

Design Decision Summary

Within this document, we conclude that the expressed design goals are best achieved by incorporating into the design the following features:

- Bridge rail similar to the railing on the Barnette Bridge (i.e., two-tube pedestrian rail on a concrete vehicle rail);
- Pathway lighting consistent in style with pathway lighting currently along the Chena Riverwalk Path south of the Chena River;
- Specialty streetscape lamp/luminaire to provide a distinctive look (e.g., retro-historical, COF “complete streets”, etc.), and if this is not feasible or conflicts with regulation, policy, or otherwise compromises roadway safety, then we will pursue use of braced mast arm lights similar to the poles and masts on the existing Wendell Avenue Bridge.

Design Goals

After considering feedback from direct questions and written comments from the May 8, 2013 Open House Meeting wherein we presented bridge rail and lighting options, we conclude the following design goals should be incorporated into the project:

- The preferred bridge rail was the two-tube pedestrian rail on a concrete vehicle rail, similar to the railing on the Barnette Bridge.
- We are encouraged to consider a bridge rail design that will not prevent dumping rubber duckies into the river over the side of the bridge to start the Duckie Race event during the local Golden Days celebration activities.
- We are encouraged to consider lighting options that ...
 - Illuminate the underpass pathway, ramps and sidewalk, not just the roadway. Focus light onto the roadway, path and sidewalk to reduce scatter and light pollution.
 - Are inexpensive to operate and maintain. Should be LED type rather than high pressure sodium for lower electricity consumption and thus, lower operating cost.
 - Have a distinctive look and feel about them. Poles should be consistent with those on the pedestrian path, possibly matching the Griffin Park lighting – and/or – match the theme from the City of Fairbanks “complete streets” and “way finding” concepts.
- We are encouraged to consider providing the ability for banners to be placed on light poles, and/or provide posts on the bridge for aerial overhead banners similar to the overhead banner feature on the Barnette Bridge.
- We are encouraged to consider options that appear to give character and blend with the “complete streets” and “wayfinding” projects currently underway in the City of Fairbanks (i.e., Barnette Street, Cushman Street, and Noble Street).
- We are encouraged to consider pedestrian viewing opportunities either on the bridge or on the bicycle/pedestrian underpass, and to consider including handicap accessible viewing areas.
- Additional comments regarding underpass pathway design include the following concerns and considerations:
 - Use sufficiently large riprap to prevent it from being picked up and tossed into the river.

- o Work with ADF&G and USF&W to develop landscaping along the riverbank that is both fish and people friendly.
- o Consider drainage on the path to prevent ice formation and accumulation.
- o Ensure adequate sight distance around corners where embankments can obscure oncoming pedestrians and bicyclists.
- o Remove hidden areas under the bridge where people can hide, drink, and set fires.

Other design goals stated by the Department include the following:

- The selected bridge rail will be a crash rated design and capable of serving the dual role function of shielding pedestrians, bicyclists and vehicles from the river hazard.
- The selected luminaire design will include the required number and type of the preferred style, or similar. Luminaires installed may not be exactly the same, and likely will be different than shown in the presentation and informational posters at the open house meeting.

Bridge Rail

We are encouraged to provide a new bridge design that is consistent in type and style to other bridges in the Fairbanks downtown core area. We agree. In deference to participants who provided comments at the project open house meeting, we intend to include the two-tube pedestrian rail on a concrete vehicle rail design similar to the railing on the Barnette Bridge.

We are also encouraged to consider a bridge rail design that will not prevent dumping rubber duckies into the river over the side of the bridge to start the Duckie Race event during the local Golden Days celebration activities. We do not believe the preferred bridge rail design will prohibit this activity.

Lighting Options

On the one hand, we are encouraged to consider lighting options that considerably illuminate the roadway, underpass pathway, ramps and sidewalk. On the other hand, we are encouraged to provide lighting solutions that focus the light to reduce scatter and light pollution.

We are asked to consider lighting options that are inexpensive to operate and maintain. LED light sources were suggested, rather than high pressure sodium type, for lower operating cost through lower electricity usage. We will investigate our options on light source types and will consider LED luminaires consistent with their use in recent area-wide lighting upgrade projects in the City of Fairbanks.

We are encouraged to provide lighting options that have a distinctive look and feel about them. Lights should be re consistent with those on the pedestrian path, possibly matching the Griffin Park lighting – and/or – match the theme from the City of Fairbanks (COF) complete streets and way finding concepts. At this time, we are not aware that final design selections (i.e., mfg model numbers) have been made for the COF complete streets and wayfinding projects, and we will watch as those projects develop to see if or how we can integrate them into the Wendell Avenue Bridge project. However, we are opposed to delaying the Wendell Avenue Bridge project in order to await final decisions on those COF project details.

We recognize that requirements for roadway lighting may be significantly different from requirements for pathway or sidewalk lighting, and there may be irreconcilable differences between those two. Style

choices will not override safety requirements. We intend to provide pathway lighting consistent in style with pathway lighting currently along the Chena Riverwalk Path south of the Chena River. We also intend to provide specialty streetscape lamp/luminaire, as requested, to provide a distinctive look (e.g., retro-historical, COF “complete streets”, etc.), and if this is not feasible or conflicts with regulation, policy, or otherwise compromises roadway safety, then we will pursue use of braced mast arm lights similar to the poles and masts on the existing Wendell Avenue Bridge.

Banners

We are encouraged to provide the ability for banners to be placed on light poles and/or provide posts on the bridge for suspended overhead banners similar to the banner feature on the Barnette Bridge. We agree this would provide a decorative, distinctive, and possibly informational, feature to the project. We will look into incorporating this feature into the project provided that it does not conflict with local ordinances, state policy or regulations, or compromise safety on the bridge by distracting drivers from other regulatory signs posted in the area.

City of Fairbanks Complete Streets Project

We are encouraged to consider design options that appear to give character and blend with the “complete streets” and “wayfinding” projects currently being designed by the City of Fairbanks (i.e., Barnette Street, Cushman Street, and Noble Street).

At this time, we are not aware that final design selections (i.e., mfg model numbers, drawing details, dimension parameters) have been made for the COF complete streets and wayfinding projects, and we will watch as those projects develop to see if or how we can integrate them into the Wendell Avenue Bridge project. However, we are opposed to delaying the Wendell Avenue Bridge project while awaiting final decisions on those COF project details.

Viewing Areas

We are encouraged to consider viewing opportunities for pedestrians either on the bridge or on the bicycle/pedestrian underpass, and to consider including viewing areas that are handicap accessible. While we agree we should accommodate people of all abilities or disabilities in the project, resting areas dedicated to viewing the river and surroundings are unlikely to be incorporated into the Wendell Avenue Bridge project design due to limited project scope.

The project scope is to replace the existing Wendell Avenue Bridge, include improved transportation linkages, and to provide wider sidewalks on the bridge. Adding wider sidewalks will provide pedestrians a better opportunity than currently exists to pause and observe the river, but the length of that pause will be dependent on the number of other pedestrians and bicyclists also using the transportation facility at the same time.

One of the project design goals is to provide passage and discourage congregation beneath the bridge; providing a relaxation or viewing area below the bridge is contrary to this goal. Nearby parks and other open recreational areas are better suited to provide relaxation and viewing areas, and they serve that function better than does a transportation corridor. Wendell Avenue Bridge will be designed to improve safety and service for vehicles, bicyclists and pedestrians travelling through the transportation corridor.

Underpass Pathway Design (additional comments)

Riprap size

We are encouraged to use sufficiently large riprap to prevent it from being picked up and tossed into the river. We agree that riprap placed for erosion protection is ineffectual when removed, either by nature or by mankind. An appropriate size of riprap will be specified.

Riverbank landscaping

We are encouraged to work with ADF&G and USF&W to develop landscaping along the riverbank that is both fish and people friendly. The Department regularly works with these agencies in the development of projects. The primary purpose of in-water work at the bridge site will be to install riprap erosion protection and embankment stabilization to protect the bridge abutments from scour potential. In-water work will comply with fish habitat permit conditions issued by ADF&G.

Landscaping the river edge between the bridge site and the boat landing in Graehl Park, or between the bridge site and Noyes Slough, to provide fish friendly habitat is beyond the scope of this project and is more appropriate to be performed by owners/custodians of those properties.

Path drainage

We are encouraged to consider drainage on the path to prevent ice formation and accumulation. We agree that drainage is a very important consideration with any transportation facility, and especially for facilities adjacent to flowing water. Pathway and sidewalk designs will include crowns or cross-slopes to shed and prevent water accumulation on the path surface.

Sight distance around corners

We are encouraged to provide adequate sight distance around corners where embankments can obscure oncoming pedestrians and bicyclists. We agree that blind corners are undesirable for bicyclists and pedestrians. We also recognize that the new facility must efficiently utilize the limited space in which it must fit. By necessity, sight distance will have a practical limit due to limited space available; because of this, a supplementary means of traffic control - such as warning signs or pathway striping - may be incorporated in design to inform users of approaching conditions.

Hidden areas below the bridge

We are encouraged to remove hidden areas under the bridge where people can hide, drink, and set fires. We agree and have proposed the use of cast-in-place vertical wall abutments to eliminate access to potential hiding spaces between bridge girders. We proposed installing large, angular riprap between the underpass pathway and the bridge abutments to discourage off-path congregation and loitering. And we proposed land-shaping and brush clearing to visibly open the area below the bridge.