NE 45th Street Viaduct Project
West Approach Replacement

Frequently Asked Questions (FAQ)

Project Purpose and Need

Why does the NE 45th Street Viaduct need to be replaced?
The NE 45th Street Viaduct's existing west approach is nearing the end of its structural life and needs to be replaced to maintain a safe and efficient travel corridor for vehicles, pedestrians, and bicycles. The west approach is built on wooden timbers, some of which are from the 1930's. The viaduct has had several retrofits and partial reconstructions over the years. The wooden timbers need to be replaced to keep this busy corridor moving.

What is the timeframe for this project?
The project is currently in the final design phase. The final design will be complete in the early part of 2010, at which point SDOT will advertise the project for competitive bids from contractors. SDOT is planning to replace the 468-foot west approach during the summer of 2010. The NE 45th Street Viaduct will be closed to all traffic and pedestrians for up to three months, while preliminary construction could begin as early as April and will wrap up in the fall.

There is so much construction planned in this area of Northeast Seattle, why can't you wait to complete this project?
The replacement of the west approach of the viaduct is a safety project that needs to be completed to maintain the structural integrity of the viaduct. SDOT is aware of other major construction projects happening in the area, including the Sound Transit Husky Stadium light rail station, UW expansion, and possibly the Children's Hospital expansion. We are coordinating with these other projects closely to minimize the collective impact on the community. It is SDOT's goal to complete the west approach replacement before the repaving project begins on 15th Avenue NE from Pacific Avenue NE to NE 55th Street in 2011, as 15th Avenue NE is a major route for the NE 45th Street construction detour plan, and before work begins by the Washington State Department of Transportation (WSDOT) on the SR 520 Bridge Replacement and HOV Project.

Project Funding

How is this project being funded?
The project is part of the City of Seattle's Bridging the Gap program, and will cost approximately $30 million.

What is Bridging the Gap?
Bridging the Gap is the $365 million levy passed by Seattle voters in 2006. It enables much-needed work by SDOT, such as roadway paving, sidewalk development and repair, bridge maintenance, and tree pruning and planting. It also supports the Bicycle and Pedestrian Master Plans, enhanced transit connections and large Neighborhood Street Fund Projects.

Project Design

What will the new structure look like?
The cross section of the roadway will stay the same, with two westbound lanes, one eastbound lane and a designated pedestrian pathway. The west approach will be replaced with a new structure that uses a fill wall technology. The design consists of pre-made concrete panels used to create the solid outer walls of the structure, and backfill material between the new walls to support a new road surface.

Why not widen the bridge while you are rebuilding the viaduct?
An initial traffic analysis indicated that a major widening of the roadway was not necessary. Current and future traffic congestion is caused by nearby intersections, not the number of lanes on the existing viaduct. The replacement of the west approach will not preclude SDOT's ability to make future capacity or safety improvements to the structure at a later date.

Why wouldn't you replace the east approach at the same time as the west approach?
The east approach has been retrofitted and does not need to be replaced at this time.

Transportation and traffic detours

How many cars travel on the viaduct every day?
On average, approximately 20,500 vehicles use the viaduct each day, although traffic is lighter during the summer months.

What is the planned detour route during the viaduct closure?
Vehicles traveling east on NE 45th Street will be directed north or south on 15th Avenue NE during the viaduct closure. The southern detour will take vehicles south on 15th Avenue NE to Pacific Avenue NE, east on Pacific Avenue NE, and then north on Montlake Boulevard. The northern detour will take vehicles north on 15th Avenue NE to NE 65th Street, west on NE 65th Street, and then east to 25th Avenue NE. SDOT is still considering how to direct regional traffic on Interstate-5 trying to reach specific destinations such as Seattle Children's Hospital, the University of Washington or University Village.

How will the detour route be signed?
SDOT will use dynamic messaging signs (DMS) off of I-5 to alert drivers of the viaduct closure and detour route. DMS's and traditional detour signage will also be used at key intersections along the detour route to direct drivers. SDOT will use local access only signs on residential streets to discourage traffic from cutting through neighborhoods near the project area.

Are travel times expected to increase during the viaduct closure?
SDOT hired a company called Fehr and Peers to complete a traffic analysis to evaluate impacts during the viaduct closure. Fehr and Peers' analysis evaluated fall, winter, spring, and summer traffic conditions in the vicinity of the NE 45th Street Viaduct. Their results indicated that traffic conditions during the summer AM and PM peak periods with the viaduct closed will be similar to traffic conditions during the fall, winter and spring AM and PM peak periods with the viaduct open.

The study also identified key intersections along the designated detour route that will need modifications, such as signal timing changes or additional parking restrictions, in order to keep traffic flowing. SDOT is planning to implement improvements at these key intersections prior to the viaduct closure.

Is SDOT considering making improvements to traffic and pedestrian routes prior to the viaduct closure?
SDOT is committed to completing early action projects to keep traffic and pedestrians moving during the viaduct closure. Early action projects must be cost effective, be directly related to improving traffic or pedestrian routes during the viaduct closure, and balance the need for a short term fix versus a long term operational need. SDOT is considering operational improvements at major intersections along and near the detour route.

What is SDOT doing to minimize traffic on local streets during the detour?
SDOT is considering using local access only signs on residential streets near the project vicinity to discourage cut through traffic in the University Park and Ravenna neighborhoods. The main detour route uses major arterials designed to handle higher volumes of traffic and will be clearly signed and easy to follow for people who are not familiar with the area. While SDOT will discourage people who are familiar with the area from using routes through nearby neighborhoods to get to their destination, we cannot prevent it.

Will the viaduct closure affect freight?
Fehr and Peers' traffic analysis showed that very little freight uses the viaduct currently because of the steep grade. Therefore the closure is not anticipated to affect freight travel in the University District. Signage to specifically discourage trucks on neighborhood streets and to more clearly communicate current truck restrictions is also being considered.

Bicycle, Pedestrian and Transit

How will the construction affect the Burke Gilman Trail that runs underneath the viaduct?
The viaduct construction is not expected to impact the Burke Gilman Trail. If for any reason crews need to temporarily detour trail traffic, we will be sure to notify the bike and pedestrian communities in advance.

Will the new roadway include a bike lane?
The traffic analysis and conversations with the bike community proved that very few bicycles use the current viaduct as a bicycle route due to the steep grade. SDOT is considering including sharrows in the eastbound lane (downhill), but not in the westbound lane (uphill) due to space limitations.

Will an alternative pedestrian route be provided during the viaduct closure?
SDOT will provide pedestrian detour signs directing people north on 22nd Avenue NE where they can access the NE 52nd Street staircase during the viaduct closure. Pedestrians may also choose to walk through the University of Washington campus, and SDOT is working with the UW to improve pedestrian routes through campus.

Is SDOT considering any improvements to the NE 47th Street staircase?
SDOT has been working with the Seattle Parks Department and the Friends of Ravenna Woods to determine the feasibility of constructing a staircase along the NE 47th Street right-of-way from 22nd Avenue NE to Ravenna Ave NE through Ravenna Woods. Unfortunately, this project would be too complex to design and build before next summer. SDOT will complete the preliminary design for this project and it may be completed within the next few years once additional funding is identified.

What bus routes will be affected by the viaduct closure?

The King County Metro bus route #25 is the only bus that currently uses the NE 45th Street Viaduct. SDOT is working with Metro to find an appropriate detour route for the #25 during the viaduct closure.

Is SDOT coordinating with Sound Transit, King County Metro, and Community Transit?
Yes, SDOT is coordinating with the local and regional transit agencies to make sure they are aware of the viaduct closure and to plan ahead for any possible impacts to bus service. SDOT will continue to coordinate with these agencies as the project moves forward.

Will shuttles to Seattle Children's Hospital and the University of Washington Medical Center (UWMC) be affected?
Yes, Seattle Children's Hospital and the UWMC operate shuttles that use the viaduct daily. These shuttles will have to be detoured during construction. SDOT is currently working with the hospitals to identify viable detour routes during the viaduct closure. SDOT is committed to making sure the viaduct closure does not impact hospital operations and that emergency access is maintained at all times.

Construction

How much noise, dust, and light can be expected during construction?
SDOT will have more information about potential construction impacts after the environmental evaluation of the project is complete and the project goes out for bids from contractors in the early part of 2010. We are planning to hold an Open House in the spring to discuss construction impacts with the nearby community and SDOT will be in close contact with residents and businesses immediately adjacent to the construction zone about what to expect during construction.

In general, nearby neighbors can expect some increase in noise, truck traffic, and dust during construction. Due to the short duration of construction, it is likely the contractor will work at night which will require lights in the construction area. The contractor will comply with all city ordinances and permits that control the amount of noise, dust, and light allowed from a construction project.

What happens if construction takes longer than is anticipated?
SDOT is currently working with the design team to make sure the project can be built within the specified timeframe. The work that the design team is doing now will optimize elements of the project so that the new structure can be built quickly and efficiently. In the case that the contractor does run into a problem during construction, SDOT will work with the UW, other stakeholders, and the public to determine the best path forward.

Will access to residences or businesses be affected during construction?
SDOT is working with neighbors adjacent to the construction area to make sure they are aware of the closure and associated construction impacts. We do not anticipate needing to restrict access to any private property during construction.

Will SDOT provide contractor incentives for completing work ahead of schedule?
SDOT is currently considering using incentives to encourage the contractor to complete work ahead of schedule. SDOT is working with the design team now to ensure that the structure can be completed in the timeframe that has been outlined. Any incentives will be built into the contracting documents once the project is advertised for bid from contractors.

Public Outreach

How has the local community been involved in the project?
In the spring of 2009, we reached out to local government, institutions, community groups, major employers and businesses to determine the preferred approach for constructing this project. SDOT presented two options to these groups: a full closure of the viaduct during summer 2010 for up to four months, or a partial closure of the viaduct with one lane open in each direction for up to 18 months. The public overwhelmingly supported the full closure option for construction.

We are in the process of gathering feedback from the surrounding communities to ensure that impacts are as minimal as possible during the construction on the NE 45th Street Viaduct. Throughout final design, pre-construction, and construction we will create opportunities for the public to continue to provide feedback and to learn more about the project.

Are you working with the University of Washington, Seattle Children's Hospital, and University Village?
Yes, SDOT has been coordinating with the UW, Seattle Children's, the University Village, and other major institutions and businesses since spring 2009 and will continue to work with these institutions/businesses through construction to make sure their operations are not significantly impacted by the viaduct closure.

How will residents and businesses be informed about the closure and detour routes?
SDOT is planning to hold an open house in the spring to share the final closure schedule and detour routes with the nearby community. SDOT will make this information available on the project Web site as well. When the project gets closer to construction, SDOT will send out media and traffic alerts to notify the broader Seattle area about the closure. The detour route for the viaduct closure will be clearly signed and easy to follow. During construction, SDOT will send out regular updates to the project e-mail list, and will flyer local residents and businesses that are affected by specific work.

Environmental Considerations

What environmental regulations will be considered for the project?
The NE 45th Street Viaduct Project will be held to State environmental regulatory standards. The project will consider social/economic issues, biological resources, bicycles and pedestrians, historic and cultural resources, visual quality, land use, wetlands, and noise and vibration in the environmental review. The environmental review is expected to be complete this winter. The final document will be released to the public for a comment period in early 2010.

Ravenna Woods is an important green space. How will Ravenna Woods be impacted?
Ravenna Woods Park is located to the north of the current viaduct. The construction easement for replacement of the west approach will be located on the south side of the structure. Therefore, we expect impacts to the Ravenna Woods to be minimal during construction. SDOT is working with the Friends of Ravenna Woods to identify any potential impacts from the construction and will propose adequate mitigation, potentially including re-landscaping and invasive plant removal.

How will plants and animals be protected?
SDOT will be protective of plants and animals during construction and will comply will all local and state environmental regulations.

Contact Information

Where can I find out more information about this project?
For the latest news and information, please visit our project Web site at:
www.seattle.gov/transportation/45th-bridge.htm.

If you have specific question or would like to schedule a briefing for your neighborhood or community group, please contact:

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