



I-70 East

Noise January 2016

Background

As part of the I-70 East Environmental Impact Statement (EIS), CDOT studied the noise levels in the areas surrounding I-70, focusing on residential and public facilities in the corridor that have frequent outdoor uses. Noise impacts were analyzed for land uses with sensitive receptors, such as homes, parks, schools and churches that were located within 500 feet of the edge of the pavement of I-70. These areas included Globeville, Elyria and Swansea, Stapleton, Montbello, and Aurora. Noise intensity, or loudness, is determined by how sound pressure fluctuates and is expressed in decibels (dB). The Noise Abatement Criteria (NAC) represents noise levels that mandate consideration of mitigation measures, which for residential areas, is 66 dBA.

Mitigations

During Construction

Measures will be taken to minimize noise during construction. Construction noise mitigation measures can be found in the Federal Highway Administration’s (FHWA) *Highway Construction Noise Handbook* (FHWA, 2006). Mitigations include:

- Taking special care of existing structures within approximately 50 feet of heavy construction to prevent structural damage.
- Abiding by the appropriate city codes as they pertain to construction noise. If noise levels during construction are expected to exceed the limits from the city codes, the contractor must obtain the necessary ordinance variance.
- Reducing noise as much as possible, or avoiding construction, during school hours when in proximity to Swansea Elementary School
- Avoiding areas of work near noise-sensitive receptor locations, or minimizing work in these areas where people or the environment is noise sensitive
- Eliminating slamming of truck beds, truck tailgates and equipment buckets
- Limiting the idling of construction equipment
- Scheduling trucks properly to minimize long queuing lines
- Installing noise shielding when in close proximity to residential areas

Additionally, public outreach efforts will be considered, such as providing a 24-hour telephone contact line for questions and concerns and remaining in contact with residents and business owners about the planned construction activities.

Long-term

With the Partial Cover Lowered Alternative, noise walls are only recommended in the Elyria neighborhood on the north side of the highway. A final decision of the installation of mitigation measures will be made upon completion of the project’s final design and the public involvement process, including the completion of a benefitted receptor survey with more than 50 percent approval by owners and residents. Below is a map of the proposed noise wall location:

<p>Benefitted Receptor Survey</p> <p>Viewpoints of the impacted residents and property owners are solicited through a benefitted receptor survey. The survey will take place during the final design phase of the project, prior to construction. Each receptor that gets 5 dBA noise reduction from the wall is a benefitted receptor and will get two votes, one for the resident and one for the owner. Whichever option (for or against the mitigation action) that receives the most votes will determine whether the mitigation is built.</p>
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For detailed information on the I-70 East project, visit <https://www.codot.gov/projects/i70east>, <http://www.i-70east.com/>, and <https://www.codot.gov/programs/high-performance-transportation-enterprise-hpte/projects/i-70/i-70-east-1>.