



Design Advisory Group Meeting #23

Magnolia Lutheran Church
June 7, 2006, 4:00 – 5:30 PM

Summary Minutes

Agenda

- I. Welcome
- II. Project Updates
- III. Bridge Type Concepts
- IV. Public Comment
- V. Adjourn

Attendees

Design Advisory Group

- Dan Bartlett
- ✓ Dan Burke
- ✓ Fran Calhoun
- John Coney
- Grant Griffin
- ✓ Lise Kenworthy
- ✓ Doug Lorentzen
- ✓ Jose Montaña
- ✓ Mike Smith
- David Spiker
- ✓ Janis Traven
- ✓ Dan Wakefield
- Robert Foxworthy (alternate)

Project Team

- Lesley Bain, Weinstein A|U
- ✓ Dirk Bakker, KPFF
- ✓ Sarah Brandt, EnviroIssues
- ✓ Gerald Dorn, HNTB
- Molly Edmonds
- ✓ Cela Fortier, City of Seattle
- Gregg Hirakawa, SDOT
- Mike Horan, KBA
- Katharine Hough, HNTB
- Steve Johnson, Johnson Architects
- ✓ Kirk Jones, City of Seattle
- Don Samdahl, Mirai Associates
- ✓ Lamar Scott, KPFF
- ✓ Peter Smith, HNTB
- ✓ Chelsea Tennyson, EnviroIssues
- ✓ Marybeth Turner, City of Seattle
- ✓ K. Wendell, KBA
- Terry Witherspoon, AMEC

Meeting Handouts

- ✓ *Agenda*
- ✓ *DAG #22 Summary Minutes*
- ✓ *Magnolia Community Club Meeting Summary*
- ✓ *Marina Meeting Summary*
- ✓ *Structure Type Matrix*
- ✓ *Structure Type Photos*
- ✓ *Structure Type Attachments*

I. Welcome

Sarah Brandt, EnviroIssues

Sarah welcomed the group and thanked everyone for coming. She asked if anyone would like to make edits to the meeting minutes from the previous DAG meeting. Hearing none, Sarah reminded the group that, as usual, she would take edits via phone or email through the end of the week.

Next, Sarah gave a brief overview of the agenda (and related supporting materials), which included the following:

- Project Updates
- Presentation of Bridge Type Concepts
- Next steps
- Public comment

II. Project Updates

Kirk Jones, SDOT

Magnolia Community Club Meeting

Kirk began by stating that May was a busy month for the project. He first highlighted the Open House hosted by the Magnolia Community Club on May 11th. The Club invited staff from four major projects affecting Magnolia to attend, including Amgen, the Port, the Interbay Neighborhood Association (a group looking at the Dravus Street redevelopment) and the Magnolia Bridge Replacement Project. Kirk noted that at this meeting he announced that SDOT had recommended Alternative A, as originally proposed. Therefore the project team is no longer looking at any different options related to Alternative A. He noted that there were not enough benefits of Modified Alternative A to overcome the negative impacts.

Marina Briefing

On May 18th, the project team met with the businesses at the Elliott Bay Marina. These businesses will likely be impacted longer than residents and businesses under the bridge because one of the first things to be demolished will be an access ramp from their location to the bridge. It must be closed and then removed in order to continue building the new bridge. Furthermore, one of the last things to be built will be the off-ramp from the bridge to the marina. There may be a short period of time where both ramps will be closed simultaneously, but for the most part, these businesses will have one ramp open. The team also began discussing future mitigation options with the business owners.

BNSF Meeting

On May 25th, the team met with Burlington Northern – Santa Fe (BNSF) Railroad about how the bridge will cross the train tracks. BNSF has many requirements and conditions for this work, and this will be the first of many conversations. BNSF did not have much time to review the letter SDOT sent that summarized the history of BNSF's financial contribution to bridge construction and maintenance. SDOT asked for a formal response noting what their financial participation on this project may look like.

“Bridging the Gap” Initiative

Kirk went on to discuss Mayor Nickels’ “Bridging the Gap” Initiative. He noted that many people were disappointed that the Magnolia Bridge Project was not included in this package. The initiative’s priority is to provide funding necessary to complete maintenance on existing infrastructure where funding had lagged, and the Magnolia Bridge Project did not appropriately qualify. Kirk noted that as time goes on, some of the projects allocated funds through this initiative might find support elsewhere, freeing up local funding that could be applied to the Magnolia Bridge Project. For now, the team will continue working to obtain federal and state grants and exploring partnering opportunities with the Port and BNSF.

Discussion

Traven: Does the Seattle City Council need to approve Mayor Nickels’ initiative?

Jones: Yes, it will go to the City Council to be put on the ballot.

Traven: So they could, in theory, not put it on the ballot?

Jones: That’s correct. Several council members have already expressed their desire to amend the current initiative.

Port of Seattle Update

Dan Burke was asked to provide an update on Port of Seattle projects linked to the Magnolia area. With little activity in the past month, he had nothing new to report on North Bay or the Cruise Ship terminal. Port staff are still working on the zoning overlay process, and the cruise ship terminal project is in midst of the environmental process.

Jones: Most of the cruise ship activity will not occur during peak traffic periods, which should not create even heavier traffic impacts.

Brandt: When we talked to the Marina they were excited about the idea of people who got off the cruise ships patronizing the local businesses.

Kenworthy: There is a concern that there is a lot of discussion with the cruise ships, but not with the marina and T90/91 tenants about this topic.

Burke: The Port and the City will be meeting with the tenants soon to talk about emergency access and other concerns related to cruise ships.

III. Bridge Type Concepts

Jerry Dom, HNTB

Jerry began by updating the DAG on where the team is at in the process of selecting bridge types. He noted that the design team began with a broad range of bridge types, which were later discussed with the group, and has started analyzing the advantages and disadvantages of each structure type. After analyzing the pros and cons of each, the team narrowed the options to three. Today, the team is seeking the DAG’s advice and input about the selection

of the best bridge types. After reaching a general consensus among the DAG members and design team, the design team will move ahead into preliminary design, including costs and construction schedules.

To help guide the DAG through the design team's preliminary selection of three bridge types, Jerry presented three documents:

- A PowerPoint showing example photos of each type
- A matrix analyzing the advantages and disadvantages of each type, and
- A series of attachments showing labeled sketches of each structure type

The Magnolia Bridge was split into three key areas, each with a specific set of challenges, the (1) the low-level structures, (2) railroad crossing, and (3) Magnolia bluff. Jerry first walked the group through the photos to familiarize the DAG with each structure type. He then reviewed the advantages and disadvantages of each structure and why the team decided to advance three types per area for further study. Please see below for a list of the structure types reviewed; those with an asterisk (*) were preliminarily selected to advance. "Base costs" are baseline costs estimated for each bridge area used in the previous cost estimate (in 2004 dollars). The Base Costs include structure cost only, without associated factors for roadway, right of way, ground improvements, inflation, and risks. Cost estimates will be updated and refined in the near future to reflect the final bridge types selected for further study.

Low-Level Structure Types (Base Cost: \$24 million)

- Prestressed Concrete I-Girders*
- Straight Cast-in-Place Concrete Box Girder*
- Straight Steel Plate I-Girder*
- Post-Tensioned Concrete Tub Girders
- Straight or Haunched Steel Box Girder

BNSF Railroad Crossing Structure Types (Base Cost \$6 million)

- Two-Span Steel Girder*
- Steel Tied Arch*
- Two-Span Cable Stayed Bridge*
- Steel Plate Thru-Girder
- Steel Truss
- Two-Span or Three-Span Cable Stayed Extradosed Bridge

Magnolia Bluff Structure Types

- Prestressed Concrete I-Girder*
- Straight or Haunched Concrete Box Girder*
- Straight or Haunched Steel Plate Girder or Steel Box Girder*
- Steel Tied Arch with Straight Concrete Box Girder
- Half-Through Arch with Straight Concrete Box Girder
- Two-Span Cable Stayed Bridge with Straight Concrete Box Girder
- Three-Span Cable Stayed Extradosed Bridge with Straight Concrete Box Girder

- Full-Height Concrete Deck Arch with Straight Concrete Box Girder
- Partial-Height Concrete Deck Arch with Straight Concrete Box Girder

For additional information on the advantages, disadvantages, and base structure costs for each structure type, please see the *Structure Types Matrix*. For visual examples of each of the structure types listed above, please see the *DAG #23 Presentation*.

Discussion

- Burke:** Could the section of the bridge over the railroad still use a pier?
- Dorn:** Yes. We are looking at options that would include a pier and options that would not.
- Burke:** What does “prestressed” and “post-tensioned” mean?
- Dorn:** Both terms basically refer to the construction method used to construct. Prestressed means tensioning is in the girders themselves with concrete poured around the cables. Post-tensioned refers to the force being added to the girders at the construction site after delivery.
- Kenworthy:** Is it fair to say that these are the only structure types you are carrying forward?
- Jones:** We are recommending three different types for each of the three areas of the bridge. We want to get your input and opinions to see if we are headed in the right direction.
- Montano:** Is the tub girder void inside?
- Dorn:** Yes.
- M. Smith:** Are you leaving open the option of barging in the girders?
- Dorn:** Yes.
- M. Smith:** How long could these girders be?
- Dorn:** They max out at about 200 feet long. We wouldn’t go longer than that.
- Kenworthy:** Is the new Tacoma Narrows Bridge a cable-stayed?
- Dorn:** No. It’s a suspension design.
- Jones:** I just want to preface the rest of this conversation by saying that the base costs we are referring to are the same figures we used 18 months ago. We haven’t made any changes to these yet, but we will when we have the three structure types finalized to move forward. These numbers are based on 2004

dollars. We just want to give you an indication of how these structures could influence the total project cost.

Kenworthy: Is the Anthony's Building going to come down?

P. Smith: No, just the loading dock.

Burke: The building that will be removed is to the west of Anthony's.

Kenworthy: What other buildings are you referring to? Right now there are none, right?

Jones: Correct. The drawings show potential building heights based on zoning. Jerry's comment referred to the fact that buildings will likely be constructed in this area in the future.

Kenworthy: We may be making assumptions that may not be warranted politically. Some of the Port Commissioners and the Mayor are not supporting the building height increase.

Burke: What is the difference between the straight and haunched steel plate girder? The only difference I see is that width transitions are very difficult. Is that the one thing in your opinion that made it a fatal flaw?

Dorn: Yes. We eliminated it because of the difficulty in transitioning between widths.

Burke: Is this the same reason the concrete tub was eliminated?

Dorn: Yes. The width of this structure makes the transitions very difficult.

In our meeting with BNSF, we learned that during construction over the railroad tracks, we might only get 2 to 3 hours at a time, on an irregular schedule, to work over the tracks. So now we need to consider what type of structures could accommodate a construction method such as this.

Burke: Do you have an idea about how much time it would take to construct the pier and be in that area over the tracks [using the Two-Span Steel Girder]?

Dorn: No, but we know it will be a deep, long foundation and amongst the railroad activity. This is in negotiation. It's the least cost, so that's why we are so interested. The advantage of a cable-stayed is that you avoid restrictions by the railroad because you don't have to touch the ground. You can get work done and do a longer, slimmer deck. The disadvantage is that it is by far the highest cost.

Burke: Can you describe the difference in impacts to the railroad between the different structure types?

Dorn: With a steel tied arch, you have options with how to build it. You can have it built adjacent to the site and bring it over and set it down. This eliminates a lot of work around the railroad because the actual supports are outside of the railroad envelope. Also, the arches can be erected in place using temporary supports.

Wakefield: Are there any considerations being given to safety in case of a train derailment?

Jones: If we select a structure type requiring a center pier, it would be a crash wall designed to sustain a crash. It would be a massive, solid wall about 4 feet thick and 80 feet long.

M. Smith: What's your opinion of your relationship with the BNSF Railroad?

Jones: They are working well with us on this project.

Kenworthy: What is the maximum length of a prestressed concrete I-Girder?

Dorn: About 160 feet. It is a long span, but it isn't as long as the other options we are looking at. At the bluff, we will choose straight or haunched based on the optimum appearance.

The next step is to discuss what the piers might look like and tie their design in with the same theme we select for the lighting, railings, etc. Selecting finishes, colors, and textures is all yet to come. Those details will be developed for the structure types selected to advance. Our intent is to cover that design information at the next meeting.

Jones: The cost figures give you an idea of the relative cost. Please take it back, look at it, talk to your neighbors and give us feedback. If you think we've missed something, please let us know as quickly as possible.

Traven: It would be helpful if we knew the detour/construction timelines for each structure type.

Jones: There are only three possible detours, and two use the Galer flyover. All of these structure types would be in same timeframe we've been discussing.

Kenworthy: Have you had conversations about these three options with John Okamoto at the Port?

Burke: I've been keeping him briefed. The idea of the fourth access has been discussed. There is the potential that the North Bridge [using Armory Way to cross the railroad tracks and connect with the Port's property from 15th Avenue W] would already be in place by the time we needed to close the Magnolia Bridge. We got the go-ahead to begin an issues paper on this topic. We plan to work together with the City on a letter of memorandum to ensure

that future project team members understand and implement our agreements. John definitely understands the issues.

Kenworthy: We don't want to wait until an emergency happens to discuss this. I had received an email based on a rumor. I think it's helpful to know what the chain of command is at the Port. The rumor was that because the detour routes were up in the air, Alternative A was not settled. The decision was announced at the Magnolia Community Club, so it would be helpful if we could avoid that in the future with an email to the group about these kinds of updates.

Lorentzen: Is this subject to the 1% for the arts budget?

Jones: No.

Kenworthy: Will we see a combination of these three sections at the next meeting?

Dorn: We will develop renderings that you will get to see, though maybe not by the next DAG meeting. The next meeting is dedicated to the finishes (railings, lighting, etc.).

Burke: Is one of these structure types similar to the Galer flyover.

Dorn: Yes, the low-level steel girder is similar to the Galer flyover.

Kenworthy: I think it would be helpful to have renderings before you ask for formal input from the group.

Jones: At this point we think these are the best three to advance and plan to further develop what they look like together. We've given you the information and our opinion. We want to know if we've missed something at this stage.

Montano: I don't think so. You addressed it very well.

IV. Public Comment

Kirk Jones, SDOT

There were no members of the public in attendance. However, Kirk introduced two new project team members, Yuling Teo, a structural supervisor for SDOT, and Dirk Bakker, a civil engineer at KPFF helping with the alignment.

V. Next Steps

Kirk Jones, SDOT and Sarah Brandt, EnviroIssues

Kirk raised the issue that the DAG's next meeting is scheduled for July 5th. With that being the week of the holiday, he asked the group if they would prefer to meet the following week on July 12th. With no significant objection to July 5th, the group agreed to keep the standing meeting on Wednesday, July 5th.

Sarah updated the DAG members on upcoming project outreach opportunities. The team will be at the Magnolia Farmer's Market on June 24, July 15 and September 16, as well as at the Magnolia Summer Festival on August 4 and 5. In addition, the team is planning to hold an open house late this summer

Conclusion: With no further comment from the project team, DAG members, or the public, the meeting was adjourned.

The next DAG meeting will be on July 5th from 4:00 to 5:30 pm at the Magnolia Lutheran Church (2414 31st Avenue W, Seattle).