

MEETING:	Technical Advisory Committee (TAC) Meeting No. 2
PROJECT:	Feasibility Study for Arlington Avenue Bridges Replacement
SUBJECT:	Bridge and Roadway Elements
LOCATION:	Remote Zoom Teleconference
DATE/TIME:	Monday, August 31, 2020, 1:00-2:00 PM
MODERATOR:	RTC Project Manager Judy Tortelli

INVITATION:	Zoom Meeting invitation from RTC Project Manager Judy Tortelli Meeting link: <a href="https://us02web.zoom.us/j/83845970459?pwd=RGhMWUV6TjBCTmZZVXc5SnpJM3ZUQT09">https://us02web.zoom.us/j/83845970459?pwd=RGhMWUV6TjBCTmZZVXc5SnpJM3ZUQT09</a> Meeting ID: 838 4597 0459 Passcode: 900792
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ATTENDANCE:	TAC members defined and vetted by the RTC and the City of Reno. Agencies: FHWA (1), City of Reno (7), NDOT (3), RTC/Jacobs (9).
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NOTES AUTHORS:	Compiled by the project team and supported by court reporter Brandi Ann Vianney Smith/Litigation Services transcript.
WELCOME, AGENDA AND INTRODUCTIONS: JUDY TORTELLI, RTC	Welcomed TAC members and introduced Brian Stewart/RTC and the Jacobs team (Ken Greene, Mike Cooper, Matt Negrette). She noted that a court reporter was on the line to take minutes, and asked that participants identify themselves when speaking. She outlined the agenda: 1) a brief presentation by her, 2) review of the scoring material and scores received by her and Mike Cooper and 3) group discussion. She requested that questions/comments be held until the open discussion and also introduced the TAC members attending.
PRESENTATION, TAC-2 MEETING PURPOSE AND GOAL: JUDY TORTELLI, RTC PRESENTATION	Purpose of the Meeting: to provide an overview of the project's progress (some material presented previously) and review bridge and roadway element evaluation scoring information received and scoring results/summaries produced.  Meeting Goal: to reduce the range of alternatives carried forward into NEPA and design.

<p>SWG-1 INPUT: JUDY TORTELLI, RTC</p>	<p>February SWG-1 Meeting - 1) discussed engineering design and environmental constraints, 2) using this information, Project Team developed evaluation attributes to prepare scoring packets.</p> <p>Note: scoring packets were prepared and sent to TAC members a few weeks ago, 9 of 11 submitted scores, a great response. There is a distinction between the alternatives and they have been ranked accordingly.</p>
<p>PROJECT OVERVIEW: JUDY TORTELLI, RTC</p>	<p>Previously presented at the initial public information meeting, SWG-1 meeting and TAC-1 meeting:</p> <ul style="list-style-type: none"> <li>- Scope. To complete a feasibility study to define bridge options, identify constraints and determine costs. To identify a bridge and aesthetic package to carry forward into environmental clearance and design.</li> <li>- Process. Modeled after the Virginia Street process, including receiving public, stakeholder and technical input. Alternatives evaluation criteria: 1) ability to meet project purpose and need, 2) ability to avoid and minimize impacts to the natural and built environment, 3) construction feasibility and costs, and 4) input from the SWG, RTC Board, City of Reno Council and the public. Decisions will be documented using the PEL (Planning and Environmental Linkages) process.</li> <li>- Purpose and Need (not mode-specific or biased toward a particular solution). Address structurally deficient bridges (built in the 1930s), providing safe and ADA-compliant multimodal improvements, meeting hydraulic capacity needs and responding to regional and community plans.</li> <li>- Meetings Schedule. Previous meetings: public kick-off, December 2019; SWG-1 environmental and engineering constraints, February 2020; TAC-1 permitting and regulatory requirements, July 2020. Upcoming meetings: two SWG on bridge concepts and aesthetic themes, one public presentation (early 2021) of information from TACs and SWGs.</li> <li>- Project Schedule. Complete feasibility study early 2021 before beginning NEPA process (separate phase and contract). Start construction in 2026.</li> </ul>
<p>TAC-1 SUMMARY: JUDY TORTELLI, RTC</p>	<p>Hosted by USACE with great participation and valuable feedback that is helping the Project Team clearly define next steps to get through the permitting and regulatory process. Key points: 1) FHWA to be lead agency for the project, 2) dewatering and water discharge requirements,</p>

<p>PRESENTATION:  TAC-1 SUMMARY continued, JUDY TORTELLI, RTC</p> <p>SCORING SUPPORT INFORMATION, JUDY TORTELLI, RTC</p>	<p>and 3) the need for river access for debris removal. The group defined permitting and regulatory requirements for each alternative (no formal scoring). Conclusion: elevated and tied-arch concepts would be more challenging based on viewshed impacts.</p> <p>Support information was provided with scoring sheets. Example of possible confusing instructions: high construction cost should receive a low score. No other examples noted by TAC members. Judy T also asked for questions/comments on concept evaluation information. Dan Doenges, RTC commented that, based on the similarity of concepts in several categories, he scored them the same. Judy T responded that she and others with less bridge-specific backgrounds did the same thing. She introduced Mike Cooper, Jacobs to review the scoring specifics.</p>
<p>PRESENTATION:  SCORING SPECIFICS: MIKE COOPER, JACOBS</p>	<p>The scoring card presented nine concepts (three variations each for three designs): single pier with three superstructure types, clear span with three structure types, and elevated bridge that looked at the full corridor including the south bridge. Eight specific attributes, plus placeholders Y and Z, were listed for ranking on a scale of 1 (poor) to 10 (excellent). Y and Z allowed reviewers to add attributes they considered important. Three were proposed.</p> <p>From Brian Stewart/RTC, attribute and rankings:        Permitting and ancillary impacts to parks (scope creep)</p> <ul style="list-style-type: none"> <li>- clear span concepts rated nearly excellent</li> <li>- single pier concepts rated good</li> <li>- elevated concepts rated fair</li> </ul> <p>From Jaime Schroeder/City of Reno, attribute and rankings:        Crime prevention through environmental design</p> <ul style="list-style-type: none"> <li>- clear span (rigid frame) rated excellent</li> <li>- single pier concepts rated good</li> <li>- tied arch rated fair, underdeck arch rated poor</li> <li>- all elevated concepts rated poor</li> </ul> <p>From Theresa Jones/City of Reno, attribute and rankings:        Homeless camps/graffiti/illicit activity</p> <ul style="list-style-type: none"> <li>- all clear span rated good</li> <li>- single pier concepts rated fair</li> <li>- elevated concepts rated nearly poor (2)</li> </ul>

<p>PRESENTATION:</p> <p>SCORING SPECIFICS continued:          MIKE COOPER,          JACOBS</p>	<p>The Project Team looked at the highs and lows for each of the original eight attributes on each concept, taking the averages and adding them together for a total score. (Because only the person proposing it ranked the each of the additional three attributes, they were not included, but would have only made a subtle difference in rankings. Intended for further discussion.)</p> <p>SCORING RESULTS</p> <p>AVERAGED TOTALS</p> <ul style="list-style-type: none"> <li>- rigid frame, clear span - 58</li> <li>- single pier concepts and underdeck arch - in the 40s to low 50s</li> <li>- elevated bridge concepts - in the 30s</li> </ul> <p>Bar graph shows graphically that the rigid frame clear span concept far outpaced other concepts while all three elevated bridge concepts were toward the bottom.</p> <p>INDIVIDUAL SCORECARD RANKINGS, BROAD TERMS</p> <ul style="list-style-type: none"> <li>- rigid frame concepts - consistently high end (except one 2, 3, 4 and 5)</li> <li>- single pier concepts - some 1s, 2s, 3s and 4s</li> <li>- elevated bridge concepts near the bottom, but with some 7s, 8s and 9s</li> <li>- concluded the individual scores were consistent with the averages</li> </ul> <p>Scores with three for added attributes included</p> <ul style="list-style-type: none"> <li>- total scores are higher</li> <li>- ranking unchanged, except reversal of concepts 3 and 4</li> </ul> <p>RANGE OF INDIVIDUAL ATTRIBUTE RESULTS</p> <ul style="list-style-type: none"> <li>- charts show low, high and average scores by attribute for each concept</li> </ul> <p>Construction costs, schedule and cost risks</p> <ul style="list-style-type: none"> <li>- averages for the elevated bridge concept are behind the others</li> <li>- clear span (rigid frame) did really well</li> <li>- single pier did a little better across the board concept</li> </ul> <p>Existing infrastructure impacts, maintenance and inspection access, long-term maintenance costs</p> <ul style="list-style-type: none"> <li>- similar trends</li> </ul> <p>Environmental impacts, recreation impacts, bridge aesthetics</p> <ul style="list-style-type: none"> <li>- a fair amount of range, but the averages reflect the majority</li> </ul>
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<p>PRESENTATION:  SCORING SPECIFICS continued: MIKE COOPER, JACOBS</p>	<p>GOAL Identify which concepts to analyze in more detail and potentially carry through the environmental process</p> <p>CONCLUSIONS</p> <ul style="list-style-type: none"> <li>- elevated bridge concepts: no further consideration</li> <li>- clear span underdeck and tied arch concepts: no further consideration</li> <li>- clear span rigid frame concept: more detailed analysis</li> <li>- three single pier concepts: more detailed analysis</li> </ul>
<p>GROUP QUESTIONS, COMMENTS, DISCUSSION:</p>	<p>Judy T/RTC noted that a lot of information was covered, opened the meeting up to questions, comments and discussion.</p>
	<p>Comment, Brian Stewart/RTC - noted that the eliminated clear span underdeck arch concept (CS-N1) scored similar to the single pier steel girder (SP-N3) concept and wondered if this concept should also be eliminated. Leaving cast-in-place concrete box, single pier precast girders and rigid frame.</p>
	<p>Comment, Kerrie Koski/C of R – agreed with Brian Stewart.</p>
	<p>Comment, Dan Doenges /RTC – though the added attributes did not seem to make a big difference in the overall scores, they are worthy of consideration.</p>
	<p>Judy T/RTC revisited the added attributes: permitting and ancillary impacts to the park (scope creep), crime prevention through environmental design and homeless camps, graffiti and illicit activity. Thought it is good information to carry forward. Did the group feel strongly either way?</p>
	<p>Comment, Dan D/RTC – reiterated it would be good to include them.</p>
	<p>Question, Mike C/RTC – including them makes good sense. Did the group agree with the rankings by the people who proposed the attributes?</p>
	<p>Comment, Kerrie K/C of R – agreed that it is good information to include. Highly appropriate as things have evolved. Appears that the ranking aligns with the others.</p>

<p>GROUP QUESTIONS, COMMENTS, DISCUSSION continued:</p>	<p>Comment, Jaime Schroeder/C of R – crime prevention through environmental design and homeless camps, graffiti and illicit activity may be the same attributes. Strongly believe this information should be taken into account on the maintenance and based on today’s challenges along the river.</p>
	<p>Comment, Theresa Jones/C of R – agreed that crime prevention through environmental design covers her additional attribute and that it is good information to include. Possibly different evaluation for single pier option.</p>
	<p>Comment, Brian S/RTC – supported including additional attributes, important to the evaluators and to transparency of the thought process in moving forward with design.</p>
	<p>Comment, Judy T/RTC – clarifying crime prevention attribute, from SWG-1 and public feedback, being able to access from one side of the park to the other is really important. Maybe limiting the area to a lit pedestrian path? Or is this attribute leading to no access under the bridge? Current intention is to provide access but minimal.</p>
	<p>Comment, Brian S/RTC – not providing a pier that creates a dark area or another spot where folks can hang out, especially in low flow.</p>
	<p>Question, Mike C/Jacobs – Consensus to incorporate the scores from the added attributes as provided, correct?</p>
	<p>Response, Judy T/RTC and Brian S/RTC – confirmed.</p>
	<p>Comment and question, Mike C/Jacobs – incorporating the added attribute scores makes the steel girder (single pier) fifth in rankings and drops the underdeck arch a little lower. The three that rise to the top are the rigid frame, the precast girders and the cast-in-place box structure. Does anybody see it differently?</p>
	<p>Question, Judy T/RTC – In that order? Those would be the three alternatives we carry forward based on recommendation from this TAC?</p>
	<p>Question and comment, Mike C/Jacobs – Looking at numeric values, the cast-in-place box and underdeck arch don’t have the same ranking but seem to have the same apparent score (one was probably a little higher). Was anyone interested in carrying forward the underdeck arch? (no response) So it sounds like those are the three the group would recommend for more detailed evaluation.</p>

<p>GROUP QUESTIONS, COMMENTS, DISCUSSION continued:</p>	<p>Comment, Judy T/RTC – Goal moving forward: summarize for SWG-2 the permitting and regulatory feedback from TAC-1 and the TAC-2 recommendation on alternatives to take forward (eliminating the elevated and tied arch concepts). Get SWG-2 consensus as more of a public group. They may want to continue with the underdeck arch or another concept. From the permitting perspective, all the alternatives are similar except for the elevated bridge and tied arch concepts, which would be more challenging (less favorable) because of the impact on viewshed. For the other concepts, TAC conclusions on permitting and the bridge and roadway elements are in line with each other.</p>
	<p>Comment, Mike C/Jacobs – reiterated two TAC groups in agreement.</p>
	<p>Comment and question, Judy T/RTC – And they are totally separate and look at the project differently (TAC-2 did official scoring. TAC-1 did not), which is great. Any other discussion or additions?</p>
	<p>Comment, Doug Maloy/RTC – the problem with looking at numbers is there’s more behind some than others. Steel I-girders, for example, check a lot of boxes but are more challenging (tagging, harder to maintain), which might explain why the concept dropped off even though it scored close to others.</p>
	<p>Comment, Brian S/RTC – true, but it does come out in the scoring. The steel I-girders got a lower score because of those challenges. I also factored in the depth of span ratio and maximizing the flow area.</p>
	<p>Comment and question, Judy T/RTC – the elevated bridge concept definitely scored the lowest. To help with feedback to the public, asked the committee to share why they scored it that way.</p>
	<p>Comment, Kerrie K/C of R – adjacent accessibility would be difficult to accommodate, especially Wingfield and Barbara Bennett Parks that are important to the city. Also greater environmental impacts, higher costs and possible scope creep.</p>
	<p>Comment, Theresa J/C of R– added impacts to the parks and access to the river. The biggest factor: crime prevention by environmental design (additional attribute from Jaime S and her)</p>

<p>GROUP QUESTIONS, COMMENTS, DISCUSSION continued:</p>	<p>Comment, Brian S/RTC – ditto to what’s been said. It would impact a lot of use in the park (possible mitigation needed) where the current configuration works fine for events. Didn’t speak to purpose and need as well as other concepts. Over the top.</p>
	<p>Comment, Dan D/RTC – echoed previous comments. Added that Wingfield Park is a gem in the community. Changing or altering it would probably not go over well. Minimal impact would be the best course.</p>
	<p>Funding discussion,          Kerrie K/C of R – with rankings, can construction move up to 2022?          Judy T/RTC - one thing needed: money.          Kerrie K/C of R - Dale is going to help with that.          Dale Wegner/FHWA - Wish I could.          Kerrie K/C of R - Maybe we’ll get a surge in 2021 infrastructure funds.          Brian S/RTC - Looking at alternatives and impacts is getting us set up.          Kerrie K/C of R - Get it shovel-ready. No pressure, Jacobs.          Ken Greene/Jacobs - Maybe a little.</p>
<p>CONCLUSIONS:          JUDY TORTELLI,          RTC</p>	<p>appreciated everyone’s input and thanked them for filling out the scorecards. Did not track any follow-up items from this meeting. Rankings will be finalized to include additional attributes. Recommendations from this TAC will be to move the top three-ranked alternatives forward.</p>
<p>ADJOURNMENT:          JUDY TORTELLI,          RTC</p>	<p>thanked participants for attending and concluded the meeting at 2:00 PM.</p>
<p>PROJECT WEB PAGE:</p>	<p><a href="https://www.rtcwashoe.com/engineering-project/arlington-avenue-bridges-project/">https://www.rtcwashoe.com/engineering-project/arlington-avenue-bridges-project/</a></p>