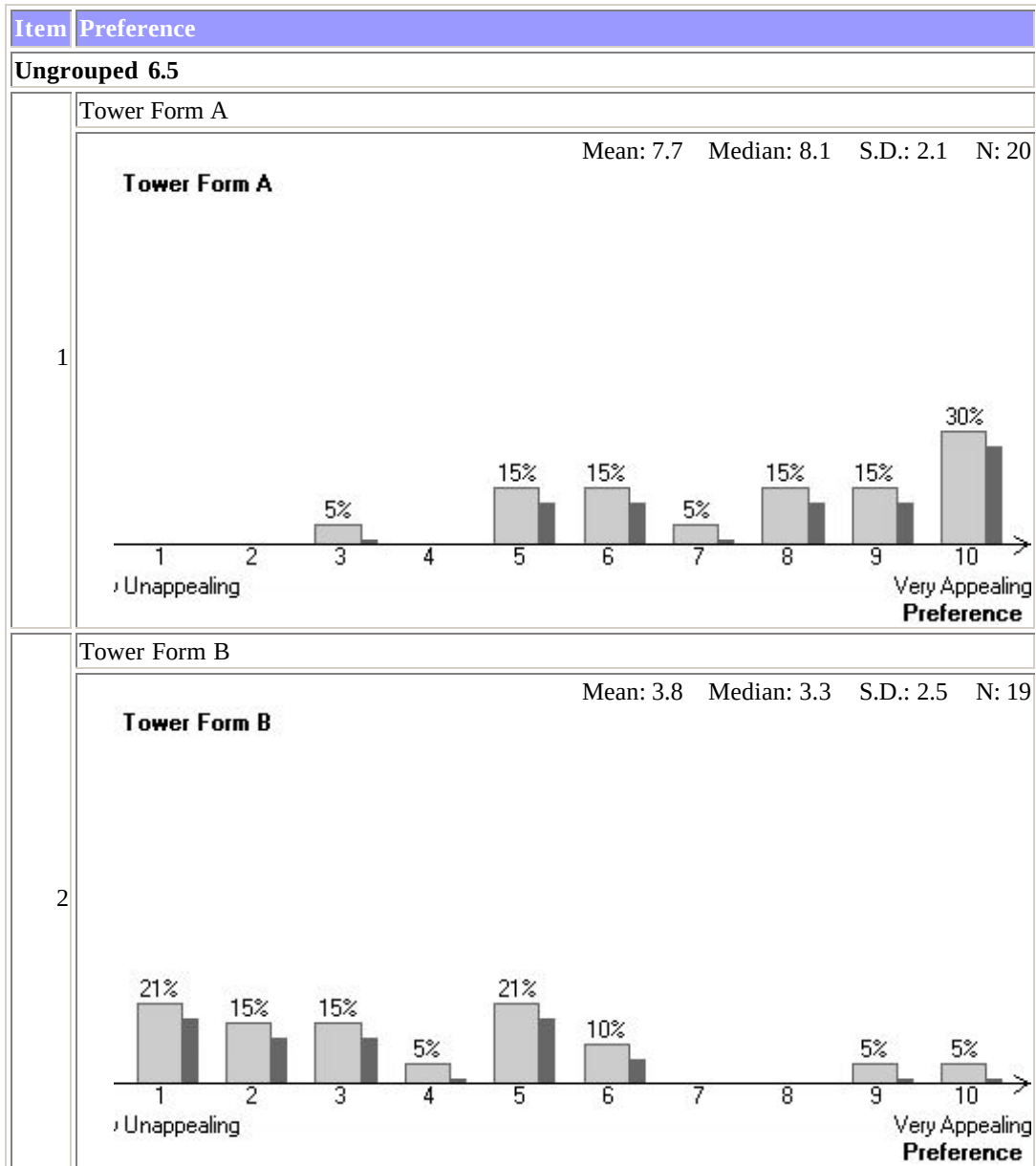
Standard Deviation

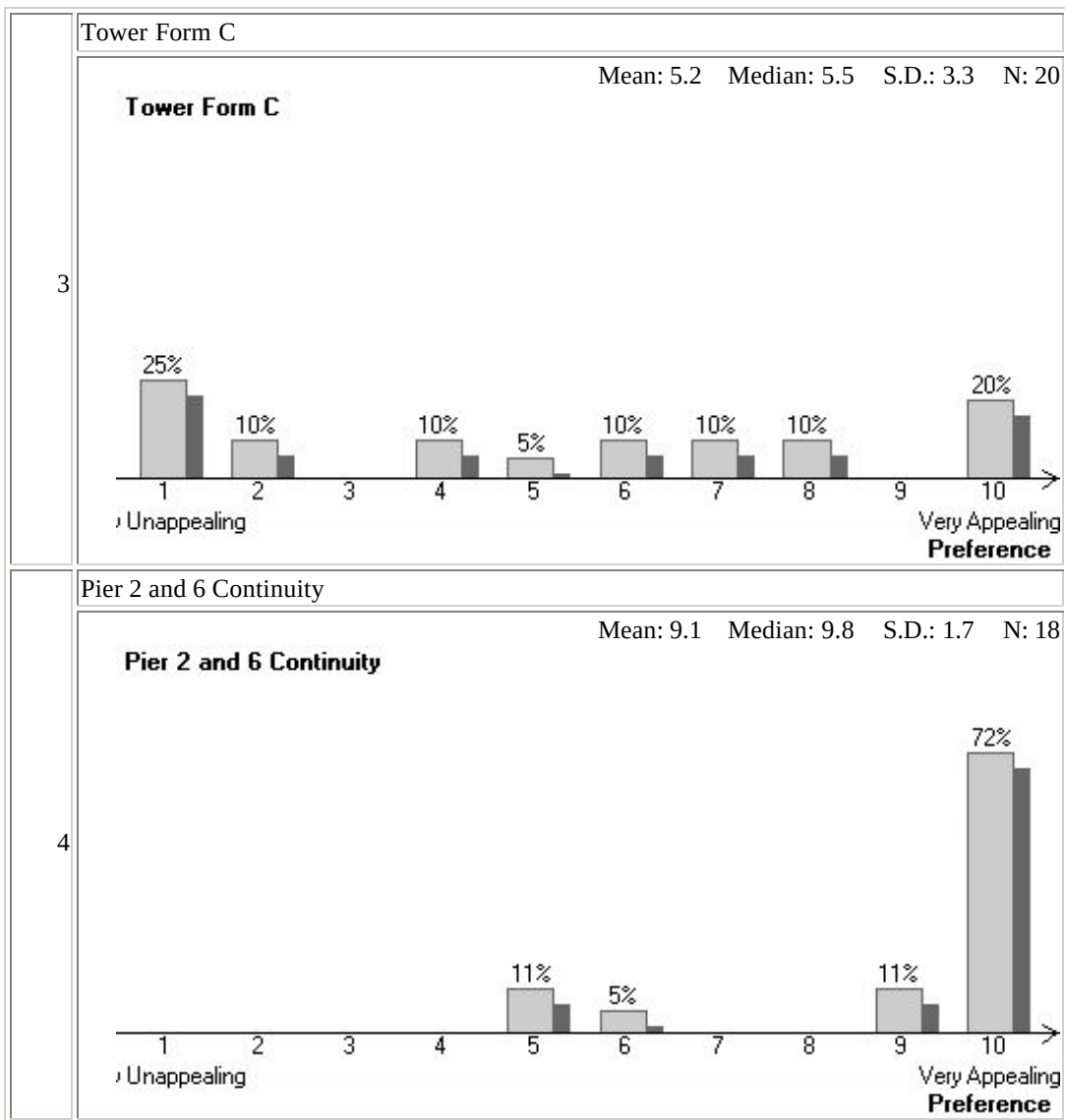
Item	Text	Combined	AAT	Public
Group: Bridge Issues		2.8	7.7	9.4
1	Tower Form A	2.1	3.7	5.1
2	Tower Form B	2.5	6.0	7.0
3	Tower Form C	3.3	8.5	13.6
4	Pier 2 and 6 Continuity	1.7	1.5	4.5
5	Pier 7 to 10 Continuity	3.1	12.7	6.3
6	Piers Extending Above the Deck	3.9	13.6	20.3
Group: Indiana Approaches		2.5	3.8	10.1
7	Steel I-Girder	2.1	3.1	6.9
8	Spliced Concrete I-Beam	3.2	4.0	17.8
9	Steel Box Beam	2.2	4.5	5.5

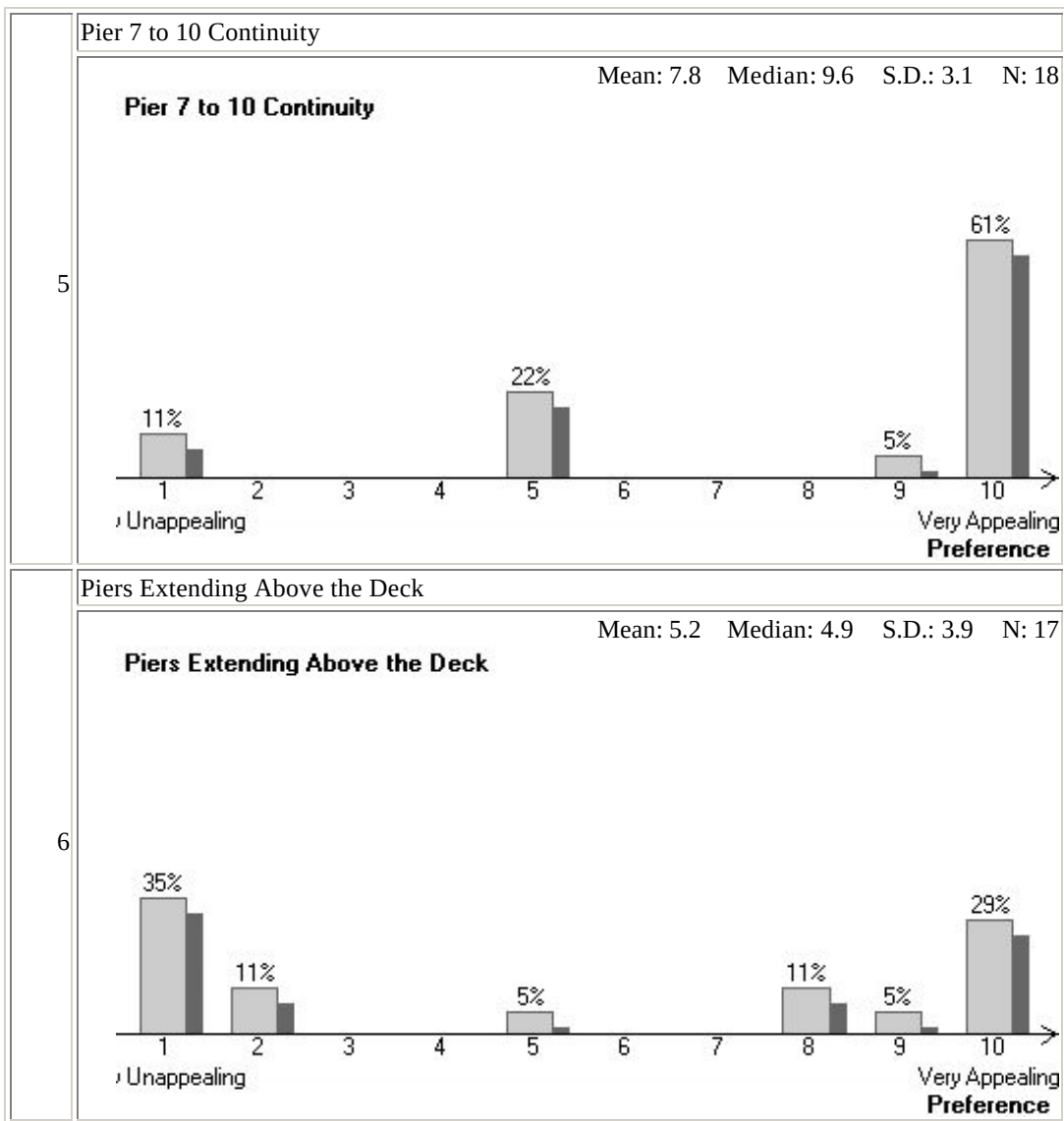
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Combined Scores







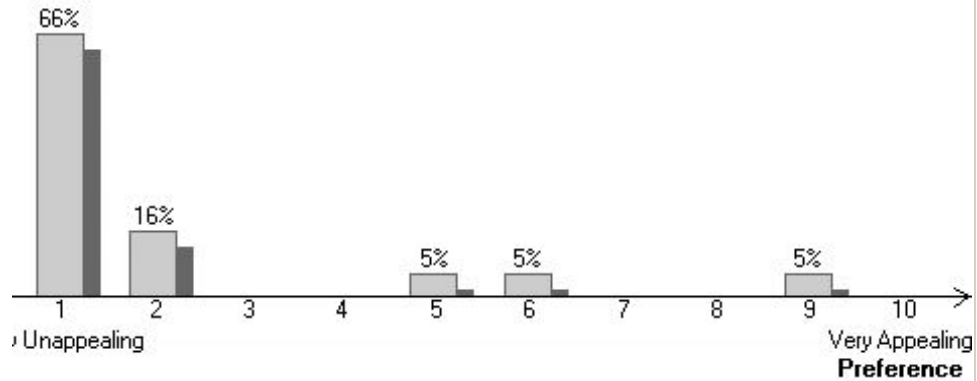
Group: Indiana Approaches 4.8

Steel I-Girder

Mean: 2.1 Median: 1 S.D.: 2.1 N: 18

Steel I-Girder

7

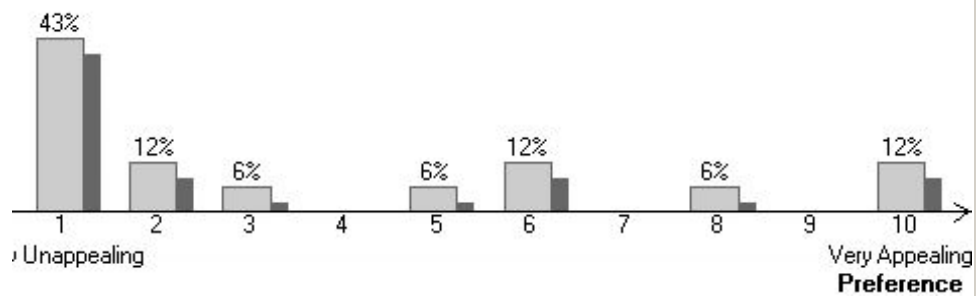


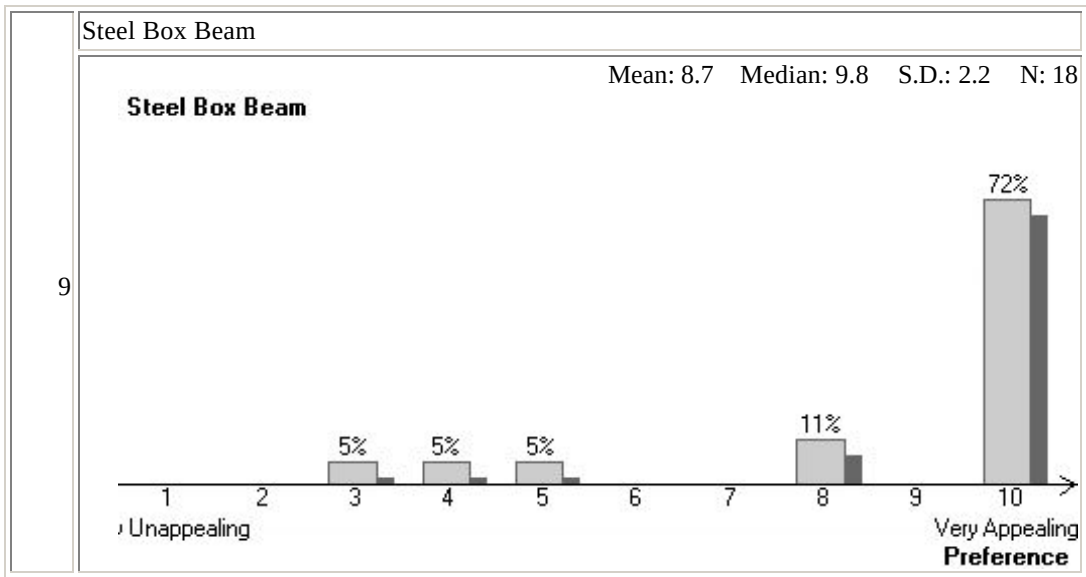
Spliced Concrete I-Beam

Mean: 3.6 Median: 2 S.D.: 3.2 N: 16

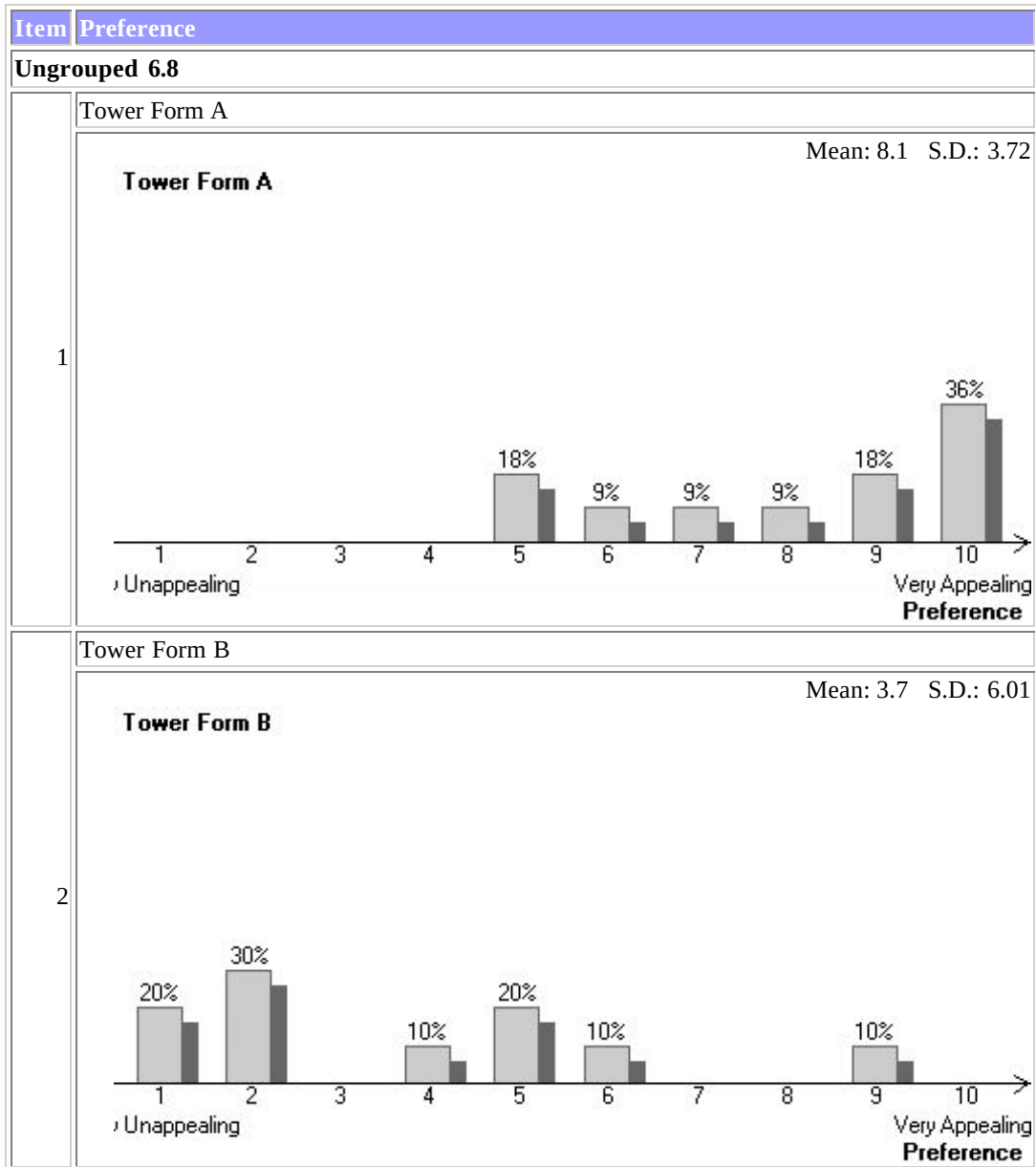
Spliced Concrete I-Beam

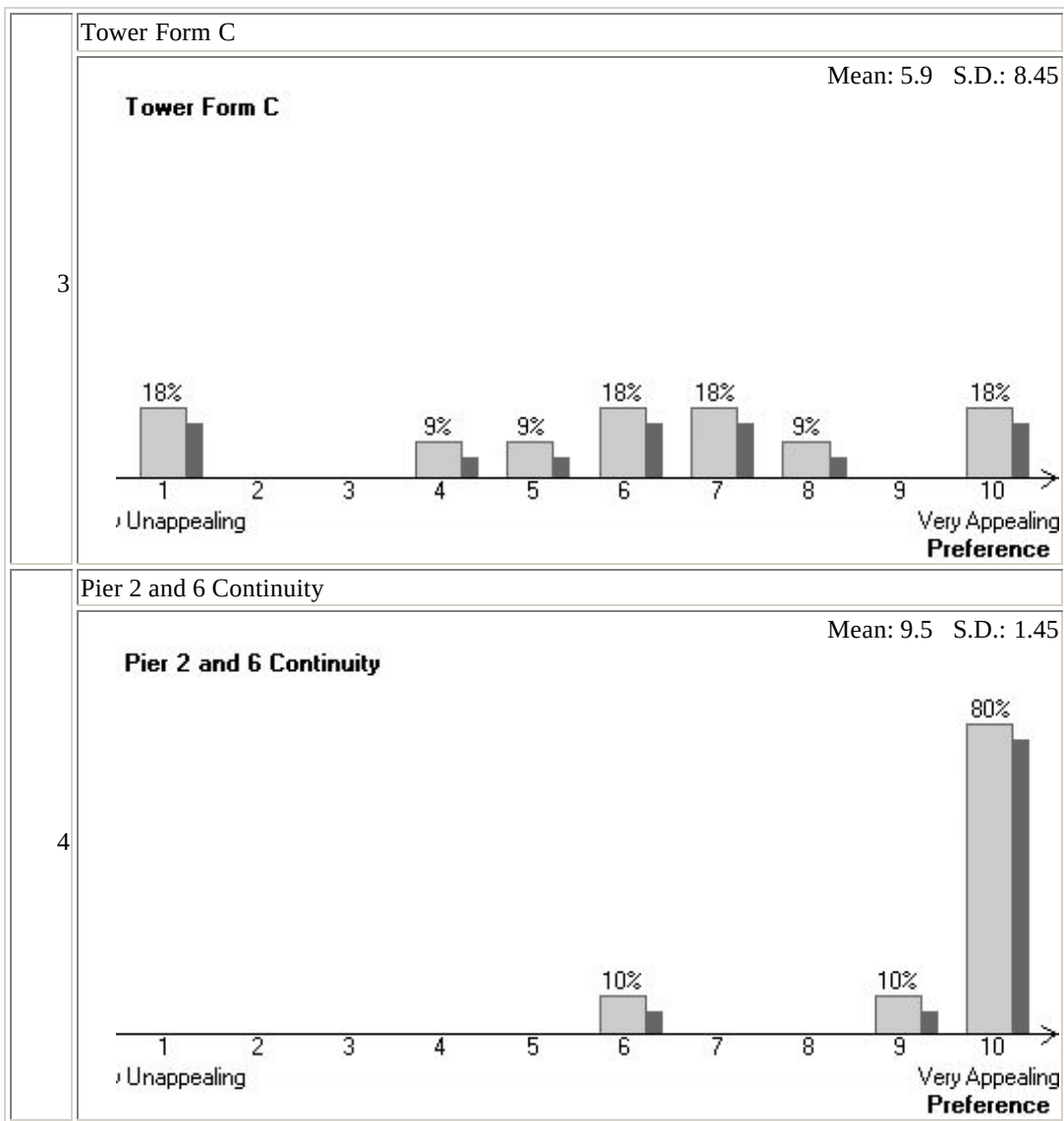
8





AAT Member Scores

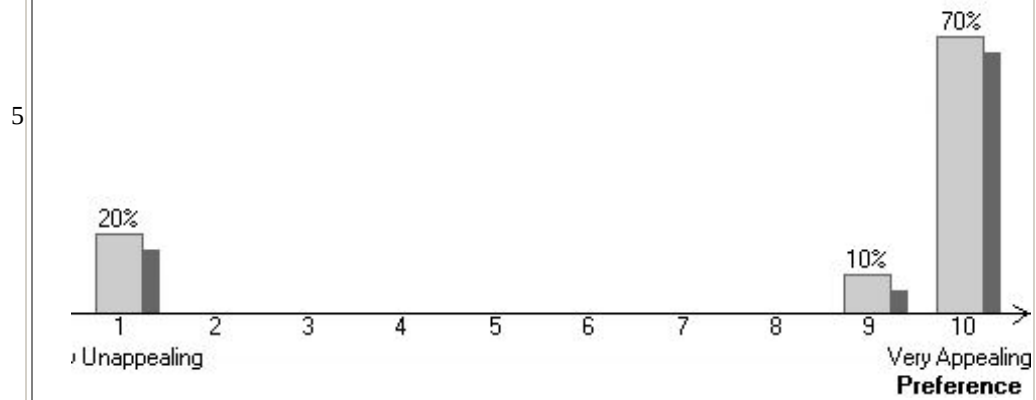




Pier 7 to 10 Continuity

Mean: 8.1 S.D.: 12.69

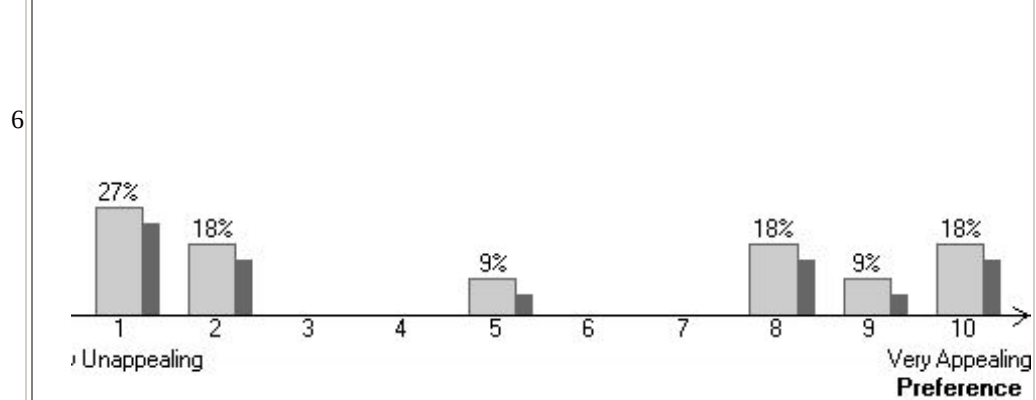
Pier 7 to 10 Continuity



Piers Extending Above the Deck

Mean: 5.2 S.D.: 13.60

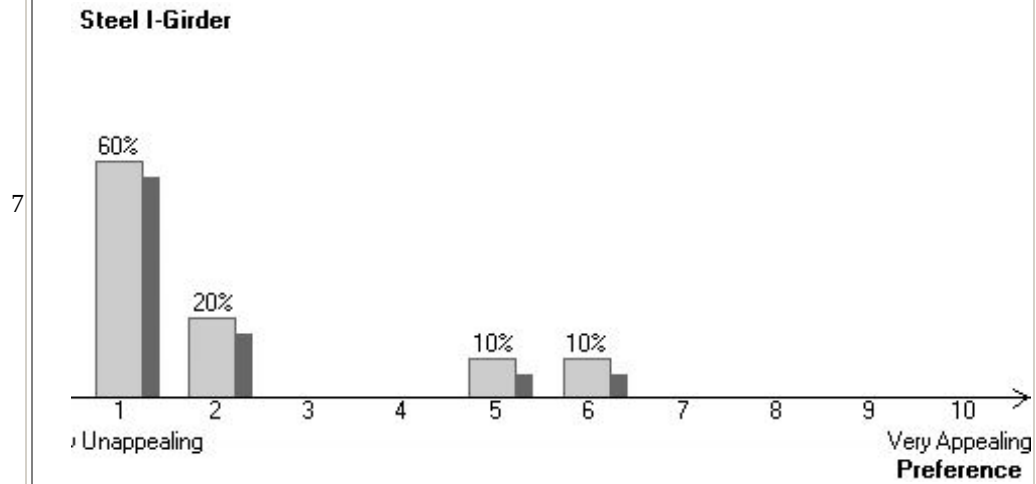
Piers Extending Above the Deck



Group: Indiana Approaches 4.7

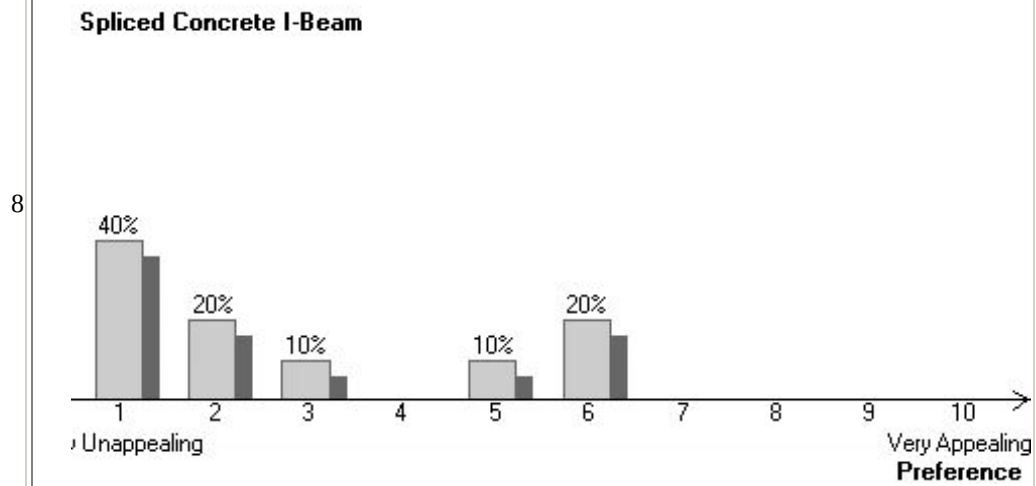
Steel I-Girder

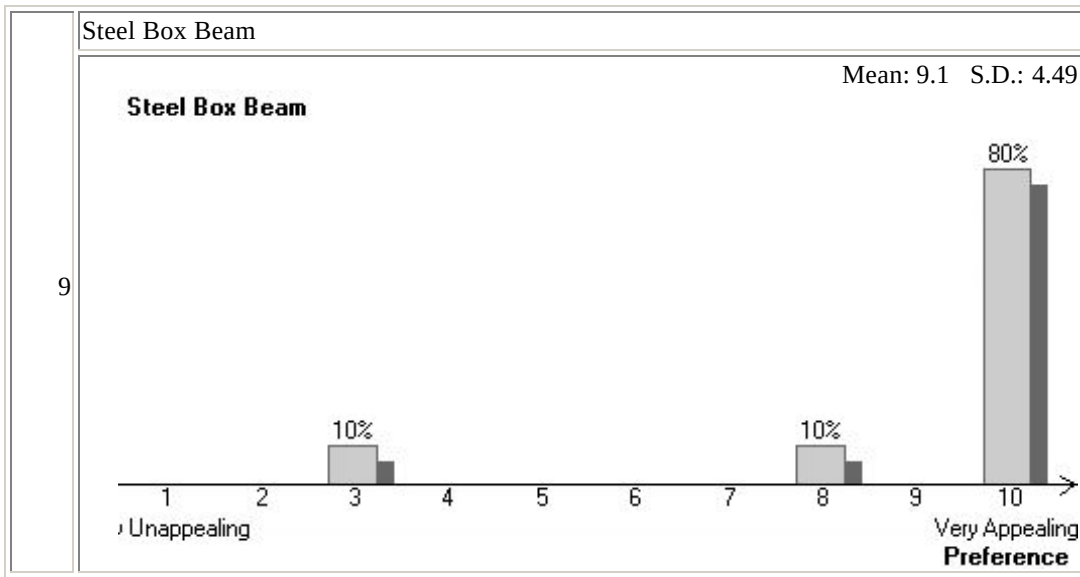
Mean: 2.1 S.D.: 3.09



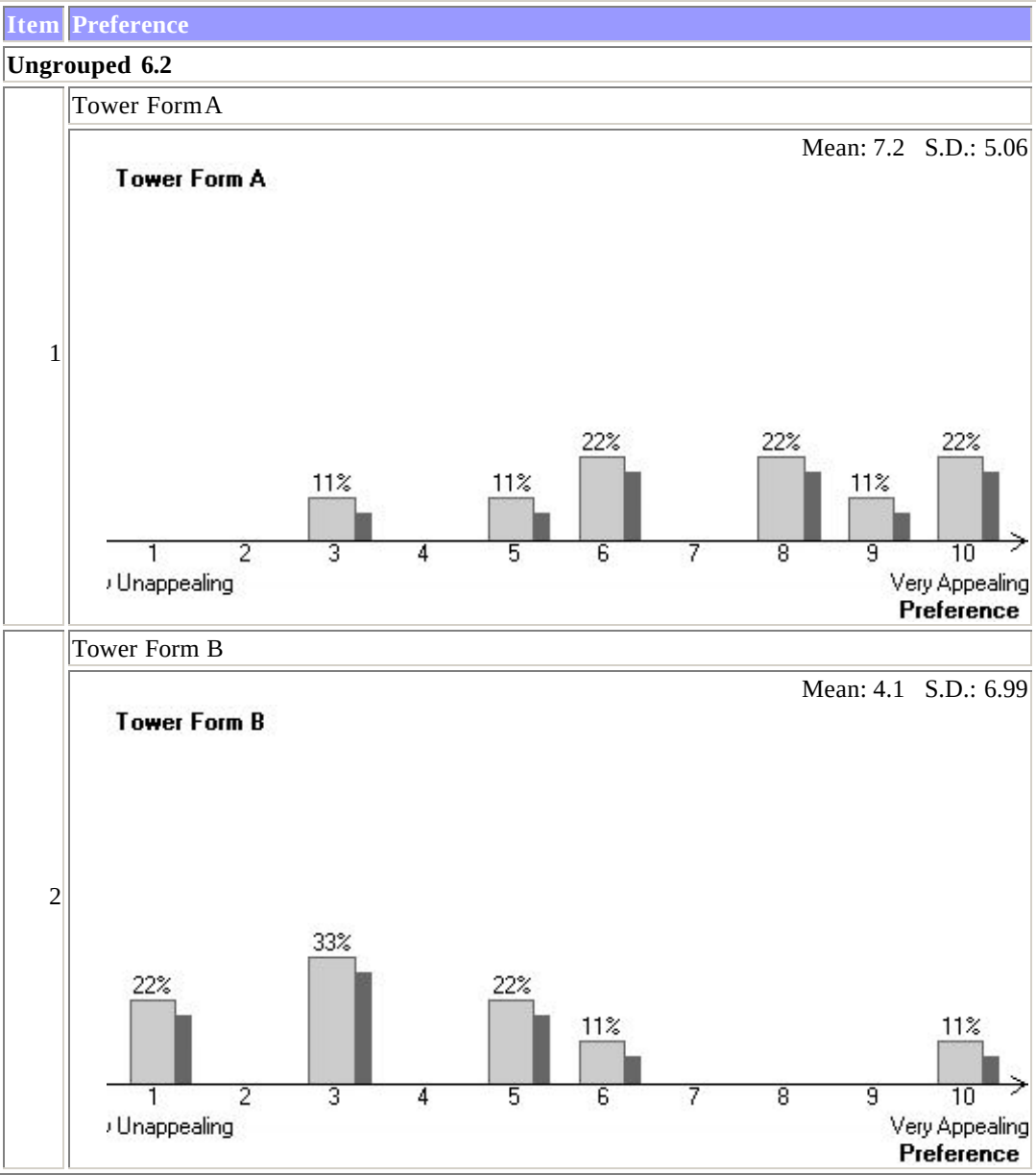
Spliced Concrete I-Beam

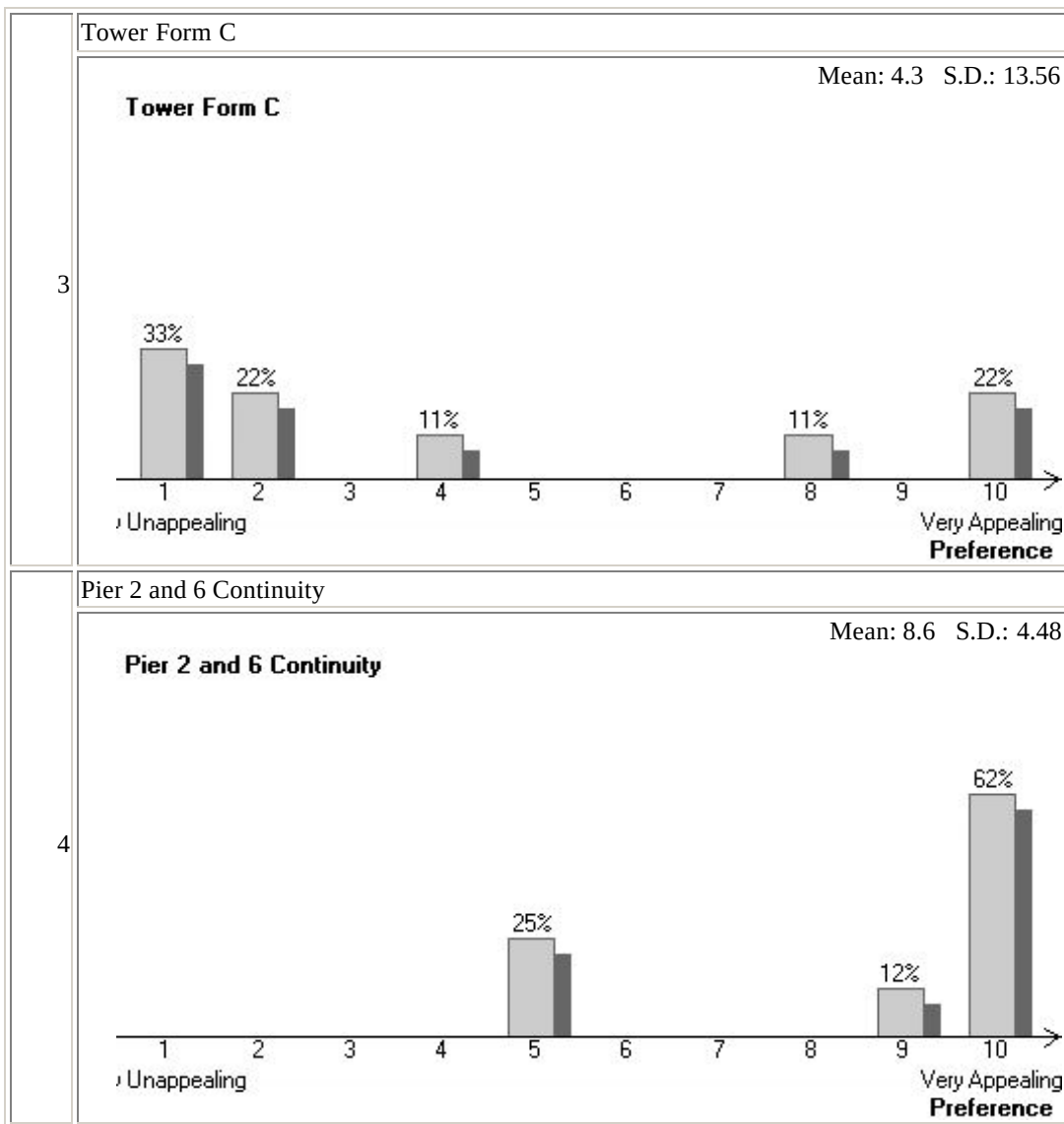
Mean: 2.8 S.D.: 3.96

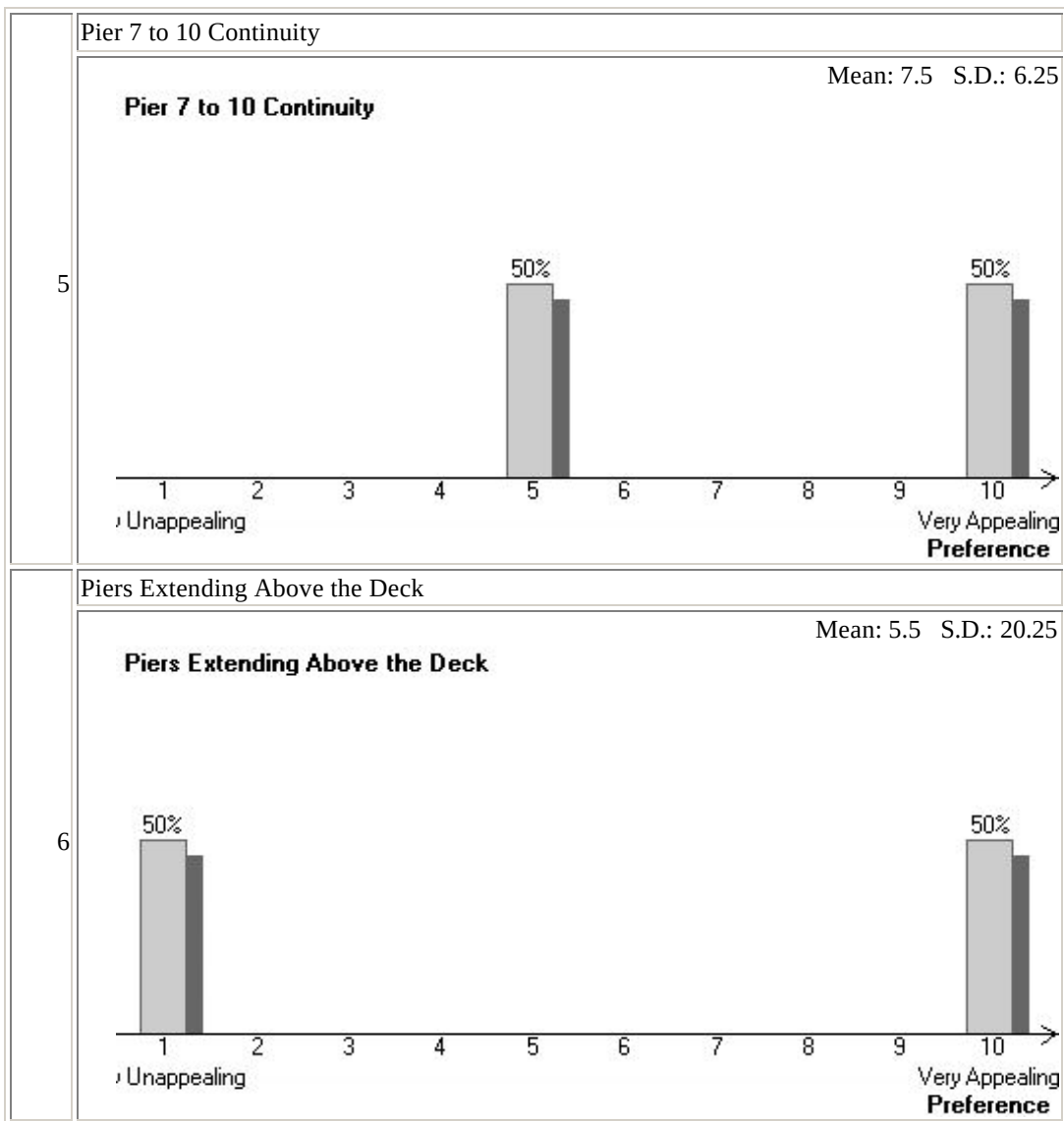




Public Scores



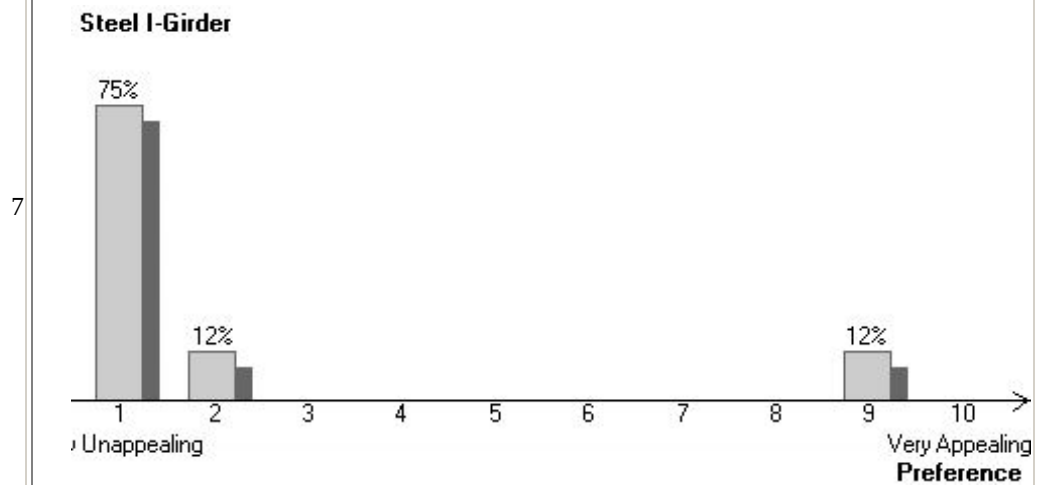




Group: Indiana Approaches 5.2

Steel I-Girder

Mean: 2.1 S.D.: 6.86



Spliced Concrete I-Beam

Mean: 5.2 S.D.: 17.81

