

# EARTHEN MOUND NOISE MODELING

## VARRIN PROPERTY



### LOCATION

Middleburg, Virginia

### TASKS

Noise Readings

Earthen Berm Noise Modeling & Analysis

### HIGHLIGHTS

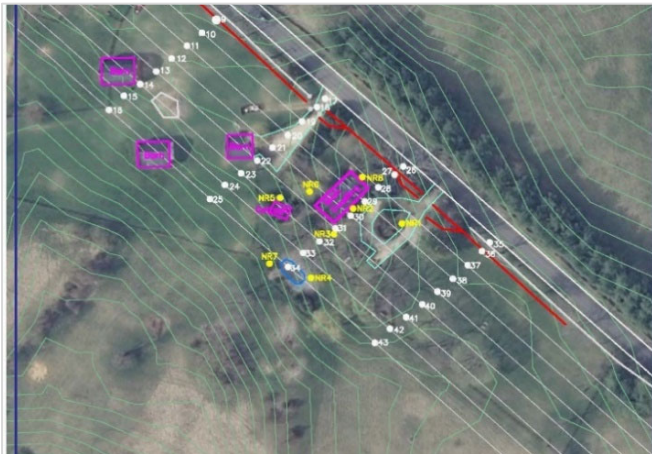
Conducted noise readings throughout the site

Modeled existing conditions at 25-foot intervals

Analyzed mitigation effectiveness of earthen berm and wall

### PROJECT DESCRIPTION

The Varrin property was experiencing traffic noise from the adjacent Snickersville Turnpike roadway. Burton Planning Services was contracted to perform field readings, model existing conditions, and perform noise barrier analyses in order to determine the existing noise impacts and the noise mitigation effectiveness from an earthen berm.



As part of the noise analysis, BPS developed noise contours at 25-foot intervals to model existing conditions throughout the site. For the noise barrier analyses, three scenarios were designed, modeled, and evaluated for variations based on contours, landscaping, and installation of driveway gates.

The final results showed that a six- to eight-foot-tall barrier (earthen mound or earthen mound with short wall) with driveway gates was the most effective option.

