

Transportation Committee

Meeting date: March 9, 2015

For the Metropolitan Council meeting of March 11, 2015

Subject: Southwest Light Rail Transit (Green Line Extension): Memorandum of Understanding with Minneapolis Park and Recreation Board

District(s), Member(s): All

Policy/Legal Reference: Project Partnership and 23 CFR 774 (Section 4(f))

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Division/Department: Metro Transit/Green Line Extension LRT Project Office/Blue Line Extension LRT Project Office

Proposed Action

That the Metropolitan Council (Council):

- (1) approve the attached resolution to direct the Green Line LRT Extension and Blue Line LRT Extension Project Offices to closely collaborate with the Minneapolis Park and Recreation Board (MPRB) for the development of design, engineering, environmental review, and construction of both LRT projects and
- (2) approve the attached Memorandum of Understanding (MOU) with the Minneapolis Park and Recreation Board relating to the Green Line LRT Extension and Blue Line LRT Extension.

Background

The Minneapolis Park and Recreation Board (MPRB) provided comments to the Southwest Transitway Draft Environmental Impact Statement in December 2012 regarding potential impacts to park resources owned by the MPRB. The Southwest LRT Project Office (SPO) invited MPRB staff who have participated in many meetings since then to provide input on technical issues ranging from freight rail in the Kenilworth Corridor, design of an LRT at-grade bridge crossing the Kenilworth Channel and review of possible impacts to park resources known as Section 4(f) impacts.

The MPRB awarded an engineering contract to Brierley Associates in October 2014 to analyze the feasibility and prudence of an LRT tunnel underneath the Kenilworth Channel. Brierley generated two LRT tunnel concepts: a cut and cover tunnel and a jacked box tunnel. The MPRB engineering consultant, MPRB staff and SPO staff worked closely together to review these two concepts including cost and schedule impacts to the adopted Green Line Extension Project scope and budget. The Federal Transit Administration closely monitored these tunnel studies since the beginning of the year.

Rationale

After careful analysis by MPRB and SPO staff, the cost and schedule implications of either LRT tunnel concept revealed significant negative impacts in comparison to the Council adopted project scope and budget. The cut and cover LRT tunnel would add \$60-\$75 million and the jacked box LRT tunnel would add \$75-\$90 million of cost to the adopted \$1.653 billion project budget. Furthermore, either tunnel option would require extensive

engineering, additional environmental review and a new round of municipal consent with the city of Minneapolis and Hennepin County. These pre-construction activities would add about eleven months to review and approval times and another approximately four to five months of construction time. Overall, either tunnel option would delay implementation of the project at least one year and cause an inflation increase at 3% of \$45-\$50 million.

From this technical review emerged the recommended MOU between the MPRB and the Council. The MOU outlines processes for scoping and planning engagement, establishes an Issue Resolution Team focused solely on park and recreation areas, offers an opportunity for MPRB to take a resolution indicating its position on project scope and budget, notifies the MPRB if there is a significant change in the preliminary design plans and provides the opportunity for the MPRB to participate in advanced design meetings and review. These MOU terms apply to the Green Line LRT Extension and the Blue Line LRT Extension that may impact MPRB owned park resources.

The MOU also specifically addresses process and design considerations for bridge concepts for the Kenilworth Channel crossing. This component of the MOU encourages collaboration between MPRB and SPO, incorporates strategies or features in the design responsive to the MPRB's design principles and allows for the eventual implementation of bridge crossings for the channel for freight rail, light rail and the Kenilworth Trail.

Funding

This MOU does not commit any additional Council or LRT project funding. There will be separate documentation committing the Council to pay for 50%, not to exceed \$250,000, of the MPRB engineering consultant expense and \$21,500 of MPRB expense to manage the consultant. Going forward, the LRT projects will negotiate and enter into agreements with MPRB for both the Green Line Extension and Blue Line Extension projects for compensation for eligible MPRB staff time devoted to the LRT projects not to exceed \$250,000 per project over five years.

Known Support / Opposition

The Minneapolis Park and Recreation Board approved the Memorandum of Understanding at its meeting March 4, 2015.

March 9, 2015

Metropolitan Council Resolution to Adopt the Memorandum of Understanding with the Minneapolis Park and Recreation Board

WHEREAS:

1. The Governor has designated the Metropolitan Council (Council) as the responsible authority for the Green Line LRT Extension (Southwest) and the Blue Line LRT Extension (Bottineau) Projects;
2. The Council established the Southwest LRT Project Office (SPO) and the Bottineau LRT Project Office (BPO) to advance the design, secure environmental approvals, and manage construction and overall delivery of the Southwest LRT and Bottineau LRT Projects;
3. The Council on July 9, 2014, adopted a scope and budget of the Southwest LRT Project that included a proposed at-grade LRT bridge crossing the Kenilworth Channel where the Minneapolis Park and Recreation Board (MPRB) retains park property interest;
4. The adopted Locally Preferred Alternative for the Bottineau LRT alignment may impact MPRB-owned park and recreation resources;
5. The Council and MPRB engaged in a series of discussions regarding the scoping, planning, design and environmental processes of these LRT projects.

NOW, THEREFORE:

BE IT RESOLVED, that the Council authorizes the Regional Administrator to negotiate and execute a Memorandum of Understanding with the Minneapolis Park and Recreation Board for the Green Line LRT Extension (Southwest) and Blue Line LRT Extension (Bottineau) that may impact MPRB park and recreation property.

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding is between the Minneapolis Park & Recreation Board (MPRB) and the Metropolitan Council as of March 12, 2015.

WHEREAS,

1. The Metropolitan Council has authority under Minnesota Statutes section 473.399 to 473.3999 to plan, design, acquire, construct and equip light rail transit (LRT) facilities in the seven-county metropolitan area, as defined in Minnesota Statutes section 473.121, subdivision 2. Further, the Metropolitan Council has authority under Minnesota Statutes section 473.405, subdivision 4, and other applicable statutes, to engineer, construct, equip, and operate transit systems projects, including LRT, in the metropolitan area.
2. The Metropolitan Council is developing the Southwest Light Rail Transit (SWLRT) Project, a proposed approximately 15.8 mile extension of the METRO Green Line, which would operate from downtown Minneapolis to Eden Prairie.
3. The Metropolitan Council is working cooperatively with the Hennepin County Regional Rail Authority (HCRRA) on the Bottineau Light Rail Transit (BLRT) Project, a proposed approximately 13 mile extension of the METRO Blue Line, which would operate from downtown Minneapolis to Brooklyn Park.
4. The MPRB is responsible for maintaining and developing the Minneapolis Park system to meet the needs of Minneapolis citizens and is the official with jurisdiction relating to Section 4(f) for park and recreational areas within its jurisdiction.
5. LRT projects involve numerous statutory and regulatory processes and coordination or engagement between multiple government units or other entities. The Parties discussed these processes with respect to property owners of park and recreation areas. A summary of those discussions is attached as Attachment A. Attachment B is a visual representation of the coordination of these activities.
6. The SWLRT Project's current scope and budget include the use of bridges to cross the Kenilworth Channel for freight rail, LRT and the Kenilworth Trail. The Parties discussed process and design considerations in the event the final design utilizes a bridge crossing. These process and design considerations are set forth in Attachment C.

NOW THEREFORE, the Parties set forth their understandings as follows:

1. The Metropolitan Council agrees to the terms and processes outlined in Attachments A and B with respect to park and recreation areas under the jurisdiction of the MPRB.
2. The Metropolitan Council and the MPRB agree to the Kenilworth Channel Crossing Process and Design Considerations for Bridge Concepts as outlined in Attachment C.
3. Nothing in this MOU shall be construed as limiting or affecting the legal authorities of the Parties, or as requiring the Parties to perform beyond their respective authorities.
4. The Parties acknowledge that the planning and construction of any LRT project will require numerous federal, state, and local processes, approvals and funding commitments. The SWLRT Project is currently in the Project Development phase of the federal New Starts program and a substantial amount of design, engineering, environmental review, and funding commitments must occur before construction can begin. Any LRT project cannot proceed without the issuance of the Record of Decision by the FTA and funding of the Project, including the Full Funding Grant Agreement from the FTA.
5. Nothing in this MOU shall require the Metropolitan Council or the MPRB to take any action or make any decision that will prejudice or compromise any processes required under state or federal environmental or other laws or regulations. This MOU further does not limit the alternatives or mitigative measures that the Metropolitan Council may undertake in the development and construction of any LRT project.

**MINNEAPOLIS PARK & RECREATION
BOARD**

METROPOLITAN COUNCIL

By _____
Its: President

By _____
Its: Regional Administrator

By _____
Its: Secretary

Date _____

Date _____

Approved as to form:

Attorney

Attachment A
LRT Project Coordination
Park and Recreation Areas

Attachment B outlines critical coordination opportunities and process changes that will be implemented by the Metropolitan Council with property owners of park and recreation areas. These processes are designed to support the protection of park and recreation areas by fully integrating consideration of these important resources into project development, engineering and construction processes and activities. This includes exercising full authority under the National Environmental Policy Act of 1969 (NEPA), the Minnesota Environmental Policy Act (MEPA) and Section 4(f) of the Department of Transportation Act of 1966. Specifically, these coordination opportunities ensure the protection of park and recreation areas are addressed early under these processes and continue through the construction of the LRT project. The exhibit identifies five new coordination opportunities and process changes (see below) that will be incorporated into the appropriate Metropolitan Council's LRT Project Office Procedures. The Metropolitan Council agrees to update these administrative procedures effective March 12, 2015.

Coordination Opportunities and Process Changes

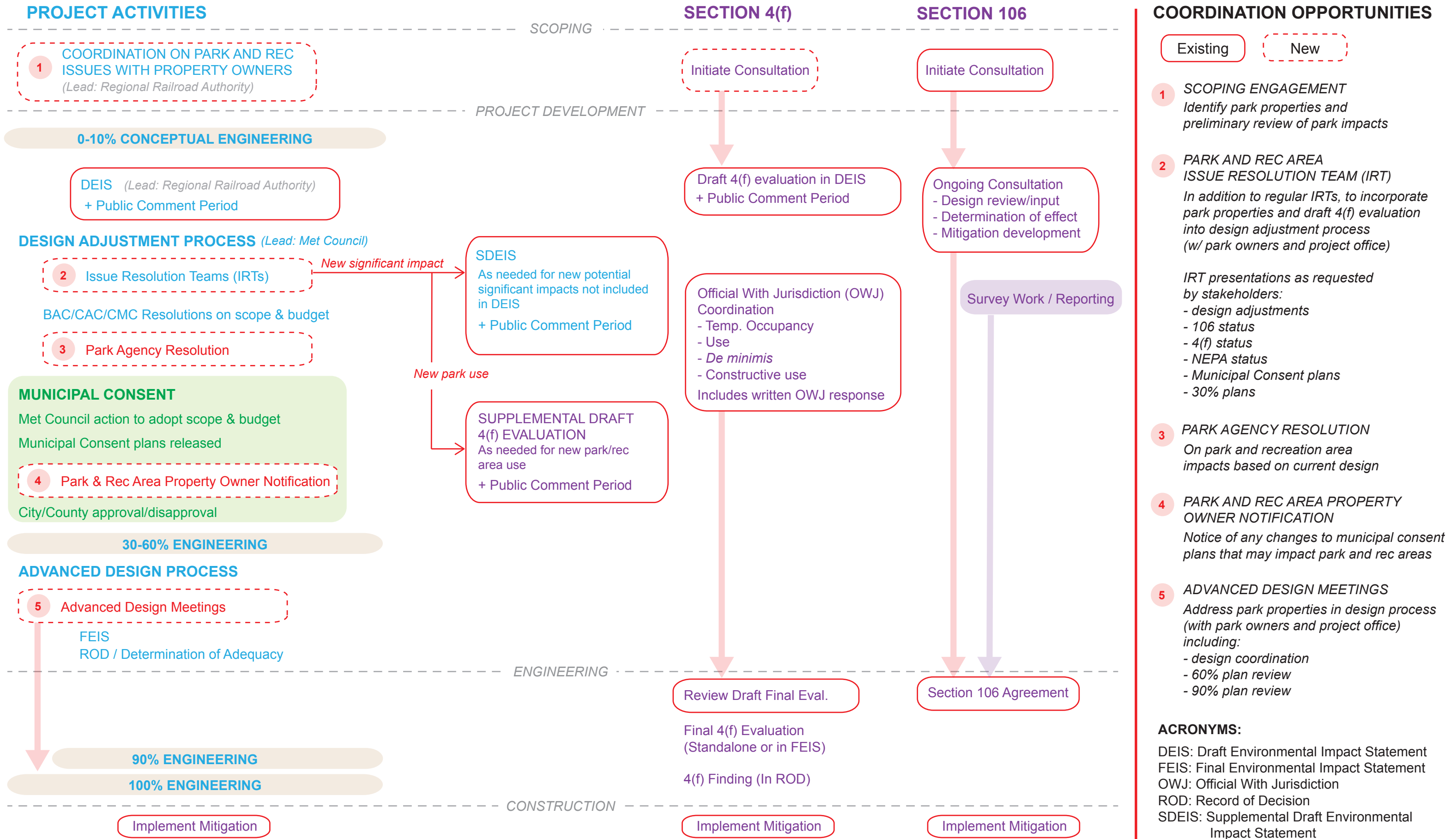
1. **Scoping and Planning Engagement:** In accordance with NEPA and Section 4(f) requirements, the lead project agency(ies) will work with park and recreation area property owners to identify park properties and conduct a preliminary review of potential impacts to parks and Section 4(f) avoidance and mitigation alternatives during the scoping and planning process. Since this element of the process would likely be led by the responsible regional railroad authority, the Metropolitan Council will coordinate with the regional railroad authority to address issues and concerns for park properties during the scoping process and review the Scoping Report and/or applicable planning documentation on park and recreation areas when it assumes responsibility for the project.
2. **Park and Recreation Area Issue Resolution Team (IRT):** In addition to other identified IRTs, there will be an IRT specifically focused on park and recreation areas within the project study area. The IRT will be comprised of property owners of those park and recreation areas in the project study area. The purpose of the IRT will be to incorporate the protection of park properties and the Draft Section 4(f) Evaluation into the design adjustment process. The IRT process will also include other applicable topics that would involve affected park properties, including but not limited to design adjustments, Section 106 status, Section 4(f) status, NEPA/MEPA status, Municipal Consent Plans, and 30% design plans.
3. **Park and Recreation Area Property Owner Resolution:** Prior to the Metropolitan Council action to adopt the scope and budget initiating the Municipal Consent process, the park and recreation area property owner may take a resolution indicating its position on the project scope and budget.
4. **Park and Recreation Area Property Owner Notification of Changes:** If, during the Municipal Consent process, the Metropolitan Council, city, town, or county propose a substantial change to the preliminary design plans for a park or recreation area, the Metropolitan Council will notify

the park and recreation area property owner of the proposed change and identify the next steps and timeframe in the Municipal Consent process, thereby allowing the property owner to provide input to the Council, city, town, or county.

5. Advanced Design Meetings: Park and recreation area property owners will have the opportunity to participate in the advanced design process including design coordination on project elements that impact park and recreation areas, as well as conducting 60% and 90% design plan reviews.

Attachment B: LRT Project Coordination

Parks and Recreation Areas



Attachment C
Kenilworth Channel Crossing
Process and Design Considerations for Bridge Concepts

20 February 2015

Overview

To aid in advancing the design of bridge concepts for the crossing of the Kenilworth Channel, this document frames a process of collaboration between the Southwest LRT Project Office (SPO) and the Minneapolis Park and Recreation Board (MPRB) and outlines a set of parameters intended to guide further exploration of bridge concepts beginning with a conceptual perspective and eventually arriving at a mutually supportable design.

In describing both a process to follow as well as design principles, it is understood there is work that *has been accomplished* and additional work that will continue using the design principles outlined in this attachment. The goals of this effort are to:

- encourage collaboration between SPO and MPRB in defining design directions that satisfy concerns raised by MPRB in its review of the SWLRT alignment in the area of the Kenilworth Channel;
- incorporate strategies or features in the design of a bridge that respond to findings of MPRB's study of channel crossing concepts; and
- allow for the eventual implementation of bridge crossings of the channel for freight rail, light rail, and the Kenilworth Trail in ways that maintain the feasibility, budget and schedule of the SWLRT project.

In pursuing a process focused on design, SPO and MPRB recognize the effort to be more aspirational than prescriptive. Steps of the design process may focus on history, user experience, environmental context, or structure relationships in varying ways.

Process

The process pursued in the design of the bridges recognizes concurrent and ongoing required reviews facilitated by SPO and other project design work in the same corridor, some of which may influence bridge designs as a result of proximity to the Kenilworth Channel. Bridge design activities will be coordinated to align with existing schedules established by SPO for Section 4(f) and Section 106, and the Kenilworth Landscape Design Consultant activities. Schedules for those processes will be defined separately from this document.

Bridge concepts and design refinements will be presented by SPO as a part of meetings that address topics related to the Kenilworth corridor or areas near the Kenilworth Channel that are influenced by the alignment of SWLRT. For these efforts, MPRB staff may participate in presentations to support the design.

SPO and MPRB commit the resources of key staff to effect the process of creating a supportable bridge design.

Design Milestones

Work related to bridge design will begin immediately and be pursued according to the following schedule (note that reviews noted above will be required as a part of the schedule described below; note also that the term “bridge,” as used in the following table, may apply to any configuration of single or multiple bridges required for the channel crossing):

<i>Task</i>	<i>Milestone</i>	<i>Responsible Party</i>	<i>Anticipate Schedule</i>
1	Establish design criteria, environmental mitigation strategies, and concept directions (narrative descriptions)	SPO/MPRB	Q1 2015
2	Review and finalize design criteria, environmental mitigation strategies, and narrative concepts; compare to directions from previous bridge design work	SPO/MPRB	
3	Explore initial design directions based on narrative concepts	SPO	
4	Develop a range of bridge design concepts	SPO	
5	Update MPRB Board of Commissioners on bridge design process; gain input on preferred directions	SPO/MPRB	
6	Coordinate with ongoing Section 4(f), Section 106 and Kenilworth Landscape Design Consultant activities	SPO	Ongoing
6	Select a preferred bridge design direction	MPRB	
7	Develop 60 percent bridge design documents	SPO	
8	Conduct 60 percent formal reviews	MPRB	Q3 2015
9	Develop 90 percent bridge design documents	SPO	
10	Conduct 90 percent formal reviews	MPRB	Q1 2016
11	Complete final bridge design	SPO	Q2 2016

The tasks described will be pursued collaboratively to the extent practicable, with production work related to concept documentation, design refinements, and presentation materials being the primary responsibility of SPO with coordination and review by MPRB.

Design Principles

The design of the bridge crossing may introduce forms other than those defined in previously shared bridge design concepts. The process should result in distinct bridge concepts that can be assessed for their ability to resolve impacts identified by MPRB in its process of studying tunnel alternatives.¹

The bridge designs may follow the following conceptual design principles:

- a) Bridges are defined primarily by structural design requirements, and considering, at a minimum:
 - a. Separation of freight, LRT, and trail bridges
 - b. Exploration of pier and deck configurations aimed at reducing piers in the channel while maintaining desired vertical clearances in the channel
 - c. Use of other structure types based on structural requirements (loading, deflection)
- b) Bridges are defined primarily by the context of the channel and its users, and considering, at a minimum:
 - a. User-focused experience with few or no penetrations of the channel
 - b. Elimination of roosts on the underside of the bridge or piers
 - c. Minimization of continuous deck expanse in order to bring more light to channel
- c) Bridges are defined primarily by the context of the Grand Rounds, and considering, at a minimum:
 - a. Reference to other bridges in the Chain of Lakes Regional Park, using the form, scale, materials, color, and details to influence the design without mimicry
 - b. Creation of a contrast with historical channel elements (WPA walls) to clearly separate the newly introduced structures from those elements currently considered contributing to its historic nature
 - c. Recognition that there was no trail bridge at this location, that the railroad bridge that was constructed does not match other nearby railroad bridges, and that new bridges may not need to reference those other structures
- d) Bridges are defined primarily by their relationships to one another, and considering, at a minimum:
 - a. Creation of a series of bridges all based on the same structural system, style, mass, and detail (no distinction by use)
 - b. Establishment of freight and rail bridges based on the same structural system, style, mass, and detail, with a trail bridge employing a different structural system, style, mass, and detail (distinction by use)
 - c. Creation of a “family” of structures, focused on coherency but allowing each to be different based on structure type and use

Through the Section 106 consultation process, directions for bridge form, configuration, and details have been proposed and may be incorporated into the conceptual design principles described above, including:

- a) Related to Bridge Concepts:

¹ The MPRB undertook a study of the channel crossing and determined visual quality and noise as the MPRB’s highest priorities for consideration in the design of the bridge.

- a. Design investigation in coordination with Section 106 process and Secretary of Interior Standards
- b. Tested with structural engineering
- b) Aesthetic Considerations
 - a. Space for banks between abutments and water
 - b. Symmetry
 - c. Consistency of elevations: curbs, railings and fencing
- c) Summary of Consulting Party input (Nov. 2014)
 - a. Maximize natural light between bridges
 - b. Importance of bank engagement: vegetation restoration and bank walls; bridge abutments and retaining wall
 - c. Create more space for skiers and kayakers
 - d. Natural materials, dark colors
 - e. Utilitarian, non-ornamental
 - f. Re-interpretation of existing bridge
 - g. Modern construction techniques

Designs shall demonstrate the relationship to the concepts framed (or as refined through the process) through illustrations and supporting narrative descriptions and be augmented by precedent images or other information supportive of the concept.