



MEMORANDUM

To: Chris Heldreth, City of Barstow
From: Ryan Chiene, Kimley-Horn
Date: June 2, 2026
Subject: Additional Information re: BIG Draft EIR Noise and Vibration Analyses

Purpose

This below provides additional information to the City regarding the Noise and Vibration impact analysis disclosed in the Barstow International Gateway (BIG) Draft Environmental Impact Report (EIR),

Authorship

Ryan Chiene is an experienced environmental acoustics professional specializing in the assessment of noise and vibration impacts for complex infrastructure and industrial projects under CEQA and NEPA. His expertise includes environmental noise modeling, octave-band analysis, and development of defensible significance thresholds for a wide range of sources including data centers, rail systems, energy facilities, and mechanical equipment. He routinely prepares and reviews technical noise studies, mitigation strategies, and expert responses to public and agency comments, with a focus on regulatory compliance and litigation defensibility. His work emphasizes accurate characterization of source spectra, propagation modeling, and clear, report-ready documentation suitable for environmental impact reports, permitting, and public disclosure. Mr. Chiene prepared the Noise and Vibration modeling and impact analyses in the BIG Draft EIR.

Earthjustice Comment Letter Noise and Vibration Comments – June 2, 2026

Comment VIII(A): The FEIR Improperly Measures BIG's Incremental Noise Thresholds of Significance Against an Unsubstantiated Projected Future Baseline.

Response/Notes

- Future 2028, 2033, and 2048 baseline train volumes/conditions utilized as “baseline” in accordance with CEQA Guidelines §15125(a). CAGR memo substantiates growth assumptions for BNSF.

Comment VIII(B)(1): The FEIR’s Failure to Adopt a Noise Barrier Along Main Street Leaves BIG’s Significant Operational Noise Impacts Unmitigated and Violates CEQA.

Response/Notes

- Feasible mitigation measures were identified and included in the EIR. Other mitigation measures were considered, but determined to be infeasible due to operational constraints, physical conditions (e.g., the proposed grade difference from receptors south of Main Street to BIG).
- Maximum 3 dBA noise reduction from a noise barrier along Main Street for nearest receptors (BAR-1), which is a barely perceptible change in noise levels. This barrier would also be economically infeasible compared to the number of benefited receptors.

Comment VIII(B)(1)(a): The FEIR’s Cost Analysis for Benefited Receptors Inappropriately Skews the Calculation Toward Infeasibility.

Response/Notes

- Noise barriers BAR-1 (\$3.2 million per benefitted receptor) and BAR-4 (\$197,691 per benefitted receptor) would exceed Caltrans’ 2025 maximum cost per benefitted receptor (\$170,000). Noise barrier cost estimates based on published Caltrans sound wall data for construction costs.
- Contrary to the comment, the noise modeling results show there would only be five benefited receptors in the vicinity of BIG (i.e., receptors receiving 1 dBA or more of noise reduction) from implementation of BAR-1. A noise barrier positioned along the south side of Main Street, directly adjacent to residential properties, would result in limited effectiveness due to gaps from access driveways that would allow for sound transmission onto private properties.
- BIG’s operational noise impacts at the Sylvan Community were determined to be less than significant, and no mitigation was required for these receptors.

Comment VIII(B)(1)(b): The EIR’s Analysis of a Noise Barrier Along Main Street Remains Effectively Useless Because It Fails to Justify the Modeled Extreme Height, Length, and Cost of the Barrier.

Response/Notes

- Lower heights for BAR-1 would result in smaller noise reductions and result in fewer benefitted receptors along Main Street, offsetting any cost reduction from a shorter wall.
 - There would need to be 47 benefited receptors to achieve the commenters “shorter” wall that would cost ~\$8 million to construct, which does not exist.

- BAR-1 length determined based on FTA methodologies to be long enough to match the scale and length of the rail/BIG facility.

Comment VIII(B)(3): The FEIR Fails to Support Its Claims That Reducing On-Road Traffic Speed Is Infeasible

Response/Notes

- MM BIG NOI-3 was included in the FEIR to reduce off-site mobile traffic noise impacts along affected roadway segments. Therefore, there is no requirement to include an alternative mitigation measure.

Comment VIII(C)(1): MM BIG NOI-2 Should Specify Noise Attenuation Requirements, Materials to Be Used, and Maintenance Measures for Any Noise Barriers.

Response/Notes

- Noise barrier specifications for MM BIG NOI-2 were included in the FEIR and are consistent with those identified in the FTA Transit Noise and Vibration Impact Assessment Manual (2018). Noise barrier maintenance would be provided by BNSF as part of standard operations.

Comment VIII(C)(2): MM BIG NOI-3 Is Not Supported by Substantial Evidence and Should Be Strengthened.

Response/Notes

- MM BIG NOI-3 requiring rubberized asphalt to reduce roadway traffic noise levels is specific only to the identified impact roadway segments. The required lengths for improvement outlined in MM BIG NOI-3 have been identified to specifically reduce traffic noise impacts at sensitive receptors along the identified impacted roadway segments.

Comment VIII(D)(1): The FEIR Fails to Adequately Respond to Comments Regarding BAR-5.

Response/Notes

- As shown in the BIG Noise and Vibration Technical Report and noise modeling appendix, generator noise levels would be reduced below applicable County noise standards. The location of BAR-5 is provided in *Figure 24: Modeled Noise Barriers (BIG Specific Plan Area)* of the BIG Noise and Vibration Technical Report (DEIR Appendix 5.12-1 BIG-1).

Comment VIII(F)(1): The FEIR Fails to Correct Its Omission of a *Friant Ranch*-type Analysis for Noise and Vibration.

Response/Notes

- The EIR analyzed human health impacts related to sleep disturbance and speech interference, for which BIG operational noise levels were determined to not exceed established thresholds and guidelines, resulting in a less than significant impact.