Welcome

Noise Barrier Open House Meetings

Wednesday, July 24, 2019 • 4:00 pm – 7:00 pm
Dr. King Elementary School, 416 E. Raynor Ave., Syracuse 13202

Tuesday, July 30, 2019 • 4:00 pm – 7:00 pm
Cicero-North Syracuse High School, 6002 Route 31, Cicero, NY 13039

Wednesday, August 14, 2019 • 4:00 pm – 7:00 pm
Henninger High School, 600 Robinson St., Syracuse, NY 13206

Thursday, August 15, 2019 • 4:00 pm – 7:00 pm
DeWitt Community Room, 148 Sanders Creek Pkwy., East Syracuse, NY 13057

Existing view of I-81, I-690, and Salina Street
Construction limits for this project include roadway modifications to I-81, I-481, I-690 and various ramps and local roadways between the north and south interchanges between I-81 and I-481.

These roadway modifications may affect traffic outside of the construction limits along I-81, I-481, I-690 and numerous local roadways.

Municipalities include Syracuse proper as well as the Towns of Cicero, Clay, DeWitt, Onondaga, and Salina and the Villages of East Syracuse and North Syracuse.

Based on guidance provided in FHWA’s “Highway Traffic Noise: Analysis and Abatement Guidance,” the noise study area was defined as 500 feet from affected highways and 200 feet from affected local roadways.

Residential, commercial, educational, recreational, medical, industrial, and transportation land uses were identified within the project study area.
Methodology

- Identified land uses and assigned Activity Categories
- Identified noise receivers
- Measured existing traffic noise levels
- Modeled existing and year 2050 build traffic noise levels at ~2,246 receivers
- Determined traffic noise impacts
- Considered noise abatement measures where impacts were identified

The noise analysis was conducted in accordance with the NYSDOT Noise Policy and FHWA highway noise regulations (23 CFR 772).
Noise Impact Criteria

Traffic noise impacts occur when:

- Modeled future traffic noise levels are within 1 dB(A) or exceed the Noise Abatement Criteria (67 dB(A) for residential, parks, schools, hospitals and places of worship).
- Modeled future traffic noise levels exceed modeled existing levels by 6 dB(A) or more.

Noise Impact Results

- For Viaduct Alternative, traffic noise impacts were predicted at 704 receivers, representing 1,253 receptors.
  - 33 of the impacted receivers representing 80 receptors would have noise level increases of 3 dB(A) or greater (greatest increase = 8 dB(A))
  - 671 of the impacted receivers representing 1,173 receptors would have noise level increases of less than 3 dB(A)
- For Community Grid Alternative, traffic noise impacts were predicted at 619 receivers, representing 1,084 receptors.
  - 27 of the impacted receivers representing 73 receptors would have noise level increases of 3 dB(A) or greater (greatest increase = 10 dB(A))
  - 592 of the impacted receivers representing 1,011 receptors would have noise level increases of less than 3 dB(A)

Studies have shown that a noise level change of 3 dB(A) or less is barely perceptible to the human ear.
Proposed Noise Barriers

- Block the direct path of sound waves from the highway (source) to adjacent residences (receptors)
- Effectiveness considerations: distance between the source and the receptors, topography, and intervening features such as buildings

Feasibility and Reasonableness Criteria

- Feasibility:
  - Engineering considerations – can the barrier be built?
  - 5 dB(A) noise reduction to the majority of impacted receptors

- Reasonableness:
  - Maximum of 2,000 square feet of wall per benefited receptor
  - 7 dB(A) noise reduction to the majority of benefited receptors
  - Viewpoints of benefited receptors
    - Viewpoints must be received from at least half of the benefited property owners and residents
    - A majority must favor the barrier
Proposed Noise Barriers

- 32 barriers were evaluated
  - Barriers would be made of concrete
  - Heights range from 12 to 20 feet
  - Lighter-weight panels may be used for a portion of those barriers that span bridges

For the Viaduct Alternative:
- 32 noise barriers were analyzed where traffic noise impacts were predicted.
- 15 noise barriers meet feasibility and reasonableness criteria (pending viewpoints).
- If all of the proposed noise barriers are recommended for construction, the number of impacted receptors would decrease from 1,253 to 918.
- For those remaining 918 impacted receptors, the noise level increases at 839 receptors would be 3 dB(A) or less compared to existing conditions.
- 609 receptors would be benefited (receive at least a 5-decibel noise reduction).

For the Community Grid Alternative:
- 32 noise barriers were analyzed where traffic noise impacts were predicted.
- 14 noise barriers meet feasibility and reasonableness criteria (pending viewpoints).
- If all of the proposed noise barriers are recommended for construction, the number of impacted receptors would decrease from 1,084 to 787.
- For those remaining 787 impacted receptors, the noise level increases at 744 receptors would be 3 dB(A) or less compared to existing conditions.
- 429 receptors would be benefited (receive at least a 5-decibel noise reduction).
Proposed Noise Barriers
Viaduct Alternative

* Note: Some areas of Downtown Syracuse are shown as excluded from the study area due to their distance from the involved roadways.
Proposed Noise Barriers
Community Grid Alternative

LEGEND

- Project Study Area Limits
- Downtown Exclusion Areas*
- Abatement Study Areas
- Existing Noise Barrier
- Noise Barrier Recommended
- Noise Barrier Not Recommended

* Note: Some areas of Downtown Syracuse are shown as excluded from the study area due to their distance from the involved roadways.
Potential Noise Barrier

Existing

Proposed

Proposed view of noise barrier at DeWitt Town Hall on Butternut Drive
Potential Noise Barrier

Existing

Proposed

Proposed view of noise barrier at Oakley Drive, near its intersection with Wells Avenue
Potential Noise Barrier

Existing

Proposed

Proposed view of noise barrier at I-81 and Oakwood Cemetery, looking southwest
Potential Noise Barrier

Proposed view of noise barrier at Basin and Kirkpatrick Streets
Noise Ballots

The FHWA and NYSDOT are soliciting viewpoints from the property owners and residents of the benefited receptors. Noise ballots may be submitted in the following ways:

At any noise barrier open house meeting

Via email to: I81Opportunities@dot.ny.gov (attach photo or scan of ballot)

Mail to: I-81 Viaduct Project Team NYSDOT 333 East Washington Street Syracuse, New York 13202

Ballots must be received by September 5, 2019.

For additional information, please visit the project website: dot.ny.gov/i81opportunities
Traffic Noise Study Area
Downtown Exclusion Areas
Existing Noise Barrier
Below FHWA Noise Abatement Criteria
Exceeds FHWA Noise Abatement Criteria
I-81 Viaduct 2050 Predicted Traffic Noise Levels

Legend:
- Traffic Noise Study Area
- Downtown Exclusion Areas*
- Existing Noise Barrier
- Noise Barrier Recommended
- Noise Barrier Not Recommended
- No Noise Impact Predicted
- Noise Impact Predicted

*Downtown Exclusion Areas indicate areas where noise impact is not expected to be significant.
I-81 Community Grid 2050 Predicted Traffic Noise Levels

Traffic Noise Study Area
Downtown Exclusion Areas
Existing Noise Barrier
Noise Barrier Recommended
Noise Barrier Not Recommended
No Noise Impact Predicted
Noise Impact Predicted