

Frequently Asked Questions: Vibration

Q What level of vibration should be expected from construction and operation of the tunnels?

- A**
- To estimate vibration, project engineers considered the types of soil and rock along the path of the tunnel, the depth of the tunnel, likely construction techniques, and the number and size of future trains.
 - For all types of construction and all alternatives, humans who are standing directly above the active construction area and know work is underway could feel vibration, but there is no risk of damage to structures, including fragile, historic structures. The vibration would feel similar to activities like construction at the surface or traffic. For tunnel boring activities, the vibration would last one to two days.
 - For future train operations, vibration could be felt in up to 138 houses, but there is no risk of damage to any buildings and future phases of study will identify ways to mitigate this impact.

Q The housing stock above the tunnels is primarily historic. Have the effects on this type of fragile housing stock been studied?

- A**
- Yes, the study looked specifically at impacts to the housing stock in the study area.
 - Historic houses of the type and age found in the study area tend to be constructed on rubble foundations.
 - The estimated vibration is not sufficient to damage fragile houses, even those constructed on rubble foundations.

Q Should damage occur from vibration, would property owners be compensated?

- A**
- Yes, property owners would be compensated according to procedures that become part of the project Record of Decision.
 - For projects like the B&P Tunnel, a pre-construction survey is conducted of buildings in the area. The existing condition is documented in written reports and photographs.
 - If a property owner believes damage has occurred as result of vibration or any other aspect of construction, he or she could file a claim. The project sponsor would compare the property to the pre-construction condition and if it is found to be damaged, fully compensate the property owner for the cost of repairs.