Schell Bridge over Connecticut River, Br. No. N-22-002
TOWN OF NORTHFIELD
PUBLIC INFORMATIONAL MEETING:
Bridge Type Selection Alternatives
Using Your Feedback

- At the last meeting you provided us with your ideas and comments on the 8 Concepts that were presented
- The comments and input was greatly informative and appreciated
- We received over 300 comments at the meeting and in subsequent emails
- We took your comments and suggestions into careful consideration in order to narrow down the number of alternatives AND to help refine the preferred concepts
Concept 2 – Prefabricated Steel Arch/Tunable System

**Comments**

<table>
<thead>
<tr>
<th>ADVANTAGES</th>
<th>DISADVANTAGES</th>
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<tr>
<td>Prefabricated system can be rapidly installed.</td>
<td>May require slightly moving piers into waterway (for conc. deck.)</td>
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<tr>
<td>Possible to provide concrete bridge deck with modification.</td>
<td>Custom/specialized design required for concrete deck option.</td>
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<tr>
<td>Existing Abutments can be reused.</td>
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<tr>
<td>Similar scale in size of structure compared to existing bridge.</td>
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**CONCERNS WITH ARCH + TRIANGLE STRUCTURE:**
MORE ATTRACTIVE WITH ONLY THE ARCH

**Arch:**
- Would want option of concrete deck
- Very much gone with

**Bridge:**
- Similar to shape of original
- Like using as much of original as possible.

Echoes the image of the seabirds
- Loiter, historic, beautiful, elegant
- Raise approach rail to height of middle span for safety — no fence

My first choice. Character of existing structure with loss of middle piers, almost 1/3 of roadway and roadbeds to go.

Foster H. 

This is my first choice.
Lovely!

[Signature]
YOUR COMMENTS
‘THE GOOD, THE BAD, THE UGLY’

Concept 7 – Prefabricated Steel Truss (4 Span) with Concrete Deck

Comments

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<th>ADVANTAGES:</th>
<th>DISADVANTAGES:</th>
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<tr>
<td>Prefabricated system can be rapidly installed.</td>
<td>Additional pier results in increased cost.</td>
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<tr>
<td>Existing Abutments can be reused.</td>
<td>Waterway impacts — navigability and permitting.</td>
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<tr>
<td>4 span option does not require specialized design and allows use of concrete deck.</td>
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I prefer the calculations that have a curved aren instead of the straight lines of this. I also don’t like the #3 pier.

Not interested in overhead bracing. Can’t tell by photos how the “looking up” view is from the bridge.

Looks too flat, linear like a railroad bridge. Loses the grace of original, also don’t like 3rd support.

Don’t like this one. Looks like a bridge.

Forget this one. Looks like R2 bridge.
Summary of Comments

- Generally most people preferred the piers staying in the same location and maintaining/reusing the existing abutments.
- Many people liked the concepts that more closely resemble the size and scale of the original Schell bridge.
- Would like to see the arch/truss extending below the deck at the pier.
- Most people preferred concepts that fit the character of the location (arch / truss shapes).
DISMISSED CONCEPTS

CONCEPT 4

CONCEPT 5

CONCEPT 7

CONCEPT 8
CONCEPT 1:
PREFABRICATED STEEL TRUSS

Typical Positive Comments:
- Most similar to existing Schell Bridge
- Ease of construction
- Like the reuse of Existing Abutments

Typical Negative Comments:
- Appears too flat
- Would like to see more of an arch
- Very modern looking
CONCEPT 2:
PREFABRICATED STEEL ARCH/ TUNABLE SYSTEM

Typical Positive Comments:
- Liked the height and curve of the arch
- Flows nicely and is graceful

Typical Negative Comments:
- Prefer not to have squared portions at the ends of arch
- Would like to see the arch pass below the deck at the piers
CONCEPT 3:
STEEL TIED/NETWORK ARCH

Typical Positive Comments:
→ Visually appealing
→ Like the arch extending below the deck
→ Like the reuse of the existing abutments

Typical Negative Comments:
→ Some disliked the angled cables, would like Concept 6 incorporated with this design
CONCEPT 6:
MODIFIED STEEL TIED ARCH

Typical Positive Comments:
- Visually appealing
- Contemporary version of the Existing Schell Bridge
- Top 3 choice

Typical Negative Comments:
- Looks too simple
- Needs more angles
- Too modern looking
As a result of the public’s input, WSP has narrowed down the 8 Concepts into 3 Alternatives: Alternative 1 based on Concept 1, Alternative 2 based on Concept 2 and Alternative 3 is a Hybrid Alternative based on Concepts 3 and 6.
ALTERNATIVE 1:
PREFABRICATED STEEL TRUSS

NORTH ELEVATION

Increased the truss depth

Increased the truss curvature
ALTERNATIVE 1:
PREFABRICATED STEEL TRUSS

SIDE VIEW OF BRIDGE
ALTERNATIVE 1:
PREFABRICATED STEEL TRUSS

TRAVELING ON BRIDGE VIEW
ALTERNATIVE 2:
PREFABRICATED STEEL ARCH/TUNABLE SYSTEM

Placed piers at same location as the existing

Removed the end corners of the truss
ALTERNATIVE 2:
PREFABRICATED STEEL ARCH/TUNABLE SYSTEM

SIDE VIEW OF BRIDGE
ALTERNATIVE 2:
PREFABRICATED STEEL ARCH/TUNABLE SYSTEM

TRAVELING ON BRIDGE VIEW
ALTERNATIVE 3:
STEEL TIED ARCH

Extended arch below the deck

Placed piers at same location as the existing
ALTERNATIVE 3:
STEEL TIED ARCH

SIDE VIEW OF BRIDGE
ALTERNATIVE 3:
STEEL TIED ARCH

TRAVELING ON BRIDGE VIEW
Next Steps

- Compile the Comments and Suggestions from today’s meeting.
- Make refinements and adjustments to these 3 alternatives as needed based upon the feedback
- Complete the evaluation of the alternatives and preliminary construction cost estimates and select a Recommended Alternative
- Submit the Bridge Type Selection Report to MassDOT (and DCR) for their review
- Hold a Public Informational Meeting in Northfield this summer to present the recommended alternative
- Proceed to the next phase of design (25% / Bridge Sketch Plans)
Thank You!

WORKING SESSION
We want your feedback!