

**SEATTLE DEPARTMENT OF TRANSPORTATION (SDOT)
DEVIATION REQUEST FORM**

Please complete this form and attach materials specified in the Right-of-Way Improvements Manual, Chapter 2.6: Deviation Request Process for Right-of-Way Improvements.

Project Name and Site Address:	Project Name: S HOLGATE ST TO S KING ST VIADUCT REPLACEMENT PROJECT Site Address: New roadway referenced as the "Undercrossing" that provides a grade separated bypass of the RR crossing on S. Atlantic Street west of First Avenue S.
Today's Date:	March 24, 2010
APPLICANT INFORMATION	
Name:	John Fenedick, P.E.
Contact Phone #:	(206) 267-3843
Mailing Address:	999 3 rd Ave, Suite 2200 Seattle, WA 98104
SUMMARY OF DEVIATION REQUEST	
Define the existing standard or design criteria to be deviated from: <i>(include specific references to Standard Plans and Specifications and the ROW Manual when appropriate)</i>	Vertical clearance from roadway surfaces. Section 4.20.2 (Design Criteria) Seattle Right of Way Improvements Manual. Section 4.20.2 states that the standard vertical clearance from a roadway surface to any horizontal projection over the roadway surface should be at least 20 feet. Section 4.20.2 further states that this vertical clearance may be reduced to 16.5 feet in certain cases.
Describe your reasons for the deviation request: <i>(e.g., the standard or design criteria can not be met, deviation design supports overall project proposal)</i>	The desired vertical clearance is not provided due to a combination of physical constraints and operational commitments. The physical constraints (intersection locations on S. Atlantic Street, major underground utilities in S. Royal Brougham Way, and a RR track) form a tight box for the grade separated RR bypass, also known as the "undercrossing." The undercrossing is a new roadway that is essential to enhance freight mobility as part of the Alaskan Way Viaduct and Seawall Replacement Program (AWVSRP). The operational commitment, also essential to enhance freight mobility, is a stated desire to minimize the longitudinal grades of the new RR bypass roadway. With the given constraints, a 20-foot vertical clearance would result in longitudinal grades of approximately 6.5% for this

	<p>roadway. However, by relaxing the vertical clearance requirement to no less than 16.5-feet, the maximum profile grade is approximately 5.6%.</p>
<p>Summarize the design proposal:</p>	<p>S. Atlantic Street, west of First Avenue S. is realigned northward from its current location to connect directly to the Port of Seattle’s Terminal 46 (T-46) driveway. The lane channelization and width of S. Atlantic Street are adjusted to provide two lanes in each direction from the existing intersection with First Avenue S., to the relocated T-46 entrance. Additional width is required to incorporate left turn pockets approaching Colorado Avenue S., and also at the approach to a new roadway that replaces the existing Alaskan Way S.</p> <p>A grade separated (underground) RR bypass roadway is provided from the north intersection leg of the S. Atlantic Street and Colorado intersection, to the north intersection leg at the new T-46 entrance (at the intersection of S. Atlantic Street and E. Marginal Way S). This “undercrossing” is a new two-lane, two-way roadway that will facilitate freight and general purpose traffic mobility during closures of S. Atlantic Street due to RR operations. This roadway is approximately 2,000 feet long. The 12-foot lanes and shoulders are designed for a WB-67 truck as the design vehicle. The site constraints limit the design speed to 20 MPH (using AASHTO criteria). The limiting vertical clearance constraint is a RR bridge that cannot be lifted further to comply with the City of Seattle guidelines.</p>

JUSTIFICATION	
<p>Describe how the proposal differs from the existing standard or design criteria:</p>	<p>A minimum of 16.5-feet of vertical clearance is provided; the designed vertical clearance is less than the 20-foot minimum desirable clearance per the City of Seattle Right of Way Improvements Manual. The City guidelines further state that 16.5 feet is allowable in certain cases.</p>
<p>Describe how traffic safety and operations will not be adversely affected by this deviation:</p>	<p>Traffic safety and operations will not be adversely affected by this deviation.</p> <p>The proposed 16.5-feet of vertical clearance is sufficient and appropriate at this location because an overheight vehicle can use the at-grade alternate route provided by S. Atlantic Street.</p> <p>The proposed 16.5-feet of vertical clearance complies with the absolute minimum of 16.5 feet that can be used in certain cases (per the City of Seattle Right of Way Improvements Manual).</p> <p>The proposed 16.5-feet of vertical clearance complies with</p>

	<p>the WSDOT requirement of 16.5 feet minimum vertical clearance for a new structure bridge over a roadway (WSDOT Design Manual, Chapter 1120-Bridges, page 1120-3, November 2007).</p> <p>The proposed 16.5-feet of vertical clearance exceeds the 2004 AASHTO Green Book requirement of 14 feet minimum over the entire roadway width with allowance for future resurfacing for local urban streets (2004 AASHTO Geometric Design of Highways and Streets, page 399, Fifth Edition).</p> <p>Also note that the proposed design enhances several other traffic safety and operational considerations since a 20-foot clearance requirement would require steeper vertical grades for the undercrossing profile; reducing the stopping sight distance approaching the S. Atlantic St. intersections. A steeper grade would also result in higher fuel consumption, pollution, and noise.</p>
<p>Describe how the deviation will not adversely affect maintenance and associated costs:</p>	<p>Maintenance and associated costs will be comparable for roadways with vertical clearances that range from 16.5 to 20-feet. This deviation will not affect maintenance and associated costs.</p>
<p>Describe how the aesthetic appearance will be maintained:</p>	<p>See the S HOLGATE ST TO S KING ST VIADUCT REPLACEMENT PROJECT Streetscape Design Report.</p>

Approved by: _____ *P.E. (required for engineering improvements)*

SDOT Approval: _____ *Street Use Division Manager*

_____ *Roadway Design Engineer*

_____ *City Traffic Engineer*