

Ballard Pump Station

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Commissioners Present

Shannon Loew, Chair
Ross Tilghman, Vice Chair
Brodie Bain
Lee Copeland
Ben de Rubertis
Rachel Gleeson
Laura Haddad
Jescelle Major
John Savo

Commissioners Excused

Thaddeus Egging

Project Description

The Ballard Pump Station is a part of the Ship Canal Water Quality Project (SCWQP), a joint project between Seattle Public Utilities (SPU) and King County, to improve water quality in NW Seattle. The project includes a 2.7 mile tunnel for collecting, storing and treating stormwater runoff, four drop structures to provide access to the tunnel, and a pump station. The tunnel will be in the right-of-way for most of its path through Ballard, Fremont, and Wallingford neighborhoods. Currently, sewage and stormwater from Ballard, Fremont, Wallingford, and the northern portion of Queen Anne flow into the combined sewer system, which is directed to the West Point Treatment Plant in Magnolia. During heavy rain events the pipe system is designed to release combined sewage overflow (CSO) into the surrounding waterbodies via several outfalls. On average, there are over 160 CSO events, which results in the discharge of approximately 50 million gallons of polluted stormwater into adjacent waterbodies annually. When fully implemented the project is designed to reduce the frequency of CSO events to 1 per year at each outfall location based on a 20-year moving average. The proposed storage tunnel will temporally store 15 million gallons of CSO during heavy rain events. The stored combined water will then be sent to the West Point Treatment Plant via existing pipes.

The Ballard Pump Station will be located at the northwestern terminus of the storage tunnel, between 24th Ave NW, Shilshole Ave NW, Ballard Terminal Railroad, and two existing parking lots. The pump station will include an above ground structure that is approximately 40 feet in height as well as an underground drop structure that has an approximate depth of 100 feet. The drop structure connects to the SCWQP tunnel and houses the pump stations equipment. The station will pump stored CSO from the tunnel, and it will be conveyed to the West Point Treatment Plant.

Meeting Summary

This was the Seattle Design Commission's (SDC) first review of the Ballard Pump Station project. The purpose of this meeting was to review the concept design phase. After the presentation and discussion, the SDC voted 6-3 to approve the concept design phase for Ballard Pump Station project with several conditions and recommendations.

Recusals and Disclosures

There were no recusals or disclosures.

January 19, 2017

9:00 - 10:30 am

Type

CIP

Phase

Concept Design

Previous Reviews

None

Presenters

Alexander Mockos

SPU

Aaron Luoma

HBB

Christine Scharrer

Scharrer Architecture & Design

Attendees

Jason Huff

OAC

Colleen Petilla

HDR

Monica Thompson

HBB

Joelle Torre

SPU

January 19, 2017



Figure 1: Overview of the SCWQP (above) and location of the proposed pump station (below)

Summary of Presentation

Alexander Mockos, of SPU, and Aaron Luoma, of HBB, presented the concept design for the Ballard Pump Station project. Alexander Mockos gave an overview of the Ship Canal Water Quality Project (SCWQP), after which Aaron Luoma provided neighborhood and site context for the proposed pump station.

The SCWQP includes a 2.7-mile combined sewage overflow (CSO) storage tunnel, drop structures, and a pump station. The tunnel will be in the right-of-way for most of its path through Ballard, Fremont, and Wallingford neighborhoods. Mr. Mockos explained the history of the city's combined sewer system and current issues with CSO entering local waterbodies. As part of the SCWQP, The Ballard Pump Station will pump stored flows from the tunnel to the West Point Wastewater Treatment Plant located in the Magnolia neighborhood. See figure 1 for more detail

The proposed pump station will be located near the intersection of Shilshole Ave NW and 24th Ave NW in the Ballard neighborhood. The project site is currently zoned as Industrial General 2 and is located near the 24th Ave street end pier, Salmon Bay, and several commercial, office, and industrial buildings. Shilshole Ave NW is considered a major truck route.

The proposed design will include one above ground facility, impervious pavement for truck circulation, landscaping around the perimeter, bioretention swales, 8-foot height perimeter security fencing, six parking spaces, and one access point near the northeast portion of the site along Shilshole Ave NW. The proposed facility is approximately 40 feet in height and will include electrical and mechanical rooms as well as a solids handling bay, which will be used to access below grade equipment. A 100 foot drop structure is located below the facility. The drop structure will house pump station equipment, and it also connects to the CSO storage tunnel. The building façade will be constructed out of concrete and will include a masonry façade and heavily glazed window treatments.

The project site is designed to accommodate the circulation of heavy service unit trucks, which will make weekly trips, as well as firetrucks and 40-foot cab & trailer trucks, both of which will make annual trips to the site. The proposed landscaping will include low maintenance, low lying planting areas to increase visibility from Shilshole Ave NW and 24th Ave NW. Buffer landscaping will be placed on the south and east edges of the site to screen views from adjacent developments.

The project team has installed temporary art on site fencing currently surrounding the project site. The proposed art plan will include permanent art. The project team will place a call for artists in early 2017 and anticipates to select an artist by mid-2017.



Figure 2: Proposed site plan

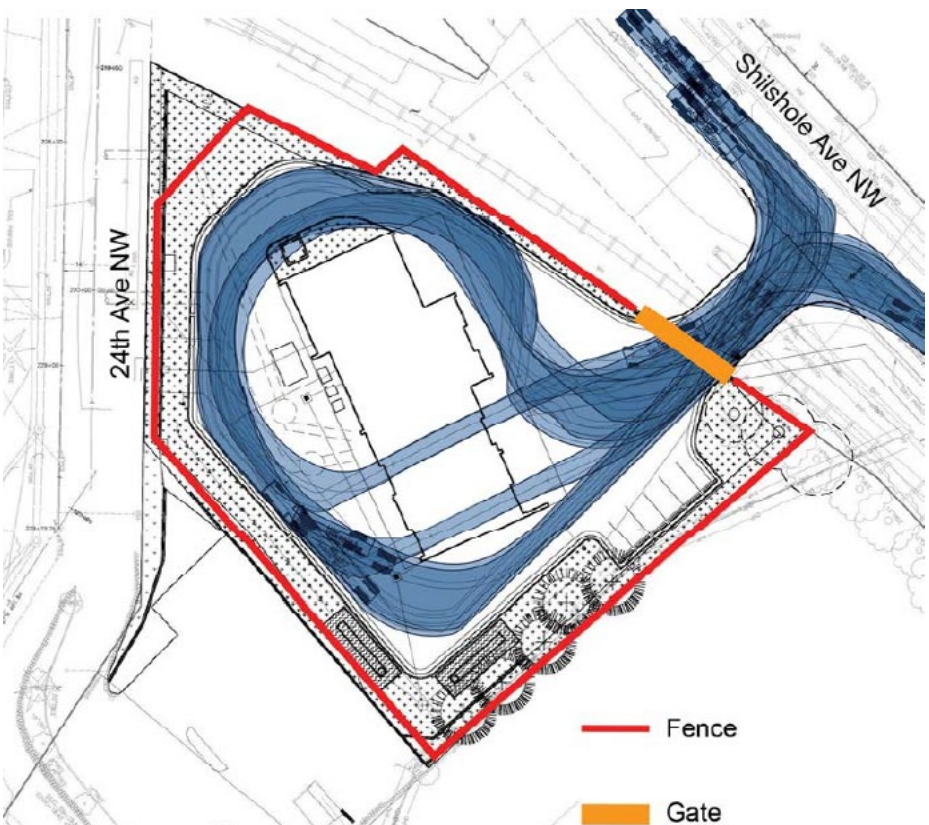


Figure 3: Proposed site access and circulation

Agency Comments

None

Public Comments

None

Summary of Discussion

The Commission organized its discussion around the following issues:

- Siting and landscaping
- Relationship with surrounding neighborhood
- Sustainability measures
- Architectural design

Siting and landscaping

To reduce the amount of impervious surface on the site and to increase the efficiency of the site, the commission recommended that the project team explore alternative circulation options that would not require trucks to circle around the entire site. The Commission thought this could be achieved by having an additional curb cut on 24th Ave NW and maintaining the curb cut proposed on Shilshole Ave NW with a driveway along the east side of the site to connect the two curb cuts. Commissioners indicated that this type of solution would still allow access for semi-trucks and firetrucks that need to access the site annually and reduce the amount of impervious surface. Commissioners also recommended the design team consider rotating the facility footprint to accommodate alternative circulation patterns as well as a greater amount of publicly accessible space. See figure 4 for more detail



Figure 4: Diagram addressing SDC circulation and access recommendations

The SDC encouraged the design team limit security fencing to only areas that needed to be secured rather than fencing the entire perimeter of the site. Commissioners recommended the exterior of the building be accessible to community members.

Relationship with surrounding neighborhood

The SDC encouraged the project team to create a site plan that is well integrated with the surrounding community, by emphasizing the design and functionality of the proposed above ground facility and on site green stormwater infrastructure (GSI) as well as allowing greater public access on site. As a way to better integrate the site plan, commissioners recommended the project team analyze the site layout and design from the viewpoint of publicly accessible space. The SDC also recommended the project provide educational and cultural opportunities to be used by the surrounding community.

Sustainability measures

The SDC recommended the project team reduce the amount of impervious surface while increasing the amount of GSI onsite. Commissioners encouraged the design team to provide greater public access through more areas of the site and to use the project as an educational opportunity for community members.

Architectural design

The SDC recommended the design team design the facility in a way that better relates to the surrounding community and expresses the functionality of the overall project. Commissioners encouraged the team to use the architectural

design to explain what is occurring below ground. Instead of being situated behind security and landscaping, commissioners recommended the exterior of the facility be visually and, if possible, physically accessible from the street.

Action

The SDC thanked the project team for presenting the concept design phase of the Ballard Pump Station project. The SDC voted 6-3 to approve the concept design phase for the Ballard Pump Station project with the following conditions:

1. Create a stronger conceptual framework to drive the relationship between the site design, architectural design, and the public realm
2. Reevaluate site circulation in a way to minimize the amount of impervious areas

The SDC also provided the following recommendations:

1. Reduce the amount of security fencing and vegetated screening needed in order to increase the visibility of the building within the surrounding urban context. Limit fencing to only areas that need to be secured to increase public access to the site
2. Coordinate with appropriate agencies in addressing public improvements that will occur on 24th Ave NW, including the pier to the south, and Burke-Gilman Trail completion
3. Provide educational and cultural engagement opportunities on site

The following are comments from commissioners who voted against the project:

John Savo- I admire so much about the project but I think the conditions provided by the SDC means the project team needs to go back and look at the project, not in terms of engineering, but rather to understand how they treat the site in very fundamental ways. What the SDC is asking is more than a condition. We are asking the team to restart portions of the project at the concept level.

Shannon Loew- I agree with John Savo. From an engineering perspective, this project is enormously challenging. While the portion of the project located above grade is small, it is a very important part of the project. The SDC is here to help the project design progress. I believe the project design needs a stronger conceptual framework.

Rachel Gleeson- I agree with both John Savo and Shannon Loew. I don't want to see that this project was merely tinkered with. Rather, I would like to see a different approach to the site design, which requires a new starting point.