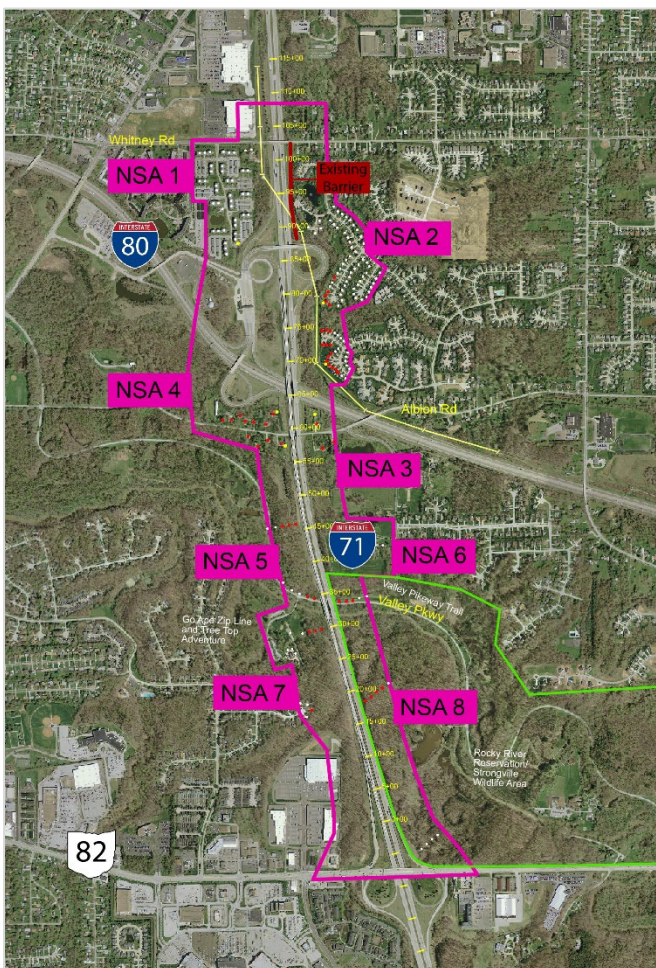


I-71 AUXILIARY LANE NOISE ANALYSIS

OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 12



LOCATION

Cuyahoga County, Ohio

TASKS

- Noise Readings
- Noise Analysis
- Noise Barrier Analysis
- Report Preparation

HIGHLIGHTS

- Conducted noise readings & related field work
- Created TNM model for noise sensitive land uses
- Modeled 4 noise barriers & performed barrier analysis
- Prepared report & documented results

PROJECT DESCRIPTION

BPS performed a Type I Noise Analysis for a proposed roadway widening to add an auxiliary lane on I-71 in accordance with federal and state regulations to determine the potential noise impacts from the project. Noise sensitive land uses within 500 feet of the proposed project were identified, and BPS prepared a Noise Monitoring Plan to determine the existing noise levels in these areas. Upon approval, BPS conducted the noise readings and related field work in order to define the existing ambient environment and determine the noise levels at a representation of the noise sensitive receptor sites. Using the field data, BPS created a noise model in TNM, calibrated the model, and then performed the existing and future noise analysis to determine modeled noise levels at each noise sensitive areas.

The noise levels indicated a need for consideration of noise mitigation, so BPS prepared a Noise Barrier Preliminary Placement Plan for the 4 impacted locations. Following approval, BPS modeled noise barriers in TNM and performed a barrier analysis in order to determine feasibility and reasonableness of each of the 4 noise barriers. The results of the analysis showed that none of the noise barrier alternatives met both of the criteria, so no noise barriers were recommended. The results of the noise analysis were documented in Noise Analysis Report.