

Montlake Triangle Charrette

Introduction

How was the Montlake Triangle addressed in the preferred alternative?

Bounded by Montlake Boulevard, Pacific Place, and Pacific Street, the Montlake Triangle is the southeastern entry to the University of Washington campus. The Triangle is also a unique urban design element of the Rainier Vista view shed. Looking southeast from Drumheller Fountain on the main campus, Mt. Rainier is framed within the boundaries of the Vista. At the southeastern entrance to campus, the Montlake Triangle is the beginning of the Vista that frames views of the campus and fountain.

Preservation of the Rainier Vista has been a priority for the University of Washington, with emphasis in recent years to reinforce its importance and to reemphasize its contribution to the UW campus and surrounding landscape. In recent years, discussions have included ensuring preservation of the Rainier Vista while accommodating proposed transportation improvement projects in the vicinity of the Montlake Triangle, including the UW's own Rainier Vista Land Bridge project connecting the main campus and the Burke Gilman Trail to the Montlake Triangle.

In response to ESSB 6099, WSDOT, Sound Transit, and King County Metro worked in cooperation with the University of Washington to prepare the 2008 SR 520 High Capacity Transit plan. This plan recommended developing the Montlake Triangle into a multimodal transit hub, and the Montlake Triangle Charrette was established to meet the first milestone of the study: define the first phase of Montlake Multimodal Center improvements. The Montlake Triangle area provides important connections to local and regional services, including access to the University of Washington campus, the UW Medical Center, and Husky Stadium; Sound Transit and King County Metro bus transit service; multi-modal access to SR 520; connections for pedestrians and bicycles to regional trails; and access to future Sound Transit University Link (U-Link) light rail service. Several Triangle-area projects are in the planning and design or construction phases, and the SR 520 project provides an opportunity to leverage existing plans and projects to maximize investment in the area. The SR 520 I-5 to Medina preferred alternative identified a placeholder to address enhanced pedestrian and bicycle connectivity in the Triangle area, while ensuring connectivity of the future regional path provided by the SR 520 project.

What issue are we trying to resolve?

Sound Transit designed a pedestrian overpass that connects the UW light rail station to the University of Washington campus and the Burke Gilman Trail by providing a grade-separated pedestrian crossing across Montlake Boulevard and Pacific Place. As the University of Washington's Rainier Vista Land Bridge project moved forward, Sound Transit's pedestrian overcrossing design was re-examined. A proposal was developed to couple UW's Rainier Vista Land Bridge project with a Montlake Boulevard mid-block pedestrian crossing to connect the campus and the UW station.

The SR 520 I-5 to Medina preferred alternative was also developed considering the UW's proposed Rainier Vista Land Bridge project. In the preferred alternative, the proposed land bridge across Montlake Boulevard provided a connection to campus, coupled with the Rainier Vista Land Bridge project. The primary objective of the preferred alternative land bridge was to provide a regional connection for bicycle and pedestrian users coming from SR 520 and other surrounding Seattle neighborhoods. This land bridge concept was essentially a placeholder until a group could be formed to study options for the Montlake Triangle area in more detail. The Montlake Triangle Charrette was formed to evaluate opportunities in the Montlake Triangle area to enhance regional pedestrian and bicycle connectivity and provide access for transit users going to and from the UW station, while respecting design and construction schedules for the Sound Transit UW station and University of Washington Rainier Vista Land Bridge projects.

As described below, neither the original Sound Transit design nor the University of Washington's Rainier Vista Land Bridge project would improve the regional bicycle connections between SR 520 and the Burke Gilman Trail. Both projects also relied on an at-grade crossing of Montlake Boulevard to provide a link between the UW station and the University of Washington Medical Center. The recommended plan described below resolves these issues.

Addressing the problem

How did we identify possible solutions?

The Montlake Triangle Charrette (MTC) included representatives from WSDOT, SDOT, Seattle City Council, University of Washington, King County Metro, Sound Transit, and the Seattle Design Commission. The group met weekly for five weeks in June 2010, a schedule constrained by the need to maintain adopted project schedules of the University of Washington and Sound Transit projects.

MTC members developed an evaluation filter to screen proposed designs for the Montlake Triangle area. The filter identified design features that were "must haves" for the charrette participants, including elements such as bicycle/pedestrian connectivity and safety, function of the Montlake Triangle area during events at Husky Stadium and Hec Edmonson Pavilion, coordination with the Rainier Vista Land Bridge design, and connection to the Sound Transit UW station currently under construction.

In addition to the five Montlake Triangle charrettes, a subgroup of urban planners and designers met to brainstorm possible solutions that responded to the conceptual ideas identified in the larger group. At each charrette, the design subgroup presented options for consideration and discussion. After group discussion, the charrette participants eliminated options from further consideration and identified refinements to the remaining options. In the end, this iterative process led to one option that was recommended for further study.

Recommendations

What did we consider?

The MTC considered a range of options for the Montlake area, including several designs for undercrossings, overcrossings, and at-grade crossing enhancements.

Undercrossing options

The undercrossing, or tunnel, options considered varied in depth, connection to the UW station, and connection to the surface of the Montlake Triangle. MTC participants identified the best undercrossing option to be a short, direct tunnel from the mezzanine level of the Sound Transit UW station to the southeast tip of the Triangle (south of the Triangle Garage), with elevators to the surface.

Benefits of this undercrossing included a direct pedestrian connection from the University of Washington to the UW station, while providing a grade-separated crossing for light rail passengers, separating the majority of pedestrians from bicyclists, and facilitating an efficient connection between bus and rail. However, the undercrossing option does not provide an enhanced connection for regional bicycle and pedestrian users going to/from the University or the Burke Gilman Trail from the SR 520 regional trail and surrounding Seattle neighborhoods. Without this regional connection, the undercrossing option does not provide adequate enhanced regional benefit to non-transit users.

Overcrossing options

Overcrossing options varied in the width of the structure, ranging from a wide land-bridge (accommodating bicycle/pedestrian users and incorporating edge landscaping) to a narrow pedestrian-only bridge. MTC participants considered where the overcrossing should “land” on the west side of Montlake Boulevard, discussing benefits of landing in the Triangle or on upper campus (as in the original Sound Transit pedestrian overcrossing design). A variety of ramp designs were also presented to provide bicycle and ADA access to the overcrossing. Over several meetings, MTC participants discussed the optimal combination of each of these elements. In the end, the group recommended an overcrossing width of 30-34 feet, landing on the Montlake Triangle, with a short, straight ramp to the west of the UW station.

Benefits of the selected overcrossing include a direct pedestrian connection from the UW station over Montlake Boulevard to the Montlake Triangle, then connecting to the University of Washington main campus and the Burke Gilman Trail via the Rainier Vista Land Bridge. This combined proposal would separate pedestrians and bicycles from vehicles and buses using Montlake Boulevard, while still allowing for enhanced at-grade pedestrian crossings at both the Montlake Boulevard/Pacific Street and Montlake Boulevard/Pacific Place intersections. The overcrossing option also provides multiple choices for regional and local bicycle users and efficient connections between transit modes in the Triangle area.

At-grade crossing designs

While a number of at-grade crossing improvements were considered, at-grade crossing improvements alone could not efficiently accommodate the increase in pedestrian and bicycle traffic expected in the area without impacting vehicle traffic. MTC participants identified key improvements that would benefit pedestrian and bicycle mobility in the Montlake Triangle area, and recommended that those improvements be made regardless of the final overcrossing or undercrossing options advanced for design refinement and adoption.

Final Montlake Triangle Charrette recommendation

MTC participants recommended further design and evaluation of an overcrossing between the Sound Transit UW station and the Montlake Triangle. The overcrossing would include a ramp on the west side of the UW station. MTC participants also recommended advancing the University of Washington Rainier Vista Land Bridge project, completing a number of at-grade crossing enhancements, providing improvements to connect the SR 520 shared use path to the Burke Gilman Trail, and making associated improvements to the Burke Gilman Trail, which together would ultimately provide a comprehensive solution for bicycle and pedestrian connectivity at the Montlake Triangle. This recommendation improves bicycle and pedestrian connections to the University of Washington and improves the walk time by reducing the distance between current and planned transit improvements in the Montlake area. Recommended at-grade improvements to be combined with the overcrossing option and the Rainier Vista Land Bridge include:

- At-grade enhancements at Pacific Street and Montlake Boulevard intersection, as provided in Sound Transit's UW station design plans.
- Paths for bicycles and pedestrians on the east side of Montlake Boulevard between the Montlake Cut and NE Pacific Place.
- Sidewalk enhancements to increase the size of bus stop waiting areas for all bus stops near the Triangle.
- Pedestrian paths between the bus tops and the pedestrian bridges.

The MTC recommended considering additional at-grade improvements in the Montlake area, including:

- Widening the Burke Gilman Trail between the existing Hec Edmonson bridge and the Hitchcock Hall bridge along NE Pacific Street, west of the Health Sciences Building.
- Creating an additional Pacific Street crosswalk near the UW Medical Center.
- Modifying the right turn from Montlake Boulevard to NE Pacific Place and enhancing crossing conditions at the intersection.
- Enlarging the pedestrian triangle at the right turn from Montlake Boulevard to NE Pacific Street.

Next steps

WSDOT, Sound Transit, King County Metro, University of Washington, and SDOT are working together at the staff and executive level to advance the MTC recommendation. Agency coordination includes options for moving forward with design, construction, funding, environmental review, and permitting of the design. In particular, the recommended design must be submitted for approval as an overpass structure to the City of Seattle, and be part of Sound Transit's NEPA reevaluation based on design changes to Sound Transit's UW station construction project. The recommended overcrossing option and enhanced at-grade crossings are shown in exhibit 1. Many elements of the recommended option and at-grade crossing improvements require further refinement and are currently under discussion.

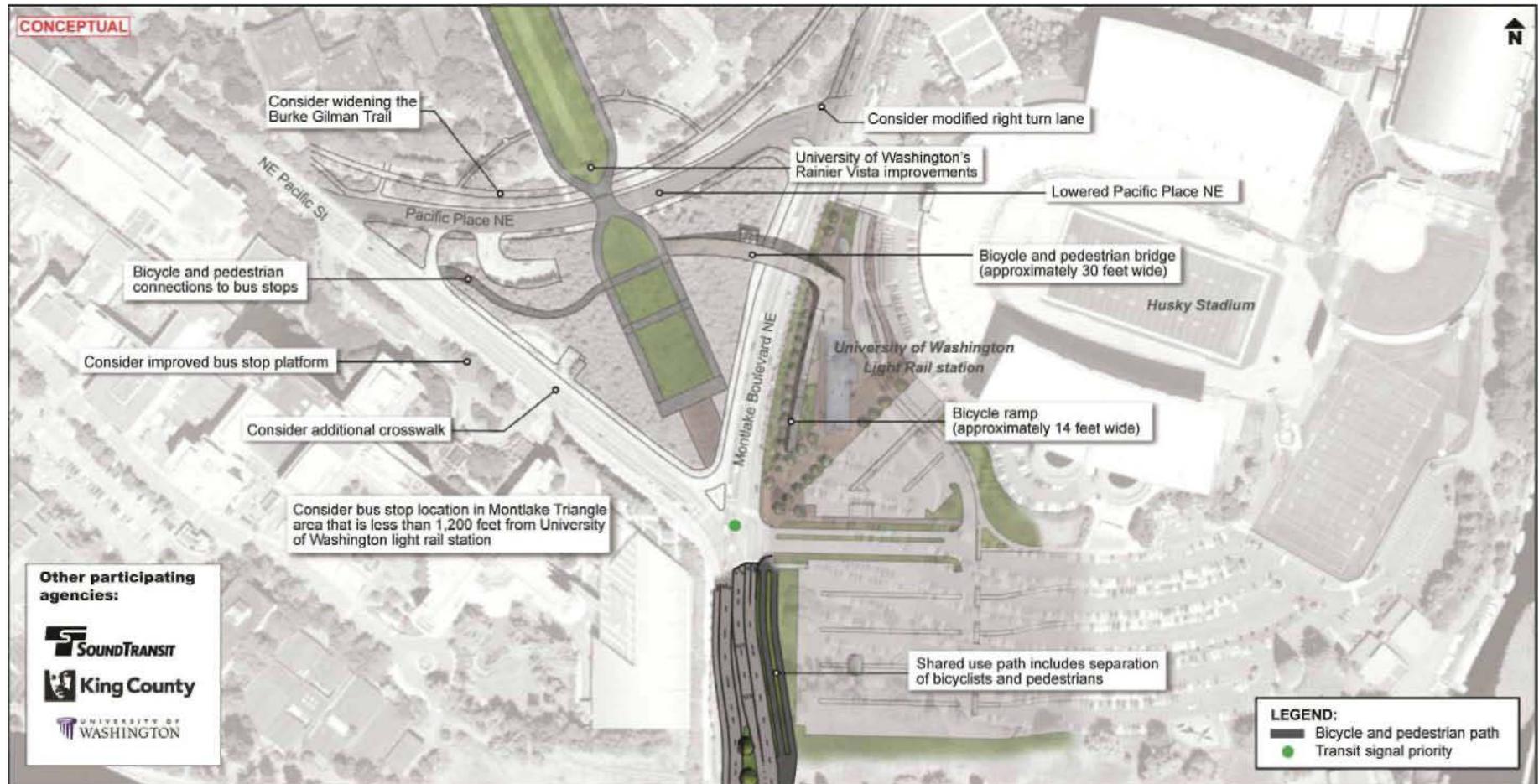


Exhibit 1. Montlake Triangle Charrette recommendations.