



## Expansion joint noise in Seattle update: 7/28/2016

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Dear Project Neighbors,

Thank you for your questions regarding expansion joint sound heard on the west end of the new 520 floating bridge. You asked what is being done in Seattle to address the noise from expansion joints. At this time, we are planning to take some noise measurements on the west end of the new bridge, however as you may know, the highway west of the new floating bridge is currently in an interim configuration:

- Traffic is still traveling on both old and new pavement at the west approach to the new floating bridge.
- Traffic is traveling in both directions in the new eastbound lanes, including over the joint at the west end of the bridge.
- West Approach Bridge North construction is still underway.

For the West Approach Bridge North, which is currently under construction, we will be using Mageba expansion joints with sinus plates which may help reduce the noise created by tires crossing the joint. We are also planning to use a joint with similar features for the West Approach Bridge South, planned to begin construction in 2018. The sinus plates were not approved for use when the new floating bridge was under construction. In March 2014 the sinus plates were approved for use on the west approach bridges. We will encapsulate the joints underneath where feasible and use other underneath systems as needed.

In addition, the following noise reduction commitments for Seattle are included in the environmental documentation:

1. Installing taller, 4-foot concrete traffic barriers along both sides of the SR 520 project alignment.
2. Using quieter concrete pavement, also known as [Next Generation Concrete Surface](#).
3. Installing acoustically absorptive materials around lid portals (to be constructed in the Montlake area) above the impact zone.
4. Reducing the speed limit on the Portage Bay Bridge.

Regarding noise mitigation on the west end of the SR 520 corridor, in the [2009 Noise Discipline Report](#), sound measurements and modeling indicated that noise walls were not recommended for Laurelhurst or Madison Park with the 6-lane alternative, which is being constructed. You can



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find these modeled measurements on PDF page 95 of the Discipline Report. The [2011 Noise Discipline Report Addendum and Errata](#) confirmed the earlier findings of no noise walls, based on sound measurements and modeling. We also heard from many neighbors in the area at the time that requested elimination of any noise walls that would obstruct views across the lake.

Based on recent feedback, WSDOT staff will begin taking sound measurements on the west side to establish an interim baseline. We will inform you and your neighbors of the latest information as it becomes available.

Thanks for your continued patience as we continue construction of the west end of the new SR 520 corridor.

Sincerely,

Stacey

**Stacey Howery**

Communications

SR 520 Bridge Replacement and HOV Program

Washington State Department of Transportation

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