

## Technical Report Summary: Noise and Vibration

This summarizes the key findings of the *Draft Environmental Impact Statement* detailed in the *EQRB Noise and Vibration Technical Report*.

### Affected Environment

The study area includes noise-sensitive land uses located within approximately 750 feet of the project alternatives and within 500 feet of haul routes designated to haul material to and from construction sites. Because vibration decreases more quickly with distance than noise, the vibration study area is smaller, within approximately 300 feet of areas where earth disruption or off-road construction equipment would be located. Trucks using haul routes are not typically sources of vibration impacts; therefore, there is no study area for vibration associated with the haul routes.

### Mitigation

To mitigate temporary noise and vibration impacts, measures from state and city laws would be implemented such as:

- Construction would not be permitted within 1,000 feet of an occupied dwelling on Sundays or legal holidays, or between the hours of 10:00 p.m. and 6:00 a.m. without prior approval.
- Equipment with sound-control devices would be used. Equipment with un-muffled exhausts is prohibited.
- If a specific noise impact complaint occurs during construction, further noise mitigation measures may be required such as:
  - Shutting off idling equipment
  - Rescheduling construction to avoid periods of noise annoyance identified in the complaint
  - Installing temporary acoustic barriers around construction noise sources

More information on this topic is available in the *Draft Environmental Impact Statement* and in the *EQRB Noise and Vibration Technical Report*.

### More information

Help shape the future of the Burnside Bridge and visit [BurnsideBridge.org](http://BurnsideBridge.org) for more information.

#### For more information, contact:

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*For information about this project in other languages, please call 503-209-4111 or email [burnsidebridge@multco.us](mailto:burnsidebridge@multco.us).*

*Para obtener información sobre este proyecto en español, ruso u otros idiomas, llame al 503-209-4111 o envíe un correo electrónico a [burnsidebridge@multco.us](mailto:burnsidebridge@multco.us)*

*Для получения информации об этом проекте на испанском, русском или других языках, свяжитесь с нами по телефону 503-209-4111 или по электронной почте: [burnsidebridge@multco.us](mailto:burnsidebridge@multco.us).*

### Impacts from the Bridge Alternatives



#### No-Build Alternative

Would have traffic noise levels similar to the existing conditions.



#### Impacts Common to all Build Alternatives

All of the build alternatives would have the same traffic noise levels as the No-Build Alternative. The Couch Extension alternative would change the location of noise sources slightly, but would not increase traffic noise levels. Vibration levels would not noticeably change compared to existing conditions. Temporary construction noise and vibration impacts could result from construction of all the build alternatives.



#### Enhanced Seismic Retrofit Alternative

Would have the shortest duration of construction (3.5 years), and therefore, the shortest overall duration of construction noise and vibration.



#### Replacement Alternative with Short-Span Approach

Because construction duration would be one year longer compared to the Retrofit, construction noise would also be experienced for a longer duration.



#### Replacement Alternative with Long-Span Approach

Impacts would be the same as the Short Span Alternative.



#### Replacement Alternative with Couch Extension

Impacts would be the same as the Short Span Alternative with the addition of construction noise on the north side of the Yard apartments which would result in higher noise levels on that side of the building and in the surrounding community.

### Impacts from Construction Traffic Management



#### Without a Temporary Bridge

Predicted noise and vibration impacts without a temporary bridge would be negligibly different in some areas due to slight increases in traffic. Note that a doubling of traffic on an area roadway is required for a noticeable increase in traffic noise to occur.



#### With a Temporary Bridge

A temporary bridge would add 1.5 to 2 years of construction time meaning the predicted construction noise and vibration levels described above would last for 1.5 to 2 years longer than without a temporary bridge. Assuming existing levels of traffic, it is also anticipated that sound levels associated with using the temporary bridge would be noticeably higher than the existing conditions.