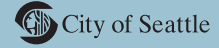




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Emergency staircases would allow travelers to exit between levels in the event of an emergency.

Public safety a top priority in bored tunnel

The proposed SR 99 bored tunnel would be a safe place for travelers. Engineers would design the tunnel to withstand an earthquake, flooding or other disaster. The proposed tunnel would also include additional safety features, such as wide lanes and shoulders, and the latest in state-of-the-art ventilation, fire detection and suppression, and lighting systems.

Tunnels are built to be safe during natural disasters.

Earthquakes

Geotechnical and structural engineers agree that tunnels can be designed as one of the safest places to be during an earthquake. This is because ground movements below the surface are much smaller than the amplified movements above the surface. The proposed SR 99 bored tunnel would be designed and built to current seismic standards.

Flooding

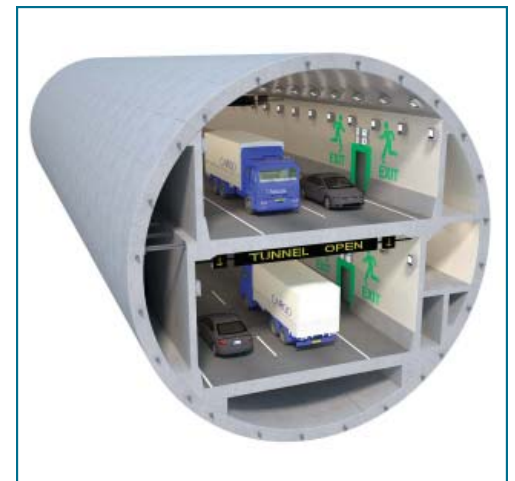
Engineers would design the tunnel to prevent possible flooding. The concrete lining of the tunnel would have special gaskets to prevent groundwater seepage. The tunnel would be equipped with a state-of-the-art drainage system with pumps, if water from fire sprinklers or surface water needed to be removed.

Other central waterfront fact sheets include:

- All tunnels are not the same: SR 99 deep bored tunnel vs. the waterfront tunnel
- Comparison of the Big Dig and the Alaskan Way Viaduct and Seawall Replacement Program
- Learning and listening: How the bored tunnel recommendation was developed
- Learning from local and international tunnel projects

Tsunamis

In the event of a tsunami, it is highly unlikely that a wave would overtop the seawall and reach the proposed tunnel. WSDOT and the City of Seattle investigated this risk and found that the only time this could happen would be during a very high tide. If a tsunami were to occur during a very high tide, water could potentially reach one foot higher than the seawall. A tsunami meeting those conditions is estimated to occur only once every 23,000 to 60,000 years. The tunnel's portals would also be designed to restrict the entry of water from tsunamis.



The proposed bored tunnel would have two lanes in each direction with a wide shoulder on each level.



For More Information:

Visit the Web site at:
www.alaskanwayviaduct.org

Call the hotline:
 1-888-AWW-LINE

Send an e-mail to:
viaduct@wsdot.wa.gov

Send a letter to:
 Alaskan Way Viaduct and Seawall
 Replacement Program
 c/o Washington State
 Department of Transportation
 999 Third Avenue, Suite 2424
 Seattle, WA 98104

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Safety features would be built into the proposed SR 99 bored tunnel's design.

Wide lanes and shoulders

Two 12-foot travel lanes in each direction would ensure enough space for even the largest highway trucks of legal size. Both levels of the proposed bored tunnel would include a wide shoulder to allow disabled vehicles to safely stop and to improve access for emergency vehicles. Long, gentle curves would allow for safe sight distances.

Refuge areas and exits

Secure waiting areas between the tunnel's levels, also known as safe refuge areas or points of safety, and emergency exits would be provided by an enclosed walkway. Access to the refuge areas and walkways would be provided at least every 650 feet. In an emergency, travelers would walk along the shoulders to reach a doorway into a refuge area. Staircases inside the refuge area would provide access between the roadway levels. Signs would point travelers to the nearest exit where they would wait for assistance in a refuge area or walk out of the tunnel. Refuge areas would also contain emergency telephones.

Tunnel control center

State-of-the-art smoke detectors, air quality monitoring equipment and video cameras

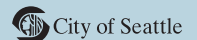
would provide real-time information to the operators at WSDOT's 24-hour control center and allow quick response to changing conditions and emergencies. The control center would have direct lines to the Seattle Fire Department, Police Department and other emergency responders.

Ventilation and sprinkler technology

The proposed SR 99 bored tunnel would include the latest technology in ventilation and fire protection systems. Smoke, fire, heat and exhaust gas monitoring systems coupled with video cameras would allow continuous detection of hazardous conditions in the tunnel and allow for rapid response of both sprinkler systems and emergency fan systems.

Two independent power sources would ensure a reliable source of electricity.

In addition to these features, WSDOT would develop emergency response plans that would be incorporated into the tunnel's design and operation as required.



Americans with Disabilities Act & Title VI information

Americans with Disabilities Act (ADA) Information: Materials can be provided in alternative formats: large print, Braille, cassette tape, or on computer disk for people with disabilities by contacting Heather Santic at 206-267-3789 / SanticH@wsdot.wa.gov. Persons who are deaf or hard of hearing may make a request for alternative formats through the Washington Relay Service at 7-1-1.

Title VI: WSDOT ensures full compliance with Title VI of the Civil Rights Act of 1964 by prohibiting discrimination against any person on the basis of race, color, national origin or sex in the provision of benefits and services resulting from its federally assisted programs and activities. For questions regarding WSDOT's Title VI Program, you may contact the Department's Title VI Coordinator at 360-705-7098.