

Meeting Title: SWLRT Section 106 Consultation – Meeting Notes

Date: 7/29/2015 **Time:** 1:00 **Duration:** 2.0 hrs

Location: Southwest LRT Project Office, Conference Room A
6465 Wayzata Boulevard, Suite 500
St Louis Park, MN 55426

Meeting called by: Greg Mathis, MnDOT Cultural Resources Unit (CRU)

Attendees: SHPO: Sarah Beimers, Natascha Wiener
MPRB: Michael Schroeder
KIAA: Jeannette Colby
Preservation Design Works (PVN): Tamara Ludt
Hennepin County: Dave Jaeger, Kim Zlimen
CIDNA: Craig Westgate
SPO: Nani Jacobson, Ryan Kronzer, Leon Skiles, Nkongo Cigolo, Jenny Bring, Kelcie Campbell, Andrea Arnoldi, Kelli Andre Kellerhals
MnDOT: Greg Mathis, Jon Vimr

Purpose of Meeting: Meeting with consulting parties to continue Section 106 consultation process

--- Agenda & Discussion ---

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| 1. | <p>Welcome & Introductions</p> <ul style="list-style-type: none"> • Greg Mathis from MnDOT CRU welcomed and thanked everyone for attending, led participant introductions, and provided an overview of the agenda, which will focus on the Kenilworth Lagoon crossing. <ul style="list-style-type: none"> ○ Bridge designs were discussed at the April meeting, and the designs were updated in June based on all comments received and in an attempt to minimize the effect of the crossing on the Kenilworth Lagoon and on the Grand Rounds Historic District. The goal of the meeting today is to get agreement on which designs best minimize effects; none avoid an adverse effect. ○ Greg explained the changes in bridge designs for the Kenilworth Crossing: <ul style="list-style-type: none"> ▪ November 2014: a two bridge concept with an out-and-out width of 82.5 feet ▪ April 2015: a three-bridge concept that widened the width of the combined structures by about 5 feet ▪ June 2015: <ul style="list-style-type: none"> • The two-bridge option shown in the meeting materials has an out-and-out width of 80 feet, 5 inches. The amount of coverage over the water is the same as shown in the November plans, but there is less space between the two bridges. Since April, the skewed pedestrian bridge option has also been dropped based on the width of the crossing and overall coverage of |
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	<p>the waterway.</p> <ul style="list-style-type: none"> ○ The options presented are various combinations of how the bridges could be laid out based on number of piers in the water and what types of structures can be built based on that. Greg reiterated that all crossing options do still result in an adverse effect, but the intent is to identify bridge designs that would help minimize the adverse effect. ○ Although the three-bridge configuration results in a wider overall crossing compared to the two-bridge configuration, it reduces the width of each structure, thus breaking up their scale when experienced from the waterway level. While the two-bridge configuration results in a slightly narrower overall crossing, it results in a more pronounced adverse effect on the feeling of the historic property at the waterway level given its more intimate scale and spatial relationships. This adverse effect is greater than the impact of the slightly wider width of the three-bridge configuration on the feeling of the historic property as a whole given the much larger scale and spatial relationships of the broader landscape. Therefore, MnDOT CRU’s opinion is that the three-bridge configurations better minimize the adverse effect than the two-bridge configurations.
<p>2.</p>	<p>Review Kenilworth Crossing Bridge Design – Two Bridges</p> <ul style="list-style-type: none"> ● Ryan from SPO showed photographs of existing conditions at the crossing and explained plans for the two-bridge and three-bridge configurations. <ul style="list-style-type: none"> ○ The two-bridge design is not the same one that was presented in November. The LRT alignment has changed based on new details on the tunnel, and the gap between the freight and combined LRT and trail bridge is now 2 feet narrower. ○ All three-bridge concepts include a five-span freight bridge and a clear-span trail bridge. The two-bridge concepts also include a five-span freight bridge and either a clear-span combined LRT and trail bridge, or a three-span combined LRT and trail bridge. ○ The WPA walls were also noted on the plans. ● Craig Westgate from CIDNA asked if, according to the plans, there are walls that are shown as stopping before the bridges (south side of the crossing back from the bridges). <ul style="list-style-type: none"> ○ Ryan responded that those are retaining walls at the beginning of the tunnels and begin at-grade. ● Jeannette Colby from KIAA asked if there were crash barriers and/or a fence between the trail and LRT. Ryan confirmed there is a separation between the two and showed where fencing/crash barriers would be located on the plans. ● Ryan explained the two designs: <ul style="list-style-type: none"> ○ Combination Design 1: a clear-span arch combination trail/LRT bridge and a five-span thin deck freight rail bridge with piers in the water. In this option, the abutments for the clear-span combination bridge are pushed closer to the shore. ○ Combination Design 2: a three-span thin deck combination trail/LRT bridge and a five-span thin deck freight railbridge, both with piers in the water. ○ In views from the water level, looking at the underside of the bridges, in both two-bridge options, the combined trail/LRT bridge presents a solid, continuous smooth surface of bridge until there is a separation between it and the freight rail bridge. ● Ryan also explained that the two-bridge configurations have a slightly narrower out-and-out width than the three-bridge configurations. <ul style="list-style-type: none"> ○ Jeannette asked for clarification that the three-bridge options are wider, when looking

underneath the bridges. In the two-bridge options, it is slightly narrower. Ryan confirmed this was correct: the width of the combination of all structures is about 5 feet, 6 inches narrower in the two-bridge options versus the three-bridge options.

- Ryan explained the three, three-bridge options. All options have a five-span thin deck freight rail bridge and a clear-span arched trail bridge. The differences are:
 - Combo Design 1: a clear-span arched LRT bridge and a clear-span concrete arch trail bridge.
 - Combo Design 2: a three-span thin deck LRT bridge and a clear-span steel trail bridge.
 - Combo Design 3: a three-span thin deck LRT bridge and a clear-span concrete arch trail bridge.
- Greg reminded consulting parties that they can provide written comments, but asked for initial comments or questions.
 - Jeannette asked if the footprint difference between the two- and three-bridge layouts is only a few feet. Ryan confirmed the footprint for the three-bridge layout is 5 feet, 6 inches wider than the two-bridge layout.
 - Jeannette said she preferred the three-bridge options and believes there was solid reasoning presented to favor that option, which the photos and illustrations help to show. She also indicated that in person, it currently does not appear there is 5 feet to spare in the right-of-way (ROW). Ryan responded by showing where the ROW boundaries are on the drawings, noting that they are consistent among all concepts and the bridges will fit within the existing ROW.
 - Craig asked what will happen to the ground/walls underneath the bridges. Greg responded that this would be addressed later in the meeting.

3. Review Kenilworth Crossing Bridge Design – Three Bridges

- Greg explained that the current three-bridge options are the results of combining the best elements of the previous designs to try to address consulting party comments and concerns.
- Ryan provided an overview of the three-bridge options, illustrating the changes and differences among them.
 - All three-bridge options have the same freight rail bridge design: a five-span (four piers) thin deck bridge. This is the most minimal design that can be built for freight rail.
 - There are two LRT bridge options: one is a three-span thin deck bridge with piers in the water, and the other is a clear-span arch bridge.
 - The trail bridge is a clear-span arch bridge: one option is concrete, the other is steel.
 - Combo Design 1: a clear-span concrete LRT bridge and a concrete arch trail bridge. This option has wider abutments. There would be a protected barrier/fence along the LRT entrance to the tunnel. There would be a 6-foot, 7-inch space between the LRT and freight rail bridges, and a 5-foot space between the LRT and trail bridges.
 - Craig asked why there was a bigger difference in span between the freight rail and LRT bridges. Ryan explained that it has to do with the way the tracks line up next to each other from I-394 through the corridor
 - Combo Design 2: a four-span LRT bridge with piers in the water; the abutments for the LRT bridge are farther up the banks compared to Combo Design 1. The trail bridge is a 110-foot long steel arch span. The abutments for the steel bridge are closer to the water compared to the concrete trail bridge design in Combo Design 1.

- Natascha Wiener from SHPO noted that the benefit of having LRT piers in the water is that the bridge deck can be thinner.
 - Combo Design 3: same as Combo Design 2, but the trail bridge is a 100-foot long concrete span. The trail bridge is a little thinner in this option.
- Jeannette asked for clarification that the design differences do not have to do with steel versus concrete, but rather with the number of piers in the water. Andrea Arnoldi from SPO confirmed this was correct and noted that all three-bridge design options for the three-bridge plans also have very subtle grading differences.
- Craig asked if the views would include fences, and whether they can be added in the drawings. Ryan noted that fence designs can be added in once they have been finalized, but this is also part of the landscape design process.
- Jeannette asked if there is any difference in the amount of fencing in the two- versus three-bridge layouts. Ryan replied that there would need to be a protective barrier regardless of the design option and that there will need to be some sort of parapet wall on the LRT bridge for noise mitigation. Currently, they are looking at the 2-foot wall with dampers on the rails instead of the 4-foot wall, as it is the least intrusive option. Jeannette asked for clarification that both parapet wall options would achieve a similar degree of mitigation. Nani Jacobson from SPO indicated that both would meet noise mitigation requirements, but the 2-foot versus 4-foot option presents more of a visual difference.
- Jeannette stated that, in her view, the difference in placement of abutments is not a significant issue. She indicated that the banks would not be attractive and that weeds would be growing in a few years; to her it is not a factor in deciding which bridges would be visually favorable.
- Jeannette noted that noise is one of KIAA's biggest concerns and asked if there is any difference in how the design options function in terms of noise. Nani responded that the drawings currently show the proposed two feet height of the walls, but the length of the walls can be part of ongoing discussion.
- Jeannette indicated that in terms of the feel of the area, whatever can be done in terms of re-vegetation would be good. Nani responded that vegetation in the channel would be the next topic discussed at this meeting.
- Craig asked about the 2-foot versus 4-foot noise walls and the measurement locations to determine that they are equal in terms of noise mitigation. Nani explained that the measurements were taken northeast of the channel. The project team then modeled mitigation options to see what is most effective (noise, cost, etc), which all factor into what is best option. Craig asked if they were trying to make sure mitigation efforts go over what is necessary, or just address what is necessary. Nani indicated that the project is required to mitigate noise impacts that are above FTA noise impact criteria and the goal is to identify and implement mitigation that is effective at bringing noise levels to below the impacted noise level.. Both the 2-foot and 4-foot wall options are effective.
- Jeannette indicated that KIAA is in disagreement as to the level of noise and how it was measured. KIAA believes that the freight rail is a new permanent condition. Nani explained that they have to do noise assessment based on existing conditions, which includes freight rail operations in their current location.
- Jeannette requested that the project team try to mitigate noise to the highest degree possible. Nani confirmed they would, while weighing other impacts, such as visual, with high noise walls, for example. Jeannette said she appreciated the effort being put towards this process.
- Sarah Beimers from SHPO noted that the significance of the park is important, and she asked

Michael Schroeder of MPRB what his opinion was of the bridge options. Michael responded:

- The piers and structures out of the water were compelling. MPRB was encouraged when the trail bridge and LRT bridge were designed without piers in the water. With the four-pier configuration for the freight rail bridge, as long as those piers provide a clear view/channel through the piers that is their preference.
- The skewed bridge option that had been previously discussed was not preferable as it resulted in the loss of the long, linear quality perspective of the historic corridor through the area. This opinion was not related to the adverse effect of the crossing, but rather the experience of people using the trail.
- When considering the bridge options in totality, MPRB wants to keep the focus on the channel. MPRB has gone back and forth on what materials would be preferable. The introduction of steel would add another element and another distraction to the corridor. Concrete would be better as it does not add more distraction to the corridor as it uses an element that has already been introduced to the area.
- Jeannette indicated she agrees about the steel, but appreciates that it was tried as an option.
- Michael provided some additional comments on what the MPRB prefers:
 - Bridges that clear span the channel are compelling versus bridges that put piers in the water.
 - The three-bridge options allow the bridges to most authentically express what they are; the MPRB did not like the extra mass/structure of the combined bridge of the two-bridge options.
 - Bridges that are interesting, but not dominating to the surrounding landscape.
 - Would not like to see adding mass to make aesthetics work, and there may be more mass in the curving/arching bridge options, which may be acceptable.
 - Bridges should reflect that they are from the present day.
 - Looking for the lightest possible bridge, yet still having the bridges serve their functions.
- Craig asked why there is a greater distance between the LRT and freight rail bridges versus between LRT and trail. He wondered, since it is a long corridor, why the bridge cannot move over 1-1½ feet the other way. Ryan explained that the freight rail tracks, just south of Cedar Lake Parkway, shift and push west. Then, with the addition of the LRT tunnel and the tunnel's specific requirements, as well as wanting to keep LRT and freight as far away from each other as possible, there is not room within the corridor to shift alignments, and what is presented is the best possible location for all of these specific, individual elements. Andrea added that as the LRT comes out of the tunnel, there are limits to what curvature is feasible to get across the channel. Nani also noted that the current discussion was focusing on elements outside of the area we are focusing on; this specific area (Kenilworth Crossing) is constrained by those external elements and factor into the design options for this area.
- Michael stated that the three-bridge design options allow light down into the channel. MPRB's focus was not on distances between bridges, but on finding ways to break up the expansive darkness that may be caused by certain crossing options. Jeannette noted that KIAA would also prefer a three-bridge design if freight rail remains in the corridor.
- Natascha noted that regarding the authenticity of structure, the four spans for LRT are more authentic. She is not sure if adding arches is good as it adds mass and structure to the slab; this is the trade-off between slab thickness and piers. More piers allow for a thinner slab that gives the bridge a lighter feel. She also likes the steel as it seems a more natural material, is darker in color

(like the existing timber pile bridges), and breaks up the large concrete mass that some of the other options present. The steel creates a more variegated experience since the monotony of just concrete will be large.

- Jeannette mentioned that at a previous meeting there were discussions about different facing on the concrete. She asked if would that help break up the concrete mass. Nani replied that once a specific design is settled on, we will focus on more aesthetic elements.
- Greg stated that, based on the discussion, it appears that there is general agreement on the three-bridge configuration as the preferred option for the crossing and asked for confirmation. He also mentioned that Brian Schaffer from the City of Minneapolis had called him earlier to confirm that he could not attend the meeting, but that the City also preferred the three-bridge configuration. With the three-bridge configurations being generally agreed as preferable, Greg noted that it now comes down to whether the designs focus on a thin deck with piers, or an arch for the LRT bridge.
- Sarah asked when these options would be presented to public. Ryan answered that there is a landscape workshop on August 8th where they would share the three-bridge options.
- Sarah asked if they considered putting the options on the website and soliciting comments that way. She indicated SHPO would look to Greg to determine when to present to the public, but that it would be good to get more public comment. Ryan indicated that the challenge is that there would need to be a good way to ask specific questions to get responses focused on the design of the bridge related to historic properties, versus general comments related to the general aesthetics or preferences. Sarah agreed and noted it would be tied to how the questions were asked.
 - Craig said that if a select number of questions were asked that required specific responses, they could email them out to a large network of people to receive comments.
 - Nani noted that the comprehension of the Section 106 process may be limited by those responding to the survey, but that there would be value in getting general opinions.
 - Sarah noted that the MPRB did a good job of briefly explaining the Section 106 process for the landslide that occurred at West River Parkway and that the project look at that example for guidance.
- Greg restated that the biggest question remaining is whether the LRT bridge should be an arch, or a thin deck with piers.
 - Jeannette said that she feels the piers out of the water makes for a better experience for users passing through the water. For the arch design, she is not bothered by the thicker deck, but likes the arch as it relates to the Lake of the Isles Parkway Bridge, which also has an arch design. She then asked if someone on a paddle board would fit underneath. Ryan confirmed that the minimum design clearance is 10 feet, 6 inches so, they will fit. Nani also noted that there is a 1½-foot difference at the center of the span between the thin deck and arch options.
 - Greg said the project will continue to consult on the design and asked if there was any preference to moving one or two designs forward, or if all options should move forward.
- Jeannette asked if the view from underneath (View 4) for the steel bridge (Combo Design 2) would also have a wall, not just a fence as currently shown on the drawing. Nani and Ryan indicated it would have a wall but that the fence/railing designs can be mixed and matched on each of the bridge options, although the views just showed one possibility. Greg added that the section plans show the sound walls would be set back a bit.
- Greg then moved the conversation to the walls and features beneath the bridges. He explained that, based on previous comments requesting that the WPA walls be kept in place, they have examined

if this is possible. Engineering does not think that they can keep the walls in place during construction since they overlap the area that needs to be excavated to place the bridge footings. Therefore, the project is proposing to document the walls, remove the portions within the limits of the new crossing during construction, and then reconstruct the walls in-kind after construction of the bridge is complete. This is also because the walls are currently in poor condition. The project is proposing to reconstruct the walls on the south bank of the waterway to the LRT bridge, then use a new material to construct the remaining walls underneath the new bridges. If there are extra stones after the reconstruction, they could be given to MPRB to use in repairs elsewhere along the channel.

- Michael told the group that they have gone back and forth about what to do with the walls and that the design of the bridges is almost less vexing. Historically there may have been walls there that are not currently there. It seems likely that there was a stone wall on the south side, as there it continues on either side of the proposed bridges. However, it is possible that it was never put back when the temporary bridge was built 80 some years ago. The design of the walls should match what was there.
- Greg explained that the concern from a Section 106 perspective is that we do not know what was there and we do not want to introduce conjectural features that create a false sense of history. Michael agreed and said the MPRB does not have a lot of historical photos of this area that could provide insight.
- Sarah indicated that the plan sheets show existing walls of the same type east and west of the crossing, on the south side of the channel, so it seems logical to assume that the area in between historically had the same type of wall. Natascha added that the plans show the two walls coming together, then they change in the middle. It would seem logical that what was there historically was likely cohesive.
- Greg stated that there may be remnants of walls there, but they would likely be dismantled.
- Natascha then noted that the two sides are different (the north and the south), and these two sides may require two different treatments. If you put in concrete walls, then people would read those concrete walls as indicating there was never a wall there historically.
- Ryan asked if the WPA would have historically treated two sides of a channel differently, doing a wall on one side and not on the other. Natascha responded that the WPA did their work in response to natural conditions, so it is possible. Ryan suggested it may be possible to extrapolate from what the WPA did historically to understand how to treat the walls.
- Natascha asked if there is any indication that there were walls on both sides. Greg said the evidence is inconclusive. There was a regular history of shoreline erosion and the WPA walls were the second wave of improvements to address it. WPA treatments vary throughout the lagoon and reflect its varying character. There are Classical Revival style walls at the Lake of the Isles Bridge, Rustic style walls in this section, and wood sheet pile walls along the channel to Cedar Lake.
- Natascha asked if there is a wall depicted on the plans because it is needed and, if a wall is indeed needed, she would presume it would be best to select the wall type based on the character of this section of the channel.
- Jeannette asked if there would be a problem with restoring the WPA wall and then continuing the wall onward. Natascha replied that the intent is not to create a false sense of history. If you are going to bring something back, then you need to have evidence that that element was there historically. If you have no evidence, then you would want to make sure there is a differentiation of materials to indicate that it is a new feature. Natascha stated that to her, it does not appear that we are conjecturing that the wall continued on the south

	<p>side. It is less conclusive on the north side, so she suggested creating a wall to fit within the character of the area, but differentiate it from the WPA walls. She thought that some sort of stone wall that was rustic in nature would be needed, to make it a continuation of the wall, but differentiate it from the historic wall. By adding a concrete wall, we would be making a statement that we do not think there was a wall here and we want people to know that. Sometimes in these situations, it is about going with the option that is logical and typical. She also pointed out that it is possible that they stopped the wall on the right (north side) but not the left (south side).</p> <ul style="list-style-type: none"> • Michael asked that if it cannot be demonstrated that a wall existed on the north side, but bank stabilization is needed, if using riprap would be possible. Riprap would be a like material, but distinguishable from historic materials. Natascha stated that they would need to make sure it did not appear to look like a ruined wall that fell apart and is laying there. She noted that in some cases the DNR has installed riprap that was covered with dirt or grass to make it look more like a natural shoreline. <ul style="list-style-type: none"> ○ Jeannette asked if that would include putting plants in the riprap. Natascha said the DNR was able to make it look like a natural grassy bank. Michael added that MPRB has used various methods around waterways to encourage stabilization. He said that he always assumed a wall was needed, but perhaps that assumption was premature and maybe they need to consider other ways of stabilization. ○ Natascha then asked if retaining walls on waterways are troubling for wildlife. Michael responded that they can be and that there are ways of reestablishing a natural shoreline. ○ Natascha said that if this area does not have a historic answer, there would be a variety of options and answers that could be applied in this situation. Sarah added that if there is not a wall in this location and it was an area that was historically, consciously dredged, the boundary should be a harder, defined edge, not a soft, natural edge. • Ryan gave a brief presentation on different types of rock options, including varying colors and large drop rocks that could be used in this situation. <ul style="list-style-type: none"> ○ Natascha expressed her opinion that riprap looks unnatural when it is all the same size. She asked if a range of rock sizes could be used. Andrea said that they currently have 4-10 inch materials used in the model. ○ Jeannette cautioned that rocks and stones that were very small in size would likely end up being thrown into the channel.
<p>4.</p>	<p>Kenilworth Landscape Design Process Overview</p> <ul style="list-style-type: none"> • Ryan gave a brief overview of the status of the landscaping design along the Kenilworth corridor, which encompasses the area between West Lake Station and Penn Avenue Station and includes the Kenilworth Lagoon crossing. The landscape design process came out of the MOU with the City of Minneapolis. Perkins + Will was hired as the landscape design consultant. They will design the vegetation that comes into and along the bridges within this corridor. There is a meeting/workshop scheduled for August 8th where they will present two design concepts for the landscaping along the Kenilworth corridor. The three-bridge design options will also be presented at that meeting.
<p>5.</p>	<p>7/8 Council Scope and Budget Action</p> <ul style="list-style-type: none"> • Nani provided an overview of the Met Council action that occurred on July 8th. The majority of these actions do not directly affect historic properties, as most pertain to the project within the city of Eden Prairie. These changes: <ul style="list-style-type: none"> ○ Bring the total cost of the project down to an estimated \$1.744 billion.

	<ul style="list-style-type: none"> ○ Keep a projected 2040 average weekday ridership of 34,000. ● The changes to the project scope as a whole include: <ul style="list-style-type: none"> ○ Project ends at SouthWest Station instead of at Mitchell Station. ○ The proposed Eden Prairie Town Center station is now a deferred station; the project will be laying the groundwork for the station, but not actually building it now. ○ Reduce station furnishings by 50%. ○ Reduce station art by 100%. ○ Reduce landscaping by 75%. ○ Reduce the number of light rail vehicles to be purchased by five. ○ Reduce OMF storage space to 30 LRVs. ○ Track modifications at Shady Oak Station. ○ OMF and loop track modifications and value engineering. ○ Finance charge. ○ Change Park and Ride accommodations.
6.	<p>Schedule and Next Steps</p> <ul style="list-style-type: none"> ● Written comments on the bridge designs are due August 23rd. ● A date has not yet been set for the next consultation meeting, but it will likely be in September. ● MOA development will begin in the next or a subsequent meeting. Due to some schedule challenges, discussion of the MOA stipulations will begin before FTA makes a final determination of effect.

	ACTION ITEMS:	PERSON RESPONSIBLE:	DEADLINE:
1.	Follow up with the City of Minneapolis and begin planning for mitigation through interpretation incorporated into the Royalston Station Design.	Greg Mathis	
2.	Consider the bridge design options after the meeting and provide any additional comments to SPO	Consulting parties	8/23