

LOR-I90-10.76
PID 107714

Noise Measurement Plan

PREPARED BY:



September 2022

Project Description

This proposed project involves complete pavement replacement and addition of one lane in each direction in order to convert a portion of Interstate Route 90 from a 4-lane facility to a 6-lane facility. The south leg of the corridor between the Ohio Turnpike Toll Booth to State Route (SR) 2 will be repaved but will remain a 4-lane facility. The project limits on I-90 will be from the Ohio Turnpike Booth to the existing 6-lane section at the SR 611 interchange, a distance of roughly eight (8) miles. The project also involves about 0.5 miles of SR 2 west of the merge with I-90. The project area, which includes portions of the City of Elyria, Elyria Township, Sheffield Village, and the City of Avon, is shown on the attached project overview maps (see Figures 1 and 2).

Noise Measurement Procedure

Noise measurements will be conducted using methods suggested in ODOT's *Highway Traffic Noise Analysis Manual* including various updates posted through September 2021.

Rion NL-31 sound level meters or equivalent equipment will be used to determine the existing ambient noise level. All measurements will be conducted in weather conditions suitable for outdoor activity. Weather conditions and noise sources will be noted at each site, and site sketches will be prepared using the attached Noise Measurement Data Sheet. Traffic counts will be conducted manually on nearby highways in the project area during the actual time of the noise measurement. If traffic counts cannot be completed manually, a video recording will be utilized during the noise measurement and counted later from the video.

Noise Measurement Sites

Seven (7) separate sites were identified from aerial photos (See Table 1) for short-term (15-minute) measurements. At Site E-1 (Lorain County Metroparks — Black River Reservation), two measurements will be conducted simultaneously at the existing bike trail and in an activity area. See Figure 3 for detailed locations.

These sites have been selected to document the noise environment at “first-row” receivers in the project area. Consistent with FHWA guidance, background or “second-row” sites may be measured depending upon access and conditions during the measurement period.

Noise Measurement Schedule

The noise measurements are planned for September and October 2022. Specific field dates will be developed based upon anticipated weather conditions. Measurements will not be conducted during periods of rain, high winds, or extreme low temperature. Measurements will also not be conducted during holidays or days adjacent to a holiday. Each measurements period will be at least 15 minutes during daylight hours.

Noise Measurement Site Access

Measurement site property owners and current residents, listed in Table 1, will be notified of project related environmental field studies and surveying.

Prior to starting field activities, **ms consultants, inc.** personnel will contact the owner, resident, or on-site representative of each property to be entered and will explain the noise measurement procedure. In the event property access is denied, an adjacent site will be utilized if acceptable.

LOR-I90-10.76; PID 107714
Noise Measurement Plan

Table 1 – Noise Measurement Sites

Site	Owner:	Address:	Location:
A-1	Jairo Cabrera	43015 Crestlane Drive, Elyria, OH 44035	Front
B-1	Luis & Nilsa Vazquez	6697 Murray Ridge Road, Elyria, OH 44035	Back
C-1	Michael Lear	6610 Lake Avenue, Elyria, OH 44035	Front
E-1A	Lorain County Metroparks	12882 Diagonal Road, LaGrange, OH 44050	Trail
E-1B	Bur Oak –Black River Reservation		Lawn
E-2	Jashuha Ayers	176 Hemlock Drive, Elyria, OH 44035	Back
F-1	Christopher & Stephanie Knapp	4218 Berkeley Dr., Sheffield Lake, OH 44054	Back
G-1	Jessica & Erik Krzynowek	2447 Fairfield Drive, Avon, OH 44011	Back

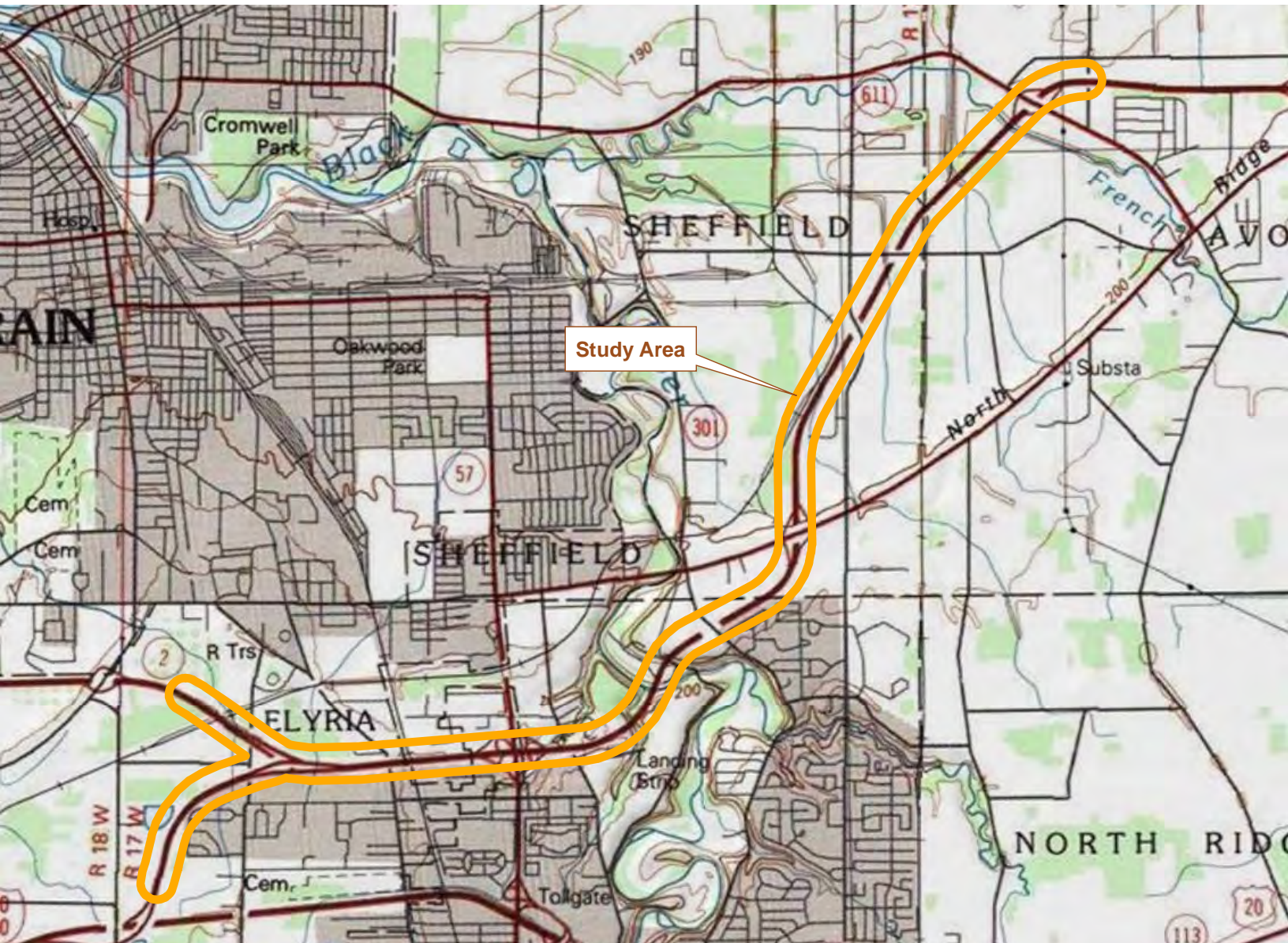
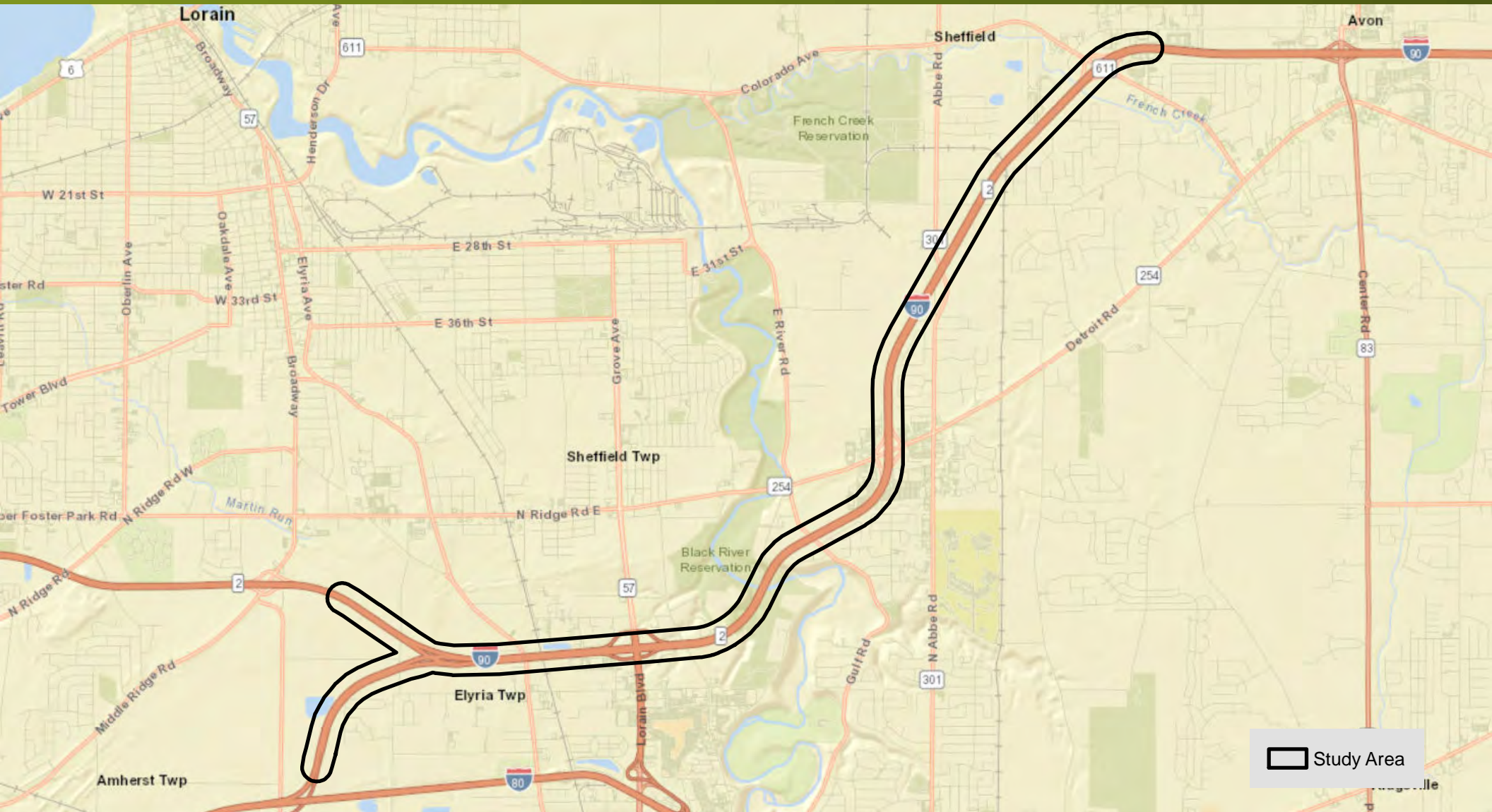


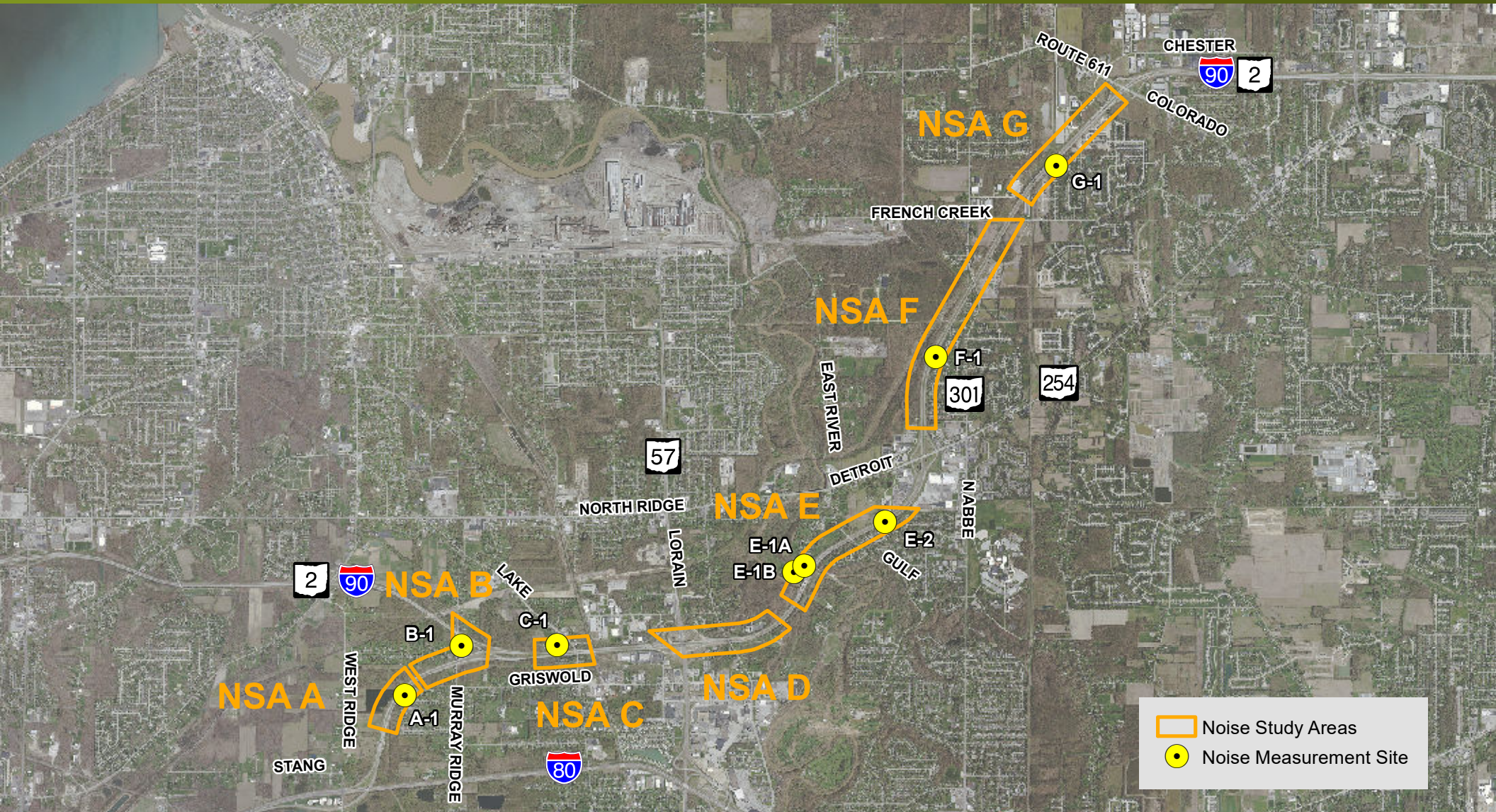
Figure 1
Project Location Map

Source: USGS, Lorain and Avon Quadrangles



Study Area

Figure 2
Project Overview

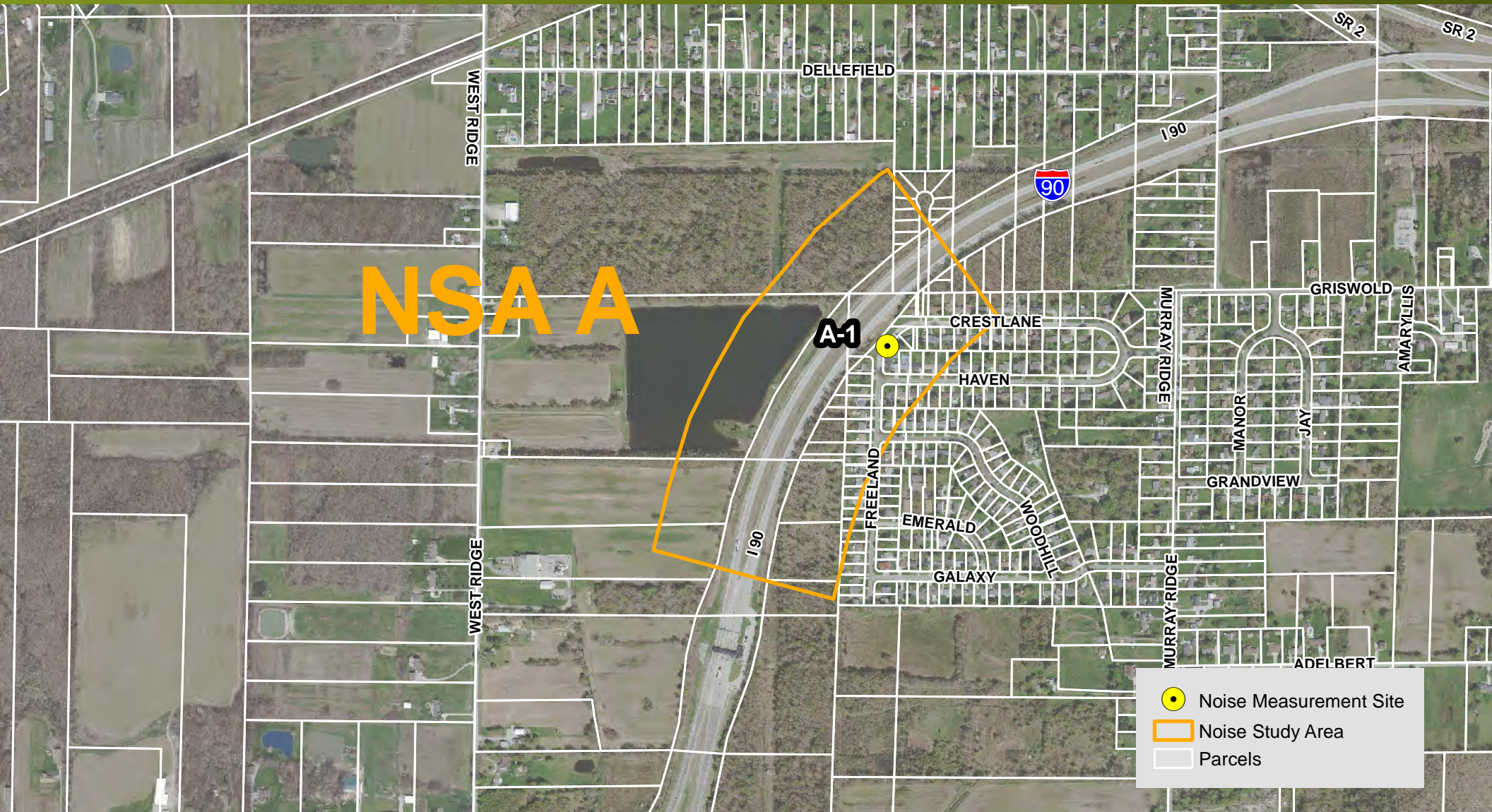


Legend:

- Orange outline: Noise Study Areas
- Yellow circle: Noise Measurement Site



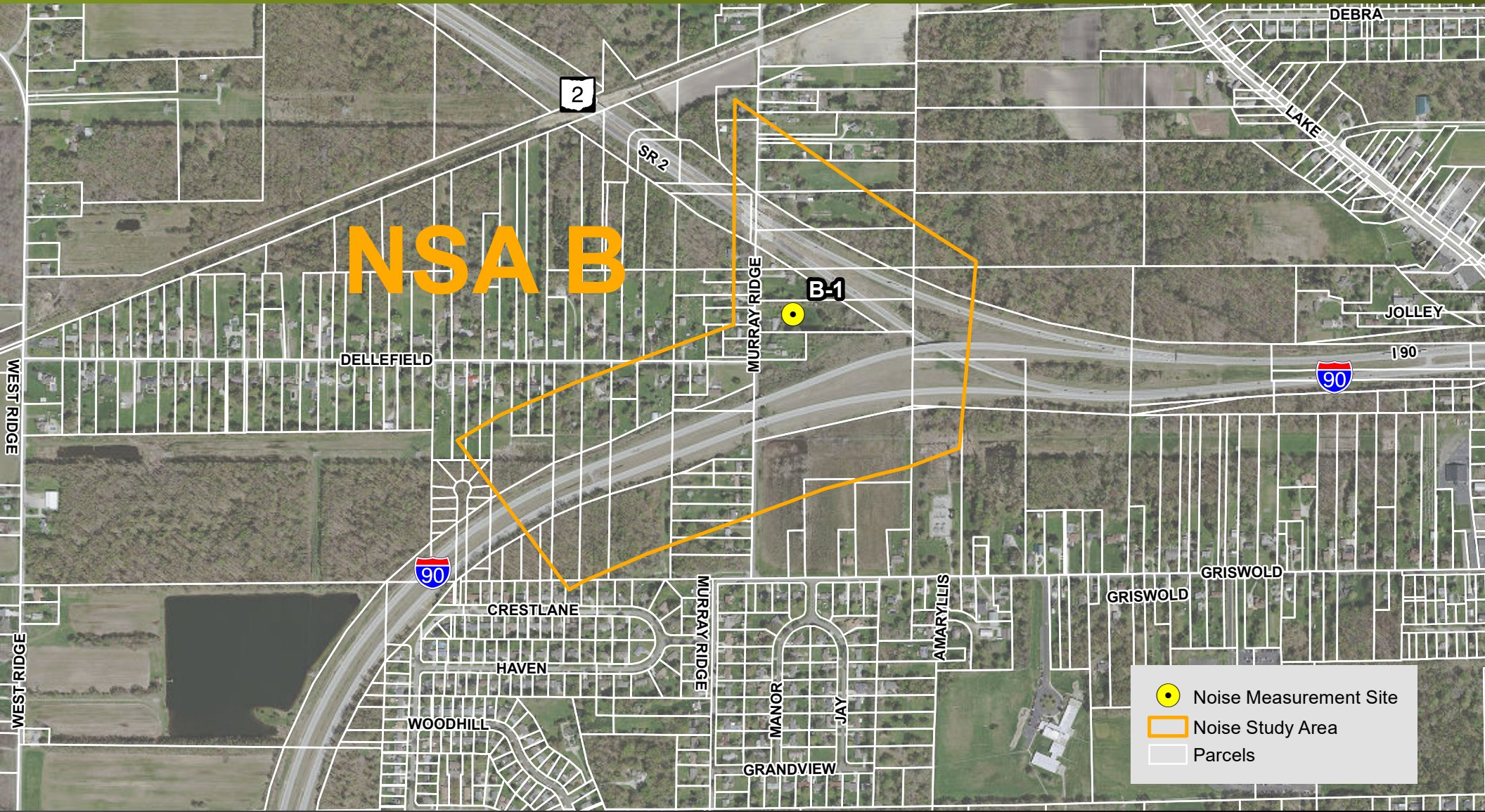
Figure 3
Proposed NSAs and Measurement Sites Overview






- Noise Measurement Site
- Noise Study Area
- Parcels



Figure 3a
NSA A



-  Noise Measurement Site
-  Noise Study Area
-  Parcels

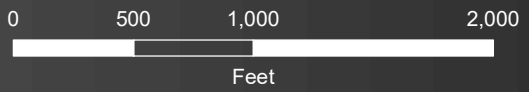
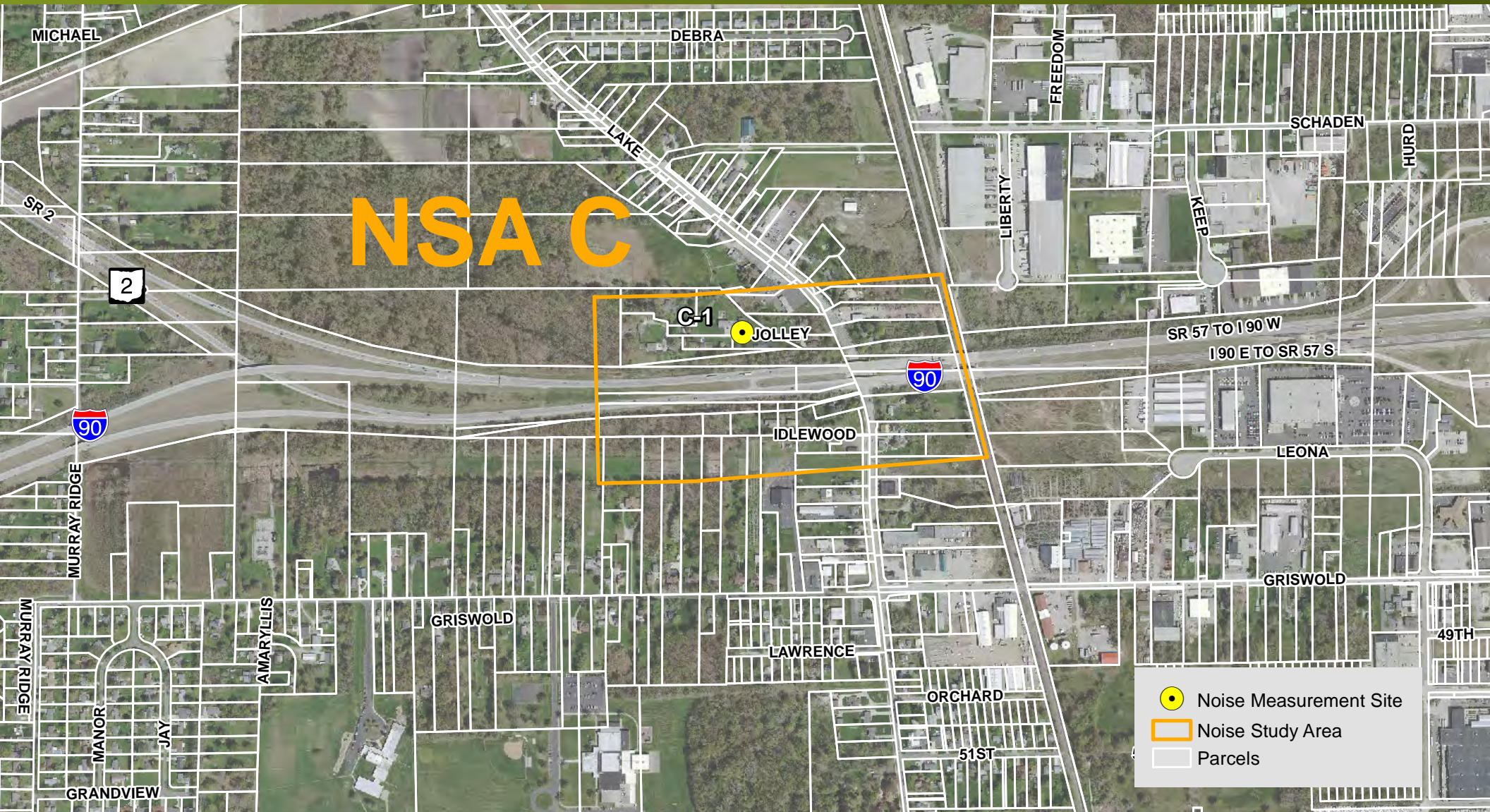
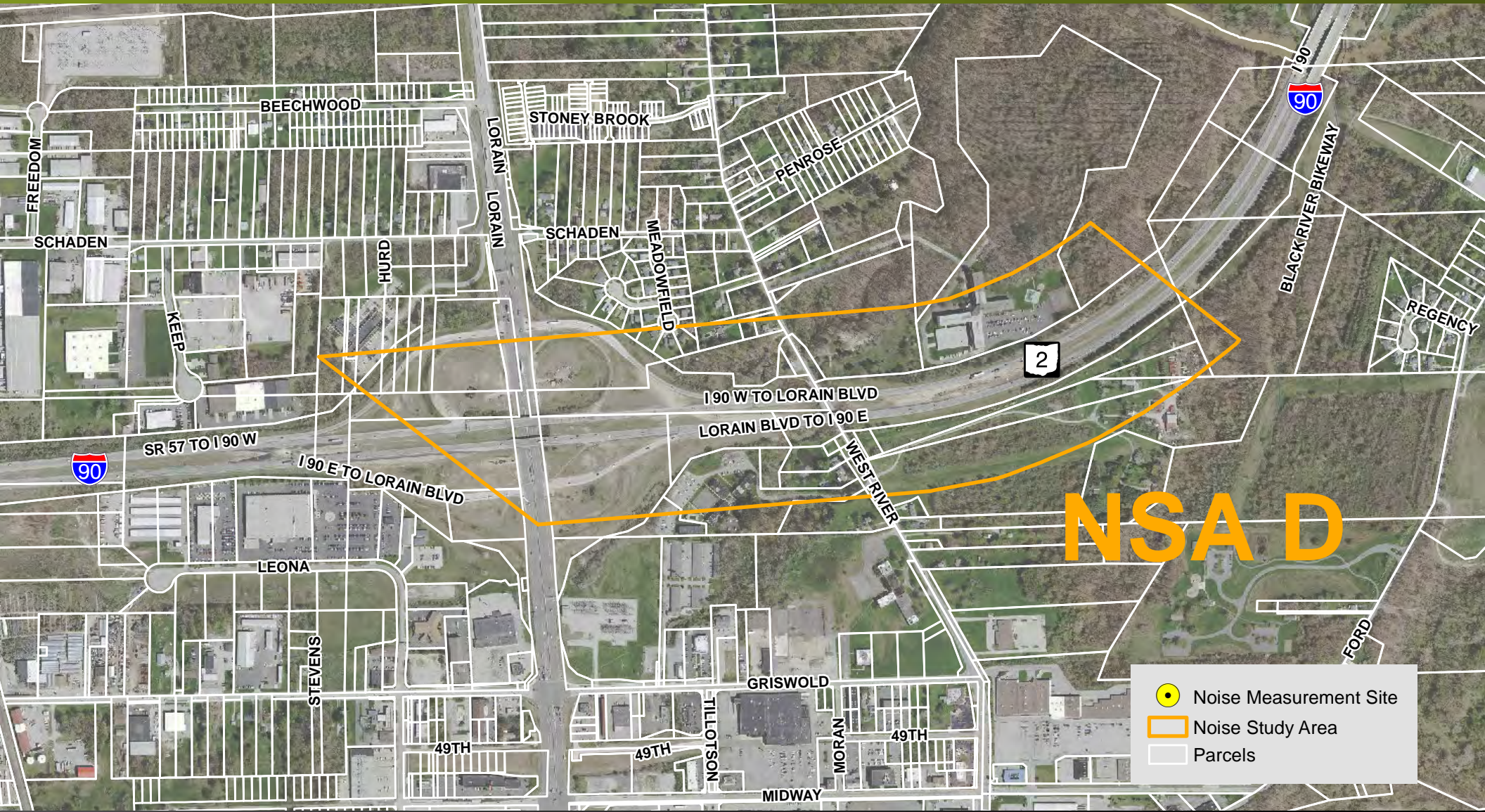


Figure 3b
NSA B



- Noise Measurement Site
- ▭ Noise Study Area
- ▭ Parcels

Figure 3c
NSA C



NSA D




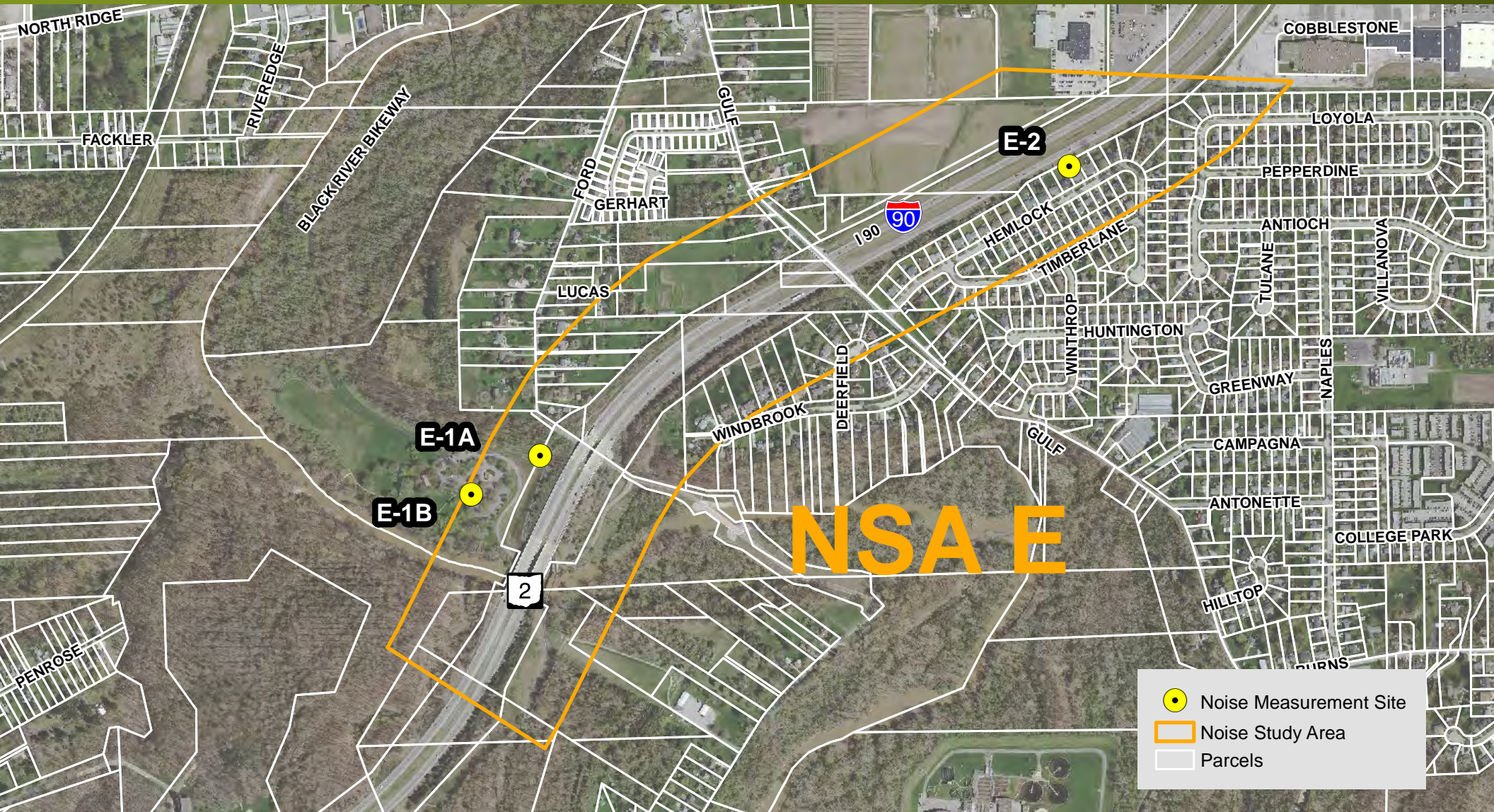
-  Noise Measurement Site
-  Noise Study Area
-  Parcels



Figure 3d
NSA D






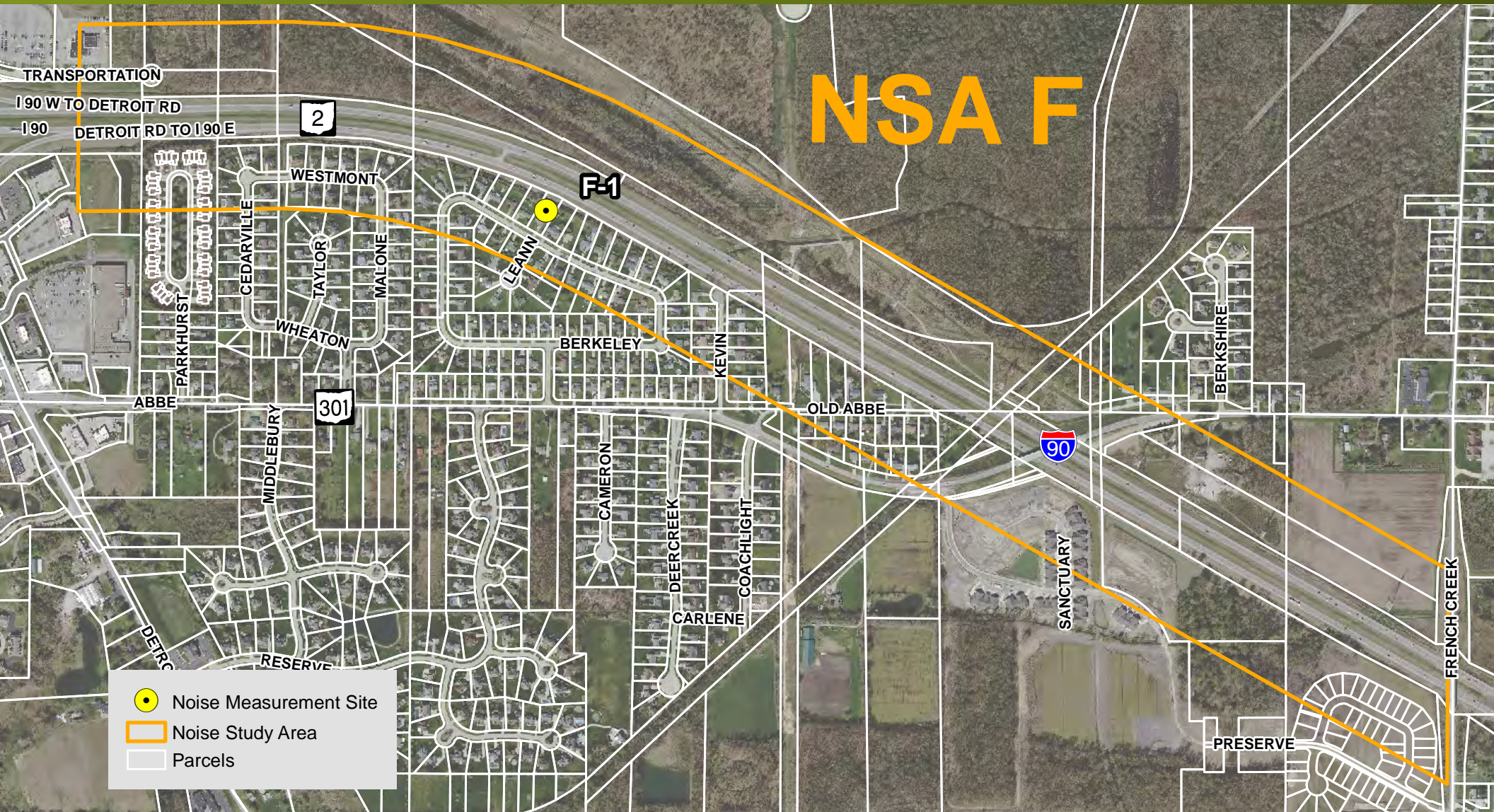
-  Noise Measurement Site
-  Noise Study Area
-  Parcels



Figure 3e
NSA E



NSA F

Figure 3f
NSA F



Figure 3g
NSA G

