SEVILLE March 12, 2012 – 6:00 p.m. Staff Report

Staff

Michael Dour, Alternative Transportation Analyst

Recommendation

Per the Selection Committee's direction from the last meeting, this report focuses on the goals and vision for the Downtown Roseville bridge project. The Selection Committee is encouraged to provide feedback to staff regarding the Design Intention/Vision Statement (Attachment 1) that is proposed for incorporation into the project RFQ/RFP. The Selection Committee is also encouraged to provide feedback on staff's conclusion that the Icehouse Bridge may be better suited for re-use near the library because its' physical characteristics more closely match the typical characteristics of a pedestrian bridge rather than a bikeway bridge.

Background

The first meeting of the Selection Committee was held on January 24, 2012. Per the Selection Committee's direction at that meeting, staff is reporting back on the following:

- Project goals as they may affect bridge design
- Project budget
- Additional photos of bridge design options
- Revised project schedule

For ease of discussion, staff is using the terms Site 1 and Site 2 to identify the two primary areas of work for this project:

Site 1 – Bridge Rotation at Veterans Hall and accompanying Class 1 Trail Extension Site 2 - The Library Replacement Bridge and accompanying pedestrian connections

Discussion

The American Association of State Highway and Transportation Officials (AASHTO) "Bridge Aesthetics Sourcebook" suggests the following as key steps when considering bridge aesthetics:

- Understand the Goals and Site
- Develop a Design Intention/Vision
- Do a Conceptual Engineering Study
- Proceed to Detailed Analysis and Design

The project goals and the design intention/vision are discussed below. There is a discussion of the overarching goals for the project and a discussion of the goals unique to each project Site. From this discussion, staff has drafted a recommended Design Intention/Vision Statement to be incorporated into the project RFQ/RFP. Conceptual engineering and detailed design will be conducted at a later date by the project design team in consultation with the City.

Overarching Goals for Sites 1 and 2 - The goals that apply to both work areas are:

- Implement the Downtown Specific Plan (DTSP) and "Downtown Vision":
 - Enhance public places through high quality architecture and urban design.
 - Respect and honor the history and influence of the railroad on Roseville, including re-use of the Rube Nelson "Icehouse" Bridge

- Promote the WPA Style, a contemporary interpretation of Works Progress Administration era project (typified by economical use of natural materials such as concrete, stone, metal, stucco, wood and ornamentation and the use of craftsmanship and proportions to define the structure)
 Celebrate creek ecology, riparian habitat and salmon through art and interpretive signs
- Comply with Federal, State and Local requirements (funding, environmental, design, etc.)

Goals and Site Considerations for Site 1 - There are several unique site considerations affecting Site 1. These include: The planned fire station at Lincoln Street/Linda Drive; the planned development between Dry Creek and Oak Street; the existing Royer Park parking lot, which is near the landing point for the rotated bridge; the proposed roundabout at Washington/Oak; and the sewer main/siphon west of the proposed bridge location. These site characteristics are addressed in the proposed Design Intention/Vision Statement.

The Class I trail connection into Royer Park is included in both the Bicycle Master Plan (BMP) and DTSP. The BMP proposes the Class I bikeway extension into Royer Park as a continuous connection between the existing Miners Ravine Trail system (existing) and the proposed Dry Creek/Linda Creek Trail system which will begin at the south end of Saugstad Park at Darling Way. The BMP does not specify how the Class I connection through Royer Park will be accomplished, but does include bikeway development goals (Attachment 2) that specify that bikeway projects be "safe, comfortable, convenient and highly-connected." The Downtown Specific Plan (DTSP) proposes the Icehouse Bridge Rotation project as the means to accomplish the BMP's proposed Class I bikeway extension into Royer Park (Attachment 3.)

Bicycling is not permitted on the Icehouse Bridge, and signs ask bicyclists to walk their bikes. This is a concern because it is very inconvenient for bicyclists to walk their bicycles, even for short distances. This is evidenced by non-compliance with regulations in the Washington Boulevard pedestrian undercrossing. Site surveys reveal that the vast majority of bicyclists choose to ride their bicycles through the pedestrian underpass even with the presence of "walk your bicycle" signs and stenciling.

The Icehouse Bridge's restriction on bicycling may be due to the following:

- 1) The landing on the Royer Park side of the Icehouse bridge has narrow 90-degree turns
- 2) The width of the Icehouse Bridge (8'-5") is narrower than bikeway bridge standard of 12' wide, which increases the potential for conflicts between bicyclists and pedestrians
- 3) The Icehouse Bridge railing height (39") is less than the bikeway bridge railing height standard of 54" high, which is a safety concern for bicyclists;
- 4) The current overhead clearance (7'-6") is less than the vertical clearance standard of 8' tall for bicyclists, although this could be easily rectified by moving a single sign; and
- 5) The bridge deck is made of uneven wooden planks that are not comfortable for bicycle use.

Design Standards	Bike Trail Bridge	Pedestrian-only Bridge	Rube Nelson "Icehouse" Bridge
Clear Width	12' min	8' min	8'-5"
Railing Height	54"	42"	39"
Vertical clearance	8' min – 10' desired	8' min	9'-6" (7'-6" at sign)"
Surface material	Smooth, free of potholes	Smooth, free of potholes	Wood deck, uneven
Load Rating	Up to 30,000 lbs	Calculated Live Load	TBD

The following table summarizes the design standards for bicycle & pedestrian bridges:

With respect to load rating, the Fire Department has determined that they do not need either of the two bridges to meet their grass rig weight rating of 30,000 lbs. This is because there is ample opportunity for access to the creek in this area, and because this is an improved area with little flammable native plant materials (compared to the typical open space area.)

Goals and Site Considerations for Site 2 - There are several unique site considerations affecting Site 2. These include: The gazebo, picnic area, maintenance buildings and Class I trail in the park; the floodwall and parking lot near the library; the planned amphitheater and creekwalk near the library; and the planned plant demonstration garden in the park. These site characteristics are addressed in the proposed Design Intention/Vision Statement.

The DTSP emphasizes connectivity from Downtown to Royer & Saugstad Parks (Attachment 2.) A caption to a photo in the DTSP states the library bridge will be replaced by a "pedestrian bridge." The DTSP does not address whether or not bicyclists would be allowed to ride their bikes across this bridge. The Library Replacement Bridge is not identified as a project in the BMP. As a result, it may be acceptable to design the replacement bridge to pedestrian (rather than bicyclist) standards.

Conclusion on Re-use of Icehouse Bridge - The DTSP's goal of rotating and re-using the Icehouse Bridge for the Class I bike trail extension into Royer Park may be in conflict with the goal of the BMP to have a convenient and continuous Class I bikeway. One option to address this concern is to modify the Icehouse Bridge to enhance user safety by installing taller railings and speed limit signs for bicyclists. The installation of taller railings may, however, affect the aesthetic appeal of the bridge. Also, speed limit signs may not effectively change user behavior.

Another option to address this concern is to re-use the Icehouse Bridge at the library site. This may be acceptable since the Icehouse Bridge in many respects meets the design standards for a pedestrian bridge. This would allow for design and construction of a new bridge in proximity to the Veterans Hall that meets bikeway design standards. Staff believes that this option would better meet the goals of both the BMP and the DTSP.

Other factors would need to be evaluated during the engineering design phase. These include whether the 180' long Icehouse Bridge fits the library site and whether the Icehouse Bridge can meet the standards of the Flood Damage Prevention Ordinance as applied near the library. Another consideration is that this bridge site will be directly adjacent to the future amphitheater, so the bridge may be used as a viewing platform during shows. These additional factors, which would be evaluated during the preliminary engineering phase of project design, may or may not support use of the Icehouse Bridge near the library.

Design Intention/Vision - Based upon the above discussion of project goals and site features, staff has prepared the draft design intention and project vision statements that would be included in the RFQ/RFP (Attachment 1.) Please review and provide any comments you may have at the meeting.

Project Budget – The project budget is provided below:

	Component 1 - Library Replacement Bridge		Component 2 - Icehouse Bridge Rotation/Class I Bikeway		Total	
Design	\$	165,000	\$	285,000	\$	450,000
Construction	\$	516,395	\$	565,586	\$	1,081,981
Total	\$	681,395	\$	850,586	\$	1,531,981

This budget is not insignificant and should enable a designer to incorporate a higher degree of aesthetic consideration than typical for new bikeway bridges in Roseville. However, the overall amount of funding will restrict to some degree our aesthetic design options.

Bridge Design Photos – Staff is attaching photos of bridges for the committee's review and consideration (Attachment 4). The goal of doing this is not to select a preferred design at this time. However, this may help generate ideas that can be incorporated into the Design Intention/Vision Statement.

Project Schedule – The updated project schedule is provided in Attachment 5. This attachment outlines the consultant selection, project design, environmental review/ permitting and construction process. As noted previously, the schedule anticipates construction of the project in 2014.

Key upcoming project milestones include:

- Finalize and Release RFQ April
- Statements of Qualifications (SOQs) receive end of April
- Staff review of SOQs May
- Selection Committee Check-in before release of Request for Proposals (June)

Attachments

- 1. Design Intention/Vision Statement
- 2. Bicycle Master Plan Excerpts
- 3. Downtown Specific Plan Excerpts
- 4. Bridge Photos
- 5. Project Schedule