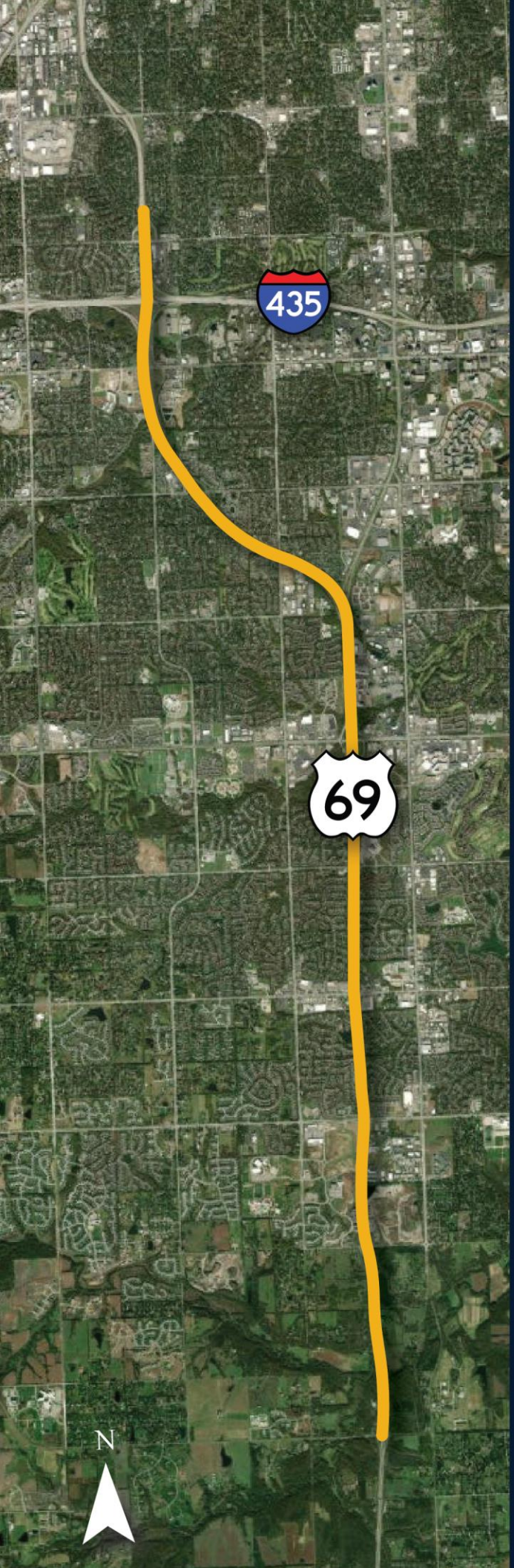
Appendix H – Noise Analysis Report



69 EXPRESS

US 69 EXPANSION PROJECT

Traffic Noise Study

February 2022

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Attachments

Appendices

1.0 Project Location, Description, and Background

Kansas Department of Transportation (KDOT) project 69-46 KA-5700-02, the U.S. 69 Modernization and Expansion project (also known as the 69 Express project), proposes to modernize and expand a section of the U.S. 69 Corridor, located within the southern limits of the City of Overland Park, in Johnson County, Kansas. The study area extends from just north of 103rd Street to south of 179th Street, as shown in Figure 1.

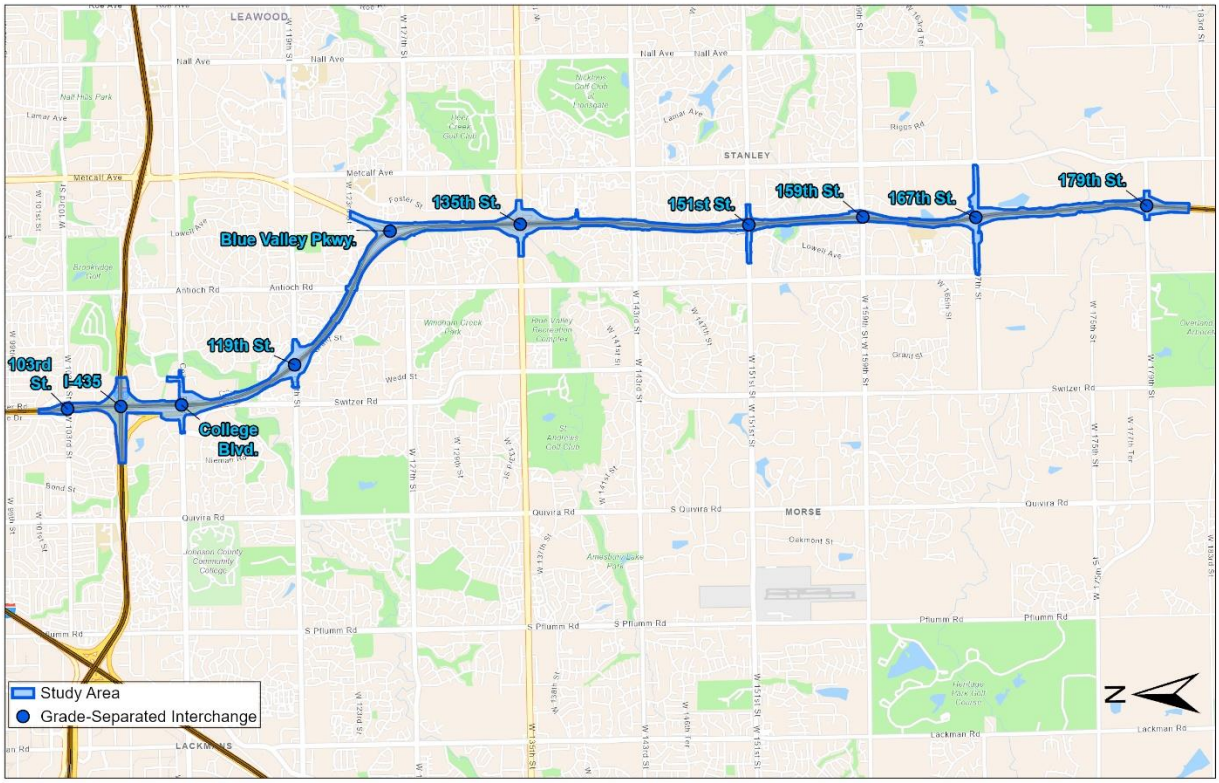


Figure 1: Study Area

In the project study area, U.S. 69 is generally a four-lane divided, access-controlled freeway with a grass median. Grade separated interchanges exist at 103rd Street, I-435, College Boulevard, 119th Street, Blue Valley Parkway, 135th Street, 151st Street, 159th Street, 167th Street, and 179th Street. The Preferred Alternative improvements include:

- Adding an additional travel lane in each direction for express toll lane service.
- Reconfiguring the interchange at I-435.
- Reconfiguring the interchange at Blue Valley Parkway.
- Improving local interchanges and supporting cross streets.
- Reconstructing existing pavement and bridges.

The proposed project is needed to modernize and expand U.S. 69 between 103rd Street and 179th Street in Overland Park, Kansas. The corridor has become insufficient to meet current and future mobility needs, resulting in worsening safety, reliability, and congestion. There is also a need to address

the corridor's issues with transportation improvements that offer long-term sustainability and flexibility for all users.

The proposed project is needed to:

- ***Improve Safety*** to address crash frequency and congestion related crashes within the corridor;
- ***Reduce congestion*** and improve traffic operations to meet existing and future travel demands;
- ***Promote Sustainability*** by addressing infrastructure condition and ongoing operations and maintenance needs, supporting environmental stewardship, as well as improving long-term traveler reliability;
- ***Provide flexible choices*** by promoting a transportation system that accommodates the needs for all users and modes; and
- ***Accommodate local and regional growth*** through coordinated transportation improvements consistent with planned and proposed community land use.

This noise analysis presents the existing and future acoustical environment at noise sensitive receptors along the study area and is in compliance with Title 23 Code of Federal Regulations, Part 772, U.S. Department of Transportation, Federal Highway Administration (FHWA), *Procedures for Abatement of Highway Traffic Noise and Construction Noise*.

2.0 Characteristics of Noise

Noise is essentially defined as unwanted sound. It is emitted from many natural and man-made sources. Highway traffic noise is usually a composite of noises from engine exhaust, drive train, and tire-roadway interaction.

The magnitude of noise is usually described by a ratio of its sound pressure to a reference sound pressure, typically twenty micro-Pascals (20µPa). Since the range of sound pressure ratios varies greatly – over many orders of magnitude, a base-10 logarithmic scale is used to express sound levels in dimensionless units of decibels (dB). The commonly accepted limits of detectable human hearing sound magnitudes are between the threshold of hearing at 0 decibels and the threshold of pain at 140 decibels.

Sound frequencies are reported in units of Hertz (Hz), which correspond to the number of vibrations per second of a given tone. A cumulative 'sound level' is equivalent to ten times the base-10 logarithm of the ratio of the sum of the sound pressures of all frequencies to the reference sound pressure. To simplify the mathematical process of determining sound levels, sound frequencies are grouped into ranges, or 'bands.' Sound levels are then calculated by adding the cumulative sound pressure levels within each band – which are typically defined as one 'octave' or '1/3 octave' of the sound frequency spectrum.

The commonly accepted limitation of human hearing to detect sound frequencies is between 20 Hz and 20,000 Hz, and human hearing is most sensitive to the frequencies between 1,000 Hz – 6,000 Hz. Although people are generally not as sensitive to lower-frequency sounds as they are to higher frequencies, most people lose the ability to hear high-frequency sounds as they age. To accommodate varying receptor sensitivities, frequency sound levels are commonly adjusted, or 'filtered', before being

logarithmically added and reported as a single 'sound level' magnitude of that filtering scale. The 'A-weighted' decibel filtering scale applies numerical adjustments to sound frequencies to emphasize the frequencies at which human hearing is sensitive and to minimize the frequencies to which human hearing is not as sensitive, as shown in Table 1.

Table 1: Comparison of Unweighted vs A-Weighted Sound Levels for a Truck

Octave-Band Center Frequency (Hz)	Unweighted Sound Level from a Truck (dB)	Adjustment of Unweighted Sound to Reflect What Human Ear Hears (dB)	Sound Level that Human Ear Perceives = A-Weighted Sound Level or dB(A)
31	75	-39	36
63	78	-26	52
125	83	-16	67
250	84	-9	75
500	81	-3	78
1000	75	0	75
2000	71	1	72
4000	63	1	64
8000	54	-1	53
	89		**82**
	Total Unweighted Sound Level in dB		**Total A-Weighted Sound Level in dB(A)**

The A-weighted scale is commonly used in highway traffic noise studies because the typical frequency spectrum of traffic noise is higher in magnitude at the frequencies at which human hearing is noise sensitive (1,000 Hz to 6,000 Hz).

Several examples of noise levels expressed in dB(A) are listed in Table 2. A review of Table 2 indicates that most individuals are exposed to fairly high noise levels from many sources on a regular basis. In order to perceive sounds of greatly varying pressure levels, human hearing has a non-linear sensitivity to sound pressure exposure. For example, doubling the sound pressure results in a three decibel change in the noise level; however, variations of three decibels (3 dB(A)) or less are commonly considered "barely perceptible" to normal human hearing. A five decibel (5 dB(A)) change is more readily noticeable. By definition, a ten-fold increase in the sound pressure level correlates to a 10 decibel (10 dB(A)) noise level increase; however, it is judged by most people as only a doubling of the loudness – sounding "twice as loud".

Table 2: Common Indoor and Outdoor Noise Levels

Common Outdoor Noise Levels	Noise Level (dB(A))	Common Indoor Noise Levels
	110	Rock Band
Jet Flyover at 1,000 feet	100	Inside Subway Train (NY)
Gas Lawn Mower at 3 feet		
Diesel Truck at 50 feet	90	Food Blender at 3 feet
Noisy Urban Daytime	80	Garbage Disposal at 3 feet
Gas Lawn Mower at 100 feet	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal Speech at 3 feet
	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Small Theater, Large Conference Room (Background)
Quiet Suburban Nighttime		Library
	30	
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (Background)
	20	
		Broadcast and Recording Studio
	10	
	0	Threshold of Hearing

Adapted from Guide on Evaluation and Attenuation of Traffic Noise, American Association of State Highway and Transportation Officials (AASHTO). 1974 (revised 1993).

The degree of disturbance or annoyance from exposure to unwanted sound (noise) depends upon three factors:

1. The amount, nature, and duration of the intruding noise;
2. The relationship between the intruding noise and the existing (ambient) sound environment; and
3. The situation in which the disturbing noise is heard.

In considering the first of these factors, it is important to note that individuals have varying sensitivity to noise. Loud noises bother some people more than others. The time patterns and durations of noise(s) also affect perception as to whether it is offensive. For example, noises that occur during nighttime (sleeping) hours are typically considered to be more offensive than the same noises occurring in the daytime.

Regarding the second factor, individuals tend to judge the annoyance of an unwanted noise in terms of

its relationship to noise from other sources (background noise). A car horn blowing at night when background noise levels are low would generally be more objectionable than during the afternoon when background noise levels are typically higher. The response to noise stimulus is analogous to the response to turning on an interior light. During the daytime, an illuminated bulb simply adds to the ambient light, but when eyes are conditioned to the dark of night, a suddenly illuminated bulb can be temporarily blinding.

The third factor, situational noise, is related to the interference of noise with activities of individuals. In a 60 dB(A) environment, such as is commonly found in a large business office, normal conversation would be possible, while sleep might be difficult. Loud noises may easily interrupt activities that require a quiet setting for greater mental concentration or rest; however, the same loud noises may not interrupt activities requiring less mental focus or tranquility.

Over time, individuals tend to accept the noises that intrude into their lives on a regular basis. However, exposure to prolonged and/or extremely loud noise(s) can prevent use of exterior and interior spaces and has been theorized to pose health risks. Appropriately, regulations exist for noise control or abatement from many particularly offensive sources, including airplanes, factories, railroads, and highways. For all "Type I" federal, state, or federal-aid highway projects in the State of Kansas, traffic and construction noise impact analysis and abatement assessment is dictated by the 2011 KDOT *Highway Traffic Noise Analysis and Abatement Policy and Procedures*. The definition of a Type I project can be found in the KDOT Policy. The U.S. 69 Express project is a Type I project because of the proposed addition of through-traffic lanes, additional on/off-ramps, and reconfiguration of interchanges.

3.0 Existing Land Use and Noise Abatement Criteria

3.1 Project Land Use

Existing land use in the vicinity of the U.S. 69 Express project is mostly residential. Additionally, several trails, sports complexes (including baseball fields, soccer fields, and tennis courts), a hospital, two churches, a daycare, and undeveloped lands (south of 159th Street) exist in the study area.

For the purpose of this traffic noise study, the project area was divided into 23 Noise Sensitive Areas (NSAs) to group noise sensitive receptors influenced by similar noise sources. Receptors within approximately 700' of the project were generally included. Beyond this distance, noise impacts and any benefits provided by noise abatement are not anticipated. In certain locations, receptors were modeled further out to ensure all impacts and benefits were identified. The NSAs are defined as follows and are shown in Attachment A:

NSA 1 South of 179th Street and east of U.S. 69
NSA 2: South of 179th Street and west of U.S. 69
NSA 3: Between 167th Street and 179th Street, east of U.S. 69
NSA 4: Between 167th Street and 179th Street, west of U.S. 69
NSA 5: Between 159th Street and 167th Street, west of U.S. 69
NSA 6: Between 151st Street and 159th Street, east of U.S. 69
NSA 7: Between 151st Street and 159th Street, west of U.S. 69
NSA 8: Between 143rd Street and 151st Street, east of U.S. 69
NSA 9: Between 135th Street and 143rd Street, east of U.S. 69

NSA 10: Between 143rd Street and 151st Street, west of U.S. 69
NSA 11: Between 135th Street and 143rd Street, west of U.S. 69
NSA 12: Between 132nd Street and 135th Street, east of U.S. 69
NSA 13: Between 123rd Street and 127th Street, east of U.S. 69/Blue Valley Parkway
NSA 14: Between 132nd Street and 135th Street, west of U.S. 69
NSA 15: Between 127th Street and 132nd Street, west of U.S. 69
NSA 16: Between Antioch Road and Blue Valley Parkway, north/east of U.S. 69
NSA 17: Between 119th Street and Antioch Road, north/east of U.S. 69
NSA 18: Between Antioch Road and 127th Street, south/west of U.S. 69
NSA 19: Between 119th Street and Antioch Road, south/west of U.S. 69
NSA 20: Between College Boulevard and 119th Street, east of U.S. 69
NSA 21: Between College Boulevard and 119th Street, west of U.S. 69
NSA 22: Between I-435 and College Boulevard, west of U.S. 69
NSA 23: Between 103rd Street and I-435, west of U.S. 69

3.2 Noise Abatement Criteria

FHWA has developed Noise Abatement Criteria (NAC) and procedures to be used in the planning and design of highways. The purpose of Title 23 CFR 772 is, "To provide procedures for noise studies and noise abatement measures to help protect the public's health, welfare and livability, to supply noise abatement criteria, and to establish requirements for information to be given to local officials for use in the planning and design of highways approved pursuant to title 23 U.S.C."

The abatement criteria and procedures are set forth in Title 23 CFR 772, which also states, "In abating traffic noise impacts, a highway agency shall give primary consideration to exterior areas where frequent human use occurs." A summary of the NAC for various land uses is presented in Table 3. The L_{eq}, or equivalent sound level, is the equivalent steady-state sound level which in a stated period of time contains the same acoustical energy as a time-varying sound level during the same period. Regarding traffic noise, fluctuating sound levels of traffic noise are represented in terms of L_{eq}, the steady, or 'equivalent', noise level with the same energy.

Table 3: Noise Abatement Criteria

Hourly Equivalent A-Weighted Sound Level (decibels (dB(A))			
Activity Category	**Activity Criteria[1] $L_{eq(h)}$[2]**	**Evaluation Location**	**Activity Description**
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[3]	67	Exterior	Residential
C[3]	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section4(f) sites, schools, television studios, trails, and trail crossings
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios
E[3]	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A- D or F
F	--	--	Agriculture, airports, bus yards, emergency services, industrial, logging maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing
G	--	--	Undeveloped lands that are not permitted

1. The $L_{eq(h)}$ Activity Criteria values are for impact determination only, and are not design standards for noise abatement measures.
2. The equivalent steady-state sound level which in a stated period of time contains the same acoustic energy as the time-varying sound level during the same time period, with $L_{eq(h)}$ being the hourly value of L_{eq}.
3. Includes undeveloped lands permitted for this activity category.

At single-family homes, one receptor is modeled at an exterior area of frequent human use at each residence. For multi-family dwellings, receptors are placed at individual exterior areas (such as balconies or patios) when they exist. If they do not, receptors are placed at exterior areas of frequent use. Single receivers may be used to represent multiple receptors where the noise environments are expected to be similar (i.e. similar distance to noise source, similar elevations, similar terrain and/or barriers between the noise source and receiver, etc.) At other noise sensitive locations, including the trails, sports complexes, hospital, daycare, and churches in the study area, receptors are generally analyzed at either each exterior area distinctly recognized for human activity or at one location per Midwest Median Lot (12,000 ft^2).

4.0 Existing Noise Levels and Model Validation

U.S. 69 traffic is the dominant noise source for the majority of receptors in proximity to the U.S. 69 corridor. In addition to gathering information and making general observations about the project study area, noise measurements and field work are conducted to develop a comparison between noise levels

measured in the field at locations where traffic noise is the dominant noise source and the predicted hourly-equivalent traffic noise levels obtained from FHWA's Traffic Noise Model (TNM), Version 2.5. This exercise is performed to validate the model to local conditions so that it can be used with confidence to predict the future loudest-hour equivalent noise levels and assess potential traffic noise impacts.

Noise measurement data was collected over a 15-minute period at 12 sites along the project corridor using sound level meters meeting ANSI and IEC Type 1 specifications. The field measured L_{eq}, concurrent traffic counts, and weather information for the monitoring sites are included in Appendix A.

To validate the accuracy of the traffic noise model, TNM 2.5 was used to compare the field measured L_{eq} to TNM-predicted hourly-equivalent traffic noise levels ($L_{eq(h)}$) at the field measurement locations. For each monitoring location, traffic volumes counted during the field measurement (15-minute) periods were normalized to one (1)-hour volumes. These normalized volumes were assigned to the corresponding project area roadways to simulate the noise source strength at the roadways during the actual measurement period. TNM-predicted hourly-equivalent traffic noise levels were then compared to the noise levels measured in the field to determine the accuracy of the model. The KDOT-accepted tolerance for TNM model validation is ±3.0 dB(A). The TNM-predicted hourly-equivalent traffic noise levels fell within the ±3.0 dB(A) tolerance when compared to the noise levels measured in the field at all 12 locations. The results of TNM model validation are shown in Table 4.

Table 4: Field Measured Existing Noise Levels

Measurement Number	Approximate U.S. 69 Station	TNM-Predicted $L_{eq(h)}$ dB(A)[1]	Measured L_{eq} dB(A)[1]	Validation Delta (Pred. – Meas.)[1]
1	213+00	71.8	70.0	1.8
2	250+00	72.3	69.6	2.7
3	273+00	69.0	69.4	-0.4
4	330+00	68.4	69.1	-0.7
5	360+00	70.6	68.1	2.5
6	406+00	68.9	66.0	2.9
7	420+00	70.9	68.9	2.0
8	470+00	68.2	65.3	2.9
9	490+00	76.2	75.2	1.0
10	558+00	71.6	68.7	2.9
11	570+00	73.5	71.5	2.0
12	632+00	74.6	72.0	2.6

[1]Hourly equivalent noise levels, $L_{eq(h)}$, are expressed to the nearest one-tenth decibels to ensure that TNM-predicted levels validate to within +/- 3.0 dB(A) of measured noise levels without the benefits of rounding.

5.0 Procedure for Predicting Future Noise Levels

Traffic noise emission is composed of several variables, including the number, types, and travel speeds of the vehicles, as well as the geometry of the roadway(s) on which the vehicles travel. Additionally, variables such as weather and intervening topography affect the transmission of traffic noise from the vehicle(s) to noise sensitive receptors.

In accordance with FHWA requirements, detailed computer models were created using the FHWA TNM 2.5 software. As mentioned previously, the computer models were validated to within acceptable tolerances of field-measured traffic noise data and were used to predict loudest-hour equivalent traffic noise levels for receptor locations in the vicinity of the 69 Express project.

Traffic noise consists of three primary parts: tire/pavement noise, engine noise, and exhaust noise. Of these sources, tire/pavement noise is typically the most offensive at unimpeded travel speeds. Sporadic traffic noises such as horns, squealing brakes, screeching tires, etc. are considered aberrant and are not included within the predictive model algorithm. Traffic noise is not constant; it varies in time depending upon the number, speed, type, and frequency of vehicles that pass by a given receptor. Furthermore, since traffic noise emissions are different for various types of vehicles, the TNM algorithm distinguishes between the source emissions from the following vehicle types: automobiles, medium trucks, heavy trucks, buses, and motorcycles, as shown in Table 5. The traffic noise prediction model uses the number and type of vehicles on the planned roadway, vehicle speeds, the physical characteristics of the road (curves, hills, depressions, elevations, etc.) and terrain, receptor location and height, and, if applicable, barrier type, barrier ground elevation, and barrier segment top elevations.

Table 5: Traffic Noise Model (TNM) Vehicle Classification Types

TNM Vehicle Type	Description
Autos	All vehicles with two axles and four tires, including passenger cars and light trucks, weighing 9,900 pounds or less
Medium Trucks	All vehicles having two axles and six tires, weighing between 9,900 and 26,400 pounds
Heavy Trucks	All vehicles having three or more axles, weighing more than 26,400 pounds
Buses	All vehicles designed to carry more than nine passengers
Motorcycles	All vehicles with two or three tires and an open-air driver / passenger compartment

Sources: FHWA Measurement of Highway-Related Noise, § 5.1.3 Vehicle Types.
FHWA Traffic Monitoring Guide, § 4.1 Classification Schemes

Interior hourly-equivalent noise levels are determined for NAC Category D land uses, such as hospitals, medical facilities and places of worship, by applying building noise reduction factors based on building type and window treatment that can be found in FHWA publication Highway Traffic Noise: Analysis and Abatement Guidance. One NAC Category D receptor (NSA 5) is located in the study area.

The Preferred Alternative for the U.S. 69 Express project was used in this traffic noise study. Per FHWA regulation 772.9(d), the predictions documented in this report are based upon the 2050 Design Year Build Alternative traffic volumes resulting in the loudest predicted hourly-equivalent traffic noise levels for each receptor. 2019 Base Year and 2050 Design Year (No-Build and Build) peak hour volumes and truck percentages were obtained from the project traffic study. To obtain a worst-case, loudest hourly noise level prediction, the highest peak hour traffic volume was used at each individual roadway, which may represent either the AM or PM peak hour. In addition, because traffic noise decreases as speeds decrease, the peak traffic hour is often not the loudest noise hour. In certain locations, the predicted volumes exceed a Level of Service (LOS) C, typically when traffic noise is loudest. Due to this, traffic volumes were limited to a maximum volume of 1,850 vehicles per lane. This volume was derived using Highway Capacity Manual (HCM) 6th Edition methodologies. LOS C corresponds to a density of 26.0 pc/mi/ln or less according to Exhibit 12-15 of the HCM. A LOS C capacity was developed to meet this

density threshold by combining Equations 12-9, 12-10, and 12-11 in order to solve for an estimated volume at a given truck percentage. A truck percentage of 6% was chosen to represent a typical representation of the U.S. 69 corridor during the peak hour. Assuming a single lane with a peak hour factor of 1, level terrain, and free-flow speed of 75 mph, a volume was calculated to represent the maximum volume maintaining a LOS C. This resulted in 1840 veh/ln, which was rounded to the nearest 50 for use in the TNM software giving a final LOS C capacity of 1850 veh/ln.

6.0 Traffic Noise Impacts

Traffic noise impacts occur when the predicted hourly-equivalent traffic noise levels either: [a] approach or exceed the FHWA NAC (with "approach" defined in the KDOT Noise Policy as reaching one (1) decibel less than the NAC values listed in Table 4), or [b] substantially exceed the existing noise levels by more than 10 dB. Nine hundred seventy-two (972) noise impacts were identified in the 2019 Base Year scenario, 1,156 noise impacts were identified in the 2050 No-Build scenario, and 1,462 noise impacts were identified in the 2050 Build scenario. Noise impacts for each NSA are discussed below. See Attachment A for the location of each NSA and Attachment B for a detailed map of noise sensitive receptors that are impacted and/or benefitted. 2019 Base Year, 2050 No-Build, and 2050 Build hourly equivalent traffic noise levels are listed in Appendix B.

NSA 1

NSA 1 is located south of 179th Street and east of U.S. 69. One (1) single family home exists in the NSA. No traffic noise impacts were identified.

NSA 2

NSA 2 is located south of 179th Street and west of U.S. 69. Two (2) single family homes exist in the NSA. One (1) traffic noise impact was identified in the 2019 Base Year, 2050 No-Build, and 2050 Build scenarios.

NSA 3

NSA 3 is located between 167th Street and 179th Street, east of U.S. 69. Four (4) single family homes exist in the NSA. One (1) traffic noise impact was identified in the 2050 No-Build and 2050 Build scenarios.

NSA 4

NSA 4 is located between 167th Street and 179th Street, west of U.S. 69. Six (6) single family homes exist in the NSA. Two (2) traffic noise impacts were identified in the 2050 No-Build and 2050 Build scenarios.

NSA 5

NSA 5 is located between 159th Street and 167th Street, west of U.S. 69. Forty (40) single family homes exist in the NSA, in addition to a church, a hospital, and 145 noise sensitive receptors at a multi-family dwelling. Twenty-seven (27) traffic noise impacts were identified in the 2019 Base Year, 70 traffic noise impacts were identified in the 2050 No-Build, and 69 traffic noise impacts were identified in the 2050 Build.

NSA 6

NSA 6 is located between 151st Street and 159th Street, east of U.S. 69. One hundred twenty-three (123) single family homes exist in the NSA, in addition to 107 residences at multi-family dwellings and a trail. Forty (40) traffic noise impacts were identified in the 2019 Base Year, 65 traffic noise impacts were identified in the 2050 No-Build, and 85 traffic noise impacts were identified in the 2050 Build.

NSA 7

NSA 7 is located between 151st Street and 159th Street, west of U.S. 69. One hundred twenty (120) single family homes exist in the NSA in addition to 41 residences at multi-family dwellings and a park. Thirty-seven (37) traffic noise impacts were identified in the 2019 Base Year, 52 traffic noise impacts were identified in the 2050 No-Build, and 77 traffic noise impacts were identified in the 2050 Build.

NSA 8

NSA 8 is located between 143rd Street and 151st Street, east of U.S. 69. Seventy-six (76) single family homes exist in the NSA in addition to 80 residences at multi-family dwellings, a church, a daycare facility, and a trail. Thirty-one (31) traffic noise impacts were identified in the 2019 Base Year, 32 traffic noise impacts were identified in the 2050 No-Build, and 57 traffic noise impacts were identified in the 2050 Build.

NSA 9

NSA 9 is located between 135th Street and 143rd Street, east of U.S. 69. Three hundred thirty (330) residences at multi-family dwellings exist in the NSA in addition to a recreational center and a trail. One hundred eighteen (118) traffic noise impacts were identified in the 2019 Base Year, 142 traffic noise impacts were identified in the 2050 No-Build, and 183 traffic noise impacts were identified in the 2050 Build.

NSA 10

NSA 10 is located between 143rd Street and 151st Street, west of U.S. 69. One hundred eighty-two (182) single family homes exist in the NSA in addition to 25 residences at multi-family dwellings. Fifty-one (51) traffic noise impacts were identified in the 2019 Base Year, 53 traffic noise impacts were identified in the 2050 No-Build, and 74 traffic noise impacts were identified in the 2050 Build.

NSA 11

NSA 11 is located between 135th Street and 143rd Street, west of U.S. 69. One hundred forty-three (143) single family homes exist in the NSA. Thirty-two (32) traffic noise impacts were identified in the 2019 Base Year, 34 traffic noise impacts were identified in the 2050 No-Build, and 52 traffic noise impacts were identified in the 2050 Build.

NSA 12

NSA 12 is located between 132nd Street and 135th Street, east of U.S. 69. Two hundred fifteen (215) residences exist at a multi-family dwelling in the NSA in addition to a trail. One hundred sixteen (116) traffic noise impacts were identified in the 2019 Base Year, 124 traffic noise impacts were identified in the 2050 No-Build, and 144 traffic noise impacts were identified in the 2050 Build.

NSA 13

NSA 13 is located between 123rd Street and 127th Street, east of U.S. 69. One hundred thirty-six (136) residences exist at a multi-family dwelling in the NSA in addition to a trail. Nineteen (19) traffic noise impacts were identified in the 2019 Base Year, 27 traffic noise impacts were identified in the 2050 No-Build, and 22 traffic noise impacts were identified in the 2050 Build.

NSA 14

NSA 14 is located between 132nd Street and 135th Street, west of U.S. 69. Ninety-one (91) residences exist at a multi-family dwelling in the NSA. Five (5) traffic noise impacts were identified in the 2019 Base Year, 18 traffic noise impacts were identified in the 2050 No-Build, and 36 traffic noise impacts were identified in the 2050 Build.

NSA 15

NSA 15 is located between 127th Street and 132nd Street, west of U.S. 69. Sixty-four (64) single family homes exist in the NSA in addition to a trail and an elementary school. Twenty-one (21) traffic noise impacts were identified in the 2019 Base Year, 22 traffic noise impacts were identified in the 2050 No-Build, and 33 traffic noise impacts were identified in the 2050 Build.

NSA 16

NSA 16 is located between Antioch Road and Blue Valley Parkway, north/east of U.S. 69. Four (4) single family homes exist in the NSA in addition to 340 residences at multi-family dwellings. One hundred fifteen (115) traffic noise impacts were identified in the 2019 Base Year, 115 traffic noise impacts were identified in the 2050 No-Build, and 137 traffic noise impacts were identified in the 2050 Build.

NSA 17

NSA 17 is located between 119th Street and Antioch Road, north/east of U.S. 69. Five hundred seventeen (517) residences at multi-family dwellings exist in the NSA. One hundred three (103) traffic noise impacts were identified in the 2019 Base Year, 111 traffic noise impacts were identified in the 2050 No-Build, and 143 traffic noise impacts were identified in the 2050 Build.

NSA 18

NSA 18 is located between Antioch Road and 127th Street, south/west of U.S. 69. Outdoor activity areas at a medical facility exist in the NSA. One (1) traffic noise impact was identified in the 2019 Base Year, 2050 No-Build, and 2050 Build scenarios.

NSA 19

NSA 19 is located between 119th Street and Antioch Road, south/west of U.S. 69. Thirty-five (35) single family homes exist in the NSA in addition to 479 residences at multi-family dwellings, several pools, and a tennis court. One hundred three (103) traffic noise impacts were identified in the 2019 Base Year, 113 traffic noise impacts were identified in the 2050 No-Build, and 155 traffic noise impacts were identified in the 2050 Build.

NSA 20

NSA 20 is located between College Boulevard and 119th Street, east of U.S. 69. Three hundred thirty-eight (338) residences at multi-family dwellings exist in the NSA in addition to pools, a trail, a tennis court, a soccer field, and a baseball field. Seventy-two (72) traffic noise impacts were identified in the 2019 Base Year, 80 traffic noise impacts were identified in the 2050 No-Build, and 91 traffic noise impacts were identified in the 2050 Build.

NSA 21

NSA 21 is located between College Boulevard and 119th Street, west of U.S. 69. Sixty-six (66) residences at multi-family dwellings exist in the NSA in addition to outdoor areas of frequent use at an assisted living facility. No traffic noise impacts were identified.

NSA 22

NSA 22 is located between I-435 and College Boulevard, west of U.S. 69. Sixteen (16) single family homes exist in the NSA. One (1) traffic noise impact was identified in the 2050 No-Build, and three (3) traffic noise impacts were identified in the 2050 Build.

NSA 23

NSA 23 is located between 103rd Street and I-435, west of U.S. 69. Two hundred eighty (280) residences at multi-family dwellings exist in the NSA. Eighty (80) traffic noise impacts were identified in the 2019 Base Year, 92 traffic noise impacts were identified in the 2050 No-Build, and 96 traffic noise impacts were identified in the 2050 Build.

Summary of Traffic Noise Impacts

As shown in Table 6, traffic noise is predicted to result in 1,462 total impacts in the 2050 Design Year Build Alternative.

Table 6: Traffic Noise Impact Summary for 2050 Build Alternative

Reason for Noise Impact	Summary of Impacted Receptors By Activity Category							
	A	B	C	D	E	F[1]	G[2]	All Activity Categories
Based on NAC Criteria	0	1,399	63	0	0	0	0	**1,462**
Based on Substantial Increase Criteria	0	0	0	0	0	0	0	**0**
TOTAL IMPACTS	0	1,399	63	0	0	0	0	**1,462**

1. *There are no impact criteria for land use facilities in this activity category and no analysis of noise impacts is required.*
2. *There are no impact criteria for undeveloped lands but some noise levels may need to be provided to local officials to aid them in future land use planning efforts.*

7.0 Potential Traffic Noise Abatement Measures

FHWA and KDOT require that feasible and reasonable noise abatement measures be considered and evaluated for the benefit of all predicted build-condition traffic noise impacts. Feasibility and reasonableness are distinct and separate considerations. Feasibility is the combination of acoustical and engineering factors considered in the evaluation of a noise barrier, such as topography, access, drainage, safety, and maintenance. Feasibility criteria specifically include:

- Safety: The noise barrier shall not excessively restrict sight distances, restrict drainage or exacerbate potential flooding.
- Maintenance: Access is needed to both sides of the barrier.
- Acoustic Considerations: An acoustically feasible noise barrier must achieve at least a five (5) dB(A) highway traffic noise reduction for 80% of first row impacted receptors and 2/3 of all impacted receptors.

Reasonableness is the consideration of the social, economic, and environmental factors considered in the evaluation of a noise barrier. The 2011 KDOT Noise Policy, reviewed and approved by FHWA, was used to determine whether noise abatement would be reasonable for impacted receptors; however, because locations of the project area had been evaluated as part of a 2004 Environmental Assessment which recommended noise abatement, and to avoid evaluating different parts of the project with significantly different reasonableness criteria, the noise reduction design goal and cost effectiveness criteria were modified for this study to match the criteria from the previous study. Additionally, KDOT is currently in the process of updating its 2011 noise policy, which is anticipated to establish similar criteria for statewide application and would yield the same results. Reasonableness criteria used in the analysis, which meet the requirements outlined in 23 CFR 772.13(d)(2), specifically include:

- Noise Reduction Design Goal: In line with 23 CFR 772.13(d)(2)(iii), the noise barrier must achieve a minimum of seven (7) decibel reduction at a minimum of one (1) benefitted receptor. This threshold makes the possibility of noise abatement being considered reasonable more likely than the 2011 policy goal, which requires a majority of benefitted receptors to achieve a minimum of 10 decibel insertion loss.
- Cost: The cost threshold was measured in terms of square feet of noise barrier. A reasonable wall was considered one that has a maximum of 1,800 square feet of wall per benefitted receptor. This number was calculated based on the cost allowance and the cost per square

foot of wall used in the 2004 EA, which were a maximum of $36,000 per benefitted receptor and $20/square feet of wall at the time of the study. A minimum of five (5) dB insertion loss per receptor was used to determine a benefitted receptor. Other receptors not impacted but receiving a benefit are counted in the evaluation (non-impacted benefitted receptors). This threshold makes the possibility of noise abatement being considered reasonable more likely than the 2011 policy, which determines a maximum of $30,000 per benefitted receptor to be considered cost effective and only counts receptors with a seven (7) decibel insertion loss as benefitted.

- Public Approval: Viewpoints of benefitted receptors are solicited via a ballot. Owners and tenants at non-owner occupied residences are each given the opportunity to vote. A noise barrier shall be permitted when 70% or more of the responses received indicate approval of the barrier.

Noise barriers were analyzed for every receptor predicted to be impacted in the Build alternative. Generally, barriers were analyzed along the shoulder of U.S. 69 or near the right-of-way line depending on the topography of the area and potential major utility conflicts. In locations with noise sensitive receptors located on multiple stories of a building, such as an apartment building with private balconies, noise abatement was attempted to benefit receptors at the 1st and 2nd stories. Above that, it is generally not feasible to provide noise abatement; however, if higher stories did achieve a 5 dBA insertion loss in the model, they were included in the square foot of wall per benefitted receptor calculation.

Fourteen (14) noise barriers were determined to meet the feasibility and reasonableness criteria, pending the vote of the benefitted receptors. Additional information on individual noise loss reductions can be found in Appendix C, and the locations of the analyzed barriers are shown in Attachment B.

- **Noise Wall 1 – NSA 1**
  - N/A (No impacted receptors)

- **Noise Wall 2 – NSA 2**
  - Feasible: Yes
  - Length of barrier: 804 ft
  - Square footage: 11,665 ft^2
  - Benefitted receptors: 1
  - Square feet of wall per benefitted receptor: 11,665 ft^2
  - Reasonable: No

- **Noise Wall 3 – NSA 3**
  - Feasible: Yes
  - Length of barrier: 1,403 ft
  - Square footage: 22,446 ft^2
  - Benefitted receptors: 1
  - Square feet of wall per benefitted receptor: 22,446 ft^2
  - Reasonable: No

- **Noise Wall 4 – NSA 4**
  - Feasible: Yes
  - Length of barrier: 1,808 ft
  - Square footage: 23,309 ft^2
  - Benefitted receptors: 2
  - Square feet of wall per benefitted receptor: 11,665 ft^2
  - Reasonable: No

- **Noise Wall 5 – NSA 5**
  - Feasible: Yes
  - Length of barrier: 1,741 ft
  - Square footage: 23,753 ft^2
  - Benefitted receptors: 78
  - Square feet of wall per benefitted receptor: 305 ft^2
  - Reasonable: Yes

- **Noise Wall 6 – NSA 6**
  - Feasible: Yes
  - Length of barrier: 4,309 ft
  - Square footage: 54,533 ft^2
  - Benefitted receptors: 157
  - Square feet of wall per benefitted receptor: 347 ft^2
  - Reasonable: Yes

- **Noise Wall 7 – NSA 7**
  - Feasible: Yes
  - Length of barrier: 4,497 ft
  - Square footage: 56,172 ft^2
  - Benefitted receptors: 138
  - Square feet of wall per benefitted receptor: 407 ft^2
  - Reasonable: Yes

- **Noise Wall 8 – NSA 8**
  - Feasible: Yes
  - Length of barrier: 4,368 ft
  - Square footage: 63,914 ft^2
  - Benefitted receptors: 86
  - Square feet of wall per benefitted receptor: 743 ft^2
  - Reasonable: Yes

- **Noise Wall 9 – NSA 9**
  - Feasible: Yes
  - Length of barrier: 2,804 ft
  - Square footage: 36,095 ft^2
  - Benefitted receptors: 162
  - Square feet of wall per benefitted receptor: 223 ft^2
  - Reasonable: Yes

- **Noise Wall 10 – NSA 10**
  - Feasible: Yes
  - Length of barrier: 5,460 ft
  - Square footage: 69,687 ft^2
  - Benefitted receptors: 121
  - Square feet of wall per benefitted receptor: 576 ft^2
  - Reasonable: Yes

- **Noise Wall 11 – NSA 11**
  - Feasible: Yes
  - Length of barrier: 5,268 ft
  - Square footage: 66,994 ft^2
  - Benefitted receptors: 82
  - Square feet of wall per benefitted receptor: 817 ft^2
  - Reasonable: Yes

- **Noise Wall 12 – NSA 12**
  - Feasible: Yes
  - Length of barrier: 1,633 ft
  - Square footage: 19,584 ft^2
  - Benefitted receptors: 96
  - Square feet of wall per benefitted receptor: 204 ft^2
  - Reasonable: Yes

- **Noise Wall 13 – NSA 13**
  - Feasible: Yes
  - Length of barrier: 2,065 ft
  - Square footage: 33,044 ft^2
  - Benefitted receptors: 28
  - Square feet of wall per benefitted receptor: 1,180 ft^2
  - Reasonable: Yes

- **Noise Wall 14 – NSA 14**
  - Feasible: No – No impacted receptors on 1st or 2nd floor benefit

- **Noise Wall 15 – NSA 15**
  - Feasible: Yes
  - Length of barrier: 1,833 ft
  - Square footage: 26,277 ft^2
  - Benefitted receptors: 27
  - Square feet of wall per benefitted receptor: 973 ft^2
  - Reasonable: Yes

- **Noise Wall 16 – NSA 16**
  - Feasible: Yes
  - Length of barrier: 2,960 ft
  - Square footage: 37,226 ft^2
  - Benefitted receptors: 221
  - Square feet of wall per benefitted receptor: 168 ft^2
  - Reasonable: Yes

- **Noise Wall 17 – NSA 17**
  - Feasible: Yes
  - Length of barrier: 3,423 ft
  - Square footage: 45,380 ft^2
  - Benefitted receptors: 186
  - Square feet of wall per benefitted receptor: 244 ft^2
  - Reasonable: Yes

- **Noise Wall 18 – NSA 18**
  - Feasible: Yes
  - Length of barrier: 1,158 ft
  - Square footage: 16,518 ft^2
  - Benefitted receptors: 1
  - Square feet of wall per benefitted receptor: 16,518 ft^2
  - Reasonable: No

- **Noise Wall 19 – NSA 19**
  - Feasible: Yes
  - Length of barrier: 4,790 ft
  - Square footage: 79,089 ft^2
  - Benefitted receptors: 276
  - Square feet of wall per benefitted receptor: 287 ft^2
  - Reasonable: Yes

- **Noise Wall 20 – NSA 20**
  - Feasible: Yes
  - Length of barrier: 2,232 ft
  - Square footage: 43,051 ft^2
  - Benefitted receptors: 125
  - Square feet of wall per benefitted receptor: 344 ft^2
  - Reasonable: Yes

- **Noise Wall 21 – NSA 21**
  - N/A (No impacted receptors)

- **Noise Wall 22 – NSA 22**
  - Feasible: No – No impacted receptors benefit

- **Noise Wall 23 – NSA 23**
  - Feasible: No – Unable to provide 5 dBA insertion loss for 80% of 1st row impacted or 2/3 of all impacted

7.1 Environmental Justice Population Noise Impacts

As part of the noise analysis, Environmental Justice (EJ) populations were identified to examine the potential noise impacts in these specific areas. The Environmental Assessment defines EJ Populations as Block Groups that contain Minority or Low-Income populations that meet or exceed rates of the City of Overland Park or Johnson County. Low Income was defined as households with a median income less than 200 percent the poverty level. American Community Survey 5-Year estimates were utilized for the analysis.

Attachment C identifies these EJ populations, which encompass 17 of the 23 NSAs. In these 17 NSAs, 1,359 noise impacts are identified in the 2050 Build without any noise abatement. However, all 14 noise walls found to be both feasible and reasonable per KDOT and FHWA noise policies are in the EJ areas, and the noise walls will benefit 1,810 receptors in EJ communities.

8.0 Construction Noise

The predominant construction activities associated with this project are expected to be earth removal, hauling, grading, and paving. Temporary and localized construction noise impacts may occur as a result of these activities. During daytime hours, the predicted effects of these impacts could be temporary speech interference for passers-by and those individuals living or working near the project. During evening and nighttime hours, steady-state construction noise emissions, such as those from paving operations, could be audible and may cause impacts to activities such as sleep. Sporadic evening and nighttime construction equipment noise emissions, such as from backup alarms, lift gate closures ("slamming" of dump truck gates), etc., will be perceived as distinctly louder than the steady-state acoustic environment, and could impact the general peace and usage of noise-sensitive areas – particularly residences.

Construction activities that will produce extremely loud noises should to the extent possible be scheduled during times of the day when such noises will create as minimal disturbance as possible, specifically weekday daytime hours since the primary land use expected to be temporarily impacted by construction noise for the project is residential.

Generally, low-cost and easily implemented construction noise control measures should be incorporated into the project plans and specifications to the extent possible. These measures include, but are not limited to, work-hour limits, equipment exhaust muffler requirements, haul-road locations, elimination

of “tail gate banging”, ambient-sensitive backup alarms, construction noise complaint mechanisms, and consistent and transparent community communication.

9.0 Local Officials’ Statement

A copy of this report will be provided to local officials in the City of Overland Park. Per 23 CFR 772.9(c) and the KDOT noise policy, noise contour lines shall not be used for determining highway traffic noise impacts. However, the 71 dB(A) and 66 dB(A) noise level contour information should assist local authorities in exercising land use control over the remaining undeveloped lands (NAC “G”), so as to avoid development of incompatible activities near the U.S. 69 project.

Noise contours were developed for representative locations of undeveloped lands throughout the project study area, which generally are only south of 159th Street. However, for individual locations, the distance at which traffic noise impacts will occur can vary greatly depending on several factors including, but not limited to, traffic volumes, nearby topography, shielding from nearby structures, etc. Table 7 shows contour distances correlating to the traffic noise impact thresholds for FHWA NAC “E” land uses, 71 dB(A), and NAC “B” and “C” land uses, 66 dB(A). Given the variation in cross sections and elevations adjacent to the project, it is recommended that any future development proposed in the area of the project be modeled with accurate survey data to avoid creating incompatible land uses adjacent to the project.

Table 7: Predicted 2050 Build Alternative Traffic Noise Level Contours

Approx. Location	Location	Predicted Contour Distances from Centerline U.S. 69	
		71 dB(A)	66 dB(A)
South of 159th Street	West of U.S. 69	**200’**	**400’**
South of 159th Street	East of U.S. 69	**200’**	**400’**

10.0 Summary

KDOT project 69-46 KA-5700-02 proposes to modernize and expand a section of the U.S. 69 Corridor, located within the southern limits of the City of Overland Park, in Johnson County, Kansas. The Preferred Alternative improvements include adding an additional travel lane in each direction for express toll lane service, reconfiguring the interchange at I-435, reconfiguring the interchange at Blue Valley Parkway, improving local interchanges and supporting cross streets, and reconstructing existing pavement and bridges. The purpose of the proposed improvements is to improve safety, reduce congestion, promote sustainability, provide flexible choices, and accommodate local and regional growth.

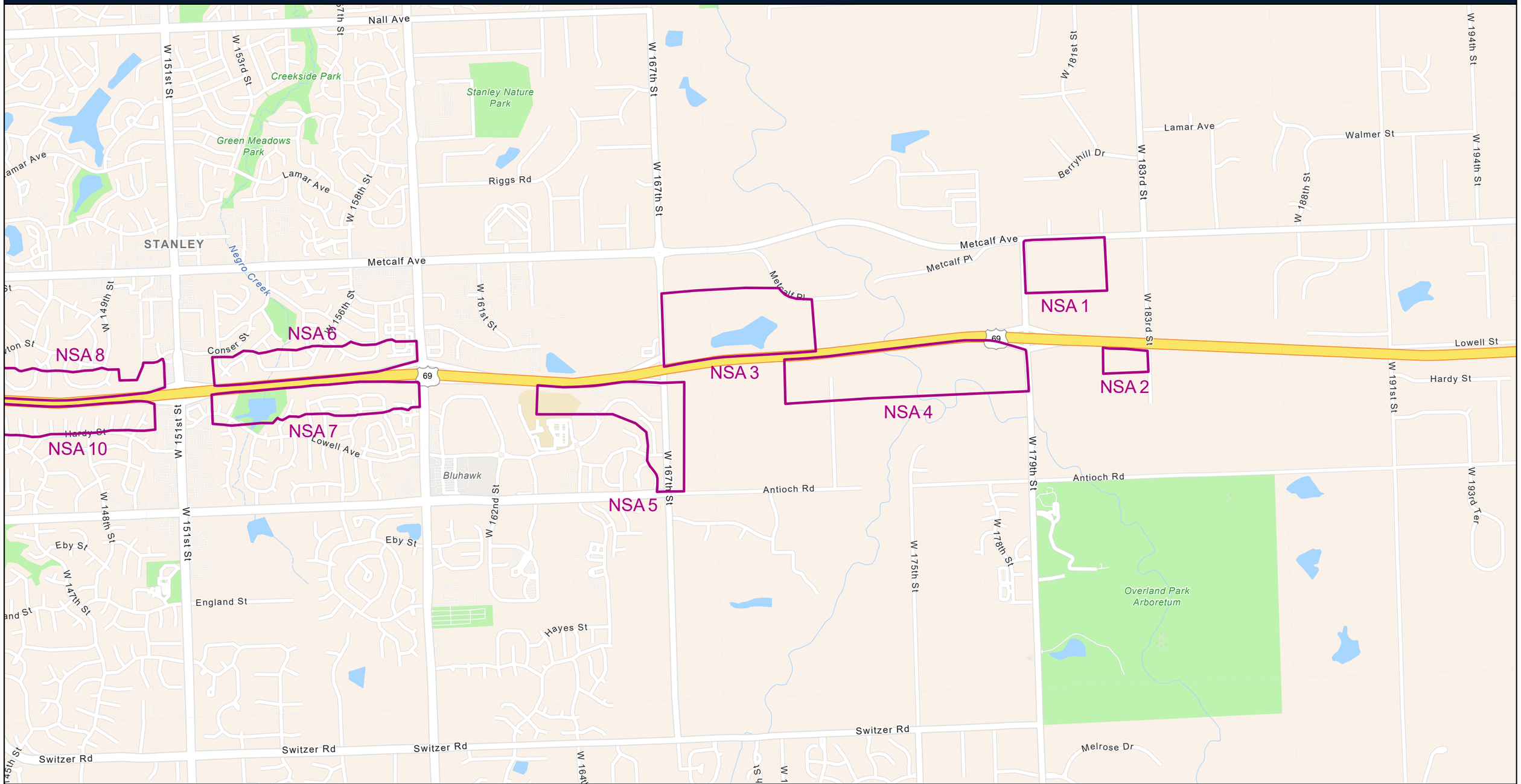
Traffic noise impacts and temporary construction noise impacts can be a consequence of transportation projects, especially for noise-sensitive land uses near high-volume and/or high-speed existing steady-state traffic noise sources. This traffic noise study utilized computer models created with the FHWA TNM 2.5 software, validated with field-collected traffic noise measurement data, to determine existing, and to predict future, loudest-hour equivalent noise levels and identify impacted receptors resulting from the 69 Express project.

In the vicinity of the project, 4,092 receptors were analyzed for noise impacts. The receptors are comprised of residences, apartments, trails, places of worship, schools, recreational facilities, and more. Of the 4,092 total receptors, 972 noise impacts were identified in the 2019 Base Year, 1,156 impacts were identified in the 2050 No-Build, and 1,462 impacts were identified in the 2050 Build.

As is required in KDOT's 2011 *Highway Traffic Noise Analysis and Abatement Policy and Procedures*, consideration for noise abatement measures was given to all impacted receptors for the 69 Express project. Fourteen (14) noise walls were found to be feasible and reasonable, pending a vote of the benefitted receptors. The project is anticipated to be constructed as part of a design-build project in multiple phases. In accordance with Title 23 CFR 772, the preliminary technical noise study documents all considered and proposed noise abatement measures for inclusion in the NEPA document. Final design of design-build noise abatement measures shall be based on the preliminary noise abatement design developed in this technical noise analysis. Noise abatement measures shall be considered, developed, and constructed in accordance with this standard and in conformance with the provisions of 40 CFR 1506.5(c) and 23 CFR 636.109.

Noise Sensitive Areas

Attachment A-1



Noise Sensitive Area Boundaries

N

0 1,500 3,000 6,000 Feet

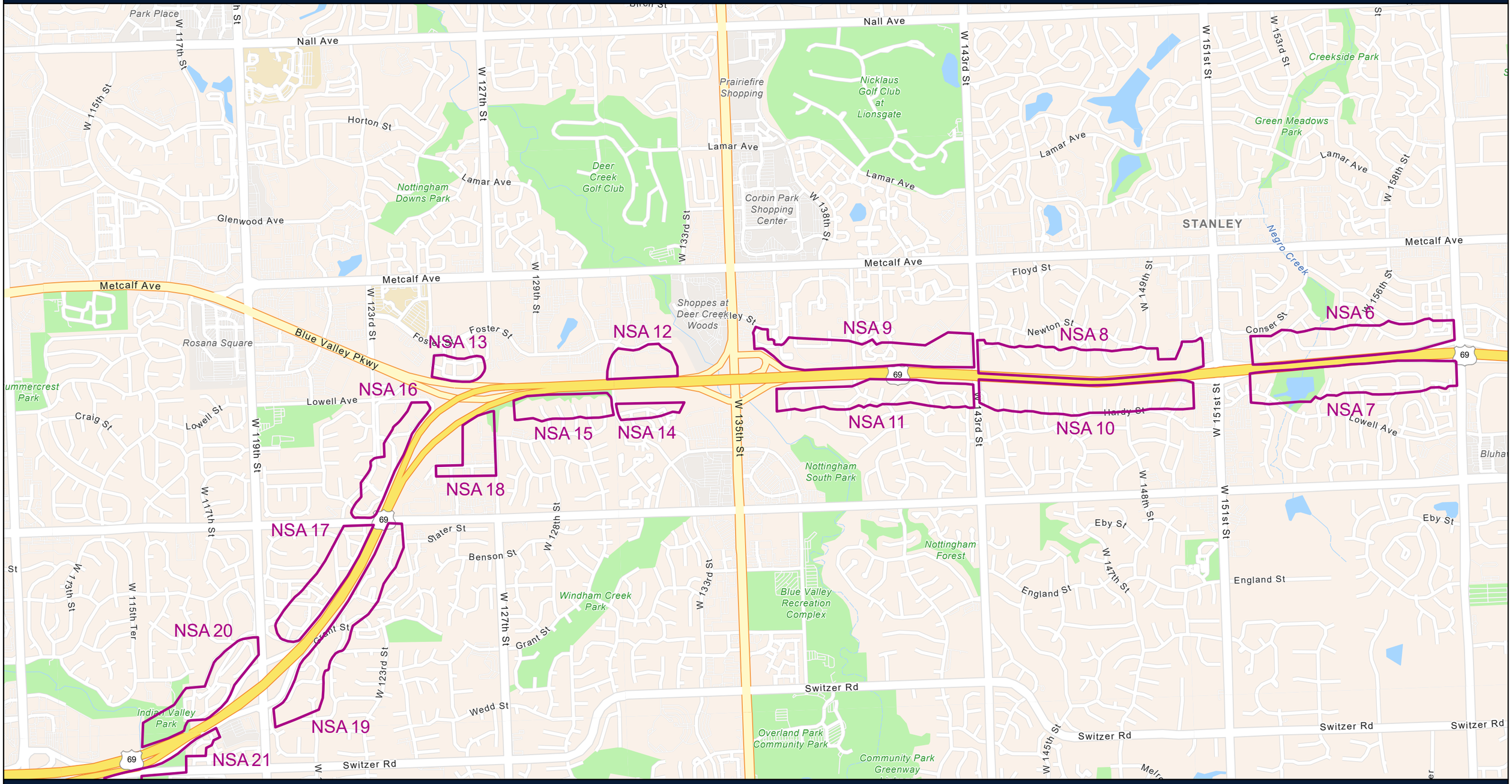
U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Noise Sensitive Areas

Attachment A-2



Noise Sensitive Area Boundaries

N

0 1,500 3,000 6,000 Feet

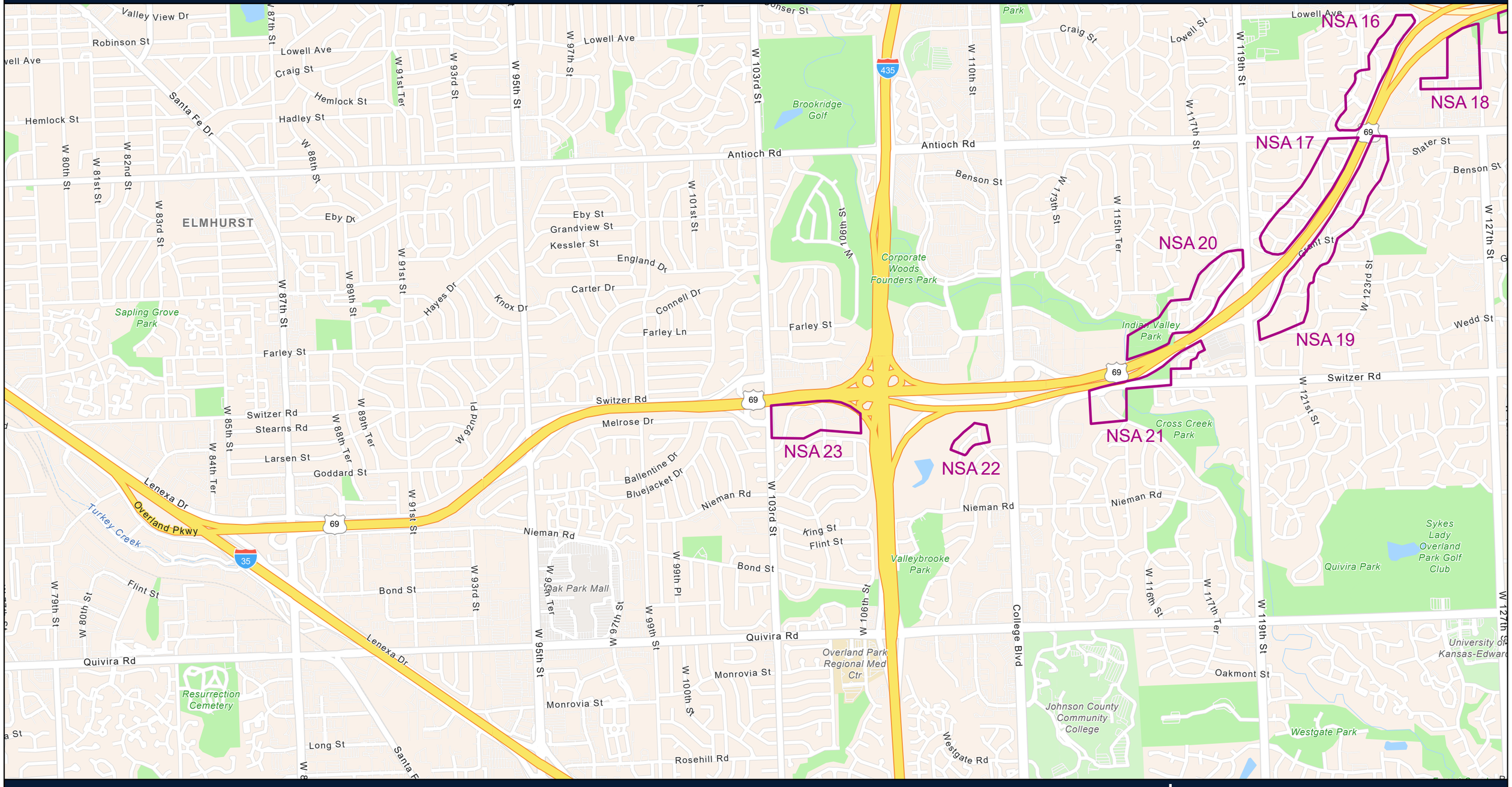
U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Noise Sensitive Areas

Attachment A-3



Noise Sensitive Area Boundaries

N

0 1,500 3,000 6,000 Feet

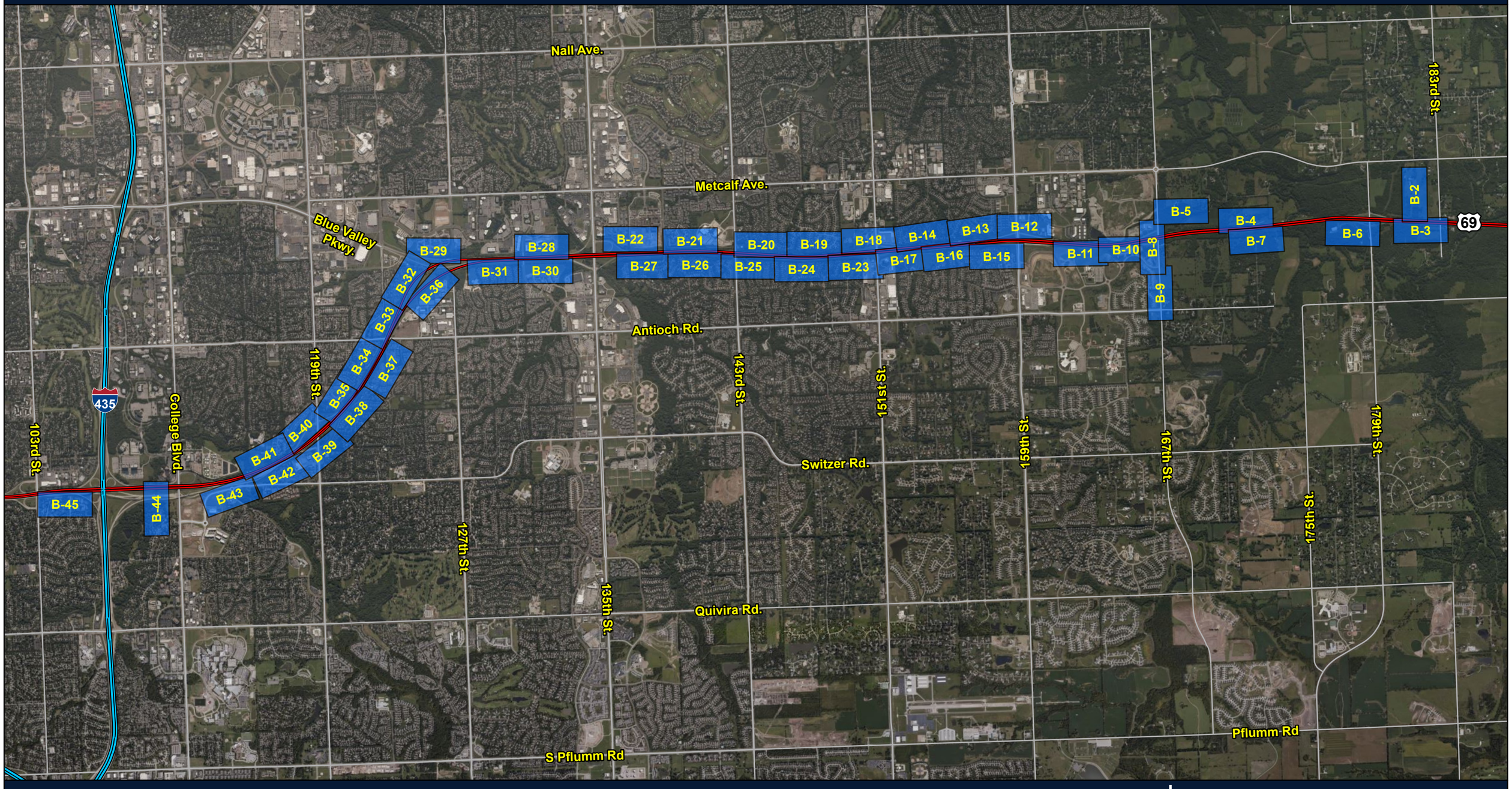
U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Noise Sensitive Receptor Locations

Attachment B-1



Attachment Number

N

0 2,500 5,000 7,500 10,000 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Noise Sensitive Receptor Locations

Attachment B-2

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
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69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-3

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
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Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-4

Non-Impacted, Non-Benefitted Receiver
Non-Impacted, Benefitted Receiver
Impacted, Non-Benefitted Receiver
Impacted, Benefitted Receiver

Noise Wall - NOT Feasible and/or Reasonable
Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

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Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-5

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

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Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-6

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
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Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-7

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
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KDOT# 69-46 KA-5700-02

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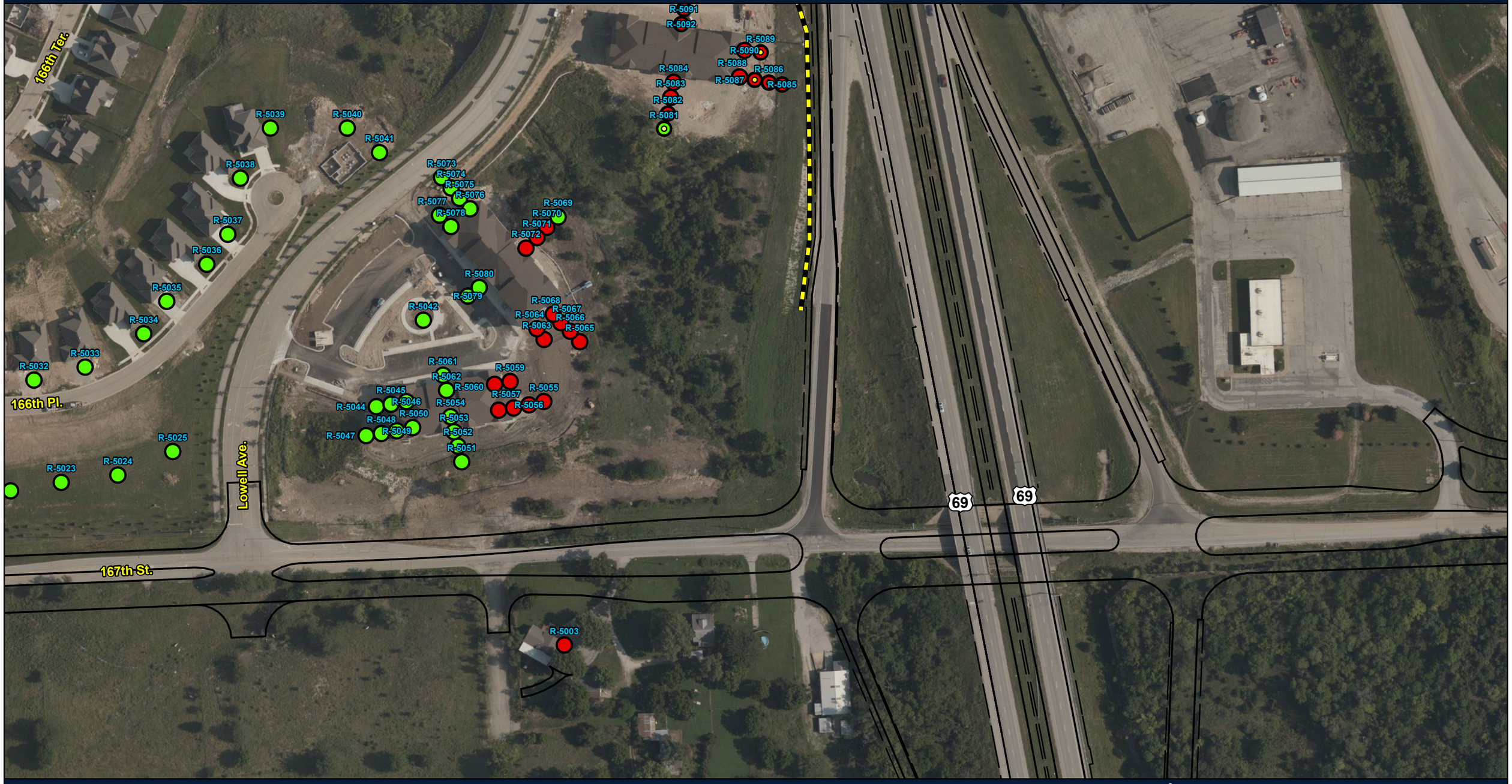
Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-8



- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

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KDOT# 69-46 KA-5700-02

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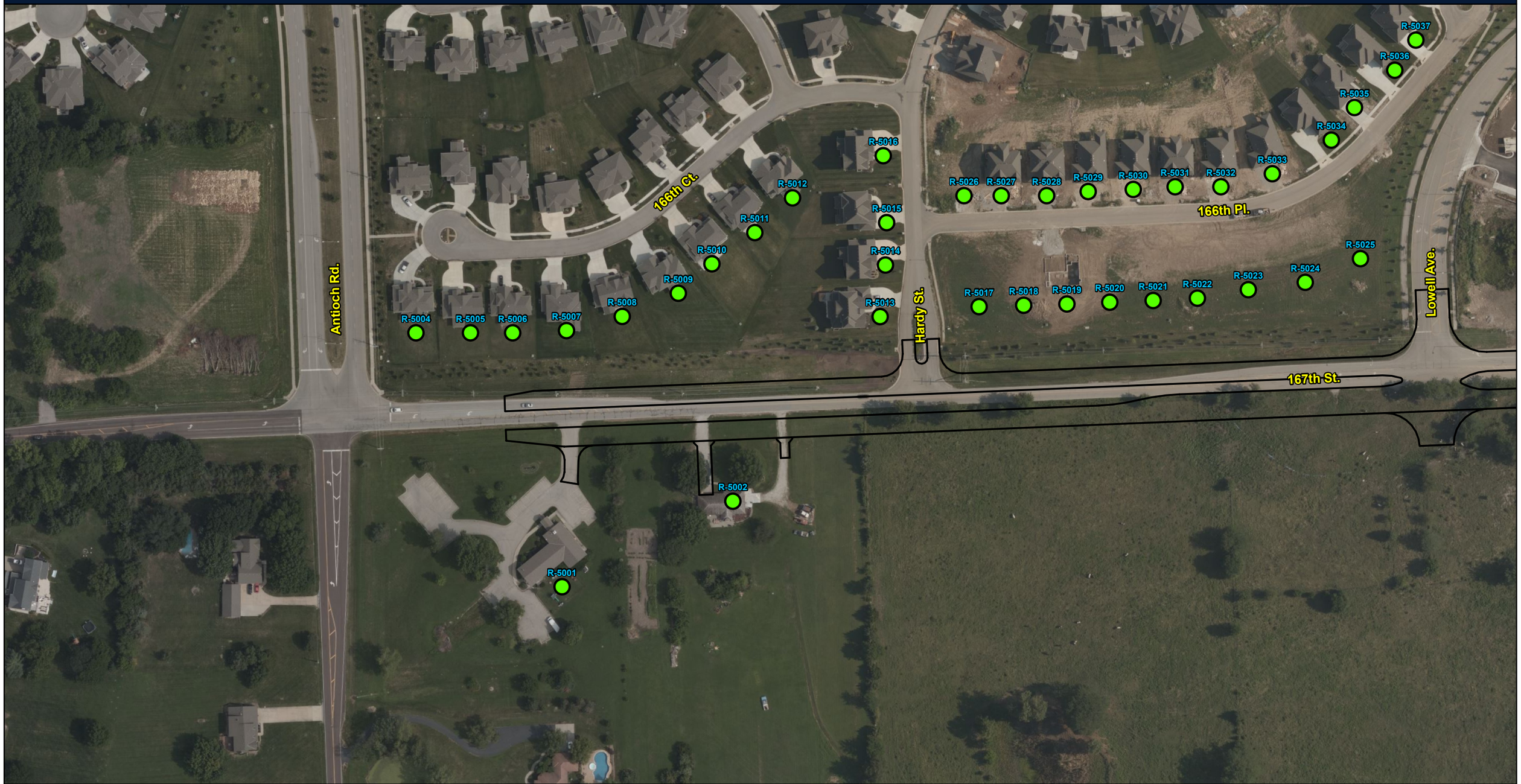
Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-9



Non-Impacted, Non-Benefitted Receiver

Non-Impacted, Benefitted Receiver

Impacted, Non-Benefitted Receiver

Impacted, Benefitted Receiver

Noise Wall - NOT Feasible and/or Reasonable

Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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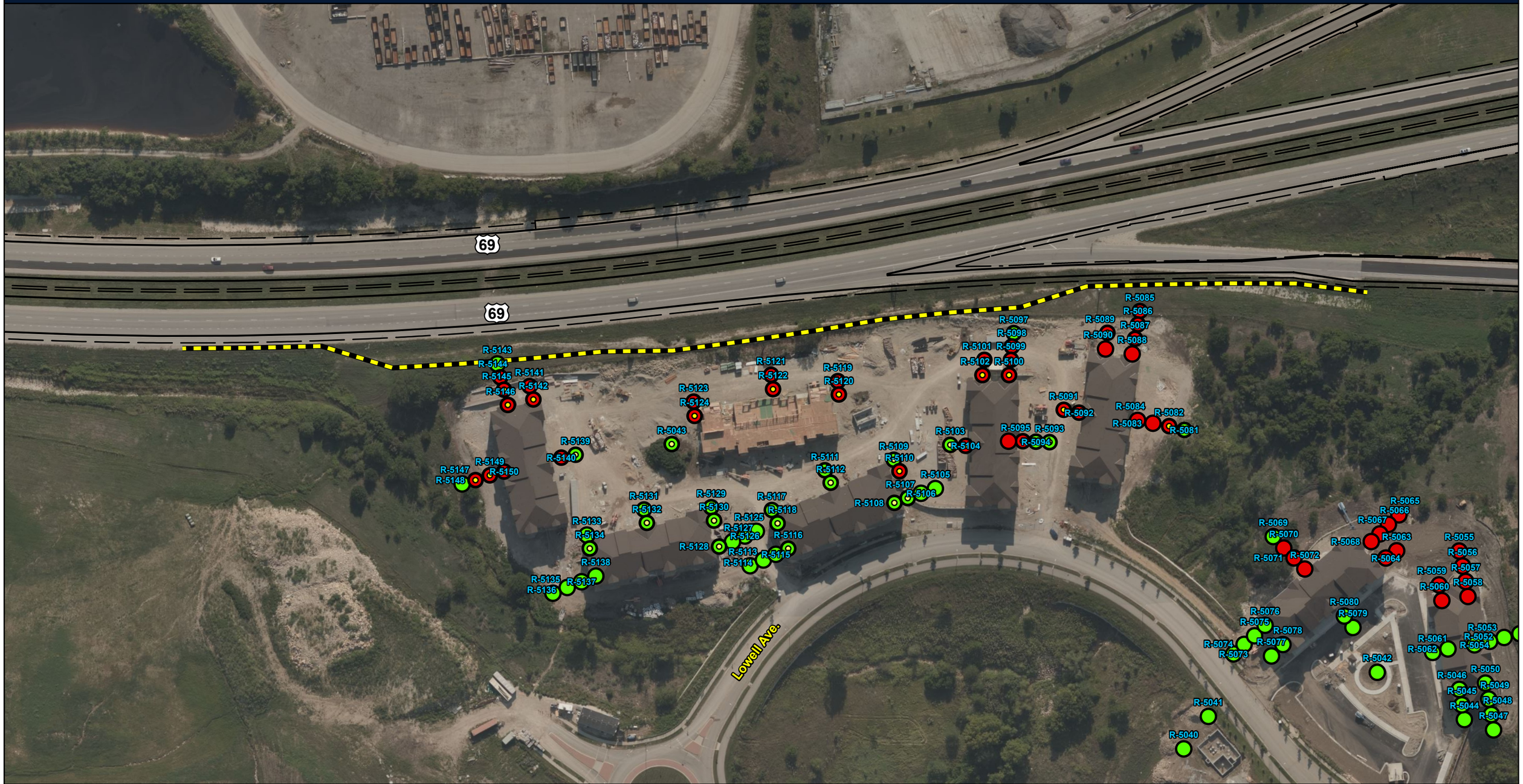
Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-10



- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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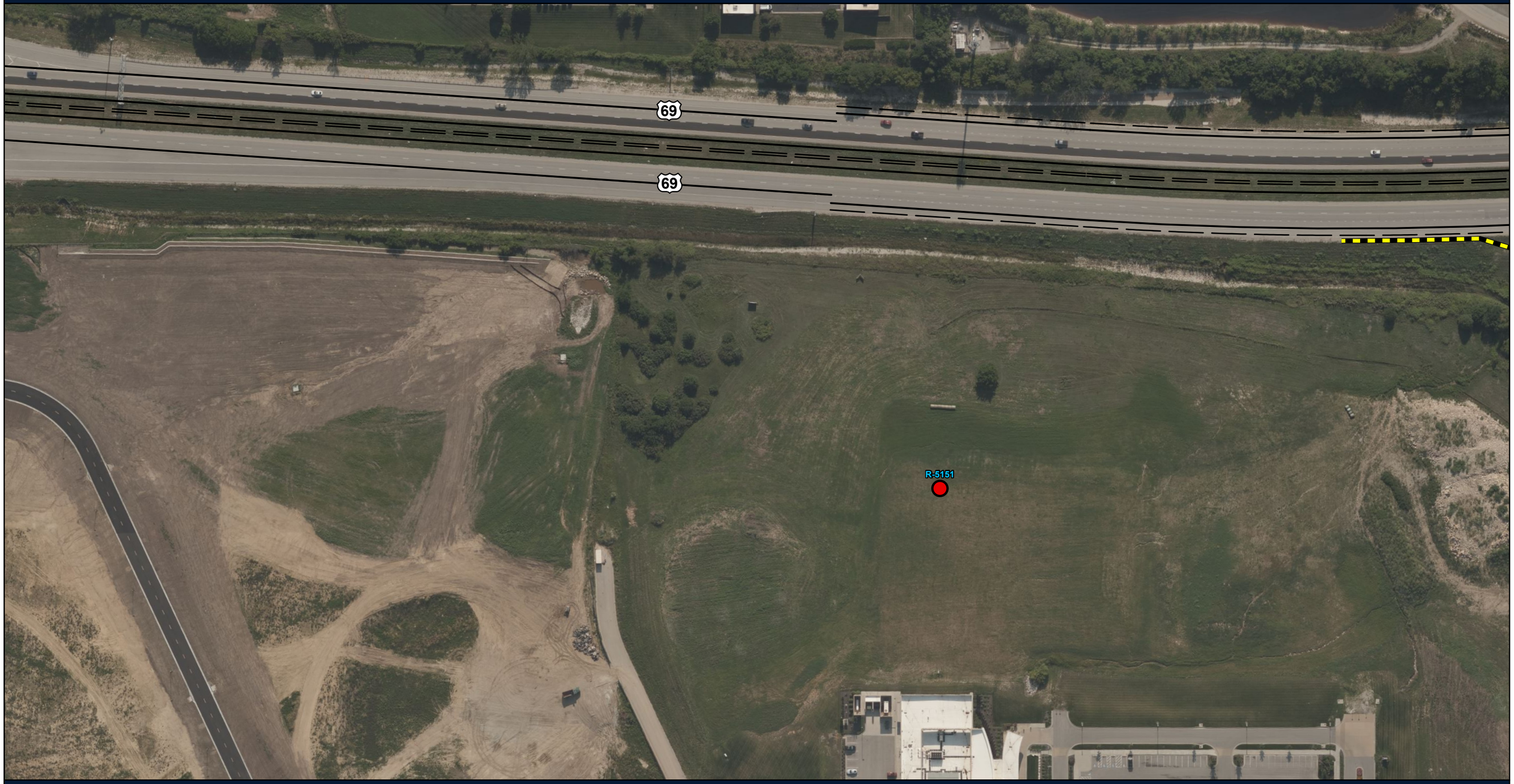
Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-11



- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-12

Non-Impacted, Non-Benefitted Receiver
Non-Impacted, Benefitted Receiver
Impacted, Non-Benefitted Receiver
Impacted, Benefitted Receiver
Noise Wall - NOT Feasible and/or Reasonable
Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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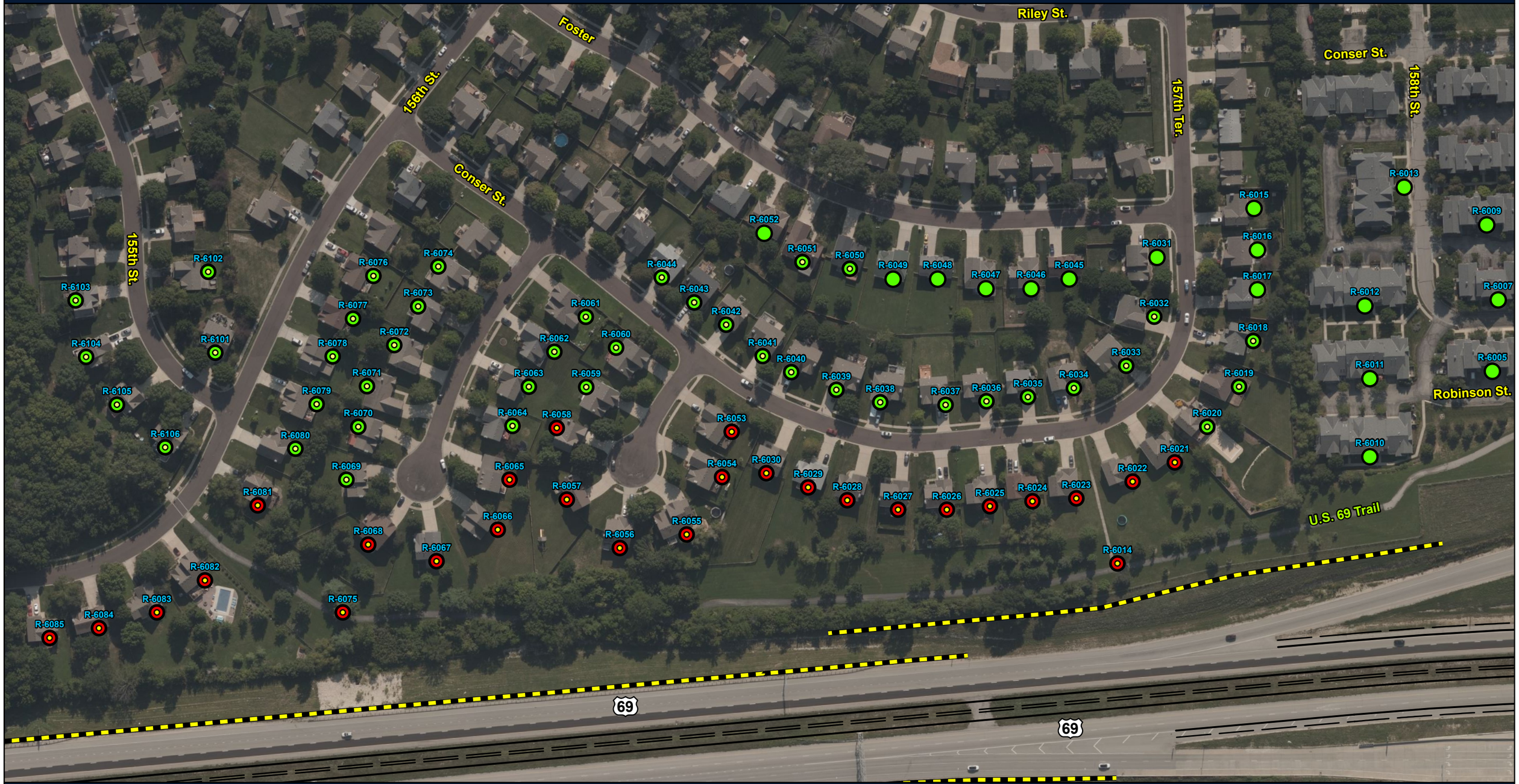
Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-13



- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
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Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-14

Non-Impacted, Non-Benefitted Receiver
Non-Impacted, Benefitted Receiver
Impacted, Non-Benefitted Receiver
Impacted, Benefitted Receiver

Noise Wall - NOT Feasible and/or Reasonable
Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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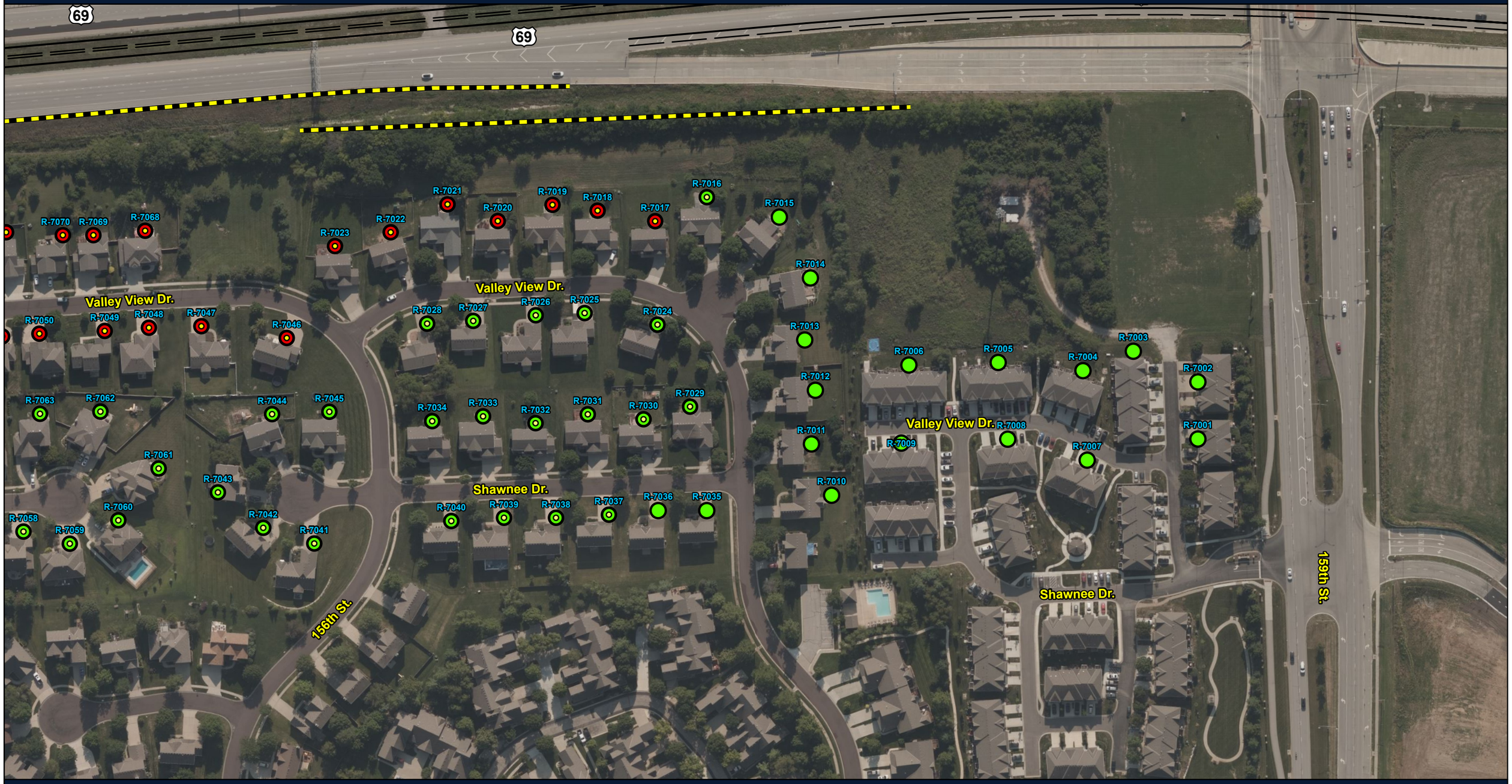
Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-15



Non-Impacted, Non-Benefitted Receiver

Non-Impacted, Benefitted Receiver

Impacted, Non-Benefitted Receiver

Impacted, Benefitted Receiver

Noise Wall - NOT Feasible and/or Reasonable

Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-16

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

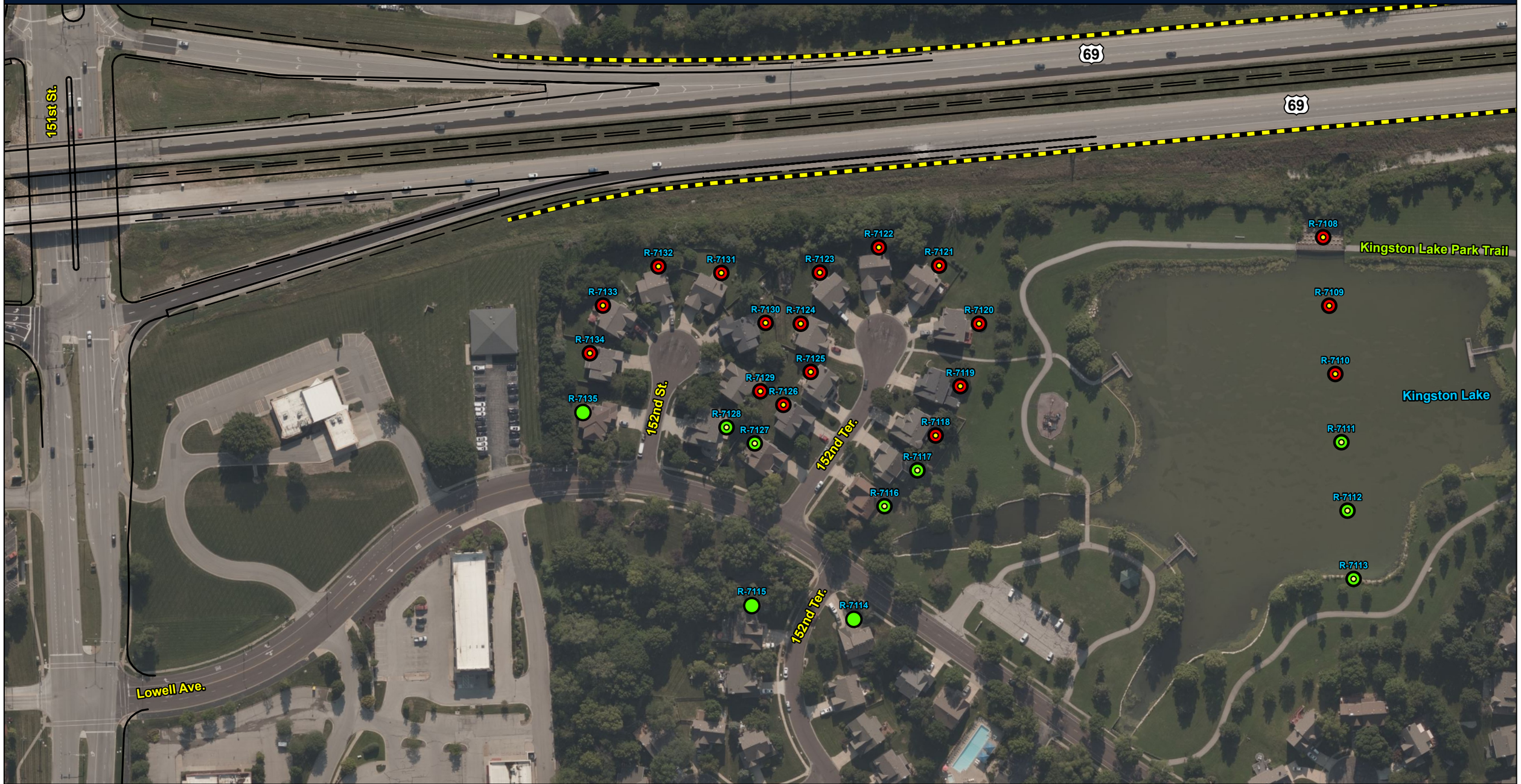
69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-17



Non-Impacted, Non-Benefitted Receiver

Non-Impacted, Benefitted Receiver

Impacted, Non-Benefitted Receiver

Impacted, Benefitted Receiver

Noise Wall - NOT Feasible and/or Reasonable

Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-18

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

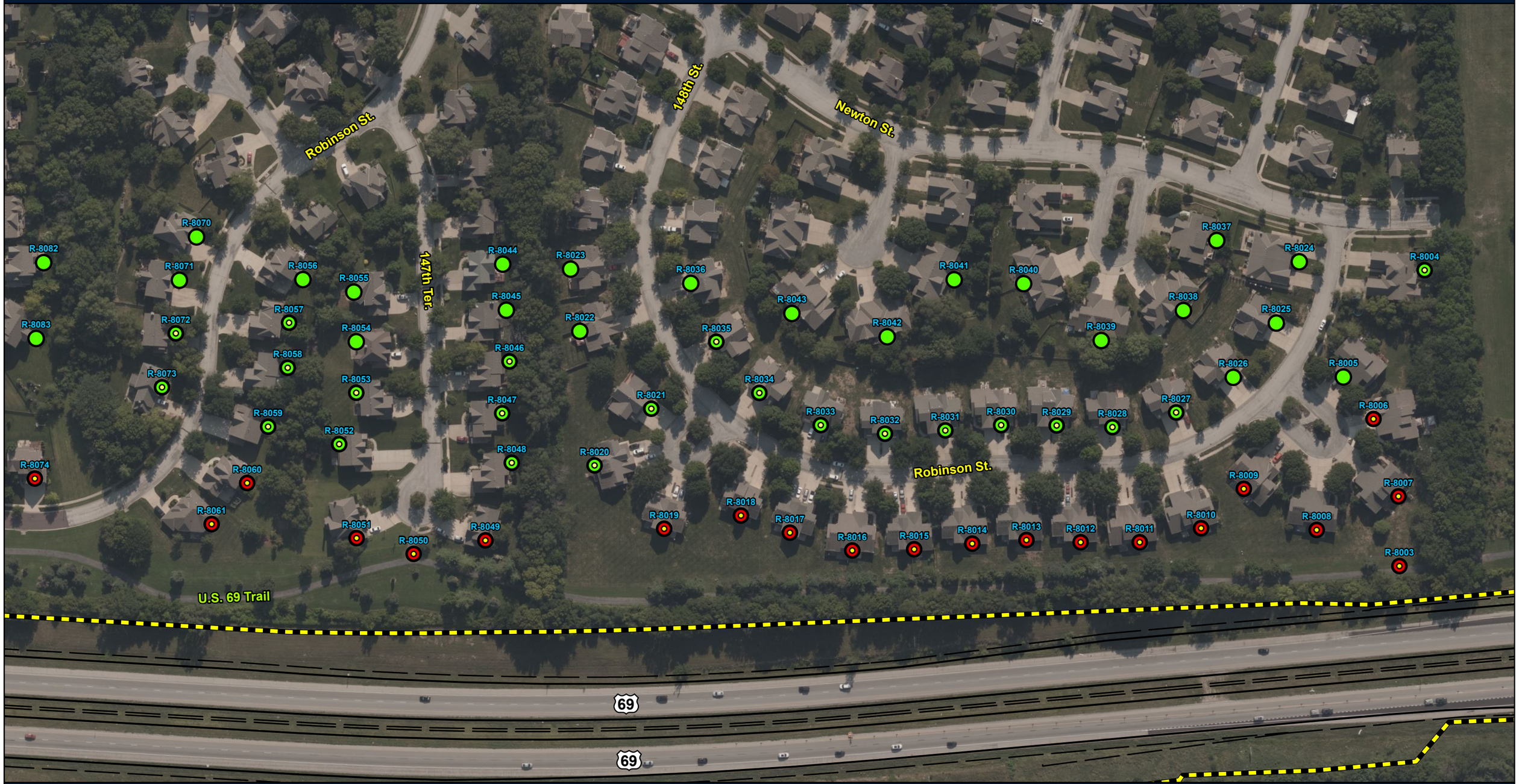
69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-19



Non-Impacted, Non-Benefitted Receiver
Non-Impacted, Benefitted Receiver
Impacted, Non-Benefitted Receiver
Impacted, Benefitted Receiver

Noise Wall - NOT Feasible and/or Reasonable
Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-20

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-21

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-22

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

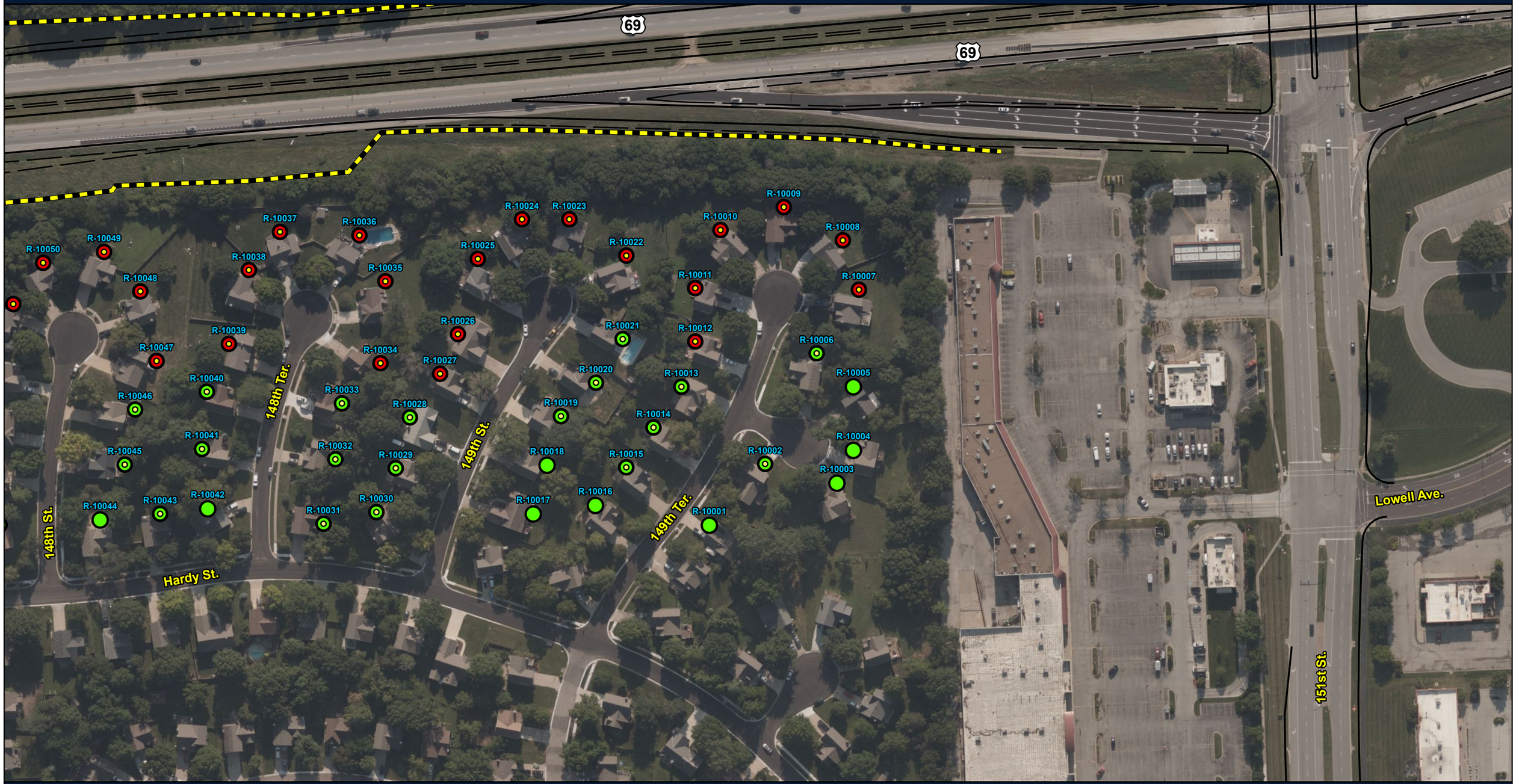
69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-23



- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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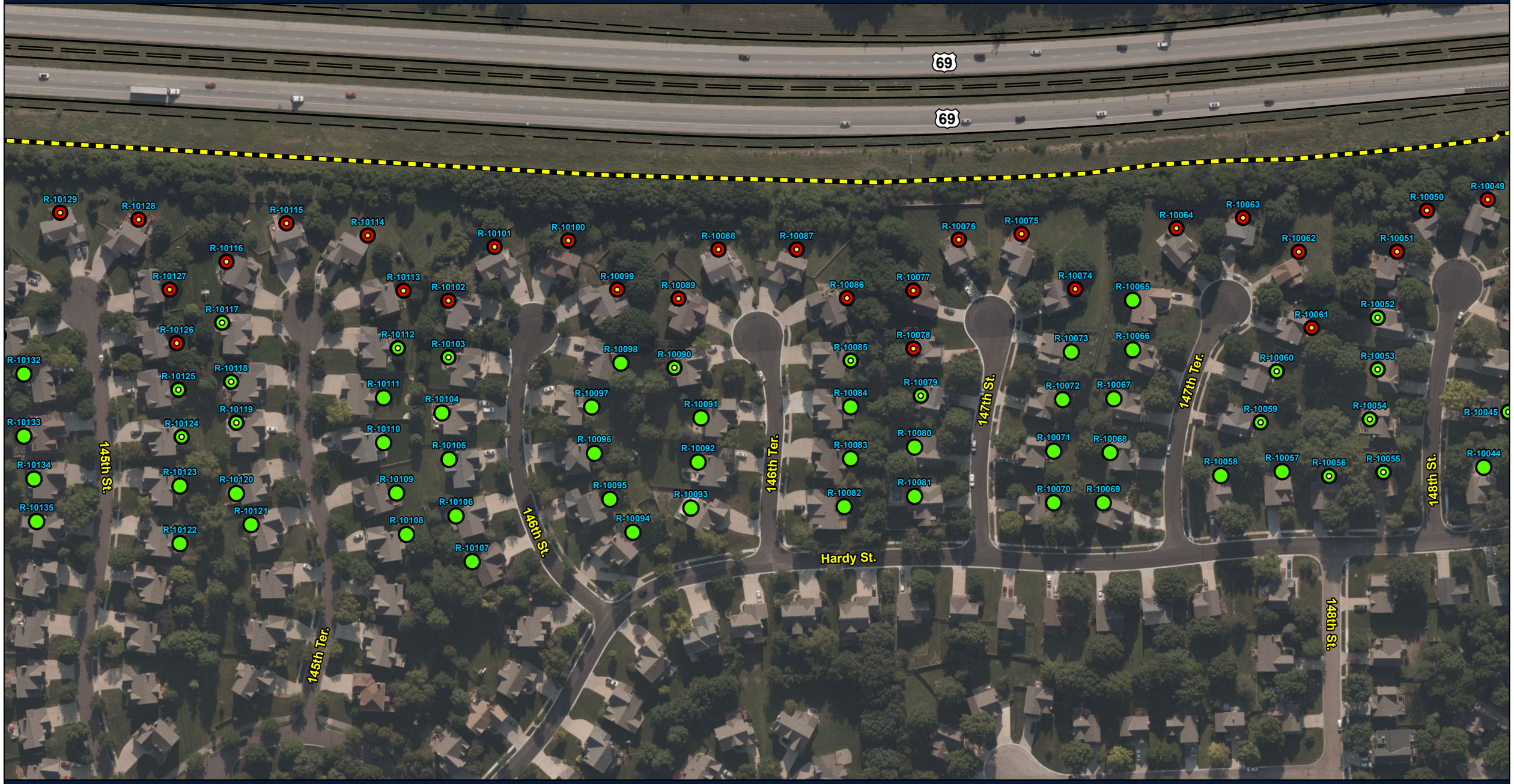
Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-24



- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-25

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

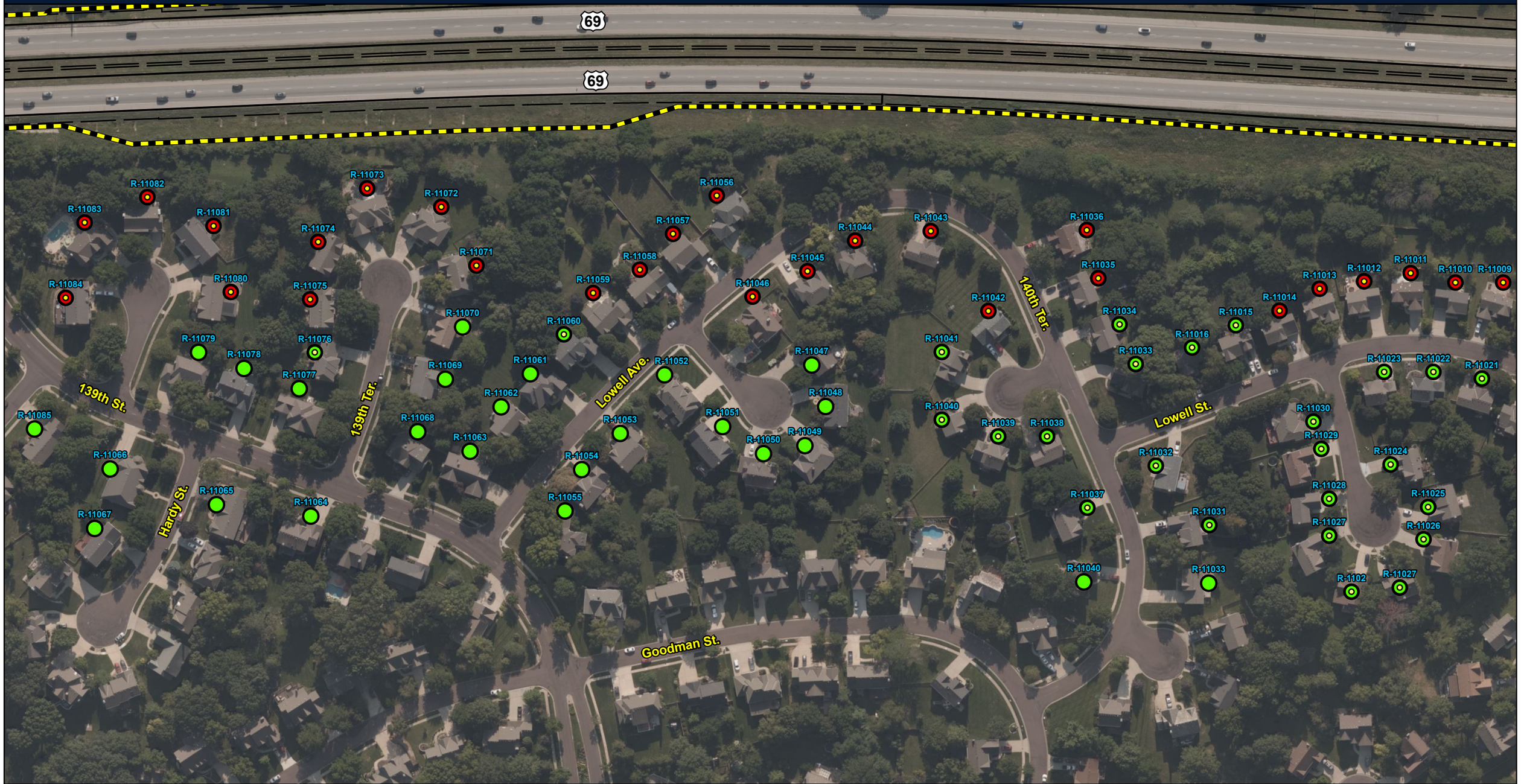
69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-26



- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

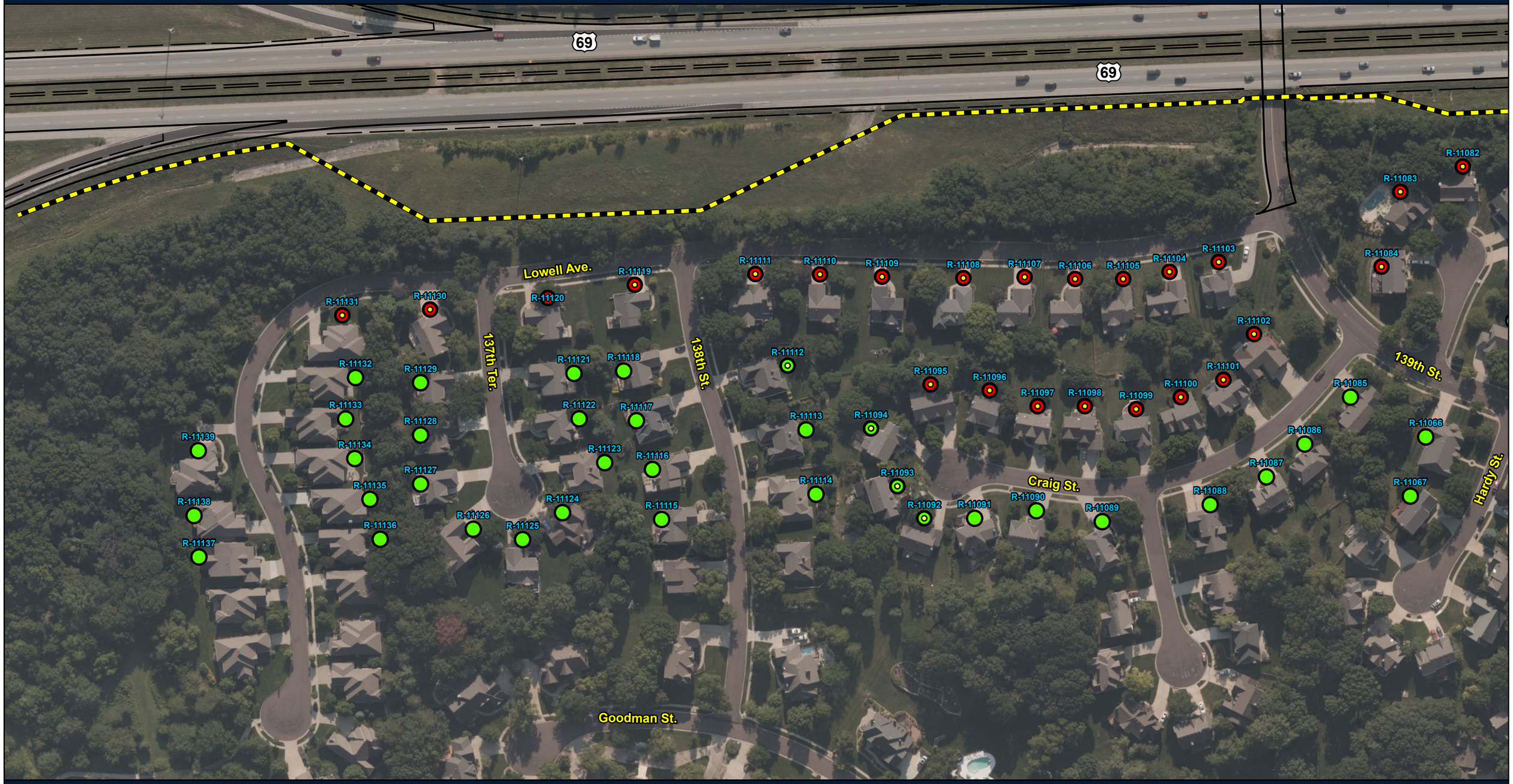
69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-27



Non-Impacted, Non-Benefitted Receiver
Non-Impacted, Benefitted Receiver
Impacted, Non-Benefitted Receiver
Impacted, Benefitted Receiver

Noise Wall - NOT Feasible and/or Reasonable
Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

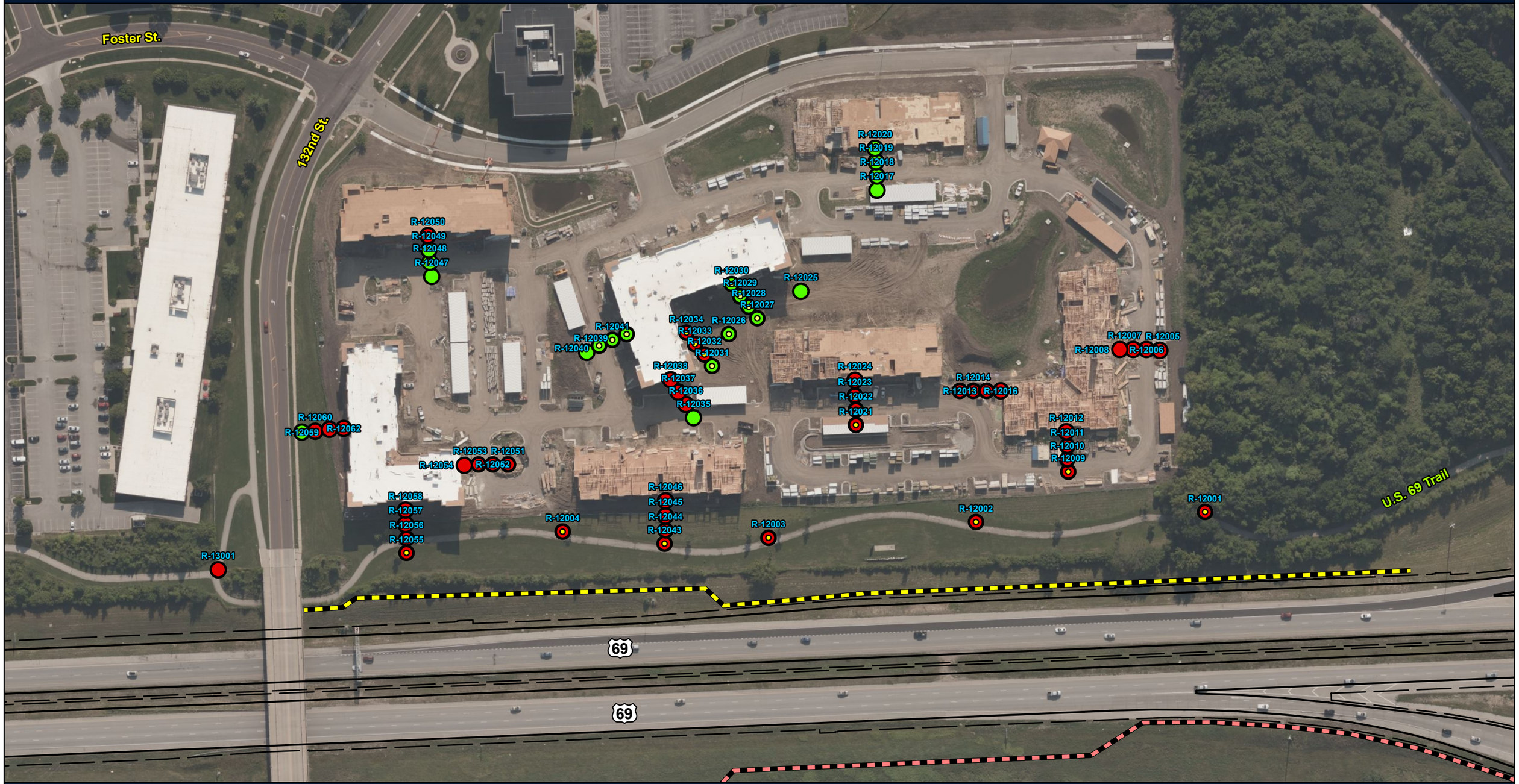
69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-28



- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-29

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-30

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-31

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-32

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-33

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-34

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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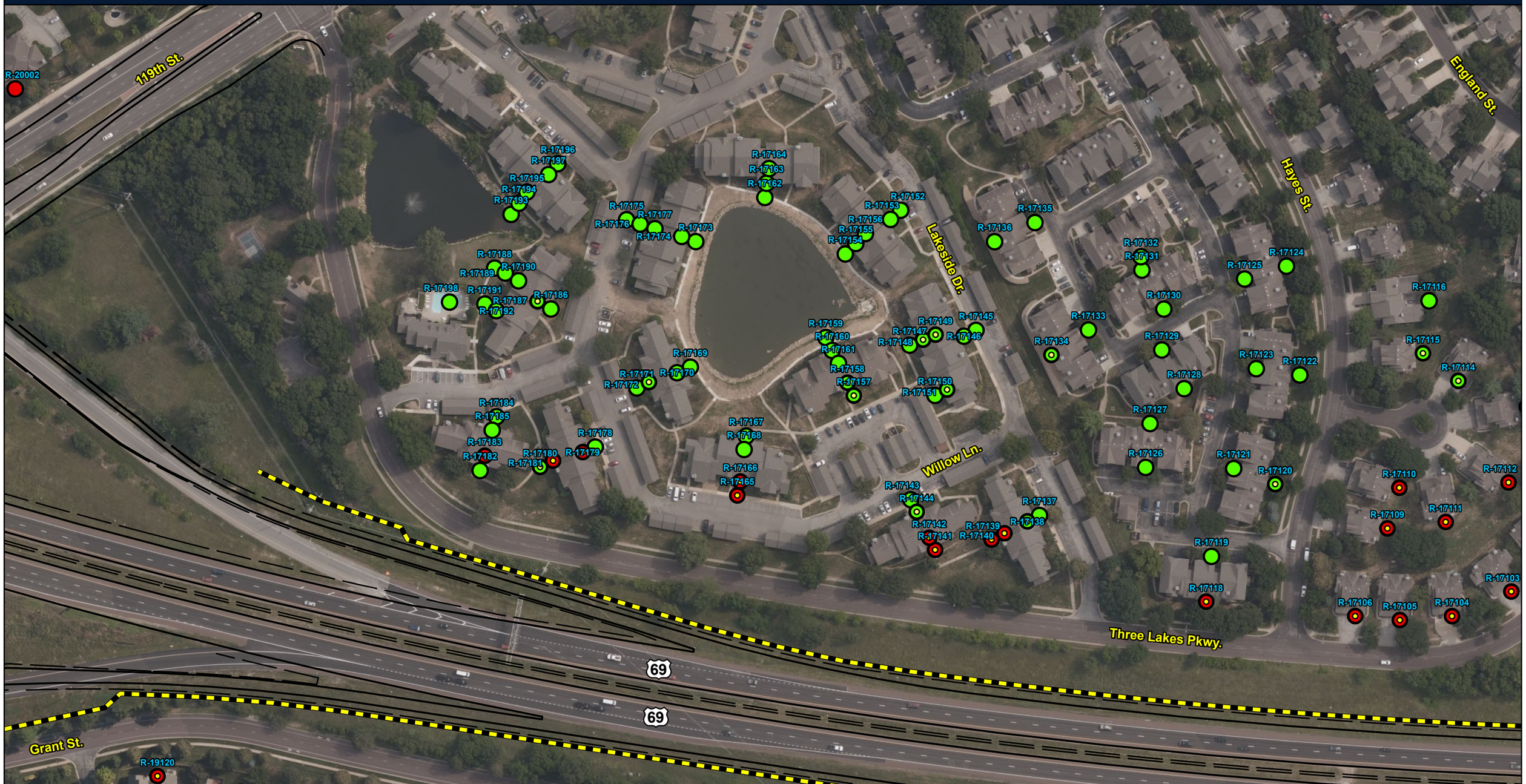
Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-35



- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-37

Non-Impacted, Non-Benefitted Receiver

Non-Impacted, Benefitted Receiver

Impacted, Non-Benefitted Receiver

Impacted, Benefitted Receiver

Noise Wall - NOT Feasible and/or Reasonable

Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-38

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-39

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-40

Non-Impacted, Non-Benefitted Receiver
Non-Impacted, Benefitted Receiver
Impacted, Non-Benefitted Receiver
Impacted, Benefitted Receiver

Noise Wall - NOT Feasible and/or Reasonable
Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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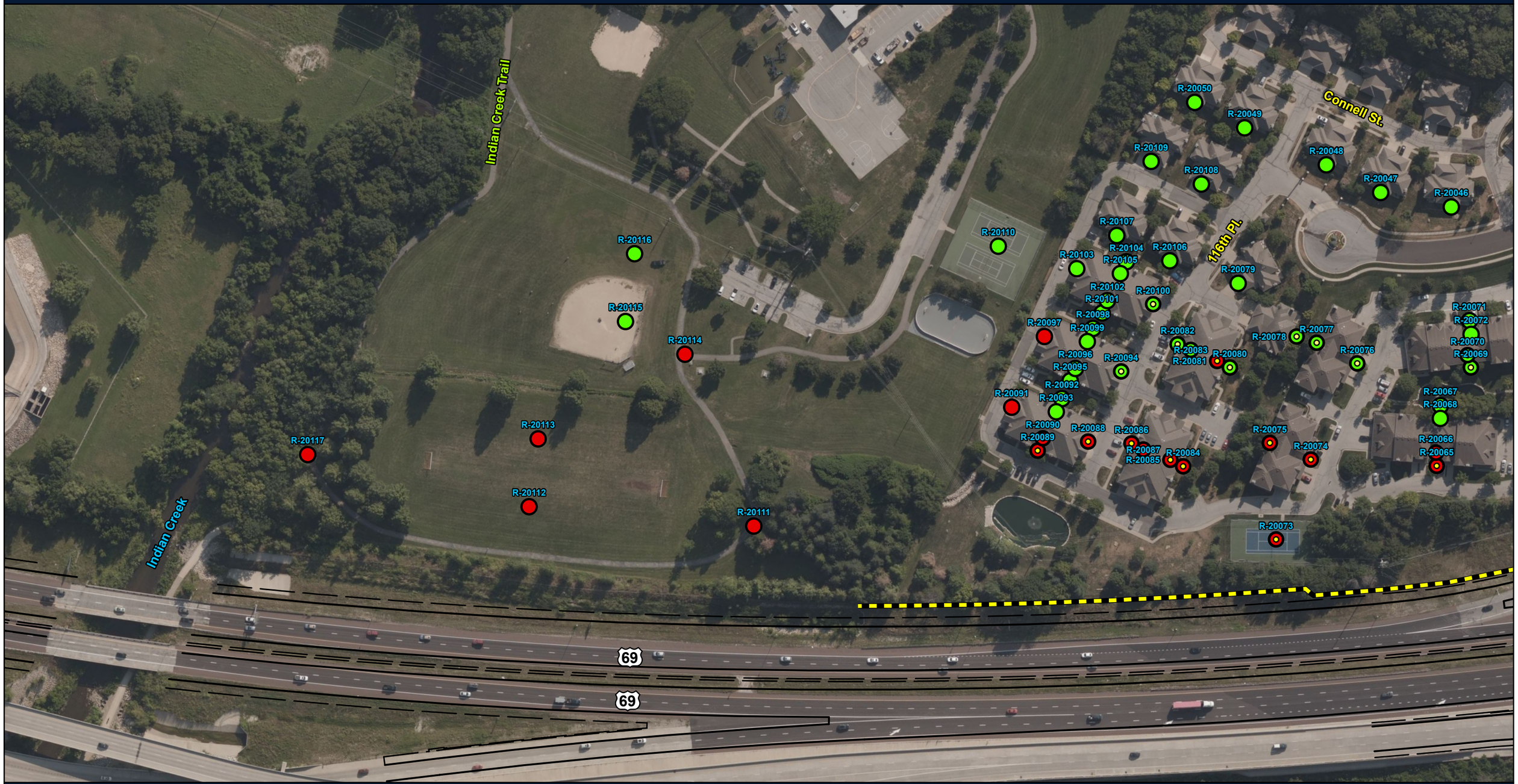
Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-41



- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-42

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-43

- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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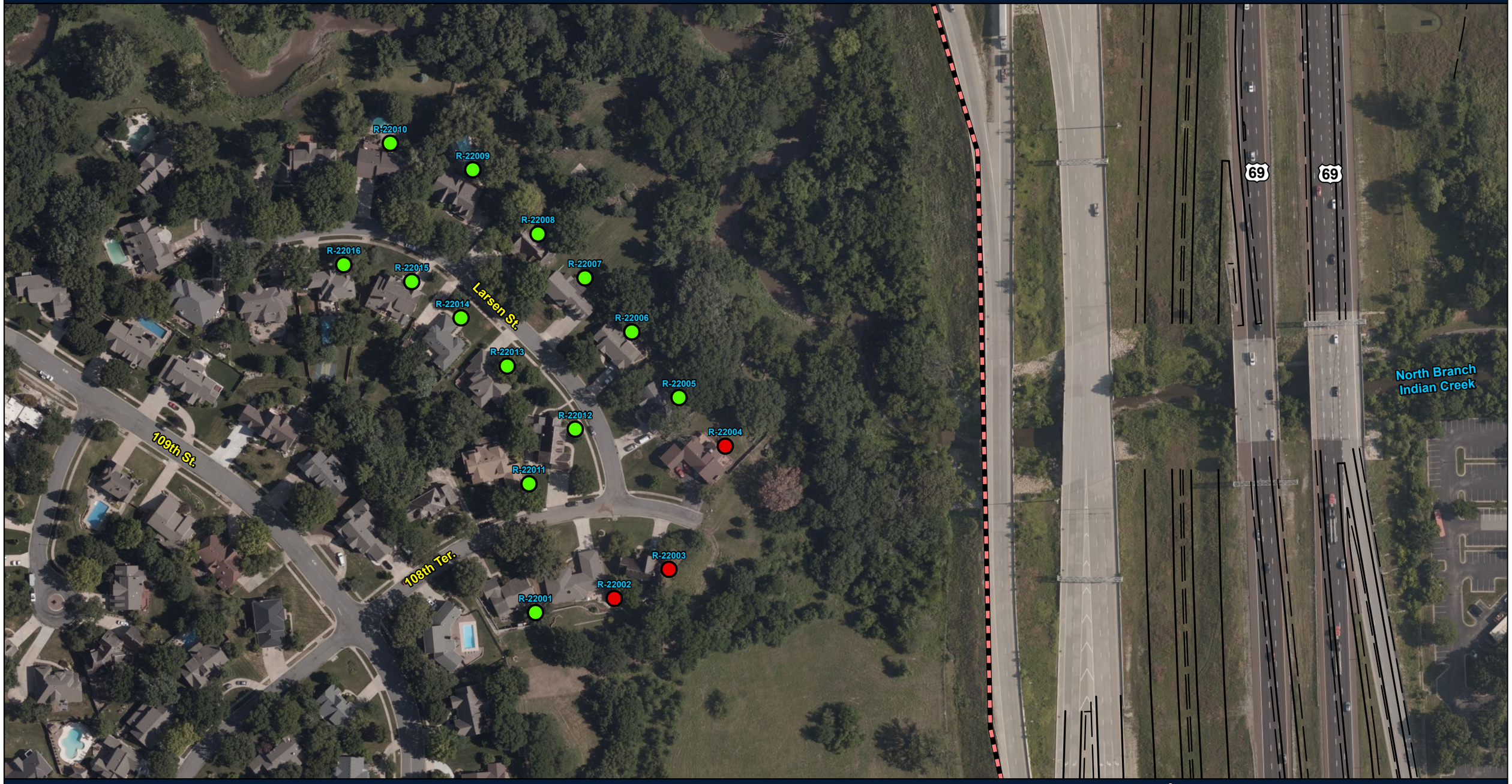
Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-44



- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

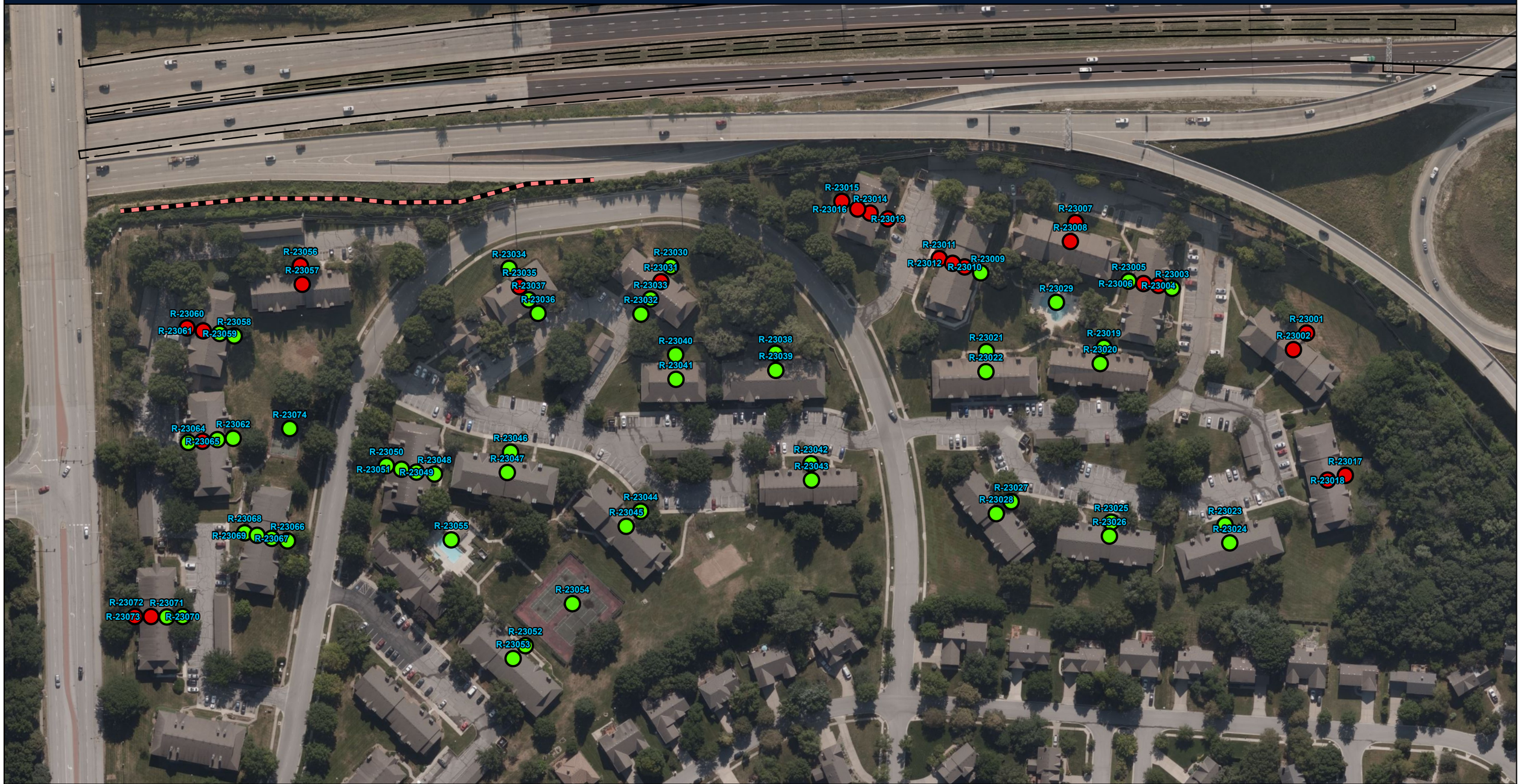
69 EXPRESS

Kansas Department of Transportation

Note: Receiver locations may represent multiple receptors.

Noise Sensitive Receptor Locations

Attachment B-45



- Non-Impacted, Non-Benefitted Receiver
- Non-Impacted, Benefitted Receiver
- Impacted, Non-Benefitted Receiver
- Impacted, Benefitted Receiver
- Noise Wall - NOT Feasible and/or Reasonable
- Noise Wall - Feasible and Reasonable

N

0 100 200 300 400 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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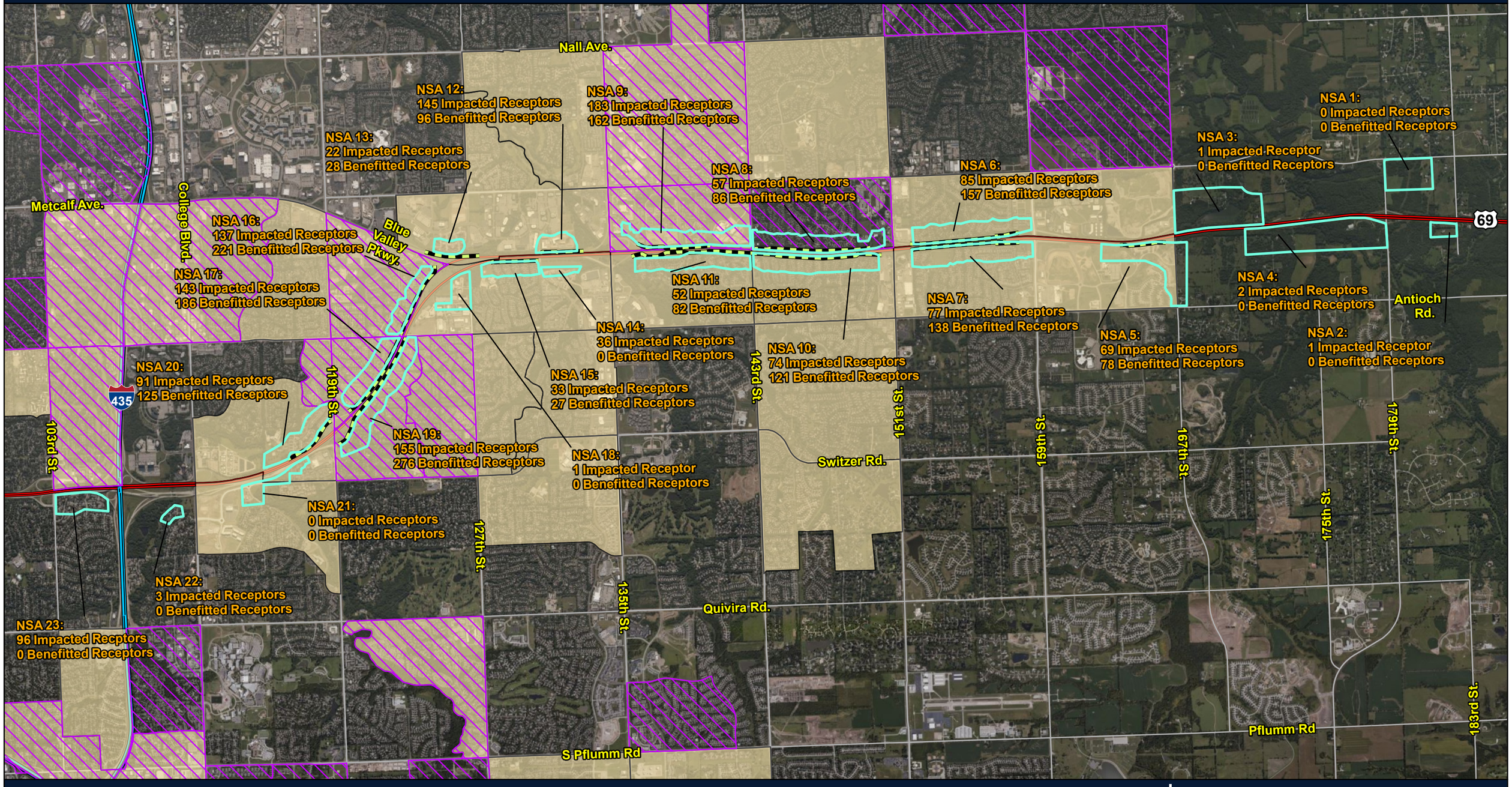
Note: Receiver locations may represent multiple receptors.

Environmental Justice Population Noise Impacts

Attachment C



Block Group with Minority EJ Populations

Block Group with Low-income EJ Populations

Noise Sensitive Area

Noise Wall - Reasonable and Feasible

N

0 2,500 5,000 7,500 10,000 Feet

U.S. 69 Modernization and Expansion Project
Environmental Assessment
KDOT# 69-46 KA-5700-02

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Kansas Department of Transportation

Appendix A
Field Measurement Data

Kansas Department of Transportation

Highway Sound Level Measurement(s) Data Survey

Project: KA-5700-02

date: June \ 28 \ 2021 → 70° overcast

July \ 2 \ 2021 → 80° clear

Highway name U.S. 69 - STATION 213 -

direction	autos		medium trucks		heavy trucks		speed	
	survey count	TNM*	survey count	TNM*	survey count	TNM *	Operating*	posted
both x 10	198	1980	10	100	8	80	65	70
both x 4	470	1,880	10	40	26	104		

Sound level measurement interval(s) LAeq1h

	Leq	Lmax	L(10)	L(50)
six min. begin 0815 end 0821	68.8	81.0	72.0	66.5
15 min. begin 1005 end 1020	70	83.1	73.5	67.9

Site Sketch

Please show north arrow.

NORTH ↑

→ 6/28/2021 six minute interval, approx 154' from centerline

↓ ↓ ↑ ↑

Approx 213

0 S.LM

SIGN

→ 7/2/2021 Fifteen minute interval, approx 130' from centerline

Field Reconnaissance

Survey # 1 of # 12 for the referenced Project

Larson • Davis
LxT Sound Level Meter

Calibration 114
Temperature
Sky
Wind Calm
Receptor elevation 5'
Roadway grade flat
Roadway surface Asphalt
Distance to Centerline
Width of road 36'
Ground Cover Soft

Indicate yes or no.
Provide explanation as needed.

Low Volume Road (5000 or less vehicles ADT require 30 min SLM interval) n/a
Undeveloped Land yes
Other Noise Sources no
Equivalent Receptors no
Multifamily Dwelling(s) no
Exterior formal common area n/a
If no, count exterior balconies and patios facing highway n/a

no Other attachments and or photographs?

***Field Measurement & TNM validation**

Minutes of Interval
Multiply traffic by to represent one hour.
6/28/2021 → x 10
7/2/2021 → x 4

Personnel Speed approximate

JEMyer EST II

Bureau of Design
Environmental Services Section

Kansas Department of Transportation

Highway Sound Level Measurement(s) Data Survey

Project: KA 5700-01

date: Aug \ 10 \ 2020

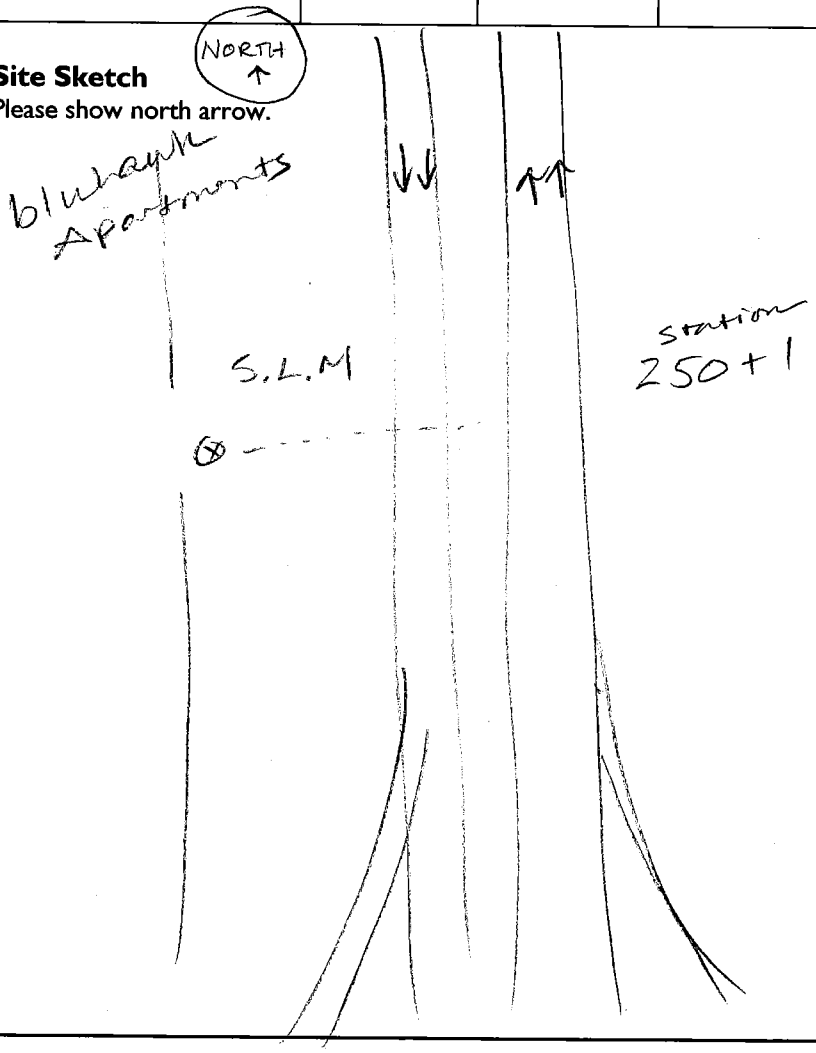
Highway name US69 STATION 250+1

direction	autos		medium trucks		heavy trucks		speed	
	survey count	TNM*	survey count	TNM*	survey count	TNM *	Operating*	posted
both	473	1892	22	88	21	84	70	

Sound level measurement interval(s) LAeq1h

	Leq	Lmax	L(10)	L(50)
begin 2:15 end 2:30	69.6	80.1	72.9	68.1
begin end	Leq	Lmax	L(10)	L(50)

Site Sketch
Please show north arrow.



Field Reconnaissance

Survey # 2 of # 12 for the referenced Project

Larson • Davis
LxT Sound Level Meter

Calibration 114
Temperature 81'
Sky Overcast
Wind 9 mph
Receptor elevation 5'
Roadway grade inclined
Roadway surface asphalt
Distance to Centerline 165'
Width of road
Ground Cover Soft

Indicate yes or no.
Provide explanation as needed.

Low Volume Road (5000 or less vehicles ADT require 30 min SLM interval) no
Undeveloped Land no
Other Noise Sources no
Equivalent Receptors yes
Multifamily Dwelling(s) yes
Exterior formal common area yes
If yes, does it face highway? no
*If no, count exterior balconies and patios facing highway*____.

no Other attachments and or photographs?

***Field Measurement & TNM validation**

Minutes of Interval 15
Multiply traffic by 4 to represent one hour.

Personnel

JE Myer EST II

Bureau of Design
Environmental Services Section

LxT Data 004

250

Kansas Department of Transportation

Highway Sound Level Measurement(s) Data Survey

Project: KA-5700-01
date: Aug 10 2020

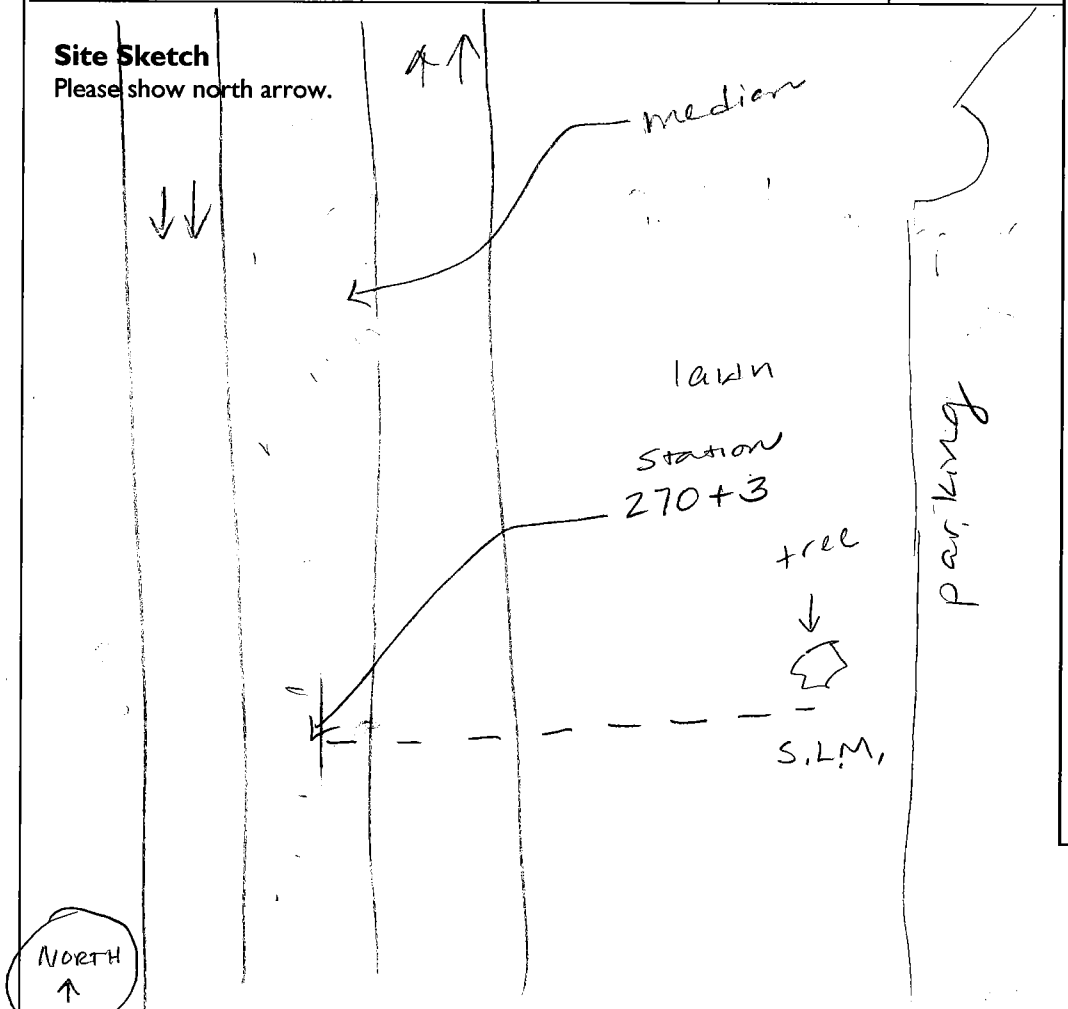
Highway name US-69 STATIONING 270+3

direction	autos		medium trucks		heavy trucks		speed	
	survey count	TNM*	survey count	TNM*	survey count	TNM *	Operating*	posted
both	442	1768	28	112	30	120	70	

Sound level measurement interval(s) LAeq1h

	Leq	Lmax	L(10)	L(50)
begin 0957 am end 1012 a	69.4	83.1	72.4	67.6
begin end	Leq	Lmax	L(10)	L(50)

Site Sketch
Please show north arrow.



Field Reconnaissance

Survey # 3 of # 12 for the referenced Project

Larson • Davis
LxT Sound Level Meter

Calibration 114
Temperature 78°
Sky overcast
Wind 9 mph
Receptor elevation 5'
Roadway grade uphill
Roadway surface asphalt
Distance to Centerline 178'
Width of road
Ground Cover soft

Indicate yes or no.
Provide explanation as needed.

Low Volume Road (5000 or less vehicles ADT require 30 min SLM interval) no
Undeveloped Land no
Other Noise Sources no
Equivalent Receptors no
Multifamily Dwelling(s) no
Exterior formal common area —
If yes, does it face highway? —
If no, count exterior balconies and patios facing highway —.

_____ Other attachments and or photographs?

***Field Measurement & TNM validation**
Minutes of Interval 15
Multiply traffic by 4 to represent one hour.
speed approximate

Personnel

JE Myer ES II

Bureau of Design
Environmental Services Section

Overland Park Heating & Cooling

Highway Sound Level Measurement(s) Data Survey

Project: KA-5700-01

date: Aug \ 11 \ 2020 Tuesday

Highway name US-69 STATIONING 330

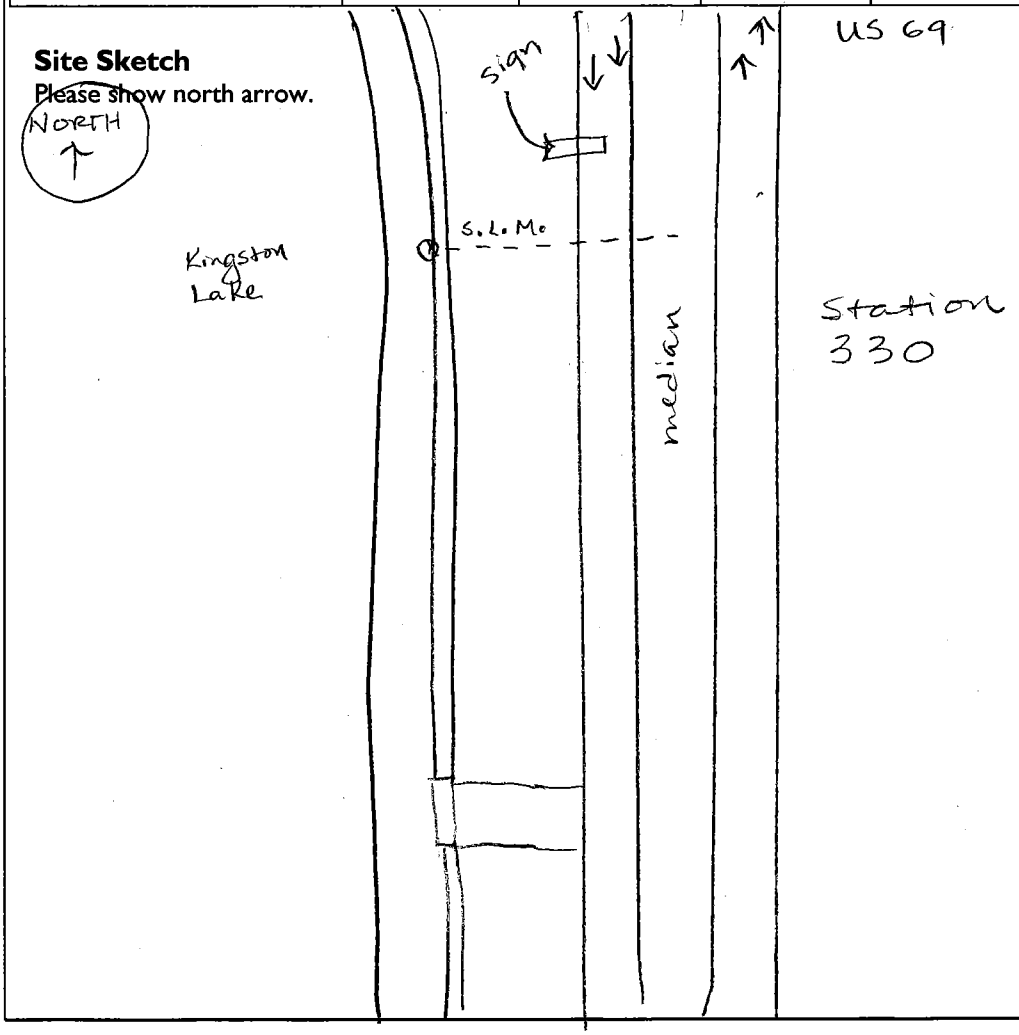
direction	autos		medium trucks		heavy trucks		speed	
	survey count	TNM*	survey count	TNM*	survey count	TNM*	Operating*	posted
both	287	2460	11	44	31	124	60-70	

Sound level measurement interval(s) LAeq1h

	Leq	Lmax	L(10)	L(50)
begin 10:03 end 10:10 LOUD CLAPS THUNDER 3X	69.1	91.8	70.9	66.9
begin end	Leq	Lmax	L(10)	L(50)

Site Sketch

Please show north arrow.



Field Reconnaissance

Survey # 4 of # 12 for the referenced Project

Larson • Davis
LxT Sound Level Meter

Calibration 114
Temperature 80°
Sky Overcast
Wind 9 mph
Receptor elevation 5'
Roadway grade Flat
Roadway surface asphalt
Distance to Centerline 206'
Width of road
Ground Cover Soft

Indicate yes or no.
Provide explanation as needed.

Low Volume Road (5000 or less vehicles ADT require 30 min SLM interval) no
Undeveloped Land no
Other Noise Sources no
Equivalent Receptors yes
Multifamily Dwelling(s) n/a
Exterior formal common area ϕ
If yes, does it face highway? —
If no, count exterior balconies and patios facing highway —.

_____ Other attachments and or photographs?
Kingston Lake Trail, equivalent receptors

***Field Measurement & TNM validation**

Minutes of Interval 7
Multiply traffic by _____ to represent one hour.
Speed approximate

Personnel

JE Myer EST

Bureau of Design
Environmental Services Section

Kansas Department of Transportation

Highway Sound Level Measurement(s) Data Survey

Project: KA-5700-01

date: Aug \ 11 \ 2020

Highway name US-69 STATIONING 360

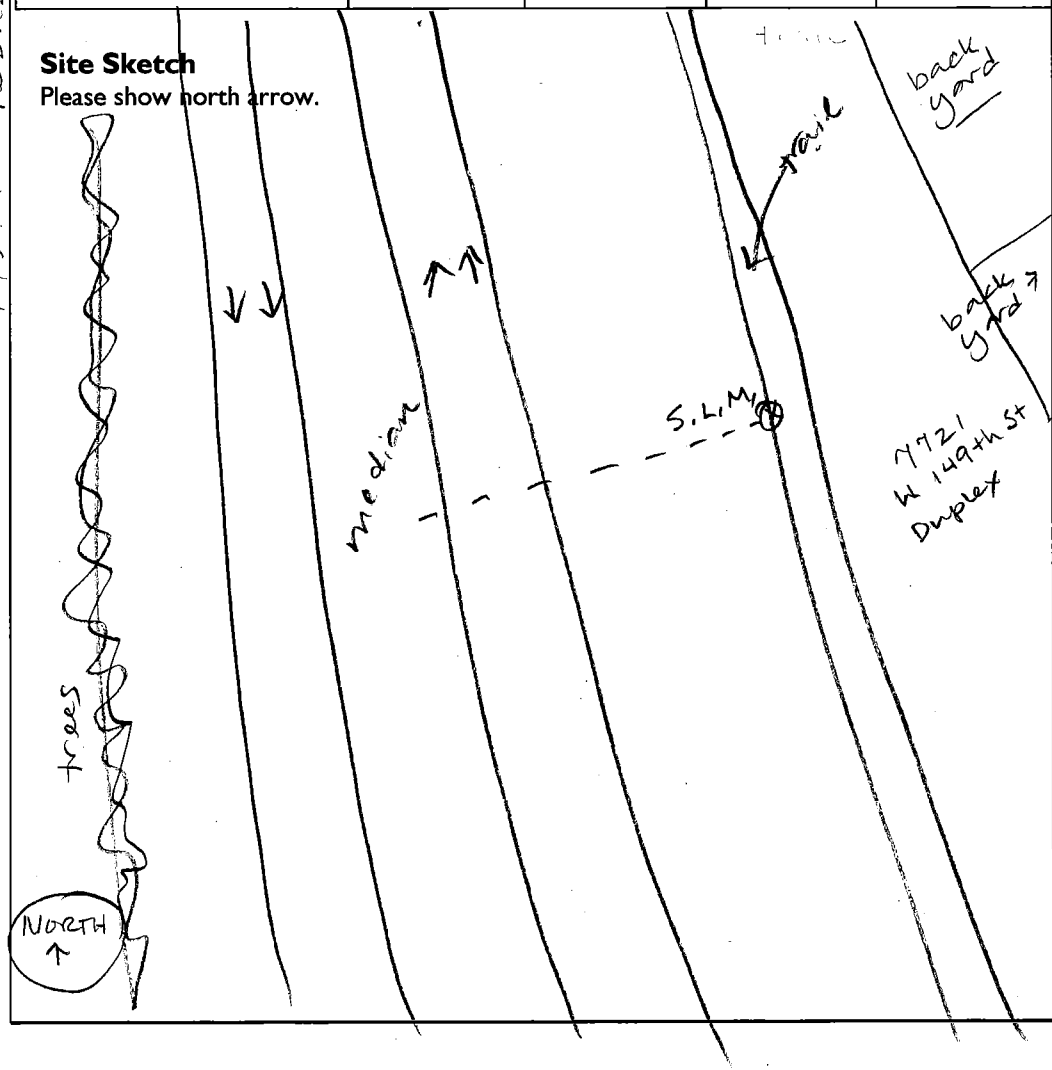
direction	autos		medium trucks		heavy trucks		speed	
	survey count	TNM*	survey count	TNM*	survey count	TNM *	Operating*	posted
both	782	11,730	18	72	28	112	65-70	
trees obstructed								

Sound level measurement interval(s) LAeq1h

	Leq	Lmax	L(10)	L(50)
begin 1:16 pm end 1:31 pm	68.1	81.0	70.6	66.9
begin ____ end ____	Leq	Lmax	L(10)	L(50)

Site Sketch

Please show north arrow.



Field Reconnaissance

Survey # 5 of # 12 for the referenced Project

Larson • Davis
LxT Sound Level Meter

Calibration 114
Temperature 90°
Sky overcast
Wind calm
Receptor elevation 5'
Roadway grade flat
Roadway surface asphalt
Distance to Centerline 137'
Width of road ____
Ground Cover soft

Indicate yes or no.
Provide explanation as needed.

Low Volume Road (5000 or less vehicles ADT require 30 min SLM interval) no
Undeveloped Land no
Other Noise Sources no
Equivalent Receptors yes*
Multifamily Dwelling(s) yes*
Exterior formal common area no
If yes, does it face highway? —
If no, count exterior balconies and patios facing highway —.

no Other attachments and or photographs?

* trail
duplexes

***Field Measurement & TNM validation**

Minutes of Interval 15
Multiply traffic by 4 to represent one hour.
speed approximate

Personnel

JEMyer ES II

Bureau of Design
Environmental Services Section

Kansas Department of Transportation

Highway Sound Level Measurement(s) Data Survey

Project: KA-5700-01

date: Aug \ 11 \ 2020

Highway name US-69 STATION 6 406

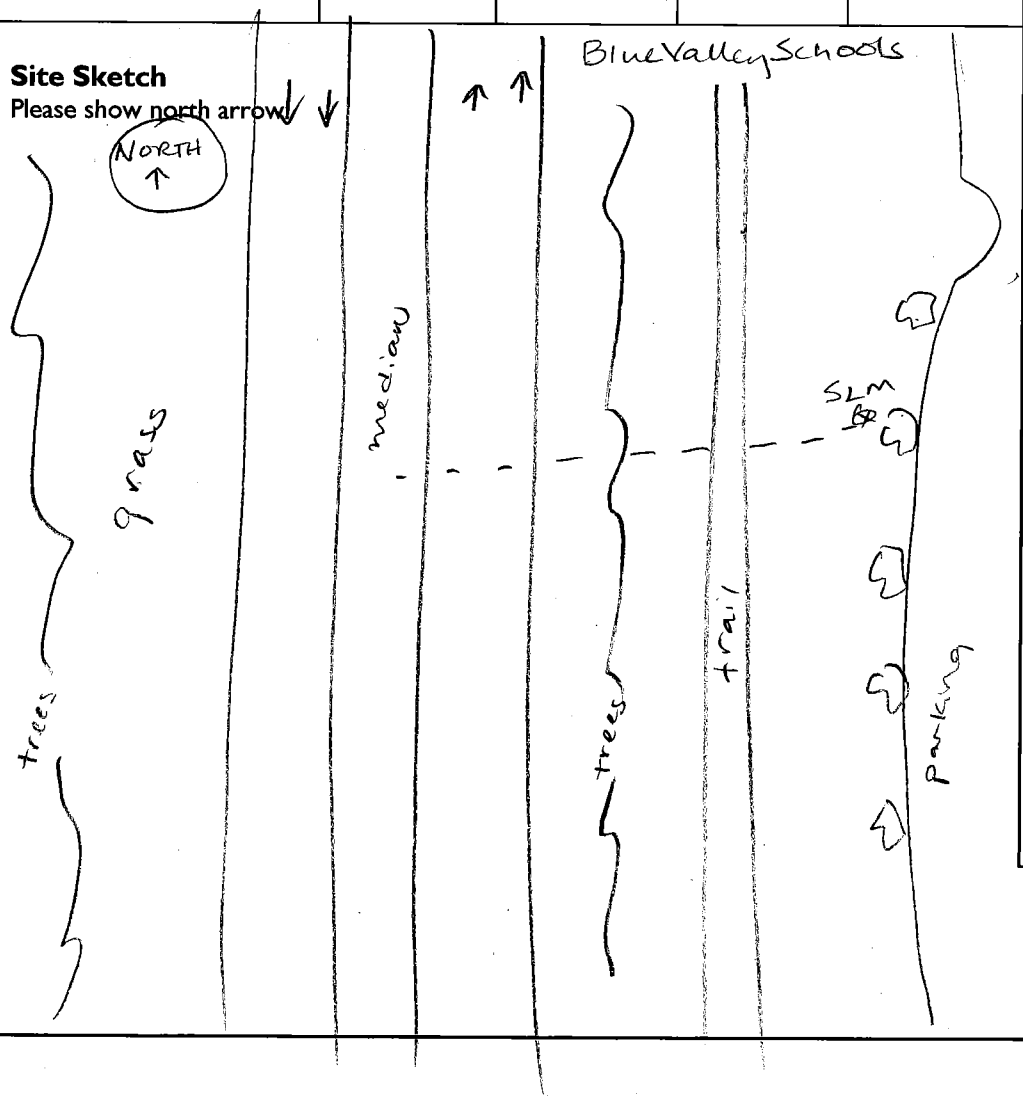
direction	autos		medium trucks		heavy trucks		speed	
	survey count	TNM*	survey count	TNM*	survey count	TNM *	Operating*	posted
both	847	3388	26	104	31	124	70	

Sound level measurement interval(s) LAeq1h

	Leq	Lmax	L(10)	L(50)
begin 2:04 pm end 2:19 PM	66	76.9	68.9	64.8
begin end	Leq	Lmax	L(10)	L(50)

Site Sketch

Please show north arrow



Field Reconnaissance

Survey # 6 of # 12 for the referenced Project

Larson • Davis
LxT Sound Level Meter

Calibration 114
Temperature 90°
Sky clear
Wind 7mph
Receptor elevation 51
Roadway grade flat
Roadway surface asphalt
Distance to Centerline 211'
Width of road
Ground Cover soft

Indicate yes or no.
Provide explanation as needed.

Low Volume Road (5000 or less vehicles ADT require 30 min SLM interval) no
Undeveloped Land no
Other Noise Sources no
Equivalent Receptors yes*
Multifamily Dwelling(s) no
Exterior formal common area —
If yes, does it face highway? —
If no, count exterior balconies and patios facing highway —.

_____ Other attachments and or photographs?

* trail equivalent receptor

***Field Measurement & TNM validation**

Minutes of Interval 15
Multiply traffic by 4 to represent one hour.
speed approximate

Personnel

JEMyer ESII

Bureau of Design
Environmental Services Section

Kansas Department of Transportation

Highway Sound Level Measurement(s) Data Survey

Project: KA-5750-01
date: Aug \ 11 \ 2020

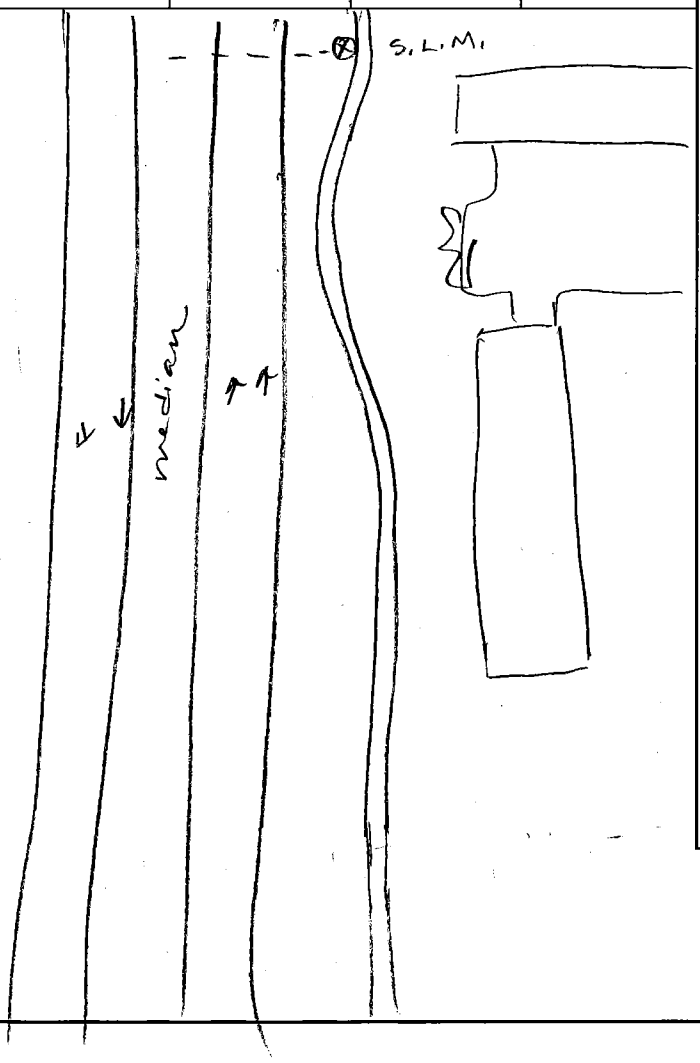
Highway name US-69 STATIONING 420

direction	autos		medium trucks		heavy trucks		speed	
	survey count	TNM*	survey count	TNM*	survey count	TNM *	Operating*	posted
both	1090	4360	36	144	33	132	90	

Sound level measurement interval(s) LAeq1h

	Leq	Lmax	L(10)	L(50)
begin 2:57 end 3:12	68.9	81.8	71.7	67.5
begin end	Leq	Lmax	L(10)	L(50)

Site Sketch
Please show north arrow.



Field Reconnaissance

Survey # 7 of # 12 for the referenced Project

Larson • Davis
LxT Sound Level Meter

Calibration 114
Temperature 85°
Sky Clear
Wind Calm
Receptor elevation 5'
Roadway grade flat
Roadway surface asphalt
Distance to Centerline 130'
Width of road
Ground Cover Soft

Indicate yes or no.
Provide explanation as needed.

Low Volume Road (5000 or less vehicles ADT require 30 min SLM interval) no
Undeveloped Land no
Other Noise Sources no
Equivalent Receptors yes
Multifamily Dwelling(s) yes
Exterior formal common area yes
If yes, does it face highway? no
If no, count exterior balconies and patios facing highway n/a

no Other attachments and or photographs?
speed approximate

***Field Measurement & TNM validation**

Minutes of Interval 15
Multiply traffic by 4 to represent one hour.
Speed is approximate

Personnel

Gerwyer ES II

Bureau of Design
Environmental Services Section

Kansas Department of Transportation

Highway Sound Level Measurement(s) Data Survey

Project: KA-5700-01

date: Sept 12 2020

Highway name US-69 STATION 470

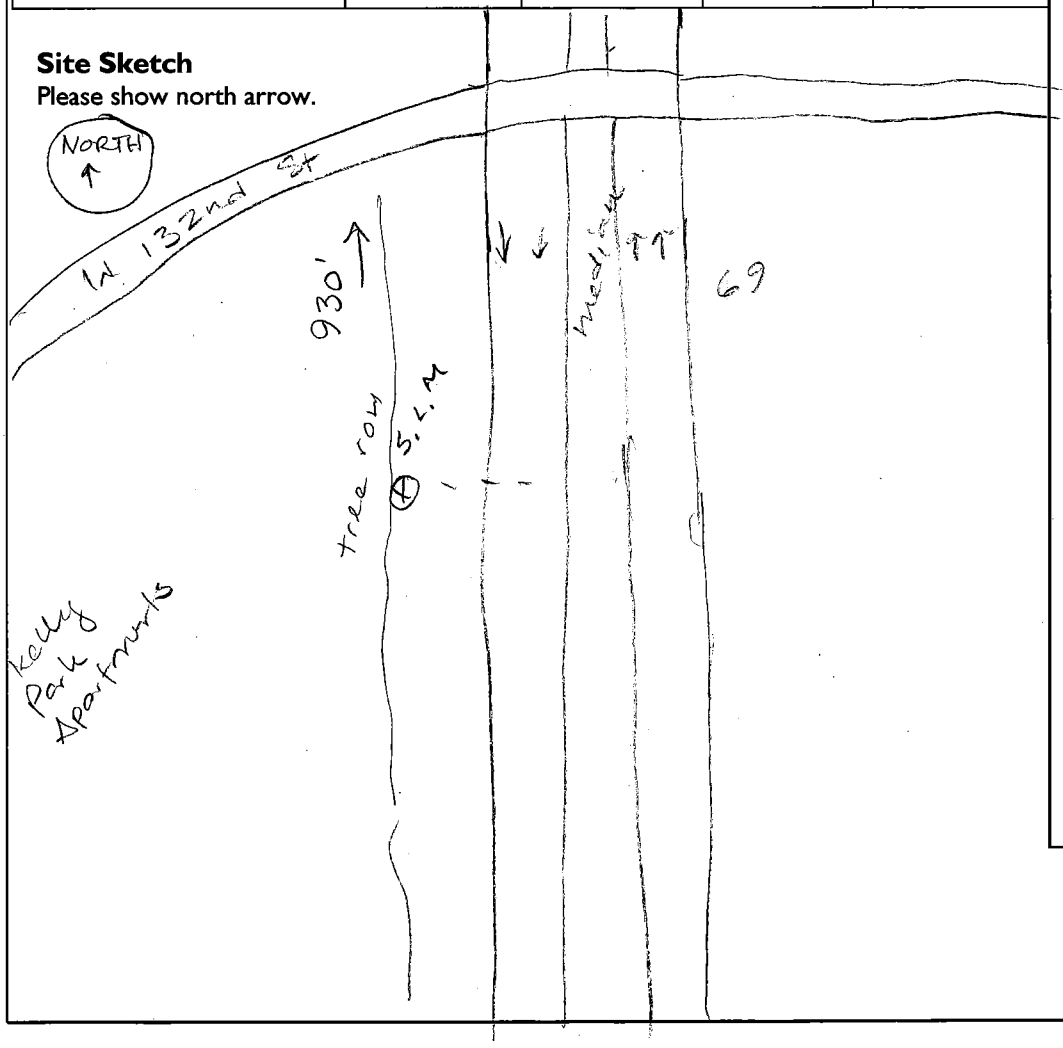
direction	autos		medium trucks		heavy trucks		speed	
	survey count	TNM*	survey count	TNM*	survey count	TNM *	Operating*	posted
Check historical data								

Sound level measurement interval(s) LAeq1h

	Leq	Lmax	L(10)	L(50)
begin 11:37 end 11:52	65.3	67.3	64.7	75.0
begin _____ end _____	Leq	Lmax	L(10)	L(50)

Site Sketch

Please show north arrow.



Field Reconnaissance

Survey # 8 of # 12 for the referenced Project

Larson • Davis
LxT Sound Level Meter

Calibration 114
Temperature 80°
Sky Clear
Wind calm
Receptor elevation 5'
Roadway grade flat
Roadway surface _____
Distance to Centerline 189'
Width of road _____
Ground Cover Soft

Indicate yes or no.
Provide explanation as needed.

Low Volume Road (5000 or less vehicles ADT require 30 min SLM interval) no
Undeveloped Land ____
Other Noise Sources no
Equivalent Receptors yes
Multifamily Dwelling(s) yes
Exterior formal common area yes
If yes, does it face highway? no
If no, count exterior balconies and patios facing highway n/a.

_____ Other attachments and or photographs?

***Field Measurement & TNM validation**

Minutes of Interval 15
Multiply traffic by 4 to represent one hour.

Personnel

Jennifer ESII

Bureau of Design
Environmental Services Section

470

Kansas Department of Transportation

Highway Sound Level Measurement(s) Data Survey

Project: KA-5700-01

date: Sept 1 2 1 2020
July 19 2021

Highway name US-69 STATION 490

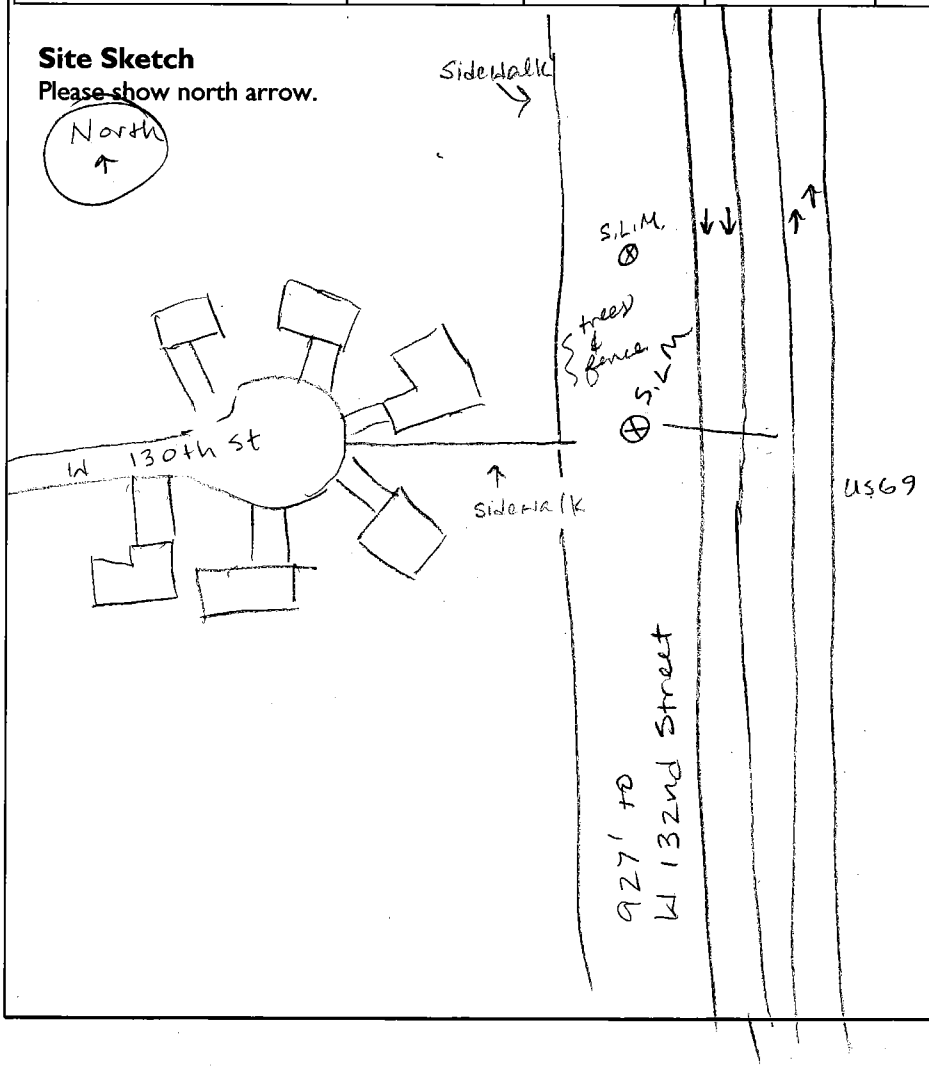
direction	autos		medium trucks		heavy trucks		speed	
	survey count	TNM*	survey count	TNM*	survey count	TNM *	Operating*	posted
both*	1290	5,160	33	132	45	180		
both	1506	6,024	39	156	31	124		

Sound level measurement interval(s) LAeq1h

	Leq	Lmax	L(10)	L(50)
begin 12:43 end 12:58	70.1	72.2	71.2	70.4
begin 1:43 end 1:58	75.2	92.6	77.4	73.8

Site Sketch

Please show north arrow.



Field Reconnaissance

Survey # 9 of # 12 for the referenced Project

Larson • Davis
LxT Sound Level Meter

Calibration 114
Temperature 85°
Sky Clear
Wind calm
Receptor elevation 5'
Roadway grade flat
Roadway surface asphalt
Distance to Centerline 120'
Width of road
Ground Cover Soft

Indicate yes or no.
Provide explanation as needed.

Low Volume Road (5000 or less vehicles ADT require 30 min SLM interval) ___
Undeveloped Land no
Other Noise Sources no
Equivalent Receptors no
Multifamily Dwelling(s) no
Exterior formal common area n/a
If yes, does it face highway? n/a
*If no, count exterior balconies and patios facing highway*____.

no Other attachments and or photographs?
9/2/2020 - Use historical data

***Field Measurement & TNM validation**

Minutes of Interval 15
Multiply traffic by 4 to represent one hour.

Personnel

JG Meyer CSTE

Bureau of Design
Environmental Services Section

4

Kansas Department of Transportation

Highway Sound Level Measurement(s) Data Survey

Project: KA-5100-01

date: Sept 1 2 1 2020

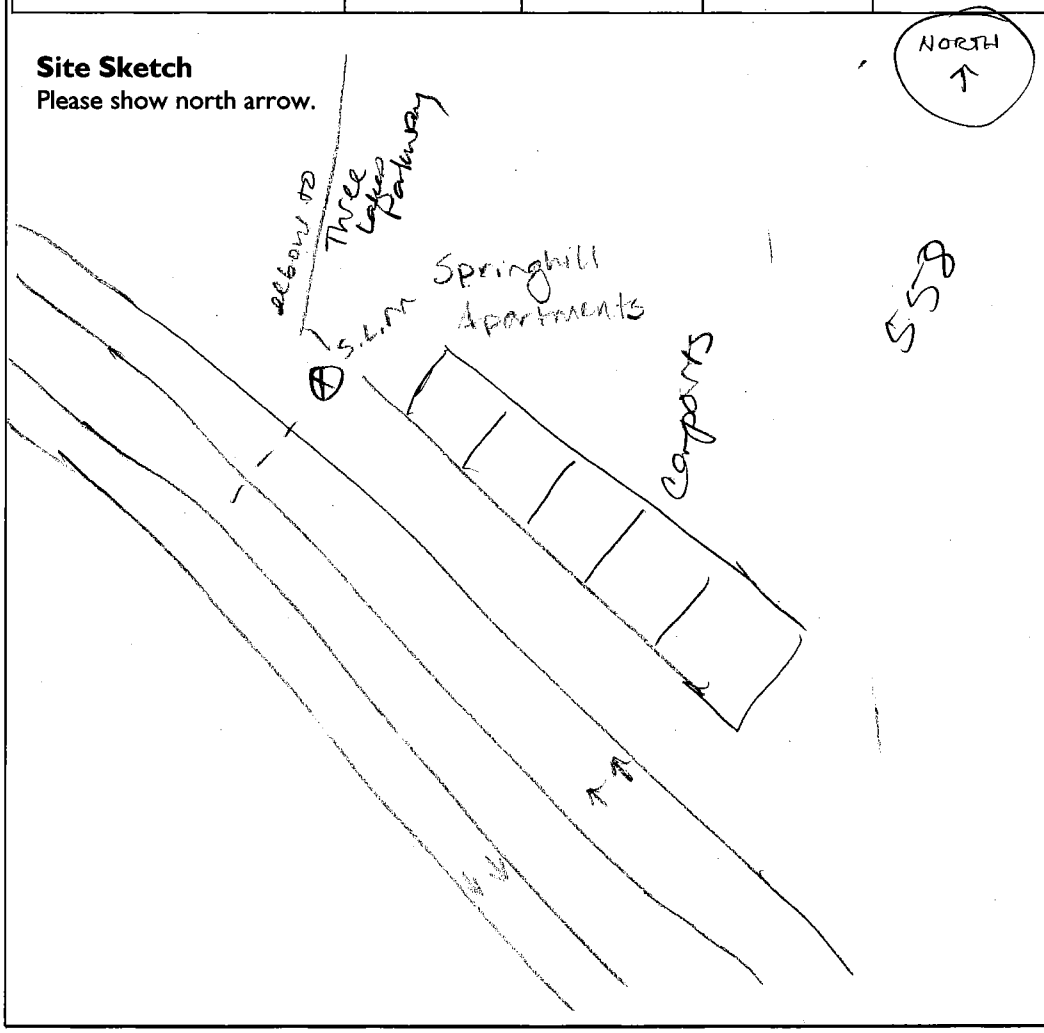
Highway name US 69 STATIONING 558

direction	autos		medium trucks		heavy trucks		speed	
	survey count	TNM*	survey count	TNM*	survey count	TNM *	Operating*	posted
both	1132	4528	32	128	26	104		

Sound level measurement interval(s) LAeq1h

	Leq	Lmax	L(10)	L(50)
begin 2:20 end 2:42 paused total 18.20	68.7	79.4	71.8	67.2
begin end	Leq	Lmax	L(10)	L(50)

Site Sketch
Please show north arrow.



Field Reconnaissance

Survey # 10 of # 12 for the referenced Project

Larson • Davis
LxT Sound Level Meter

Calibration 114
Temperature 86°
Sky Clear
Wind calm
Receptor elevation 5'
Roadway grade flat
Roadway surface asphalt
Distance to Centerline 165'
Width of road
Ground Cover Soft

Indicate yes or no.
Provide explanation as needed.

Low Volume Road (5000 or less vehicles ADT require 30 min SLM interval) no
Undeveloped Land no
Other Noise Sources no
Equivalent Receptors yes
Multifamily Dwelling(s) yes
Exterior formal common area no
If yes, does it face highway? —
If no, count exterior balconies and patios facing highway —.

no Other attachments and or photographs?

***Field Measurement & TNM validation**

Minutes of Interval 18:20
Multiply traffic by _____ to represent one hour.

Personnel

J. Schuyler ES II

Bureau of Design
Environmental Services Section

Highway Sound Level Measurement(s) Data Survey

Kansas Department of Transportation

Project: KA-5700-01
date: Oct \ 13 \ 2020

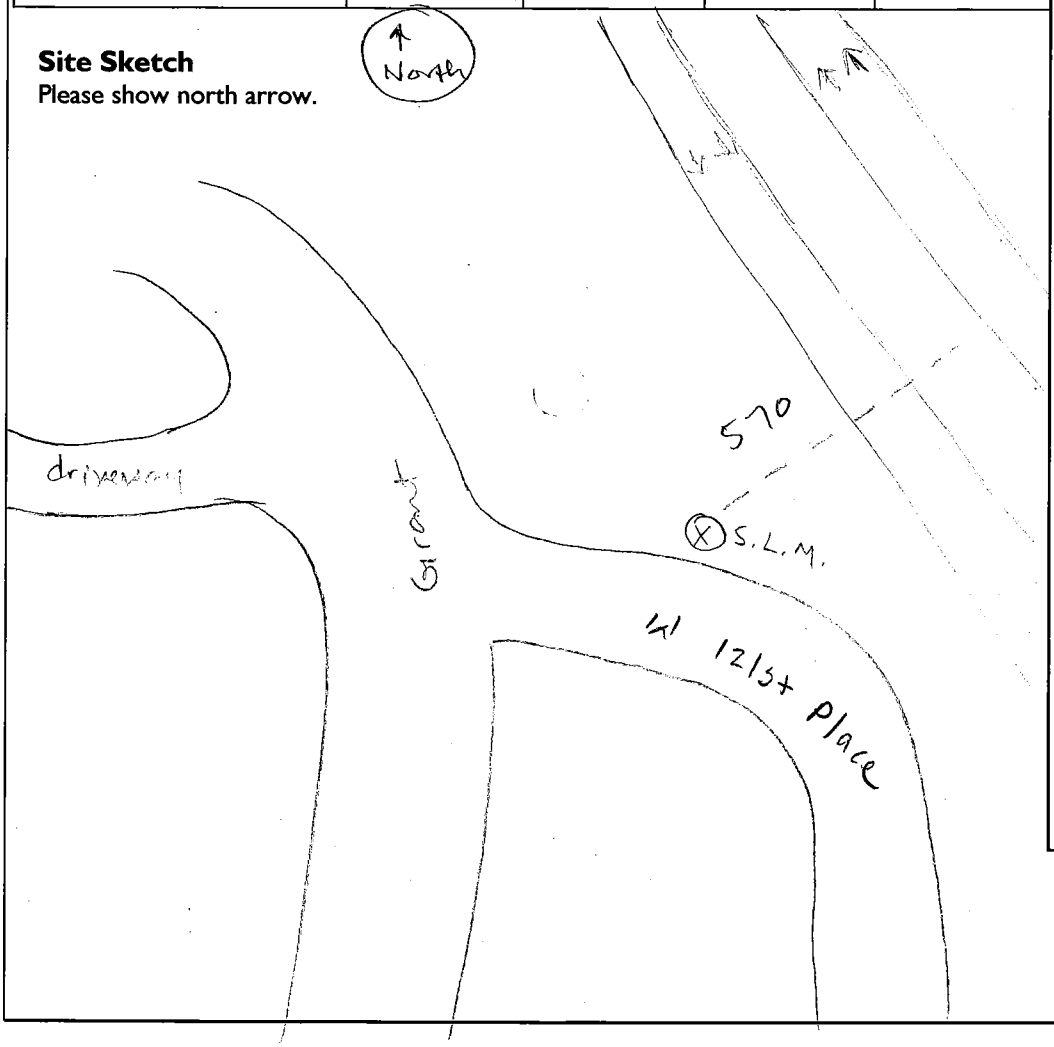
Highway name US 69 STATIONING 570

direction	autos		medium trucks		heavy trucks		speed	
	survey count	TNM*	survey count	TNM*	survey count	TNM *	Operating*	posted
both	895	3580	14	56	34	136		

Sound level measurement interval(s) LAeq1h

	Leq	Lmax	L(10)	L(50)
begin 1:06 pm end 1:21 pm	71.5	92.0	73.8	68.3
begin end	Leq	Lmax	L(10)	L(50)

Site Sketch
Please show north arrow.



Field Reconnaissance

Survey # 11 of # 12 for the referenced Project

Larson • Davis
LxT Sound Level Meter

Calibration 114
Temperature 71°
Sky clear
Wind 8 mph
Receptor elevation 5'
Roadway grade flat
Roadway surface asphalt
Distance to Centerline
Width of road
Ground Cover soft

Indicate yes or no.
Provide explanation as needed.
Low Volume Road (5000 or less vehicles ADT require 30 min SLM interval) no
Undeveloped Land no
Other Noise Sources no
Equivalent Receptors yes
Multifamily Dwelling(s) yes
Exterior formal common area yes
If yes, does it face highway? no
*If no, count exterior balconies and patios facing highway*____.

no Other attachments and or photographs?

***Field Measurement & TNM validation**
Minutes of Interval 15
Multiply traffic by 4 to represent one hour.

Personnel

JSH / RCS

Bureau of Design
Environmental Services Section

LxT Data #01 POST cal-113.96

Kansas Department of Transportation

Highway Sound Level Measurement(s) Data Survey

Project: KA-5700-02 DTQ2

date: July 19 2021

Highway name US 69 STATIONING 632

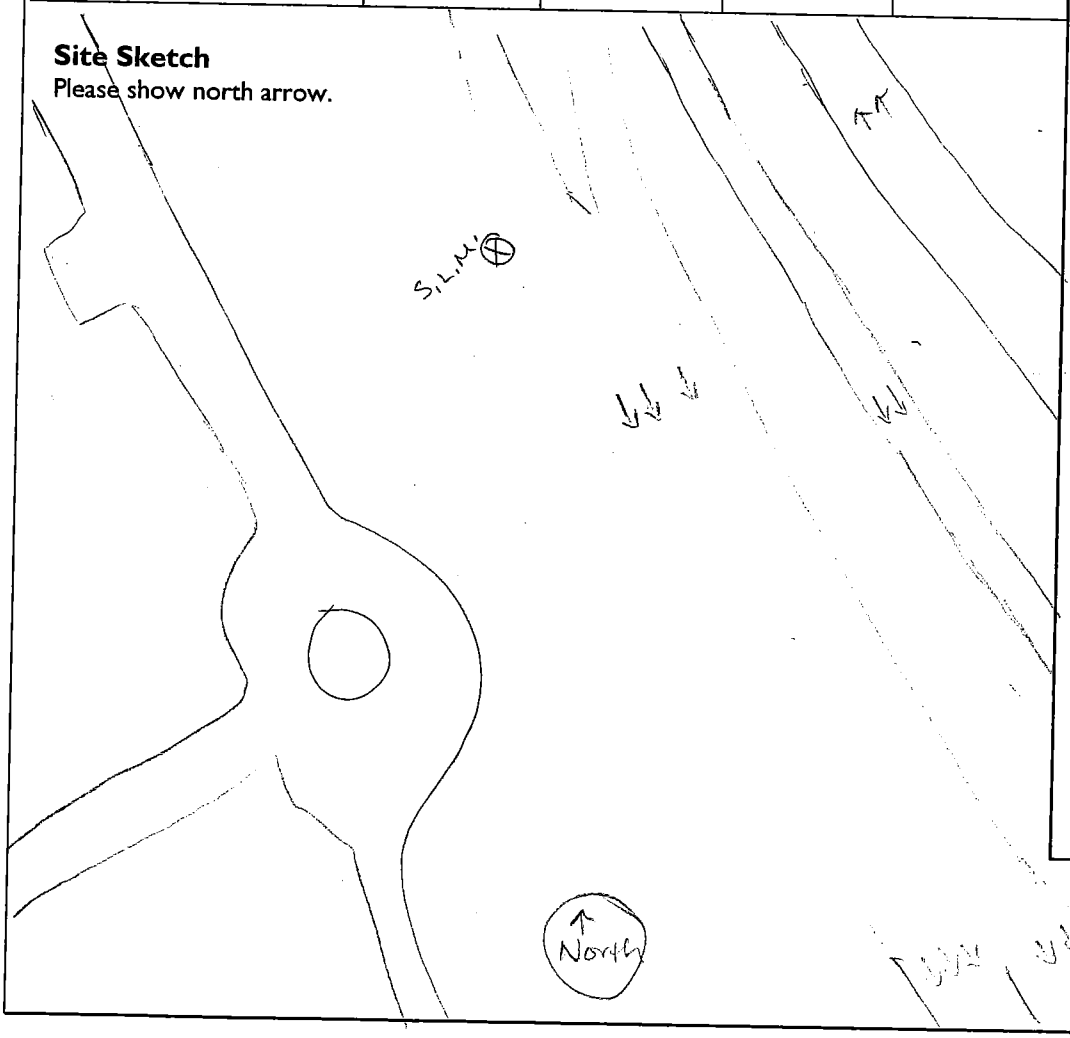
direction	autos		medium trucks		heavy trucks		speed	
	survey count	TNM*	survey count	TNM*	survey count	TNM *	Operating*	posted
All	1522	6088	29	116	34	136		

Sound level measurement interval(s) LAeq1h

	Leq	Lmax	L(10)	L(50)
begin 12:42 end 12:57	72.0	84.5	74.3	71.1
begin end				

Site Sketch

Please show north arrow.



632

Field Reconnaissance

Survey # 12 of # 12 for the referenced Project

Larson • Davis LxT Sound Level Meter

Calibration 114
Temperature 84°
Sky clear
Wind calm
Receptor elevation 51
Roadway grade
Roadway surface asphalt
Distance to Centerline
Width of road
Ground Cover soft

Indicate yes or no.
Provide explanation as needed.

Low Volume Road (5000 or less vehicles ADT require 30 min SLM interval) no
Undeveloped Land no
Other Noise Sources no
Equivalent Receptors —
Multifamily Dwelling(s) Y
Exterior formal common area ~~Y/N~~ S
If yes, does it face highway? no
*If no, count exterior balconies and patios facing highway*____.

redo this

_____ Other attachments and or photographs?

***Field Measurement & TNM validation**

Minutes of Interval 15
Multiply traffic by 4 to represent one hour.

Personnel

Gaffney ESII

Bureau of Design
Environmental Services Section

Appendix B
Hourly Equivalent Noise Levels

Table B-1: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 1								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-1001	Res.	B	1	18170 Metcalf Ave	54	54	54	0
Predicted NSA 1 Traffic Noise Impacts							**0**	

Table B-2: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 2								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-2001	Res.	B	1	7900 W 183rd St	61	64	64	3
R-2002	Res.	B	1	7870 W 183rd St	70	73	72	3
Predicted NSA 2 Traffic Noise Impacts							**1**	

Table B-3: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 3								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-3001	Res.	B	1	17205 Metcalf Pl	65	67	69	4
R-3002	Res.	B	1	16960 Metcalf Ave	57	60	62	5
R-3003	Res.	B	1	16910 Metcalf Ave	58	60	62	5
R-3004	Res.	B	1	16830 Metcalf Ave	57	59	62	5
Predicted NSA 3 Traffic Noise Impacts							**1**	

Table B-4: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 4								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-4001	Res.	B	1	8160 W 179th St	56	61	62	6
R-4002	Res.	B	1	7900 W 179th St	59	62	62	4
R-4003	Res.	B	1	8055 W 172nd Ter	56	59	61	5
R-4004	Res.	B	1	7965 W 172nd Ter	63	66	67	4
R-4005	Res.	B	1	8070 W 172nd Ter	54	56	58	4
R-4006	Res.	B	1	7980 W 172nd Ter	65	67	68	4
Predicted NSA 4 Traffic Noise Impacts							**2**	

Table B-5: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 5								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-5001	Church	C	1	First Faith Church	54	59	59	5
R-5002	Res.	B	1	8545 W 167th St	58	64	65	7
R-5003	Res.	B	1	8095 W 167th St	62	66	68	5
R-5004	Res.	B	1	8607 W 166th Ct	60	66	65	5
R-5005	Res.	B	1	8603 W 166th Ct	60	66	64	4
R-5006	Res.	B	1	8503 W 166th Ct	60	66	64	4
R-5007	Res.	B	1	8407 W 166th Ct	60	66	65	4
R-5008	Res.	B	1	8403 W 166th Ct	59	65	64	5
R-5009	Res.	B	1	8303 W 166th Ct	58	63	63	5
R-5010	Res.	B	1	8203 W 166th Ct	55	60	60	5
R-5011	Res.	B	1	8107 W 166th Ct	54	58	58	4
R-5012	Res.	B	1	8103 W 166th Ct	54	57	57	3
R-5013	Res.	B	1	16652 Hardy St	57	62	63	5
R-5014	Res.	B	1	16648 Hardy St	54	59	59	5
R-5015	Res.	B	1	16644 Hardy St	54	57	57	3
R-5016	Res.	B	1	16640 Hardy St	54	55	56	2
R-5017	Res.	B	1	8037 W 166th Pl	56	61	61	5
R-5018	Res.	B	1	8033 W 166th Pl	56	61	62	6
R-5019	Res.	B	1	8029 W 166th Pl	57	62	63	6
R-5020	Res.	B	1	8025 W 166th Pl	58	63	63	6
R-5021	Res.	B	1	8021 W 166th Pl	58	64	64	5
R-5022	Res.	B	1	8017 W 166th Pl	59	64	64	5
R-5023	Res.	B	1	8013 W 166th Pl	58	64	64	5
R-5024	Res.	B	1	8009 W 166th Pl	58	63	63	5
R-5025	Res.	B	1	8005 W 166th Pl	56	61	61	4
R-5026	Res.	B	1	8036 W 166th Pl	54	56	56	2
R-5027	Res.	B	1	8032 W 166th Pl	54	56	56	2
R-5028	Res.	B	1	8028 W 166th Pl	54	56	56	2
R-5029	Res.	B	1	8024 W 166th Pl	54	56	56	2
R-5030	Res.	B	1	8020 W 166th Pl	54	56	57	3
R-5031	Res.	B	1	8016 W 166th Pl	54	56	57	3
R-5032	Res.	B	1	8012 W 166th Pl	54	56	56	2
R-5033	Res.	B	1	8008 W 166th Pl	54	56	56	2
R-5034	Res.	B	1	8004 W 166th Pl	54	56	57	3
R-5035	Res.	B	1	8000 W 166th Pl	54	56	57	3
R-5036	Res.	B	1	7920 W 166th Pl	54	55	57	3
R-5037	Res.	B	1	7916 W 166th Pl	54	55	57	3

Table B-5: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 5								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-5038	Res.	B	1	7912 W 166th Pl	54	55	57	3
R-5039	Res.	B	1	7908 W 166th Pl	54	54	55	1
R-5040	Res.	B	1	7904 W 166th Pl	57	59	60	4
R-5041	Res.	B	1	7900 W 166th Pl	57	60	61	4
R-5042	Park	C	1	Bluhawk Benches	55	59	60	4
R-5043	Park	C	1	Bluhawk Tennis	60	62	64	5
R-5044	Res.	B	1	Bluhawk 1A-1	54	58	56	2
R-5045	Res.	B	1	Bluhawk 1A-2	54	59	57	3
R-5046	Res.	B	1	Bluhawk 1A-3	54	59	58	4
R-5047	Res.	B	1	Bluhawk 1B-1	54	58	54	0
R-5048	Res.	B	1	Bluhawk 1B-2	55	60	58	3
R-5049	Res.	B	1	Bluhawk 1B-3	55	61	59	3
R-5050	Res.	B	1	Bluhawk 1B-4	55	61	59	4
R-5051	Res.	B	2	Bluhawk 1C-1	59	63	62	3
R-5052	Res.	B	2	Bluhawk 1C-2	61	65	63	3
R-5053	Res.	B	2	Bluhawk 1C-3	62	65	64	3
R-5054	Res.	B	2	Bluhawk 1C-4	62	66	65	3
R-5055	Res.	B	1	Bluhawk 1D-1	62	65	66	3
R-5056	Res.	B	1	Bluhawk 1D-2	64	67	66	3
R-5057	Res.	B	1	Bluhawk 1D-3	64	67	67	3
R-5058	Res.	B	1	Bluhawk 1D-4	64	67	67	3
R-5059	Res.	B	1	Bluhawk 1E-2	64	67	67	3
R-5060	Res.	B	1	Bluhawk 1E-3	64	67	67	3
R-5061	Res.	B	1	Bluhawk 1F-2	57	59	60	3
R-5062	Res.	B	1	Bluhawk 1F-3	57	60	60	3
R-5063	Res.	B	1	Bluhawk 2A-2	64	67	67	3
R-5064	Res.	B	1	Bluhawk 2A-3	65	68	67	3
R-5065	Res.	B	1	Bluhawk 2B-1	64	66	66	3
R-5066	Res.	B	1	Bluhawk 2B-2	65	68	67	2
R-5067	Res.	B	1	Bluhawk 2B-3	65	68	68	3
R-5068	Res.	B	1	Bluhawk 2B-4	65	68	68	3
R-5069	Res.	B	2	Bluhawk 2C-1	62	65	65	3
R-5070	Res.	B	2	Bluhawk 2C-2	64	66	66	2
R-5071	Res.	B	2	Bluhawk 2C-3	64	67	67	3
R-5072	Res.	B	2	Bluhawk 2C-4	64	67	67	3
R-5073	Res.	B	1	Bluhawk 2D-1	54	54	55	1
R-5074	Res.	B	1	Bluhawk 2D-2	54	55	56	2

Table B-5: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 5								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-5075	Res.	B	1	Bluhawk 2D-3	54	56	56	2
R-5076	Res.	B	1	Bluhawk 2D-4	54	57	57	3
R-5077	Res.	B	1	Bluhawk 2E-2	54	54	54	0
R-5078	Res.	B	1	Bluhawk 2E-3	54	54	54	0
R-5079	Res.	B	1	Bluhawk 2F-2	54	55	56	2
R-5080	Res.	B	1	Bluhawk 2F-3	54	57	57	3
R-5081	Res.	B	2	Bluhawk 3A-1	61	63	64	3
R-5082	Res.	B	2	Bluhawk 3A-2	65	67	67	3
R-5083	Res.	B	2	Bluhawk 3A-3	65	68	68	3
R-5084	Res.	B	2	Bluhawk 3A-4	65	68	68	3
R-5085	Res.	B	1	Bluhawk 3B-1	64	66	66	2
R-5086	Res.	B	1	Bluhawk 3B-2	70	73	73	3
R-5087	Res.	B	1	Bluhawk 3B-3	71	74	74	3
R-5088	Res.	B	1	Bluhawk 3B-4	71	74	74	3
R-5089	Res.	B	1	Bluhawk 3C-2	71	74	74	3
R-5090	Res.	B	1	Bluhawk 3C-3	72	74	75	3
R-5091	Res.	B	3	Bluhawk 3D-2	65	68	68	3
R-5092	Res.	B	3	Bluhawk 3D-3	67	69	69	3
R-5093	Res.	B	2	Bluhawk 4A-1	56	58	61	5
R-5094	Res.	B	2	Bluhawk 4A-2	62	65	65	3
R-5095	Res.	B	2	Bluhawk 4A-3	64	66	66	3
R-5096	Res.	B	2	Bluhawk 4A-4	64	67	67	3
R-5097	Res.	B	1	Bluhawk 4B-1	60	63	64	4
R-5098	Res.	B	1	Bluhawk 4B-2	67	70	70	3
R-5099	Res.	B	1	Bluhawk 4B-3	70	73	73	3
R-5100	Res.	B	1	Bluhawk 4B-4	71	74	74	3
R-5101	Res.	B	1	Bluhawk 4C-2	70	72	73	3
R-5102	Res.	B	1	Bluhawk 4C-3	71	74	74	3
R-5103	Res.	B	3	Bluhawk 4D-2	58	61	62	4
R-5104	Res.	B	3	Bluhawk 4D-3	63	65	66	4
R-5105	Res.	B	1	Bluhawk 5A-1	54	54	54	0
R-5106	Res.	B	1	Bluhawk 5A-2	54	57	58	4
R-5107	Res.	B	1	Bluhawk 5A-3	58	61	62	4
R-5108	Res.	B	1	Bluhawk 5A-4	62	64	65	4
R-5109	Res.	B	1	Bluhawk 5B-2	61	63	64	3
R-5110	Res.	B	1	Bluhawk 5B-3	64	66	67	3
R-5111	Res.	B	3	Bluhawk 5C-2	59	62	63	3

Table B-5: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 5								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-5112	Res.	B	3	Bluhawk 5C-3	62	64	65	3
R-5113	Res.	B	1	Bluhawk 5D-1	54	54	54	0
R-5114	Res.	B	1	Bluhawk 5D-2	54	54	55	1
R-5115	Res.	B	1	Bluhawk 5D-3	54	56	58	4
R-5116	Res.	B	1	Bluhawk 5D-4	57	59	61	4
R-5117	Res.	B	1	Bluhawk 5E-2	54	57	59	4
R-5118	Res.	B	1	Bluhawk 5E-3	58	60	61	4
R-5119	Res.	B	1	Bluhawk 6A-2	66	69	69	3
R-5120	Res.	B	1	Bluhawk 6A-3	69	72	72	3
R-5121	Res.	B	2	Bluhawk 6B-2	68	70	71	3
R-5122	Res.	B	2	Bluhawk 6B-3	72	74	75	3
R-5123	Res.	B	1	Bluhawk 6C-2	66	68	69	4
R-5124	Res.	B	1	Bluhawk 6C-3	69	72	72	4
R-5125	Res.	B	1	Bluhawk 7A-1	54	54	54	0
R-5126	Res.	B	1	Bluhawk 7A-2	54	54	55	1
R-5127	Res.	B	1	Bluhawk 7A-3	54	57	58	3
R-5128	Res.	B	1	Bluhawk 7A-4	56	59	59	3
R-5129	Res.	B	1	Bluhawk 7B-2	55	58	59	4
R-5130	Res.	B	1	Bluhawk 7B-3	57	59	61	4
R-5131	Res.	B	3	Bluhawk 7C-2	58	61	62	4
R-5132	Res.	B	3	Bluhawk 7C-3	61	64	65	4
R-5133	Res.	B	1	Bluhawk 7D-2	54	57	58	4
R-5134	Res.	B	1	Bluhawk 7D-3	57	60	61	4
R-5135	Res.	B	1	Bluhawk 7E-1	54	54	54	0
R-5136	Res.	B	1	Bluhawk 7E-2	56	58	58	3
R-5137	Res.	B	1	Bluhawk 7E-3	58	60	61	3
R-5138	Res.	B	1	Bluhawk 7E-4	59	62	62	3
R-5139	Res.	B	3	Bluhawk 8A-2	61	63	65	4
R-5140	Res.	B	3	Bluhawk 8A-3	65	68	70	5
R-5141	Res.	B	1	Bluhawk 8B-2	72	74	75	3
R-5142	Res.	B	1	Bluhawk 8B-3	73	76	76	3
R-5143	Res.	B	1	Bluhawk 8C-1	57	60	61	4
R-5144	Res.	B	1	Bluhawk 8C-2	64	67	69	5
R-5145	Res.	B	1	Bluhawk 8C-3	72	75	75	3
R-5146	Res.	B	1	Bluhawk 8C-4	73	76	76	3
R-5147	Res.	B	1	Bluhawk 8D-1	57	60	60	3
R-5148	Res.	B	1	Bluhawk 8D-2	61	64	66	5

Table B-5: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 5								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-5149	Res.	B	1	Bluhawk 8D-3	66	69	71	4
R-5150	Res.	B	1	Bluhawk 8D-4	67	70	71	3
R-5151	Hospital	D	1	Advent Health South OP	40	40	40	0
Predicted NSA 5 Traffic Noise Impacts							**69**	

Table B-6: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 6								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-6001	Res.	B	6	7659-79 W 158th Ter	62	66	65	3
R-6002	Res.	B	6	7727-47 W 158th Ter	54	57	58	3
R-6003	Res.	B	5	7703-19 W 158th Ter	54	54	54	0
R-6004	Res.	B	5	15820-36 Robinson St	58	61	62	3
R-6005	Res.	B	5	15800-16 Robinson St	58	60	61	3
R-6006	Res.	B	4	15821-33 Robinson St	54	54	54	0
R-6007	Res.	B	4	15805-17 Robinson St	54	54	54	0
R-6008	Res.	B	4	7638-50 W 158th Ter	55	59	58	3
R-6009	Res.	B	5	7641-57 W 158th St	54	55	54	0
R-6010	Res.	B	4	7820-32 W 158th St	60	63	64	4
R-6011	Res.	B	4	7800-12 W 158th St	55	58	60	5
R-6012	Res.	B	4	7716-28 W 158th St	54	54	55	1
R-6013	Res.	B	3	7700-08 W 158th St	54	55	56	2
R-6014	Trail	C	1	Brittany Park Trail 2	70	72	**73**	4
R-6015	Res.	B	1	7419 W 157th Ter	54	55	56	2
R-6016	Res.	B	1	7503 W 157th Ter	54	56	56	2
R-6017	Res.	B	1	7507 W 157th Ter	54	57	58	3
R-6018	Res.	B	1	7511 W 157th Ter	56	58	60	3
R-6019	Res.	B	1	7515 W 157th Ter	58	61	62	4
R-6020	Res.	B	1	15712 Conser St	60	62	64	4
R-6021	Res.	B	1	15708 Conser St	62	64	**66**	4
R-6022	Res.	B	1	15704 Conser St	64	66	**68**	4
R-6023	Res.	B	1	15700 Conser St	65	67	**70**	5
R-6024	Res.	B	1	15666 Conser St	66	68	**71**	5
R-6025	Res.	B	1	15662 Conser St	67	69	**71**	4
R-6026	Res.	B	1	15658 Conser St	67	69	**72**	4
R-6027	Res.	B	1	15654 Conser St	68	70	**72**	4
R-6028	Res.	B	1	15650 Conser St	67	70	**72**	4
R-6029	Res.	B	1	15646 Conser St	66	69	**71**	4
R-6030	Res.	B	1	15642 Conser St	66	68	**70**	5
R-6031	Res.	B	1	7502 W 157th Ter	54	56	57	3
R-6032	Res.	B	1	7506 W 157th Ter	56	58	60	4
R-6033	Res.	B	1	15705 Conser St	59	61	63	4
R-6034	Res.	B	1	15701 Conser St	59	61	63	4
R-6035	Res.	B	1	15663 Conser St	59	61	64	4
R-6036	Res.	B	1	15659 Conser St	60	62	64	4
R-6037	Res.	B	1	15655 Conser St	59	61	64	5

Table B-6: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 6								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-6038	Res.	B	1	15651 Conser St	59	61	64	5
R-6039	Res.	B	1	15647 Conser St	59	62	64	5
R-6040	Res.	B	1	15643 Conser St	59	61	63	5
R-6041	Res.	B	1	15639 Conser St	60	62	64	5
R-6042	Res.	B	1	15635 Conser St	60	62	64	4
R-6043	Res.	B	1	15631 Conser St	59	61	63	4
R-6044	Res.	B	1	15627 Conser St	59	61	63	4
R-6045	Res.	B	1	15700 Foster	54	56	58	4
R-6046	Res.	B	1	15652 Foster	54	56	58	4
R-6047	Res.	B	1	15648 Foster	54	56	58	4
R-6048	Res.	B	1	15644 Foster	54	57	58	4
R-6049	Res.	B	1	15640 Foster	54	57	58	4
R-6050	Res.	B	1	15636 Foster	55	57	59	4
R-6051	Res.	B	1	15632 Foster	55	57	59	4
R-6052	Res.	B	1	15628 Foster	54	56	58	4
R-6053	Res.	B	1	7601 W 156th Pl	62	65	**66**	4
R-6054	Res.	B	1	7605 W 156th Pl	64	67	**68**	4
R-6055	Res.	B	1	7701 W 156th Pl	67	69	**70**	4
R-6056	Res.	B	1	7705 W 156th Pl	66	68	**69**	3
R-6057	Res.	B	1	7704 W 156th Pl	65	67	**69**	4
R-6058	Res.	B	1	7700 W 156th Pl	62	64	**66**	4
R-6059	Res.	B	1	7604 W 156th Pl	60	62	64	4
R-6060	Res.	B	1	7600 W 156th Pl	58	61	62	4
R-6061	Res.	B	1	7603 W 156th Ter	58	60	62	4
R-6062	Res.	B	1	7607 W 156th Ter	59	61	63	4
R-6063	Res.	B	1	7611 W 156th Ter	60	62	63	3
R-6064	Res.	B	1	7703 W 156th Ter	61	63	65	4
R-6065	Res.	B	1	7707 W 156th Ter	63	65	**66**	4
R-6066	Res.	B	1	7711 W 156th Ter	65	67	**68**	3
R-6067	Res.	B	1	7715 W 156th Ter	65	68	**68**	3
R-6068	Res.	B	1	7714 W 156th Ter	64	67	**68**	3
R-6069	Res.	B	1	7710 W 156th Ter	62	64	65	3
R-6070	Res.	B	1	7706 W 156th Ter	59	61	62	3
R-6071	Res.	B	1	7702 W 156th Ter	58	60	61	3
R-6072	Res.	B	1	7614 W 156th Ter	57	59	61	4
R-6073	Res.	B	1	7610 W 156th Ter	57	59	61	4
R-6074	Res.	B	1	7606 W 156th Ter	56	58	60	4

Table B-6: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 6								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-6075	Trail	C	1	Brittany Park Trail 1	65	67	68	3
R-6076	Res.	B	1	7609 W 156th St	56	58	60	4
R-6077	Res.	B	1	7613 W 156th St	57	59	61	4
R-6078	Res.	B	1	7719 W 156th St	58	60	62	4
R-6079	Res.	B	1	7723 W 156th St	59	62	63	4
R-6080	Res.	B	1	15482 Robinson St	61	63	64	3
R-6081	Res.	B	1	15478 Robinson St	63	65	66	3
R-6082	Res.	B	1	15472 Robinson St	65	67	68	3
R-6083	Res.	B	1	15468 Robinson St	65	67	68	3
R-6084	Res.	B	1	15464 Robinson St	66	68	69	3
R-6085	Res.	B	1	15460 Robinson St	66	68	69	3
R-6086	Res.	B	1	15456 Robinson St	67	69	70	3
R-6087	Res.	B	1	15450 Robinson St	67	69	70	3
R-6088	Res.	B	1	15444 Robinson St	66	68	69	3
R-6089	Res.	B	1	15438 Robinson St	66	68	70	3
R-6090	Res.	B	1	15430 Robinson St	66	68	70	4
R-6091	Res.	B	1	15422 Robinson St	66	68	69	4
R-6092	Res.	B	1	15410 Robinson St	66	68	70	4
R-6093	Res.	B	1	15342 Robinson St	66	69	73	7
R-6094	Res.	B	1	15338 Robinson St	68	70	72	4
R-6095	Res.	B	1	15332 Robinson St	67	69	72	5
R-6096	Res.	B	1	15326 Robinson St	63	66	69	6
R-6097	Res.	B	1	15320 Robinson St	60	63	67	6
R-6098	Res.	B	1	15314 Robinson St	58	60	65	7
R-6099	Res.	B	1	15308 Robinson St	56	59	63	7
R-6100	Res.	B	1	15340 Newton Dr	56	58	63	6
R-6101	Res.	B	1	7713 W 155th St	59	61	63	4
R-6102	Res.	B	1	7709 W 155th St	58	60	62	4
R-6103	Res.	B	1	7710 W 155th St	58	60	62	4
R-6104	Res.	B	1	7714 W 155th St	59	61	63	4
R-6105	Res.	B	1	7718 W 155th St	60	62	63	4
R-6106	Res.	B	1	7722 W 155th St	61	63	64	4
R-6107	Res.	B	1	7757 W 154th Ter	61	63	65	4
R-6108	Res.	B	1	7753 W 154th Ter	59	62	63	4
R-6109	Res.	B	1	7749 W 154th Ter	59	61	63	4
R-6110	Res.	B	1	7745 W 154th Ter	58	60	62	4
R-6111	Res.	B	1	7741 W 154th Ter	57	60	61	4

Table B-6: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 6								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-6112	Res.	B	1	7740 W 154th Ter	57	60	62	4
R-6113	Res.	B	1	7744 W 154th Ter	59	61	63	5
R-6114	Res.	B	1	7748 W 154th Ter	59	61	63	4
R-6115	Res.	B	1	7752 W 154th Ter	60	62	64	4
R-6116	Res.	B	1	7756 W 154th Ter	62	64	66	4
R-6117	Res.	B	1	15431 Robinson St	62	64	66	4
R-6118	Res.	B	1	15423 Robinson St	62	64	66	4
R-6119	Res.	B	1	15405 Robinson St	63	65	69	6
R-6120	Res.	B	1	15341 Robinson St	64	66	69	5
R-6121	Res.	B	1	15335 Robinson St	64	66	68	4
R-6122	Res.	B	1	15329 Robinson St	61	63	65	4
R-6123	Res.	B	1	15323 Robinson St	61	63	65	4
R-6124	Res.	B	1	15317 Robinson St	60	62	64	4
R-6125	Res.	B	1	7728 W 154th St	60	63	64	3
R-6126	Res.	B	1	7734 W 154th St	61	63	65	4
R-6127	Res.	B	1	7731 W 154th St	60	62	65	5
R-6128	Res.	B	1	7725 W 154th St	58	60	64	5
R-6129	Res.	B	1	15323 Newton Dr	57	59	63	6
R-6130	Res.	B	1	15299 Newton Dr	57	59	63	6
R-6131	Res.	B	1	15297 Newton Dr	58	60	64	6
R-6132	Res.	B	1	15295 Newton Dr	57	59	63	6
R-6133	Res.	B	1	15285 Newton Dr	57	59	63	6
R-6134	Res.	B	1	15275 Newton Dr	57	59	63	6
R-6135	Res.	B	1	15269 Newton Dr	57	59	63	6
R-6136	Res.	B	1	7685 W 152nd St	57	59	63	6
R-6137	Res.	B	1	7681 W 152nd St	56	58	62	6
R-6138	Res.	B	1	7677 W 152nd St	54	56	60	6
R-6139	Res.	B	2	15294-96 Newton Dr	59	61	65	6
R-6140	Res.	B	2	7735-37 W 152nd Ter	60	62	66	6
R-6141	Res.	B	2	7761-63 W 152nd Ter	63	65	68	6
R-6142	Res.	B	2	7789-91 W 152nd Ter	65	67	70	5
R-6143	Res.	B	2	7801-03 W 152nd Ter	70	72	74	4
R-6144	Res.	B	2	7816-18 W 152nd Ter	73	75	76	4
R-6145	Res.	B	2	7806-08 W 152nd Ter	71	73	75	4
R-6146	Res.	B	2	7796-98 W 152nd Ter	65	68	71	6
R-6147	Res.	B	2	7764-66 W 152nd Ter	62	64	68	6
R-6148	Res.	B	2	7730-32 W 152nd Ter	59	61	66	7

Table B-6: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 6								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-6149	Res.	B	2	15290-92 Newton Dr	60	63	67	7
R-6150	Res.	B	2	15280-82 Newton Dr	62	64	68	6
R-6151	Res.	B	2	15264-66 Newton Dr	62	64	68	6
R-6152	Res.	B	2	7705-07 W 152nd St	66	69	72	5
R-6153	Res.	B	2	7721-23 W 152nd St	72	74	75	4
R-6154	Res.	B	2	7726-25 W 152nd St	73	75	76	3
R-6155	Res.	B	2	7714-16 W 152nd St	69	71	73	4
R-6156	Res.	B	2	15142-44 Newton Dr	73	75	76	3
R-6157	Res.	B	2	15138-40 Newton Dr	70	72	73	3
R-6158	Res.	B	2	15133-35 Newton Dr	63	66	68	4
R-6159	Res.	B	2	15141-43 Newton Dr	63	65	68	5
R-6160	Res.	B	2	7696-98 W 152nd St	60	62	65	6
R-6161	Res.	B	2	7692-94 W 152nd St	56	58	62	5
R-6162	Res.	B	2	7688-90 W 152nd St	54	56	59	5
Predicted NSA 6 Traffic Noise Impacts							**85**	

Table B-7: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 7								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-7001	Res.	B	3	7819-7827 W 158th Ct	54	54	54	0
R-7002	Res.	B	4	7803-7815 W 158th Ct	54	54	55	1
R-7003	Res.	B	6	7802-7822 W 158th Ct	58	61	61	4
R-7004	Res.	B	4	15869-81 Valley View Dr	55	58	58	3
R-7005	Res.	B	5	15849-65 Valley View Dr	55	58	59	4
R-7006	Res.	B	6	15825-45 Valley View Dr	56	58	59	4
R-7007	Res.	B	4	15868-80 Valley View Dr	54	56	56	2
R-7008	Res.	B	4	15852-64 Valley View Dr	54	54	55	1
R-7009	Res.	B	5	15824-40 Valley View Dr	54	54	55	1
R-7010	Res.	B	1	7845 W 158th St	54	55	56	2
R-7011	Res.	B	1	7841 W 158th St	54	55	56	2
R-7012	Res.	B	1	7837 W 158th St	54	57	58	4
R-7013	Res.	B	1	7833 W 158th St	54	57	58	4
R-7014	Res.	B	1	7829 W 158th St	57	59	60	4
R-7015	Res.	B	1	15717 Valley View Dr	61	63	65	3
R-7016	Res.	B	1	15713 Valley View Dr	62	64	65	3
R-7017	Res.	B	1	15709 Valley View Dr	63	65	66	3
R-7018	Res.	B	1	15705 Valley View Dr	65	67	68	3
R-7019	Res.	B	1	15701 Valley View Dr	67	69	70	3
R-7020	Res.	B	1	15609 Valley View Dr	68	70	71	3
R-7021	Res.	B	1	15605 Valley View Dr	70	72	73	3
R-7022	Res.	B	1	15601 Valley View Dr	69	71	72	3
R-7023	Res.	B	1	15547 Valley View Dr	69	71	72	3
R-7024	Res.	B	1	15704 Valley View Dr	60	63	64	4
R-7025	Res.	B	1	15700 Valley View Dr	59	61	63	4
R-7026	Res.	B	1	15608 Valley View Dr	60	62	64	4
R-7027	Res.	B	1	15604 Valley View Dr	60	63	64	4
R-7028	Res.	B	1	15600 Valley View Dr	61	63	65	4
R-7029	Res.	B	1	15709 Shawnee Dr	59	61	63	4
R-7030	Res.	B	1	15705 Shawnee Dr	59	61	63	4
R-7031	Res.	B	1	15701 Shawnee Dr	59	61	63	4
R-7032	Res.	B	1	15609 Shawnee Dr	60	62	64	4
R-7033	Res.	B	1	15605 Shawnee Dr	59	61	63	4
R-7034	Res.	B	1	15601 Shawnee Dr	60	62	64	4
R-7035	Res.	B	1	15708 Shawnee Dr	55	57	59	4
R-7036	Res.	B	1	15704 Shawnee Dr	55	57	59	4
R-7037	Res.	B	1	15700 Shawnee Dr	55	57	59	4

Table B-7: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 7								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-7038	Res.	B	1	15608 Shawnee Dr	56	58	60	4
R-7039	Res.	B	1	15604 Shawnee Dr	56	58	60	4
R-7040	Res.	B	1	15600 Shawnee Dr	57	59	61	5
R-7041	Res.	B	1	7850 W 156th St	58	60	62	4
R-7042	Res.	B	1	7846 W 156th St	57	60	62	4
R-7043	Res.	B	1	7842 W 156th St	61	64	65	4
R-7044	Res.	B	1	7838 W 156th St	60	63	64	4
R-7045	Res.	B	1	7834 W 156th St	61	64	65	4
R-7046	Res.	B	1	15542 Valley View Dr	64	66	68	4
R-7047	Res.	B	1	15538 Valley View Dr	65	67	68	4
R-7048	Res.	B	1	15534 Valley View Dr	64	67	68	4
R-7049	Res.	B	1	15530 Valley View Dr	63	66	67	4
R-7050	Res.	B	1	15526 Valley View Dr	63	66	67	4
R-7051	Res.	B	1	15522 Valley View Dr	64	66	68	4
R-7052	Res.	B	1	15518 Valley View Dr	64	66	68	4
R-7053	Res.	B	1	15514 Valley View Dr	64	66	68	4
R-7054	Res.	B	1	15510 Valley View Dr	64	66	69	5
R-7055	Res.	B	1	15506 Valley View Dr	64	66	69	5
R-7056	Res.	B	1	7857 W 155th Pl	57	59	61	5
R-7057	Res.	B	1	15522 Shawnee Dr	56	58	61	5
R-7058	Res.	B	1	15526 Shawnee Dr	56	58	60	5
R-7059	Res.	B	1	15530 Shawnee Dr	55	57	60	5
R-7060	Res.	B	1	15534 Shawnee Dr	56	58	60	4
R-7061	Res.	B	1	15535 Shawnee Dr	60	62	64	4
R-7062	Res.	B	1	15531 Shawnee Dr	60	62	64	4
R-7063	Res.	B	1	15527 Shawnee Dr	60	62	63	4
R-7064	Res.	B	1	15523 Shawnee Dr	60	62	64	4
R-7065	Res.	B	1	15519 Shawnee Dr	59	61	63	4
R-7066	Res.	B	1	15515 Shawnee Dr	59	61	63	4
R-7067	Res.	B	1	15511 Shawnee Dr	58	61	63	4
R-7068	Res.	B	1	15535 Valley View Dr	71	73	74	3
R-7069	Res.	B	1	15531 Valley View Dr	71	73	74	3
R-7070	Res.	B	1	15527 Valley View Dr	71	74	74	3
R-7071	Res.	B	1	15523 Valley View Dr	72	74	74	3
R-7072	Res.	B	1	15519 Valley View Dr	72	74	74	3
R-7073	Res.	B	1	15515 Valley View Dr	72	74	75	3
R-7074	Res.	B	1	15511 Valley View Dr	72	74	75	3

Table B-7: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 7								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-7075	Res.	B	1	15503 Valley View Dr	70	72	73	4
R-7076	Res.	B	1	7845 W 155th Ter	66	68	70	4
R-7077	Res.	B	1	7839 W 155th Ter	70	72	74	4
R-7078	Res.	B	1	7834 W 155th Ter	72	74	75	3
R-7079	Res.	B	1	7838 W 155th Ter	71	73	75	4
R-7080	Res.	B	1	7842 W 155th Ter	65	67	70	5
R-7081	Res.	B	1	7846 W 155th Ter	63	65	68	5
R-7082	Res.	B	1	7850 W 155th Ter	61	63	66	5
R-7083	Res.	B	1	7854 W 155th Ter	60	62	65	5
R-7084	Res.	B	1	7858 W 155th Ter	59	61	64	5
R-7085	Res.	B	1	7859 W 155th Ter	55	57	60	5
R-7086	Res.	B	1	7855 W 155th Ter	57	59	62	5
R-7087	Res.	B	1	7851 W 155th Ter	60	63	65	5
R-7088	Res.	B	1	7844 W 155th Pl	60	62	65	5
R-7089	Res.	B	1	7848 W 155th Pl	58	60	63	5
R-7090	Res.	B	1	7852 W 155th Pl	55	58	60	5
R-7091	Res.	B	1	7856 W 155th Pl	54	56	59	5
R-7092	Res.	B	1	7869 W 153rd Ter	56	58	61	6
R-7093	Res.	B	1	7865 W 153rd Ter	57	59	63	6
R-7094	Res.	B	1	7861 W 153rd Ter	59	61	64	6
R-7095	Res.	B	1	7857 W 153rd Ter	58	60	63	6
R-7096	Res.	B	1	7853 W 153rd Ter	60	62	65	6
R-7097	Res.	B	1	7849 W 153rd Ter	64	67	69	5
R-7098	Res.	B	1	7845 W 153rd Ter	69	72	74	4
R-7099	Res.	B	1	7844 W 153rd Ter	72	74	75	3
R-7100	Res.	B	1	7848 W 153rd Ter	71	73	74	4
R-7101	Res.	B	1	7852 W 153rd Ter	67	70	72	5
R-7102	Res.	B	1	7856 W 153rd Ter	64	66	69	5
R-7103	Res.	B	1	7860 W 153rd Ter	62	65	68	6
R-7104	Res.	B	1	7864 W 153rd Ter	61	63	67	6
R-7105	Res.	B	1	7868 W 153rd Ter	60	62	66	6
R-7106	Res.	B	1	7872 W 153rd Ter	59	61	65	6
R-7107	Res.	B	1	7876 W 153rd Ter	58	61	64	6
R-7108	Park	C	7	Kingston Lake Park 1st Row	67	69	71	4
R-7109	Park	C	7	Kingston Lake Park 2nd Row	62	65	67	4
R-7110	Park	C	7	Kingston Lake Park 3rd Row	62	65	66	4
R-7111	Park	C	6	Kingston Lake Park 4th Row	59	61	63	4

Table B-7: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 7								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-7112	Park	C	3	Kingston Lake Park 5th Row	59	61	63	4
R-7113	Park	C	2	Kingston Lake Park 6th Row	60	62	65	6
R-7114	Res.	B	1	7901 W 152nd Ter	57	59	63	6
R-7115	Res.	B	1	7900 W 152nd Ter	57	59	63	6
R-7116	Res.	B	1	7875 W 152nd Ter	57	59	63	6
R-7117	Res.	B	1	7871 W 152nd Ter	58	60	64	6
R-7118	Res.	B	1	7867 W 152nd Ter	59	62	66	7
R-7119	Res.	B	1	7863 W 152nd Ter	62	64	68	6
R-7120	Res.	B	1	7859 W 152nd Ter	66	69	72	5
R-7121	Res.	B	1	7855 W 152nd Ter	70	73	74	4
R-7122	Res.	B	1	7856 W 152nd Ter	71	74	75	4
R-7123	Res.	B	1	7860 W 152nd Ter	70	73	74	4
R-7124	Res.	B	1	7864 W 152nd Ter	66	69	70	4
R-7125	Res.	B	1	7868 W 152nd Ter	62	64	67	5
R-7126	Res.	B	1	7872 W 152nd Ter	61	63	66	5
R-7127	Res.	B	1	7876 W 152nd Ter	59	61	64	6
R-7128	Res.	B	1	7873 W 152nd St	59	61	65	6
R-7129	Res.	B	1	7869 W 152nd St	61	64	67	5
R-7130	Res.	B	1	7865 W 152nd St	67	70	72	4
R-7131	Res.	B	1	7861 W 152nd St	71	73	74	3
R-7132	Res.	B	1	7862 W 152nd St	71	73	73	2
R-7133	Res.	B	1	7866 W 152nd St	69	71	72	3
R-7134	Res.	B	1	7870 W 152nd St	64	67	69	4
R-7135	Res.	B	1	7874 W 152nd St	61	64	65	4
Predicted NSA 7 Traffic Noise Impacts							**77**	

Table B-8: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 8								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-8001	School	C	1	La Petite of Stanley	62	63	65	3
R-8002	Church	C	1	Faith Chapel	63	65	67	3
R-8003	Trail	C	1	Indian Creek Trail 1	75	76	78	3
R-8004	Res.	B	2	7701-03 W 149th St	58	59	63	5
R-8005	Res.	B	2	7707-09 W 149th St	59	61	64	4
R-8006	Res.	B	2	7713-15 W 149th St	62	63	66	4
R-8007	Res.	B	2	7719-21 W 149th St	69	71	73	4
R-8008	Res.	B	2	14866-68 Robinson St	71	73	75	4
R-8009	Res.	B	2	14860-62 Robinson St	66	67	70	4
R-8010	Res.	B	2	14854-56 Robinson St	69	70	73	4
R-8011	Res.	B	2	14848-50 Robinson St	71	72	74	4
R-8012	Res.	B	2	14842-44 Robinson St	70	70	74	4
R-8013	Res.	B	2	14836-38 Robinson St	69	69	73	4
R-8014	Res.	B	2	14830-32 Robinson St	68	68	72	5
R-8015	Res.	B	2	14824-26 Robinson St	69	69	73	5
R-8016	Res.	B	2	14818-20 Robinson St	69	70	74	5
R-8017	Res.	B	2	14812-14 Robinson St	66	66	71	5
R-8018	Res.	B	2	14806-08 Robinson St	64	65	70	6
R-8019	Res.	B	2	14800-02 Robinson St	64	65	70	6
R-8020	Res.	B	2	7742-44 W 148th St	59	60	64	5
R-8021	Res.	B	2	7736-38 W 148th St	58	59	62	4
R-8022	Res.	B	2	7730-32 W 148th St	55	55	59	4
R-8023	Res.	B	2	7724-26 W 148th St	54	54	57	3
R-8024	Res.	B	2	7700-02 W 149th St	57	58	61	4
R-8025	Res.	B	2	7706-08 W 149th St	58	59	62	4
R-8026	Res.	B	2	14849-51 Robinson St	59	60	63	4
R-8027	Res.	B	2	14843-45 Robinson St	61	62	65	4
R-8028	Res.	B	2	14837-39 Robinson St	61	62	65	4
R-8029	Res.	B	2	14831-33 Robinson St	60	61	64	4
R-8030	Res.	B	2	14825-27 Robinson St	60	61	64	4
R-8031	Res.	B	2	14819-21 Robinson St	60	61	64	4
R-8032	Res.	B	2	14813-15 Robinson St	60	60	64	4
R-8033	Res.	B	2	14807-09 Robinson St	59	60	63	4
R-8034	Res.	B	2	14801-03 Robinson St	58	58	62	5
R-8035	Res.	B	2	7725-27 W 148th St	57	57	61	4
R-8036	Res.	B	2	7719-21 W 148th St	54	54	58	4
R-8037	Res.	B	2	14864-66 Newton St	54	54	56	2

Table B-8: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 8								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-8038	Res.	B	2	14858-60 Newton St	55	56	58	4
R-8039	Res.	B	2	14852-54 Newton St	54	55	58	4
R-8040	Res.	B	2	14846-48 Newton St	54	55	58	4
R-8041	Res.	B	2	14828-30 Newton St	55	56	59	4
R-8042	Res.	B	2	14822-24 Newton St	55	56	59	4
R-8043	Res.	B	2	14816-18 Newton St	54	54	57	3
R-8044	Res.	B	1	7813 W 147th Ter	54	54	57	3
R-8045	Res.	B	1	7817 W 147th Ter	54	54	58	4
R-8046	Res.	B	1	7821 W 147th Ter	55	56	59	4
R-8047	Res.	B	1	7825 W 147th Ter	57	58	61	4
R-8048	Res.	B	1	7829 W 147th Ter	59	60	64	5
R-8049	Res.	B	1	7833 W 147th Ter	61	62	67	5
R-8050	Trail	C	1	Indian Creek Trail 2	63	63	68	5
R-8051	Res.	B	1	7828 W 147th Ter	64	64	69	6
R-8052	Res.	B	1	7824 W 147th Ter	60	60	65	6
R-8053	Res.	B	1	7820 W 147th Ter	57	58	62	5
R-8054	Res.	B	1	7816 W 147th Ter	56	56	59	4
R-8055	Res.	B	1	7812 W 147th Ter	54	55	58	4
R-8056	Res.	B	1	14720 Robinson St	54	54	57	3
R-8057	Res.	B	1	14716 Robinson St	55	56	59	4
R-8058	Res.	B	1	14712 Robinson St	57	57	61	4
R-8059	Res.	B	1	14708 Robinson St	59	59	64	5
R-8060	Res.	B	1	14704 Robinson St	61	62	67	6
R-8061	Res.	B	1	14700 Robinson St	64	65	71	6
R-8062	Trail	C	1	Indian Creek Trail 3	63	64	68	5
R-8063	Res.	B	1	7736 W 145th St	61	62	66	5
R-8064	Res.	B	1	7732 W 145th St	60	60	64	4
R-8065	Res.	B	1	7728 W 145th St	57	58	61	4
R-8066	Res.	B	1	7724 W 145th St	55	56	59	4
R-8067	Res.	B	1	7720 W 145th St	54	55	58	4
R-8068	Res.	B	1	7716 W 145th St	54	54	56	2
R-8069	Res.	B	1	7712 W 145th St	54	54	55	1
R-8070	Res.	B	1	14713 Robinson St	54	54	56	2
R-8071	Res.	B	1	14709 Robinson St	54	55	58	3
R-8072	Res.	B	1	14705 Robinson St	56	57	60	4
R-8073	Res.	B	1	14701 Robinson St	58	59	62	4
R-8074	Res.	B	1	14513 Robinson St	62	63	68	6

Table B-8: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 8								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-8075	Res.	B	1	14509 Robinson St	63	64	69	6
R-8076	Res.	B	1	14505 Robinson St	62	63	67	5
R-8077	Res.	B	1	14501 Robinson St	61	61	66	5
R-8078	Res.	B	1	7729 W 145th St	59	60	64	5
R-8079	Res.	B	1	7725 W 145th St	56	57	60	4
R-8080	Res.	B	1	7721 W 145th St	55	55	59	4
R-8081	Res.	B	1	7717 W 145th St	54	54	57	3
R-8082	Res.	B	1	7731 W 145th Ter	54	54	56	2
R-8083	Res.	B	1	7735 W 145th Ter	56	56	59	3
R-8084	Res.	B	1	7734 W 145th Ter	56	56	59	3
R-8085	Res.	B	1	7730 W 145th Ter	55	56	58	3
R-8086	Res.	B	1	7726 W 145th Ter	54	54	56	2
R-8087	Res.	B	1	7722 W 145th Ter	54	54	55	1
R-8088	Res.	B	1	7803 W 144th Ter	54	54	57	3
R-8089	Res.	B	1	7807 W 144th Ter	54	54	57	3
R-8090	Res.	B	1	7811 W 144th Ter	55	55	58	4
R-8091	Res.	B	1	7815 W 144th Ter	55	55	58	4
R-8092	Res.	B	1	7819 W 144th Ter	55	55	59	4
R-8093	Res.	B	1	7823 W 144th Ter	56	57	60	4
R-8094	Res.	B	1	7827 W 144th Ter	58	59	63	5
R-8095	Res.	B	1	7831 W 144th Ter	61	61	67	6
R-8096	Trail	C	1	Indian Creek Trail 4	66	66	71	5
R-8097	Res.	B	1	7822 W 144th Ter	62	62	66	5
R-8098	Res.	B	1	7818 W 144th Ter	55	56	59	4
R-8099	Res.	B	1	7814 W 144th Ter	54	55	58	4
R-8100	Res.	B	1	7810 W 144th Ter	54	54	57	3
R-8101	Res.	B	1	7806 W 144th Ter	54	54	55	1
R-8102	Res.	B	1	7802 W 144th Ter	54	54	54	0
R-8103	Res.	B	1	7722 W 144th Ter	54	54	54	0
R-8104	Res.	B	1	7801 W 143rd Pl	54	54	55	1
R-8105	Res.	B	1	7805 W 143rd Pl	54	54	56	2
R-8106	Res.	B	1	7809 W 143rd Pl	54	55	59	4
R-8107	Res.	B	1	7813 W 143rd Pl	55	55	59	5
R-8108	Res.	B	1	7817 W 143rd Pl	55	56	60	5
R-8109	Res.	B	1	7821 W 143rd Pl	56	57	61	4
R-8110	Res.	B	1	7825 W 143rd Pl	67	67	71	4
R-8111	Trail	C	1	Indian Creek Trail 5	76	76	78	3

Table B-8: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 8								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-8112	Res.	B	1	7820 W 143rd Pl	71	71	74	4
R-8113	Res.	B	1	7816 W 143rd Pl	68	68	72	5
R-8114	Res.	B	1	7812 W 143rd Pl	66	67	71	5
R-8115	Res.	B	1	7808 W 143rd Pl	65	66	70	5
R-8116	Res.	B	1	7804 W 143rd Pl	64	64	68	5
R-8117	Res.	B	1	7800 W 143rd Pl	63	63	67	5
R-8118	Res.	B	1	14312 Robinson St	64	65	69	4
R-8119	Res.	B	1	14308 Robinson St	65	65	69	4
R-8120	Res.	B	1	14304 Robinson St	66	67	71	4
R-8121	Res.	B	1	14300 Robinson St	69	69	72	3
R-8122	Res.	B	1	14301 Robinson St	64	65	67	3
R-8123	Res.	B	1	14305 Robinson St	61	61	65	5
Predicted NSA 8 Traffic Noise Impacts							**57**	

Table B-9: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 9								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-9001	Sport	C	1	Blue Valley Rec 1	63	63	66	3
R-9002	Sport	C	1	Blue Valley Rec 2	62	63	65	3
R-9003	Trail	C	1	Indian Creek Trail 6	71	72	71	0
R-9004	Trail	C	1	Indian Creek Trail 7	72	73	73	0
R-9005	Res.	B	6	Madison Bldg 7	54	54	55	1
R-9006	Res.	B	6	Madison Bldg 8	56	57	61	5
R-9007	Res.	B	6	Madison Bldg 9	56	57	61	5
R-9008	Res.	B	6	Madison Bldg 10	64	65	68	4
R-9009	Res.	B	6	Madison Bldg 11	72	73	74	2
R-9010	Res.	B	8	Madison Bldg 12	57	57	59	3
R-9011	Res.	B	6	Madison Bldg 13	68	68	70	3
R-9012	Res.	B	6	Madison Bldg 14	54	54	58	4
R-9013	Res.	B	8	Madison Bldg 15	54	54	54	0
R-9014	Res.	B	6	Madison Bldg 16	54	54	54	0
R-9015	Res.	B	8	Madison Bldg 18	55	56	58	4
R-9016	Res.	B	6	Madison Bldg 19	62	63	64	2
R-9017	Res.	B	6	Madison Bldg 20	69	70	70	1
R-9018	Res.	B	8	Madison Bldg 21	56	56	59	3
R-9019	Res.	B	8	Madison Bldg 22	68	69	69	1
R-9020	Res.	B	6	Madison Bldg 23	54	54	54	0
R-9021	Res.	B	8	Madison Bldg 24	54	54	54	0
R-9022	Res.	B	4	Madison Bldg 25	54	54	56	2
R-9023	Res.	B	4	Madison Bldg 26	54	55	57	3
R-9024	Park	C	1	Madison Dog Park	56	57	59	3
R-9025	Trail	C	1	Indian Creek Trail 8	72	73	77	4
R-9026	Res.	B	3	Fountain View A 1st	58	59	63	5
R-9027	Res.	B	3	Fountain View A 2nd	63	63	66	3
R-9028	Res.	B	3	Fountain View A 3rd	65	65	67	2
R-9029	Res.	B	3	Fountain View A 4th	65	65	67	2
R-9030	Res.	B	3	Fountain View A 5th	65	66	68	3
R-9031	Res.	B	3	Fountain View B 1st	60	60	65	5
R-9032	Res.	B	3	Fountain View B 2nd	65	65	69	4
R-9033	Res.	B	3	Fountain View B 3rd	67	68	70	3
R-9034	Res.	B	3	Fountain View B 4th	68	68	70	3
R-9035	Res.	B	3	Fountain View B 5th	68	69	71	3
R-9036	Res.	B	1	Fountain View C 1st	60	60	64	4
R-9037	Res.	B	1	Fountain View C 2nd	64	65	68	4

Table B-9: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 9								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-9038	Res.	B	1	Fountain View C 3rd	66	67	69	3
R-9039	Res.	B	1	Fountain View C 4th	67	67	69	3
R-9040	Res.	B	1	Fountain View C 5th	67	67	70	3
R-9041	Res.	B	2	Fountain View D 1st	60	61	65	5
R-9042	Res.	B	2	Fountain View D 2nd	66	67	70	4
R-9043	Res.	B	2	Fountain View D 3rd	68	68	70	3
R-9044	Res.	B	2	Fountain View D 4th	68	69	71	3
R-9045	Res.	B	2	Fountain View D 5th	68	69	71	3
R-9046	Res.	B	1	Fountain View E 1st	62	63	68	5
R-9047	Res.	B	1	Fountain View E 2nd	69	70	72	3
R-9048	Res.	B	1	Fountain View E 3rd	70	71	73	3
R-9049	Res.	B	1	Fountain View E 4th	70	71	73	3
R-9050	Res.	B	1	Fountain View E 5th	70	71	73	3
R-9051	Res.	B	1	Fountain View F 1st	58	59	62	4
R-9052	Res.	B	1	Fountain View F 2nd	62	63	67	5
R-9053	Res.	B	1	Fountain View F 3rd	66	67	70	4
R-9054	Res.	B	1	Fountain View F 4th	68	70	72	3
R-9055	Res.	B	1	Fountain View F 5th	69	70	72	3
R-9056	Res.	B	1	Fountain View F 6th	70	71	73	3
R-9057	Res.	B	2	Fountain View G 1st	54	55	58	4
R-9058	Res.	B	2	Fountain View G 2nd	57	58	62	5
R-9059	Res.	B	2	Fountain View G 3rd	61	62	66	5
R-9060	Res.	B	2	Fountain View G 4th	64	65	68	4
R-9061	Res.	B	2	Fountain View G 5th	66	67	70	4
R-9062	Res.	B	2	Fountain View G 6th	67	68	70	4
R-9063	Res.	B	2	Tallgrass New 1st	60	61	66	5
R-9064	Res.	B	2	Tallgrass New 2nd	64	65	68	3
R-9065	Res.	B	2	Tallgrass New 3rd	66	66	69	3
R-9066	Res.	B	2	Tallgrass New 4th	66	67	69	3
R-9067	Res.	B	2	Tallgrass New 5th	67	68	70	3
R-9068	Res.	B	2	Tallgrass New B 1st	60	61	66	6
R-9069	Res.	B	2	Tallgrass New B 2nd	66	66	69	3
R-9070	Res.	B	2	Tallgrass New B 3rd	68	68	71	3
R-9071	Res.	B	2	Tallgrass New B 4th	69	70	72	3
R-9072	Res.	B	2	Tallgrass New B 5th	69	70	72	3
R-9073	Res.	B	2	Tallgrass New C 1st	60	62	64	4
R-9074	Res.	B	2	Tallgrass New C 2nd	65	66	68	3

Table B-9: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 9								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-9075	Res.	B	2	Tallgrass New C 3rd	67	68	70	3
R-9076	Res.	B	2	Tallgrass New C 4th	68	70	72	3
R-9077	Res.	B	2	Tallgrass New C 5th	69	71	72	3
R-9078	Res.	B	2	Tallgrass New D 1st	59	60	63	4
R-9079	Res.	B	2	Tallgrass New D 2nd	64	65	67	3
R-9080	Res.	B	2	Tallgrass New D 3rd	65	67	68	3
R-9081	Res.	B	2	Tallgrass New D 4th	67	68	70	3
R-9082	Res.	B	2	Tallgrass New D 5th	67	68	70	3
R-9083	Res.	B	3	Tallgrass New E 1st	57	58	62	5
R-9084	Res.	B	3	Tallgrass New E 2nd	62	63	66	4
R-9085	Res.	B	3	Tallgrass New E 3rd	64	66	67	3
R-9086	Res.	B	3	Tallgrass New E 4th	65	67	69	3
R-9087	Res.	B	3	Tallgrass New E 5th	66	68	70	3
R-9088	Trail	C	1	Indian Creek Trail 9	72	73	75	3
R-9089	Res.	B	1	Ranch Prairie Bld 1A1	64	65	67	3
R-9090	Res.	B	2	Ranch Prairie Bld 1A2	66	68	69	2
R-9091	Res.	B	1	Ranch Prairie Bld 1A3	67	68	69	2
R-9092	Res.	B	1	Ranch Prairie Bld 1B2	67	68	69	2
R-9093	Res.	B	1	Ranch Prairie Bld 1B3	67	69	69	2
R-9094	Res.	B	1	Ranch Prairie Bld 1C1	65	66	67	3
R-9095	Res.	B	2	Ranch Prairie Bld 1C2	67	68	69	2
R-9096	Res.	B	1	Ranch Prairie Bld 1C3	67	69	69	2
R-9097	Res.	B	1	Ranch Prairie Bld 2A1	61	63	**65**	4
R-9098	Res.	B	2	Ranch Prairie Bld 2A2	64	66	67	3
R-9099	Res.	B	1	Ranch Prairie Bld 2A3	66	67	68	2
R-9100	Res.	B	1	Ranch Prairie Bld 2B2	65	66	67	3
R-9101	Res.	B	1	Ranch Prairie Bld 2B3	66	68	68	2
R-9102	Res.	B	1	Ranch Prairie Bld 2C1	63	64	66	3
R-9103	Res.	B	1	Ranch Prairie Bld 2C2	66	67	68	2
R-9104	Res.	B	1	Ranch Prairie Bld 2C3	67	68	69	2
R-9105	Res.	B	1	Ranch Prairie Bld 5A1	54	54	**54**	0
R-9106	Res.	B	1	Ranch Prairie Bld 5A2	55	56	**58**	4
R-9107	Res.	B	1	Ranch Prairie Bld 5A3	59	61	**62**	3
R-9108	Res.	B	1	Ranch Prairie Bld 5B2	55	57	**59**	4
R-9109	Res.	B	1	Ranch Prairie Bld 5B3	60	62	**63**	3
R-9110	Res.	B	1	Ranch Prairie Bld 5C1	54	54	**57**	3
R-9111	Res.	B	1	Ranch Prairie Bld 5C2	59	60	**64**	4

Table B-9: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 9								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-9112	Res.	B	1	Ranch Prairie Bld 5C3	64	65	**67**	3
R-9113	Res.	B	1	Ranch Prairie Bld 5D1	61	62	**65**	4
R-9114	Res.	B	1	Ranch Prairie Bld 5D2	66	67	**69**	3
R-9115	Res.	B	2	Ranch Prairie Bld 5E1	60	61	**64**	4
R-9116	Res.	B	2	Ranch Prairie Bld 5E2	64	66	**67**	3
R-9117	Res.	B	2	Ranch Prairie Bld 5E3	66	67	**68**	2
R-9118	Res.	B	1	Ranch Prairie Bld 5F1	60	61	**64**	4
R-9119	Res.	B	1	Ranch Prairie Bld 5F2	64	65	**66**	3
R-9120	Res.	B	1	Ranch Prairie Bld 5G2	68	69	**70**	2
R-9121	Res.	B	2	Ranch Prairie Bld 6A1	71	72	**74**	3
R-9122	Res.	B	2	Ranch Prairie Bld 6A2	73	74	**75**	3
R-9123	Res.	B	2	Ranch Prairie Bld 6A3	73	74	**76**	3
R-9124	Res.	B	1	Ranch Prairie Bld 6B1	67	68	**71**	4
R-9125	Res.	B	1	Ranch Prairie Bld 6B2	70	71	**72**	3
R-9126	Res.	B	1	Ranch Prairie Bld 6C1	68	70	**71**	2
R-9127	Res.	B	1	Ranch Prairie Bld 6C2	69	71	**72**	2
R-9128	Res.	B	1	Ranch Prairie Bld 7A2	65	66	**68**	3
R-9129	Res.	B	2	Ranch Prairie Bld 7B1	62	63	**65**	4
R-9130	Res.	B	3	Ranch Prairie Bld 7B2	64	66	**67**	3
R-9131	Res.	B	3	Ranch Prairie Bld 7B3	66	67	**68**	3
R-9132	Res.	B	1	Ranch Prairie Bld 7C2	65	66	**68**	3
R-9133	Res.	B	1	Ranch Prairie Bld 8A1	54	54	**55**	1
R-9134	Res.	B	1	Ranch Prairie Bld 8A2	55	56	**58**	3
R-9135	Res.	B	2	Ranch Prairie Bld 8B1	55	56	**58**	4
R-9136	Res.	B	2	Ranch Prairie Bld 8B2	58	59	**61**	3
R-9137	Res.	B	2	Ranch Prairie Bld 8B3	62	64	**65**	3
R-9138	Park	C	2	Ranch Prairie Bld 8B3	62	64	**57**	2
Predicted NSA 9 Traffic Noise Impacts							**183**	

Table B-10: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 10								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-10001	Res.	B	1	8035 W 149th Ter	56	57	58	3
R-10002	Res.	B	1	8031 W 149th Ter	57	59	60	3
R-10003	Res.	B	1	8027 W 149th Ter	56	58	59	3
R-10004	Res.	B	1	8023 W 149th Ter	56	58	60	3
R-10005	Res.	B	1	8019 W 149th Ter	59	61	63	3
R-10006	Res.	B	1	8015 W 149th Ter	59	61	63	4
R-10007	Res.	B	1	8011 W 149th Ter	64	66	66	2
R-10008	Res.	B	1	8007 W 149th Ter	67	69	70	3
R-10009	Res.	B	1	8003 W 149th Ter	69	71	72	3
R-10010	Res.	B	1	8000 W 149th Ter	68	70	71	3
R-10011	Res.	B	1	8004 W 149th Ter	64	66	68	4
R-10012	Res.	B	1	8008 W 149th Ter	61	63	66	4
R-10013	Res.	B	1	8012 W 149th Ter	59	61	64	4
R-10014	Res.	B	1	8016 W 149th Ter	58	60	62	4
R-10015	Res.	B	1	8020 W 149th Ter	57	59	61	4
R-10016	Res.	B	1	8024 W 149th Ter	56	58	59	3
R-10017	Res.	B	1	8025 W 149th St	56	57	59	3
R-10018	Res.	B	1	8021 W 149th St	57	58	60	4
R-10019	Res.	B	1	8017 W 149th St	58	60	62	4
R-10020	Res.	B	1	8013 W 149th St	59	61	63	4
R-10021	Res.	B	1	8009 W 149th St	62	63	65	4
R-10022	Res.	B	1	8005 W 149th St	67	69	71	4
R-10023	Res.	B	1	8001 W 149th St	70	72	74	4
R-10024	Res.	B	1	8002 W 149th St	70	72	74	4
R-10025	Res.	B	1	8006 W 149th St	68	70	72	4
R-10026	Res.	B	1	8010 W 149th St	63	65	68	5
R-10027	Res.	B	1	8014 W 149th St	61	63	66	5
R-10028	Res.	B	1	8018 W 149th St	59	61	65	5
R-10029	Res.	B	1	8022 W 149th St	58	59	63	5
R-10030	Res.	B	1	8026 W 149th St	56	58	61	5
R-10031	Res.	B	1	14821 Hardy St	56	57	60	5
R-10032	Res.	B	1	8019 W 148th Ter	57	59	62	5
R-10033	Res.	B	1	8015 W 148th Ter	58	60	63	5
R-10034	Res.	B	1	8011 W 148th Ter	62	63	67	5
R-10035	Res.	B	1	8007 W 148th Ter	67	69	72	4
R-10036	Res.	B	1	8003 W 148th Ter	72	73	75	3
R-10037	Res.	B	1	8002 W 148th Ter	71	73	75	4

Table B-10: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 10								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-10038	Res.	B	1	8006 W 148th Ter	67	68	72	5
R-10039	Res.	B	1	8010 W 148th Ter	62	63	66	5
R-10040	Res.	B	1	8014 W 148th Ter	59	60	64	5
R-10041	Res.	B	1	8018 W 148th Ter	57	58	62	5
R-10042	Res.	B	1	14817 Hardy St	56	58	61	4
R-10043	Res.	B	1	14813 Hardy St	55	56	60	5
R-10044	Res.	B	1	14809 Hardy St	56	56	60	5
R-10045	Res.	B	1	8017 W 148th St	57	58	61	5
R-10046	Res.	B	1	8013 W 148th St	58	59	63	5
R-10047	Res.	B	1	8009 W 148th St	61	62	66	5
R-10048	Res.	B	1	8005 W 148th St	67	67	71	5
R-10049	Res.	B	1	8001 W 148th St	72	72	75	4
R-10050	Res.	B	1	8000 W 148th St	70	71	74	4
R-10051	Res.	B	1	8004 W 148th St	66	67	71	5
R-10052	Res.	B	1	8008 W 148th St	60	61	65	5
R-10053	Res.	B	1	8012 W 148th St	58	58	62	4
R-10054	Res.	B	1	8016 W 148th St	56	57	60	4
R-10055	Res.	B	1	14805 Hardy St	56	57	60	4
R-10056	Res.	B	1	14801 Hardy St	55	56	60	4
R-10057	Res.	B	1	14731 Hardy St	55	56	60	5
R-10058	Res.	B	1	14727 Hardy St	55	56	60	5
R-10059	Res.	B	1	8019 W 147th Ter	57	57	61	5
R-10060	Res.	B	1	8015 W 147th Ter	58	58	63	5
R-10061	Res.	B	1	8011 W 147th Ter	61	61	66	5
R-10062	Res.	B	1	8007 W 147th Ter	66	66	71	5
R-10063	Res.	B	1	8003 W 147th Ter	68	69	73	5
R-10064	Res.	B	1	8002 W 147th Ter	67	68	72	5
R-10065	Res.	B	1	8006 W 147th Ter	60	61	64	5
R-10066	Res.	B	1	8010 W 147th Ter	58	58	62	5
R-10067	Res.	B	1	8014 W 147th Ter	55	56	60	5
R-10068	Res.	B	1	8018 W 147th Ter	54	54	58	4
R-10069	Res.	B	1	8022 W 147th Ter	54	55	58	4
R-10070	Res.	B	1	8021 W 147th St	54	54	58	4
R-10071	Res.	B	1	8017 W 147th St	55	55	59	5
R-10072	Res.	B	1	8013 W 147th St	56	57	61	5
R-10073	Res.	B	1	8009 W 147th St	58	59	63	4
R-10074	Res.	B	1	8005 W 147th St	63	64	67	4

Table B-10: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 10								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-10075	Res.	B	1	8001 W 147th St	69	70	75	6
R-10076	Res.	B	1	8000 W 147th St	69	70	74	5
R-10077	Res.	B	1	8004 W 147th St	65	65	70	6
R-10078	Res.	B	1	8008 W 147th St	61	61	66	6
R-10079	Res.	B	1	8012 W 147th St	58	58	63	5
R-10080	Res.	B	1	8016 W 147th St	56	56	60	4
R-10081	Res.	B	1	8020 W 147th St	54	54	58	4
R-10082	Res.	B	1	8023 W 146th Ter	54	54	56	2
R-10083	Res.	B	1	8019 W 146th Ter	54	54	58	4
R-10084	Res.	B	1	8015 W 146th Ter	56	57	60	4
R-10085	Res.	B	1	8011 W 146th Ter	59	59	63	5
R-10086	Res.	B	1	8007 W 146th Ter	64	65	70	6
R-10087	Res.	B	1	8003 W 146th Ter	69	69	74	6
R-10088	Res.	B	1	8002 W 146th Ter	69	70	74	5
R-10089	Res.	B	1	8006 W 146th Ter	63	64	69	6
R-10090	Res.	B	1	8010 W 146th Ter	58	58	63	5
R-10091	Res.	B	1	8014 W 146th Ter	55	55	59	5
R-10092	Res.	B	1	8018 W 146th Ter	54	54	58	4
R-10093	Res.	B	1	8022 W 146th Ter	54	54	56	2
R-10094	Res.	B	1	8025 W 146th St	54	54	54	0
R-10095	Res.	B	1	8021 W 146th St	54	54	55	1
R-10096	Res.	B	1	8017 W 146th St	54	54	57	3
R-10097	Res.	B	1	8013 W 146th St	54	55	58	4
R-10098	Res.	B	1	8009 W 146th St	58	58	62	5
R-10099	Res.	B	1	8005 W 146th St	63	64	69	6
R-10100	Res.	B	1	8001 W 146th St	69	70	74	5
R-10101	Res.	B	1	8000 W 146th St	68	68	73	5
R-10102	Res.	B	1	8004 W 146th St	61	62	67	6
R-10103	Res.	B	1	8008 W 146th St	58	58	62	5
R-10104	Res.	B	1	8012 W 146th St	55	55	60	5
R-10105	Res.	B	1	8016 W 146th St	54	54	58	4
R-10106	Res.	B	1	8020 W 146th St	54	54	55	1
R-10107	Res.	B	1	8024 W 146th St	54	54	54	0
R-10108	Res.	B	1	8111 W 145th Ter	54	54	55	1
R-10109	Res.	B	1	8107 W 145th Ter	54	54	56	2
R-10110	Res.	B	1	8103 W 145th Ter	54	54	58	4
R-10111	Res.	B	1	8015 W 145th Ter	55	55	60	5

Table B-10: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 10								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-10112	Res.	B	1	8011 W 145th Ter	58	58	63	5
R-10113	Res.	B	1	8007 W 145th Ter	63	63	69	6
R-10114	Res.	B	1	8003 W 145th Ter	68	69	74	6
R-10115	Res.	B	1	8002 W 145th Ter	69	69	75	6
R-10116	Res.	B	1	8006 W 145th Ter	65	65	72	7
R-10117	Res.	B	1	8010 W 145th Ter	59	60	65	6
R-10118	Res.	B	1	8014 W 145th Ter	56	57	61	5
R-10119	Res.	B	1	8102 W 145th Ter	55	55	59	5
R-10120	Res.	B	1	8106 W 145th Ter	54	54	57	3
R-10121	Res.	B	1	8110 W 145th Ter	54	54	56	2
R-10122	Res.	B	1	8109 W 145th St	54	54	54	0
R-10123	Res.	B	1	8105 W 145th St	54	54	57	3
R-10124	Res.	B	1	8101 W 145th St	54	55	59	5
R-10125	Res.	B	1	8013 W 145th St	56	57	61	5
R-10126	Res.	B	1	8009 W 145th St	59	60	66	7
R-10127	Res.	B	1	8005 W 145th St	63	64	70	7
R-10128	Res.	B	1	8001 W 145th St	68	68	73	6
R-10129	Res.	B	1	8000 W 145th St	68	69	74	5
R-10130	Res.	B	1	8004 W 145th St	62	63	68	5
R-10131	Res.	B	1	8008 W 145th St	57	57	61	4
R-10132	Res.	B	1	8012 W 145th St	54	54	57	3
R-10133	Res.	B	1	8100 W 145th St	54	54	55	1
R-10134	Res.	B	1	8104 W 145th St	54	54	54	0
R-10135	Res.	B	1	8108 W 145th St	54	54	54	0
R-10136	Res.	B	1	8111 W 144th Pl	54	54	54	0
R-10137	Res.	B	1	8107 W 144th Pl	54	54	54	0
R-10138	Res.	B	1	8103 W 144th Pl	54	54	55	1
R-10139	Res.	B	1	8017 W 144th Pl	54	54	58	4
R-10140	Res.	B	1	8013 W 144th Pl	56	57	61	4
R-10141	Res.	B	1	8009 W 144th Pl	60	60	64	5
R-10142	Res.	B	1	8005 W 144th Pl	65	65	69	5
R-10143	Res.	B	1	8001 W 144th Pl	68	68	72	5
R-10144	Res.	B	1	8000 W 144th Pl	67	67	70	4
R-10145	Res.	B	1	8004 W 144th Pl	62	63	66	4
R-10146	Res.	B	1	8008 W 144th Pl	58	59	62	4
R-10147	Res.	B	1	8012 W 144th Pl	55	55	58	3
R-10148	Res.	B	1	8102 W 144th Pl	54	54	54	0

Table B-10: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 10								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-10149	Res.	B	1	8106 W 144th Pl	54	54	54	0
R-10150	Res.	B	1	8110 W 144th Pl	54	54	54	0
R-10151	Res.	B	1	8109 W 144th Ter	54	54	54	0
R-10152	Res.	B	1	8105 W 144th Ter	54	54	54	0
R-10153	Res.	B	1	8101 W 144th Ter	54	54	54	0
R-10154	Res.	B	1	8019 W 144th Ter	54	54	57	3
R-10155	Res.	B	1	8015 W 144th Ter	55	56	59	4
R-10156	Res.	B	1	8011 W 144th Ter	59	60	64	4
R-10157	Res.	B	1	8007 W 144th Ter	66	67	70	4
R-10158	Res.	B	1	8003 W 144th Ter	70	70	73	3
R-10159	Res.	B	1	8002 W 144th Ter	70	71	72	2
R-10160	Res.	B	1	8006 W 144th Ter	68	69	69	1
R-10161	Res.	B	1	8010 W 144th Ter	66	66	66	0
R-10162	Res.	B	1	8014 W 144th Ter	63	63	63	0
R-10163	Res.	B	1	8018 W 144th Ter	61	62	62	0
R-10164	Res.	B	1	8100 W 144th Ter	60	61	61	1
R-10165	Res.	B	1	8104 W 144th Ter	57	58	58	1
R-10166	Res.	B	1	8108 W 144th Ter	55	55	56	1
R-10167	Res.	B	1	8107 W 144th St	55	56	56	1
R-10168	Res.	B	1	8103 W 144th St	57	57	58	1
R-10169	Res.	B	1	8021 W 144th St	59	59	59	1
R-10170	Res.	B	1	8017 W 144th St	61	61	61	0
R-10171	Res.	B	1	8013 W 144th St	63	63	62	0
R-10172	Res.	B	1	8009 W 144th St	65	65	64	-1
R-10173	Res.	B	1	8005 W 144th St	69	69	67	-2
R-10174	Res.	B	1	8001 W 144th St	68	69	68	0
R-10175	Res.	B	1	8000 W 144th St	68	68	67	0
R-10176	Res.	B	1	8004 W 144th St	66	66	66	0
R-10177	Res.	B	1	8008 W 144th St	65	65	65	0
R-10178	Res.	B	1	8012 W 144th St	63	63	63	0
R-10179	Res.	B	1	8016 W 144th St	61	62	62	1
R-10180	Res.	B	1	8020 W 144th St	60	60	61	1
R-10181	Res.	B	1	8102 W 144th St	58	59	59	1
R-10182	Res.	B	1	8106 W 144th St	57	58	58	1
R-10183	Res.	B	4	8023-8035 143rd Ter	60	61	61	1
R-10184	Res.	B	4	8003-8015 143rd Ter	64	65	65	0
R-10185	Res.	B	4	7919-7931 143rd Ter	67	67	67	0

Table B-10: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 10								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-10186	Res.	B	4	7903-7915 143rd Ter	67	67	67	0
R-10187	Res.	B	5	8018-8034 143rd Ter	54	54	54	0
R-10188	Res.	B	4	8002-8014 143rd Ter	68	68	69	1
Predicted NSA 10 Traffic Noise Impacts							74	

Table B-11: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 11								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-11001	Res.	B	1	7931 W 142nd Ter	64	65	65	1
R-11002	Res.	B	1	7927 W 142nd Ter	64	65	65	1
R-11003	Res.	B	1	7923 W 142nd Ter	63	63	64	1
R-11004	Res.	B	1	7919 W 142nd Ter	62	62	63	1
R-11005	Res.	B	1	7915 W 142nd Ter	65	65	66	1
R-11006	Res.	B	1	7911 W 142nd Ter	66	66	67	1
R-11007	Res.	B	1	7907 W 142nd Ter	66	66	67	1
R-11008	Res.	B	1	7903 W 142nd Ter	65	65	66	1
R-11009	Res.	B	1	14217 Lowell Ave	65	65	67	1
R-11010	Res.	B	1	14213 Lowell Ave	65	65	67	1
R-11011	Res.	B	1	14209 Lowell Ave	65	65	67	2
R-11012	Res.	B	1	14205 Lowell Ave	65	65	66	1
R-11013	Res.	B	1	14201 Lowell Ave	65	65	66	2
R-11014	Res.	B	1	14113 Lowell Ave	64	64	66	2
R-11015	Res.	B	1	14109 Lowell Ave	64	64	65	2
R-11016	Res.	B	1	14105 Lowell St	63	63	65	2
R-11017	Res.	B	1	7910 W 142nd Ter	61	62	63	2
R-11018	Res.	B	1	7906 W 142nd Ter	62	62	64	2
R-11019	Res.	B	1	7902 W 142nd Ter	63	63	64	1
R-11020	Res.	B	1	14212 Lowell Ave	63	63	65	2
R-11021	Res.	B	1	14208 Lowell Ave	63	63	65	1
R-11022	Res.	B	1	14204 Lowell Ave	63	63	65	1
R-11023	Res.	B	1	14200 Lowell Ave	62	63	64	2
R-11024	Res.	B	1	7905 W 142nd St	59	59	61	1
R-11025	Res.	B	1	7909 W 142nd St	58	58	59	2
R-11026	Res.	B	1	7913 W 142nd St	58	58	60	2
R-11027	Res.	B	1	7920 W 142nd St	58	58	60	2
R-11028	Res.	B	1	7916 W 142nd St	58	59	60	2
R-11029	Res.	B	1	7912 W 142nd St	59	59	61	2
R-11030	Res.	B	1	7908 W 142nd St	60	60	62	2
R-11031	Res.	B	1	7904 W 142nd St	61	61	62	1
R-11032	Res.	B	1	7900 W 142nd St	62	62	63	1
R-11033	Res.	B	1	7925 W 140th Ter	55	55	57	2
R-11034	Res.	B	1	7921 W 140th Ter	59	59	61	2
R-11035	Res.	B	1	7917 W 140th Ter	60	61	63	2
R-11036	Res.	B	1	7913 W 140th Ter	62	62	64	2
R-11037	Res.	B	1	7909 W 140th Ter	63	63	65	2

Table B-11: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 11								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-11038	Res.	B	1	7905 W 140th Ter	65	65	66	2
R-11039	Res.	B	1	7901 W 140th Ter	66	66	67	1
R-11040	Res.	B	1	7928 W 140th Ter	54	54	54	0
R-11041	Res.	B	1	7924 W 140th Ter	60	60	62	2
R-11042	Res.	B	1	7920 W 140th Ter	62	62	64	2
R-11043	Res.	B	1	7916 W 140th Ter	62	62	64	2
R-11044	Res.	B	1	7912 W 140th Ter	60	60	63	3
R-11045	Res.	B	1	7908 W 140th Ter	63	63	65	2
R-11046	Res.	B	1	7904 W 140th Ter	64	65	67	2
R-11047	Res.	B	1	7900 W 140th Ter	67	67	69	2
R-11048	Res.	B	1	14012 Lowell Ave	68	68	70	2
R-11049	Res.	B	1	14008 Lowell Ave	67	68	69	1
R-11050	Res.	B	1	7901 W 140th St	66	66	68	1
R-11051	Res.	B	1	7905 W 140th St	60	60	62	2
R-11052	Res.	B	1	7909 W 140th St	59	59	61	2
R-11053	Res.	B	1	7913 W 140th St	58	59	61	2
R-11054	Res.	B	1	7912 W 140th St	58	59	61	2
R-11055	Res.	B	1	7908 W 140th St	61	61	63	3
R-11056	Res.	B	1	7904 W 140th St	60	61	63	3
R-11057	Res.	B	1	13910 Lowell Ave	58	58	61	3
R-11058	Res.	B	1	13906 Lowell Ave	57	57	59	3
R-11059	Res.	B	1	13902 Lowell Ave	56	57	59	3
R-11060	Res.	B	1	14009 Lowell Ave	72	72	72	0
R-11061	Res.	B	1	14005 Lowell Ave	69	69	71	2
R-11062	Res.	B	1	14001 Lowell Ave	67	67	70	3
R-11063	Res.	B	1	13915 Lowell Ave	65	66	68	3
R-11064	Res.	B	1	13911 Lowell Ave	63	63	65	3
R-11065	Res.	B	1	13907 Lowell Ave	61	61	64	3
R-11066	Res.	B	1	13903 Lowell Ave	59	60	62	3
R-11067	Res.	B	1	13901 Lowell Ave	58	58	61	4
R-11068	Res.	B	1	8106 W 139th St	57	58	61	4
R-11069	Res.	B	1	13834 Hardy St	59	59	63	4
R-11070	Res.	B	1	13827 Hardy St	61	62	65	3
R-11071	Res.	B	1	13823 Hardy St	59	59	63	4
R-11072	Res.	B	1	7839 W 139th St	58	58	62	4
R-11073	Res.	B	1	7835 W 139th Ter	59	60	62	3
R-11074	Res.	B	1	7831 W 139th Ter	62	62	65	3

Table B-11: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 11								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-11075	Res.	B	1	7827 W 139th Ter	66	67	69	3
R-11076	Res.	B	1	7823 W 139th Ter	72	72	74	2
R-11077	Res.	B	1	7824 W 139th Ter	74	74	76	2
R-11078	Res.	B	1	7828 W 139th Ter	70	70	72	3
R-11079	Res.	B	1	7832 W 139th Ter	65	65	67	2
R-11080	Res.	B	1	7836 W 139th Ter	62	62	64	3
R-11081	Res.	B	1	8105 W 139th St	60	61	64	3
R-11082	Res.	B	1	7835 W 139th St	62	62	65	3
R-11083	Res.	B	1	7831 W 139th St	62	62	64	3
R-11084	Res.	B	1	7827 W 139th St	65	65	67	2
R-11085	Res.	B	1	7823 W 139th St	71	71	72	1
R-11086	Res.	B	1	7819 W 139th St	74	74	74	0
R-11087	Res.	B	1	7815 W 139th St	72	72	72	0
R-11088	Res.	B	1	7811 W 139th St	68	68	69	1
R-11089	Res.	B	1	13844 Craig St	63	63	65	3
R-11090	Res.	B	1	13840 Craig St	60	60	63	3
R-11091	Res.	B	1	13836 Craig St	58	59	62	4
R-11092	Res.	B	1	8003 W 138th Ter	56	57	60	4
R-11093	Res.	B	1	8004 W 138th Ter	58	58	61	4
R-11094	Res.	B	1	13816 Craig St	59	59	62	3
R-11095	Res.	B	1	13812 Craig St	59	60	62	3
R-11096	Res.	B	1	13808 Craig St	59	59	63	5
R-11097	Res.	B	1	13804 Craig St	60	61	64	3
R-11098	Res.	B	1	13805 Craig St	60	61	64	4
R-11099	Res.	B	1	13809 Craig St	62	63	66	4
R-11100	Res.	B	1	13813 Craig St	63	63	66	4
R-11101	Res.	B	1	13817 Craig St	63	63	67	4
R-11102	Res.	B	1	13821 Craig St	63	64	67	4
R-11103	Res.	B	1	13825 Craig St	64	64	67	4
R-11104	Res.	B	1	13829 Craig St	64	65	67	3
R-11105	Res.	B	1	13833 Craig St	65	66	68	3
R-11106	Res.	B	1	13835 Craig St	66	66	68	2
R-11107	Res.	B	1	13836 Lowell Ave	68	68	69	1
R-11108	Res.	B	1	13832 Lowell Ave	68	68	70	2
R-11109	Res.	B	1	13828 Lowell Ave	68	68	70	2
R-11110	Res.	B	1	13824 Lowell Ave	67	68	70	3
R-11111	Res.	B	1	13820 Lowell Ave	66	67	69	3

Table B-11: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 11								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-11112	Res.	B	1	13816 Lowell Ave	66	66	69	3
R-11113	Res.	B	1	13812 Lowell Ave	66	66	69	3
R-11114	Res.	B	1	13808 Lowell Ave	66	67	68	2
R-11115	Res.	B	1	7903 W 138th St	67	68	70	3
R-11116	Res.	B	1	7907 W 138th St	61	62	64	3
R-11117	Res.	B	1	7911 W 138th St	60	60	63	3
R-11118	Res.	B	1	7915 W 138th St	58	59	61	3
R-11119	Res.	B	1	7920 W 138th St	54	55	57	3
R-11120	Res.	B	1	7916 W 138th St	56	57	58	3
R-11121	Res.	B	1	7912 W 138th St	57	58	60	2
R-11122	Res.	B	1	7908 W 138th St	58	59	60	2
R-11123	Res.	B	1	7902 W 138th St	66	67	69	3
R-11124	Res.	B	1	7901 W 137th Ter	66	67	69	3
R-11125	Res.	B	1	7905 W 137th Ter	59	60	62	3
R-11126	Res.	B	1	7909 W 137th Ter	58	59	60	3
R-11127	Res.	B	1	7913 W 137th Ter	57	58	59	3
R-11128	Res.	B	1	7917 W 137th Ter	54	55	56	2
R-11129	Res.	B	1	7922 W 137th Ter	55	56	57	2
R-11130	Res.	B	1	7918 W 137th Ter	55	56	57	2
R-11131	Res.	B	1	7914 W 137th Ter	55	56	57	2
R-11132	Res.	B	1	7910 W 137th Ter	56	57	59	3
R-11133	Res.	B	1	7906 W 137th Ter	58	59	62	3
R-11134	Res.	B	1	7904 W 137th Ter	67	68	72	5
R-11135	Res.	B	1	7903 W 137th St	67	68	71	4
R-11136	Res.	B	1	7907 137th St	56	57	59	3
R-11137	Res.	B	1	7911 137th St	57	58	60	3
R-11138	Res.	B	1	7915 137th St	55	57	57	1
R-11139	Res.	B	1	7919 W 137th St	54	56	55	1
R-11140	Res.	B	1	7923 W 136th Pl	54	55	56	2
R-11141	Res.	B	1	7922 W 136th Pl	58	59	60	2
R-11142	Res.	B	1	7918 W 136th Pl	59	60	61	2
R-11143	Res.	B	1	7914 W 137th St	62	63	64	2
Predicted NSA 11 Traffic Noise Impacts							**52**	

Table B-12: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 12								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-12001	Trail	C	1	Indian Creek Trail 10	73	74	74	0
R-12002	Trail	C	1	Indian Creek Trail 11	73	74	77	4
R-12003	Trail	C	1	Indian Creek Trail 12	74	75	78	4
R-12004	Trail	C	1	Indian Creek Trail 13	72	72	76	4
R-12005	Res.	B	3	Cyan 6103-6109	62	63	66	3
R-12006	Res.	B	4	Cyan 6202-6209	67	68	69	2
R-12007	Res.	B	4	Cyan 6302-6309	68	69	70	2
R-12008	Res.	B	4	Cyan 6402-6409	68	69	71	3
R-12009	Res.	B	4	Cyan 6110-6114	68	69	72	5
R-12010	Res.	B	5	Cyan 6210-6217	73	74	75	2
R-12011	Res.	B	5	Cyan 6310-6317	73	74	76	3
R-12012	Res.	B	5	Cyan 6410-6417	73	74	76	3
R-12013	Res.	B	1	Cyan 6116	64	64	69	6
R-12014	Res.	B	1	Cyan 6216	69	69	72	3
R-12015	Res.	B	1	Cyan 6316	70	70	72	2
R-12016	Res.	B	1	Cyan 6416	70	70	72	3
R-12017	Res.	B	4	Cyan 7105-7110	54	54	57	3
R-12018	Res.	B	6	Cyan 7201-7212	54	55	59	5
R-12019	Res.	B	6	Cyan 7301-7312	56	56	60	4
R-12020	Res.	B	6	Cyan 7401-7412	57	58	61	4
R-12021	Res.	B	4	Cyan 5105-5110	66	67	71	5
R-12022	Res.	B	6	Cyan 5201-5212	70	71	73	3
R-12023	Res.	B	6	Cyan 5301-5312	71	72	73	2
R-12024	Res.	B	6	Cyan 5401-5412	71	72	74	3
R-12025	Park	C	1	Cyan Pool 1	54	54	54	0
R-12026	Park	C	1	Cyan Pool 2	60	61	65	5
R-12027	Res.	B	2	Cyan 1102-1103	57	57	61	4
R-12028	Res.	B	2	Cyan 1202-1203	59	60	63	4
R-12029	Res.	B	5	Cyan 1302-1311	62	62	64	3
R-12030	Res.	B	5	Cyan 1402-1411	62	63	65	2
R-12031	Res.	B	2	Cyan 1114-1117	60	61	65	5
R-12032	Res.	B	2	Cyan 1214-1217	63	64	66	3
R-12033	Res.	B	2	Cyan 1314-1317	65	66	67	2
R-12034	Res.	B	2	Cyan 1414-1417	65	66	67	2
R-12035	Res.	B	1	Cyan 1119	60	61	65	5
R-12036	Res.	B	2	Cyan 1218-1219	63	64	67	3
R-12037	Res.	B	2	Cyan 1318-1319	65	66	68	3

Table B-12: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 12								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-12038	Res.	B	2	Cyan 1418-1419	65	66	68	3
R-12039	Res.	B	3	Cyan 1112-1116	57	57	61	4
R-12040	Res.	B	4	Cyan 1212-1216	58	58	63	4
R-12041	Res.	B	4	Cyan 1312-1316	62	63	65	2
R-12042	Res.	B	4	Cyan 1412-1416	63	63	65	2
R-12043	Res.	B	6	Cyan 4102-4111	71	71	75	5
R-12044	Res.	B	6	Cyan 4202-4211	75	75	77	3
R-12045	Res.	B	6	Cyan 4302-4311	75	75	78	3
R-12046	Res.	B	6	Cyan 4402-4411	75	76	78	3
R-12047	Res.	B	4	Cyan 2105-2110	58	59	62	4
R-12048	Res.	B	6	Cyan 2201-2212	58	58	62	4
R-12049	Res.	B	6	Cyan 2301-2312	62	62	65	3
R-12050	Res.	B	6	Cyan 2401-2412	64	64	67	3
R-12051	Res.	B	1	Cyan 3116	63	64	69	5
R-12052	Res.	B	1	Cyan 3216	70	71	73	3
R-12053	Res.	B	1	Cyan 3316	71	72	73	3
R-12054	Res.	B	1	Cyan 3416	71	72	74	3
R-12055	Res.	B	4	Cyan 3110-3114	67	68	72	5
R-12056	Res.	B	5	Cyan 3210-3217	74	75	77	2
R-12057	Res.	B	5	Cyan 3310-3317	75	75	77	3
R-12058	Res.	B	5	Cyan 3410-3417	75	75	78	3
R-12059	Res.	B	5	Cyan 3101-3108	58	58	62	4
R-12060	Res.	B	5	Cyan 3201-3208	65	65	67	2
R-12061	Res.	B	5	Cyan 3301-3308	68	68	71	3
R-12062	Res.	B	5	Cyan 3401-3408	69	69	72	3
Predicted NSA 12 Traffic Noise Impacts							144	

Table B-13: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 13								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-13001	Trail	C	1	Indian Creek Trail 14	75	75	78	3
R-13002	Res.	B	1	Sorrento 17107	54	55	59	5
R-13003	Res.	B	1	Sorrento 17207	58	59	62	4
R-13004	Res.	B	1	Sorrento 17109	54	54	58	4
R-13005	Res.	B	2	Sorrento 17209-17211	56	56	60	4
R-13006	Res.	B	2	Sorrento 15205-15207	54	55	57	2
R-13007	Res.	B	2	Sorrento 11205-11207	54	55	56	2
R-13008	Res.	B	1	Sorrento 11103	54	55	57	3
R-13009	Res.	B	1	Sorrento 11203	56	57	57	1
R-13010	Res.	B	2	Sorrento 7205-7207	54	54	55	1
R-13011	Res.	B	1	Sorrento 16103	54	54	54	0
R-13012	Res.	B	2	Sorrento 16201-16203	54	54	54	0
R-13013	Res.	B	2	Sorrento 16102-16104	61	62	63	2
R-13014	Res.	B	2	Sorrento 16202-16204	65	66	67	2
R-13015	Res.	B	3	Sorrento 16106-16110	65	66	66	1
R-13016	Res.	B	3	Sorrento 16206-16210	68	69	69	1
R-13017	Res.	B	2	Sorrento 16107-16109	61	62	60	-1
R-13018	Res.	B	3	Sorrento 16207-16211	64	65	64	0
R-13019	Res.	B	1	Sorrento 16105	54	54	54	0
R-13020	Res.	B	1	Sorrento 16205	54	54	54	0
R-13021	Trail	C	1	Indian Creek Trail 15	70	71	70	0
R-13022	Res.	B	1	Sorrento 13201	67	68	68	1
R-13023	Res.	B	1	Sorrento 13103	64	65	65	1
R-13024	Res.	B	1	Sorrento 13203	67	68	69	1
R-13025	Res.	B	2	Sorrento 13205-13207	70	71	71	1
R-13026	Res.	B	2	Sorrento 13104-13106	54	54	54	0
R-13027	Res.	B	2	Sorrento 13204-13206	54	54	54	0
R-13028	Res.	B	1	Sorrento 13102	54	54	54	0
R-13029	Res.	B	1	Sorrento 13202	54	54	54	0
R-13030	Res.	B	1	Sorrento 14102	54	55	56	2
R-13031	Res.	B	1	Sorrento 14202	58	58	60	2
R-13032	Res.	B	2	Sorrento 14104-14106	54	54	54	0
R-13033	Res.	B	2	Sorrento 14204-14206	54	55	56	2
R-13034	Res.	B	2	Sorrento 14205-14207	62	63	62	0
R-13035	Res.	B	1	Sorrento 14103	54	54	54	0
R-13036	Res.	B	2	Sorrento 14201-14203	54	54	54	0
R-13037	Res.	B	1	Sorrento 10201	63	64	63	0

Table B-13: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 13								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-13038	Res.	B	1	Sorrento 10102	54	54	54	0
R-13039	Res.	B	1	Sorrento 10202	54	54	54	0
R-13040	Res.	B	2	Sorrento 10104-10106	54	54	54	0
R-13041	Res.	B	2	Sorrento 10204-10206	56	57	57	1
R-13042	Res.	B	2	Sorrento 10205-10207	54	54	54	0
R-13043	Res.	B	1	Sorrento 10103	54	54	54	0
R-13044	Res.	B	1	Sorrento 10203	54	54	54	0
R-13045	Res.	B	1	Sorrento 9102	54	54	54	0
R-13046	Res.	B	1	Sorrento 9202	54	54	54	0
R-13047	Res.	B	2	Sorrento 9104-9106	54	54	54	0
R-13048	Res.	B	2	Sorrento 9204-9206	54	54	54	0
R-13049	Res.	B	2	Sorrento 9205-9207	69	70	69	0
R-13050	Res.	B	1	Sorrento 9103	62	63	62	0
R-13051	Res.	B	1	Sorrento 9203	66	68	66	-1
R-13052	Res.	B	1	Sorrento 9201	64	65	64	-1
R-13053	Res.	B	1	Sorrento 5201	63	64	63	0
R-13054	Res.	B	1	Sorrento 5103	60	62	60	0
R-13055	Res.	B	1	Sorrento 5203	64	65	64	0
R-13056	Res.	B	2	Sorrento 5205-5207	68	69	67	-1
R-13057	Res.	B	2	Sorrento 5104-5106	54	54	54	0
R-13058	Res.	B	2	Sorrento 5204-5206	54	54	54	0
R-13059	Res.	B	1	Sorrento 5102	54	54	54	0
R-13060	Res.	B	1	Sorrento 5202	54	54	54	0
R-13061	Res.	B	2	Sorrento 6205-6207	54	54	54	0
R-13062	Res.	B	2	Sorrento 6104-6106	54	54	54	0
R-13063	Res.	B	2	Sorrento 6204-6206	54	54	54	0
R-13064	Res.	B	1	Sorrento 6102	54	54	54	0
R-13065	Res.	B	1	Sorrento 6202	54	54	54	0
R-13066	Res.	B	1	Sorrento 6201	61	63	60	-2
R-13067	Res.	B	1	Sorrento 6103	54	54	54	0
R-13068	Res.	B	1	Sorrento 6203	54	54	54	0
R-13069	Res.	B	1	Sorrento 1103	54	56	54	0
R-13070	Res.	B	1	Sorrento 1203	58	59	58	0
R-13071	Res.	B	1	Sorrento 1201	66	67	65	-1
R-13072	Res.	B	1	Sorrento 1102	63	65	62	-2
R-13073	Res.	B	1	Sorrento 1202	66	67	65	-1
R-13074	Res.	B	3	Sorrento 1104-1108	65	66	64	-1

Table B-13: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 13								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-13075	Res.	B	3	Sorrento 1204-1208	67	68	66	-1
R-13076	Res.	B	3	Sorrento 1205-1209	54	54	54	0
R-13077	Res.	B	1	Sorrento 2102	54	54	54	0
R-13078	Res.	B	1	Sorrento 2202	54	54	54	0
R-13079	Res.	B	3	Sorrento 2104-2108	54	54	54	0
R-13080	Res.	B	3	Sorrento 2204-2208	54	54	54	0
R-13081	Res.	B	3	Sorrento 2205-2209	60	61	60	0
R-13082	Res.	B	1	Sorrento 2103	57	58	58	1
R-13083	Res.	B	1	Sorrento 2203	60	62	61	0
R-13084	Res.	B	1	Sorrento 2201	60	62	61	0
R-13085	Res.	B	1	Sorrento 3201	57	58	56	0
R-13086	Res.	B	1	Sorrento 3102	54	54	54	0
R-13087	Res.	B	1	Sorrento 3202	54	54	54	0
R-13088	Res.	B	3	Sorrento 3104-3108	54	54	54	0
R-13089	Res.	B	3	Sorrento 3204-3208	54	54	54	0
Predicted NSA 13 Traffic Noise Impacts							**18**	

Table B-14: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 14								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-14001	Park	C	1	Kelly Park Dog Park	60	61	65	5
R-14002	Res.	B	5	Kelly Park 6102-6106	59	60	64	5
R-14003	Res.	B	5	Kelly Park 6202-6206	65	66	69	4
R-14004	Res.	B	5	Kelly Park 6302-6306	69	70	72	3
R-14005	Res.	B	3	Kelly Park 7104-7106	58	58	61	4
R-14006	Res.	B	3	Kelly Park 7204-7206	60	61	64	4
R-14007	Res.	B	3	Kelly Park 7304-7306	64	65	67	3
R-14008	Res.	B	3	Kelly Park 7101-7103	55	56	59	4
R-14009	Res.	B	3	Kelly Park 7201-7203	58	58	61	4
R-14010	Res.	B	3	Kelly Park 7301-7303	61	62	64	3
R-14011	Res.	B	3	Kelly Park 10104-10106	59	59	62	4
R-14012	Res.	B	3	Kelly Park 10204-10206	61	62	65	4
R-14013	Res.	B	3	Kelly Park 10304-10306	65	66	68	3
R-14014	Res.	B	3	Kelly Park 10101-10103	57	58	61	4
R-14015	Res.	B	3	Kelly Park 10201-10203	60	61	64	4
R-14016	Res.	B	3	Kelly Park 10301-10303	64	64	67	4
R-14017	Res.	B	3	Kelly Park 11104-11106	58	59	62	4
R-14018	Res.	B	3	Kelly Park 11204-11206	61	62	65	4
R-14019	Res.	B	3	Kelly Park 11304-11306	65	65	68	4
R-14020	Res.	B	3	Kelly Park 11101-11103	54	55	58	4
R-14021	Res.	B	3	Kelly Park 11201-11203	59	59	63	4
R-14022	Res.	B	3	Kelly Park 11301-11303	63	63	66	3
R-14023	Res.	B	5	Kelly Park 12202-12206	61	62	65	4
R-14024	Res.	B	5	Kelly Park 12302-12306	65	66	69	3
R-14025	Res.	B	6	Kelly Park 14202-14207	60	60	64	4
R-14026	Res.	B	6	Kelly Park 14302-14307	63	63	66	4
Predicted NSA 14 Traffic Noise Impacts							36	

Table B-15: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 15								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-15001	Res.	B	1	8009 W 131st Pl	56	56	60	4
R-15002	Res.	B	1	8005 W 131st Pl	57	57	61	4
R-15003	Res.	B	1	8001 W 131st Pl	58	58	62	5
R-15004	Res.	B	1	7909 W 131st Pl	61	61	65	4
R-15005	Res.	B	1	7905 W 131st Pl	64	64	68	4
R-15006	Res.	B	1	7901 W 131st Pl	70	70	71	2
R-15007	Res.	B	1	7900 W 131st Pl	69	69	72	3
R-15008	Res.	B	1	7904 W 131st Pl	62	62	65	3
R-15009	Res.	B	1	8000 W 131st Pl	58	58	61	3
R-15010	Res.	B	1	8004 W 131st Pl	56	56	59	4
R-15011	Res.	B	1	8008 W 131st Pl	54	54	57	3
R-15012	Res.	B	1	8012 W 131st Pl	54	54	56	2
R-15013	Trail	C	1	Indian Creek Trail 16	71	71	73	2
R-15014	Res.	B	1	8015 W 131st Ter	54	54	57	3
R-15015	Res.	B	1	8011 W 131st Ter	55	55	58	4
R-15016	Res.	B	1	8007 W 131st Ter	56	56	60	3
R-15017	Res.	B	1	8003 W 131st Ter	59	59	62	3
R-15018	Res.	B	1	7911 W 131st Ter	62	63	67	4
R-15019	Res.	B	1	7907 W 131st Ter	68	68	71	3
R-15020	Res.	B	1	7903 W 131st Ter	72	72	74	2
R-15021	Res.	B	1	7902 W 131st Ter	69	69	72	3
R-15022	Res.	B	1	7906 W 131st Ter	62	62	66	4
R-15023	Res.	B	1	8002 W 131st Ter	57	57	61	4
R-15024	Res.	B	1	8006 W 131st Ter	54	54	57	3
R-15025	Res.	B	1	8010 W 131st Ter	54	54	56	2
R-15026	Res.	B	1	8014 W 131st Ter	54	54	56	2
R-15027	Res.	B	1	8009 W 130th St	54	54	58	4
R-15028	Res.	B	1	8005 W 130th St	56	56	60	4
R-15029	Res.	B	1	8001 W 130th St	58	58	62	4
R-15030	Res.	B	1	7909 W 130th St	63	63	67	4
R-15031	Res.	B	1	7905 W 130th St	67	67	71	4
R-15032	Res.	B	1	7901 W 130th St	70	70	74	4
R-15033	Res.	B	1	7900 W 130th St	67	67	71	4
R-15034	Res.	B	1	7904 W 130th St	61	61	64	4
R-15035	Res.	B	1	7908 W 130th St	58	58	62	4
R-15036	Res.	B	1	8000 W 130th St	56	57	60	4
R-15037	Res.	B	1	8004 W 130th St	54	54	58	4

Table B-15: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 15								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-15038	Res.	B	1	8104 W 130th St	54	54	57	3
R-15039	Res.	B	1	8103 W 129th Ter	54	54	58	4
R-15040	Res.	B	1	8011 W 129th Ter	55	56	59	4
R-15041	Res.	B	1	8007 W 129th Ter	57	57	60	4
R-15042	Res.	B	1	8003 W 129th Ter	58	58	61	4
R-15043	Res.	B	1	7911 W 129th Ter	60	60	64	4
R-15044	Res.	B	1	7907 W 129th Ter	64	65	68	4
R-15045	Res.	B	1	7903 W 129th Ter	70	70	73	3
R-15046	Res.	B	1	7902 W 129th Ter	67	67	71	4
R-15047	Res.	B	1	7906 W 129th Ter	62	62	66	4
R-15048	Res.	B	1	8002 W 129th Ter	60	60	65	5
R-15049	Res.	B	1	8006 W 129th Ter	58	58	63	5
R-15050	Res.	B	1	8010 W 129th Ter	57	57	62	5
R-15051	Res.	B	1	8102 W 129th Ter	56	56	61	5
R-15052	Trail	C	1	Indian Creek Trail 17	76	76	78	2
R-15053	Res.	B	1	8101 W 129th St	57	57	62	5
R-15054	Res.	B	1	8009 W 129th St	58	58	63	5
R-15055	Res.	B	1	8005 W 129th St	59	59	63	5
R-15056	Res.	B	1	8001 W 129th St	60	61	65	5
R-15057	Res.	B	1	7909 W 129th St	63	63	68	5
R-15058	Res.	B	1	7905 W 129th St	65	66	70	5
R-15059	Res.	B	1	7901 W 129th St	72	72	76	4
R-15060	Res.	B	1	7900 W 129th St	70	70	75	5
R-15061	Res.	B	1	7904 W 129th St	68	68	72	5
R-15062	Res.	B	1	7908 W 129th St	65	65	69	4
R-15063	Res.	B	1	8000 W 129th St	63	63	66	4
R-15064	Res.	B	1	8004 W 129th St	61	61	64	4
R-15065	Res.	B	1	8008 W 129th St	60	60	63	4
R-15066	Res.	B	1	8100 W 129th St	58	59	62	4
R-15067	Sport	C	3	Heartland Baseball 1	69	69	72	3
R-15068	Sport	C	3	Heartland Baseball 2	66	66	69	3
R-15069	Sport	C	2	Heartland Baseball 3	63	64	66	3
R-15070	Park	C	1	Heartland Playground	62	63	65	2
Predicted NSA 15 Traffic Noise Impacts							**33**	

Table B-16: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 16								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-16001	Res.	B	6	Pointe Royal Bld 37	69	70	71	2
R-16002	Res.	B	6	Pointe Royal Bld 36	70	71	72	2
R-16003	Res.	B	6	Pointe Royal Bld 34	70	71	72	2
R-16004	Res.	B	6	Pointe Royal Bld 33	70	71	72	3
R-16005	Res.	B	9	Pointe Royal Bld 31	66	67	69	2
R-16006	Res.	B	10	Pointe Royal Bld 27	70	71	70	0
R-16007	Res.	B	6	Pointe Royal Bld 26	73	75	73	0
R-16008	Res.	B	6	Pointe Royal Bld 24	67	68	68	1
R-16009	Res.	B	10	Pointe Royal Bld 23	75	75	77	3
R-16010	Res.	B	10	Pointe Royal Bld 38	64	65	66	2
R-16011	Res.	B	10	Pointe Royal Bld 39	61	61	63	3
R-16012	Res.	B	10	Pointe Royal Bld 35	60	61	63	2
R-16013	Res.	B	10	Pointe Royal Bld 32	58	59	60	3
R-16014	Res.	B	6	Pointe Royal Bld 30	59	60	61	2
R-16015	Res.	B	10	Pointe Royal Bld 25	58	59	61	2
R-16016	Res.	B	9	Pointe Royal Bld 21	57	58	60	3
R-16017	Res.	B	9	Pointe Royal Bld 19	59	60	62	3
R-16018	Res.	B	6	Pointe Royal Bld 17	65	65	68	3
R-16019	Res.	B	10	Pointe Royal Bld 15	68	69	72	4
R-16020	Res.	B	6	Pointe Royal Bld 13	69	69	72	4
R-16021	Res.	B	6	Pointe Royal Bld 12	69	70	73	4
R-16022	Res.	B	10	Pointe Royal Bld 11	69	69	73	4
R-16023	Res.	B	9	Pointe Royal Bld 6	73	73	75	2
R-16024	Res.	B	9	Pointe Royal Bld 5	71	72	73	2
R-16025	Res.	B	6	Pointe Royal Bld 3	57	58	59	2
R-16026	Res.	B	10	Pointe Royal Bld 1	59	60	60	1
R-16027	Res.	B	6	Pointe Royal Bld 40	59	60	61	2
R-16028	Res.	B	10	Pointe Royal Bld 41	58	59	59	1
R-16029	Res.	B	10	Pointe Royal Bld 29	54	55	56	2
R-16030	Res.	B	9	Pointe Royal Bld 28	55	56	58	3
R-16031	Res.	B	10	Pointe Royal Bld 22	54	54	54	0
R-16032	Res.	B	10	Pointe Royal Bld 20	54	54	54	0
R-16033	Res.	B	10	Pointe Royal Bld 18	56	57	59	3
R-16034	Res.	B	10	Pointe Royal Bld 16	56	56	58	3
R-16035	Res.	B	6	Pointe Royal Bld 14	56	57	59	2
R-16036	Sport	C	1	Pointe Royal Tennis Ct	56	56	59	3
R-16037	Sport	C	1	Pointe Royal BB Court	59	59	62	4

Table B-16: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 16								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-16038	Park	C	1	Pointe Royal Pool	56	57	59	3
R-16039	Res.	B	6	Pointe Royal Bld 10	57	58	61	4
R-16040	Res.	B	10	Pointe Royal Bld 9	58	59	62	4
R-16041	Res.	B	6	Pointe Royal Bld 7	62	63	67	5
R-16042	Res.	B	6	Pointe Royal Bld 4	60	61	63	3
R-16043	Res.	B	10	Pointe Royal Bld 8	54	54	54	0
R-16044	Res.	B	10	Pointe Royal Bld 2	54	54	54	0
R-16045	Res.	B	1	8204 W 123rd St	54	54	54	0
R-16046	Res.	B	1	8224 W 123rd St	54	54	56	2
R-16047	Res.	B	1	12231 Hemlock St	55	56	58	4
R-16048	Res.	B	1	12216 Hemlock St	54	54	57	3
Predicted NSA 16 Traffic Noise Impacts							**137**	

Table B-17: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 17								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-17001	Res.	B	2	Springhill 8721 1st	76	77	78	2
R-17002	Res.	B	2	Springhill 8721 2nd	76	77	79	3
R-17003	Res.	B	2	Springhill 8721 1st B	60	61	61	2
R-17004	Res.	B	2	Springhill 8721 2nd B	64	65	65	1
R-17005	Res.	B	2	Springhill 8717 1st	72	73	74	2
R-17006	Res.	B	2	Springhill 8717 2nd	75	76	77	2
R-17007	Res.	B	2	Springhill 8717 1st B	65	66	66	1
R-17008	Res.	B	2	Springhill 8717 2nd B	68	69	69	1
R-17009	Res.	B	2	Springhill 8713 1st	64	65	65	1
R-17010	Res.	B	2	Springhill 8713 2nd	67	68	69	1
R-17011	Res.	B	2	Springhill 8713 1st B	63	64	64	1
R-17012	Res.	B	2	Springhill 8713 2nd B	66	67	67	1
R-17013	Res.	B	2	Springhill 8709 1st B	69	70	70	1
R-17014	Res.	B	2	Springhill 8709 2nd B	71	72	72	1
R-17015	Res.	B	2	Springhill 8709 1st	54	54	54	0
R-17016	Res.	B	2	Springhill 8709 2nd	55	55	57	2
R-17017	Res.	B	2	Springhill 8705 1st	64	65	64	1
R-17018	Res.	B	2	Springhill 8705 2nd	66	67	67	1
R-17019	Res.	B	2	Springhill 8705 1st B	63	64	64	1
R-17020	Res.	B	2	Springhill 8705 2nd B	66	67	67	1
R-17021	Res.	B	2	Springhill 8701 1st	64	65	64	1
R-17022	Res.	B	2	Springhill 8701 2nd	66	67	67	1
R-17023	Res.	B	8	Springhill 8725	66	67	69	3
R-17024	Res.	B	2	Springhill 8743 1st	54	54	54	0
R-17025	Res.	B	2	Springhill 8743 2nd	55	56	57	2
R-17026	Res.	B	2	Springhill 8743 1st B	54	54	54	0
R-17027	Res.	B	2	Springhill 8743 2nd B	54	54	54	0
R-17028	Res.	B	2	Springhill 8747 1st B	54	54	54	0
R-17029	Res.	B	2	Springhill 8747 2nd B	54	55	56	2
R-17030	Res.	B	2	Springhill 8747 1st	54	54	54	0
R-17031	Res.	B	2	Springhill 8747 2nd	54	54	56	2
R-17032	Res.	B	2	Springhill 8751 1st	54	55	57	2
R-17033	Res.	B	2	Springhill 8751 2nd	59	59	61	2
R-17034	Res.	B	2	Springhill 8751 1st B	54	54	54	0
R-17035	Res.	B	2	Springhill 8751 2nd B	56	57	57	1
R-17036	Park	C	1	Springhill 8701 Pool	54	55	56	1
R-17037	Res.	B	2	Springhill 8767 1st	67	67	69	3

Table B-17: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 17								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-17038	Res.	B	2	Springhill 8767 2nd	72	73	74	2
R-17039	Res.	B	2	Springhill 8767 1st B	54	54	54	0
R-17040	Res.	B	2	Springhill 8767 2nd B	54	54	54	0
R-17041	Res.	B	2	Springhill 8771 1st B	61	61	63	2
R-17042	Res.	B	2	Springhill 8771 2nd B	67	67	69	2
R-17043	Res.	B	2	Springhill 8771 1st	64	64	66	3
R-17044	Res.	B	2	Springhill 8771 2nd	68	69	70	2
R-17045	Res.	B	2	Springhill 8775 1st	69	70	72	3
R-17046	Res.	B	2	Springhill 8775 2nd	74	74	76	2
R-17047	Res.	B	2	Springhill 8775 1st B	54	54	54	0
R-17048	Res.	B	2	Springhill 8775 2nd B	54	54	54	0
R-17049	Res.	B	2	Springhill 8779 1st B	60	60	62	3
R-17050	Res.	B	2	Springhill 8779 2nd B	65	65	66	2
R-17051	Res.	B	2	Springhill 8779 1st	66	66	70	4
R-17052	Res.	B	2	Springhill 8779 2nd	70	71	72	2
R-17053	Res.	B	2	Springhill 8763 1st B	54	55	56	2
R-17054	Res.	B	2	Springhill 8763 2nd B	57	58	59	2
R-17055	Res.	B	2	Springhill 8763 1st	54	54	54	0
R-17056	Res.	B	2	Springhill 8763 2nd	55	55	57	2
R-17057	Res.	B	2	Springhill 8783 1st	55	56	58	2
R-17058	Res.	B	2	Springhill 8783 2nd	59	60	61	2
R-17059	Res.	B	2	Springhill 8783 1st B	54	55	58	4
R-17060	Res.	B	2	Springhill 8783 2nd B	58	59	60	2
R-17061	Res.	B	2	Springhill 8803 1st	56	57	60	4
R-17062	Res.	B	2	Springhill 8803 2nd	59	60	61	2
R-17063	Res.	B	2	Springhill 8803 1st B	54	54	55	1
R-17064	Res.	B	2	Springhill 8803 2nd B	57	58	59	2
R-17065	Res.	B	2	Springhill 8807 1st	58	59	62	4
R-17066	Res.	B	2	Springhill 8807 2nd	62	63	64	2
R-17067	Res.	B	2	Springhill 8807 1st B	54	54	56	2
R-17068	Res.	B	2	Springhill 8807 2nd B	58	58	59	2
R-17069	Res.	B	2	Springhill 8811 1st B	54	54	54	0
R-17070	Res.	B	2	Springhill 8811 2nd B	54	54	54	0
R-17071	Res.	B	2	Springhill 8811 1st	63	63	67	4
R-17072	Res.	B	2	Springhill 8811 2nd	67	68	69	2
R-17073	Res.	B	2	Springhill 8815 1st B	54	54	55	1
R-17074	Res.	B	2	Springhill 8815 2nd B	56	57	59	2

Table B-17: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 17								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-17075	Res.	B	2	Springhill 8815 1st	69	69	71	2
R-17076	Res.	B	2	Springhill 8815 2nd	71	72	73	2
R-17077	Res.	B	2	Springhill 8819 1st B	65	65	66	1
R-17078	Res.	B	2	Springhill 8819 2nd B	68	69	70	1
R-17079	Res.	B	2	Springhill 8819 3rd B	69	69	71	2
R-17080	Res.	B	2	Springhill 8819 1st	73	74	73	0
R-17081	Res.	B	2	Springhill 8819 2nd	74	74	76	3
R-17082	Res.	B	2	Springhill 8819 3rd	74	74	77	3
R-17083	Res.	B	2	Springhill 8759 1st	57	58	59	1
R-17084	Res.	B	2	Springhill 8759 2nd	61	62	62	1
R-17085	Res.	B	2	9001-03 W 121st Ter	55	56	57	1
R-17086	Res.	B	2	9007-09 W 121st Ter	54	55	56	2
R-17087	Res.	B	2	9013-15 W 121st Ter	54	55	57	3
R-17088	Res.	B	2	9101-03 W 121st Ter	56	57	60	4
R-17089	Res.	B	2	9107-09 W 121st Ter	56	57	60	3
R-17090	Res.	B	2	9113-15 W 121st Ter	58	58	61	4
R-17091	Res.	B	2	9207-09 W 121st Ter	60	61	64	3
R-17092	Res.	B	2	9213-15 W 121st Ter	64	64	67	3
R-17093	Res.	B	2	9301-03 W 121st Ter	67	68	69	2
R-17094	Res.	B	2	9331-33 W 121st Ter	73	74	72	-1
R-17095	Res.	B	2	9036-38 W 121st Ter	56	57	60	4
R-17096	Res.	B	2	9200-02 W 121st Ter	58	58	62	4
R-17097	Res.	B	2	9206-08 W 121st Ter	59	60	63	4
R-17098	Res.	B	2	9212-14 W 121st Ter	62	63	65	4
R-17099	Res.	B	2	9300-02 W 121st Ter	63	63	66	3
R-17100	Res.	B	2	9306-08 W 121st Ter	64	65	67	3
R-17101	Res.	B	2	9322-24 W 121st Ter	65	66	67	2
R-17102	Res.	B	2	9328-30 W 121st Ter	67	68	68	0
R-17103	Res.	B	2	9334-36 W 121st Ter	70	70	69	0
R-17104	Res.	B	2	9340-42 W 121st Ter	70	71	70	1
R-17105	Res.	B	2	9346-48 W 121st Ter	72	72	71	-1
R-17106	Res.	B	2	9354-56 W 121st Ter	71	72	71	-1
R-17107	Res.	B	2	12118-20 England St	58	58	61	4
R-17108	Res.	B	2	12112-14 England St	61	61	64	3
R-17109	Res.	B	2	12093-95 Hayes St	65	65	66	2
R-17110	Res.	B	2	12089-91 Hayes St	64	64	66	3
R-17111	Res.	B	2	12085-87 Hayes Cir	65	65	67	2

Table B-17: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 17								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-17112	Res.	B	2	12081-83 Hayes Cir	64	64	66	3
R-17113	Res.	B	2	12077-79 Hayes Cir	61	62	64	3
R-17114	Res.	B	2	12073-75 Hayes Cir	59	60	63	4
R-17115	Res.	B	2	12065-67 Hayes St	58	59	63	4
R-17116	Res.	B	2	12059-61 Hayes St	55	55	58	4
R-17117	Res.	B	2	12106-08 England St	60	60	63	4
R-17118	Res.	B	5	Centennial Park 161-168	70	71	72	2
R-17119	Res.	B	3	Centennial Park 162-167	54	54	54	0
R-17120	Res.	B	5	Centennial Park 141-148	61	62	64	2
R-17121	Res.	B	3	Centennial Park 142-147	56	57	58	2
R-17122	Res.	B	5	Centennial Park 131-138	57	58	59	2
R-17123	Res.	B	3	Centennial Park 132-137	54	54	54	0
R-17124	Res.	B	5	Centennial Park 91-98	54	54	54	0
R-17125	Res.	B	3	Centennial Park 92-97	54	54	54	0
R-17126	Res.	B	3	Centennial Park 152-157	61	61	63	2
R-17127	Res.	B	5	Centennial Park 151-158	54	54	54	0
R-17128	Res.	B	5	Centennial Park 121-128	54	54	54	0
R-17129	Res.	B	3	Centennial Park 122-127	54	54	54	0
R-17130	Res.	B	3	Centennial Park 102-107	54	54	54	0
R-17131	Res.	B	5	Centennial Park 101-108	54	54	54	0
R-17132	Res.	B	5	Centennial Park 71-78	54	54	54	0
R-17133	Res.	B	3	Centennial Park 112-117	54	54	54	0
R-17134	Res.	B	5	Centennial Park 111-118	57	58	60	3
R-17135	Res.	B	3	Centennial Park 62-67	54	54	54	0
R-17136	Res.	B	5	Centennial Park 61-68	54	54	54	0
R-17137	Res.	B	2	Three Lakes Bld 12 1stB	58	58	60	2
R-17138	Res.	B	2	Three Lakes Bld 12 2ndB	64	65	65	1
R-17139	Res.	B	4	Three Lakes Bld 12 1st	65	66	68	3
R-17140	Res.	B	4	Three Lakes Bld 12 2nd	70	71	72	2
R-17141	Res.	B	4	Three Lakes Bld 11 1st	64	65	68	4
R-17142	Res.	B	4	Three Lakes Bld 11 2nd	72	72	73	2
R-17143	Res.	B	2	Three Lakes Bld 11 1stB	57	58	60	2
R-17144	Res.	B	2	Three Lakes Bld 11 2ndB	62	63	64	2
R-17145	Res.	B	4	Three Lakes Bld 13 1st B	54	54	54	0
R-17146	Res.	B	4	Three Lakes Bld 13 2nd B	54	54	54	0
R-17147	Res.	B	2	Three Lakes Bld 13 1st	54	54	55	1
R-17148	Res.	B	2	Three Lakes Bld 13 2nd	55	55	59	4

Table B-17: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 17								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-17149	Res.	B	2	Three Lakes Bld 13 3rd	59	60	63	4
R-17150	Res.	B	2	Three Lakes Bld 13 1st - 2	55	56	58	3
R-17151	Res.	B	2	Three Lakes Bld 13 2nd - 2	59	60	63	4
R-17152	Res.	B	4	Three Lakes Bld 14 1st B	54	54	54	0
R-17153	Res.	B	4	Three Lakes Bld 14 2nd B	54	54	54	0
R-17154	Res.	B	4	Three Lakes Bld 14 1st	54	54	54	0
R-17155	Res.	B	4	Three Lakes Bld 14 2nd	54	54	54	0
R-17156	Res.	B	4	Three Lakes Bld 14 3rd	55	56	56	2
R-17157	Res.	B	4	Three Lakes Bld 10 1st	57	58	60	3
R-17158	Res.	B	4	Three Lakes Bld 10 2nd	61	62	65	5
R-17159	Res.	B	4	Three Lakes Bld 10 1st B	54	54	54	0
R-17160	Res.	B	4	Three Lakes Bld 10 2nd B	54	54	54	0
R-17161	Res.	B	4	Three Lakes Bld 10 3rd B	54	54	54	0
R-17162	Res.	B	4	Three Lakes Bld 15 1st	54	54	54	0
R-17163	Res.	B	4	Three Lakes Bld 15 2nd	54	54	54	0
R-17164	Res.	B	4	Three Lakes Bld 15 3rd	55	55	56	1
R-17165	Res.	B	4	Three Lakes Bld 9 1st	64	64	68	4
R-17166	Res.	B	4	Three Lakes Bld 9 2nd	69	70	72	3
R-17167	Res.	B	4	Three Lakes Bld 9 1st B	54	54	54	0
R-17168	Res.	B	4	Three Lakes Bld 9 2nd B	54	54	54	0
R-17169	Res.	B	4	Three Lakes Bld 6 1st B	54	54	54	0
R-17170	Res.	B	4	Three Lakes Bld 6 2nd B	54	54	54	0
R-17171	Res.	B	2	Three Lakes Bld 6 1st	58	59	61	3
R-17172	Res.	B	2	Three Lakes Bld 6 2nd	61	61	65	5
R-17173	Res.	B	4	Three Lakes Bld 5 1st	54	54	54	0
R-17174	Res.	B	4	Three Lakes Bld 5 2nd	54	54	54	0
R-17175	Res.	B	4	Three Lakes Bld 5 1st B	54	54	54	0
R-17176	Res.	B	4	Three Lakes Bld 5 2nd B	54	54	55	1
R-17177	Res.	B	4	Three Lakes Bld 5 3rd B	56	57	58	2
R-17178	Res.	B	2	Three Lakes Bld 8 1st B	58	59	61	2
R-17179	Res.	B	2	Three Lakes Bld 8 2nd B	60	61	66	5
R-17180	Res.	B	4	Three Lakes Bld 8 1st	60	61	64	4
R-17181	Res.	B	4	Three Lakes Bld 8 2nd	66	68	68	1
R-17182	Res.	B	4	Three Lakes Bld 7 1st	63	64	65	2
R-17183	Res.	B	4	Three Lakes Bld 7 2nd	68	69	71	3
R-17184	Res.	B	2	Three Lakes Bld 7 1st B	54	54	54	0
R-17185	Res.	B	2	Three Lakes Bld 7 2nd B	54	55	55	1

Table B-17: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 17								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-17186	Res.	B	3	Three Lakes Bld 1 1st	54	55	57	3
R-17187	Res.	B	3	Three Lakes Bld 1 2nd	56	56	61	5
R-17188	Res.	B	2	Three Lakes Bld 1 1st B	55	56	56	1
R-17189	Res.	B	2	Three Lakes Bld 1 2nd B	58	59	60	2
R-17190	Res.	B	2	Three Lakes Bld 1 3rd B	61	62	62	2
R-17191	Res.	B	2	Three Lakes Bld 1 1st B - 2	56	57	57	1
R-17192	Res.	B	2	Three Lakes Bld 1 1st B - 3	59	60	60	1
R-17193	Res.	B	4	Three Lakes Bld 2 1st	58	59	60	3
R-17194	Res.	B	4	Three Lakes Bld 2 2nd	61	62	63	2
R-17195	Res.	B	4	Three Lakes Bld 2 3rd	62	63	64	2
R-17196	Res.	B	4	Three Lakes Bld 2 1st B	54	54	54	0
R-17197	Res.	B	4	Three Lakes Bld 2 2nd B	54	54	54	0
R-17198	Park	C	1	Three Lakes Pool	59	60	60	1
Predicted NSA 17 Traffic Noise Impacts							**143**	

Table B-18: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 18								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-18001	Park	B	1	Marillac Campus Park	68	68	70	2
R-18002	Sport	B	1	Marillac Campus Tennis	58	59	62	4
R-18003	Med.	C	1	KU Sports Med & Perform	59	59	63	4
Predicted NSA 18 Traffic Noise Impacts							**1**	

Table B-19: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 19								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-19001	Res.	B	6	Whis. Hills 8700 1st	61	61	63	3
R-19002	Res.	B	6	Whis. Hills 8700 2nd	64	65	66	3
R-19003	Res.	B	4	Whis. Hills 8712 1st	68	69	70	2
R-19004	Res.	B	4	Whis. Hills 8712 2nd	72	72	73	2
R-19005	Res.	B	4	Whis. Hills 8720 1st	69	70	72	2
R-19006	Res.	B	4	Whis. Hills 8720 2nd	74	74	75	2
R-19007	Res.	B	6	Whis. Hills 8728 1st	72	72	74	2
R-19008	Res.	B	6	Whis. Hills 8728 2nd	76	76	78	2
R-19009	Res.	B	6	Whis. Hills 8816 1st	67	68	69	2
R-19010	Res.	B	6	Whis. Hills 8816 2nd	75	75	77	2
R-19011	Res.	B	4	Whis. Hills 8846 1st	66	66	68	2
R-19012	Res.	B	4	Whis. Hills 8846 2nd	73	74	75	2
R-19013	Res.	B	4	Whis. Hills 8928 1st	64	65	67	2
R-19014	Res.	B	4	Whis. Hills 8928 2nd	72	72	73	2
R-19015	Res.	B	6	Whis. Hills 8936 1st	61	62	65	3
R-19016	Res.	B	6	Whis. Hills 8936 2nd	67	68	69	2
R-19017	Res.	B	4	Whis. Hills 9038 1st	58	59	61	2
R-19018	Res.	B	4	Whis. Hills 9038 2nd	63	63	66	3
R-19019	Res.	B	4	Whis. Hills 9046 1st	56	57	59	2
R-19020	Res.	B	4	Whis. Hills 9046 2nd	59	59	61	3
R-19021	Res.	B	4	Whis. Hills 9054 1st	54	54	55	1
R-19022	Res.	B	4	Whis. Hills 9054 2nd	56	56	58	3
R-19023	Park	C	1	Whis. Hills Dog Park	54	55	56	2
R-19024	Res.	B	6	Whis. Hills 8808 1st	55	55	56	1
R-19025	Res.	B	6	Whis. Hills 8808 2nd	57	57	58	2
R-19026	Res.	B	6	Whis. Hills 8834 1st	54	54	55	1
R-19027	Res.	B	6	Whis. Hills 8834 2nd	56	57	58	2
R-19028	Res.	B	4	Whis. Hills 8920 1st	54	54	55	1
R-19029	Res.	B	4	Whis. Hills 8920 2nd	55	56	58	2
R-19030	Res.	B	4	Whis. Hills 8948 1st	54	54	54	0
R-19031	Res.	B	4	Whis. Hills 8948 2nd	54	54	54	0
R-19032	Park	C	1	Whis. Hills Pool	56	57	57	1
R-19033	Res.	B	4	Whis. Hills 8824 1st	55	56	57	2
R-19034	Res.	B	4	Whis. Hills 8824 2nd	58	59	60	2
R-19035	Res.	B	4	Whis. Hills 8900 1st	54	54	54	0
R-19036	Res.	B	4	Whis. Hills 8900 2nd	54	54	54	0
R-19037	Res.	B	6	Whis. Hills 8908 1st	54	54	54	0

Table B-19: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 19								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-19038	Res.	B	6	Whis. Hills 8908 2nd	54	54	56	2
R-19039	Res.	B	4	Whis. Hills 9000 1st	54	54	54	0
R-19040	Res.	B	4	Whis. Hills 9000 2nd	54	54	54	0
R-19041	Res.	B	4	Whis. Hills 9030 1st	54	54	54	0
R-19042	Res.	B	4	Whis. Hills 9030 2nd	54	54	55	1
R-19043	Res.	B	4	Whis. Hills 9026 1st	54	54	54	0
R-19044	Res.	B	4	Whis. Hills 9026 2nd	54	54	54	0
R-19045	Res.	B	2	Signature 713-714	57	58	60	3
R-19046	Res.	B	2	Signature 723-724	61	61	64	3
R-19047	Res.	B	2	Signature 711-712	62	63	64	2
R-19048	Res.	B	2	Signature 721-722	67	67	69	2
R-19049	Res.	B	4	Signature 613-618	54	54	54	0
R-19050	Res.	B	4	Signature 623-628	54	54	54	0
R-19051	Res.	B	4	Signature 611-616	63	64	65	2
R-19052	Res.	B	4	Signature 621-626	66	66	68	2
R-19053	Res.	B	4	Signature 511-516	61	62	64	2
R-19054	Res.	B	4	Signature 521-526	64	64	65	2
R-19055	Res.	B	4	Signature 513-518	57	57	58	2
R-19056	Res.	B	4	Signature 523-528	58	58	60	2
R-19057	Res.	B	4	Signature 913-918	56	56	58	2
R-19058	Res.	B	4	Signature 923-928	57	57	59	2
R-19059	Res.	B	4	Signature 911-916	54	54	55	1
R-19060	Res.	B	4	Signature 921-926	55	55	57	3
R-19061	Res.	B	4	Signature 1011-1016	57	57	59	2
R-19062	Res.	B	4	Signature 1021-1026	59	59	61	2
R-19063	Res.	B	4	Signature 811-816	54	54	54	0
R-19064	Res.	B	4	Signature 821-826	54	54	54	0
R-19065	Res.	B	4	Signature 813-818	54	54	56	2
R-19066	Res.	B	4	Signature 823-828	57	57	59	2
R-19067	Res.	B	4	Signature 413-418	54	54	54	0
R-19068	Res.	B	4	Signature 423-428	54	54	54	0
R-19069	Res.	B	4	Signature 411-416	65	65	66	1
R-19070	Res.	B	4	Signature 421-426	67	67	68	1
R-19071	Res.	B	4	Signature 313-318	60	60	61	2
R-19072	Res.	B	4	Signature 323-328	61	62	63	2
R-19073	Res.	B	4	Signature 311-316	59	59	61	2
R-19074	Res.	B	4	Signature 321-326	61	61	63	2

Table B-19: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 19								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-19075	Res.	B	1	12305 England St	56	56	58	2
R-19076	Res.	B	1	12301 England St	57	58	59	2
R-19077	Res.	B	1	12215 England St	59	59	60	2
R-19078	Res.	B	1	12211 England St	59	60	61	1
R-19079	Res.	B	1	12207 England St	60	60	61	1
R-19080	Res.	B	1	12203 England St	56	56	58	2
R-19081	Res.	B	1	12204 England St	54	55	57	2
R-19082	Res.	B	1	12208 England St	55	56	58	2
R-19083	Res.	B	4	Signature 213-218	54	54	54	0
R-19084	Res.	B	4	Signature 223-228	54	54	54	0
R-19085	Res.	B	4	Signature 211-216	63	64	65	2
R-19086	Res.	B	4	Signature 221-226	66	66	67	1
R-19087	Park	C	1	Signature Pool	65	66	67	2
R-19088	Res.	B	4	Signature 111-116	66	66	67	2
R-19089	Res.	B	4	Signature 121-126	70	70	70	0
R-19090	Res.	B	4	Signature 113-118	54	55	57	2
R-19091	Res.	B	4	Signature 123-128	60	60	62	3
R-19092	Res.	B	2	12205-07 Hayes St	58	59	60	2
R-19093	Res.	B	5	12163-12179 Hayes St	61	62	62	1
R-19094	Res.	B	5	12143-12159 Hayes St	62	63	63	1
R-19095	Res.	B	3	12103-07 Hayes St	71	71	73	2
R-19096	Res.	B	8	12111-12139 Hayes St	68	68	71	4
R-19097	Res.	B	4	9402-9408 W 122nd St	54	54	58	4
R-19098	Res.	B	8	12144-12168 Hayes St	59	59	62	4
R-19099	Res.	B	5	12120-12136 Hayes St	60	60	63	4
R-19100	Park	C	1	Bedford Pool	70	71	74	4
R-19101	Res.	B	2	12132-36 Grant St	67	67	71	4
R-19102	Res.	B	3	12120-28 Grant St	65	66	70	5
R-19103	Res.	B	3	12108-16 Grant St	65	66	69	4
R-19104	Res.	B	2	12100-04 Grant St	69	69	74	5
R-19105	Res.	B	3	9502-9506 W 122nd St	55	56	58	3
R-19106	Res.	B	3	9501-07 W 121st Ter	62	62	65	3
R-19107	Res.	B	2	9511-15 W 121st Ter	60	61	63	3
R-19108	Res.	B	2	9519-23 W 121st Ter	59	60	63	4
R-19109	Res.	B	1	12101 Carter St	58	59	62	4
R-19110	Res.	B	3	9502-06 W 121st Ter and 12140 Grant St	64	65	67	3
R-19111	Res.	B	3	9510-18 W 121st Ter	60	61	64	4

Table B-19: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 19								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-19112	Res.	B	1	12101 Knox St	55	55	57	3
R-19113	Res.	B	1	9600 W 121st Ter	60	60	63	3
R-19114	Res.	B	1	9604 W 121st Ter	59	60	62	3
R-19115	Res.	B	1	9608 W 121st Ter	59	60	61	2
R-19116	Res.	B	1	9612 W 121st Ter	58	59	60	2
R-19117	Res.	B	1	9616 W 121st Ter	58	59	60	2
R-19118	Res.	B	1	9620 W 121st Ter	58	59	60	1
R-19119	Res.	B	1	9700 W 121st Ter	58	59	60	2
R-19120	Res.	B	1	9704 W 121st Ter	58	59	60	2
R-19121	Res.	B	1	9708 W 121st Ter	58	58	59	2
R-19122	Res.	B	1	9712 W 121st Ter	57	58	59	2
R-19123	Res.	B	1	9716 W 121st Ter	56	56	58	2
R-19124	Res.	B	2	9750-54 W 121st St	67	68	70	3
R-19125	Res.	B	2	9758-62 W 121st St	65	65	67	3
R-19126	Res.	B	2	9766-73 W 121st St	64	65	68	3
R-19127	Res.	B	3	12061-69 Connell Dr	65	66	69	3
R-19128	Res.	B	2	12003-07 Connell Dr	66	66	69	3
R-19129	Res.	B	3	9751-59 W 121st St	66	67	69	3
R-19130	Res.	B	3	9763-71 W 121st St	61	61	63	2
R-19131	Res.	B	2	9775-79 W 121st St	58	59	61	3
R-19132	Res.	B	1	12018 Connell	57	58	61	4
R-19133	Res.	B	1	12014 Connell	58	59	61	3
R-19134	Res.	B	2	12002-06 Connell	61	61	64	3
R-19135	Res.	B	2	11974-78 Connell	64	65	67	3
R-19136	Res.	B	2	9803-05 W 121st St	56	57	59	3
R-19137	Res.	B	2	9807-09 W 121st St	56	57	59	3
R-19138	Res.	B	2	9813-17 W 121st St	57	58	59	2
R-19139	Res.	B	2	12115-19 Farley	55	56	58	3
R-19140	Res.	B	2	12107-11 Farley	55	56	58	3
R-19141	Res.	B	3	9808-16 W 121st St	57	57	60	3
R-19142	Res.	B	3	9820-28 W 121st St	57	57	60	3
R-19143	Res.	B	2	12009-13 Farley	56	57	60	4
R-19144	Res.	B	1	12005 Farley	58	59	62	4
R-19145	Res.	B	2	11979-83 Farley	63	64	66	3
R-19146	Res.	B	2	12112-16 Farley	54	55	57	3
R-19147	Res.	B	3	12100-08 Farley	56	57	59	3
R-19148	Res.	B	2	12014-18 Farley	56	56	59	3

Table B-19: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 19								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-19149	Res.	B	2	12000-04 Farley	58	59	61	4
R-19150	Res.	B	3	11972-80 Farley	62	63	66	4
R-19151	Res.	B	2	11964-68 Farley	62	63	66	4
R-19152	Res.	B	3	11952-60 Farley	62	63	66	4
R-19153	Res.	B	3	11940-48 Farley	63	64	66	3
R-19154	Res.	B	2	11928-36 Grant St	63	64	66	2
R-19155	Res.	B	1	9931 W 121st St	54	54	57	3
R-19156	Res.	B	1	9930 W 121st St	54	54	57	3
R-19157	Res.	B	1	9932 W 121st St	54	54	55	1
R-19158	Res.	B	1	9934 W 121st St	55	56	58	3
R-19159	Res.	B	1	9936 W 121st St	56	57	59	3
R-19160	Res.	B	1	9938 W 121st St	55	56	58	3
R-19161	Res.	B	1	9939 W 121st St	56	56	58	2
R-19162	Res.	B	1	9935 W 121st St	55	56	58	2
R-19163	Res.	B	1	9933 W 121st St	56	56	57	2
R-19164	Res.	B	1	12055 Wedd St	56	57	59	3
R-19165	Res.	B	1	12051 Wedd St	58	58	60	3
R-19166	Sport	C	1	Nottingham Tennis	59	60	61	2
R-19167	Park	C	1	Nottingham Pool	64	64	64	1
Predicted NSA 19 Traffic Noise Impacts							**155**	

Table B-20: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 20								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-20001	Park	C	1	Jefferson Pointe Pool	68	70	69	1
R-20002	Res.	B	4	Jeff Pointe Bld 5 2nd 4	72	73	72	0
R-20003	Res.	B	4	Jeff Pointe Bld 5 1st 4	56	57	58	1
R-20004	Res.	B	4	Jeff Pointe Bld 4 1stb4	65	66	66	1
R-20005	Res.	B	4	Jeff Pointe Bld 4 1sta4	54	54	54	0
R-20006	Res.	B	4	Jeff Pointe Bld 4 3rd4	54	54	54	0
R-20007	Res.	B	4	Jeff Pointe Bld 3 1stb4	66	67	68	2
R-20008	Res.	B	4	Jeff Pointe Bld 3 1sta4	54	54	54	0
R-20009	Res.	B	4	Jeff Pointe Bld 3 3rd4	54	54	54	0
R-20010	Res.	B	4	Jeff Pointe Bld 2 1stb4	67	68	69	2
R-20011	Res.	B	4	Jeff Pointe Bld 2 1sta4	54	54	54	0
R-20012	Res.	B	4	Jeff Pointe Bld 2 3rd4	54	54	54	0
R-20013	Res.	B	4	Jeff Pointe Bld 1 1stb4	67	68	70	2
R-20014	Res.	B	4	Jeff Pointe Bld 1 1sta4	54	54	54	0
R-20015	Res.	B	4	Jeff Pointe Bld 1 3rd4	54	54	54	0
R-20016	Res.	B	4	Jeff Pointe Bld 6 1st 4	58	59	59	1
R-20017	Res.	B	4	Jeff Pointe Bld 6 2nd 4	61	62	61	1
R-20018	Res.	B	4	Jeff Pointe Bld 6 3rd 4	63	64	64	1
R-20019	Res.	B	4	Jeff Pointe Bld 8 1st 4	56	58	58	2
R-20020	Res.	B	4	Jeff Pointe Bld 8 2nd 4	59	60	61	2
R-20021	Res.	B	4	Jeff Pointe Bld 8 3rd 4	61	63	63	2
R-20022	Res.	B	4	Jeff Pointe Bld 9 1st 4	55	56	57	3
R-20023	Res.	B	4	Jeff Pointe Bld 9 2nd 4	58	59	59	2
R-20024	Res.	B	4	Jeff Pointe Bld 9 3rd 4	59	61	61	2
R-20025	Res.	B	4	Jeff Pointe Bld 10 1st4	55	56	59	4
R-20026	Res.	B	4	Jeff Pointe Bld 10 2nd4	59	60	62	3
R-20027	Res.	B	4	Jeff Pointe Bld 10 3rd4	61	62	63	2
R-20028	Res.	B	4	Jeff Pointe Bld 11 1st4	58	59	63	4
R-20029	Res.	B	4	Jeff Pointe Bld 11 2nd4	62	63	65	3
R-20030	Res.	B	4	Jeff Pointe Bld 11 3rd4	64	65	66	2
R-20031	Res.	B	4	Jeff Pointe Bld 12 1st4	59	60	63	4
R-20032	Res.	B	4	Jeff Pointe Bld 12 2nd4	63	64	65	2
R-20033	Res.	B	4	Jeff Pointe Bld 12 3rd4	66	67	68	2
R-20034	Res.	B	4	Jeff Pointe Bld 7 1sta4	54	54	54	0
R-20035	Res.	B	2	Jeff Pointe Bld 7 2nda2	54	55	55	1
R-20036	Res.	B	2	Jeff Pointe Bld 7 1stb2	54	54	54	0
R-20037	Res.	B	4	Jeff Pointe Bld 7 2ndb4	54	54	54	0

Table B-20: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 20								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-20038	Res.	B	4	Jeff Pointe Bld13 1st 4	54	54	56	2
R-20039	Res.	B	4	Jeff Pointe Bld13 2nd 4	57	58	60	3
R-20040	Res.	B	4	Jeff Pointe Bld15 1st 4	54	55	57	3
R-20041	Res.	B	4	Jeff Pointe Bld15 2nd 4	57	58	60	3
R-20042	Res.	B	4	Jeff Pointe Bld18 1st 4	54	55	57	3
R-20043	Res.	B	4	Jeff Pointe Bld18 2nd 4	58	59	61	3
R-20044	Res.	B	4	Jeff Pointe Bld19 1st 4	58	59	61	3
R-20045	Res.	B	4	Jeff Pointe Bld19 2nd 4	62	64	65	3
R-20046	Res.	B	2	11624-11626 Connel St	56	58	60	3
R-20047	Res.	B	2	11618-11620 Connel St	56	57	59	4
R-20048	Res.	B	2	11612-11614 Connel St	54	54	57	3
R-20049	Res.	B	2	11606-11608 Connel St	54	54	56	2
R-20050	Res.	B	2	11600-11602 Connel St	54	54	56	2
R-20051	Res.	B	4	Jeff Pointe Bld20 1sta4	54	55	59	5
R-20052	Res.	B	4	Jeff Pointe Bld20 2nda4	59	60	61	2
R-20053	Res.	B	2	Jeff Pointe Bld20 1stb2	60	61	63	3
R-20054	Res.	B	2	Jeff Pointe Bld20 2ndb2	64	65	66	2
R-20055	Res.	B	4	Jeff Pointe Bld21 1sta4	68	69	69	1
R-20056	Res.	B	2	Jeff Pointe Bld21 2nda2	71	72	72	2
R-20057	Res.	B	2	Jeff Pointe Bld21 1stb2	54	54	54	0
R-20058	Res.	B	4	Jeff Pointe Bld21 2ndb4	54	54	55	1
R-20059	Res.	B	4	Jeff Pointe Bld27 1sta4	61	62	64	3
R-20060	Res.	B	4	Jeff Pointe Bld27 2nda4	63	65	65	2
R-20061	Res.	B	2	Jeff Pointe Bld27 1stb2	54	54	54	0
R-20062	Res.	B	2	Jeff Pointe Bld27 2ndb2	54	54	54	0
R-20063	Res.	B	4	Jeff Pointe Bld22 1st 4	71	72	71	0
R-20064	Res.	B	4	Jeff Pointe Bld22 2nd 4	54	54	54	0
R-20065	Res.	B	4	Jeff Pointe Bld23 1sta4	71	72	72	1
R-20066	Res.	B	2	Jeff Pointe Bld23 2nda2	74	75	75	1
R-20067	Res.	B	2	Jeff Pointe Bld23 1stb2	54	54	54	0
R-20068	Res.	B	4	Jeff Pointe Bld23 2ndb4	54	54	54	0
R-20069	Res.	B	4	Jeff Pointe Bld26 1sta4	61	62	63	2
R-20070	Res.	B	4	Jeff Pointe Bld26 2nda4	63	64	65	2
R-20071	Res.	B	2	Jeff Pointe Bld26 1stb2	54	54	54	0
R-20072	Res.	B	2	Jeff Pointe Bld26 2ndb2	54	54	54	0
R-20073	Sport	c	1	Jefferson Pointe Tennis	74	75	74	0
R-20074	Res.	B	4	Jeff Pointe Bld24 1st 4	68	70	71	3

Table B-20: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 20								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-20075	Res.	B	4	Jeff Pointe Bld24 2nd 4	67	68	69	1
R-20076	Res.	B	4	Jeff Pointe Bld25 1st 4	62	63	65	3
R-20077	Res.	B	4	Jeff Pointe Bld25 2nd 4	61	63	63	2
R-20078	Res.	B	2	9927-9929 W 116th Pl	57	58	61	4
R-20079	Res.	B	2	9921-9923 W 116th Pl	54	54	54	0
R-20080	Res.	B	2	Jeff Pointe Bld28 1sta2	60	61	63	3
R-20081	Res.	B	4	Jeff Pointe Bld28 2nda4	65	66	67	2
R-20082	Res.	B	2	Jeff Pointe Bld28 1stb2	56	58	60	4
R-20083	Res.	B	4	Jeff Pointe Bld28 2ndb4	60	62	62	2
R-20084	Res.	B	2	Jeff Pointe Bld29 1sta2	67	69	70	3
R-20085	Res.	B	4	Jeff Pointe Bld29 2nda4	72	73	73	1
R-20086	Res.	B	2	Jeff Pointe Bld29 1stb2	63	64	66	3
R-20087	Res.	B	4	Jeff Pointe Bld29 2ndb4	67	68	69	2
R-20088	Res.	B	2	Jeff Pointe Bld30 2ndc2	69	70	70	1
R-20089	Res.	B	2	Jeff Pointe Bld30 1sta2	67	69	71	3
R-20090	Res.	B	2	Jeff Pointe Bld30 2nda2	72	73	74	1
R-20091	Res.	B	2	Jeff Pointe Bld30 2ndd2	67	67	68	2
R-20092	Res.	B	2	Jeff Pointe Bld30 1stb2	54	54	54	0
R-20093	Res.	B	2	Jeff Pointe Bld30 2ndb2	54	54	54	0
R-20094	Res.	B	2	Jeff Pointe Bld31 2ndc2	63	64	65	2
R-20095	Res.	B	2	Jeff Pointe Bld31 1sta2	54	54	54	0
R-20096	Res.	B	2	Jeff Pointe Bld31 2nda2	54	55	57	3
R-20097	Res.	B	2	Jeff Pointe Bld31 2ndd2	63	64	66	3
R-20098	Res.	B	2	Jeff Pointe Bld31 1stb2	54	54	54	0
R-20099	Res.	B	2	Jeff Pointe Bld31 2ndb2	54	54	54	0
R-20100	Res.	B	2	Jeff Pointe Bld32 2ndc2	59	61	62	3
R-20101	Res.	B	2	Jeff Pointe Bld32 1sta2	54	54	56	2
R-20102	Res.	B	2	Jeff Pointe Bld32 2nda2	56	57	58	3
R-20103	Res.	B	2	Jeff Pointe Bld32 2ndd2	61	62	64	3
R-20104	Res.	B	2	Jeff Pointe Bld32 1stb2	54	54	54	0
R-20105	Res.	B	2	Jeff Pointe Bld32 2ndb2	54	54	54	0
R-20106	Res.	B	2	9918-9920 W 116th Pl	56	57	59	3
R-20107	Res.	B	2	9912-9914 W 116th Pl	54	54	56	2
R-20108	Res.	B	2	9900-9902 W 116th Pl	54	54	56	2
R-20109	Res.	B	2	9906-9908 W 116th Pl	54	55	58	4
R-20110	Sport	C	1	Indian Valley Tennis	60	61	63	4
R-20111	Trail	C	1	Indian Creek Trail 19	72	72	71	-1

Table B-20: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 20								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-20112	Sport	C	3	Indian Valley Soccer 1	69	70	69	0
R-20113	Sport	C	3	Indian Valley Soccer 2	67	68	68	1
R-20114	Trail	C	1	Indian Creek Trail 18	64	65	66	2
R-20115	Sport	C	3	Indian Valley Baseball1	63	64	65	2
R-20116	Sport	C	3	Indian Valley Baseball2	62	63	63	2
R-20117	Trail	C	1	Indian Creek Trail 20	67	68	69	2
Predicted NSA 20 Traffic Noise Impacts							**91**	

Table B-21: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 21								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-21001	Res.	B	12	Highland Ridge Bld 16	57	58	60	3
R-21002	Res.	B	6	Highland Ridge Bld 17	61	62	63	2
R-21003	Res.	B	6	Highland Ridge Bld 18	60	61	62	2
R-21004	Res.	B	12	Highland Ridge Bld 19	54	54	55	1
R-21005	Res.	B	8	Highland Ridge Bld 25	57	58	59	2
R-21006	Res.	B	6	Highland Ridge Bld 26	57	58	60	2
R-21007	Res.	B	16	Highland Ridge Bld 27	54	54	54	0
R-21008	Res.	B	1	Highland Ridge Tennis	54	54	54	0
R-21009	Res.	B	1	Anthology Balcony	61	62	63	2
R-21010	Res.	B	1	Anthology Patio 1	58	59	63	4
R-21011	Res.	B	1	Anthology Patio 2	54	54	57	3
Predicted NSA 20 Traffic Noise Impacts							**0**	

Table B-22: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 22								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-22001	Res.	B	1	10615 W 108th Ter	62	63	64	2
R-22002	Res.	B	1	10609 W 108th Ter	63	64	66	2
R-22003	Res.	B	1	10605 W 108th Ter	65	66	67	2
R-22004	Res.	B	1	10590 W 108th Ter	64	65	67	3
R-22005	Res.	B	1	10779 Larsen St	62	63	65	3
R-22006	Res.	B	1	10775 Larsen St	61	62	64	3
R-22007	Res.	B	1	10771 Larsen St	60	61	63	3
R-22008	Res.	B	1	10767 Larsen St	60	61	63	3
R-22009	Res.	B	1	10763 Larsen St	59	60	62	3
R-22010	Res.	B	1	10759 Larsen St	58	59	61	3
R-22011	Res.	B	1	10608 W 108th Ter	61	62	64	3
R-22012	Res.	B	1	10600 W 108th Ter	61	62	64	3
R-22013	Res.	B	1	10776 Larsen St	59	60	62	3
R-22014	Res.	B	1	10772 Larsen St	58	59	61	3
R-22015	Res.	B	1	10768 Larsen St	58	59	61	3
R-22016	Res.	B	1	10764 Larsen St	57	59	60	3
Predicted NSA 20 Traffic Noise Impacts							**3**	

Table B-23: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 23								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-23001	Res.	B	4	10589 Goddard St 1st Floor	65	66	66	1
R-23002	Res.	B	4	10589 Goddard St 2nd Floor	68	69	70	1
R-23003	Res.	B	4	10525 Goddard St 1st Floor A	63	64	65	2
R-23004	Res.	B	4	10525 Goddard St 2nd Floor A	66	67	69	2
R-23005	Res.	B	4	10525 Goddard St 1st Floor B	60	60	61	1
R-23006	Res.	B	4	10525 Goddard St 2nd Floor B	63	64	66	3
R-23007	Res.	B	4	10517 Goddard St 1st Floor	67	68	69	2
R-23008	Res.	B	4	10517 Goddard St 2nd Floor	72	73	74	2
R-23009	Res.	B	4	10507 Goddard St 1st Floor A	63	63	64	2
R-23010	Res.	B	4	10507 Goddard St 2nd Floor A	65	66	66	1
R-23011	Res.	B	4	10507 Goddard St 1st Floor B	65	66	67	2
R-23012	Res.	B	4	10507 Goddard St 2nd Floor B	69	69	69	1
R-23013	Res.	B	4	10501 Goddard St 1st Floor A	68	69	70	2
R-23014	Res.	B	4	10501 Goddard St 2nd Floor A	70	71	71	1
R-23015	Res.	B	4	10501 Goddard St 1st Floor B	68	68	70	2
R-23016	Res.	B	4	10501 Goddard St 2nd Floor B	72	72	72	1
R-23017	Res.	B	4	10577 Goddard St 1st Floor	66	67	67	1
R-23018	Res.	B	4	10577 Goddard St 2nd Floor	68	69	69	1
R-23019	Res.	B	4	10537 Goddard St 1st Floor	56	57	58	1
R-23020	Res.	B	4	10537 Goddard St 2nd Floor	60	61	62	2
R-23021	Res.	B	4	10545 Goddard St 1st Floor	58	59	59	2
R-23022	Res.	B	4	10545 Goddard St 2nd Floor	62	62	63	1
R-23023	Res.	B	4	10565 Goddard St 1st Floor	56	57	57	1
R-23024	Res.	B	4	10565 Goddard St 2nd Floor	58	59	60	1
R-23025	Res.	B	4	10557 Goddard St 1st Floor	57	58	59	2
R-23026	Res.	B	4	10557 Goddard St 2nd Floor	60	60	61	2
R-23027	Res.	B	4	10553 Goddard St 1st Floor	55	56	56	1
R-23028	Res.	B	4	10553 Goddard St 2nd Floor	57	58	59	1
R-23029	Res.	B	1	Highland Park Apt Pool 1	54	54	55	1
R-23030	Res.	B	4	10414 Goddard St 1st Floor A	63	64	64	1
R-23031	Res.	B	4	10414 Goddard St 2nd Floor A	66	67	67	1
R-23032	Res.	B	4	10414 Goddard St 1st Floor B	54	54	54	0
R-23033	Res.	B	4	10414 Goddard St 2nd Floor B	58	59	59	1
R-23034	Res.	B	4	10406 Goddard St 1st Floor A	64	65	65	1
R-23035	Res.	B	4	10406 Goddard St 2nd Floor A	68	69	68	1
R-23036	Res.	B	4	10406 Goddard St 1st Floor B	54	54	54	0
R-23037	Res.	B	4	10406 Goddard St 2nd Floor B	56	57	57	1
R-23038	Res.	B	4	10422 Goddard St 1st Floor	59	60	60	1
R-23039	Res.	B	4	10422 Goddard St 2nd Floor	62	62	63	1

Table B-23: Noise Sensitive Receptors and Hourly Equivalent Noise Levels 2050 Ultimate Build – NSA 23								
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))			
ID #	Use	NAC	ERs	Location	2019 Existing	2050 No-Build	2050 Build	Build - Existing (Change)
R-23040	Res.	B	4	10418 Goddard St 1st Floor	57	57	57	1
R-23041	Res.	B	4	10418 Goddard St 2nd Floor	60	60	61	1
R-23042	Res.	B	4	10434 Goddard St 1st Floor	55	56	56	1
R-23043	Res.	B	4	10434 Goddard St 2nd Floor	58	59	60	2
R-23044	Res.	B	4	10308 Goddard St 1st Floor	54	54	54	0
R-23045	Res.	B	4	10308 Goddard St 2nd Floor	55	56	56	1
R-23046	Res.	B	4	10346 Goddard St 1st Floor	54	55	55	1
R-23047	Res.	B	4	10346 Goddard St 2nd Floor	56	57	57	1
R-23048	Res.	B	4	10338 Goddard St 1st Floor A	54	54	54	0
R-23049	Res.	B	4	10338 Goddard St 2nd Floor A	54	54	54	0
R-23050	Res.	B	4	10338 Goddard St 1st Floor B	54	54	54	0
R-23051	Res.	B	4	10338 Goddard St 2nd Floor B	55	56	55	0
R-23052	Res.	B	4	10332 Goddard St 1st Floor	54	54	54	0
R-23053	Res.	B	4	10332 Goddard St 2nd Floor	54	55	55	1
R-23054	Res.	B	1	Highland Park Apt Tennis Courts	54	54	54	0
R-23055	Res.	B	1	Highland Park Apt Pool 2	54	54	54	0
R-23056	Res.	B	4	10347 Goddard St 1st Floor	67	68	68	1
R-23057	Res.	B	4	10347 Goddard St 2nd Floor	72	73	72	1
R-23058	Res.	B	4	10343 Goddard St 1st Floor A	55	56	56	1
R-23059	Res.	B	4	10343 Goddard St 2nd Floor A	59	60	59	1
R-23060	Res.	B	4	10343 Goddard St 1st Floor B	66	67	67	1
R-23061	Res.	B	4	10343 Goddard St 2nd Floor B	68	69	69	1
R-23062	Res.	B	4	10335 Goddard St 1st Floor A	54	55	55	1
R-23063	Res.	B	4	10335 Goddard St 2nd Floor A	57	58	57	1
R-23064	Res.	B	4	10335 Goddard St 1st Floor B	64	65	65	1
R-23065	Res.	B	4	10335 Goddard St 2nd Floor B	66	67	67	1
R-23066	Res.	B	4	10327 Goddard St 1st Floor A	54	54	54	0
R-23067	Res.	B	4	10327 Goddard St 2nd Floor A	55	56	55	1
R-23068	Res.	B	4	10327 Goddard St 1st Floor B	58	59	59	1
R-23069	Res.	B	4	10327 Goddard St 2nd Floor B	61	62	62	1
R-23070	Res.	B	4	10315 Goddard St 1st Floor A	54	54	54	0
R-23071	Res.	B	4	10315 Goddard St 2nd Floor A	54	54	54	0
R-23072	Res.	B	4	10315 Goddard St 1st Floor B	66	67	67	1
R-23073	Res.	B	4	10315 Goddard St 2nd Floor B	68	69	69	1
R-23074	Res.	B	1	Highland Park Apt Basketball Court	55	56	56	1
Predicted NSA 20 Traffic Noise Impacts							**96**	

Appendix C
Noise Barrier Feasibility and Reasonableness Analysis

Table C-1: NW2 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-2001	Res.	B	1	7900 W 183rd St	64	62	2
R-2002	Res.	B	1	7870 W 183rd St	72	66	7
					Predicted Build Alternative With Barrier Benefits		1
					Noise Impact		Benefited Receptor
[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel							
Reasonableness:							
The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.							
Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors			
804	14.5	11,665	11,665	1			
Is the barrier-square-footage-per-benefitted receptor less than 1,800?				No			

Table C-2: NW3 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-3001	Res.	B	1	17205 Metcalf Pl	69	63	6
					Predicted Build Alternative With Barrier Benefits		1
					Noise Impact		Benefited Receptor
[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel							
Reasonableness:							
The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.							
Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors			
1,403	16.0	22,446	22,446	1			
Is the barrier-square-footage-per-benefitted receptor less than 1,800?				No			

Table C-3: NW4 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC		Address	Build	With Barrier	NLR[1]
R-4003	Res.	B	1	8055 W 172nd Ter	61	57	4
R-4004	Res.	B	1	7965 W 172nd Ter	67	61	7
R-4005	Res.	B	1	8070 W 172nd Ter	58	56	2
R-4006	Res.	B	1	7980 W 172nd Ter	68	64	5
					Predicted Build Alternative With Barrier Benefits		2
					Noise Impact		Benefited Receptor
[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel							
NW4							
Reasonableness:							
The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.							
Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor		All Benefitted Receptors		
1,808	12.9	23,309	11,655		2		
Is the barrier-square-footage-per-benefitted receptor less than 1,800?							No

Table C-4: NW5 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	Equivalent Receptors	Address	Build	With Barrier	NLR[1]
R-5038	Res.	B	1	7912 W 166th Pl	57	55	2
R-5039	Res.	B	1	7908 W 166th Pl	55	55	1
R-5040	Res.	B	1	7904 W 166th Pl	60	59	2
R-5041	Res.	B	1	7900 W 166th Pl	61	59	2
R-5042	Park	C	1	Bluhawk Benches	60	60	0
R-5043	Park	C	1	Bluhawk Tennis	64	57	8
R-5081	Res.	B	2	Bluhawk 3A-1	64	59	5
R-5082	Res.	B	2	Bluhawk 3A-2	67	62	5
R-5083	Res.	B	2	Bluhawk 3A-3	68	65	3
R-5084	Res.	B	2	Bluhawk 3A-4	68	67	1
R-5085	Res.	B	1	Bluhawk 3B-1	66	59	6
R-5086	Res.	B	1	Bluhawk 3B-2	73	62	10
R-5087	Res.	B	1	Bluhawk 3B-3	74	68	6
R-5088	Res.	B	1	Bluhawk 3B-4	74	73	2
R-5089	Res.	B	1	Bluhawk 3C-2	74	68	6
R-5090	Res.	B	1	Bluhawk 3C-3	75	73	2
R-5091	Res.	B	3	Bluhawk 3D-2	68	58	10
R-5092	Res.	B	3	Bluhawk 3D-3	69	61	8
R-5093	Res.	B	2	Bluhawk 4A-1	61	54	7
R-5094	Res.	B	2	Bluhawk 4A-2	65	56	10
R-5095	Res.	B	2	Bluhawk 4A-3	66	59	8
R-5096	Res.	B	2	Bluhawk 4A-4	67	63	4
R-5097	Res.	B	1	Bluhawk 4B-1	64	58	5
R-5098	Res.	B	1	Bluhawk 4B-2	70	62	9
R-5099	Res.	B	1	Bluhawk 4B-3	73	66	7
R-5100	Res.	B	1	Bluhawk 4B-4	74	70	5
R-5101	Res.	B	1	Bluhawk 4C-2	73	65	7
R-5102	Res.	B	1	Bluhawk 4C-3	74	69	6
R-5103	Res.	B	3	Bluhawk 4D-2	62	54	8
R-5104	Res.	B	3	Bluhawk 4D-3	66	55	11
R-5105	Res.	B	1	Bluhawk 5A-1	54	54	0
R-5106	Res.	B	1	Bluhawk 5A-2	58	54	4
R-5107	Res.	B	1	Bluhawk 5A-3	62	54	8
R-5108	Res.	B	1	Bluhawk 5A-4	65	55	11
R-5109	Res.	B	1	Bluhawk 5B-2	64	55	9
R-5110	Res.	B	1	Bluhawk 5B-3	67	57	11
R-5111	Res.	B	3	Bluhawk 5C-2	63	55	7
R-5112	Res.	B	3	Bluhawk 5C-3	65	57	7
R-5113	Res.	B	1	Bluhawk 5D-1	54	54	0
R-5114	Res.	B	1	Bluhawk 5D-2	55	54	1
R-5115	Res.	B	1	Bluhawk 5D-3	58	54	4
R-5116	Res.	B	1	Bluhawk 5D-4	61	54	7
R-5117	Res.	B	1	Bluhawk 5E-2	59	54	5
R-5118	Res.	B	1	Bluhawk 5E-3	61	54	7
R-5119	Res.	B	1	Bluhawk 6A-2	69	62	8
R-5120	Res.	B	1	Bluhawk 6A-3	72	64	8
R-5121	Res.	B	2	Bluhawk 6B-2	71	62	9
R-5122	Res.	B	2	Bluhawk 6B-3	75	65	10
R-5123	Res.	B	1	Bluhawk 6C-2	69	61	9
R-5124	Res.	B	1	Bluhawk 6C-3	72	64	9
R-5125	Res.	B	1	Bluhawk 7A-1	54	54	0
R-5126	Res.	B	1	Bluhawk 7A-2	55	54	1
R-5127	Res.	B	1	Bluhawk 7A-3	58	54	4
R-5128	Res.	B	1	Bluhawk 7A-4	59	54	5
R-5129	Res.	B	1	Bluhawk 7B-2	59	54	5
R-5130	Res.	B	1	Bluhawk 7B-3	61	55	5
R-5131	Res.	B	3	Bluhawk 7C-2	62	54	8
R-5132	Res.	B	3	Bluhawk 7C-3	65	55	10

Table C-4: NW5 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	Equivalent Receptors	Address	Build	With Barrier	NLR[1]
R-5133	Res.	B	1	Bluhawk 7D-2	58	54	4
R-5134	Res.	B	1	Bluhawk 7D-3	61	54	7
R-5135	Res.	B	1	Bluhawk 7E-1	54	54	0
R-5136	Res.	B	1	Bluhawk 7E-2	58	58	1
R-5137	Res.	B	1	Bluhawk 7E-3	61	60	1
R-5138	Res.	B	1	Bluhawk 7E-4	62	61	1
R-5139	Res.	B	3	Bluhawk 8A-2	65	56	9
R-5140	Res.	B	3	Bluhawk 8A-3	70	58	12
R-5141	Res.	B	1	Bluhawk 8B-2	75	64	11
R-5142	Res.	B	1	Bluhawk 8B-3	76	69	8
R-5143	Res.	B	1	Bluhawk 8C-1	61	58	3
R-5144	Res.	B	1	Bluhawk 8C-2	69	61	8
R-5145	Res.	B	1	Bluhawk 8C-3	75	64	11
R-5146	Res.	B	1	Bluhawk 8C-4	76	70	7
R-5147	Res.	B	1	Bluhawk 8D-1	60	57	3
R-5148	Res.	B	1	Bluhawk 8D-2	66	61	5
R-5149	Res.	B	1	Bluhawk 8D-3	71	64	7
R-5150	Res.	B	1	Bluhawk 8D-4	71	65	6
				Predicted Build Alternative With Barrier Benefits			**78**
					Noise Impact		Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW5

Reasonableness:

The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.

Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors
1,741	13.6	23,753	305	78
			Is the barrier-square-footage-per-benefitted receptor less than 1,800?	**Yes**

Table C-5: NW6 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-6001	Res.	B	6	7659-79 W 158th Ter	65	65	0
R-6002	Res.	B	6	7727-47 W 158th Ter	58	58	0
R-6003	Res.	B	5	7703-19 W 158th Ter	54	54	0
R-6004	Res.	B	5	15820-36 Robinson St	62	61	1
R-6005	Res.	B	5	15800-16 Robinson St	61	60	1
R-6006	Res.	B	4	15821-33 Robinson St	54	54	0
R-6007	Res.	B	4	15805-17 Robinson St	54	54	0
R-6008	Res.	B	4	7638-50 W 158th Ter	58	58	0
R-6009	Res.	B	5	7641-57 W 158th St	54	54	0
R-6010	Res.	B	4	7820-32 W 158th St	64	60	4
R-6011	Res.	B	4	7800-12 W 158th St	60	56	4
R-6012	Res.	B	4	7716-28 W 158th St	55	54	1
R-6013	Res.	B	3	7700-08 W 158th St	56	54	2
R-6014	Trail	C	1	Brittany Park Trail 2	73	62	12
R-6015	Res.	B	1	7419 W 157th Ter	56	54	2
R-6016	Res.	B	1	7503 W 157th Ter	56	54	2
R-6017	Res.	B	1	7507 W 157th Ter	58	54	4
R-6018	Res.	B	1	7511 W 157th Ter	60	54	5
R-6019	Res.	B	1	7515 W 157th Ter	62	56	6
R-6020	Res.	B	1	15712 Conser St	64	57	6
R-6021	Res.	B	1	15708 Conser St	66	59	7
R-6022	Res.	B	1	15704 Conser St	68	60	8
R-6023	Res.	B	1	15700 Conser St	70	61	9
R-6024	Res.	B	1	15666 Conser St	71	61	10
R-6025	Res.	B	1	15662 Conser St	71	61	10
R-6026	Res.	B	1	15658 Conser St	72	61	10
R-6027	Res.	B	1	15654 Conser St	72	62	10
R-6028	Res.	B	1	15650 Conser St	72	62	10
R-6029	Res.	B	1	15646 Conser St	71	61	9
R-6030	Res.	B	1	15642 Conser St	70	61	9
R-6031	Res.	B	1	7502 W 157th Ter	57	54	3
R-6032	Res.	B	1	7506 W 157th Ter	60	54	5
R-6033	Res.	B	1	15705 Conser St	63	56	6
R-6034	Res.	B	1	15701 Conser St	63	57	7
R-6035	Res.	B	1	15663 Conser St	64	58	5
R-6036	Res.	B	1	15659 Conser St	64	57	7
R-6037	Res.	B	1	15655 Conser St	64	57	7
R-6038	Res.	B	1	15651 Conser St	64	57	7
R-6039	Res.	B	1	15647 Conser St	64	56	8
R-6040	Res.	B	1	15643 Conser St	63	57	7
R-6041	Res.	B	1	15639 Conser St	64	57	8
R-6042	Res.	B	1	15635 Conser St	64	56	8
R-6043	Res.	B	1	15631 Conser St	63	56	8
R-6044	Res.	B	1	15627 Conser St	63	55	7
R-6045	Res.	B	1	15700 Foster	58	54	4
R-6046	Res.	B	1	15652 Foster	58	54	4
R-6047	Res.	B	1	15648 Foster	58	54	4
R-6048	Res.	B	1	15644 Foster	58	54	4
R-6049	Res.	B	1	15640 Foster	58	54	4
R-6050	Res.	B	1	15636 Foster	59	54	5
R-6051	Res.	B	1	15632 Foster	59	54	5
R-6052	Res.	B	1	15628 Foster	58	54	4
R-6053	Res.	B	1	7601 W 156th Pl	66	58	8
R-6054	Res.	B	1	7605 W 156th Pl	68	60	9
R-6055	Res.	B	1	7701 W 156th Pl	70	62	9
R-6056	Res.	B	1	7705 W 156th Pl	69	62	8
R-6057	Res.	B	1	7704 W 156th Pl	69	60	8
R-6058	Res.	B	1	7700 W 156th Pl	66	57	8

Table C-5: NW6 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-6059	Res.	B	1	7604 W 156th Pl	64	56	8
R-6060	Res.	B	1	7600 W 156th Pl	62	55	8
R-6061	Res.	B	1	7603 W 156th Ter	62	55	8
R-6062	Res.	B	1	7607 W 156th Ter	63	55	7
R-6063	Res.	B	1	7611 W 156th Ter	63	56	7
R-6064	Res.	B	1	7703 W 156th Ter	65	57	8
R-6065	Res.	B	1	7707 W 156th Ter	66	59	8
R-6066	Res.	B	1	7711 W 156th Ter	68	60	8
R-6067	Res.	B	1	7715 W 156th Ter	68	61	7
R-6068	Res.	B	1	7714 W 156th Ter	68	61	7
R-6069	Res.	B	1	7710 W 156th Ter	65	59	6
R-6070	Res.	B	1	7706 W 156th Ter	62	56	6
R-6071	Res.	B	1	7702 W 156th Ter	61	55	6
R-6072	Res.	B	1	7614 W 156th Ter	61	54	7
R-6073	Res.	B	1	7610 W 156th Ter	61	54	7
R-6074	Res.	B	1	7606 W 156th Ter	60	54	6
R-6075	Trail	C	1	Brittany Park Trail 1	68	61	6
R-6076	Res.	B	1	7609 W 156th St	60	54	6
R-6077	Res.	B	1	7613 W 156th St	61	54	7
R-6078	Res.	B	1	7719 W 156th St	62	55	7
R-6079	Res.	B	1	7723 W 156th St	63	56	7
R-6080	Res.	B	1	15482 Robinson St	64	58	7
R-6081	Res.	B	1	15478 Robinson St	66	60	6
R-6082	Res.	B	1	15472 Robinson St	68	61	7
R-6083	Res.	B	1	15468 Robinson St	68	62	6
R-6084	Res.	B	1	15464 Robinson St	69	63	6
R-6085	Res.	B	1	15460 Robinson St	69	63	7
R-6086	Res.	B	1	15456 Robinson St	70	63	7
R-6087	Res.	B	1	15450 Robinson St	70	63	7
R-6088	Res.	B	1	15444 Robinson St	69	62	7
R-6089	Res.	B	1	15438 Robinson St	70	62	7
R-6090	Res.	B	1	15430 Robinson St	70	62	7
R-6091	Res.	B	1	15422 Robinson St	69	62	7
R-6092	Res.	B	1	15410 Robinson St	70	62	8
R-6093	Res.	B	1	15342 Robinson St	73	63	10
R-6094	Res.	B	1	15338 Robinson St	72	63	8
R-6095	Res.	B	1	15332 Robinson St	72	63	9
R-6096	Res.	B	1	15326 Robinson St	69	62	8
R-6097	Res.	B	1	15320 Robinson St	67	60	7
R-6098	Res.	B	1	15314 Robinson St	65	58	6
R-6099	Res.	B	1	15308 Robinson St	63	57	6
R-6100	Res.	B	1	15340 Newton Dr	63	57	6
R-6101	Res.	B	1	7713 W 155th St	63	55	8
R-6102	Res.	B	1	7709 W 155th St	62	54	8
R-6103	Res.	B	1	7710 W 155th St	62	54	8
R-6104	Res.	B	1	7714 W 155th St	63	55	8
R-6105	Res.	B	1	7718 W 155th St	63	56	7
R-6106	Res.	B	1	7722 W 155th St	64	58	7
R-6107	Res.	B	1	7757 W 154th Ter	65	58	7
R-6108	Res.	B	1	7753 W 154th Ter	63	56	7
R-6109	Res.	B	1	7749 W 154th Ter	63	56	7
R-6110	Res.	B	1	7745 W 154th Ter	62	55	7
R-6111	Res.	B	1	7741 W 154th Ter	61	54	7
R-6112	Res.	B	1	7740 W 154th Ter	62	54	8
R-6113	Res.	B	1	7744 W 154th Ter	63	55	8
R-6114	Res.	B	1	7748 W 154th Ter	63	56	7
R-6115	Res.	B	1	7752 W 154th Ter	64	56	7
R-6116	Res.	B	1	7756 W 154th Ter	66	59	7

Table C-5: NW6 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-6117	Res.	B	1	15431 Robinson St	66	60	7
R-6118	Res.	B	1	15423 Robinson St	66	60	7
R-6119	Res.	B	1	15405 Robinson St	69	60	9
R-6120	Res.	B	1	15341 Robinson St	69	60	9
R-6121	Res.	B	1	15335 Robinson St	68	59	9
R-6122	Res.	B	1	15329 Robinson St	65	56	9
R-6123	Res.	B	1	15323 Robinson St	65	56	9
R-6124	Res.	B	1	15317 Robinson St	64	56	8
R-6125	Res.	B	1	7728 W 154th St	64	55	9
R-6126	Res.	B	1	7734 W 154th St	65	56	9
R-6127	Res.	B	1	7731 W 154th St	65	56	9
R-6128	Res.	B	1	7725 W 154th St	64	55	9
R-6129	Res.	B	1	15323 Newton Dr	63	58	5
R-6130	Res.	B	1	15299 Newton Dr	63	58	5
R-6131	Res.	B	1	15297 Newton Dr	64	60	5
R-6132	Res.	B	1	15295 Newton Dr	63	59	5
R-6133	Res.	B	1	15285 Newton Dr	63	58	5
R-6134	Res.	B	1	15275 Newton Dr	63	58	5
R-6135	Res.	B	1	15269 Newton Dr	63	58	6
R-6136	Res.	B	1	7685 W 152nd St	63	58	6
R-6137	Res.	B	1	7681 W 152nd St	62	56	5
R-6138	Res.	B	1	7677 W 152nd St	60	55	5
R-6139	Res.	B	2	15294-96 Newton Dr	65	59	6
R-6140	Res.	B	2	7735-37 W 152nd Ter	66	60	6
R-6141	Res.	B	2	7761-63 W 152nd Ter	68	62	6
R-6142	Res.	B	2	7789-91 W 152nd Ter	70	63	7
R-6143	Res.	B	2	7801-03 W 152nd Ter	74	65	9
R-6144	Res.	B	2	7816-18 W 152nd Ter	76	67	9
R-6145	Res.	B	2	7806-08 W 152nd Ter	75	67	8
R-6146	Res.	B	2	7796-98 W 152nd Ter	71	64	7
R-6147	Res.	B	2	7764-66 W 152nd Ter	68	62	6
R-6148	Res.	B	2	7730-32 W 152nd Ter	66	60	6
R-6149	Res.	B	2	15290-92 Newton Dr	67	61	6
R-6150	Res.	B	2	15280-82 Newton Dr	68	62	6
R-6151	Res.	B	2	15264-66 Newton Dr	68	61	6
R-6152	Res.	B	2	7705-07 W 152nd St	72	64	7
R-6153	Res.	B	2	7721-23 W 152nd St	75	67	9
R-6154	Res.	B	2	7726-25 W 152nd St	76	66	10
R-6155	Res.	B	2	7714-16 W 152nd St	73	63	10
R-6156	Res.	B	2	15142-44 Newton Dr	76	65	10
R-6157	Res.	B	2	15138-40 Newton Dr	73	64	9
R-6158	Res.	B	2	15133-35 Newton Dr	68	61	7
R-6159	Res.	B	2	15141-43 Newton Dr	68	61	7
R-6160	Res.	B	2	7696-98 W 152nd St	65	63	3
R-6161	Res.	B	2	7692-94 W 152nd St	62	59	3
R-6162	Res.	B	2	7688-90 W 152nd St	59	56	3
						Predicted Build Alternative With Barrier Benefits	157
					Noise Impact		Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW6				
Reasonableness:				
The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.				
Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors
4,309	12.7	54,533	347	157
			Is the barrier-square-footage-per-benefitted receptor less than 1,800?	Yes

Table C-6: NW7 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-7001	Res.	B	3	7819-7827 W 158th Ct	54	54	0
R-7002	Res.	B	4	7803-7815 W 158th Ct	55	54	0
R-7003	Res.	B	6	7802-7822 W 158th Ct	61	61	0
R-7004	Res.	B	4	15869-81 Valley View Dr	58	58	0
R-7005	Res.	B	5	15849-65 Valley View Dr	59	58	1
R-7006	Res.	B	6	15825-45 Valley View Dr	59	57	2
R-7007	Res.	B	4	15868-80 Valley View Dr	56	56	0
R-7008	Res.	B	4	15852-64 Valley View Dr	55	54	0
R-7009	Res.	B	5	15824-40 Valley View Dr	55	54	1
R-7010	Res.	B	1	7845 W 158th St	56	54	2
R-7011	Res.	B	1	7841 W 158th St	56	54	2
R-7012	Res.	B	1	7837 W 158th St	58	55	3
R-7013	Res.	B	1	7833 W 158th St	58	55	3
R-7014	Res.	B	1	7829 W 158th St	60	57	3
R-7015	Res.	B	1	15717 Valley View Dr	65	60	4
R-7016	Res.	B	1	15713 Valley View Dr	65	60	5
R-7017	Res.	B	1	15709 Valley View Dr	66	60	6
R-7018	Res.	B	1	15705 Valley View Dr	68	61	7
R-7019	Res.	B	1	15701 Valley View Dr	70	61	9
R-7020	Res.	B	1	15609 Valley View Dr	71	62	9
R-7021	Res.	B	1	15605 Valley View Dr	73	63	10
R-7022	Res.	B	1	15601 Valley View Dr	72	64	8
R-7023	Res.	B	1	15547 Valley View Dr	72	64	8
R-7024	Res.	B	1	15704 Valley View Dr	64	59	6
R-7025	Res.	B	1	15700 Valley View Dr	63	58	5
R-7026	Res.	B	1	15608 Valley View Dr	64	58	5
R-7027	Res.	B	1	15604 Valley View Dr	64	59	6
R-7028	Res.	B	1	15600 Valley View Dr	65	60	6
R-7029	Res.	B	1	15709 Shawnee Dr	63	58	5
R-7030	Res.	B	1	15705 Shawnee Dr	63	57	5
R-7031	Res.	B	1	15701 Shawnee Dr	63	58	6
R-7032	Res.	B	1	15609 Shawnee Dr	64	58	6
R-7033	Res.	B	1	15605 Shawnee Dr	63	57	6
R-7034	Res.	B	1	15601 Shawnee Dr	64	58	6
R-7035	Res.	B	1	15708 Shawnee Dr	59	54	4
R-7036	Res.	B	1	15704 Shawnee Dr	59	55	4
R-7037	Res.	B	1	15700 Shawnee Dr	59	54	5
R-7038	Res.	B	1	15608 Shawnee Dr	60	55	5
R-7039	Res.	B	1	15604 Shawnee Dr	60	55	5
R-7040	Res.	B	1	15600 Shawnee Dr	61	56	5
R-7041	Res.	B	1	7850 W 156th St	62	56	6
R-7042	Res.	B	1	7846 W 156th St	62	56	6
R-7043	Res.	B	1	7842 W 156th St	65	58	7
R-7044	Res.	B	1	7838 W 156th St	64	59	5
R-7045	Res.	B	1	7834 W 156th St	65	60	6
R-7046	Res.	B	1	15542 Valley View Dr	68	61	7
R-7047	Res.	B	1	15538 Valley View Dr	68	61	7
R-7048	Res.	B	1	15534 Valley View Dr	68	62	6
R-7049	Res.	B	1	15530 Valley View Dr	67	62	5
R-7050	Res.	B	1	15526 Valley View Dr	67	62	5
R-7051	Res.	B	1	15522 Valley View Dr	68	62	5
R-7052	Res.	B	1	15518 Valley View Dr	68	62	6
R-7053	Res.	B	1	15514 Valley View Dr	68	63	6
R-7054	Res.	B	1	15510 Valley View Dr	69	63	6
R-7055	Res.	B	1	15506 Valley View Dr	69	63	6

Table C-6: NW7 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-7056	Res.	B	1	7857 W 155th Pl	61	57	5
R-7057	Res.	B	1	15522 Shawnee Dr	61	56	5
R-7058	Res.	B	1	15526 Shawnee Dr	60	56	5
R-7059	Res.	B	1	15530 Shawnee Dr	60	55	5
R-7060	Res.	B	1	15534 Shawnee Dr	60	55	5
R-7061	Res.	B	1	15535 Shawnee Dr	64	59	5
R-7062	Res.	B	1	15531 Shawnee Dr	64	58	5
R-7063	Res.	B	1	15527 Shawnee Dr	63	58	5
R-7064	Res.	B	1	15523 Shawnee Dr	64	59	5
R-7065	Res.	B	1	15519 Shawnee Dr	63	58	5
R-7066	Res.	B	1	15515 Shawnee Dr	63	58	5
R-7067	Res.	B	1	15511 Shawnee Dr	63	58	5
R-7068	Res.	B	1	15535 Valley View Dr	74	64	10
R-7069	Res.	B	1	15531 Valley View Dr	74	64	10
R-7070	Res.	B	1	15527 Valley View Dr	74	64	10
R-7071	Res.	B	1	15523 Valley View Dr	74	64	11
R-7072	Res.	B	1	15519 Valley View Dr	74	64	10
R-7073	Res.	B	1	15515 Valley View Dr	75	64	10
R-7074	Res.	B	1	15511 Valley View Dr	75	64	10
R-7075	Res.	B	1	15503 Valley View Dr	73	66	7
R-7076	Res.	B	1	7845 W 155th Ter	70	64	6
R-7077	Res.	B	1	7839 W 155th Ter	74	67	7
R-7078	Res.	B	1	7834 W 155th Ter	75	68	7
R-7079	Res.	B	1	7838 W 155th Ter	75	67	7
R-7080	Res.	B	1	7842 W 155th Ter	70	64	6
R-7081	Res.	B	1	7846 W 155th Ter	68	62	6
R-7082	Res.	B	1	7850 W 155th Ter	66	60	6
R-7083	Res.	B	1	7854 W 155th Ter	65	60	5
R-7084	Res.	B	1	7858 W 155th Ter	64	59	5
R-7085	Res.	B	1	7859 W 155th Ter	60	56	4
R-7086	Res.	B	1	7855 W 155th Ter	62	58	5
R-7087	Res.	B	1	7851 W 155th Ter	65	61	5
R-7088	Res.	B	1	7844 W 155th Pl	65	60	5
R-7089	Res.	B	1	7848 W 155th Pl	63	58	5
R-7090	Res.	B	1	7852 W 155th Pl	60	56	4
R-7091	Res.	B	1	7856 W 155th Pl	59	55	4
R-7092	Res.	B	1	7869 W 153rd Ter	61	56	6
R-7093	Res.	B	1	7865 W 153rd Ter	63	58	5
R-7094	Res.	B	1	7861 W 153rd Ter	64	59	5
R-7095	Res.	B	1	7857 W 153rd Ter	63	57	6
R-7096	Res.	B	1	7853 W 153rd Ter	65	58	7
R-7097	Res.	B	1	7849 W 153rd Ter	69	60	9
R-7098	Res.	B	1	7845 W 153rd Ter	74	63	10
R-7099	Res.	B	1	7844 W 153rd Ter	75	65	11
R-7100	Res.	B	1	7848 W 153rd Ter	74	64	10
R-7101	Res.	B	1	7852 W 153rd Ter	72	63	9
R-7102	Res.	B	1	7856 W 153rd Ter	69	62	7
R-7103	Res.	B	1	7860 W 153rd Ter	68	62	7
R-7104	Res.	B	1	7864 W 153rd Ter	67	61	6
R-7105	Res.	B	1	7868 W 153rd Ter	66	59	7
R-7106	Res.	B	1	7872 W 153rd Ter	65	59	6
R-7107	Res.	B	1	7876 W 153rd Ter	64	59	6
R-7108	Park	C	7	Kingston Lake Park 1st Row	71	63	8
R-7109	Park	C	7	Kingston Lake Park 2nd Row	67	59	7
R-7110	Park	C	7	Kingston Lake Park 3rd Row	66	60	6
R-7111	Park	C	6	Kingston Lake Park 4th Row	63	57	6
R-7112	Park	C	3	Kingston Lake Park 5th Row	63	58	5

Table C-6: NW7 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-7113	Park	C	2	Kingston Lake Park 6th Row	65	60	6
R-7114	Res.	B	1	7901 W 152nd Ter	63	58	4
R-7115	Res.	B	1	7900 W 152nd Ter	63	59	4
R-7116	Res.	B	1	7875 W 152nd Ter	63	57	6
R-7117	Res.	B	1	7871 W 152nd Ter	64	58	6
R-7118	Res.	B	1	7867 W 152nd Ter	66	59	7
R-7119	Res.	B	1	7863 W 152nd Ter	68	61	8
R-7120	Res.	B	1	7859 W 152nd Ter	72	63	9
R-7121	Res.	B	1	7855 W 152nd Ter	74	65	10
R-7122	Res.	B	1	7856 W 152nd Ter	75	65	10
R-7123	Res.	B	1	7860 W 152nd Ter	74	64	10
R-7124	Res.	B	1	7864 W 152nd Ter	70	61	9
R-7125	Res.	B	1	7868 W 152nd Ter	67	59	8
R-7126	Res.	B	1	7872 W 152nd Ter	66	58	8
R-7127	Res.	B	1	7876 W 152nd Ter	64	58	7
R-7128	Res.	B	1	7873 W 152nd St	65	58	7
R-7129	Res.	B	1	7869 W 152nd St	67	59	8
R-7130	Res.	B	1	7865 W 152nd St	72	62	10
R-7131	Res.	B	1	7861 W 152nd St	74	65	10
R-7132	Res.	B	1	7862 W 152nd St	73	65	9
R-7133	Res.	B	1	7866 W 152nd St	72	65	7
R-7134	Res.	B	1	7870 W 152nd St	69	63	6
R-7135	Res.	B	1	7874 W 152nd St	65	62	4
				Predicted Build Alternative With Barrier Benefits			**138**
					Noise Impact		Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW7				
Reasonableness:				
The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.				
Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors
4,497	12.5	56,172	407	138
			Is the barrier-square-footage-per-benefitted receptor less than 1,800?	**Yes**

Table C-7: NW8 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-8001	School	C	1	La Petite of Stanley	65	64	0
R-8002	Church	C	1	Faith Chapel	67	66	1
R-8003	Trail	C	1	Indian Creek Trail 1	78	67	12
R-8004	Res.	B	2	7701-03 W 149th St	63	57	6
R-8005	Res.	B	2	7707-09 W 149th St	64	60	4
R-8006	Res.	B	2	7713-15 W 149th St	66	61	5
R-8007	Res.	B	2	7719-21 W 149th St	73	65	8
R-8008	Res.	B	2	14866-68 Robinson St	75	66	9
R-8009	Res.	B	2	14860-62 Robinson St	70	63	7
R-8010	Res.	B	2	14854-56 Robinson St	73	65	8
R-8011	Res.	B	2	14848-50 Robinson St	74	66	9
R-8012	Res.	B	2	14842-44 Robinson St	74	65	9
R-8013	Res.	B	2	14836-38 Robinson St	73	65	8
R-8014	Res.	B	2	14830-32 Robinson St	72	64	8
R-8015	Res.	B	2	14824-26 Robinson St	73	64	9
R-8016	Res.	B	2	14818-20 Robinson St	74	64	10
R-8017	Res.	B	2	14812-14 Robinson St	71	63	9
R-8018	Res.	B	2	14806-08 Robinson St	70	62	9
R-8019	Res.	B	2	14800-02 Robinson St	70	61	9
R-8020	Res.	B	2	7742-44 W 148th St	64	58	6
R-8021	Res.	B	2	7736-38 W 148th St	62	57	5
R-8022	Res.	B	2	7730-32 W 148th St	59	54	4
R-8023	Res.	B	2	7724-26 W 148th St	57	54	3
R-8024	Res.	B	2	7700-02 W 149th St	61	57	4
R-8025	Res.	B	2	7706-08 W 149th St	62	58	4
R-8026	Res.	B	2	14849-51 Robinson St	63	59	4
R-8027	Res.	B	2	14843-45 Robinson St	65	60	5
R-8028	Res.	B	2	14837-39 Robinson St	65	60	5
R-8029	Res.	B	2	14831-33 Robinson St	64	60	5
R-8030	Res.	B	2	14825-27 Robinson St	64	59	5
R-8031	Res.	B	2	14819-21 Robinson St	64	59	5
R-8032	Res.	B	2	14813-15 Robinson St	64	58	5
R-8033	Res.	B	2	14807-09 Robinson St	63	58	5
R-8034	Res.	B	2	14801-03 Robinson St	62	57	5
R-8035	Res.	B	2	7725-27 W 148th St	61	56	5
R-8036	Res.	B	2	7719-21 W 148th St	58	54	4
R-8037	Res.	B	2	14864-66 Newton St	56	54	2
R-8038	Res.	B	2	14858-60 Newton St	58	55	3
R-8039	Res.	B	2	14852-54 Newton St	58	55	3
R-8040	Res.	B	2	14846-48 Newton St	58	55	3
R-8041	Res.	B	2	14828-30 Newton St	59	56	3
R-8042	Res.	B	2	14822-24 Newton St	59	56	3
R-8043	Res.	B	2	14816-18 Newton St	57	54	3
R-8044	Res.	B	1	7813 W 147th Ter	57	54	3
R-8045	Res.	B	1	7817 W 147th Ter	58	54	4
R-8046	Res.	B	1	7821 W 147th Ter	59	55	5
R-8047	Res.	B	1	7825 W 147th Ter	61	56	5
R-8048	Res.	B	1	7829 W 147th Ter	64	58	6
R-8049	Res.	B	1	7833 W 147th Ter	67	61	6
R-8050	Trail	C	1	Indian Creek Trail 2	68	62	6
R-8051	Res.	B	1	7828 W 147th Ter	69	61	8
R-8052	Res.	B	1	7824 W 147th Ter	65	58	7
R-8053	Res.	B	1	7820 W 147th Ter	62	57	6
R-8054	Res.	B	1	7816 W 147th Ter	59	55	4
R-8055	Res.	B	1	7812 W 147th Ter	58	54	4
R-8056	Res.	B	1	14720 Robinson St	57	54	3
R-8057	Res.	B	1	14716 Robinson St	59	54	5
R-8058	Res.	B	1	14712 Robinson St	61	56	5

Table C-7: NW8 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-8059	Res.	B	1	14708 Robinson St	64	57	7
R-8060	Res.	B	1	14704 Robinson St	67	59	8
R-8061	Res.	B	1	14700 Robinson St	71	61	10
R-8062	Trail	C	1	Indian Creek Trail 3	68	62	6
R-8063	Res.	B	1	7736 W 145th St	66	61	5
R-8064	Res.	B	1	7732 W 145th St	64	60	5
R-8065	Res.	B	1	7728 W 145th St	61	57	5
R-8066	Res.	B	1	7724 W 145th St	59	54	4
R-8067	Res.	B	1	7720 W 145th St	58	54	4
R-8068	Res.	B	1	7716 W 145th St	56	54	2
R-8069	Res.	B	1	7712 W 145th St	55	54	1
R-8070	Res.	B	1	14713 Robinson St	56	54	2
R-8071	Res.	B	1	14709 Robinson St	58	54	4
R-8072	Res.	B	1	14705 Robinson St	60	55	5
R-8073	Res.	B	1	14701 Robinson St	62	57	6
R-8074	Res.	B	1	14513 Robinson St	68	60	8
R-8075	Res.	B	1	14509 Robinson St	69	61	8
R-8076	Res.	B	1	14505 Robinson St	67	60	7
R-8077	Res.	B	1	14501 Robinson St	66	60	6
R-8078	Res.	B	1	7729 W 145th St	64	58	6
R-8079	Res.	B	1	7725 W 145th St	60	56	5
R-8080	Res.	B	1	7721 W 145th St	59	54	4
R-8081	Res.	B	1	7717 W 145th St	57	54	3
R-8082	Res.	B	1	7731 W 145th Ter	56	54	2
R-8083	Res.	B	1	7735 W 145th Ter	59	55	4
R-8084	Res.	B	1	7734 W 145th Ter	59	55	4
R-8085	Res.	B	1	7730 W 145th Ter	58	55	3
R-8086	Res.	B	1	7726 W 145th Ter	56	54	2
R-8087	Res.	B	1	7722 W 145th Ter	55	54	1
R-8088	Res.	B	1	7803 W 144th Ter	57	54	3
R-8089	Res.	B	1	7807 W 144th Ter	57	54	3
R-8090	Res.	B	1	7811 W 144th Ter	58	54	4
R-8091	Res.	B	1	7815 W 144th Ter	58	54	4
R-8092	Res.	B	1	7819 W 144th Ter	59	54	4
R-8093	Res.	B	1	7823 W 144th Ter	60	56	4
R-8094	Res.	B	1	7827 W 144th Ter	63	58	5
R-8095	Res.	B	1	7831 W 144th Ter	67	61	6
R-8096	Trail	C	1	Indian Creek Trail 4	71	62	8
R-8097	Res.	B	1	7822 W 144th Ter	66	61	5
R-8098	Res.	B	1	7818 W 144th Ter	59	56	3
R-8099	Res.	B	1	7814 W 144th Ter	58	55	3
R-8100	Res.	B	1	7810 W 144th Ter	57	54	2
R-8101	Res.	B	1	7806 W 144th Ter	55	54	1
R-8102	Res.	B	1	7802 W 144th Ter	54	54	0
R-8103	Res.	B	1	7722 W 144th Ter	54	54	0
R-8104	Res.	B	1	7801 W 143rd Pl	55	54	1
R-8105	Res.	B	1	7805 W 143rd Pl	56	54	2
R-8106	Res.	B	1	7809 W 143rd Pl	59	55	3
R-8107	Res.	B	1	7813 W 143rd Pl	59	55	4
R-8108	Res.	B	1	7817 W 143rd Pl	60	56	4
R-8109	Res.	B	1	7821 W 143rd Pl	61	57	3
R-8110	Res.	B	1	7825 W 143rd Pl	71	66	5
R-8111	Trail	C	1	Indian Creek Trail 5	78	67	12
R-8112	Res.	B	1	7820 W 143rd Pl	74	68	7
R-8113	Res.	B	1	7816 W 143rd Pl	72	67	5
R-8114	Res.	B	1	7812 W 143rd Pl	71	67	4
R-8115	Res.	B	1	7808 W 143rd Pl	70	67	3
R-8116	Res.	B	1	7804 W 143rd Pl	68	66	2

Table C-7: NW8 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-8117	Res.	B	1	7800 W 143rd Pl	67	65	2
R-8118	Res.	B	1	14312 Robinson St	69	67	2
R-8119	Res.	B	1	14308 Robinson St	69	67	2
R-8120	Res.	B	1	14304 Robinson St	71	69	2
R-8121	Res.	B	1	14300 Robinson St	72	71	1
R-8122	Res.	B	1	14301 Robinson St	67	67	0
R-8123	Res.	B	1	14305 Robinson St	65	65	1
						Predicted Build Alternative With Barrier Benefits	86
						Noise Impact	Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW8				
Reasonableness:				
The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.				
Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors
4,368	14.6	63,914	743	86
			Is the barrier-square-footage-per-benefitted receptor less than 1,800?	Yes

Table C-8: NW9 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-9004	Trail	C	1	Indian Creek Trail 7	73	64	8
R-9005	Res.	B	6	Madison Bldg 7	55	54	1
R-9006	Res.	B	6	Madison Bldg 8	61	55	6
R-9007	Res.	B	6	Madison Bldg 9	61	55	6
R-9008	Res.	B	6	Madison Bldg 10	68	59	10
R-9009	Res.	B	6	Madison Bldg 11	74	66	8
R-9010	Res.	B	8	Madison Bldg 12	59	55	4
R-9011	Res.	B	6	Madison Bldg 13	70	61	9
R-9012	Res.	B	6	Madison Bldg 14	58	54	4
R-9013	Res.	B	8	Madison Bldg 15	54	54	0
R-9014	Res.	B	6	Madison Bldg 16	54	54	0
R-9015	Res.	B	8	Madison Bldg 18	58	54	4
R-9016	Res.	B	6	Madison Bldg 19	64	57	7
R-9017	Res.	B	6	Madison Bldg 20	70	63	7
R-9018	Res.	B	8	Madison Bldg 21	59	55	4
R-9019	Res.	B	8	Madison Bldg 22	69	63	6
R-9020	Res.	B	6	Madison Bldg 23	54	54	0
R-9021	Res.	B	8	Madison Bldg 24	54	54	0
R-9022	Res.	B	4	Madison Bldg 25	56	54	2
R-9023	Res.	B	4	Madison Bldg 26	57	56	1
R-9024	Park	C	1	Madison Dog Park	59	57	1
R-9025	Trail	C	1	Indian Creek Trail 8	77	66	11
R-9026	Res.	B	3	Fountain View A 1st	63	58	5
R-9027	Res.	B	3	Fountain View A 2nd	66	60	6
R-9028	Res.	B	3	Fountain View A 3rd	67	61	6
R-9029	Res.	B	3	Fountain View A 4th	67	61	6
R-9030	Res.	B	3	Fountain View A 5th	68	62	5
R-9031	Res.	B	3	Fountain View B 1st	65	60	5
R-9032	Res.	B	3	Fountain View B 2nd	69	62	7
R-9033	Res.	B	3	Fountain View B 3rd	70	63	7
R-9034	Res.	B	3	Fountain View B 4th	70	64	6
R-9035	Res.	B	3	Fountain View B 5th	71	65	5
R-9036	Res.	B	1	Fountain View C 1st	64	59	5
R-9037	Res.	B	1	Fountain View C 2nd	68	62	7
R-9038	Res.	B	1	Fountain View C 3rd	69	63	6
R-9039	Res.	B	1	Fountain View C 4th	69	63	6
R-9040	Res.	B	1	Fountain View C 5th	70	65	5
R-9041	Res.	B	2	Fountain View D 1st	65	60	5
R-9042	Res.	B	2	Fountain View D 2nd	70	63	7
R-9043	Res.	B	2	Fountain View D 3rd	70	64	6
R-9044	Res.	B	2	Fountain View D 4th	71	65	5
R-9045	Res.	B	2	Fountain View D 5th	71	68	3
R-9046	Res.	B	1	Fountain View E 1st	68	62	6
R-9047	Res.	B	1	Fountain View E 2nd	72	65	7
R-9048	Res.	B	1	Fountain View E 3rd	73	66	7
R-9049	Res.	B	1	Fountain View E 4th	73	69	4
R-9050	Res.	B	1	Fountain View E 5th	73	71	2
R-9051	Res.	B	1	Fountain View F 1st	62	56	6
R-9052	Res.	B	1	Fountain View F 2nd	67	58	9
R-9053	Res.	B	1	Fountain View F 3rd	70	60	10
R-9054	Res.	B	1	Fountain View F 4th	72	62	9
R-9055	Res.	B	1	Fountain View F 5th	72	67	6
R-9056	Res.	B	1	Fountain View F 6th	73	70	2
R-9057	Res.	B	2	Fountain View G 1st	58	54	4
R-9058	Res.	B	2	Fountain View G 2nd	62	54	7
R-9059	Res.	B	2	Fountain View G 3rd	66	56	10
R-9060	Res.	B	2	Fountain View G 4th	68	57	11
R-9061	Res.	B	2	Fountain View G 5th	70	60	9

Table C-8: NW9 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-9062	Res.	B	2	Fountain View G 6th	70	65	5
R-9063	Res.	B	2	Tallgrass New 1st	66	58	7
R-9064	Res.	B	2	Tallgrass New 2nd	68	60	8
R-9065	Res.	B	2	Tallgrass New 3rd	69	62	6
R-9066	Res.	B	2	Tallgrass New 4th	69	65	5
R-9067	Res.	B	2	Tallgrass New 5th	70	67	3
R-9068	Res.	B	2	Tallgrass New B 1st	66	60	6
R-9069	Res.	B	2	Tallgrass New B 2nd	69	62	8
R-9070	Res.	B	2	Tallgrass New B 3rd	71	63	8
R-9071	Res.	B	2	Tallgrass New B 4th	72	67	5
R-9072	Res.	B	2	Tallgrass New B 5th	72	69	3
R-9073	Res.	B	2	Tallgrass New C 1st	64	58	6
R-9074	Res.	B	2	Tallgrass New C 2nd	68	61	6
R-9075	Res.	B	2	Tallgrass New C 3rd	70	65	6
R-9076	Res.	B	2	Tallgrass New C 4th	72	67	5
R-9077	Res.	B	2	Tallgrass New C 5th	72	69	4
R-9078	Res.	B	2	Tallgrass New D 1st	63	58	6
R-9079	Res.	B	2	Tallgrass New D 2nd	67	61	6
R-9080	Res.	B	2	Tallgrass New D 3rd	68	64	5
R-9081	Res.	B	2	Tallgrass New D 4th	70	66	4
R-9082	Res.	B	2	Tallgrass New D 5th	70	67	3
R-9083	Res.	B	3	Tallgrass New E 1st	62	56	6
R-9084	Res.	B	3	Tallgrass New E 2nd	66	59	6
R-9085	Res.	B	3	Tallgrass New E 3rd	67	61	6
R-9086	Res.	B	3	Tallgrass New E 4th	69	64	5
R-9087	Res.	B	3	Tallgrass New E 5th	70	66	4
R-9088	Trail	C	1	Indian Creek Trail 9	75	64	11
R-9089	Res.	B	1	Ranch Prairie Bld 1A1	67	67	0
R-9090	Res.	B	2	Ranch Prairie Bld 1A2	69	68	0
R-9091	Res.	B	1	Ranch Prairie Bld 1A3	69	69	0
R-9092	Res.	B	1	Ranch Prairie Bld 1B2	69	69	0
R-9093	Res.	B	1	Ranch Prairie Bld 1B3	69	69	0
R-9094	Res.	B	1	Ranch Prairie Bld 1C1	67	67	0
R-9095	Res.	B	2	Ranch Prairie Bld 1C2	69	68	0
R-9096	Res.	B	1	Ranch Prairie Bld 1C3	69	69	0
R-9097	Res.	B	1	Ranch Prairie Bld 2A1	65	65	0
R-9098	Res.	B	2	Ranch Prairie Bld 2A2	67	67	0
R-9099	Res.	B	1	Ranch Prairie Bld 2A3	68	68	1
R-9100	Res.	B	1	Ranch Prairie Bld 2B2	67	67	0
R-9101	Res.	B	1	Ranch Prairie Bld 2B3	68	68	0
R-9102	Res.	B	1	Ranch Prairie Bld 2C1	66	66	0
R-9103	Res.	B	1	Ranch Prairie Bld 2C2	68	68	0
R-9104	Res.	B	1	Ranch Prairie Bld 2C3	69	68	0
R-9105	Res.	B	1	Ranch Prairie Bld 5A1	54	54	0
R-9106	Res.	B	1	Ranch Prairie Bld 5A2	58	54	4
R-9107	Res.	B	1	Ranch Prairie Bld 5A3	62	59	4
R-9108	Res.	B	1	Ranch Prairie Bld 5B2	59	56	4
R-9109	Res.	B	1	Ranch Prairie Bld 5B3	63	59	4
R-9110	Res.	B	1	Ranch Prairie Bld 5C1	57	56	1
R-9111	Res.	B	1	Ranch Prairie Bld 5C2	64	62	2
R-9112	Res.	B	1	Ranch Prairie Bld 5C3	67	64	3
R-9113	Res.	B	1	Ranch Prairie Bld 5D1	65	65	0
R-9114	Res.	B	1	Ranch Prairie Bld 5D2	69	68	0
R-9115	Res.	B	2	Ranch Prairie Bld 5E1	64	64	0
R-9116	Res.	B	2	Ranch Prairie Bld 5E2	67	67	0
R-9117	Res.	B	2	Ranch Prairie Bld 5E3	68	68	0
R-9118	Res.	B	1	Ranch Prairie Bld 5F1	64	64	0
R-9119	Res.	B	1	Ranch Prairie Bld 5F2	66	67	0

Table C-8: NW9 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-9120	Res.	B	1	Ranch Prairie Bld 5G2	70	69	1
R-9121	Res.	B	2	Ranch Prairie Bld 6A1	74	65	9
R-9122	Res.	B	2	Ranch Prairie Bld 6A2	75	73	2
R-9123	Res.	B	2	Ranch Prairie Bld 6A3	76	75	1
R-9124	Res.	B	1	Ranch Prairie Bld 6B1	71	63	8
R-9125	Res.	B	1	Ranch Prairie Bld 6B2	72	69	4
R-9126	Res.	B	1	Ranch Prairie Bld 6C1	71	65	6
R-9127	Res.	B	1	Ranch Prairie Bld 6C2	72	71	1
R-9128	Res.	B	1	Ranch Prairie Bld 7A2	68	65	3
R-9129	Res.	B	2	Ranch Prairie Bld 7B1	65	64	2
R-9130	Res.	B	3	Ranch Prairie Bld 7B2	67	65	2
R-9131	Res.	B	3	Ranch Prairie Bld 7B3	68	67	2
R-9132	Res.	B	1	Ranch Prairie Bld 7C2	68	66	2
R-9133	Res.	B	1	Ranch Prairie Bld 8A1	55	55	1
R-9134	Res.	B	1	Ranch Prairie Bld 8A2	58	57	1
R-9135	Res.	B	2	Ranch Prairie Bld 8B1	58	54	4
R-9136	Res.	B	2	Ranch Prairie Bld 8B2	61	56	5
R-9137	Res.	B	2	Ranch Prairie Bld 8B3	65	63	2
R-9138	Park	C	1	Ranch Prairie Pool	57	56	0
						Predicted Build Alternative With Barrier Benefits	162
						Noise Impact	Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW9				
Reasonableness:				
The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.				
Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors
2,804	12.9	36,095	223	162
Is the barrier-square-footage-per-benefitted receptor less than 1,800?				Yes

Table C-9: NW10 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-10001	Res.	B	1	8035 W 149th Ter	58	54	4
R-10002	Res.	B	1	8031 W 149th Ter	60	56	5
R-10003	Res.	B	1	8027 W 149th Ter	59	56	4
R-10004	Res.	B	1	8023 W 149th Ter	60	56	4
R-10005	Res.	B	1	8019 W 149th Ter	63	59	4
R-10006	Res.	B	1	8015 W 149th Ter	63	58	5
R-10007	Res.	B	1	8011 W 149th Ter	66	61	5
R-10008	Res.	B	1	8007 W 149th Ter	70	64	6
R-10009	Res.	B	1	8003 W 149th Ter	72	63	9
R-10010	Res.	B	1	8000 W 149th Ter	71	63	9
R-10011	Res.	B	1	8004 W 149th Ter	68	61	8
R-10012	Res.	B	1	8008 W 149th Ter	66	59	7
R-10013	Res.	B	1	8012 W 149th Ter	64	57	6
R-10014	Res.	B	1	8016 W 149th Ter	62	57	5
R-10015	Res.	B	1	8020 W 149th Ter	61	56	5
R-10016	Res.	B	1	8024 W 149th Ter	59	55	4
R-10017	Res.	B	1	8025 W 149th St	59	55	4
R-10018	Res.	B	1	8021 W 149th St	60	56	4
R-10019	Res.	B	1	8017 W 149th St	62	57	5
R-10020	Res.	B	1	8013 W 149th St	63	58	5
R-10021	Res.	B	1	8009 W 149th St	65	59	6
R-10022	Res.	B	1	8005 W 149th St	71	63	9
R-10023	Res.	B	1	8001 W 149th St	74	64	10
R-10024	Res.	B	1	8002 W 149th St	74	64	10
R-10025	Res.	B	1	8006 W 149th St	72	64	9
R-10026	Res.	B	1	8010 W 149th St	68	61	7
R-10027	Res.	B	1	8014 W 149th St	66	60	6
R-10028	Res.	B	1	8018 W 149th St	65	59	6
R-10029	Res.	B	1	8022 W 149th St	63	57	5
R-10030	Res.	B	1	8026 W 149th St	61	56	5
R-10031	Res.	B	1	14821 Hardy St	60	56	5
R-10032	Res.	B	1	8019 W 148th Ter	62	57	5
R-10033	Res.	B	1	8015 W 148th Ter	63	58	5
R-10034	Res.	B	1	8011 W 148th Ter	67	61	6
R-10035	Res.	B	1	8007 W 148th Ter	72	64	7
R-10036	Res.	B	1	8003 W 148th Ter	75	67	8
R-10037	Res.	B	1	8002 W 148th Ter	75	66	9
R-10038	Res.	B	1	8006 W 148th Ter	72	64	8
R-10039	Res.	B	1	8010 W 148th Ter	66	61	6
R-10040	Res.	B	1	8014 W 148th Ter	64	59	6
R-10041	Res.	B	1	8018 W 148th Ter	62	57	5
R-10042	Res.	B	1	14817 Hardy St	61	56	4
R-10043	Res.	B	1	14813 Hardy St	60	55	5
R-10044	Res.	B	1	14809 Hardy St	60	56	4
R-10045	Res.	B	1	8017 W 148th St	61	56	5
R-10046	Res.	B	1	8013 W 148th St	63	58	5
R-10047	Res.	B	1	8009 W 148th St	66	60	6
R-10048	Res.	B	1	8005 W 148th St	71	63	8
R-10049	Res.	B	1	8001 W 148th St	75	66	10
R-10050	Res.	B	1	8000 W 148th St	74	65	10
R-10051	Res.	B	1	8004 W 148th St	71	63	8
R-10052	Res.	B	1	8008 W 148th St	65	59	6
R-10053	Res.	B	1	8012 W 148th St	62	57	5
R-10054	Res.	B	1	8016 W 148th St	60	56	5
R-10055	Res.	B	1	14805 Hardy St	60	55	5
R-10056	Res.	B	1	14801 Hardy St	60	55	5
R-10057	Res.	B	1	14731 Hardy St	60	56	4
R-10058	Res.	B	1	14727 Hardy St	60	56	4

Table C-9: NW10 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-10059	Res.	B	1	8019 W 147th Ter	61	56	5
R-10060	Res.	B	1	8015 W 147th Ter	63	57	6
R-10061	Res.	B	1	8011 W 147th Ter	66	59	6
R-10062	Res.	B	1	8007 W 147th Ter	71	63	8
R-10063	Res.	B	1	8003 W 147th Ter	73	64	8
R-10064	Res.	B	1	8002 W 147th Ter	72	64	8
R-10065	Res.	B	1	8006 W 147th Ter	64	60	4
R-10066	Res.	B	1	8010 W 147th Ter	62	58	4
R-10067	Res.	B	1	8014 W 147th Ter	60	56	4
R-10068	Res.	B	1	8018 W 147th Ter	58	55	4
R-10069	Res.	B	1	8022 W 147th Ter	58	55	4
R-10070	Res.	B	1	8021 W 147th St	58	54	4
R-10071	Res.	B	1	8017 W 147th St	59	55	4
R-10072	Res.	B	1	8013 W 147th St	61	57	4
R-10073	Res.	B	1	8009 W 147th St	63	58	4
R-10074	Res.	B	1	8005 W 147th St	67	62	5
R-10075	Res.	B	1	8001 W 147th St	75	65	10
R-10076	Res.	B	1	8000 W 147th St	74	65	9
R-10077	Res.	B	1	8004 W 147th St	70	63	7
R-10078	Res.	B	1	8008 W 147th St	66	60	6
R-10079	Res.	B	1	8012 W 147th St	63	58	5
R-10080	Res.	B	1	8016 W 147th St	60	55	4
R-10081	Res.	B	1	8020 W 147th St	58	54	4
R-10082	Res.	B	1	8023 W 146th Ter	56	54	2
R-10083	Res.	B	1	8019 W 146th Ter	58	54	4
R-10084	Res.	B	1	8015 W 146th Ter	60	56	4
R-10085	Res.	B	1	8011 W 146th Ter	63	58	5
R-10086	Res.	B	1	8007 W 146th Ter	70	63	8
R-10087	Res.	B	1	8003 W 146th Ter	74	65	9
R-10088	Res.	B	1	8002 W 146th Ter	74	65	9
R-10089	Res.	B	1	8006 W 146th Ter	69	62	7
R-10090	Res.	B	1	8010 W 146th Ter	63	58	5
R-10091	Res.	B	1	8014 W 146th Ter	59	56	4
R-10092	Res.	B	1	8018 W 146th Ter	58	54	4
R-10093	Res.	B	1	8022 W 146th Ter	56	54	2
R-10094	Res.	B	1	8025 W 146th St	54	54	0
R-10095	Res.	B	1	8021 W 146th St	55	54	1
R-10096	Res.	B	1	8017 W 146th St	57	54	3
R-10097	Res.	B	1	8013 W 146th St	58	55	4
R-10098	Res.	B	1	8009 W 146th St	62	58	4
R-10099	Res.	B	1	8005 W 146th St	69	62	7
R-10100	Res.	B	1	8001 W 146th St	74	65	9
R-10101	Res.	B	1	8000 W 146th St	73	64	9
R-10102	Res.	B	1	8004 W 146th St	67	61	6
R-10103	Res.	B	1	8008 W 146th St	62	58	5
R-10104	Res.	B	1	8012 W 146th St	60	55	4
R-10105	Res.	B	1	8016 W 146th St	58	54	4
R-10106	Res.	B	1	8020 W 146th St	55	54	1
R-10107	Res.	B	1	8024 W 146th St	54	54	0
R-10108	Res.	B	1	8111 W 145th Ter	55	54	1
R-10109	Res.	B	1	8107 W 145th Ter	56	54	2
R-10110	Res.	B	1	8103 W 145th Ter	58	54	4
R-10111	Res.	B	1	8015 W 145th Ter	60	56	4
R-10112	Res.	B	1	8011 W 145th Ter	63	58	5
R-10113	Res.	B	1	8007 W 145th Ter	69	62	7
R-10114	Res.	B	1	8003 W 145th Ter	74	65	9
R-10115	Res.	B	1	8002 W 145th Ter	75	65	10
R-10116	Res.	B	1	8006 W 145th Ter	72	62	9

Table C-9: NW10 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-10117	Res.	B	1	8010 W 145th Ter	65	59	7
R-10118	Res.	B	1	8014 W 145th Ter	61	56	5
R-10119	Res.	B	1	8102 W 145th Ter	59	55	5
R-10120	Res.	B	1	8106 W 145th Ter	57	54	3
R-10121	Res.	B	1	8110 W 145th Ter	56	54	2
R-10122	Res.	B	1	8109 W 145th St	54	54	0
R-10123	Res.	B	1	8105 W 145th St	57	54	3
R-10124	Res.	B	1	8101 W 145th St	59	54	5
R-10125	Res.	B	1	8013 W 145th St	61	56	5
R-10126	Res.	B	1	8009 W 145th St	66	58	7
R-10127	Res.	B	1	8005 W 145th St	70	61	9
R-10128	Res.	B	1	8001 W 145th St	73	64	10
R-10129	Res.	B	1	8000 W 145th St	74	64	10
R-10130	Res.	B	1	8004 W 145th St	68	61	7
R-10131	Res.	B	1	8008 W 145th St	61	57	4
R-10132	Res.	B	1	8012 W 145th St	57	54	3
R-10133	Res.	B	1	8100 W 145th St	55	54	1
R-10134	Res.	B	1	8104 W 145th St	54	54	0
R-10135	Res.	B	1	8108 W 145th St	54	54	0
R-10136	Res.	B	1	8111 W 144th Pl	54	54	0
R-10137	Res.	B	1	8107 W 144th Pl	54	54	0
R-10138	Res.	B	1	8103 W 144th Pl	55	54	1
R-10139	Res.	B	1	8017 W 144th Pl	58	54	4
R-10140	Res.	B	1	8013 W 144th Pl	61	56	4
R-10141	Res.	B	1	8009 W 144th Pl	64	59	5
R-10142	Res.	B	1	8005 W 144th Pl	69	62	7
R-10143	Res.	B	1	8001 W 144th Pl	72	64	8
R-10144	Res.	B	1	8000 W 144th Pl	70	64	6
R-10145	Res.	B	1	8004 W 144th Pl	66	60	6
R-10146	Res.	B	1	8008 W 144th Pl	62	57	6
R-10147	Res.	B	1	8012 W 144th Pl	58	54	4
R-10148	Res.	B	1	8102 W 144th Pl	54	54	0
R-10149	Res.	B	1	8106 W 144th Pl	54	54	0
R-10150	Res.	B	1	8110 W 144th Pl	54	54	0
R-10151	Res.	B	1	8109 W 144th Ter	54	54	0
R-10152	Res.	B	1	8105 W 144th Ter	54	54	0
R-10153	Res.	B	1	8101 W 144th Ter	54	54	0
R-10154	Res.	B	1	8019 W 144th Ter	57	54	3
R-10155	Res.	B	1	8015 W 144th Ter	59	56	3
R-10156	Res.	B	1	8011 W 144th Ter	64	58	6
R-10157	Res.	B	1	8007 W 144th Ter	70	63	7
R-10158	Res.	B	1	8003 W 144th Ter	73	65	8
R-10159	Res.	B	1	8002 W 144th Ter	72	64	8
R-10160	Res.	B	1	8006 W 144th Ter	69	62	7
R-10161	Res.	B	1	8010 W 144th Ter	66	60	5
R-10162	Res.	B	1	8014 W 144th Ter	63	59	4
R-10163	Res.	B	1	8018 W 144th Ter	62	58	3
R-10164	Res.	B	1	8100 W 144th Ter	61	58	3
R-10165	Res.	B	1	8104 W 144th Ter	58	55	3
R-10166	Res.	B	1	8108 W 144th Ter	56	54	2
R-10167	Res.	B	1	8107 W 144th St	56	54	2
R-10168	Res.	B	1	8103 W 144th St	58	54	4
R-10169	Res.	B	1	8021 W 144th St	59	55	4
R-10170	Res.	B	1	8017 W 144th St	61	56	5
R-10171	Res.	B	1	8013 W 144th St	62	58	5
R-10172	Res.	B	1	8009 W 144th St	64	59	5
R-10173	Res.	B	1	8005 W 144th St	67	62	5
R-10174	Res.	B	1	8001 W 144th St	68	63	5

Table C-9: NW10 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-10175	Res.	B	1	8000 W 144th St	67	62	5
R-10176	Res.	B	1	8004 W 144th St	66	61	5
R-10177	Res.	B	1	8008 W 144th St	65	61	5
R-10178	Res.	B	1	8012 W 144th St	63	59	4
R-10179	Res.	B	1	8016 W 144th St	62	58	4
R-10180	Res.	B	1	8020 W 144th St	61	56	4
R-10181	Res.	B	1	8102 W 144th St	59	55	4
R-10182	Res.	B	1	8106 W 144th St	58	55	4
R-10183	Res.	B	4	8023-8035 143rd Ter	61	56	6
R-10184	Res.	B	4	8003-8015 143rd Ter	65	59	6
R-10185	Res.	B	4	7919-7931 143rd Ter	67	62	5
R-10186	Res.	B	4	7903-7915 143rd Ter	67	62	5
R-10187	Res.	B	5	8018-8034 143rd Ter	54	54	0
R-10188	Res.	B	4	8002-8014 143rd Ter	69	67	2
					Predicted Build Alternative With Barrier Benefits		121
					Noise Impact		Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW10

Reasonableness:

The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.

Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors
5,460	12.8	69,687	576	121
Is the barrier-square-footage-per-benefitted receptor less than 1,800?				**Yes**

Table C-10: NW11 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-11001	Res.	B	1	7931 W 142nd Ter	65	64	1
R-11002	Res.	B	1	7927 W 142nd Ter	65	64	2
R-11003	Res.	B	1	7923 W 142nd Ter	64	62	3
R-11004	Res.	B	1	7919 W 142nd Ter	63	60	2
R-11005	Res.	B	1	7915 W 142nd Ter	66	63	3
R-11006	Res.	B	1	7911 W 142nd Ter	67	64	4
R-11007	Res.	B	1	7907 W 142nd Ter	67	63	5
R-11008	Res.	B	1	7903 W 142nd Ter	66	61	5
R-11009	Res.	B	1	14217 Lowell Ave	67	61	6
R-11010	Res.	B	1	14213 Lowell Ave	67	61	6
R-11011	Res.	B	1	14209 Lowell Ave	67	61	6
R-11012	Res.	B	1	14205 Lowell Ave	66	61	6
R-11013	Res.	B	1	14201 Lowell Ave	66	60	6
R-11014	Res.	B	1	14113 Lowell Ave	66	60	6
R-11015	Res.	B	1	14109 Lowell Ave	65	59	6
R-11016	Res.	B	1	14105 Lowell St	65	59	6
R-11017	Res.	B	1	7910 W 142nd Ter	63	59	4
R-11018	Res.	B	1	7906 W 142nd Ter	64	59	5
R-11019	Res.	B	1	7902 W 142nd Ter	64	59	5
R-11020	Res.	B	1	14212 Lowell Ave	65	59	5
R-11021	Res.	B	1	14208 Lowell Ave	65	59	6
R-11022	Res.	B	1	14204 Lowell Ave	65	59	6
R-11023	Res.	B	1	14200 Lowell Ave	64	58	6
R-11024	Res.	B	1	7905 W 142nd St	61	55	6
R-11025	Res.	B	1	7909 W 142nd St	59	54	5
R-11026	Res.	B	1	7913 W 142nd St	60	54	6
R-11027	Res.	B	1	7920 W 142nd St	60	54	6
R-11028	Res.	B	1	7916 W 142nd St	60	54	6
R-11029	Res.	B	1	7912 W 142nd St	61	55	6
R-11030	Res.	B	1	7908 W 142nd St	62	55	7
R-11031	Res.	B	1	7904 W 142nd St	62	56	6
R-11032	Res.	B	1	7900 W 142nd St	63	57	6
R-11033	Res.	B	1	7925 W 140th Ter	57	54	3
R-11034	Res.	B	1	7921 W 140th Ter	61	55	6
R-11035	Res.	B	1	7917 W 140th Ter	63	56	6
R-11036	Res.	B	1	7913 W 140th Ter	64	58	6
R-11037	Res.	B	1	7909 W 140th Ter	65	59	6
R-11038	Res.	B	1	7905 W 140th Ter	66	60	6
R-11039	Res.	B	1	7901 W 140th Ter	67	61	6
R-11040	Res.	B	1	7928 W 140th Ter	54	54	0
R-11041	Res.	B	1	7924 W 140th Ter	62	56	6
R-11042	Res.	B	1	7920 W 140th Ter	64	58	6
R-11043	Res.	B	1	7916 W 140th Ter	64	58	6
R-11044	Res.	B	1	7912 W 140th Ter	63	57	6
R-11045	Res.	B	1	7908 W 140th Ter	65	59	7
R-11046	Res.	B	1	7904 W 140th Ter	67	60	7
R-11047	Res.	B	1	7900 W 140th Ter	69	62	7
R-11048	Res.	B	1	14012 Lowell Ave	70	63	7
R-11049	Res.	B	1	14008 Lowell Ave	69	62	7
R-11050	Res.	B	1	7901 W 140th St	68	62	6
R-11051	Res.	B	1	7905 W 140th St	62	57	4
R-11052	Res.	B	1	7909 W 140th St	61	57	4
R-11053	Res.	B	1	7913 W 140th St	61	57	4
R-11054	Res.	B	1	7912 W 140th St	61	57	4
R-11055	Res.	B	1	7908 W 140th St	63	60	3
R-11056	Res.	B	1	7904 W 140th St	63	60	3
R-11057	Res.	B	1	13910 Lowell Ave	61	59	1
R-11058	Res.	B	1	13906 Lowell Ave	59	57	2

Table C-10: NW11 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-11059	Res.	B	1	13902 Lowell Ave	59	56	3
R-11060	Res.	B	1	14009 Lowell Ave	72	65	7
R-11061	Res.	B	1	14005 Lowell Ave	71	64	7
R-11062	Res.	B	1	14001 Lowell Ave	70	64	6
R-11063	Res.	B	1	13915 Lowell Ave	68	63	5
R-11064	Res.	B	1	13911 Lowell Ave	65	61	5
R-11065	Res.	B	1	13907 Lowell Ave	64	60	4
R-11066	Res.	B	1	13903 Lowell Ave	62	59	4
R-11067	Res.	B	1	13901 Lowell Ave	61	58	4
R-11068	Res.	B	1	8106 W 139th St	61	60	2
R-11069	Res.	B	1	13834 Hardy St	63	59	4
R-11070	Res.	B	1	13827 Hardy St	65	60	4
R-11071	Res.	B	1	13823 Hardy St	63	59	4
R-11072	Res.	B	1	7839 W 139th St	62	59	3
R-11073	Res.	B	1	7835 W 139th Ter	62	58	4
R-11074	Res.	B	1	7831 W 139th Ter	65	60	4
R-11075	Res.	B	1	7827 W 139th Ter	69	63	6
R-11076	Res.	B	1	7823 W 139th Ter	74	66	8
R-11077	Res.	B	1	7824 W 139th Ter	76	67	9
R-11078	Res.	B	1	7828 W 139th Ter	72	65	7
R-11079	Res.	B	1	7832 W 139th Ter	67	61	6
R-11080	Res.	B	1	7836 W 139th Ter	64	60	5
R-11081	Res.	B	1	8105 W 139th St	64	60	4
R-11082	Res.	B	1	7835 W 139th St	65	61	4
R-11083	Res.	B	1	7831 W 139th St	64	61	4
R-11084	Res.	B	1	7827 W 139th St	67	61	5
R-11085	Res.	B	1	7823 W 139th St	72	65	6
R-11086	Res.	B	1	7819 W 139th St	74	67	7
R-11087	Res.	B	1	7815 W 139th St	72	67	5
R-11088	Res.	B	1	7811 W 139th St	69	64	5
R-11089	Res.	B	1	13844 Craig St	65	61	4
R-11090	Res.	B	1	13840 Craig St	63	59	4
R-11091	Res.	B	1	13836 Craig St	62	58	4
R-11092	Res.	B	1	8003 W 138th Ter	60	56	4
R-11093	Res.	B	1	8004 W 138th Ter	61	57	4
R-11094	Res.	B	1	13816 Craig St	62	58	4
R-11095	Res.	B	1	13812 Craig St	62	58	4
R-11096	Res.	B	1	13808 Craig St	63	58	5
R-11097	Res.	B	1	13804 Craig St	64	58	5
R-11098	Res.	B	1	13805 Craig St	64	59	5
R-11099	Res.	B	1	13809 Craig St	66	60	6
R-11100	Res.	B	1	13813 Craig St	66	61	6
R-11101	Res.	B	1	13817 Craig St	67	61	6
R-11102	Res.	B	1	13821 Craig St	67	61	6
R-11103	Res.	B	1	13825 Craig St	67	61	6
R-11104	Res.	B	1	13829 Craig St	67	61	6
R-11105	Res.	B	1	13833 Craig St	68	62	6
R-11106	Res.	B	1	13835 Craig St	68	62	6
R-11107	Res.	B	1	13836 Lowell Ave	69	64	6
R-11108	Res.	B	1	13832 Lowell Ave	70	64	6
R-11109	Res.	B	1	13828 Lowell Ave	70	64	6
R-11110	Res.	B	1	13824 Lowell Ave	70	63	6
R-11111	Res.	B	1	13820 Lowell Ave	69	63	6
R-11112	Res.	B	1	13816 Lowell Ave	69	63	6
R-11113	Res.	B	1	13812 Lowell Ave	69	63	6
R-11114	Res.	B	1	13808 Lowell Ave	68	63	6
R-11115	Res.	B	1	7903 W 138th St	70	63	7
R-11116	Res.	B	1	7907 W 138th St	64	60	5

Table C-10: NW11 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-11117	Res.	B	1	7911 W 138th St	63	58	4
R-11118	Res.	B	1	7915 W 138th St	61	57	4
R-11119	Res.	B	1	7920 W 138th St	57	54	3
R-11120	Res.	B	1	7916 W 138th St	58	55	3
R-11121	Res.	B	1	7912 W 138th St	60	56	3
R-11122	Res.	B	1	7908 W 138th St	60	57	3
R-11123	Res.	B	1	7902 W 138th St	69	62	7
R-11124	Res.	B	1	7901 W 137th Ter	69	62	7
R-11125	Res.	B	1	7905 W 137th Ter	62	58	4
R-11126	Res.	B	1	7909 W 137th Ter	60	57	3
R-11127	Res.	B	1	7913 W 137th Ter	59	56	3
R-11128	Res.	B	1	7917 W 137th Ter	56	54	2
R-11129	Res.	B	1	7922 W 137th Ter	57	54	3
R-11130	Res.	B	1	7918 W 137th Ter	57	54	3
R-11131	Res.	B	1	7914 W 137th Ter	57	55	2
R-11132	Res.	B	1	7910 W 137th Ter	59	57	2
R-11133	Res.	B	1	7906 W 137th Ter	62	58	3
R-11134	Res.	B	1	7904 W 137th Ter	72	64	8
R-11135	Res.	B	1	7903 W 137th St	71	64	7
R-11136	Res.	B	1	7907 137th St	59	56	3
R-11137	Res.	B	1	7911 137th St	60	56	3
R-11138	Res.	B	1	7915 137th St	57	54	3
R-11139	Res.	B	1	7919 W 137th St	55	54	1
R-11140	Res.	B	1	7923 W 136th Pl	56	54	2
R-11141	Res.	B	1	7922 W 136th Pl	60	57	2
R-11142	Res.	B	1	7918 W 136th Pl	61	58	2
R-11143	Res.	B	1	7914 W 137th St	64	61	3
						Predicted Build Alternative With Barrier Benefits	82
					Noise Impact		Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW11

Reasonableness:

The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.

Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors
5,268	12.7	66,994	817	82
Is the barrier-square-footage-per-benefitted receptor less than 1,800?				Yes

Table C-11: NW12 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-12001	Trail	C	1	Indian Creek Trail 10	74	67	7
R-12002	Trail	C	1	Indian Creek Trail 11	77	67	11
R-12003	Trail	C	1	Indian Creek Trail 12	78	67	11
R-12004	Trail	C	1	Indian Creek Trail 13	76	66	10
R-12005	Res.	B	3	Cyan 6103-6109	66	63	3
R-12006	Res.	B	4	Cyan 6202-6209	69	66	4
R-12007	Res.	B	4	Cyan 6302-6309	70	66	4
R-12008	Res.	B	4	Cyan 6402-6409	71	68	3
R-12009	Res.	B	4	Cyan 6110-6114	72	65	7
R-12010	Res.	B	5	Cyan 6210-6217	75	69	6
R-12011	Res.	B	5	Cyan 6310-6317	76	71	5
R-12012	Res.	B	5	Cyan 6410-6417	76	74	2
R-12013	Res.	B	1	Cyan 6116	69	62	8
R-12014	Res.	B	1	Cyan 6216	72	64	8
R-12015	Res.	B	1	Cyan 6316	72	65	7
R-12016	Res.	B	1	Cyan 6416	72	69	4
R-12017	Res.	B	4	Cyan 7105-7110	57	55	2
R-12018	Res.	B	6	Cyan 7201-7212	59	57	2
R-12019	Res.	B	6	Cyan 7301-7312	60	58	2
R-12020	Res.	B	6	Cyan 7401-7412	61	59	2
R-12021	Res.	B	4	Cyan 5105-5110	71	64	7
R-12022	Res.	B	6	Cyan 5201-5212	73	66	7
R-12023	Res.	B	6	Cyan 5301-5312	73	67	6
R-12024	Res.	B	6	Cyan 5401-5412	74	70	4
R-12025	Park	C	1	Cyan Pool 1	54	54	0
R-12026	Park	C	1	Cyan Pool 2	65	58	7
R-12027	Res.	B	2	Cyan 1102-1103	61	55	6
R-12028	Res.	B	2	Cyan 1202-1203	63	57	7
R-12029	Res.	B	5	Cyan 1302-1311	64	58	7
R-12030	Res.	B	5	Cyan 1402-1411	65	60	5
R-12031	Res.	B	2	Cyan 1114-1117	65	58	7
R-12032	Res.	B	2	Cyan 1214-1217	66	60	7
R-12033	Res.	B	2	Cyan 1314-1317	67	61	6
R-12034	Res.	B	2	Cyan 1414-1417	67	63	5
R-12035	Res.	B	1	Cyan 1119	65	62	3
R-12036	Res.	B	2	Cyan 1218-1219	67	62	4
R-12037	Res.	B	2	Cyan 1318-1319	68	64	4
R-12038	Res.	B	2	Cyan 1418-1419	68	66	2
R-12039	Res.	B	3	Cyan 1112-1116	61	57	4
R-12040	Res.	B	4	Cyan 1212-1216	63	56	6
R-12041	Res.	B	4	Cyan 1312-1316	65	58	7
R-12042	Res.	B	4	Cyan 1412-1416	65	59	6
R-12043	Res.	B	6	Cyan 4102-4111	75	66	9
R-12044	Res.	B	6	Cyan 4202-4211	77	70	7
R-12045	Res.	B	6	Cyan 4302-4311	78	75	3
R-12046	Res.	B	6	Cyan 4402-4411	78	77	1
R-12047	Res.	B	4	Cyan 2105-2110	62	58	4
R-12048	Res.	B	6	Cyan 2201-2212	62	58	4
R-12049	Res.	B	6	Cyan 2301-2312	65	61	4
R-12050	Res.	B	6	Cyan 2401-2412	67	65	2
R-12051	Res.	B	1	Cyan 3116	69	61	8
R-12052	Res.	B	1	Cyan 3216	73	64	9
R-12053	Res.	B	1	Cyan 3316	73	67	6
R-12054	Res.	B	1	Cyan 3416	74	71	2
R-12055	Res.	B	4	Cyan 3110-3114	72	66	6
R-12056	Res.	B	5	Cyan 3210-3217	77	71	6
R-12057	Res.	B	5	Cyan 3310-3317	77	74	4
R-12058	Res.	B	5	Cyan 3410-3417	78	77	1

Table C-11: NW12 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-12059	Res.	B	5	Cyan 3101-3108	62	60	2
R-12060	Res.	B	5	Cyan 3201-3208	67	65	2
R-12061	Res.	B	5	Cyan 3301-3308	71	70	1
R-12062	Res.	B	5	Cyan 3401-3408	72	71	1
					Predicted Build Alternative With Barrier Benefits		96
					Noise Impact		Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW12				
Reasonableness:				
The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.				
Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors
1,633	12.0	19,584	204	96
Is the barrier-square-footage-per-benefitted receptor less than 1,800?				**Yes**

Table C-12: NW13 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-13002	Res.	B	1	Sorrento 17107	59	59	1
R-13003	Res.	B	1	Sorrento 17207	62	61	1
R-13004	Res.	B	1	Sorrento 17109	58	58	0
R-13005	Res.	B	2	Sorrento 17209-17211	60	60	0
R-13006	Res.	B	2	Sorrento 15205-15207	57	56	1
R-13007	Res.	B	2	Sorrento 11205-11207	56	55	1
R-13008	Res.	B	1	Sorrento 11103	57	57	1
R-13009	Res.	B	1	Sorrento 11203	57	57	1
R-13010	Res.	B	2	Sorrento 7205-7207	55	55	0
R-13011	Res.	B	1	Sorrento 16103	54	54	0
R-13012	Res.	B	2	Sorrento 16201-16203	54	54	0
R-13013	Res.	B	2	Sorrento 16102-16104	63	61	2
R-13014	Res.	B	2	Sorrento 16202-16204	67	64	3
R-13015	Res.	B	3	Sorrento 16106-16110	66	62	4
R-13016	Res.	B	3	Sorrento 16206-16210	69	65	5
R-13017	Res.	B	2	Sorrento 16107-16109	60	57	3
R-13018	Res.	B	3	Sorrento 16207-16211	64	58	6
R-13019	Res.	B	1	Sorrento 16105	54	54	0
R-13020	Res.	B	1	Sorrento 16205	54	54	0
R-13021	Trail	C	1	Indian Creek Trail 15	70	62	9
R-13022	Res.	B	1	Sorrento 13201	68	64	5
R-13023	Res.	B	1	Sorrento 13103	65	61	4
R-13024	Res.	B	1	Sorrento 13203	69	64	5
R-13025	Res.	B	2	Sorrento 13205-13207	71	65	6
R-13026	Res.	B	2	Sorrento 13104-13106	54	54	0
R-13027	Res.	B	2	Sorrento 13204-13206	54	54	0
R-13028	Res.	B	1	Sorrento 13102	54	54	0
R-13029	Res.	B	1	Sorrento 13202	54	54	0
R-13030	Res.	B	1	Sorrento 14102	56	54	2
R-13031	Res.	B	1	Sorrento 14202	60	57	2
R-13032	Res.	B	2	Sorrento 14104-14106	54	54	0
R-13033	Res.	B	2	Sorrento 14204-14206	56	55	1
R-13034	Res.	B	2	Sorrento 14205-14207	62	57	4
R-13035	Res.	B	1	Sorrento 14103	54	54	0
R-13036	Res.	B	2	Sorrento 14201-14203	54	54	0
R-13037	Res.	B	1	Sorrento 10201	63	58	5
R-13038	Res.	B	1	Sorrento 10102	54	54	0
R-13039	Res.	B	1	Sorrento 10202	54	54	0
R-13040	Res.	B	2	Sorrento 10104-10106	54	54	0
R-13041	Res.	B	2	Sorrento 10204-10206	57	55	2
R-13042	Res.	B	2	Sorrento 10205-10207	54	54	0
R-13043	Res.	B	1	Sorrento 10103	54	54	0
R-13044	Res.	B	1	Sorrento 10203	54	54	0
R-13045	Res.	B	1	Sorrento 9102	54	54	0
R-13046	Res.	B	1	Sorrento 9202	54	54	0
R-13047	Res.	B	2	Sorrento 9104-9106	54	54	0
R-13048	Res.	B	2	Sorrento 9204-9206	54	54	0
R-13049	Res.	B	2	Sorrento 9205-9207	69	63	6
R-13050	Res.	B	1	Sorrento 9103	62	57	5
R-13051	Res.	B	1	Sorrento 9203	66	60	6
R-13052	Res.	B	1	Sorrento 9201	64	59	5
R-13053	Res.	B	1	Sorrento 5201	63	59	4
R-13054	Res.	B	1	Sorrento 5103	60	57	3
R-13055	Res.	B	1	Sorrento 5203	64	60	4
R-13056	Res.	B	2	Sorrento 5205-5207	67	61	6
R-13057	Res.	B	2	Sorrento 5104-5106	54	54	0
R-13058	Res.	B	2	Sorrento 5204-5206	54	54	0
R-13059	Res.	B	1	Sorrento 5102	54	54	0

Table C-12: NW13 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-13060	Res.	B	1	Sorrento 5202	54	54	0
R-13061	Res.	B	2	Sorrento 6205-6207	54	54	0
R-13062	Res.	B	2	Sorrento 6104-6106	54	54	0
R-13063	Res.	B	2	Sorrento 6204-6206	54	54	0
R-13064	Res.	B	1	Sorrento 6102	54	54	0
R-13065	Res.	B	1	Sorrento 6202	54	54	0
R-13066	Res.	B	1	Sorrento 6201	60	56	3
R-13067	Res.	B	1	Sorrento 6103	54	54	0
R-13068	Res.	B	1	Sorrento 6203	54	54	0
R-13069	Res.	B	1	Sorrento 1103	54	54	0
R-13070	Res.	B	1	Sorrento 1203	58	54	3
R-13071	Res.	B	1	Sorrento 1201	65	59	6
R-13072	Res.	B	1	Sorrento 1102	62	54	7
R-13073	Res.	B	1	Sorrento 1202	65	58	7
R-13074	Res.	B	3	Sorrento 1104-1108	64	56	8
R-13075	Res.	B	3	Sorrento 1204-1208	66	60	6
R-13076	Res.	B	3	Sorrento 1205-1209	54	54	0
R-13077	Res.	B	1	Sorrento 2102	54	54	0
R-13078	Res.	B	1	Sorrento 2202	54	54	0
R-13079	Res.	B	3	Sorrento 2104-2108	54	54	0
R-13080	Res.	B	3	Sorrento 2204-2208	54	54	0
R-13081	Res.	B	3	Sorrento 2205-2209	60	58	2
R-13082	Res.	B	1	Sorrento 2103	58	57	2
R-13083	Res.	B	1	Sorrento 2203	61	58	2
R-13084	Res.	B	1	Sorrento 2201	61	58	3
R-13085	Res.	B	1	Sorrento 3201	56	55	1
R-13086	Res.	B	1	Sorrento 3102	54	54	0
R-13087	Res.	B	1	Sorrento 3202	54	54	0
R-13088	Res.	B	3	Sorrento 3104-3108	54	54	0
R-13089	Res.	B	3	Sorrento 3204-3208	54	54	0
				Predicted Build Alternative With Barrier Benefits			**28**
					Noise Impact		Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW13				
Reasonableness:				
The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.				
Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors
2,065	16.0	33,044	1,180	28
Is the barrier-square-footage-per-benefitted receptor less than 1,800?				**Yes**

Table C-13: NW14 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-14003	Res.	B	5	Kelly Park 6202-6206	69	66	3
R-14023	Res.	B	5	Kelly Park 12202-12206	65	63	3
						Predicted Build Alternative With Barrier Benefits	0
						Noise Impact	Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW14					
Feasibility:					
An acoustically feasible noise barrier must achieve at least a five dB(A) traffic noise reduction for 80% of 1st row impacted receptors and 2/3 of all impacted receptors.					
Total 1st row impacted receptors	10	Percentage of 1st row impacted receptors receiving 5 dB(A) reduction or more:	0%	Do 80% of all 1st row impacted receptors receive 5 dB(A) reduction or more?	No
1st row impacted receptors receiving >= 5 dB(A) reduction	0				
All impacted receptors (1st and 2nd row)	10	Percentage of impacted receptors that achieve at least a five dB(A) reduction:	0%	Do 2/3 of all impacted receptors receive 5 dB(A) reduction or more?	No
All impacted receptors receiving >= 5 dB(A) reduction	0				
				Is the barrier feasible?	**No**

Table C-14: NW15 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-15001	Res.	B	1	8009 W 131st Pl	60	60	0
R-15002	Res.	B	1	8005 W 131st Pl	61	61	0
R-15003	Res.	B	1	8001 W 131st Pl	62	62	1
R-15004	Res.	B	1	7909 W 131st Pl	65	64	1
R-15005	Res.	B	1	7905 W 131st Pl	68	66	2
R-15006	Res.	B	1	7901 W 131st Pl	71	66	5
R-15007	Res.	B	1	7900 W 131st Pl	72	65	7
R-15008	Res.	B	1	7904 W 131st Pl	65	60	5
R-15009	Res.	B	1	8000 W 131st Pl	61	58	3
R-15010	Res.	B	1	8004 W 131st Pl	59	57	3
R-15011	Res.	B	1	8008 W 131st Pl	57	55	2
R-15012	Res.	B	1	8012 W 131st Pl	56	54	1
R-15013	Trail	C	1	Indian Creek Trail 16	73	63	10
R-15014	Res.	B	1	8015 W 131st Ter	57	55	2
R-15015	Res.	B	1	8011 W 131st Ter	58	56	2
R-15016	Res.	B	1	8007 W 131st Ter	60	57	3
R-15017	Res.	B	1	8003 W 131st Ter	62	58	4
R-15018	Res.	B	1	7911 W 131st Ter	67	60	6
R-15019	Res.	B	1	7907 W 131st Ter	71	63	8
R-15020	Res.	B	1	7903 W 131st Ter	74	64	10
R-15021	Res.	B	1	7902 W 131st Ter	72	63	9
R-15022	Res.	B	1	7906 W 131st Ter	66	60	6
R-15023	Res.	B	1	8002 W 131st Ter	61	57	4
R-15024	Res.	B	1	8006 W 131st Ter	57	55	2
R-15025	Res.	B	1	8010 W 131st Ter	56	54	2
R-15026	Res.	B	1	8014 W 131st Ter	56	54	2
R-15027	Res.	B	1	8009 W 130th St	58	55	3
R-15028	Res.	B	1	8005 W 130th St	60	56	4
R-15029	Res.	B	1	8001 W 130th St	62	58	4
R-15030	Res.	B	1	7909 W 130th St	67	60	7
R-15031	Res.	B	1	7905 W 130th St	71	62	8
R-15032	Res.	B	1	7901 W 130th St	74	65	9
R-15033	Res.	B	1	7900 W 130th St	71	64	7
R-15034	Res.	B	1	7904 W 130th St	64	60	5
R-15035	Res.	B	1	7908 W 130th St	62	58	4
R-15036	Res.	B	1	8000 W 130th St	60	57	3
R-15037	Res.	B	1	8004 W 130th St	58	55	3
R-15038	Res.	B	1	8104 W 130th St	57	54	2
R-15039	Res.	B	1	8103 W 129th Ter	58	55	3
R-15040	Res.	B	1	8011 W 129th Ter	59	56	3
R-15041	Res.	B	1	8007 W 129th Ter	60	57	3
R-15042	Res.	B	1	8003 W 129th Ter	61	58	4
R-15043	Res.	B	1	7911 W 129th Ter	64	59	4
R-15044	Res.	B	1	7907 W 129th Ter	68	63	6
R-15045	Res.	B	1	7903 W 129th Ter	73	66	7
R-15046	Res.	B	1	7902 W 129th Ter	71	65	6
R-15047	Res.	B	1	7906 W 129th Ter	66	61	5
R-15048	Res.	B	1	8002 W 129th Ter	65	60	5
R-15049	Res.	B	1	8006 W 129th Ter	63	58	4
R-15050	Res.	B	1	8010 W 129th Ter	62	58	4
R-15051	Res.	B	1	8102 W 129th Ter	61	57	4
R-15052	Trail	C	1	Indian Creek Trail 17	78	66	11
R-15053	Res.	B	1	8101 W 129th St	62	57	4
R-15054	Res.	B	1	8009 W 129th St	63	58	5
R-15055	Res.	B	1	8005 W 129th St	63	59	5
R-15056	Res.	B	1	8001 W 129th St	65	60	5
R-15057	Res.	B	1	7909 W 129th St	68	62	6
R-15058	Res.	B	1	7905 W 129th St	70	64	7

Table C-14: NW15 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-15059	Res.	B	1	7901 W 129th St	76	68	7
R-15060	Res.	B	1	7900 W 129th St	75	68	6
R-15061	Res.	B	1	7904 W 129th St	72	69	3
R-15062	Res.	B	1	7908 W 129th St	69	67	2
R-15063	Res.	B	1	8000 W 129th St	66	65	1
R-15064	Res.	B	1	8004 W 129th St	64	63	1
R-15065	Res.	B	1	8008 W 129th St	63	62	1
R-15066	Res.	B	1	8100 W 129th St	62	61	1
R-15067	Sport	C	3	Heartland Baseball 1	72	71	1
R-15068	Sport	C	3	Heartland Baseball 2	69	68	1
R-15069	Sport	C	2	Heartland Baseball 3	66	65	1
R-15070	Park	C	1	Heartland Playground	65	64	1
					Predicted Build Alternative With Barrier Benefits		27
					Noise Impact		Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW15				
Reasonableness:				
The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.				
Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors
1,833	14.3	26,277	973	27
Is the barrier-square-footage-per-benefitted receptor less than 1,800?				**Yes**

Table C-15: NW16 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-16001	Res.	B	6	Pointe Royal Bld 37	71	61	10
R-16002	Res.	B	6	Pointe Royal Bld 36	72	61	11
R-16003	Res.	B	6	Pointe Royal Bld 34	72	61	11
R-16004	Res.	B	6	Pointe Royal Bld 33	72	62	11
R-16005	Res.	B	9	Pointe Royal Bld 31	69	61	8
R-16006	Res.	B	10	Pointe Royal Bld 27	70	62	8
R-16007	Res.	B	6	Pointe Royal Bld 26	73	64	9
R-16008	Res.	B	6	Pointe Royal Bld 24	68	60	8
R-16009	Res.	B	10	Pointe Royal Bld 23	77	67	10
R-16010	Res.	B	10	Pointe Royal Bld 38	66	60	6
R-16011	Res.	B	10	Pointe Royal Bld 39	63	58	5
R-16012	Res.	B	10	Pointe Royal Bld 35	63	58	5
R-16013	Res.	B	10	Pointe Royal Bld 32	60	55	6
R-16014	Res.	B	6	Pointe Royal Bld 30	61	55	6
R-16015	Res.	B	10	Pointe Royal Bld 25	61	56	5
R-16016	Res.	B	9	Pointe Royal Bld 21	60	55	6
R-16017	Res.	B	9	Pointe Royal Bld 19	62	56	6
R-16018	Res.	B	6	Pointe Royal Bld 17	68	60	8
R-16019	Res.	B	10	Pointe Royal Bld 15	72	65	7
R-16020	Res.	B	6	Pointe Royal Bld 13	72	65	7
R-16021	Res.	B	6	Pointe Royal Bld 12	73	66	7
R-16022	Res.	B	10	Pointe Royal Bld 11	73	65	8
R-16023	Res.	B	9	Pointe Royal Bld 6	75	66	9
R-16024	Res.	B	9	Pointe Royal Bld 5	73	67	6
R-16025	Res.	B	6	Pointe Royal Bld 3	59	58	1
R-16026	Res.	B	10	Pointe Royal Bld 1	60	60	0
R-16027	Res.	B	6	Pointe Royal Bld 40	61	59	3
R-16028	Res.	B	10	Pointe Royal Bld 41	59	57	2
R-16029	Res.	B	10	Pointe Royal Bld 29	56	54	2
R-16030	Res.	B	9	Pointe Royal Bld 28	58	54	3
R-16031	Res.	B	10	Pointe Royal Bld 22	54	54	0
R-16032	Res.	B	10	Pointe Royal Bld 20	54	54	0
R-16033	Res.	B	10	Pointe Royal Bld 18	59	54	5
R-16034	Res.	B	10	Pointe Royal Bld 16	58	55	4
R-16035	Res.	B	6	Pointe Royal Bld 14	59	54	4
R-16036	Sport	C	1	Pointe Royal Tennis Ct	59	56	4
R-16037	Sport	C	1	Pointe Royal BB Court	62	58	4
R-16038	Park	C	1	Pointe Royal Pool	59	55	4
R-16039	Res.	B	6	Pointe Royal Bld 10	61	58	4
R-16040	Res.	B	10	Pointe Royal Bld 9	62	56	6
R-16041	Res.	B	6	Pointe Royal Bld 7	67	60	7
R-16042	Res.	B	6	Pointe Royal Bld 4	63	59	4
R-16043	Res.	B	10	Pointe Royal Bld 8	54	54	0
R-16044	Res.	B	10	Pointe Royal Bld 2	54	54	0
R-16045	Res.	B	1	8204 W 123rd St	54	54	0
R-16046	Res.	B	1	8224 W 123rd St	56	54	2
R-16047	Res.	B	1	12231 Hemlock St	58	55	3
R-16048	Res.	B	1	12216 Hemlock St	57	54	3
					Predicted Build Alternative With Barrier Benefits		221
					Noise Impact		Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW16				
Reasonableness:				
The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.				
Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors
2,960	12.6	37,226	168	221
Is the barrier-square-footage-per-benefitted receptor less than 1,800?				**Yes**

Table C-16: NW17 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-17001	Res.	B	2	Springhill 8721 1st	78	64	14
R-17002	Res.	B	2	Springhill 8721 2nd	79	71	7
R-17003	Res.	B	2	Springhill 8721 1st B	61	60	2
R-17004	Res.	B	2	Springhill 8721 2nd B	65	63	2
R-17005	Res.	B	2	Springhill 8717 1st	74	67	7
R-17006	Res.	B	2	Springhill 8717 2nd	77	71	6
R-17007	Res.	B	2	Springhill 8717 1st B	66	66	0
R-17008	Res.	B	2	Springhill 8717 2nd B	69	68	1
R-17009	Res.	B	2	Springhill 8713 1st	65	65	1
R-17010	Res.	B	2	Springhill 8713 2nd	69	68	1
R-17011	Res.	B	2	Springhill 8713 1st B	64	64	0
R-17012	Res.	B	2	Springhill 8713 2nd B	67	67	0
R-17013	Res.	B	2	Springhill 8709 1st B	70	70	0
R-17014	Res.	B	2	Springhill 8709 2nd B	72	72	0
R-17015	Res.	B	2	Springhill 8709 1st	54	54	0
R-17016	Res.	B	2	Springhill 8709 2nd	57	54	3
R-17017	Res.	B	2	Springhill 8705 1st	64	64	0
R-17018	Res.	B	2	Springhill 8705 2nd	67	67	0
R-17019	Res.	B	2	Springhill 8705 1st B	64	64	0
R-17020	Res.	B	2	Springhill 8705 2nd B	67	67	0
R-17021	Res.	B	2	Springhill 8701 1st	64	64	0
R-17022	Res.	B	2	Springhill 8701 2nd	67	67	0
R-17023	Res.	B	8	Springhill 8725	69	62	7
R-17024	Res.	B	2	Springhill 8743 1st	54	54	0
R-17025	Res.	B	2	Springhill 8743 2nd	57	56	1
R-17026	Res.	B	2	Springhill 8743 1st B	54	54	0
R-17027	Res.	B	2	Springhill 8743 2nd B	54	54	0
R-17028	Res.	B	2	Springhill 8747 1st B	54	54	0
R-17029	Res.	B	2	Springhill 8747 2nd B	56	54	2
R-17030	Res.	B	2	Springhill 8747 1st	54	54	0
R-17031	Res.	B	2	Springhill 8747 2nd	56	54	2
R-17032	Res.	B	2	Springhill 8751 1st	57	54	3
R-17033	Res.	B	2	Springhill 8751 2nd	61	55	6
R-17034	Res.	B	2	Springhill 8751 1st B	54	54	0
R-17035	Res.	B	2	Springhill 8751 2nd B	57	57	0
R-17036	Park	C	1	Springhill 8701 Pool	56	55	0
R-17037	Res.	B	2	Springhill 8767 1st	69	62	8
R-17038	Res.	B	2	Springhill 8767 2nd	74	65	9
R-17039	Res.	B	2	Springhill 8767 1st B	54	54	0
R-17040	Res.	B	2	Springhill 8767 2nd B	54	54	0
R-17041	Res.	B	2	Springhill 8771 1st B	63	57	7
R-17042	Res.	B	2	Springhill 8771 2nd B	69	59	10
R-17043	Res.	B	2	Springhill 8771 1st	66	58	8
R-17044	Res.	B	2	Springhill 8771 2nd	70	61	9
R-17045	Res.	B	2	Springhill 8775 1st	72	64	8
R-17046	Res.	B	2	Springhill 8775 2nd	76	68	8
R-17047	Res.	B	2	Springhill 8775 1st B	54	54	0
R-17048	Res.	B	2	Springhill 8775 2nd B	54	54	0
R-17049	Res.	B	2	Springhill 8779 1st B	62	54	8
R-17050	Res.	B	2	Springhill 8779 2nd B	66	57	9
R-17051	Res.	B	2	Springhill 8779 1st	70	62	8
R-17052	Res.	B	2	Springhill 8779 2nd	72	66	6
R-17053	Res.	B	2	Springhill 8763 1st B	56	54	1
R-17054	Res.	B	2	Springhill 8763 2nd B	59	57	2
R-17055	Res.	B	2	Springhill 8763 1st	54	54	0
R-17056	Res.	B	2	Springhill 8763 2nd	57	54	3
R-17057	Res.	B	2	Springhill 8783 1st	58	54	4
R-17058	Res.	B	2	Springhill 8783 2nd	61	55	7

Table C-16: NW17 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-17059	Res.	B	2	Springhill 8783 1st B	58	55	4
R-17060	Res.	B	2	Springhill 8783 2nd B	60	57	3
R-17061	Res.	B	2	Springhill 8803 1st	60	57	3
R-17062	Res.	B	2	Springhill 8803 2nd	61	59	3
R-17063	Res.	B	2	Springhill 8803 1st B	55	54	1
R-17064	Res.	B	2	Springhill 8803 2nd B	59	56	2
R-17065	Res.	B	2	Springhill 8807 1st	62	58	5
R-17066	Res.	B	2	Springhill 8807 2nd	64	60	4
R-17067	Res.	B	2	Springhill 8807 1st B	56	54	2
R-17068	Res.	B	2	Springhill 8807 2nd B	59	56	3
R-17069	Res.	B	2	Springhill 8811 1st B	54	54	0
R-17070	Res.	B	2	Springhill 8811 2nd B	54	54	0
R-17071	Res.	B	2	Springhill 8811 1st	67	60	7
R-17072	Res.	B	2	Springhill 8811 2nd	69	63	6
R-17073	Res.	B	2	Springhill 8815 1st B	55	54	1
R-17074	Res.	B	2	Springhill 8815 2nd B	59	54	5
R-17075	Res.	B	2	Springhill 8815 1st	71	64	7
R-17076	Res.	B	2	Springhill 8815 2nd	73	69	5
R-17077	Res.	B	2	Springhill 8819 1st B	66	59	7
R-17078	Res.	B	2	Springhill 8819 2nd B	70	64	5
R-17079	Res.	B	2	Springhill 8819 3rd B	71	69	2
R-17080	Res.	B	2	Springhill 8819 1st	73	65	9
R-17081	Res.	B	2	Springhill 8819 2nd	76	69	7
R-17082	Res.	B	2	Springhill 8819 3rd	77	74	2
R-17083	Res.	B	2	Springhill 8759 1st	59	58	1
R-17084	Res.	B	2	Springhill 8759 2nd	62	61	1
R-17085	Res.	B	2	9001-03 W 121st Ter	57	56	1
R-17086	Res.	B	2	9007-09 W 121st Ter	56	55	2
R-17087	Res.	B	2	9013-15 W 121st Ter	57	54	2
R-17088	Res.	B	2	9101-03 W 121st Ter	60	57	3
R-17089	Res.	B	2	9107-09 W 121st Ter	60	56	4
R-17090	Res.	B	2	9113-15 W 121st Ter	61	57	4
R-17091	Res.	B	2	9207-09 W 121st Ter	64	59	5
R-17092	Res.	B	2	9213-15 W 121st Ter	67	62	5
R-17093	Res.	B	2	9301-03 W 121st Ter	69	62	7
R-17094	Res.	B	2	9331-33 W 121st Ter	72	65	7
R-17095	Res.	B	2	9036-38 W 121st Ter	60	56	4
R-17096	Res.	B	2	9200-02 W 121st Ter	62	57	4
R-17097	Res.	B	2	9206-08 W 121st Ter	63	59	5
R-17098	Res.	B	2	9212-14 W 121st Ter	65	61	5
R-17099	Res.	B	2	9300-02 W 121st Ter	66	61	5
R-17100	Res.	B	2	9306-08 W 121st Ter	67	62	5
R-17101	Res.	B	2	9322-24 W 121st Ter	67	61	7
R-17102	Res.	B	2	9328-30 W 121st Ter	68	62	6
R-17103	Res.	B	2	9334-36 W 121st Ter	69	63	7
R-17104	Res.	B	2	9340-42 W 121st Ter	70	64	7
R-17105	Res.	B	2	9346-48 W 121st Ter	71	64	7
R-17106	Res.	B	2	9354-56 W 121st Ter	71	64	7
R-17107	Res.	B	2	12118-20 England St	61	57	4
R-17108	Res.	B	2	12112-14 England St	64	59	5
R-17109	Res.	B	2	12093-95 Hayes St	66	60	6
R-17110	Res.	B	2	12089-91 Hayes St	66	62	5
R-17111	Res.	B	2	12085-87 Hayes Cir	67	62	5
R-17112	Res.	B	2	12081-83 Hayes Cir	66	61	5
R-17113	Res.	B	2	12077-79 Hayes Cir	64	59	5
R-17114	Res.	B	2	12073-75 Hayes Cir	63	58	5
R-17115	Res.	B	2	12065-67 Hayes St	63	58	5
R-17116	Res.	B	2	12059-61 Hayes St	58	54	4

Table C-16: NW17 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-17117	Res.	B	2	12106-08 England St	63	58	5
R-17118	Res.	B	5	Centennial Park 161-168	72	65	8
R-17119	Res.	B	3	Centennial Park 162-167	54	54	0
R-17120	Res.	B	5	Centennial Park 141-148	64	58	5
R-17121	Res.	B	3	Centennial Park 142-147	58	54	4
R-17122	Res.	B	5	Centennial Park 131-138	59	55	4
R-17123	Res.	B	3	Centennial Park 132-137	54	54	0
R-17124	Res.	B	5	Centennial Park 91-98	54	54	0
R-17125	Res.	B	3	Centennial Park 92-97	54	54	0
R-17126	Res.	B	3	Centennial Park 152-157	63	59	4
R-17127	Res.	B	5	Centennial Park 151-158	54	54	0
R-17128	Res.	B	5	Centennial Park 121-128	54	54	0
R-17129	Res.	B	3	Centennial Park 122-127	54	54	0
R-17130	Res.	B	3	Centennial Park 102-107	54	54	0
R-17131	Res.	B	5	Centennial Park 101-108	54	54	0
R-17132	Res.	B	5	Centennial Park 71-78	54	54	0
R-17133	Res.	B	3	Centennial Park 112-117	54	54	0
R-17134	Res.	B	5	Centennial Park 111-118	60	55	5
R-17135	Res.	B	3	Centennial Park 62-67	54	54	0
R-17136	Res.	B	5	Centennial Park 61-68	54	54	0
R-17137	Res.	B	2	Three Lakes Bld 12 1stB	60	56	4
R-17138	Res.	B	2	Three Lakes Bld 12 2ndB	65	60	5
R-17139	Res.	B	4	Three Lakes Bld 12 1st	68	62	6
R-17140	Res.	B	4	Three Lakes Bld 12 2nd	72	65	7
R-17141	Res.	B	4	Three Lakes Bld 11 1st	68	62	6
R-17142	Res.	B	4	Three Lakes Bld 11 2nd	73	66	7
R-17143	Res.	B	2	Three Lakes Bld 11 1stB	60	56	4
R-17144	Res.	B	2	Three Lakes Bld 11 2ndB	64	58	5
R-17145	Res.	B	4	Three Lakes Bld 13 1st B	54	54	0
R-17146	Res.	B	4	Three Lakes Bld 13 2nd B	54	54	0
R-17147	Res.	B	2	Three Lakes Bld 13 1st	55	54	1
R-17148	Res.	B	2	Three Lakes Bld 13 2nd	59	54	5
R-17149	Res.	B	2	Three Lakes Bld 13 3rd	63	56	7
R-17150	Res.	B	2	Three Lakes Bld 13 1st - 2	58	54	4
R-17151	Res.	B	2	Three Lakes Bld 13 2nd - 2	63	56	7
R-17152	Res.	B	4	Three Lakes Bld 14 1st B	54	54	0
R-17153	Res.	B	4	Three Lakes Bld 14 2nd B	54	54	0
R-17154	Res.	B	4	Three Lakes Bld 14 1st	54	54	0
R-17155	Res.	B	4	Three Lakes Bld 14 2nd	54	54	0
R-17156	Res.	B	4	Three Lakes Bld 14 3rd	56	55	2
R-17157	Res.	B	4	Three Lakes Bld 10 1st	60	55	5
R-17158	Res.	B	4	Three Lakes Bld 10 2nd	65	57	8
R-17159	Res.	B	4	Three Lakes Bld 10 1st B	54	54	0
R-17160	Res.	B	4	Three Lakes Bld 10 2nd B	54	54	0
R-17161	Res.	B	4	Three Lakes Bld 10 3rd B	54	54	0
R-17162	Res.	B	4	Three Lakes Bld 15 1st	54	54	0
R-17163	Res.	B	4	Three Lakes Bld 15 2nd	54	54	0
R-17164	Res.	B	4	Three Lakes Bld 15 3rd	56	55	1
R-17165	Res.	B	4	Three Lakes Bld 9 1st	68	62	6
R-17166	Res.	B	4	Three Lakes Bld 9 2nd	72	64	8
R-17167	Res.	B	4	Three Lakes Bld 9 1st B	54	54	0
R-17168	Res.	B	4	Three Lakes Bld 9 2nd B	54	54	0
R-17169	Res.	B	4	Three Lakes Bld 6 1st B	54	54	0
R-17170	Res.	B	4	Three Lakes Bld 6 2nd B	54	54	0
R-17171	Res.	B	2	Three Lakes Bld 6 1st	61	57	4
R-17172	Res.	B	2	Three Lakes Bld 6 2nd	65	59	6
R-17173	Res.	B	4	Three Lakes Bld 5 1st	54	54	0
R-17174	Res.	B	4	Three Lakes Bld 5 2nd	54	54	0

Table C-16: NW17 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-17175	Res.	B	4	Three Lakes Bld 5 1st B	54	54	0
R-17176	Res.	B	4	Three Lakes Bld 5 2nd B	55	55	1
R-17177	Res.	B	4	Three Lakes Bld 5 3rd B	58	57	1
R-17178	Res.	B	2	Three Lakes Bld 8 1st B	61	56	4
R-17179	Res.	B	2	Three Lakes Bld 8 2nd B	66	58	7
R-17180	Res.	B	4	Three Lakes Bld 8 1st	64	59	5
R-17181	Res.	B	4	Three Lakes Bld 8 2nd	68	62	6
R-17182	Res.	B	4	Three Lakes Bld 7 1st	65	61	4
R-17183	Res.	B	4	Three Lakes Bld 7 2nd	71	65	6
R-17184	Res.	B	2	Three Lakes Bld 7 1st B	54	54	0
R-17185	Res.	B	2	Three Lakes Bld 7 2nd B	55	55	1
R-17186	Res.	B	3	Three Lakes Bld 1 1st	57	54	3
R-17187	Res.	B	3	Three Lakes Bld 1 2nd	61	54	7
R-17188	Res.	B	2	Three Lakes Bld 1 1st B	56	56	0
R-17189	Res.	B	2	Three Lakes Bld 1 2nd B	60	59	1
R-17190	Res.	B	2	Three Lakes Bld 1 3rd B	62	62	0
R-17191	Res.	B	2	Three Lakes Bld 1 1st B - 2	57	56	1
R-17192	Res.	B	2	Three Lakes Bld 1 1st B - 3	60	59	1
R-17193	Res.	B	4	Three Lakes Bld 2 1st	60	59	1
R-17194	Res.	B	4	Three Lakes Bld 2 2nd	63	62	0
R-17195	Res.	B	4	Three Lakes Bld 2 3rd	64	64	0
R-17196	Res.	B	4	Three Lakes Bld 2 1st B	54	54	0
R-17197	Res.	B	4	Three Lakes Bld 2 2nd B	54	54	0
R-17198	Park	C	1	Three Lakes Pool	60	60	0
				Predicted Build Alternative With Barrier Benefits			**186**
					Noise Impact		Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW17

Reasonableness:

The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.

Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors
1,633	12.0	19,584	204	96
Is the barrier-square-footage-per-benefitted receptor less than 1,800?				**Yes**

Table C-17: NW18 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-18001	Park	B	1	Marillac Campus Park	70	64	7
R-18002	Sport	B	1	Marillac Campus Tennis	62	60	2
					Predicted Build Alternative With Barrier Benefits		1
					Noise Impact		Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW18				
Reasonableness:				
The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.				
Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors
1,158	14.3	16,518	16,518	1
Is the barrier-square-footage-per-benefitted receptor less than 1,800?				No

Table C-18: NW19 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-19001	Res.	B	6	Whis. Hills 8700 1st	63	63	0
R-19002	Res.	B	6	Whis. Hills 8700 2nd	66	66	0
R-19003	Res.	B	4	Whis. Hills 8712 1st	70	70	0
R-19004	Res.	B	4	Whis. Hills 8712 2nd	73	73	0
R-19005	Res.	B	4	Whis. Hills 8720 1st	72	71	1
R-19006	Res.	B	4	Whis. Hills 8720 2nd	75	74	1
R-19007	Res.	B	6	Whis. Hills 8728 1st	74	70	4
R-19008	Res.	B	6	Whis. Hills 8728 2nd	78	72	6
R-19009	Res.	B	6	Whis. Hills 8816 1st	69	65	5
R-19010	Res.	B	6	Whis. Hills 8816 2nd	77	69	8
R-19011	Res.	B	4	Whis. Hills 8846 1st	68	66	3
R-19012	Res.	B	4	Whis. Hills 8846 2nd	75	69	6
R-19013	Res.	B	4	Whis. Hills 8928 1st	67	63	4
R-19014	Res.	B	4	Whis. Hills 8928 2nd	73	67	6
R-19015	Res.	B	6	Whis. Hills 8936 1st	65	60	5
R-19016	Res.	B	6	Whis. Hills 8936 2nd	69	62	7
R-19017	Res.	B	4	Whis. Hills 9038 1st	61	56	5
R-19018	Res.	B	4	Whis. Hills 9038 2nd	66	57	8
R-19019	Res.	B	4	Whis. Hills 9046 1st	59	54	5
R-19020	Res.	B	4	Whis. Hills 9046 2nd	61	55	7
R-19021	Res.	B	4	Whis. Hills 9054 1st	55	54	1
R-19022	Res.	B	4	Whis. Hills 9054 2nd	58	54	4
R-19023	Park	C	1	Whis. Hills Dog Park	56	54	2
R-19024	Res.	B	6	Whis. Hills 8808 1st	56	55	1
R-19025	Res.	B	6	Whis. Hills 8808 2nd	58	56	2
R-19026	Res.	B	6	Whis. Hills 8834 1st	55	54	1
R-19027	Res.	B	6	Whis. Hills 8834 2nd	58	55	3
R-19028	Res.	B	4	Whis. Hills 8920 1st	55	54	1
R-19029	Res.	B	4	Whis. Hills 8920 2nd	58	54	4
R-19030	Res.	B	4	Whis. Hills 8948 1st	54	54	0
R-19031	Res.	B	4	Whis. Hills 8948 2nd	54	54	0
R-19032	Park	C	1	Whis. Hills Pool	57	57	0
R-19033	Res.	B	4	Whis. Hills 8824 1st	57	57	0
R-19034	Res.	B	4	Whis. Hills 8824 2nd	60	60	0
R-19035	Res.	B	4	Whis. Hills 8900 1st	54	54	0
R-19036	Res.	B	4	Whis. Hills 8900 2nd	54	54	0
R-19037	Res.	B	6	Whis. Hills 8908 1st	54	54	0
R-19038	Res.	B	6	Whis. Hills 8908 2nd	56	54	1
R-19039	Res.	B	4	Whis. Hills 9000 1st	54	54	0
R-19040	Res.	B	4	Whis. Hills 9000 2nd	54	54	0
R-19041	Res.	B	4	Whis. Hills 9030 1st	54	54	0
R-19042	Res.	B	4	Whis. Hills 9030 2nd	55	54	1
R-19043	Res.	B	4	Whis. Hills 9026 1st	54	54	0
R-19044	Res.	B	4	Whis. Hills 9026 2nd	54	54	0
R-19045	Res.	B	2	Signature 713-714	60	56	4
R-19046	Res.	B	2	Signature 723-724	64	58	6
R-19047	Res.	B	2	Signature 711-712	64	57	7
R-19048	Res.	B	2	Signature 721-722	69	58	11
R-19049	Res.	B	4	Signature 613-618	54	54	0
R-19050	Res.	B	4	Signature 623-628	54	54	0
R-19051	Res.	B	4	Signature 611-616	65	57	8
R-19052	Res.	B	4	Signature 621-626	68	58	10
R-19053	Res.	B	4	Signature 511-516	64	55	9
R-19054	Res.	B	4	Signature 521-526	65	56	10
R-19055	Res.	B	4	Signature 513-518	58	54	4
R-19056	Res.	B	4	Signature 523-528	60	54	6

Table C-18: NW19 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-19057	Res.	B	4	Signature 913-918	58	54	4
R-19058	Res.	B	4	Signature 923-928	59	54	5
R-19059	Res.	B	4	Signature 911-916	55	54	1
R-19060	Res.	B	4	Signature 921-926	57	54	3
R-19061	Res.	B	4	Signature 1011-1016	59	54	5
R-19062	Res.	B	4	Signature 1021-1026	61	54	7
R-19063	Res.	B	4	Signature 811-816	54	54	0
R-19064	Res.	B	4	Signature 821-826	54	54	0
R-19065	Res.	B	4	Signature 813-818	56	54	2
R-19066	Res.	B	4	Signature 823-828	59	54	5
R-19067	Res.	B	4	Signature 413-418	54	54	0
R-19068	Res.	B	4	Signature 423-428	54	54	0
R-19069	Res.	B	4	Signature 411-416	66	59	7
R-19070	Res.	B	4	Signature 421-426	68	59	9
R-19071	Res.	B	4	Signature 313-318	61	54	7
R-19072	Res.	B	4	Signature 323-328	63	55	8
R-19073	Res.	B	4	Signature 311-316	61	54	7
R-19074	Res.	B	4	Signature 321-326	63	55	8
R-19075	Res.	B	1	12305 England St	58	54	4
R-19076	Res.	B	1	12301 England St	59	54	5
R-19077	Res.	B	1	12215 England St	60	54	6
R-19078	Res.	B	1	12211 England St	61	54	7
R-19079	Res.	B	1	12207 England St	61	54	7
R-19080	Res.	B	1	12203 England St	58	54	4
R-19081	Res.	B	1	12204 England St	57	54	3
R-19082	Res.	B	1	12208 England St	58	54	4
R-19083	Res.	B	4	Signature 213-218	54	54	0
R-19084	Res.	B	4	Signature 223-228	54	54	0
R-19085	Res.	B	4	Signature 211-216	65	57	8
R-19086	Res.	B	4	Signature 221-226	67	58	9
R-19087	Park	C	1	Signature Pool	67	59	8
R-19088	Res.	B	4	Signature 111-116	67	58	9
R-19089	Res.	B	4	Signature 121-126	70	59	11
R-19090	Res.	B	4	Signature 113-118	57	54	3
R-19091	Res.	B	4	Signature 123-128	62	54	8
R-19092	Res.	B	2	12205-07 Hayes St	60	54	6
R-19093	Res.	B	5	12163-12179 Hayes St	62	54	8
R-19094	Res.	B	5	12143-12159 Hayes St	63	55	9
R-19095	Res.	B	3	12103-07 Hayes St	73	62	11
R-19096	Res.	B	8	12111-12139 Hayes St	71	60	11
R-19097	Res.	B	4	9402-9408 W 122nd St	58	54	4
R-19098	Res.	B	8	12144-12168 Hayes St	62	55	8
R-19099	Res.	B	5	12120-12136 Hayes St	63	56	7
R-19100	Park	C	1	Bedford Pool	74	63	11
R-19101	Res.	B	2	12132-36 Grant St	71	63	8
R-19102	Res.	B	3	12120-28 Grant St	70	61	9
R-19103	Res.	B	3	12108-16 Grant St	69	61	8
R-19104	Res.	B	2	12100-04 Grant St	74	64	9
R-19105	Res.	B	3	9502-9506 W 122nd St	58	54	4
R-19106	Res.	B	3	9501-07 W 121st Ter	65	59	6
R-19107	Res.	B	2	9511-15 W 121st Ter	63	57	6
R-19108	Res.	B	2	9519-23 W 121st Ter	63	56	7
R-19109	Res.	B	1	12101 Carter St	62	55	7
R-19110	Res.	B	3	9502-06 W 121st Ter and 12140 Grant St	67	61	6
R-19111	Res.	B	3	9510-18 W 121st Ter	64	58	6
R-19112	Res.	B	1	12101 Knox St	57	54	3
R-19113	Res.	B	1	9600 W 121st Ter	63	57	6
R-19114	Res.	B	1	9604 W 121st Ter	62	56	6

Table C-18: NW19 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-19115	Res.	B	1	9608 W 121st Ter	61	56	5
R-19116	Res.	B	1	9612 W 121st Ter	60	56	5
R-19117	Res.	B	1	9616 W 121st Ter	60	55	5
R-19118	Res.	B	1	9620 W 121st Ter	60	55	5
R-19119	Res.	B	1	9700 W 121st Ter	60	54	6
R-19120	Res.	B	1	9704 W 121st Ter	60	54	6
R-19121	Res.	B	1	9708 W 121st Ter	59	54	5
R-19122	Res.	B	1	9712 W 121st Ter	59	54	5
R-19123	Res.	B	1	9716 W 121st Ter	58	54	4
R-19124	Res.	B	2	9750-54 W 121st St	70	63	7
R-19125	Res.	B	2	9758-62 W 121st St	67	61	6
R-19126	Res.	B	2	9766-73 W 121st St	68	61	6
R-19127	Res.	B	3	12061-69 Connell Dr	69	62	6
R-19128	Res.	B	2	12003-07 Connell Dr	69	63	6
R-19129	Res.	B	3	9751-59 W 121st St	69	62	7
R-19130	Res.	B	3	9763-71 W 121st St	63	57	6
R-19131	Res.	B	2	9775-79 W 121st St	61	56	5
R-19132	Res.	B	1	12018 Connell	61	56	5
R-19133	Res.	B	1	12014 Connell	61	56	5
R-19134	Res.	B	2	12002-06 Connell	64	58	6
R-19135	Res.	B	2	11974-78 Connell	67	61	6
R-19136	Res.	B	2	9803-05 W 121st St	59	54	5
R-19137	Res.	B	2	9807-09 W 121st St	59	54	5
R-19138	Res.	B	2	9813-17 W 121st St	59	54	5
R-19139	Res.	B	2	12115-19 Farley	58	54	4
R-19140	Res.	B	2	12107-11 Farley	58	54	4
R-19141	Res.	B	3	9808-16 W 121st St	60	55	5
R-19142	Res.	B	3	9820-28 W 121st St	60	56	5
R-19143	Res.	B	2	12009-13 Farley	60	55	5
R-19144	Res.	B	1	12005 Farley	62	57	5
R-19145	Res.	B	2	11979-83 Farley	66	61	5
R-19146	Res.	B	2	12112-16 Farley	57	54	3
R-19147	Res.	B	3	12100-08 Farley	59	54	5
R-19148	Res.	B	2	12014-18 Farley	59	54	5
R-19149	Res.	B	2	12000-04 Farley	61	57	5
R-19150	Res.	B	3	11972-80 Farley	66	60	6
R-19151	Res.	B	2	11964-68 Farley	66	61	5
R-19152	Res.	B	3	11952-60 Farley	66	60	5
R-19153	Res.	B	3	11940-48 Farley	66	61	5
R-19154	Res.	B	2	11928-36 Grant St	66	62	4
R-19155	Res.	B	1	9931 W 121st St	57	54	3
R-19156	Res.	B	1	9930 W 121st St	57	54	3
R-19157	Res.	B	1	9932 W 121st St	55	54	1
R-19158	Res.	B	1	9934 W 121st St	58	54	4
R-19159	Res.	B	1	9936 W 121st St	59	54	4
R-19160	Res.	B	1	9938 W 121st St	58	54	4
R-19161	Res.	B	1	9939 W 121st St	58	54	4
R-19162	Res.	B	1	9935 W 121st St	58	54	4
R-19163	Res.	B	1	9933 W 121st St	57	54	3
R-19164	Res.	B	1	12055 Wedd St	59	56	4
R-19165	Res.	B	1	12051 Wedd St	60	57	3
R-19166	Sport	C	1	Nottingham Tennis	61	59	2
R-19167	Park	C	1	Nottingham Pool	64	63	1
				Predicted Build Alternative With Barrier Benefits			**276**
					Noise Impact		Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

Table C-18: NW19 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
NW19							
Reasonableness:							
The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.							
Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor		All Benefitted Receptors		
4,790	16.5	79,089	287		276		
Is the barrier-square-footage-per-benefitted receptor less than 1,800?					Yes		

Table C-19: NW20 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-20001	Park	C	1	Jefferson Pointe Pool	69	69	0
R-20002	Res.	B	4	Jeff Pointe Bld 5 2nd 4	72	72	0
R-20003	Res.	B	4	Jeff Pointe Bld 5 1st 4	58	54	4
R-20004	Res.	B	4	Jeff Pointe Bld 4 1stb4	66	65	2
R-20005	Res.	B	4	Jeff Pointe Bld 4 1sta4	54	54	0
R-20006	Res.	B	4	Jeff Pointe Bld 4 3rd4	54	54	0
R-20007	Res.	B	4	Jeff Pointe Bld 3 1stb4	68	62	6
R-20008	Res.	B	4	Jeff Pointe Bld 3 1sta4	54	54	0
R-20009	Res.	B	4	Jeff Pointe Bld 3 3rd4	54	54	0
R-20010	Res.	B	4	Jeff Pointe Bld 2 1stb4	69	62	7
R-20011	Res.	B	4	Jeff Pointe Bld 2 1sta4	54	54	0
R-20012	Res.	B	4	Jeff Pointe Bld 2 3rd4	54	54	0
R-20013	Res.	B	4	Jeff Pointe Bld 1 1stb4	70	63	7
R-20014	Res.	B	4	Jeff Pointe Bld 1 1sta4	54	54	0
R-20015	Res.	B	4	Jeff Pointe Bld 1 3rd4	54	54	0
R-20016	Res.	B	4	Jeff Pointe Bld 6 1st 4	59	59	0
R-20017	Res.	B	4	Jeff Pointe Bld 6 2nd 4	61	61	0
R-20018	Res.	B	4	Jeff Pointe Bld 6 3rd 4	64	64	0
R-20019	Res.	B	4	Jeff Pointe Bld 8 1st 4	58	55	4
R-20020	Res.	B	4	Jeff Pointe Bld 8 2nd 4	61	57	4
R-20021	Res.	B	4	Jeff Pointe Bld 8 3rd 4	63	61	2
R-20022	Res.	B	4	Jeff Pointe Bld 9 1st 4	57	54	3
R-20023	Res.	B	4	Jeff Pointe Bld 9 2nd 4	59	56	4
R-20024	Res.	B	4	Jeff Pointe Bld 9 3rd 4	61	59	2
R-20025	Res.	B	4	Jeff Pointe Bld 10 1st4	59	54	5
R-20026	Res.	B	4	Jeff Pointe Bld 10 2nd4	62	57	5
R-20027	Res.	B	4	Jeff Pointe Bld 10 3rd4	63	61	2
R-20028	Res.	B	4	Jeff Pointe Bld 11 1st4	63	56	6
R-20029	Res.	B	4	Jeff Pointe Bld 11 2nd4	65	59	6
R-20030	Res.	B	4	Jeff Pointe Bld 11 3rd4	66	62	3
R-20031	Res.	B	4	Jeff Pointe Bld 12 1st4	63	59	4
R-20032	Res.	B	4	Jeff Pointe Bld 12 2nd4	65	63	2
R-20033	Res.	B	4	Jeff Pointe Bld 12 3rd4	68	67	1
R-20034	Res.	B	4	Jeff Pointe Bld 7 1sta4	54	54	0
R-20035	Res.	B	2	Jeff Pointe Bld 7 2nda2	55	55	0
R-20036	Res.	B	2	Jeff Pointe Bld 7 1stb2	54	54	0
R-20037	Res.	B	4	Jeff Pointe Bld 7 2ndb4	54	54	0
R-20038	Res.	B	4	Jeff Pointe Bld13 1st 4	56	55	0
R-20039	Res.	B	4	Jeff Pointe Bld13 2nd 4	60	59	0
R-20040	Res.	B	4	Jeff Pointe Bld15 1st 4	57	56	1
R-20041	Res.	B	4	Jeff Pointe Bld15 2nd 4	60	59	1
R-20042	Res.	B	4	Jeff Pointe Bld18 1st 4	57	56	1
R-20043	Res.	B	4	Jeff Pointe Bld18 2nd 4	61	60	1
R-20044	Res.	B	4	Jeff Pointe Bld19 1st 4	61	60	1
R-20045	Res.	B	4	Jeff Pointe Bld19 2nd 4	65	64	1
R-20046	Res.	B	2	11624-11626 Connel St	60	57	3
R-20047	Res.	B	2	11618-11620 Connel St	59	56	3
R-20048	Res.	B	2	11612-11614 Connel St	57	55	1
R-20049	Res.	B	2	11606-11608 Connel St	56	55	1
R-20050	Res.	B	2	11600-11602 Connel St	56	55	1
R-20051	Res.	B	4	Jeff Pointe Bld20 1sta4	59	54	5
R-20052	Res.	B	4	Jeff Pointe Bld20 2nda4	61	56	5
R-20053	Res.	B	2	Jeff Pointe Bld20 1stb2	63	58	5
R-20054	Res.	B	2	Jeff Pointe Bld20 2ndb2	66	61	5
R-20055	Res.	B	4	Jeff Pointe Bld21 1sta4	69	60	9
R-20056	Res.	B	2	Jeff Pointe Bld21 2nda2	72	62	11
R-20057	Res.	B	2	Jeff Pointe Bld21 1stb2	54	54	0
R-20058	Res.	B	4	Jeff Pointe Bld21 2ndb4	55	54	1

Table C-19: NW20 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-20059	Res.	B	4	Jeff Pointe Bld27 1sta4	64	55	8
R-20060	Res.	B	4	Jeff Pointe Bld27 2nda4	65	58	7
R-20061	Res.	B	2	Jeff Pointe Bld27 1stb2	54	54	0
R-20062	Res.	B	2	Jeff Pointe Bld27 2ndb2	54	54	0
R-20063	Res.	B	4	Jeff Pointe Bld22 1st 4	71	62	9
R-20064	Res.	B	4	Jeff Pointe Bld22 2nd 4	54	54	0
R-20065	Res.	B	4	Jeff Pointe Bld23 1sta4	72	63	8
R-20066	Res.	B	2	Jeff Pointe Bld23 2nda2	75	65	10
R-20067	Res.	B	2	Jeff Pointe Bld23 1stb2	54	54	0
R-20068	Res.	B	4	Jeff Pointe Bld23 2ndb4	54	54	0
R-20069	Res.	B	4	Jeff Pointe Bld26 1sta4	63	56	7
R-20070	Res.	B	4	Jeff Pointe Bld26 2nda4	65	59	6
R-20071	Res.	B	2	Jeff Pointe Bld26 1stb2	54	54	0
R-20072	Res.	B	2	Jeff Pointe Bld26 2ndb2	54	54	0
R-20073	Sport	C	1	Jefferson Pointe Tennis	74	65	9
R-20074	Res.	B	4	Jeff Pointe Bld24 1st 4	71	61	10
R-20075	Res.	B	4	Jeff Pointe Bld24 2nd 4	69	61	7
R-20076	Res.	B	4	Jeff Pointe Bld25 1st 4	65	61	5
R-20077	Res.	B	4	Jeff Pointe Bld25 2nd 4	63	57	7
R-20078	Res.	B	2	9927-9929 W 116th Pl	61	54	6
R-20079	Res.	B	2	9921-9923 W 116th Pl	54	54	0
R-20080	Res.	B	2	Jeff Pointe Bld28 1sta2	63	57	7
R-20081	Res.	B	4	Jeff Pointe Bld28 2nda4	67	58	8
R-20082	Res.	B	2	Jeff Pointe Bld28 1stb2	60	54	6
R-20083	Res.	B	4	Jeff Pointe Bld28 2ndb4	62	56	6
R-20084	Res.	B	2	Jeff Pointe Bld29 1sta2	70	61	9
R-20085	Res.	B	4	Jeff Pointe Bld29 2nda4	73	64	10
R-20086	Res.	B	2	Jeff Pointe Bld29 1stb2	66	60	6
R-20087	Res.	B	4	Jeff Pointe Bld29 2ndb4	69	64	5
R-20088	Res.	B	2	Jeff Pointe Bld30 2ndc2	70	61	9
R-20089	Res.	B	2	Jeff Pointe Bld30 1sta2	71	65	6
R-20090	Res.	B	2	Jeff Pointe Bld30 2nda2	74	68	6
R-20091	Res.	B	2	Jeff Pointe Bld30 2ndd2	68	66	2
R-20092	Res.	B	2	Jeff Pointe Bld30 1stb2	54	54	0
R-20093	Res.	B	2	Jeff Pointe Bld30 2ndb2	54	54	0
R-20094	Res.	B	2	Jeff Pointe Bld31 2ndc2	65	58	7
R-20095	Res.	B	2	Jeff Pointe Bld31 1sta2	54	54	0
R-20096	Res.	B	2	Jeff Pointe Bld31 2nda2	57	56	0
R-20097	Res.	B	2	Jeff Pointe Bld31 2ndd2	66	65	1
R-20098	Res.	B	2	Jeff Pointe Bld31 1stb2	54	54	0
R-20099	Res.	B	2	Jeff Pointe Bld31 2ndb2	54	54	0
R-20100	Res.	B	2	Jeff Pointe Bld32 2ndc2	62	57	5
R-20101	Res.	B	2	Jeff Pointe Bld32 1sta2	56	54	2
R-20102	Res.	B	2	Jeff Pointe Bld32 2nda2	58	55	3
R-20103	Res.	B	2	Jeff Pointe Bld32 2ndd2	64	64	1
R-20104	Res.	B	2	Jeff Pointe Bld32 1stb2	54	54	0
R-20105	Res.	B	2	Jeff Pointe Bld32 2ndb2	54	54	0
R-20106	Res.	B	2	9918-9920 W 116th Pl	59	57	3
R-20107	Res.	B	2	9912-9914 W 116th Pl	56	56	1
R-20108	Res.	B	2	9900-9902 W 116th Pl	56	55	1
R-20109	Res.	B	2	9906-9908 W 116th Pl	58	58	0
R-20110	Sport	C	1	Indian Valley Tennis	63	62	2
R-20111	Trail	C	1	Indian Creek Trail 19	71	70	1
R-20112	Sport	C	3	Indian Valley Soccer 1	69	69	0
R-20113	Sport	C	3	Indian Valley Soccer 2	68	67	0
R-20114	Trail	C	1	Indian Creek Trail 18	66	65	1
R-20115	Sport	C	3	Indian Valley Baseball1	65	64	1
R-20116	Sport	C	3	Indian Valley Baseball2	63	63	1

Table C-19: NW20 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-20117	Trail	C	1	Indian Creek Trail 20	69	68	0
				Predicted Build Alternative With Barrier Benefits			125
					Noise Impact		Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW20

Reasonableness:

The noise barrier must achieve a minimum of seven (7) dB(A) insertion loss for at least one benefitted receptor. Benefitted receptor >= 5 dB(A). It must also achieve a barrier-square-footage-per-benefitted-receptor which is determined to be 1,800 square feet per receptor.

Length (Ft)	Ave. Height	Sq Ft	Sq Ft per Benefitted Receptor	All Benefitted Receptors
2,232	19.3	43,051	344	125
			Is the barrier-square-footage-per-benefitted receptor less than 1,800?	Yes

Table C-20: NW22 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-22001	Res.	B	1	10615 W 108th Ter	64	62	3
R-22002	Res.	B	1	10609 W 108th Ter	66	63	3
R-22003	Res.	B	1	10605 W 108th Ter	67	64	3
R-22004	Res.	B	1	10590 W 108th Ter	67	63	4
R-22005	Res.	B	1	10779 Larsen St	65	61	4
R-22006	Res.	B	1	10775 Larsen St	64	60	4
R-22007	Res.	B	1	10771 Larsen St	63	59	4
R-22008	Res.	B	1	10767 Larsen St	63	59	4
R-22009	Res.	B	1	10763 Larsen St	62	58	4
R-22010	Res.	B	1	10759 Larsen St	61	57	4
					Predicted Build Alternative With Barrier Benefits		0
					Noise Impact		Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW22

Feasibility:

An acoustically feasible noise barrier must achieve at least a five dB(A) traffic noise reduction for 80% of 1st row impacted receptors and 2/3 of all impacted receptors.

Total 1st row impacted receptors	3	Percentage of 1st row impacted receptors receiving 5 dB(A) reduction or more:	0%	Do 80% of all 1st row impacted receptors receive 5 dB(A) reduction or more?	No
1st row impacted receptors receiving >= 5 dB(A) reduction	0				
All impacted receptors (1st and 2nd row)	3	Percentage of impacted receptors that achieve at least a five dB(A) reduction:	0%	Do 2/3 of all impacted receptors receive 5 dB(A) reduction or more?	No
All impacted receptors receiving >= 5 dB(A) reduction	0				
				Is the barrier feasible?	No

Table C-21: NW23 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-23001	Res.	B	4	10589 Goddard St 1st Floor	66	66	0
R-23002	Res.	B	4	10589 Goddard St 2nd Floor	70	70	0
R-23003	Res.	B	4	10525 Goddard St 1st Floor A	65	65	0
R-23004	Res.	B	4	10525 Goddard St 2nd Floor A	69	69	0
R-23005	Res.	B	4	10525 Goddard St 1st Floor B	61	61	0
R-23006	Res.	B	4	10525 Goddard St 2nd Floor B	66	66	0
R-23007	Res.	B	4	10517 Goddard St 1st Floor	69	69	0
R-23008	Res.	B	4	10517 Goddard St 2nd Floor	74	74	0
R-23009	Res.	B	4	10507 Goddard St 1st Floor A	64	64	0
R-23010	Res.	B	4	10507 Goddard St 2nd Floor A	66	66	0
R-23011	Res.	B	4	10507 Goddard St 1st Floor B	67	67	0
R-23012	Res.	B	4	10507 Goddard St 2nd Floor B	69	69	0
R-23013	Res.	B	4	10501 Goddard St 1st Floor A	70	70	0
R-23014	Res.	B	4	10501 Goddard St 2nd Floor A	71	71	0
R-23015	Res.	B	4	10501 Goddard St 1st Floor B	70	67	2
R-23016	Res.	B	4	10501 Goddard St 2nd Floor B	72	69	3
R-23017	Res.	B	4	10577 Goddard St 1st Floor	67	67	0
R-23018	Res.	B	4	10577 Goddard St 2nd Floor	69	69	0
R-23019	Res.	B	4	10537 Goddard St 1st Floor	58	58	0
R-23020	Res.	B	4	10537 Goddard St 2nd Floor	62	62	0
R-23021	Res.	B	4	10545 Goddard St 1st Floor	59	59	0
R-23022	Res.	B	4	10545 Goddard St 2nd Floor	63	63	0
R-23023	Res.	B	4	10565 Goddard St 1st Floor	57	57	0
R-23024	Res.	B	4	10565 Goddard St 2nd Floor	60	60	0
R-23025	Res.	B	4	10557 Goddard St 1st Floor	59	58	0
R-23026	Res.	B	4	10557 Goddard St 2nd Floor	61	61	0
R-23027	Res.	B	4	10553 Goddard St 1st Floor	56	56	0
R-23028	Res.	B	4	10553 Goddard St 2nd Floor	59	58	0
R-23029	Res.	B	1	Highland Park Apt Pool 1	55	55	0
R-23030	Res.	B	4	10414 Goddard St 1st Floor A	64	61	3
R-23031	Res.	B	4	10414 Goddard St 2nd Floor A	67	64	3
R-23032	Res.	B	4	10414 Goddard St 1st Floor B	54	54	0
R-23033	Res.	B	4	10414 Goddard St 2nd Floor B	59	54	5
R-23034	Res.	B	4	10406 Goddard St 1st Floor A	65	58	7
R-23035	Res.	B	4	10406 Goddard St 2nd Floor A	68	61	8
R-23036	Res.	B	4	10406 Goddard St 1st Floor B	54	54	0
R-23037	Res.	B	4	10406 Goddard St 2nd Floor B	57	55	2
R-23038	Res.	B	4	10422 Goddard St 1st Floor	60	58	2
R-23039	Res.	B	4	10422 Goddard St 2nd Floor	63	61	1
R-23040	Res.	B	4	10418 Goddard St 1st Floor	57	57	1
R-23041	Res.	B	4	10418 Goddard St 2nd Floor	61	60	1
R-23042	Res.	B	4	10434 Goddard St 1st Floor	56	56	0
R-23043	Res.	B	4	10434 Goddard St 2nd Floor	60	60	0
R-23044	Res.	B	4	10308 Goddard St 1st Floor	54	54	0
R-23045	Res.	B	4	10308 Goddard St 2nd Floor	56	54	2
R-23046	Res.	B	4	10346 Goddard St 1st Floor	55	54	1
R-23047	Res.	B	4	10346 Goddard St 2nd Floor	57	54	3
R-23048	Res.	B	4	10338 Goddard St 1st Floor A	54	54	0
R-23049	Res.	B	4	10338 Goddard St 2nd Floor A	54	54	0
R-23050	Res.	B	4	10338 Goddard St 1st Floor B	54	54	0
R-23051	Res.	B	4	10338 Goddard St 2nd Floor B	55	54	1
R-23052	Res.	B	4	10332 Goddard St 1st Floor	54	54	0
R-23053	Res.	B	4	10332 Goddard St 2nd Floor	55	54	0
R-23054	Res.	B	1	Highland Park Apt Tennis Courts	54	54	0
R-23055	Res.	B	1	Highland Park Apt Pool 2	54	54	0
R-23056	Res.	B	4	10347 Goddard St 1st Floor	68	62	6
R-23057	Res.	B	4	10347 Goddard St 2nd Floor	72	65	7
R-23058	Res.	B	4	10343 Goddard St 1st Floor A	56	54	2

Table C-21: NW23 Performance Without Barrier and With Barrier Noise Levels 2050 Ultimate Build							
Receptors					Predicted Noise Levels, $L_{eq(h)}$ (dB(A))		
ID#	Use	NAC	ERs	Address	Build	With Barrier	NLR[1]
R-23059	Res.	B	4	10343 Goddard St 2nd Floor A	59	56	3
R-23060	Res.	B	4	10343 Goddard St 1st Floor B	67	66	1
R-23061	Res.	B	4	10343 Goddard St 2nd Floor B	69	69	1
R-23062	Res.	B	4	10335 Goddard St 1st Floor A	55	54	1
R-23063	Res.	B	4	10335 Goddard St 2nd Floor A	57	55	3
R-23064	Res.	B	4	10335 Goddard St 1st Floor B	65	65	0
R-23065	Res.	B	4	10335 Goddard St 2nd Floor B	67	67	0
R-23066	Res.	B	4	10327 Goddard St 1st Floor A	54	54	0
R-23067	Res.	B	4	10327 Goddard St 2nd Floor A	55	54	1
R-23068	Res.	B	4	10327 Goddard St 1st Floor B	59	59	0
R-23069	Res.	B	4	10327 Goddard St 2nd Floor B	62	62	0
R-23070	Res.	B	4	10315 Goddard St 1st Floor A	54	54	0
R-23071	Res.	B	4	10315 Goddard St 2nd Floor A	54	54	0
R-23072	Res.	B	4	10315 Goddard St 1st Floor B	67	67	0
R-23073	Res.	B	4	10315 Goddard St 2nd Floor B	69	69	0
R-23074	Res.	B	1	Highland Park Apt Basketball Court	56	54	2
						Predicted Build Alternative With Barrier Benefits	20
						Noise Impact	Benefited Receptor

[1]Noise Loss Reduction calculated from difference between "With Barrier" and "Without Barrier" noise levels prior to rounding to nearest decibel

NW23					
Feasibility:					
An acoustically feasible noise barrier must achieve at least a five dB(A) traffic noise reduction for 80% of 1st row impacted receptors and 2/3 of all impacted receptors.					
Total 1st row impacted receptors	84	Percentage of 1st row impacted receptors receiving 5 dB(A) reduction or more:	14%	Do 80% of all 1st row impacted receptors receive 5 dB(A) reduction or more?	No
1st row impacted receptors receiving >= 5 dB(A) reduction	12				
All impacted receptors (1st and 2nd row)	96	Percentage of impacted receptors that achieve at least a five dB(A) reduction:	13%	Do 2/3 of all impacted receptors receive 5 dB(A) reduction or more?	No
All impacted receptors receiving >= 5 dB(A) reduction	12				
				Is the barrier feasible?	**No**