

Local Programs Division

Local Agency Name: City of Snoqualmie Contact Person(s): Michael Chambless Title: Public Works Director Street Address: 38624 SE River St. City, State, Zip: Snoqualmie, WA 98065 Phone: 425.888.8025 Email: MChambless@snoqualmiewa.gov	Name of Metropolitan or Regional Planning Organization: PSRC State Legislative District #(s): 5 Congressional District #(s): 8 See: http://app.leg.wa.gov/DistrictFinder/Home/
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Crossing Name: Snoqualmie Parkway

USDOT Crossing number: 917624C

WSDOT Region assigned to the jurisdiction: See <http://www.wsdot.wa.gov/LocalPrograms/regional.htm> for more information.

Eastern North Central Northwest Olympic South Central Southwest

If any projects in this application involve roadways owned or managed by another jurisdiction, such as a City, County, Indian Tribe, or WSDOT, list the roadways:

Please include a letter or email from each of the other jurisdictions that indicates concurrence with this application. Projects on state routes shall be coordinated through the appropriate WSDOT regional office. Contact the Region Local Programs Engineer at <http://www.wsdot.wa.gov/LocalPrograms/regional.htm> to request concurrence.

Comments:

The Snoqualmie Parkway railroad crossing is located entirely within the City of Snoqualmie and is 30 feet from intersection with SR 202.

Attachment: The following item must be included with the application.

- Detailed vicinity map, with clearly marked project limits, that shows the project's location.

A general vicinity map and a crossing vicinity map are attached to this application along with a map showing the general arrangement of crossing safety improvements.

General Project Information:

This project will improve safety on this railroad crossing of the principal arterial roadway that receives all the northbound traffic from SR 18. Specifically, the project will,

- widen the sidewalks on each end of the crossing and continue pedestrians behind the crossing gates so no one is trapped between a gate and a moving train
- widen sidewalk on east side of crossing from 4 feet to 8 feet to accommodate pedestrian surges from the adjacent park's use as summertime overflow parking for Snoqualmie Falls.
- remove center median signals and replace with cantilever structures on each shoulder so that flashing lights may be placed over each lane, which will greatly improve visibility and eliminate the center median collision risk
- change train detection to a constant warning time device to reduce traffic congestion
- change flashing lights to LED fixtures to increase intensity
- add a train-activated trespass mitigation gate across the tracks on the east side of the crossing to reduce trespass on the railroad
- project will replace train detection for the trespass mitigation gate at the hydroelectric power station to provide compatibility with the device at the Snoqualmie Parkway.

Roadway Data

Posted Speed Limit	40 mph
Traffic Count and year (AADT)	11,000 (current)
Buses per day	20
Vehicles per day	2,200
Commercial motor vehicles per day	5,500
% Trucks	80%

- | | |
|---|--|
| <input checked="" type="checkbox"/> Sidewalks | <input checked="" type="checkbox"/> Principal Arterial |
| <input checked="" type="checkbox"/> Paths | <input type="checkbox"/> Minor Arterial |
| <input type="checkbox"/> Bike Lanes | <input type="checkbox"/> Major Collector |
| <input checked="" type="checkbox"/> Urban | <input type="checkbox"/> Minor Collector |
| <input type="checkbox"/> Rural | <input type="checkbox"/> Local Access |

Railroad Data

Railroad Name	Snoqualmie Valley Railroad
Number of tracks	2
Train Speed*	5-15
Trains per day*	Average 2

*Obtain information from the Railroad. The Washington Utilities and Transportation Commission (UTC) can provide Railroad contact information. UTC Contact: rail@utc.wa.gov

Exposure Factor:

Number of trains per day multiplied by number of vehicles per day: _22,000_

Existing Warning Devices: List existing warning devices, e.g. pavement markings, crossbucks, shoulder mounted signals, cantilever signals, automatic gates, etc.

Crossing is protected advance warning signs, style C train detection, traffic signal pre-emption, flashing lights, including auxiliary lights for turn lanes, train activated "no turn" signs, four cross bucks, and two crossing gates.

*Obtain information about Crash Data. WSDOT Local Programs can provide guidance. Engineering Services Safety Analyst Contact: paul.snow@wsdot.wa.gov

Crashes: Enter the number of train/vehicle crashes for the last five years.

This crossing has experienced several near misses, but its crash record is most notable for crossing signal collisions. One three occasions in recent years, center median signals have been destroyed by trucks that have failed to properly negotiation the right turn from SR 202 onto the Snoqualmie Parkway. The most recent incident was in December 2020 and was a near-fatal wreck involving a log truck. A non-mountable median will not fully mitigate the underlying issue of poor intersection geometry because of the break in the median for the railroad crossing.



Rating Factors:	Yes	No
Crossing Closure		x
Hazardous Materials Rail/Truck	x	
Bike/Pedestrian Use	x	
Truck Route	x	
Bus Route	x	
Traffic Signal (stop sign) less than 200 feet from Crossing/Limited vehicle storage	x	
Crossing Grade more than 5%		x
Passenger Train Use	x	
Train Speed over 25 mph		x
Reported Near Misses	x	

Stopping Sight Distances:

**Choose direction that is closest to direction of traffic flow over crossing.*

Required to Stop <i>(in feet)</i>	Direction <i>(N to S, SW to NW, etc.)</i>	Additional Information
1. 205	N TO S, E TO W	Visibility impaired in this T intersection as vehicles executing a turn in this direction of travel.
2. 102	N TO S, W TO E	Visibility impaired in this T intersection as vehicles executing a turn in this direction of travel.
3. 205	S TO N, E TO W	Sight lines partially obstructed.
4. 102	S TO N, W TO E	Sight lines partially obstructed by vegetation.
5.		
6.		

The intersection angle of the grade crossing should be as close to a right angle as is practical for the location so that sight distances for both the road user and the train operator will be optimized.

Crossing Angle: 90 degrees

Consensus:

The center island signals are in a vulnerable location, and vehicles turning from SR 202 onto southbound Snoqualmie Parkway have difficulty see the flashing lights if there are any vehicles in front of them. Semi trucks further compound signal visibility, and apparently have periodic issues negotiating the turn. Moving the flashing lights to cantilever structures will place flashing lights over all lanes, greatly improving visibility and mitigating the potential for future center median incidents.

Widening of the crossing will be required to accommodate the cantilever structures, and to continue to allow pedestrians to be routed around the outside of the gates. Furthermore, the park located on the SE quadrant is used for Snoqualmie Falls overflow parking during peak periods, which generates sudden surges in pedestrian traffic that must use the Snoqualmie Parkway railroad crossing and at present occasionally results in pedestrians stepping into the road lane. Widening the sidewalk from 4 feet to 8 feet and moving it back from the face of the curb (which is flush with the surface of the crossing) will improve pedestrian safety at the railroad crossing.

Changing train detection to a constant warning time device will reduce congestion and improve safety by reducing driver frustration. Train speeds vary and switching does occur in the east approach circuit, which at present often generates longer warning times because the circuit is design for minimum warning time with the fastest train.

Pedestrian trespass on the railway right of way is an ongoing concern that both the City and the Museum have been addressing. Adding a train-activated gate on the east side of Snoqualmie Parkway crossing will help encourage pedestrians to use the designated pedestrian trail. (An existing train activated gate is in the west track block and protects the adjacent hydroelectric generating station from pedestrian trespass. This gate would remain in place as is, but would interface with new train detection in any replacement signals.)

Where are you in conversations with the Railroad about this project: *Explain:* **The Snoqualmie Valley Railroad is owned and operated by the Northwest Railway Museum, The Museum and the City of Snoqualmie have a close working relationship. The Museum and the City have been holding talks about crossing safety. The Museum and the City worked together on this proposal.**

Where are you in conversation with the Public and/or business owner's about this project:
Explain: **Improving safe access to the park has been discussed in prior public meetings and focus groups involving the downtown infrastructure project but has not been able to advance due to a lack of funding.**

Where are you in conversations with the Local Agency about this project: *Explain:* **The Snoqualmie Valley Railroad is owned and operated by the Northwest Railway Museum. The Museum and the City of Snoqualmie have a close working relationship. The Museum and the City have been in regular communication about crossing safety improvements, and about ways of reducing traffic congestion, which also affects crossing safety. The Museum and the City worked together on this proposal.**

Where are you in conversations with the Public and/or business owner's about this project:
Explain: **The railroad has received informal communication from the public expressing a desire for less traffic disruption at this busy crossing. Specifically, motorists contact the railroad about traffic disruption caused by the gates and lights activating when trains are switching tracks in the approach circuits.**

Project Schedule (enter dates as Mo./Yr.)

Project Milestone	Estimated Date
Project added to the Statewide Transportation Improvement Program (STIP)	TBD Mo./Yr.
Project agreement signed with WSDOT Local Programs	04/23.
Begin PE (PE phase authorized by FHWA through WSDOT Local Programs)	04/23
Community/stakeholder engagement complete	TBD Mo./Yr.
Environmental documents approved by WSDOT Local Programs (required for every project)	05/23
Begin right-of-way (RW phase authorized by FHWA through WSDOT Local Programs)	N/A
Railroad contract	04/23
Contract advertised for roadway work (if required)	N/A
Contract awarded (must occur within two years of selection) (currently a 6 month lead for signals)	05/23
Open to traffic	11/23
Construction complete	11/23

Phase	Total Cost¹	Local Match	Program Funds Requested^{1,2}
Preliminary Engineering (PE)	\$ 15,000	\$	\$ 15,000
Right of Way (RW)	\$	\$	\$
Construction	\$ 830,634.	\$	\$ 830,634.
Total	\$ 845,634.	\$	\$ 845,634.

* Are ALL local match funds secured? Yes _____ No _____ N/A

Source(s) of match funds²: _____

1. Round all numbers to the nearest whole dollar (do not include decimals).
2. Projects require a ten percent local match per phase (preliminary engineering/design, right-of-way, and construction) for all eligible federal expenditures. If the construction phase is authorized by **April 30, 2024** then that phase will be eligible for 100% funding (no local match required). Federal funds cannot be used as match for any phase.

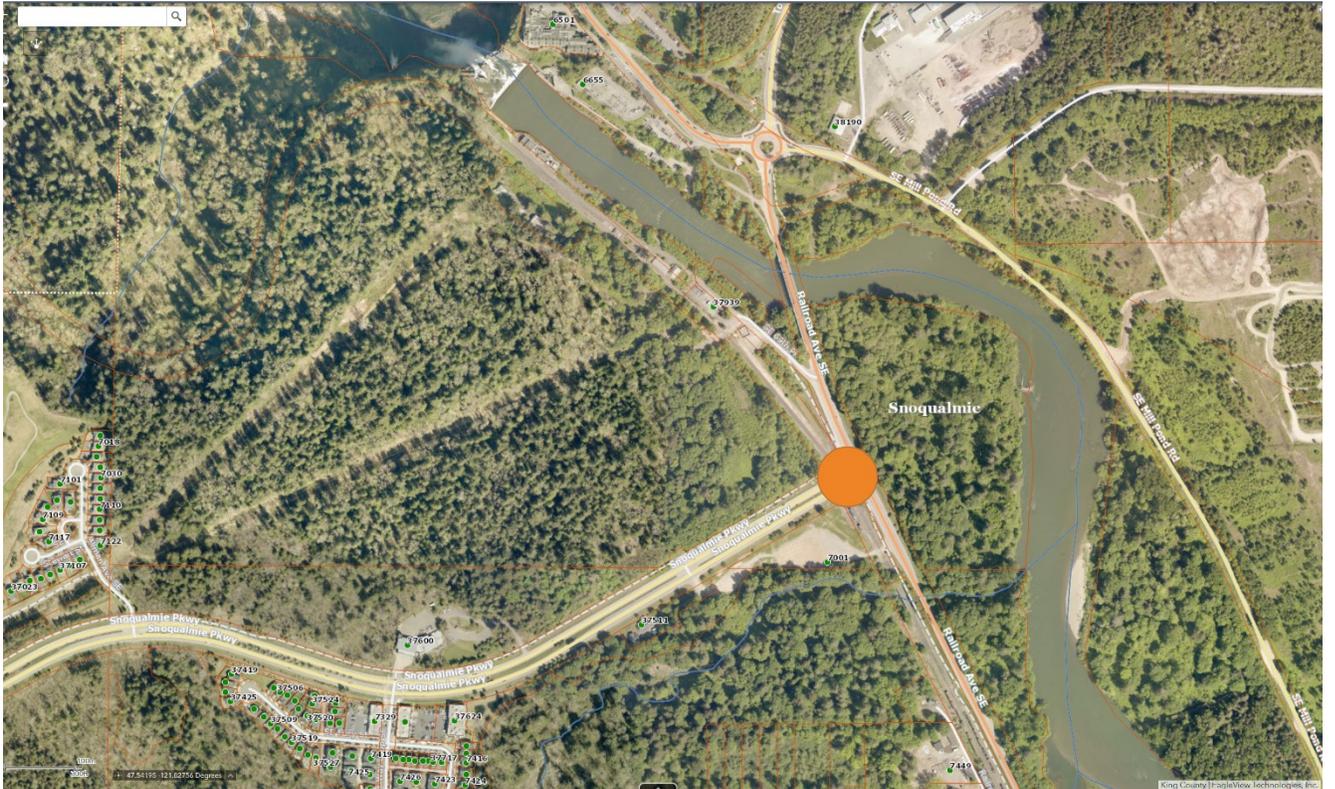
Signal purchase and installation - \$528,000. Does not include replacement of train-activated “no turns” lights located on intersection traffic signals. Cost estimates developed by Midvale Electric and Alstom.

Crossing widening - \$199,500 includes new rail and placement of concrete crossing. Cost estimates developed by Railworks Track Systems.

**Sidewalk interface - Est. 42 square yards of concrete sidewalk @ \$225 per square yard \$9,450
(Cost derived from sidewalk repair contract now in place in City of Snoqualmie)**

Train activated gate – \$26,500. Automatic gate across tracks to deter trespass. Cost estimate developed by railroad from recent gate repair work.

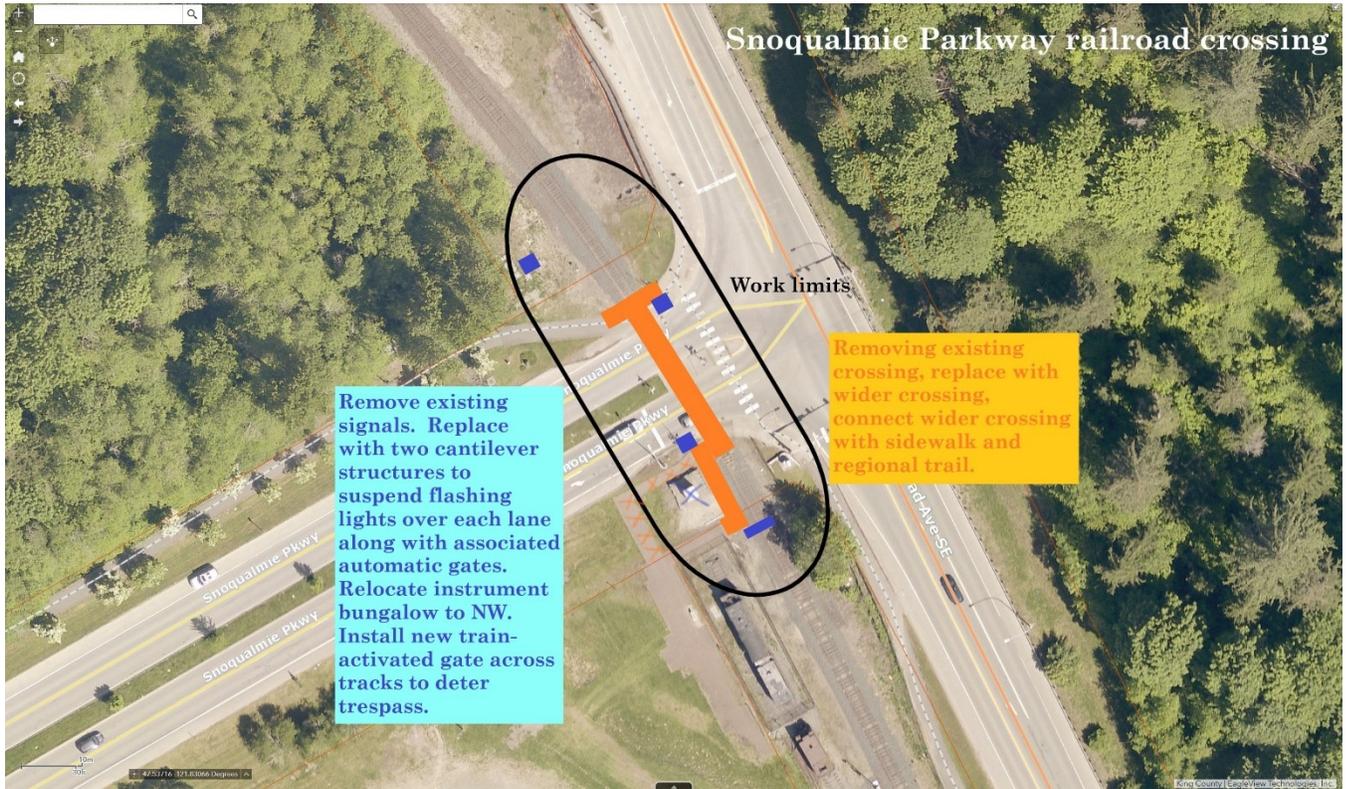
Sales tax - \$67,184.



Vicinity map for Snoqualmie Pkwy crossing; north is towards the top of the page. Snoqualmie Falls is shown at the top; most of the 2 million annual visitors use Snoqualmie Pkwy to access the park.



Crossing vicinity map for Snoqualmie Pkwy crossing.



Overview of proposed safety improvements.