



APPENDIX E: NOISE ANALYSIS REPORT

Prepared for:



Prepared by:





TECHNICAL MEMORANDUM: DETAILED NOISE ANALYSIS

Prepared for:



Prepared by:



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EXECUTIVE SUMMARY

The South Carolina Department of Transportation (SCDOT) and Federal Highway Administration (FHWA) are proposing improvements to the I-526/Long Point Road interchange in the town of Mount Pleasant, South Carolina. The study area extends along I-526 from the Wando River to Hobcaw Creek and along Long Point Road from the Wando Welch Terminal to Egypt Road (**Graphic 1 and Figure 1**).

In 2022, SCDOT completed a Planning and Environmental Linkages (PEL) Study for the I-526 Lowcountry Corridor (LCC) EAST, from Virginia Avenue in North Charleston to US 17 in Mount Pleasant. The PEL study identified existing and projected transportation issues within the corridor through analysis and public and stakeholder engagement. The study established a vision to guide future transportation decision-making in the corridor. After the PEL study provided identification and understanding of the current needs, potential improvements were established. The I-526/Long Point Road interchange was identified as a project that could be completed independently from the planned I-526 widening. The proposed improvements to the Long Point Road interchange are included in the Charleston Area Transportation Study (CHATS) long-range transportation plan and transportation improvements plan and are consistent with the goals and strategies defined in the CHATS congestion management process (CMP).

The Build condition is shown in **Figures 2 - 6**. The design speed will be 70 mph on I-526 and 40-45 mph on Long Point Road.

The “Date of Public Knowledge” for this project will be the date of approval of the final National Environmental Policy Act (NEPA) decision which is anticipated in 2023. In accordance with the SCDOT Traffic Noise Abatement Policy, (hereafter referred to as the SCDOT Policy), the federal and state governments are not responsible for providing noise abatement measures for any new development for which the building permits were issued after the date of Public Knowledge.

Per FHWA Procedures for Abatement of Highway Noise (23 CFR 772.5(2)) and the SCDOT Policy, the proposed project is a “Type I” project because it is adding construction of highway on new location, adding additional through-traffic lanes, and adding or relocating interchange lanes or ramps. This Detailed Noise Analysis documents the methodologies, results, and recommendations in compliance with 23 CFR 772 and the SCDOT Policy.

Traffic noise impacts and temporary construction noise impacts can be a consequence of transportation projects. This Design Noise Analysis utilized computer models created with the Federal Highway Administration Traffic Noise Model® (FHWA TNM v.2.5) to predict future noise levels and define impacted receptors along the proposed project. Existing land uses near the proposed project include residential developments, Kearns Park Trail, restaurants with outdoor seating, an assisted living facility, and a place of worship. Design Year 2050 build condition traffic noise is predicted to impact 456 receptors, including

446 residences (NAC B), four (4) community swimming pools (NAC C), and 21 grid points along the Kearns Park trail that have an equivalent receptor value of six (6) (NAC C).

Consideration for noise abatement measures was given to all impacted receptors. Traffic noise impacts are predicted to occur in 11 of the 16 identified Noise Study Areas (NSAs). NSAs where impacts occur include NSA-1, NSA-1a, NSA-2, NSA-2a, NSA-3, NSA-3a, NSA-4, NSA-6, NSA-8, NSA-9, NSA-10, and NSA-12. No impacts occur in five (5) of the NSAs including NSA-5, NSA-7, NSA-11, NSA-13 and NSA-14. Each impacted receptor was evaluated for feasibility and reasonableness of noise abatement per the SCDOT Policy. See **Section 9.4** of this report for a description of abatement consideration for each NSA. Four (4) traffic noise abatement measures assessed in this detailed traffic noise analysis of the recommended project design met SCDOT Policy feasibility and reasonableness criteria. Noise walls, NW 1a/3/6/8, NW 2a/4, NW 9, and NW 12, are preliminarily recommended for construction and inclusion in the project plans and specifications. A constructability review will be conducted to determine whether any project-specific engineering or construction considerations may affect the abatement/barrier cost in such a way that make abatement unreasonable, which would thereby preclude any exhibition of the abatement measure to the public. Factors that should be considered but are not limited to are site distance, barrier height, topography, drainage, utilities, maintenance of the abatement measure, maintenance access to adjacent properties, and access to adjacent properties. A final decision on noise wall construction will be made upon completion of the project final design and the public involvement process.

SCDOT Policy and FHWA require identification whether it is “likely” or “unlikely” that noise barriers will be installed for each NSA identified. “Likely” does not mean a firm commitment. The following traffic noise abatement measures are presently considered “likely” in the vicinity of the I-526 LCC EAST - Long Point Road Interchange project and are recommended (refer to **Table ES.1**). However, if conditions substantially change during final design, one or more of the presently recommended abatement measures may not be provided. Any changes in noise abatement measures as detailed in this report must be approved by SCDOT prior to implementation. Noise walls preliminarily recommended for construction include:

- NW 1a/3/6/8: North of I-526 and west of Long Point Road between the Wando River bridge and Belle Hall Parkway (see Figures 2, 3 and 4)
- NW 2a/4: South of I-526 between the Wando River bridge and Ridge Road (near Westbrook Brewing Company – NSA-5) (see Figures 2 and 3)
- NW 9: South of I-526 and east of Long Point Road between Lone Tree Drive and the bridge at Hobcaw Creek (see Figure 5)
- NW 12: North of I-526 and east of Long Point Road between Long Point Road and bridge at Hobcaw Creek (see Figure 5)

Table ES.1. I-526 LCC EAST - LONG POINT ROAD INTERCHANGE
Recommended Noise Walls

Noise Barrier Name (NSA)	Length ¹ (ft)	Area ¹ (ft ²)	Number of Benefited Receptors	Area per Benefited Receptor/ Allowable Area per Benefited Receptor (ft ²)
NW 1a/3/6/8 (NSAs 1a, 3, 6, and 8)	9,094	221,769	278	798/1500
NW 2a/4 (NSAs 2a and 4)	2,820	67,146	198	339/1500
NW 9 (NSA-9)	3,620	87,461	81	1080/1500
NW 12 (NSA-12)	2,040	48,481	155	313/1500

1. Length and area shown are for ground mounted barriers only. I-526 will be widened in the future and placing noise barriers on structures will be evaluated at that time.

Construction noise impacts may occur due to the proximity of noise-sensitive receptors to anticipated project construction activities. All reasonable efforts should be made to minimize exposure of noise-sensitive land uses to construction noise. Such efforts may include, but are not explicitly limited to, appropriate scheduling of construction activities, noise attenuating measures on construction equipment, and a consistent and open public involvement program.

In accordance with the SCDOT Policy, noise walls NW 1a/3/6/8, NW 2a/4, NW 9, and NW 12 (for the Build condition) meet Policy feasibility and reasonableness criteria and are preliminarily recommended for construction. The final decision on installation of the noise barriers will be made upon completion of the project final design, compliance with SCDOT Policy and the public involvement process.

1.0 PROJECT LOCATION, DESCRIPTION AND BACKGROUND

The South Carolina Department of Transportation (SCDOT) and Federal Highway Administration (FHWA) are proposing improvements to the I-526/Long Point Road interchange in the town of Mount Pleasant, South Carolina. The study area extends along I-526 from the Wando River to Hobcaw Creek and along Long Point Road from the Wando Welch Terminal to Egypt Road (**Graphic 1 and Figure 1**).

In 2022, SCDOT completed a Planning and Environmental Linkages (PEL) Study for I-526 Lowcountry Corridor (LCC) EAST, from Virginia Avenue in North Charleston to US 17 in Mount Pleasant. The PEL study identified existing and projected transportation issues within the corridor through analysis and public and stakeholder engagement. The study established a vision to guide future transportation decision-making in the corridor. After the PEL study provided identification and understanding of the current needs, potential improvements were established. The I-526/Long Point Road interchange was identified as a project that could be completed independently from the planned I-526 widening. The proposed improvements to the Long Point Road interchange are included in the Charleston Area Transportation Study (CHATS) long-range transportation plan and transportation improvements plan and are consistent with the goals and strategies defined in the CHATS congestion management process (CMP). The Build condition is shown in **Figures 2 – 6**.

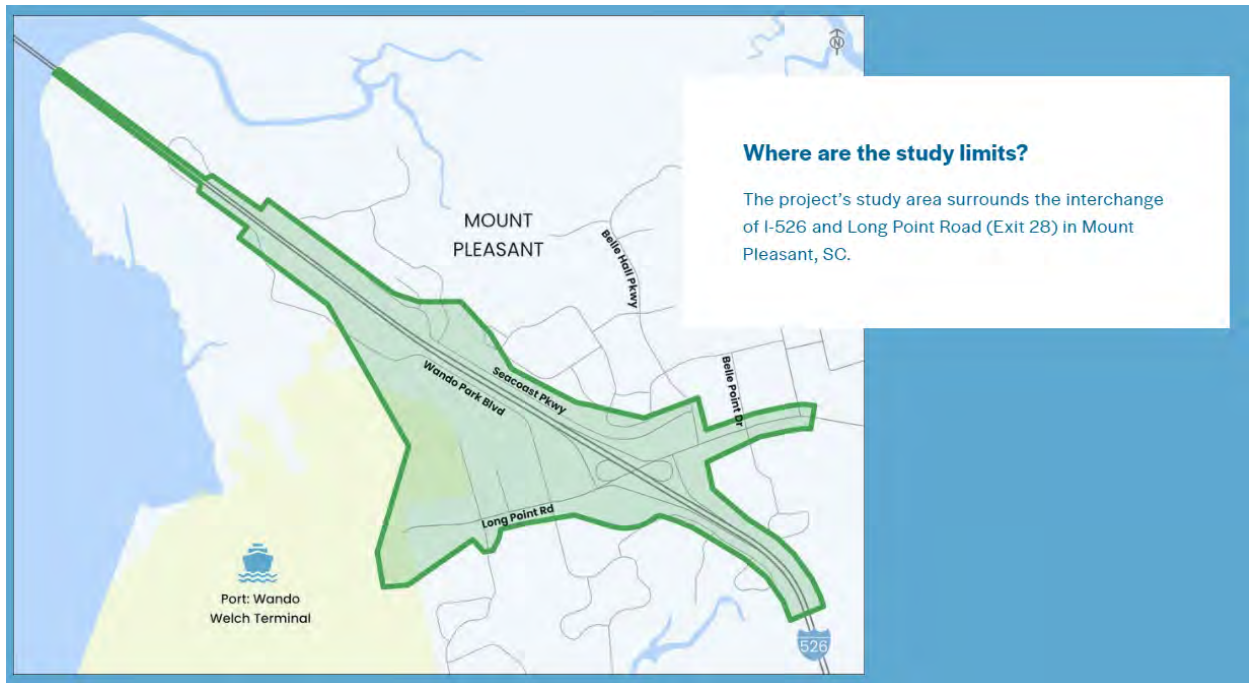
The I-526 LCC EAST - Long Point Road Interchange project's purpose is to improve the operations of the I-526 mainline and its interchange at Long Point Road as well as reduce operational conflicts between port-related and local traffic within the study area as seen in **Graphic 1 and Figure 1**.

The need for this project is to provide access to homes, businesses, schools, parks, restaurants, commercial and industrial facilities along Long Point Road. The interchange provides access to South Carolina Ports Authority's (SCPA's) Wando Welch Terminal (WWT), which serves as a hub for the distribution of freight from the WWT throughout the southeast United States. The need for the project is demonstrated by the existing interchange deficiencies, growing automobile and truck traffic on I-526 and Long Point Road, and population and economic growth.

Within the study area, the proposed I-526 LCC EAST - Long Point Road Interchange Improvements include the following:

- New access to Long Point Road for port-related traffic along with improving the existing ramps.
- Collector Distributor (CD) roads will be used to help separate port-related and local traffic.
- Compatible with the planned widening of I-526.

The following graphic shows the project study area.



Graphic 1. Project Study Area

Fourteen noise study areas (NSAs) were identified in the project corridor. An NSA is a group or grouping of receptors into an area that is influenced by similar noise sources. An NSA may contain only receptors within a certain Activity Category (such as residences) or it may contain receptors that represent several types of activity land uses (such as residences, schools, daycare facilities, offices, etc.). NSAs are delineated by major roadway or railroad crossings or other physical constraints. See **Table B.1** in **Appendix B** for a list of each noise-sensitive receptor by NSA. Each NSA is described as follows:

NSA-1 (Figure 2) – North of I-526 and west of a tributary to Rathall Creek. NSA-1 is comprised of single-family residences (NAC B) in the Etiwan Pointe Townhome subdivision and a community swimming pool (NAC C). Roadways within NSA-1 includes Salty Tide Cove, Summers Creek Court, Etiwan Pointe Drive and Winding Creek Court (NSA B).

NSA-1a (Figure 2) – North of I-526 and east of a tributary to Rathall Creek. NSA-1a is comprised of single-family residences in the Etiwan Pointe Townhome community (NAC B). This third section of the Etiwan Townhome community was constructed in 2017 as is known as Marsh Pointe (NAC B). Roadways within NSA-1a include Etiwan Pointe Drive, Slipper Shell Court, and Cowrie Court.

NSA-2 (Figure 2) – South of I-526 and Wando Park Boulevard and between the Wando River and the Avana Long Point apartments. NSA-2 is comprised of grid points representing equivalent receptors (ERs) for the trails at Kearn's Park (NAC C).

NSA-2a (Figure 2) - South of I-526 and Wando Park Boulevard. NSA-2a is comprised of apartments in the Avana Long Point complex (NAC B) and a community pool (NAC C). Roadways within NSA-2a include Eighty Oak Avenue, Wando View Lane and Coastal Marsh Road.

NSA-3 (Figure 3) – North of I-526 and between a tributary to Rathall Creek to the west and Rathall Creek to the east. NSA-3 is comprised of single-family homes in the Tidal Creek and Grassy Creek subdivisions (NAC B) and a community pool (NAC C). Roadways within NSA-3 include River Oak Drive, Turnstone Street, Red Knot Lane, Shoals Drive, and Swallowtail Court.

NSA-4 (Figure 3) – South of I-526 and north of Wando Park Boulevard. NSA-4 is comprised of a portion of the Windward Long Point apartment complex (NAC B). NSA-4 encompasses Slate Lane.

NSA-5 (Figure 3) – South of I-526 and north of Wando Park Boulevard and Ridge Road. NSA-5 is comprised of outdoor seating of the Westbrook Brewing Company (NAC E).

NSA-6 (Figure 4) – North of I-526 and Seacoast Parkway, east of Rathall Creek and west of Belle Hall Parkway. NSA-6 is comprised single-family homes in the Belle Hall Plantation subdivision (NAC B). Roadways within NSA-6 include Historic Drive, Revolution Drive, Rice Bay Drive, Robyns Glen Drive and Antebellum Lane.

NSA-7 (Figure 4) – South of I-526. NSA-7 is comprised of the Christ Church Presbyterian (NAC D).

NSA-8 (Figure 4) – North of I-526 and west of Long Point Road. NSA-8 is comprised of two single family homes (NAC B).

NSA-9 (Figure 5) – South of I-526 and east of Long Point Road. NSA-9 is comprised of the Atria Mount Pleasant assisted-living facility and single-family residences in the Hobcaw Creek Plantation subdivision (NAC B). Roadways within NSA-9 include Chimney Bluff Drive and Strathmore Lane.

NSA-10 (Figure 5) – West of Long Point Road and north of I-526. NSA-10 is comprised of several single-family residences (NAC B) and an outdoor eating area of Chick-Fil-A (NAC E).

NSA-11 (Figure 5) - East of Long Point Road and north of I-526. NSA-11 is comprised of outdoor eating areas of Starbucks, Duck and Dog Belle Hall and Moe’s Southwest Grill (NAC E).

NSA-12 (Figure 5) – North of I-526, between Long Point Road and Hobcaw Creek. NSA-12 is comprised of residences in the Belle Hall apartments (NAC B), one community pools (NAC C), and one picnic area (NAC C). Roadways within NSA-12 include Belle Point Drive and Belle Isle Avenue.

NSA-13 (Figure 6) – South of Long Point Road between Hidden Boulevard and Hobcaw Bluff Drive. NSA-13 is comprised of single-family homes in the Oak Park subdivision (NAC B). Oak Park Drive is encompassed by NSA-13.

NSA-14 (Figure 6) – North of Long Point Road between Shipping Lane and Wando Park Boulevard. NSA-14 is comprised of the outdoor area for Two Blokes Brewing (NAC E).

2.0 PROCEDURE

This Design Noise Analysis evaluates the I-526 LCC EAST - Long Point Road Interchange predicted traffic noise impacts resulting from the construction of this project along with proposed abatement measures, and the equitable and cost-effective expenditure of public funds for noise abatement.

The Federal Highway Administration Traffic Noise Model® (FHWA TNM v.2.5) was used to predict Base Year 2022 existing, Design Year 2050 No-build and Design Year 2050 Build condition hourly equivalent traffic noise levels ($L_{eq(h)}$) for the noise-sensitive receptors near the proposed project (refer to **Figures 2 - 6**).

The design noise analysis procedures are described below:

- *Initial Project Scoping / Preparation:* Project preliminary designs were obtained; field maps were prepared; project mapping, GIS data, aerial photography, traffic data and other available pertinent information were reviewed. A noise analysis work plan was approved by SCDOT on July 27, 2022, prior to the field visit and any modeling.
- *Monitoring / Fieldwork:* Ambient sound level data was acquired at 15 noise monitoring locations (NMLs) on August 2nd and 3rd, 2022 (refer to photographs in **Appendix A** and **Figures 2 - 6**), according to Section 5.2 of the SCDOT Policy, and FHWA's Noise Measurement Handbook (<https://www.fhwa.dot.gov/Environment/noise/measurement/fhwahep18065.pdf>) and Noise Measurement Field Guide (<https://www.fhwa.dot.gov/Environment/noise/measurement/fieldguide.cfm>). Classified traffic volume data was obtained during each monitoring session by hand-counting and classifying the traffic where physically possible from a safety standpoint. Mainline traffic on I-526 was obtained with cameras obtained from National Data and Surveying Services. Traffic speeds during each monitoring session were determined by driving the corridor. Types of land use and property addresses were determined for all noise-sensitive receptors. Weather data was acquired using the Weather Channel app with location services turned on and Kestrel 3000 handheld weather monitor. Finally, a field monitoring site sketch and event log was created for each noise monitoring session (see **Appendix A**).
- *Baseline TNM model:* A TNM 2.5 model representing existing conditions was created utilizing receptors, roadways, terrain lines, ground zones, and barriers (to represent structures). Classified traffic and speed data derived during each monitoring session was applied to validate the baseline TNM model at all ambient noise monitoring locations for which traffic was the dominant source to SCDOT's goal and the FHWA-accepted tolerance of within ± 3 decibels (± 3 dB(A)) (refer to **Appendix C**). The validation models were approved by SCDOT on October 7, 2022.

- *Impact Assessment:* Base year 2022 existing and Design Year 2050 No-build condition TNM-classified hourly traffic volumes and speeds calculated from project traffic diagrams prepared by CDM Smith, were input into the validated baseline TNM model(s); TNM-predicted traffic noise levels were evaluated at all project noise-sensitive receptors for both project conditions; and loudest hourly-equivalent noise levels were assessed as the louder of TNM-predicted traffic noise levels or ambient noise monitoring data acquired at correlating locations. TNM model elements were incorporated into the validated TNM model(s) to represent the project final design. Traffic noise impacts were assessed per the SCDOT Noise Abatement Criteria (NAC) (**Table 2**) and Substantial Increase Criteria of 15 dB(A) increase in predicted design year loudest-hour equivalent noise levels over existing base year loudest-hour equivalent noise levels) (refer to **Table 4** and **Appendix B** for results). Design Year traffic noise level impact contours were evaluated to assist land use planning efforts by local governments (see **Section 11.0**). For non-residential land-use receptors, the numbers of Equivalent Receptors (or ER values) were determined per 2019 SCDOT Policy (refer to **Appendix B**).
- *Abatement Analysis:* Acceptable noise abatement measures as defined by the SCDOT Policy were assessed for the potential benefit of all I-526 LCC EAST - Long Point Road Interchange traffic noise impacts. Locations for which noise barriers may be feasible were identified, and noise barriers were incorporated into the Design Year 2050 Build condition TNM model. TNM Noise Barrier Assessments were used to identify optimized barriers that provide the greatest amount of traffic noise level reduction per barrier quantity, provide noise level reduction benefits to as many predicted impacted receptors as possible, meet applicable feasibility and reasonableness criteria, and address all other pertinent engineering considerations (refer to **Section 9.4** and **Appendix E**).
- *Construction Noise Impact Analysis:* Project-related construction noise was evaluated for potential impacts to noise-sensitive receptors throughout the project corridor, and in areas of anticipated project construction activities outside the project corridor (e.g., construction haul routes; refer to **Section 10.0**).

3.0 CHARACTERISTICS OF NOISE

Noise is 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, which is usually twenty micro-Pascals ($20\mu\text{Pa}$). 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.

Common indoor and outdoor noise levels are presented in **Table 1**. As shown in the examples of noise levels, most individuals are exposed to fairly high noise levels from many sources on a regular basis.

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 other people. The time patterns and durations of

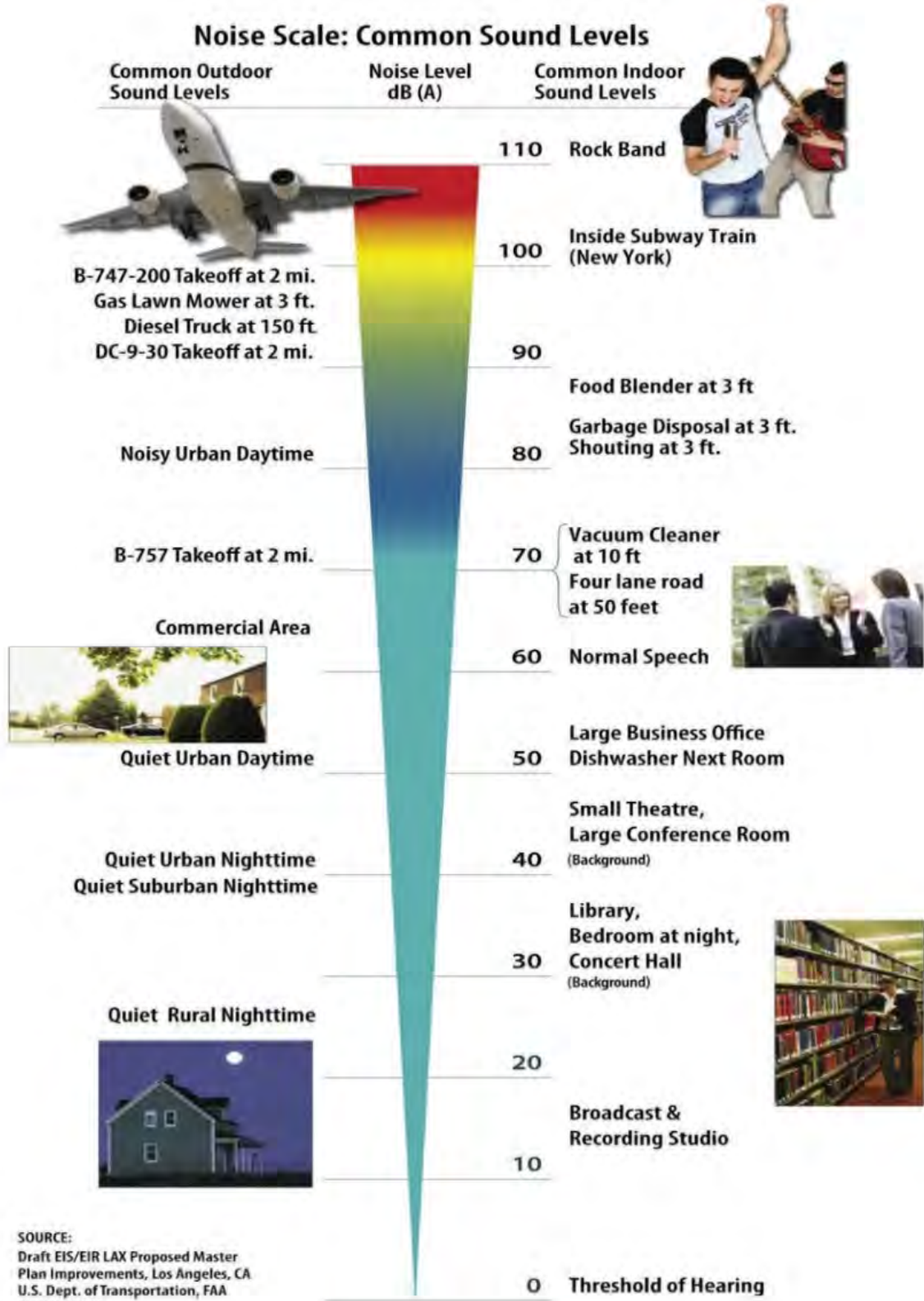
noise(s) also affect perception as to whether it is offensive. For example, noises that occur during nighttime (sleeping) hours are typically considered to be more offensive than the same noises in the daytime.

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 one blowing in 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 mitigation 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 South Carolina, traffic and construction noise impact analysis and abatement assessment is dictated by the applicable SCDOT Policy.

Table 1. I-526 LCC EAST – LONG POINT ROAD INTERCHANGE
Common Indoor and Outdoor Noise Levels



4.0 NOISE ABATEMENT CRITERIA

The Federal Highway Administration (FHWA) has developed Noise Abatement Criteria (NAC) and procedures to be used in the planning and design of highways. The purpose of 23 CFR, Part 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 Part 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 2: Noise Abatement Criteria**. The L_{eq} , or equivalent sound level, is the equivalent steady-state sound level which in a stated period contains the same acoustic 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.

4.1 SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION TRAFFIC NOISE ABATEMENT POLICY

The South Carolina Department of Transportation Traffic Noise Abatement Policy establishes official policy on highway noise. This policy describes the SCDOT process that is used in determining traffic noise impacts, construction noise impacts and abatement measures and the equitable and cost-effective expenditure of public funds for traffic noise abatement. Where the FHWA has given highway agencies flexibility in implementing the 23 CFR 772 standards, this policy describes the SCDOT approach to implementation.

4.2 NOISE ABATEMENT CRITERIA

The two categories of traffic noise impacts are defined as 1) those that “approach” or exceed the FHWA Noise Abatement Criteria (NAC), as shown in Table 2, and 2) those that represent a “substantial increase” over existing noise levels as defined by SCDOT. An impact that represents a “substantial increase” is based on a comparison of the existing noise level ($L_{eq(h)}$) with the predicted increase with respect to a change to noise levels in the design year of 15 dB(A) or more.

Table 2. I-526 LCC EAST – LONG POINT ROAD INTERCHANGE
Noise Abatement Criteria
Hourly Equivalent A-Weighted Sound Level (decibels (dB(A)))

Activity Category	Activity Criteria ¹		Evaluation Location	Activity Description
	$L_{eq(h)}$ ²	$L_{10(h)}$		
A	57	60	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	70	Exterior	Residential
C ³	67	70	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, Section 4(f) sites, schools, television studios, trails, and trail crossings
D	52	55	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	75	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. Either $L_{eq(h)}$ or $L_{10(h)}$ (but not both) may be used on a project.
2. The $L_{eq(h)}$ and $L_{10(h)}$ Activity Criteria values are for impact determination only and are not design standards for noise abatement measures.
3. Includes undeveloped lands permitted for this activity category.
4. Source: FHWA 23 CFR 772

5.0 AMBIENT NOISE LEVEL

Ambient noise is noise that is all around us, caused by natural and manmade events. It includes the wind, rain, thunder, birds chirping, insects, household appliances, commercial operations, lawn mowers, airplanes, automobiles, etc. It is all noise that is present in an area.

Existing traffic noise exposure is varying near the proposed I-526 LCC EAST - Long Point Road Interchange project. Traffic on existing I-526 is the dominant noise source for receptors adjacent to and in proximity to the existing facilities. Other noise sources during the measurement periods were planes and sirens. Any aberrant data points during the measurement period were removed from the traffic-dominant equivalent sound levels.

Ambient noise measurements were performed on August 2nd and 3rd, 2022, including 11 short-term measurements of 20-minute duration (NML-1, NML-2, NML-5 through NML-10 and NML-13 through NML-15), in an array of two sound level meters at each location. The proposed location NML-11 was dropped due to unfavorable (slowed and stopped) traffic conditions at the traffic signal at Long Point Road and the I-526 WB off-ramp. Also, field verification determined that two of the residences in NSA-8 no longer exist. The proposed location NML-12 (Atria of Mount Pleasant) was changed to an ambient only location due to unfavorable (slowed and stopped) traffic conditions at the traffic signal at the I-526 EB off-ramp and Long Point Road.

A measurement was taken at the Kearns Park trail (NML-4) using one meter for a 30-minute duration to capture the ambient sound levels only. A measurement of 30-minute duration was taken where Wando Park Boulevard goes under the Wando River bridge (NML-3) with one meter to capture expansion joint noise. As stated previously, a measurement was taken at Atria of Mount Pleasant (NML-12) using one meter for a 30-minute duration to capture the ambient sound levels only.

No long-term measurements were necessary for this project. The sound level metrics data for these measurements were collected in increments of one minute (i.e., a 20-minute short-term noise measurement session was comprised of 20 data points). Traffic counts were collected to account for auto, medium truck, heavy truck, bus, and motorcycle vehicle mix counts. Cameras were placed on I-526 by National Data and Surveying Services (<https://www.ndsdata.com/>) to count and classify the traffic data during each measurement period that would be used for validation. Local roads adjacent to a measurement location were counted and classified manually. Actual traffic speeds were obtained by driving the project corridor and recording average speed and travel time, in addition to the utilization of radar guns. Posted speed limits and observed speed limits were recorded on field data sheets for all roadways adjacent to each NSA.

Weather data was documented in the field by utilizing the Weather Underground app (wunderground.com) with location services turned on and a Kestrel 3000 handheld pocket weather

meter. Refer to Table 1 for a summary of the weather data during the noise measurements. The noise monitoring results, concurrent traffic counts, estimated vehicle speeds, weather information for the monitoring sites, and photographs of each location are included in **Appendix A**.

For this report, loudest-hour existing noise levels were assessed as the TNM-predicted hourly-equivalent traffic noise levels based on base-year 2022 existing classified traffic volumes calculated from project traffic forecasts and project design speeds, or the ambient noise levels obtained at representative locations in the field.

The noise levels obtained during the ambient noise measurement process ranged from approximately 56.3 dB(A) Leq to 71.9 dB(A) Leq.

6.0 NOISE MODEL VALIDATION

TNM model validation is the process by which the precision of the modeled relationship between traffic (classified volumes and speeds) and predicted hourly-equivalent traffic noise levels is refined and confirmed. Since TNM can only predict traffic noise levels, TNM models can only be validated for locations for which traffic was the dominant noise source. For all short-term monitoring locations for which traffic was the dominant noise source, TNM model validation is performed by comparing monitored ambient equivalent sound levels to TNM-predicted traffic noise levels generated by the classified traffic volumes (normalized to 1-hour volumes) and speeds on project-area roadways during each short-term monitoring session. A TNM model is considered validated if it is a reasonable representation of the existing NSA and/or project area and meets the SCDOT's goal of +/- 3 decibels (+/- 3 dB(A)) of the monitored equivalent sound levels obtained at locations for which traffic was the dominant noise source. See **Appendix C** for validation results. The validation models were approved by SCDOT on October 7, 2022.














7.0 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 industry standards and accepted best-practices as defined in the SCDOT Policy, detailed FHWA TNM v.2.5 computer models were created of the I-526 LCC EAST - Long Point Road Interchange Corridor Base Year 2022 existing condition, the Design Year 2050 No-Build condition and the Design Year 2050 final design. The TNM computer models were validated to within acceptable tolerances of field-monitored traffic noise data for ambient sound level monitoring locations for which traffic was the dominant source and were used to predict traffic noise levels for receptor locations near the 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 depicted in **Table 3**: automobiles (FHWA vehicle classifications 2 and 3), medium trucks (FHWA vehicle classification 5), heavy trucks (FHWA vehicle classifications 6 – 13), buses (FHWA vehicle classification 4), and motorcycles (vehicle classification 1). All two-axle, four-wheel vehicles – including pickup trucks – were counted as automobiles. Only two-axle, six-wheel trucks (eg. delivery trucks and small box trucks) were counted as Medium Trucks. All other trucks were counted as Heavy Trucks. All types of buses (e. g. school buses, inter-city buses and intra-city buses) were counted as Buses.

Table 3. I-526 LCC EAST – LONG POINT ROAD INTERCHANGE
Traffic Noise Model (TNM) Vehicle Classification Types

FHWA Vehicle Classifications			
<p>1. Motorcycles 2 axles, 2 or 3 tires</p> 	<p>2. Passenger Cars 2 axles, can have 1- or 2-axle trailers</p> 	<p>3. Pickups, Panels, Vans 2 axles, 4-tire single units Can have 1 or 2 axle trailers</p> 	<p>4. Buses 2 or 3 axles, full length</p> 
<p>5. Single Unit 2-Axle Trucks 2 axles, 6 tires (dual rear tires), single-unit</p> 	<p>6. Single Unit 3-Axle Trucks 3 axles, single unit</p> 	<p>7. Single Unit 4 or More-Axle Trucks 4 or more axles, single unit</p> 	<p>8. Single Trailer 3- or 4-Axle Trucks 3 or 4 axles, single trailer</p> 
<p>9. Single Trailer 5-Axle Trucks 5 axles, single trailer</p> 	<p>10. Single Trailer 6 or More-Axle Trucks 6 or more axles, single trailer</p> 		
<p>11. Multi-Trailer 5 or Less-Axle Trucks 5 or less axles, multiple trailers</p> 	<p>12. Multi-Trailer 6-Axle Trucks 6 axles, multiple trailers</p> 		
<p>13. Multi-Trailer 7 or More-Axle Trucks 7 or more axles, multiple trailers</p> 			

Source: http://onlinemanuals.txdot.gov/txdotmanuals/tri/vehicle_classification_using_fhwa_13category_scheme.htm

The computer 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.), receptor location and height, and, if applicable, barrier type, barrier ground elevation, and barrier segment top elevations.

Project plans of the presently recommended Build alternative were used in this Detailed Noise Analysis. Per FHWA guidance, the predictions documented in this report are based upon the potential project Design Year 2050 build condition traffic conditions resulting in the predicted loudest hourly-equivalent traffic noise levels for each receptor. Refer to **Appendix B** for a comprehensive list of traffic noise level receptors, and existing and predicted Design Year 2050 hourly equivalent traffic noise levels.

8.0 TRAFFIC NOISE IMPACTS

Traffic noise impacts occur when the predicted traffic noise levels either: [a] approach or exceed the FHWA noise abatement criteria (with "approach" meaning within 1 dB(A) of the NAC values listed in Table 2), or [b] substantially exceed the existing noise levels by 15 dB(A) or more. FHWA and SCDOT require that feasible and reasonable measures be considered to abate traffic noise at all predicted traffic noise impacts. Measures considered include highway alignment selection, traffic systems management, buffer zones, noise walls, and earth berms.

Design Year 2050 build condition traffic noise is predicted to impact 456 receptors, including 446 residences (NAC B), four (4) community swimming pools (NAC C), and 21 grid points along the Kearns Park trail that have an equivalent receptor value of six (6) (NAC C). Traffic noise impacts are predicted to occur in 11 of the 16 identified Noise Study Areas (NSAs). NSAs where impacts occur include NSA-1, NSA-1a, NSA-2, NSA-2a, NSA-3, NSA-3a, NSA-4, NSA-6, NSA-8, NSA-9, NSA-10, and NSA-12. No impacts occur in five (5) of the NSAs including NSA-5, NSA-7, NSA-11, NSA-13 and NSA-14. See **Appendix B** for a list of impacts by NSA. Abatement measures are discussed in **Section 9.4** and in **Appendix E**.

The number and types of predicted traffic noise impacts are shown in **Table 4**, with impacts designated as either approaching or exceeding the FHWA NAC, by a substantial increase in Design Year 2050 build condition traffic noise levels over existing ambient noise levels, or by meeting both criteria.

Table 4. I-526 EAST – LONG POINT ROAD INTERCHANGE
Predicted Traffic Noise Impact Summary
Hourly Equivalent A-Weighted Sound Level (decibels (dB(A)))

Study Alternative	Reason for Noise Impact	Noise Abatement Criteria Impact by Activity Categories ¹							All Activity Categories
		A	B	C	D	E	F ⁵	G ⁶	
Design Year 2050 Build	NAC Only ¹	0	446	10	0	0	0	0	456
	Substantial Increase Only ²	0	0	0	0	0	0	0	0
	By Both Criteria ³	0	0	0	0	0	0	0	0
	Total Impacts ⁴	0	446	10	0	0	0	0	456

1. Predicted traffic noise impacts due to loudest hourly equivalent noise levels that approach or exceed Noise Abatement Criteria (refer to Table 2).
2. Predicted traffic noise impacts due to Design Year loudest hourly equivalent noise levels that are a “Substantial Increase” over existing base year levels.
3. Predicted traffic noise level impacts due to both 1 and 2 above.
4. Only one of the Note 1 and Note 2 conditions must be met for an impact to exist.
5. There are no impact criteria for NAC F land use facilities; no analysis of noise impacts is required.
6. There are no impact criteria for undeveloped lands; however, appropriate predicted traffic noise level contours are provided to local officials to aid in future land use planning efforts. Per TNM[®]2.5 and in accordance with 23 CFR Part 772

9.0 POTENTIAL TRAFFIC NOISE ABATEMENT MEASURES

SCDOT requires that feasible and reasonable measures be considered and evaluated to abate all predicted Build condition traffic noise impacts. Feasibility and reasonableness are distinct and separate considerations. Feasibility is the consideration as to whether noise abatement measures *can* be implemented. Reasonableness is the consideration as to whether noise abatement measures *should be* implemented. Per SCDOT Policy, the following traffic noise abatement measures may be considered: highway alignment selection, traffic systems management, buffer zones, noise barriers (earth berms and noise walls), and noise insulation of Activity Category D land use facilities.

9.1 HIGHWAY ALIGNMENT SELECTION

Highway alignment selection for traffic noise abatement measures involves modifying the horizontal and vertical geometry of the proposed facility to minimize traffic noise to noise-sensitive receptors. The selection of alternative alignments for noise abatement purposes must consider the balance between noise impacts and other engineering and environmental parameters. For noise abatement, horizontal alignment selection is primarily a matter of locating the roadway at a sufficient distance from noise sensitive receptors. Appreciable reductions in traffic noise transmissions to sensitive receptors can be made by adjusting the vertical highway alignment and/or section geometry. For example, lowering a roadway below existing grade creates a cut section which could act similarly as an earth berm, depending upon the relative location(s) of noise-sensitive receptor(s). Given the design requirements of the highway facility in the vicinity of the noise sensitive areas assessed in this Detailed Noise Analysis, changing the highway alignment is not a viable alternative for noise abatement for the noise sensitive areas in the vicinity of the I-526 LCC EAST - Long Point Road Interchange project.

9.2 TRAFFIC SYSTEM MANAGEMENT MEASURES

Traffic management measures such as prohibition of truck traffic, lowering speed limits, limiting of traffic volumes, and/or limiting time of operation were considered as possible traffic noise impact abatement measures. The purpose of the project is to increase the functional capacity of the highway facility. Prohibition of truck traffic, reduction of the speed limit below the existing speed limits or the proposed speed limits or screening total traffic volumes would diminish the functional capacity of the highway facility and are not considered practicable.

9.3 BUFFER ZONES

Buffer zones are typically not practical and/or cost effective for noise mitigation due to the substantial amount of right-of-way required and would not be a feasible noise mitigation measure for this project. Furthermore, if the acquisition of a suitable buffer zone had been feasible, the maximum allowable base quantity threshold per benefited receptor would be exceeded per the SCDOT Policy.

9.4 NOISE BARRIERS

Passive noise abatement measures are effective because they absorb sound energy, extend the source-to-receptor sound transmission path, or both. Sound absorption is a function of abatement medium (e.g. earth berms absorb more sound energy than noise walls of the same height because earth berms are more massive). The source-to-receptor path is extended by placement of an obstacle, such as a wall, that sufficiently blocks the transmission of sound waves that travel from the source to the receptor.

Highway noise barriers are primarily constructed as earth berms or solid-mass walls adjacent to limited-access freeways that are near noise-sensitive land use(s). To be effective, a noise barrier must be long enough and tall enough to shield the impacted receptor(s) from traffic noise. For a flat plane roadway and NSA, an effective noise barrier length should generally be eight times the distance from the barrier to the receptor. For that example, if a receptor is 200 feet from the roadway, an effective noise barrier benefiting that one receptor would be approximately 1,600 feet long – with the receptor in the horizontal center. However, roadways and NSAs rarely occur in a consistent flat plane. Depending upon roadway and NSA topography, noise barrier profile, and the effects of other acoustically significant features, the actual noise barrier length required to provide necessary traffic noise attenuation may be shorter or longer than the flat-plane example. Furthermore, the shielding should be continuous. On roadway facilities with direct access for driveways, noise barriers may not be feasible because gaps for driveways diminish noise barrier ability to attenuate traffic noise. Due to the requisite lengths for effectiveness, noise barriers are typically not economical for isolated or most low-density areas. However, noise barriers may be economical for the benefit of as few as three predicted traffic noise impacts if the barrier can benefit enough total receptors – impacted and non-impacted combined – to meet applicable reasonableness criteria.

SCDOT Policy and FHWA require identification whether it is “likely” or “unlikely” that noise barriers will be installed for each NSA identified. “Likely” does not mean a firm commitment. Consideration for noise abatement measures was given to all impacted receptors. Traffic noise impacts are predicted to occur in 10 NSAs. For each noise abatement measure, feasibility is considered first, then reasonableness. If noise abatement is not feasible, then consideration of reasonableness is not warranted. Noise barriers were evaluated to provide abatement to any NSA which had three (3) or more impacts. The SCDOT Policy states that at a minimum, at least three (3) impacted receptors must achieve a 5 dB(A) reduction or the proposed barrier will not be considered acoustically feasible. Therefore, any NSAs with less than three (3) impacted receptors were not considered for noise abatement.

The following NSAs were not considered for noise abatement due to feasibility for the reasons described (see Figure 1 for NSA locations):

- NSA-1 (Figure 2) - Although there are impacted receptors in NSA-1, it would require a barrier on the existing Wando River Bridge to mitigate for noise from I-526. SCDOT structural engineers reported that this is not a feasible option.
- NSA-2 (Figure 2) – Although there are impacted receptors in NSA-2, it would require a barrier on the existing Wando River Bridge to mitigate for noise from I-526. SCDOT structural engineers reported that this is not a feasible option.
- NSA-5 (Figure 3) – No impacted receptors.
- NSA-7 (Figure 4) – No impacted receptors.
- NSA-11 (Figure 5) – No impacted receptors.
- NSA-13 (Figure 6) – No impacted receptors.

Note: Although NSA-8 only has two impacted receptors and would ordinarily not be considered for noise abatement, the length of wall required to provide benefits to NSA-6 will also benefit NSA-8.

There are Three Mandatory Reasonable Factors that must be met for a noise abatement measure to be considered reasonable. The Three Mandatory Reasonable Factors must collectively be achieved for a noise abatement measure to be deemed reasonable. Failure to achieve any one of the reasonable factors will result in the noise abatement measure being deemed not reasonable. The Three Mandatory Reasonable Factors are:

- **Noise reduction design goal.** It is SCDOT’s policy that a noise reduction of at least 7 dB(A) must be achieved for one receptor.
- **Cost effectiveness.** The allowable cost of the abatement will be 1,500 square feet for each benefitted receptor.
- **Viewpoints of the property owners and residents of the benefitted receptors.** SCDOT shall solicit the viewpoints of all the benefitted receptors and document a decision on either desiring or not desiring the noise abatement measure. The viewpoints will be solicited as part of the public involvement process through a voting procedure during NEPA.

The following noise barriers are presently considered to be feasible and reasonable and are preliminarily recommended for construction. A final decision on noise wall construction will be made upon completion of the project final design and the public involvement process (see **Appendix E** for additional details):

- NW 1a/3/6/8 - NSA-1a, NSA-3, NSA-6 and NSA-8 (Figures 2, 3 and 4) - North of I-526 and west of Long Point Road between the Wando River bridge and Belle Hall Parkway. NW 1a/3/6/8 was evaluated to provide abatement for 105 impacted receptors in the Marsh Pointe, Grassy Creek, Tidal Walk and Belle Hall Plantation communities. A 9,094-foot-long barrier system with 221,769 square feet was found to be effective. The barriers have an average height of 24 feet. The area per benefit is 798 sq. ft. which is within the allowable area per benefit of 1,500 sq. ft. and the 7 dB(A) noise reduction goal was met for 169 receptors, meeting the criteria for reasonableness. NW 1a/3/6/8, to provide noise abatement for NSAs 1a/3/6/8, is preliminarily recommended for construction.

- NW 2a/4 - NSA-2a and NSA-4 (Figure 2) – South of I-526 between the Wando River bridge and Ridge Road (near Westbrook Brewing Company – NSA-5). NW 2a/4 was evaluated to provide abatement for 180 impacted receptors in the Avana Long Point Apartments and the Windward Long Point Apartments. A 2,820-foot-long barrier with an area of 67,146 square feet was found to be effective. The barriers have an average height of 24 feet. The area per benefit is 339 sq. ft. which is within the allowable area per benefit of 1,500 sq. ft. and the 7 dB(A) noise reduction goal was met for 121 benefited receptors, meeting the criteria for reasonableness. NW 2a/4, to provide noise abatement for NSAs 2a/4 is preliminarily recommended for construction.
- NW 9 – NSA-9 (Figure 5) – South of I-526 and east of Long Point Road between Lone Tree Drive and the bridge at Hobcaw Creek. NW 9 was evaluated to provide abatement for 32 impacted receptors in the Atria Mount Pleasant assisted living facility and the Hobcaw Creek Plantation community. A 3,620-foot-long barrier with an area of 87,461 square feet was found to be effective. The barriers have an average height of 24 feet. The area per benefit is 1,080 sq. ft. which is within the allowable area per benefit of 1,500 sq. ft. and the 7 dB(A) noise reduction goal was met for 54 receptors, meeting the criteria for reasonableness. NW 9, to provide noise abatement for NSA-9 is preliminarily recommended for construction.
- NW 12 – NSA-12 (Figure 5) – North of I-526 and east of Long Point Road between Long Point Road and the bridge at Hobcaw Creek. NW 12 was evaluated to provide abatement for 74 impacted receptors in the Belle Hall Apartments. A 2,040-foot-long barrier with an area of 48,481 square feet was found to be effective. The barriers have an average height of 24 feet. The area per benefit is 313 sq. ft. which is within the allowable area per benefit of 1,500 sq. ft. and the 7 dB(A) noise reduction goal was met for 128 receptors, meeting the criteria for reasonableness. NW 12, to provide noise abatement for NSA-12 is preliminarily recommended for construction.

Four (4) traffic noise abatement measures were considered in this detailed noise analysis. The Noise Wall Analysis Summary is shown in **Table 5**. Noise walls NW 1a/3/6/8, NW 2a/4, NW 9, and NW 12 preliminarily meet SCDOT Policy feasibility and reasonableness criteria and are recommended for construction. A final decision on noise wall construction will be made upon completion the project final design and the public involvement process.

**Table 5. I-526 LCC EAST – LONG POINT ROAD INTERCHANGE
Noise Wall Analysis Summary**

Noise Wall Analysis / (NSA).	Noise Analysis Summary ¹			Abatement Analysis Summary			
	Impacts	Benefits		Length ³ (ft)	Area ³ (ft ²)	Area per Benefit/ Allowable Area per Benefit (ft ²)	Recommended For Construction
		Total Number of Benefits	Number of Benefits ≥7 dB(A)				
NW 1a/3/6/8 (NSAs 1a,3,6 and 8)	105	278	169	9,094	221,769	798/1,500	YES ²
NW 2a/4 (NSAs 2a and 4)	180	198	121	2,820	67,146	339/1,500	YES ²
NW 9 (NSA-9)	32	81	54	3,620	87,461	1,080/1,500	YES ²
NW 12 (NSA-12)	74	155	128	2,040	48,481	313/1,500	YES ²

- Noise abatement was considered for all predicted traffic noise impacts.
- This abatement measure meets the SCDOT Policy feasibility and reasonableness criteria. A final decision on noise wall construction will be made after a constructability review, completion of the project final design, and the public involvement process.
- Length and area shown are for ground mounted barriers only. I-526 will be widened in the future and placing noise barriers on structures will be evaluated at that time.

9.4.1 Parallel Noise Barriers

Noise wall NW 1a/3/6/8 will be parallel to NW 2a/4 and NW 9 will be parallel to NW 12 as shown in **Figures 2, 3 and 5**. FHWA policy on parallel noise walls states that TNM may be used to model parallel walls. Studies have suggested that to avoid a reduction in the performance of parallel reflective noise walls, the width-to-height ratio of the roadway section to the walls should be at least 10:1. The width is the distance between the walls, and the height is the average height of the walls above the roadway. This means, that two parallel walls 10 feet tall should be at least 100 feet apart. Noise walls NW 1a/3/6/8 and NW 2a/4 are apart at a ratio of approximately 5.9:1 to 10:1 and noise walls NW 9 and NW 12 are apart at a ratio of approximately 6.2:1 to 11.6:1.

Because the distance between the barriers is at or less than the 10:1 ratio, the noise walls were reviewed to determine if there would be a need for absorptive material because of multiple noise reflections between the parallel walls. Using the TNM parallel barrier analysis model, cross sections were cut at representative locations to analyze the expected degradation in the effectiveness of the noise walls. The analysis confirmed predicted decreases in wall performance ranging from 2.8 dB(A) to 8.9 dB(A) between NW 1a/3/6/8 and NW 2a/4 and ranging from 3.4 dB(A) to 8.5 dB(A) between NW 9 and NW 12 as shown in **Table 7**. Therefore, an absorptive material for the proposed parallel barriers NW 1a/3/6/8, NW 2a/4, NW 9 and NW 12 is recommended.

Table 6. I-526 LCC EAST – LONG POINT ROAD INTERCHANGE
Parallel Barrier Wall Summary

Noise Wall	Distance between Noise Walls (ft)	Average Height of Noise Wall (ft)	Ratio of Distance to Average Height
NW 1a/3/6/8	128 to 218	24	5.9:1 to 10:1
NW 2a/4		24	
NW 9	142 to 266	24	6.2:1 to 11.6:1
NW 12		24	

Table 7. I-526 LCC EAST – LONG POINT ROAD INTERCHANGE
Parallel Barrier Degradation Values

Receptor ID	Predicted Noise Levels, Leq(h) (dB(A))			
	Build ¹	With Barrier ¹	NLR ¹	Degradation
R1a-1	72	65	7	5.3
R1a-38	69	63	6	6.9
R1a-39	71	61	10	5.7
R1a-65	77	66	11	4.6
R1a-68	78	66	12	3.5
R2a-21	74	67	7	4.8
R2a-21a	75	68	7	6.2
R2a-21b	75	69	6	7.8
R2a-52	70	60	10	5.6
R2a-52a	73	62	11	7.1
R2a-52b	74	65	9	7.9
R2a-55	73	64	9	6.2
R2a-55a	75	66	9	7.8
R2a-55b	75	67	8	8.9
R2a-73	69	61	8	6.0
R2a-73a	75	69	6	7.5
R3-13	73	65	8	6.4
R3-17	68	56	12	6.6
R3-71	75	62	13	4.1
R3-77	74	61	13	3.7
R3-84	73	61	12	2.8
R4-2	69	60	9	6.7
R4-2a	72	61	11	8.4
R4-2b	73	62	11	8.8
R4-2c	74	63	11	8.5
R4-6	69	60	9	5.6
R4-6a	74	61	13	7.1
R4-6b	74	63	11	7.7
R4-6c	75	64	11	7.2
R4-10	71	59	12	5.1
R4-10a	73	60	13	6.6

Receptor ID	Predicted Noise Levels, Leq(h) (dB(A))			
	Build ¹	With Barrier ¹	NLR ¹	Degradation
R9-44	67	61	6	3.4
R9-47	66	59	7	4.4
R9-62	67	58	9	5.2
R9-88	67	60	7	4.8
R12-4	69	62	7	4.2
R12-4a	71	64	7	5.7
R12-4b	72	65	7	6.1
R12-9	73	56	17	4.0
R12-9a	75	57	18	5.5
R12-9b	75	60	15	7.6
R12-18	70	54	16	4.9
R12-18a	73	55	18	6.4
R12-18b	73	57	16	8.4
R12-29	66	54	12	5.4
R12-29a	71	55	16	6.8
R12-29b	72	56	16	8.5
R12-38	66	56	10	5.8
R12-38a	71	57	14	7.3
R12-55	66	57	9	5.1
R12-55a	73	58	15	6.4
Noise Level Impact		5 to 6 dB(A) NLR	≥ 7 dB(A) NLR	

1. Predicted noise levels from Appendix E (without degradation due to parallel barrier reflections)

9.5 NOISE INSULATION

The following receptor is considered noise-sensitive and is categorized as NAC “D” because there is no area of frequent outdoor human use on the property:

- Receptor 7-1– Christ Church Presbyterian

As NAC “D” the receptor was evaluated for interior noise levels. The type of windows is not known (it is assumed that the windows are not kept open) so the single-glazed factor, as shown in **Table 8**, was applied as a conservative measure (- 25 dB(A)). After applying the building noise reduction factors to the receptor, Christ Church Presbyterian is not impacted by the proposed project with an interior sound level that does not approach or exceed the NAC for Activity Category D of 52 dB(A).

Table 8. I-526 LCC EAST – LONG POINT ROAD INTERCHANGE
Building Noise Reduction Factors

Building Type	Window Condition	Noise Reduction Due to Exterior of the Structure
All	Open ¹	10 dB(A)
Light Frame	Ordinary Sash (closed)	20 dB(A)
	Storm Windows	25 dB(A)
Masonry	Single Glazed	25 dB(A)
	Double Glazed	35 dB(A)

- 1 The windows shall be considered open unless there is firm knowledge that the windows are in fact kept closed almost every day of the year.

Source: FHWA-PD-96-046, Measurement of Highway Related Noise, Final Report, May 1996

10.0 CONSTRUCTION NOISE

The predominant construction activities associated with this project are expected to be earth removal, hauling, grading, and paving. Relatively loud construction noise activities such as usage of pile-drivers and impact-hammers (jack hammer, hoe-ram) can create sporadic, temporary, and acute construction noise impacts to nearby noise-sensitive receptors. Temporary and localized construction noise impacts may occur because of these activities (refer to **Table 9**). During daytime hours, the predicted effects of these impacts may 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 from paving operations may 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., could be perceived as distinctly louder than the steady-state acoustic environment, and will likely cause impacts to the general peace and usage of noise-sensitive areas – particularly near residences, an assisted living facility and a place of worship along the project corridor.

While discrete construction noise level prediction is difficult for a particular receptor or group of receptors, it can be assessed in a general capacity with respect to distance from known or likely project activities. Low-cost and easily implemented construction noise control measures should be incorporated into the project plans and specifications (e.g. 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 and rapport).

Consideration of potential construction noise impacts was assessed for all noise-sensitive land uses in the project corridor, and in areas outside the project corridor near anticipated project construction activities (e.g., construction haul routes). For this project, earth removal, grading, hauling, and paving is anticipated to occur near noise-sensitive receptors all along the project corridor. Although construction noise impact mitigation should not place an undue burden upon the financial cost of the project or the project construction schedule, pursuant to the requirements of 23 CFR 772.19, it is the recommendation of this Detailed Noise Analysis that:

- The Department utilize the public involvement process to ensure the public is aware of the schedule of project activities that may create construction noise impacts.
- Construction noise impacts associated with pile-driving and impact hammers should be thoroughly evaluated in conjunction with development of the construction plan.
- Earth removal, grading, hauling, and paving activities, particularly near residences, places of worship and residential communities along the project corridor, should be performed during

weekday hours and should not be performed during evening and nighttime hours, or any hours during weekends and/or holidays.

- The Policy requirement to “identify land uses or activities that may be affected by noise from construction of the project” includes land uses in the vicinity of construction haul routes and/or any locations in which project-related construction activities may occur beyond the project corridor. Evaluation of project haul routes and locations in which project-related construction activities are occurring or may occur beyond the project corridor did not identify any potential construction impacts.
- If meeting the project schedule requires that earth removal, grading, hauling and/or paving must occur during evening, nighttime and/or weekend hours near residences within the project corridor, the Contractor shall notify SCDOT as soon as possible. In such instance(s), all reasonable attempts shall be made to notify and to make appropriate arrangements for the mitigation of the predicted construction noise impacts upon the affected property owners and/or residents.
- If construction noise activities must occur during context-sensitive hours near noise-sensitive areas, discrete construction noise abatement measures including, but not limited to portable noise barriers and / or other equipment-quieting devices shall be considered.

For additional information on construction noise, please refer to the FHWA Construction Noise Handbook (FHWA-HEP-06-015) and the Roadway Construction Noise Model (RCNM), available online at: https://www.fhwa.dot.gov/environment/noise/construction_noise/index.cfm

Table 9. I-526 LCC EAST – LONG POINT ROAD INTERCHANGE
Construction Equipment Typical Noise Level Emissions

Equipment	Noise Level Emissions (dB(A)) at 50 Feet from Equipment ^{1,2}									
			70		80		90		100	
Pile Driver ³										
Jack Hammer										
Tractor										
Road Grader										
Backhoe										
Truck										
Paver										
Pneumatic Wrench										
Crane										
Concrete Mixer										
Compressor										
Front-End Loader										
Generator										
Saws										
Roller (Compactor)										

1. Adapted from *Noise Construction Equipment and Operations, Building Equipment, and Home Appliances*. U.S. Environmental Protection Agency. Washington D.C. 1971.
2. Cited noise level ranges are typical for the respective equipment. For “point sources” such as the construction equipment listed above, noise levels generally dissipate at a rate of -6 dB(A) for every doubling of distance. For example, if the noise level from a pile driver at a distance of 50 feet = 100 decibels (dB(A)), then at 400 feet, it might be 82 decibels (dB(A)) or less.
3. Due to project safety and potential construction noise concerns, pile driving activities are typically limited to daytime hours.

11.0 NOISE-COMPATIBLE LAND USE AND PREDICTED TRAFFIC NOISE LEVEL CONTOURS

One of the most effective means to prevent future traffic noise impacts is noise-sensitive land-use development. The compatibility of highways and neighboring local areas is essential for continued growth and can be achieved if local governments and developers require and practice noise-sensitive land-use planning. Although regulation of land use is not within the purview of FHWA or SCDOT, some widely accepted techniques for noise-sensitive land use planning near existing and proposed highway facilities include:

- Locating retail, industrial, manufacturing, and other noise-compatible land-uses adjacent to highways
- Incorporating effective traffic noise mitigating features, such as earth berms and solid-mass noise walls, as part of residential developments
- Utilization of noise-sensitive architectural design and site planning, such as the orientation of quiet spaces away from roadways
- Required use of sound insulating building materials and construction methods

As indicated in the SCDOT Policy, local jurisdictions with zoning control should use the information contained in this report to develop policies and/or ordinances to limit the growth of noise-sensitive land uses located adjacent to roadways. Furthermore, SCDOT encourages the dissemination of this information to all people who may be affected by, or who might influence others affected by, traffic noise.

Predicted Build condition traffic noise level contours are not a definitive means by which to assess traffic noise level impacts; however, they can aid in future land use planning efforts in presently undeveloped areas. **Table 10** shows the traffic noise impact threshold for FHWA NAC “B” land uses and FHWA NAC “E” land uses, for the I-526 LCC EAST - Long Point Road Interchange project from the edge of the proposed nearest lane of travel for the proposed project at currently undeveloped properties within the highly developed project study area.

Per 23 CFR 772.9(c) and SCDOT 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, to avoid development of incompatible activities adjacent to the roadways within local jurisdiction. The project study area is almost fully developed.

Table 10. I-526 LCC EAST – LONG POINT ROAD INTERCHANGE
Predicted Traffic Noise Contour Distances

Project Noise Contour Segment^{1,2}	Dist-66³ dB(A) (ft)	Dist-71³ dB(A) (ft)
WB Long Point Rd., West of Long Point Rd. (East of NSA-8)	207	68
EB Long Point Rd., East of Long Point Rd. (East of NSA-13)	91	25
WB Long Point Rd., West of Long Point Rd. (East of NSA-14)	113	≤20

1. The contour distances correlating to 66 dB(A) and 71 dB(A) NAC criteria are presented for consideration of land use control in undeveloped areas in which future development of NAC category B, C, and/or E noise-sensitive land use receptors may occur (refer to Table 2).
2. Noise contour segments represent undeveloped areas adjacent to the proposed project between interchanges, or between project termini and the nearest interchange at each end of the project.
3. Noise contour distances to 66 dB(A) and 71 dB(A) are the distances between the nearest proposed project lane of travel and modeled receptors for which predicted traffic noise levels were 66.0 dB(A) and 71.0 dB(A), respectively, in Design Year 2050 Build condition TNM models for the indicated NSAs. The distances should not be assumed to infer exact traffic noise levels for specific location(s) adjacent to the project. The distances to the 71 dB(A) and 66 dB(A) contours, as well as the distances between the 71 dB(A) and 66 dB(A) contours, vary according to the specific acoustically relevant features of each NSA.

12.0 CONCLUSIONS

Traffic noise and temporary construction noise can be a consequence of transportation projects, especially in areas near high-volume and high-speed existing steady-state traffic noise sources. This Design Noise Analysis utilized computer models created with the FHWA Traffic Noise Model software (TNM 2.5), validated to field-collected traffic noise monitoring data, to predict future noise levels and define impacted receptors along the proposed new highway project.

Existing land use in the vicinity of the proposed I-526 LCC EAST - Long Point Road Interchange project varies along the corridor. Land uses include residential development, places of worship, commercial, industrial, daycare, hotels, and recreational. For Design Year 2050 traffic volumes the Build condition is predicted to create 456 traffic noise impacts. Furthermore, construction noise impacts – some of them potentially substantial – may occur due to the proximity of numerous noise-sensitive receptors to project construction activities. It is the recommendation of this Detailed Noise Analysis that all reasonable efforts should be made to minimize exposure of noise-sensitive areas to construction noise impacts.

Consideration for noise abatement measures was given to all impacted receptors. In accordance with the SCDOT Policy, four (4) noise walls are preliminarily recommended as meeting feasibility and reasonableness criteria. A final decision on noise wall construction will be made upon completion of the project final design and the public involvement process. Any changes in noise abatement measures as detailed in this report must be approved by SCDOT prior to implementation. For the proposed project, traffic noise abatement evaluated for the project design recommends NW 1a/3/6/8, NW2a/4, NW 9, and NW 12 for construction.

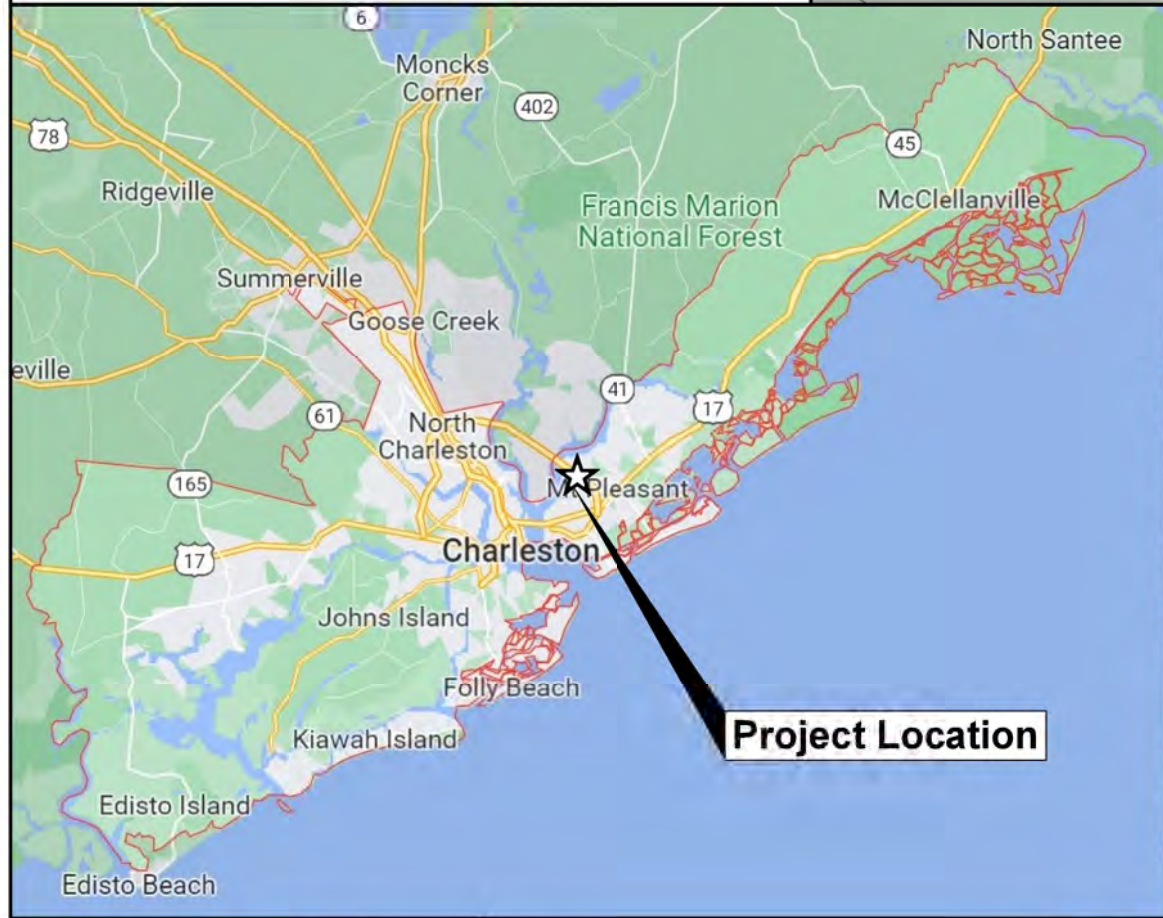
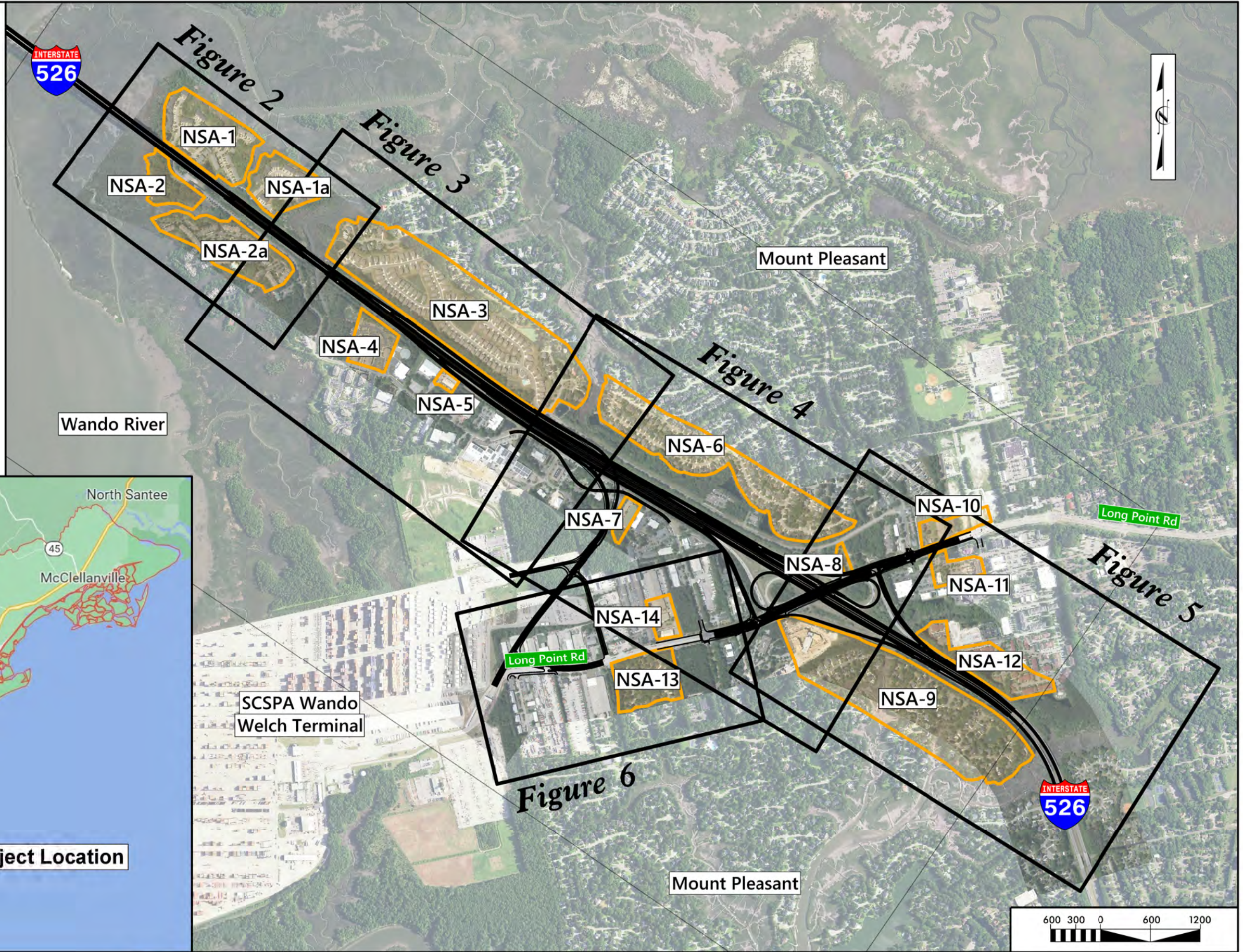
13.0 REFERENCES

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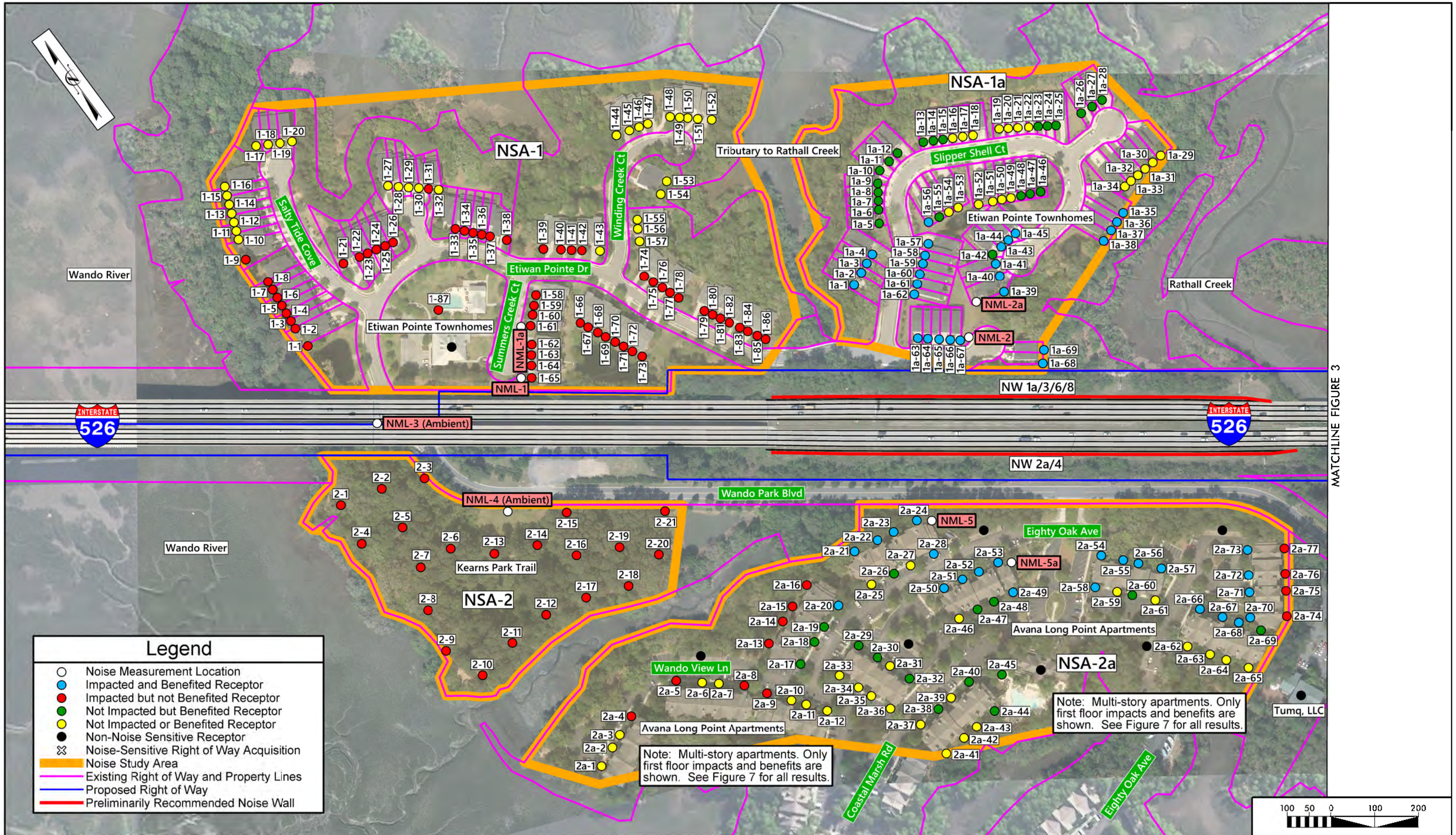
FIGURES



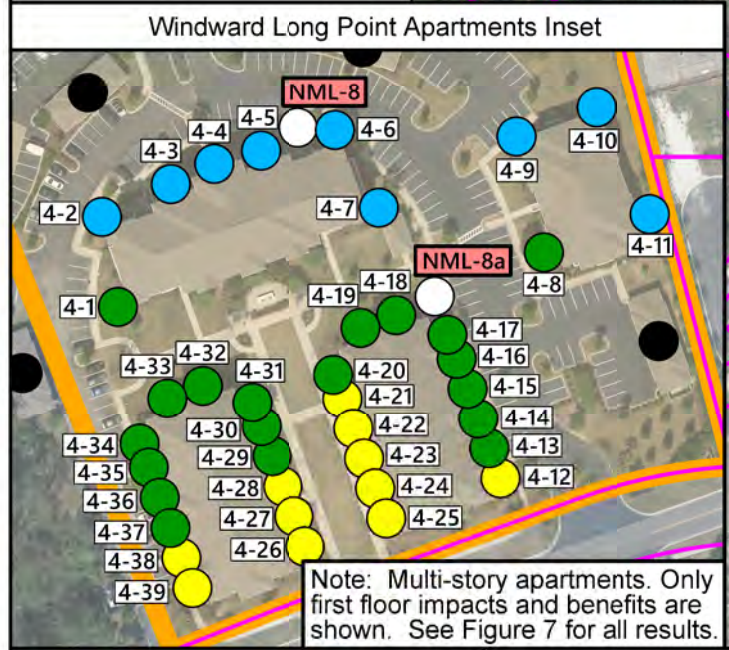
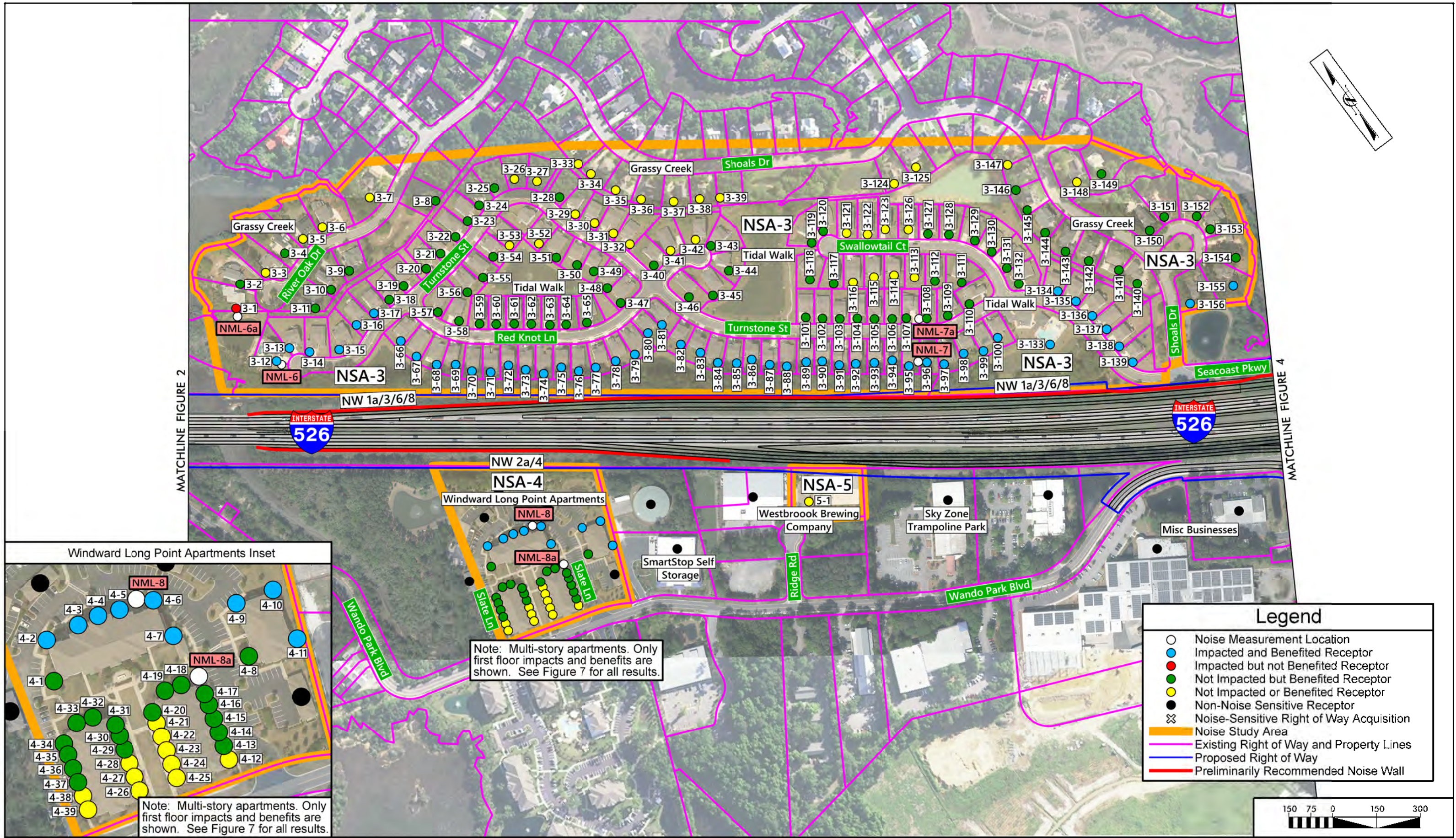
Charleston County

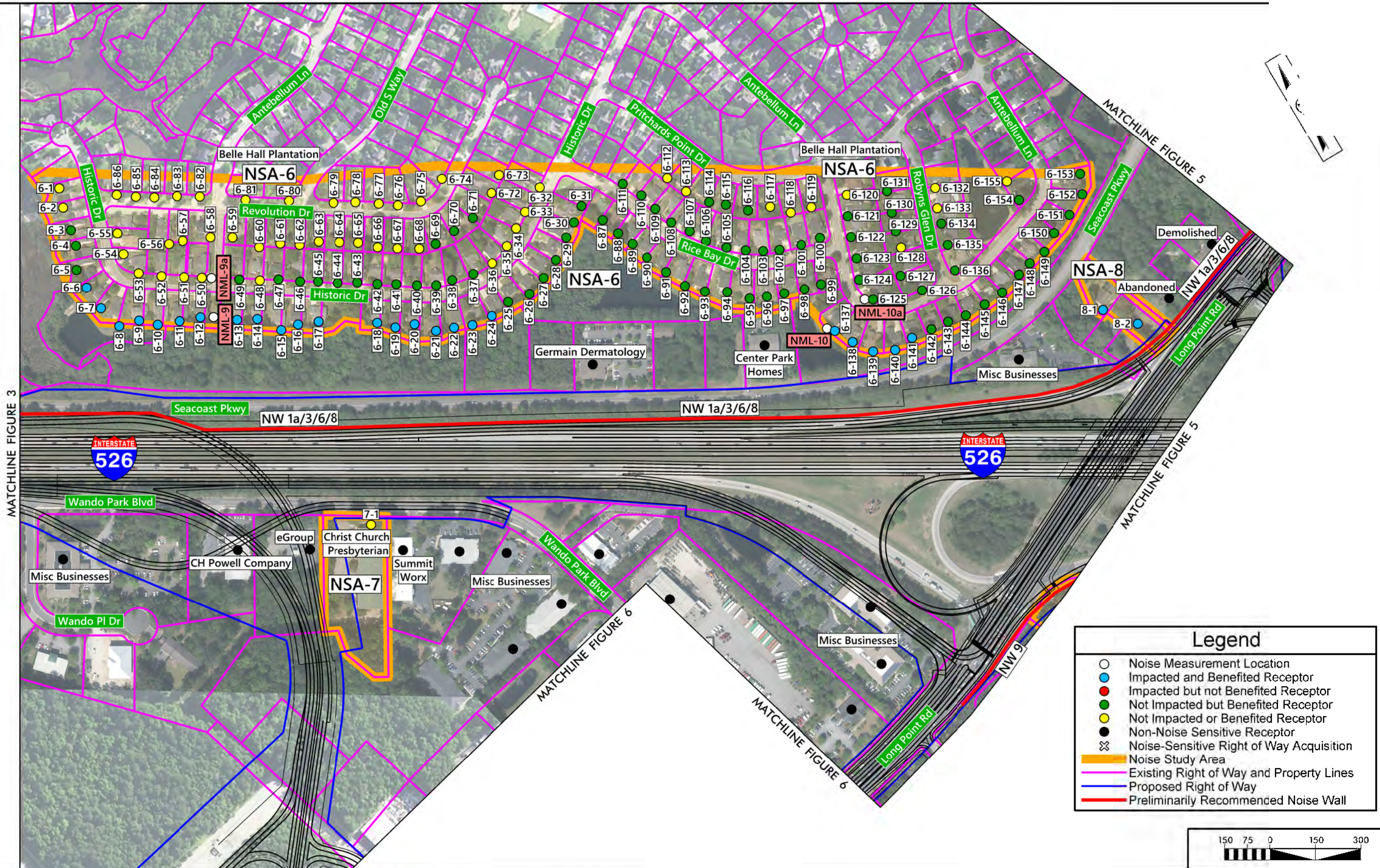


Project Location



MATCHLINE FIGURE 3





MATCHLINE FIGURE 3

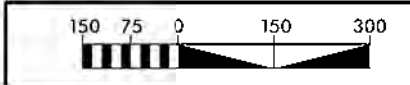
MATCHLINE FIGURE 5

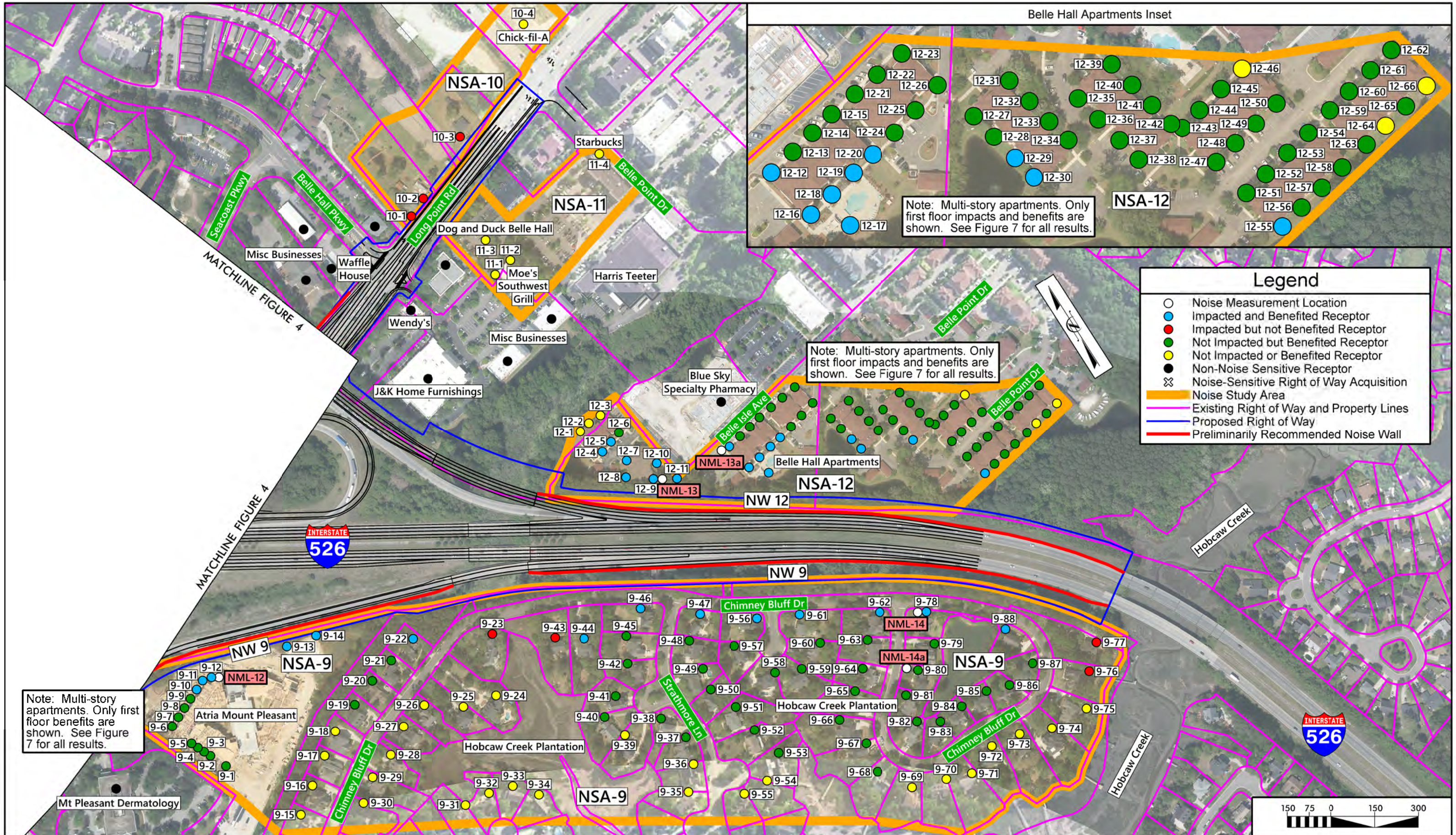
MATCHLINE FIGURE 5

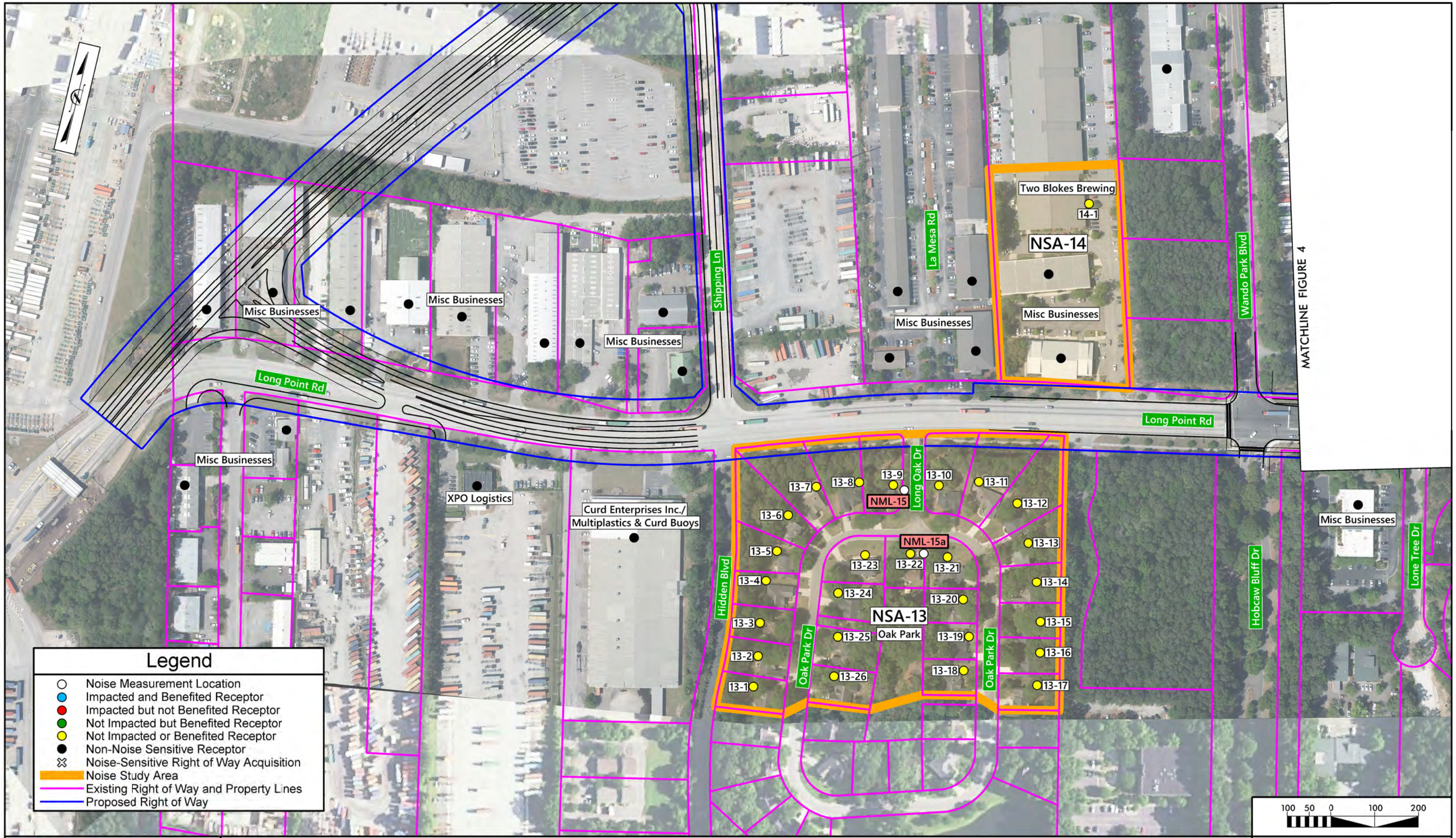
MATCHLINE FIGURE 6

MATCHLINE FIGURE 6

Legend	
○	Noise Measurement Location
● (Blue)	Impacted and Benefited Receptor
● (Red)	Impacted but not Benefited Receptor
● (Green)	Not Impacted but Benefited Receptor
● (Yellow)	Not Impacted or Benefited Receptor
● (Black)	Non-Noise Sensitive Receptor
⊗	Noise-Sensitive Right of Way Acquisition
Orange Outline	Noise Study Area
Purple Outline	Existing Right of Way and Property Lines
Blue Outline	Proposed Right of Way
Red Line	Preliminarily Recommended Noise Wall







MATCHLINE FIGURE 4

Legend

- Noise Measurement Location
- Impacted and Benefited Receptor
- Impacted but not Benefited Receptor
- Not Impacted but Benefited Receptor
- Not Impacted or Benefited Receptor
- Non-Noise Sensitive Receptor
- ⊗ Noise-Sensitive Right of Way Acquisition
- Noise Study Area
- Existing Right of Way and Property Lines
- Proposed Right of Way



Avana Long Point (NSA-2a)						Windward Long Point (NSA-4)					Atria Mount Pleasant (NSA-9)			Belle Hall (NSA-12)								
	First Floor	Second Floor (a)	Third Floor (b)		First Floor	Second Floor (a)	Third Floor (b)	First Floor	Second Floor (a)	Third Floor (b)	Forth Floor (c)	First Floor	Second Floor (a)	Third Floor (b)	First Floor	Second Floor (a)	Third Floor (b)	First Floor	Second Floor (a)	Third Floor (b)		
R2a-1	Yellow	Red	Red	R2a-40	Green	Green	Red	R4-1	Green	Blue	Blue	R9-1	Green	Green	R12-1	Yellow	Red	R12-34	Green	Blue	N/A	
R2a-2	Yellow	Red	Red	R2a-41	Yellow	Yellow	Yellow	R4-2	Blue	Blue	Blue	R9-2	Green	Green	R12-2	Yellow	Red	R12-35	Green	Blue	N/A	
R2a-3	Yellow	Red	Red	R2a-42	Yellow	Yellow	Yellow	R4-3	Blue	Blue	Blue	R9-3	Green	Green	R12-3	Yellow	Red	R12-36	Green	Blue	N/A	
R2a-4	Yellow	Red	Red	R2a-43	Yellow	Yellow	Yellow	R4-4	Blue	Blue	Blue	R9-4	Green	Green	R12-4	Yellow	Red	R12-37	Green	Blue	N/A	
R2a-5	Yellow	Red	Red	R2a-44	Yellow	Yellow	Yellow	R4-5	Blue	Blue	Blue	R9-5	Green	Green	R12-5	Yellow	Red	R12-38	Green	Blue	N/A	
R2a-6	Yellow	Red	Red	R2a-45	Yellow	N/A	N/A	R4-6	Blue	Blue	Blue	R9-6	Green	Green	R12-6	Yellow	Red	R12-39	Green	Blue	N/A	
R2a-7	Yellow	Red	Red	R2a-46	Yellow	N/A	N/A	R4-7	Blue	Blue	Blue	R9-7	Green	Green	R12-7	Yellow	Red	R12-40	Green	Blue	N/A	
R2a-8	Yellow	Red	Red	R2a-47	Yellow	N/A	N/A	R4-8	Blue	Blue	N/A	R9-8	Green	Green	R12-8	Yellow	Red	R12-41	Green	Blue	N/A	
R2a-9	Yellow	Red	N/A	R2a-48	Yellow	N/A	N/A	R4-9	Blue	Blue	N/A	R9-9	Green	Green	R12-9	Yellow	Red	R12-42	Green	Blue	N/A	
R2a-10	Yellow	Red	N/A	R2a-49	Yellow	N/A	N/A	R4-10	Blue	Blue	N/A	R9-10	Green	Green	R12-10	Yellow	Red	R12-43	Green	Blue	N/A	
R2a-11	Yellow	Red	N/A	R2a-50	Yellow	N/A	N/A	R4-11	Blue	Blue	N/A	R9-11	Green	Green	R12-11	Yellow	Red	R12-44	Green	Blue	N/A	
R2a-12	Yellow	Red	N/A	R2a-51	Yellow	N/A	N/A	R4-12	Blue	Blue	N/A	R9-12	Green	Green	R12-12	Yellow	Red	R12-45	Green	Blue	N/A	
R2a-13	Yellow	Red	N/A	R2a-52	Yellow	N/A	N/A	R4-13	Blue	Blue	N/A				R12-13	Yellow	Red	R12-46	Green	Blue	N/A	
R2a-14	Yellow	Red	N/A	R2a-53	Yellow	N/A	N/A	R4-14	Blue	Blue	N/A				R12-14	Yellow	Red	R12-47	Green	Blue	N/A	
R2a-15	Yellow	Red	N/A	R2a-54	Yellow	N/A	N/A	R4-15	Blue	Blue	N/A				R12-15	Yellow	Red	R12-48	Green	Blue	N/A	
R2a-16	Yellow	Red	N/A	R2a-55	Yellow	N/A	N/A	R4-16	Blue	Blue	N/A				R12-16	Yellow	Red	R12-49	Green	Blue	N/A	
R2a-17	Yellow	Red	N/A	R2a-56	Yellow	N/A	N/A	R4-17	Blue	Blue	N/A				R12-17	Yellow	Red	R12-50	Green	Blue	N/A	
R2a-18	Yellow	Red	N/A	R2a-57	Yellow	N/A	N/A	R4-18	Blue	Blue	N/A				R12-18	Yellow	Red	R12-51	Green	Blue	N/A	
R2a-19	Yellow	Red	N/A	R2a-58	Yellow	N/A	N/A	R4-19	Blue	Blue	N/A				R12-19	Yellow	Red	R12-52	Green	Blue	N/A	
R2a-20	Yellow	Red	N/A	R2a-59	Yellow	N/A	N/A	R4-20	Blue	Blue	N/A				R12-20	Yellow	Red	R12-53	Green	Blue	N/A	
R2a-21	Yellow	Red	N/A	R2a-60	Yellow	N/A	N/A	R4-21	Blue	Blue	N/A				R12-21	Yellow	Red	R12-54	Green	Blue	N/A	
R2a-22	Yellow	Red	N/A	R2a-61	Yellow	N/A	N/A	R4-22	Blue	Blue	N/A				R12-22	Yellow	Red	R12-55	Green	Blue	N/A	
R2a-23	Yellow	Red	N/A	R2a-62	Yellow	N/A	N/A	R4-23	Blue	Blue	N/A				R12-23	Yellow	Red	R12-56	Green	Blue	N/A	
R2a-24	Yellow	Red	N/A	R2a-63	Yellow	N/A	N/A	R4-24	Blue	Blue	N/A				R12-24	Yellow	Red	R12-57	Green	Blue	N/A	
R2a-25	Yellow	Red	N/A	R2a-64	Yellow	N/A	N/A	R4-25	Blue	Blue	N/A				R12-25	Yellow	Red	R12-58	Green	Blue	N/A	
R2a-26	Yellow	Red	N/A	R2a-65	Yellow	N/A	N/A	R4-26	Blue	Blue	N/A				R12-26	Yellow	Red	R12-59	Green	Blue	N/A	
R2a-27	Yellow	Red	N/A	R2a-66	Yellow	N/A	N/A	R4-27	Blue	Blue	N/A				R12-27	Yellow	Red	R12-60	Green	Blue	N/A	
R2a-28	Yellow	Red	N/A	R2a-67	Yellow	N/A	N/A	R4-28	Blue	Blue	N/A				R12-28	Yellow	Red	R12-61	Green	Blue	N/A	
R2a-29	Yellow	Red	N/A	R2a-68	Yellow	N/A	N/A	R4-29	Blue	Blue	N/A				R12-29	Yellow	Red	R12-62	Green	Blue	N/A	
R2a-30	Yellow	Red	N/A	R2a-69	Yellow	N/A	N/A	R4-30	Blue	Blue	N/A				R12-30	Yellow	Red	R12-63	Green	Blue	N/A	
R2a-31	Yellow	Red	N/A	R2a-70	Yellow	N/A	N/A	R4-31	Blue	Blue	N/A				R12-31	Yellow	Red	R12-64	Green	Blue	N/A	
R2a-32	Yellow	Red	N/A	R2a-71	Yellow	N/A	N/A	R4-32	Blue	Blue	N/A				R12-32	Yellow	Red	R12-65	Green	Blue	N/A	
R2a-33	Yellow	Red	N/A	R2a-72	Yellow	N/A	N/A	R4-33	Blue	Blue	N/A				R12-33	Yellow	Red	R12-66	Green	Blue	N/A	
R2a-34	Yellow	Red	N/A	R2a-73	Yellow	N/A	N/A	R4-34	Blue	Blue	N/A											
R2a-35	Yellow	Red	N/A	R2a-74	Yellow	N/A	N/A	R4-35	Blue	Blue	N/A											
R2a-36	Yellow	Red	N/A	R2a-75	Yellow	N/A	N/A	R4-36	Blue	Blue	N/A											
R2a-37	Yellow	Red	N/A	R2a-76	Yellow	N/A	N/A	R4-37	Blue	Blue	N/A											
R2a-38	Yellow	Red	N/A	R2a-77	Yellow	N/A	N/A	R4-38	Blue	Blue	N/A											
R2a-39	Yellow	Red	N/A					R4-39	Blue	Blue	N/A											



Long Point Road/Wando Port Interchange
Charleston County, SC

Apartment Sound Level Impacts by Floor
Figure 7

APPENDIX A

AMBIENT NOISE LEVEL MONITORING

EXISTING NOISE MEASUREMENTS

The project's Noise Analysis Work Plan was approved by SCDOT on July 27, 2022. The work plan proposed 13 representative areas (NML-1, NML-2, NML-5 through NML-15) for short-term existing $L_{eq}(h)$ noise level measurements for 20-minute periods. The meters were to be placed in an array of two sound level meters at each location, generally representing the first and second row for TNM model validation. In addition, it was proposed to take a measurement at the Kearns Park trail (NML-4) using one meter to capture the ambient sound levels only and another measurement where Wando Park Boulevard goes under the Wando River bridge (NML-3) with one meter at each location to capture expansion joint noise for a total of 15 measurement locations.

Ambient noise measurements were performed on August 2nd and 3rd, 2022, including 11 short-term measurements of 20-minute duration (NML-1, NML-2, NML-5 through NML-10 and NML-13 through NML-15), in an array of two sound level meters at each location. The proposed location NML-11 was dropped due to unfavorable (slowed and stopped) traffic conditions at the traffic signal at Long Point Road and the I-526 WB off-ramp. Also, field verification determined that two of the residences in NSA-8 no longer exist. The proposed location NML-12 (Atria of Mount Pleasant) was changed to an ambient only location due to unfavorable (slowed and stopped) traffic conditions at the traffic signal at the I-526 EB off-ramp and Long Point Road. The proposed location of NML-12a was dropped.

A measurement was taken at the Kearns Park trail (NML-4) using one meter for a 30-minute duration to capture the ambient sound levels only. A measurement of 30-minute duration was taken where Wando Park Boulevard goes under the Wando River bridge (NML-3) with one meter to capture expansion joint noise. As stated previously, a measurement was taken at Atria of Mount Pleasant (NML-12) using one meter for a 30-minute duration to capture the ambient sound levels only. NML-12a was dropped since the location was no longer necessary for validation (ambient only).

No long-term measurements were necessary for this project. The sound level metrics data for these measurements were collected in increments of one minute (i.e., a 20-minute short-term noise measurement session was comprised of 20 data points). Traffic counts were collected to account for auto, medium truck, heavy truck, bus, and motorcycle vehicle mix counts. Cameras were placed on I-526 by National Data and Surveying Services (<https://www.ndsdata.com/>) to count and classify the traffic data during each measurement period that would be used for validation. Local roads adjacent to a measurement location were counted and classified manually. Actual traffic speeds were obtained by driving the project corridor and recording average speed and travel time, in addition to the utilization of radar guns. Posted speed limits and observed speed limits were recorded on field data sheets for all roadways adjacent to each NSA.

Weather data was documented in the field by utilizing the Weather Underground app (wunderground.com) with location services turned on and a Kestrel 3000 handheld pocket weather meter. Refer to **Table A1** for a summary of the weather data during the noise measurements.

The noise levels obtained during the ambient noise measurement process are shown below in **Table A2**, ranging from approximately 56.3 dB(A) L_{eq} to 71.9 dB(A) L_{eq} .

Table A0: Ambient Noise Measurement Weather Summary

Site	Date and Time Period	Temperature (°F)	Cloud Cover	Wind Direction	Wind Speed (mph)	Precipitation (inches)	Relative Humidity (%)
1	8/3/22 9:30-9:50 am	85	Mostly Cloudy	WNW	1	0.0	80
2	8/3/22 9:00-9:20 am	85	Mostly Cloudy	SSW	2.2	0.0	81
3	8/2/22 9:10-9:40 am	84	Mostly Cloudy	E	2.5	0.0	74
4	8/2/22 9:25-9:55 am	84	Mostly Cloudy	E	2.5	0.0	74
5	8/2/22 10:00-10:20 am	86	Mostly Cloudy	WNW	1	0.0	79
6	8/3/22 2:00-2:20 pm	92	Mostly Cloudy	SSE	4.3	0.0	65
7	8/3/22 2:35-2:55 pm	92	Partly Cloudy	SSE	5.6	0.0	66
8	8/3/22 10:35-10:55 am	87	Mostly Cloudy	WNW	3.3	0.0	77
9	8/3/22 3:10-3:30 pm	92	Partly Cloudy	SSE	7.2	0.0	67
10	8/3/22 3:45-4:05 pm	92	Partly Cloudy	SSE	2.9	0.0	67
11*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12	8/2/22 11:28-11:58 am	87	Partly Cloudy	W	5.8	0.0	68
13	8/3/22 12:15-12:35 pm	90	Partly Cloudy	S	2.5	0.0	75
14	8/3/22 11:35-11:55 am	90	Mostly Cloudy	SSW	5.8	0.0	71
15	8/2/22 10:55-11:15 am	86	Partly Cloudy	E	4.2	0.0	71

*Location 11 was dropped due to slowed and stopped traffic and residences that no longer exist.

Source: Weather Underground app with location services “on”, Kestrel 3000 handheld pocket weather meter and wunderground.com

Table A2: Ambient Noise Levels

Measurement Site	Date and Time Period	Measurement ID#	Measured L_{eq} , dB(A) ¹
1	8/3/22 9:30-9:50 am	NML-1	66.7
		NML-1a	64.4
2	8/3/22 9:00-9:20 am	NML-2	71.6
		NML-2a	67.1
3	8/2/22 9:10-9:40 am	NML-3	70.2
		NML-4	62.3
4	8/2/22 9:25-9:55 am	NML-5	71.9
		NML-5a	65.2
5	8/3/22 10:00-10:20 am	NML-6	71.4
		NML-6a	64.5
6	8/3/22 2:00-2:20 pm	NML-7	70.7
		NML-7a	61.5
7	8/3/22 2:35-2:55 pm	NML-8	64.3
		NML-8a	58.0
8	8/3/22 10:35-10:55 am	NML-9	61.1
		NML-9a	58.7
9	8/3/22 3:10-3:30 pm	NML-10	61.5
		NML-10a	56.4
10 ²	N/A	N/A	N/A
11 ³	8/2/22 11:28-11:58 am	NML-12	63.0
12	8/3/22 12:15-12:35 pm	NML-13	66.1
		NML-13a	61.7
13	8/3/22 11:35-11:55 am	NML-14	65.1
		NML-14a	56.3
14	8/2/22 10:55-11:15 am	NML-15	62.6
		NML-15a	56.5

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

2. Location 11 was dropped due to traffic conditions that were unfavorable for validation (slowed and stopped traffic) and residences that no longer exist.

3. Location 12 is Ambient only due to traffic conditions that were unfavorable for validation (slowed and stopped traffic).

Site 1



NOISE MEASUREMENT DATA SHEET

NML- 1 (F)
 NML- — (M)
 NML- 1A (B)

PROJECT: Long Point Road/Wando Port Interchange
 OPERATOR(S): Rex Cooper, Alexa Kennedy
 NOISE METER FILE #'S: Front (F) 000 Middle (M) — Back (B) 005
 NOISE METER SERIAL #'S: Front (F) 00375623 Middle (M) — Back (B) 01021297
 CALIBRATION: RESPONSE: FAST / SLOW WEIGHTING: A / C / LIN.
 SITE DESCRIPTION: cul de sac w/ townhome, 1-526 bridge
 POSTED SPEED LIMIT: 65 mph (Primary Rd) — mph (Secondary Rd)
 AVERAGE MEASURED SPEED LIMIT: 65 mph (Primary Rd) — mph (Secondary Rd)
 MAJOR NOISE SOURCES: 1-526

SAMPLE PERIOD:

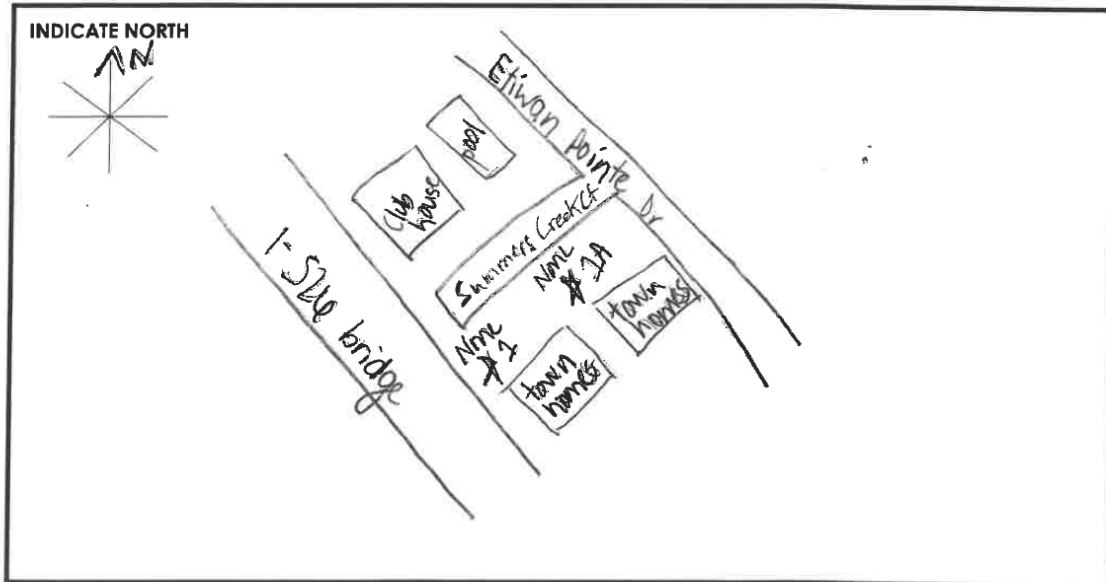
DATE: 08/03/22
 BEGIN: 9:30
 END: 9:50

Leq (A) NOISE LEVEL	
NML- <u>1</u>	<u>66.7</u> dB(A)
NML- <u>1a</u>	<u>64.4</u> dB(A)
NML- <u>—</u>	<u>—</u> dB(A)

TNM	Δ	Val?
<u>66.3</u>	<u>-0.4</u>	<input checked="" type="checkbox"/>
<u>65.9</u>	<u>1.5</u>	<input checked="" type="checkbox"/>
<u>—</u>	<u>—</u>	<u>—</u>

TRAFFIC DATA			
ROADWAY	<u>1-526</u>	<u>1-526</u>	
DIRECTION	<u>WB</u>	<u>EB</u>	
AUTO	<u>584</u>	<u>891</u>	
M-TRUCK	<u>19</u>	<u>28</u>	
H-TRUCK	<u>130</u>	<u>103</u>	
BUS	<u>1</u>	<u>0</u>	
MC	<u>0</u>	<u>1</u>	

WEATHER DATA	
TEMPERATURE (°F)	<u>85</u>
RELATIVE HUMIDITY (%)	<u>80</u>
DEW POINT (°F)	<u>78</u>
WIND SPEED (MPH)	<u>1</u>
WIND DIRECTION	<u>WNW</u>
CLOUD COVER	<u>70%</u>



Noise Measurement Location 1 (NML-1)



Noise Measurement Location 1a (NML-1a)



Site 2



NOISE MEASUREMENT DATA SHEET

NML- 2 (F)
 NML- — (M)
 NML- 2A (B)

PROJECT: Long Point Road/Wando Port Interchange
 OPERATOR(S): Rex Cooper, Alexa Kennedy
 NOISE METER FILE #'S: Front (F) 005 Middle (M) — Back (B) 004
 NOISE METER SERIAL #'S: Front (F) 00375623 Middle (M) — Back (B) 01021297
 CALIBRATION: RESPONSE: FAST / (SLOW) WEIGHTING: (A) / C / LIN.
 SITE DESCRIPTION: townhomes near I-526 Etivon Pointe
 POSTED SPEED LIMIT: 65 mph (Primary Rd) — mph (Secondary Rd)
 AVERAGE MEASURED SPEED LIMIT: 65 mph (Primary Rd) — mph (Secondary Rd)
 MAJOR NOISE SOURCES: I-526

SAMPLE PERIOD:

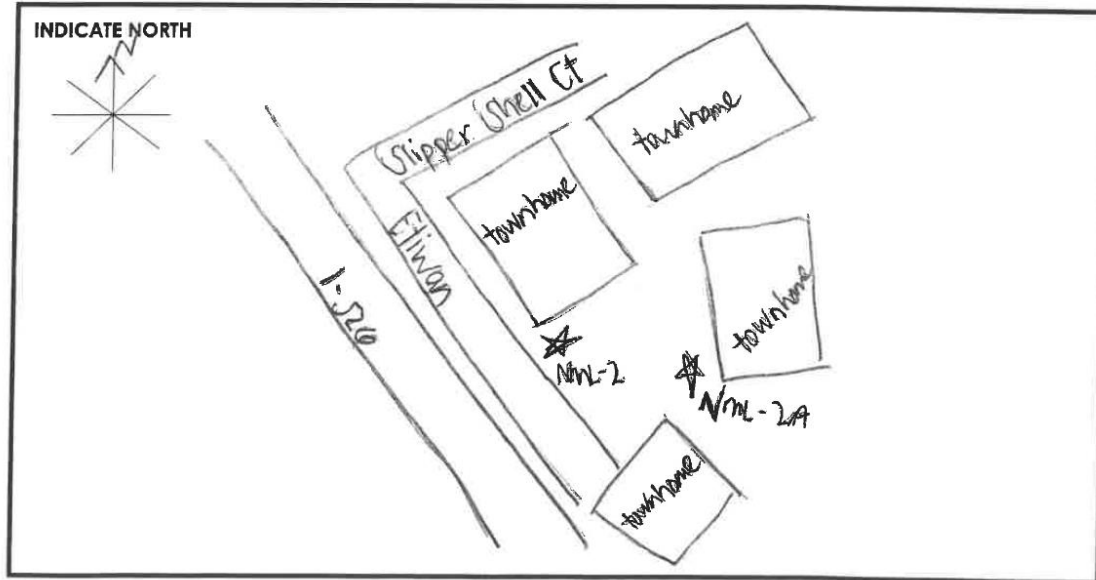
DATE: 08/03/22
 BEGIN: 9:00
 END: 9:20

Leq (A) NOISE LEVEL	
NML- <u>2</u>	<u>71.6</u> dB(A)
NML- <u>2a</u>	<u>67.1</u> dB(A)
NML- <u>—</u>	<u>—</u> dB(A)

TNM	Δ	Val?
<u>72.5</u>	<u>0.9</u>	<input checked="" type="checkbox"/>
<u>66.8</u>	<u>-0.3</u>	<input checked="" type="checkbox"/>
<u>—</u>	<u>—</u>	<u>—</u>

TRAFFIC DATA			
ROADWAY	<u>1-526</u>	<u>1-526</u>	
DIRECTION	<u>WB</u>	<u>EB</u>	
AUTO	<u>696</u>	<u>776</u>	
M-TRUCK	<u>8</u>	<u>21</u>	
H-TRUCK	<u>104</u>	<u>126</u>	
BUS	<u>0</u>	<u>2</u>	
MC	<u>0</u>	<u>0</u>	

WEATHER DATA	
TEMPERATURE (°F)	<u>85</u>
RELATIVE HUMIDITY (%)	<u>81</u>
DEW POINT (°F)	<u>70</u>
WIND SPEED (MPH)	<u>2.2</u>
WIND DIRECTION	<u>SSW</u>
CLOUD COVER	<u>60%</u>



Site 2

Noise Measurement Location 2 (NML-2)



Noise Measurement Location 2a (NML-2a)



Site 3



NOISE MEASUREMENT DATA SHEET

NML- 3 (F)
 NML- — (M)
 NML- — (B)

PROJECT: Long Point Road/Wando Port Interchange
 OPERATOR(S): Kevin Cooper
 NOISE METER FILE #'S: Front (F) 001 Middle (M) — Back (B) —
 NOISE METER SERIAL #'S: Front (F) 00375623 Middle (M) — Back (B) —
 CALIBRATION: RESPONSE: FAST / SLOW WEIGHTING: A / C / LIN.
 SITE DESCRIPTION: under bridge, near entrance of Etowah Pointe
 POSTED SPEED LIMIT: 65 mph (Primary Rd) 35 mph (Secondary Rd)
 AVERAGE MEASURED SPEED LIMIT: — mph (Primary Rd) — mph (Secondary Rd)
 MAJOR NOISE SOURCES: I-520

SAMPLE PERIOD:

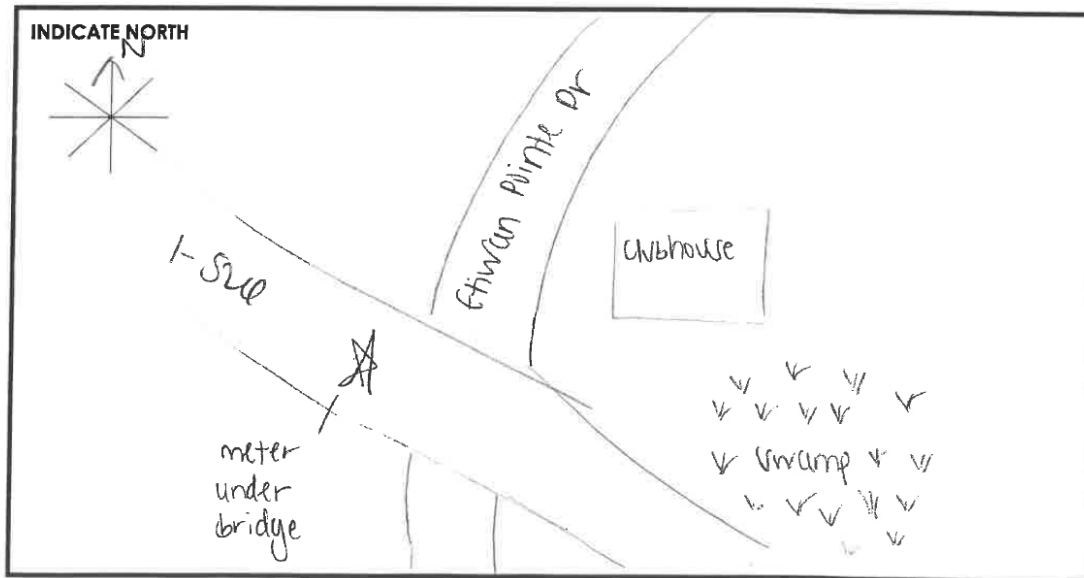
DATE: 08/07/22
 BEGIN: 9:10
 END: 9:40

Leq (A) NOISE LEVEL	
NML- <u>3</u>	<u>70.2</u> dB(A)
NML- <u>—</u>	<u>—</u> dB(A)
NML- <u>—</u>	<u>—</u> dB(A)

TNM	Δ	Val?
—	—	—
—	—	—
—	—	—

TRAFFIC DATA				
ROADWAY				
DIRECTION	<u>Ambient</u>			
AUTO				
M-TRUCK				
H-TRUCK	<u>Only</u>			
BUS				
MC				

WEATHER DATA	
TEMPERATURE (°F)	<u>84</u>
RELATIVE HUMIDITY (%)	<u>74</u>
DEW POINT (°F)	<u>75</u>
WIND SPEED (MPH)	<u>2.5</u>
WIND DIRECTION	<u>E</u>
CLOUD COVER	<u>76%</u>



Site 3

Noise Measurement Location 3 (NML-3) - Ambient Only



Site 4



NOISE MEASUREMENT DATA SHEET

NML- (F)
 NML- (M)
 NML- 4 (B)

PROJECT: Long Run Rd Road/Wanda Park Interchange
 OPERATOR(S): Rex Cooper
 NOISE METER FILE #'S: Front (F) Middle (M) Back (B) 001
 NOISE METER SERIAL #'S: Front (F) Middle (M) Back (B) 01021297
 CALIBRATION: RESPONSE: FAST / (SLOW) WEIGHTING: (A) / C / LIN.
 SITE DESCRIPTION: Small field, sidewalk, 1-524 overpass
 POSTED SPEED LIMIT: 100 mph (Primary Rd) 35 mph (Secondary Rd)
 AVERAGE MEASURED SPEED LIMIT: mph (Primary Rd) mph (Secondary Rd)
 MAJOR NOISE SOURCES: 1-524

SAMPLE PERIOD:

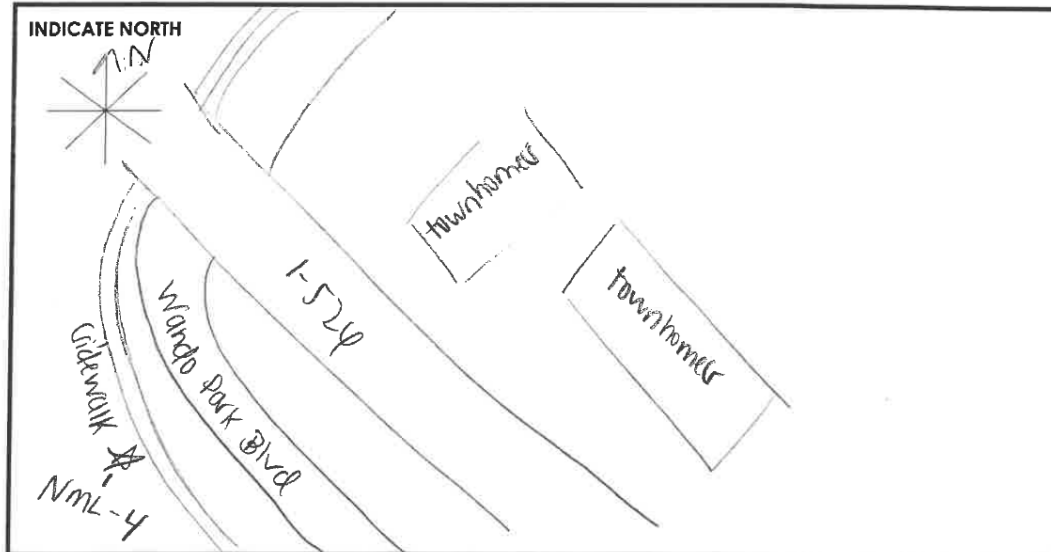
DATE: 08/02/22
 BEGIN: 9:25
 END: 9:55

Leq (A) NOISE LEVEL	
NML- <u>4</u>	<u>62.3</u> dB(A)
NML- <u> </u>	<u> </u> dB(A)
NML- <u> </u>	<u> </u> dB(A)

TNM	Δ	Val?
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>

TRAFFIC DATA				
ROADWAY				
DIRECTION	<u>Ambient</u>			
AUTO				
M-TRUCK				
H-TRUCK	<u>Only</u>			
BUS				
MC				

WEATHER DATA	
TEMPERATURE (°F)	<u>84</u>
RELATIVE HUMIDITY (%)	<u>74</u>
DEW POINT (°F)	<u>75</u>
WIND SPEED (MPH)	<u>2.5</u>
WIND DIRECTION	<u>E</u>
CLOUD COVER	<u>70%</u>



Site 4

Noise Measurement Location 4 (NML-4) – Ambient Only



Site 5



NOISE MEASUREMENT DATA SHEET

NML- 5 (F)
 NML- — (M)
 NML- SA (B)

PROJECT: Long Point Road / Wanda Park T-interchange
 OPERATOR(S): Rex Cooper, Alexa Kennedy
 NOISE METER FILE #'S: Front (F) 007 Middle (M) — Back (B) 000
 NOISE METER SERIAL #'S: Front (F) 00375623 Middle (M) — Back (B) 01021297
 CALIBRATION: RESPONSE: FAST / SLOW WEIGHTING: A / C / LIN.
 SITE DESCRIPTION: apartment complex
 POSTED SPEED LIMIT: 15 mph (Primary Rd) 35 mph (Secondary Rd)
 AVERAGE MEASURED SPEED LIMIT: 65 mph (Primary Rd) 40 mph (Secondary Rd)
 MAJOR NOISE SOURCES: 1-526, Wanda Park Blvd

SAMPLE PERIOD:

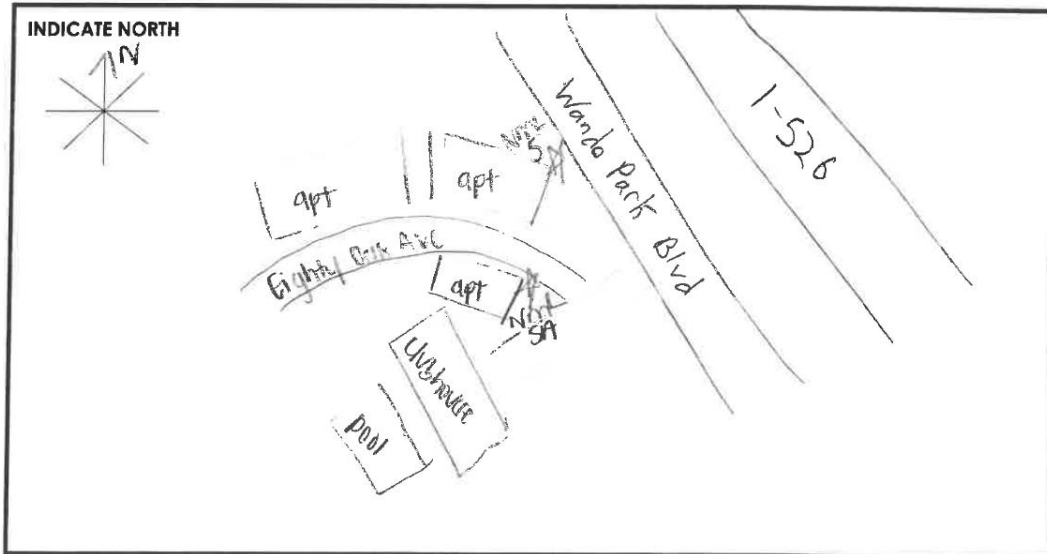
DATE: 08/03/22
 BEGIN: 10:00
 END: 11:20

Leq (A) NOISE LEVEL	
NML- <u>5</u>	<u>71.9</u> dB(A)
NML- <u>SA</u>	<u>65.2</u> dB(A)
NML- <u>—</u>	<u>—</u> dB(A)

TNM	Δ	Val?
<u>72.1</u>	<u>0.2</u>	<input checked="" type="checkbox"/>
<u>67.0</u>	<u>1.8</u>	<input checked="" type="checkbox"/>
<u>—</u>	<u>—</u>	<input type="checkbox"/>

TRAFFIC DATA				
ROADWAY	1-526	1-526	Wanda Park	Wanda Park
DIRECTION	WB	EB	NB	SB
AUTO	<u>597</u>	<u>731</u>	<u>0</u>	<u>10</u>
M-TRUCK	<u>18</u>	<u>39</u>	<u>0</u>	<u>0</u>
H-TRUCK	<u>92</u>	<u>116</u>	<u>0</u>	<u>0</u>
BUS	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>
MC	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>

WEATHER DATA	
TEMPERATURE (°F)	<u>80</u>
RELATIVE HUMIDITY (%)	<u>79</u>
DEW POINT (°F)	<u>79</u>
WIND SPEED (MPH)	<u>1</u>
WIND DIRECTION	<u>WNW</u>
CLOUD COVER	<u>88%</u>



Site 5

Noise Measurement Location 5 (NML-5)



Noise Measurement Location 5a (NML-5a)



Site 6



NOISE MEASUREMENT DATA SHEET

NML- U (F)
 NML- — (M)
 NML- VA (B)

PROJECT: Long Point Road / Concord Port Interchange
 OPERATOR(S): Bob Cooper, Alexa Kennedy
 NOISE METER FILE #'S: Front (F) 011 Middle (M) — Back (B) 010
 NOISE METER SERIAL #'S: Front (F) 00375623 Middle (M) — Back (B) 01021297
 CALIBRATION: RESPONSE: FAST / SLOW WEIGHTING: A / C / LIN.
 SITE DESCRIPTION: residential neighborhood
 POSTED SPEED LIMIT: 105 mph (Primary Rd) — mph (Secondary Rd)
 AVERAGE MEASURED SPEED LIMIT: 65 mph (Primary Rd) — mph (Secondary Rd)
 MAJOR NOISE SOURCES: 1-526

SAMPLE PERIOD:

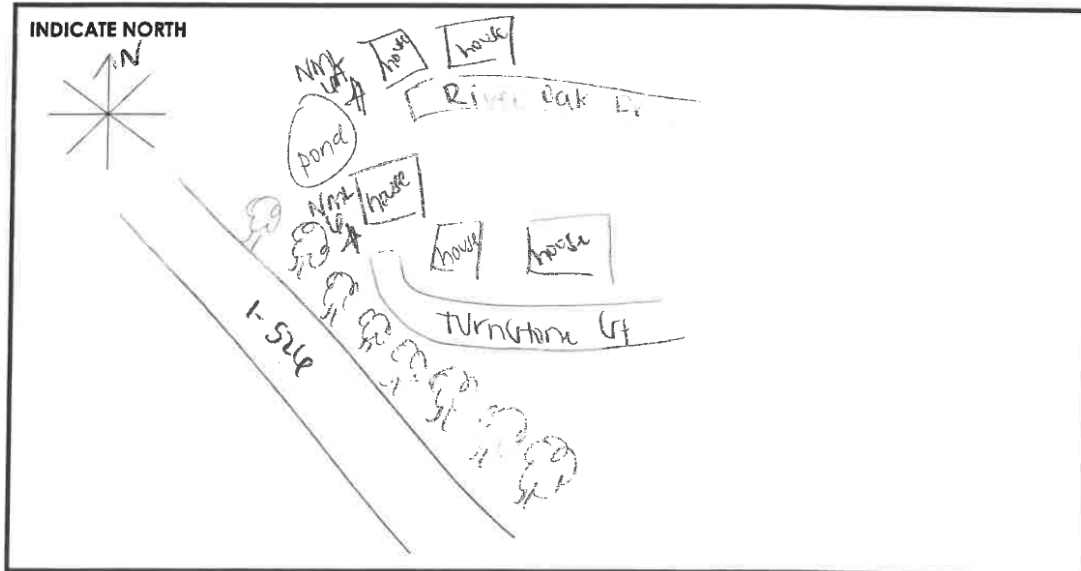
DATE: 05/03/11
 BEGIN: 2:00
 END: 2:20

Leq (A) NOISE LEVEL	
NML- <u>6</u>	<u>71.4</u> dB(A)
NML- <u>6a</u>	<u>64.5</u> dB(A)
NML- <u>—</u>	<u>—</u> dB(A)

TNM	Δ	Val?
<u>70.8</u>	<u>-0.6</u>	<input checked="" type="checkbox"/>
<u>64.8</u>	<u>0.3</u>	<input checked="" type="checkbox"/>
<u>—</u>	<u>—</u>	<input type="checkbox"/>

TRAFFIC DATA			
ROADWAY	<u>1-526</u>	<u>1-526</u>	
DIRECTION	<u>WB</u>	<u>EB</u>	
AUTO	<u>760</u>	<u>719</u>	
M-TRUCK	<u>19</u>	<u>18</u>	
H-TRUCK	<u>129</u>	<u>78</u>	
BUS	<u>0</u>	<u>0</u>	
MC	<u>1</u>	<u>1</u>	

WEATHER DATA	
TEMPERATURE (°F)	<u>92</u>
RELATIVE HUMIDITY (%)	<u>105</u>
DEW POINT (°F)	<u>79</u>
WIND SPEED (MPH)	<u>4.3</u>
WIND DIRECTION	<u>SSE</u>
CLOUD COVER	<u>9%</u>



Site 6

Noise Measurement Location 6 (NML-6)



Noise Measurement Location 6a (NML-6a)



Site 7



NOISE MEASUREMENT DATA SHEET

NML- 7 (F)
 NML- — (M)
 NML- 7A (B)

PROJECT: Long Point Road/Wardsport Interchange
 OPERATOR(S): Dee Cooper, Alexandra Kennedy
 NOISE METER FILE #'S: Front (F) 012 Middle (M) — Back (B) 011
 NOISE METER SERIAL #'S: Front (F) 00375623 Middle (M) — Back (B) 01021297
 CALIBRATION: RESPONSE: FAST SLOW WEIGHTING: A / C / LIN.
 SITE DESCRIPTION: Residential neighborhood
 POSTED SPEED LIMIT: 45 mph (Primary Rd) — mph (Secondary Rd)
 AVERAGE MEASURED SPEED LIMIT: 65 mph (Primary Rd) 30 mph (Secondary Rd)
 MAJOR NOISE SOURCES: 1-526

SAMPLE PERIOD:

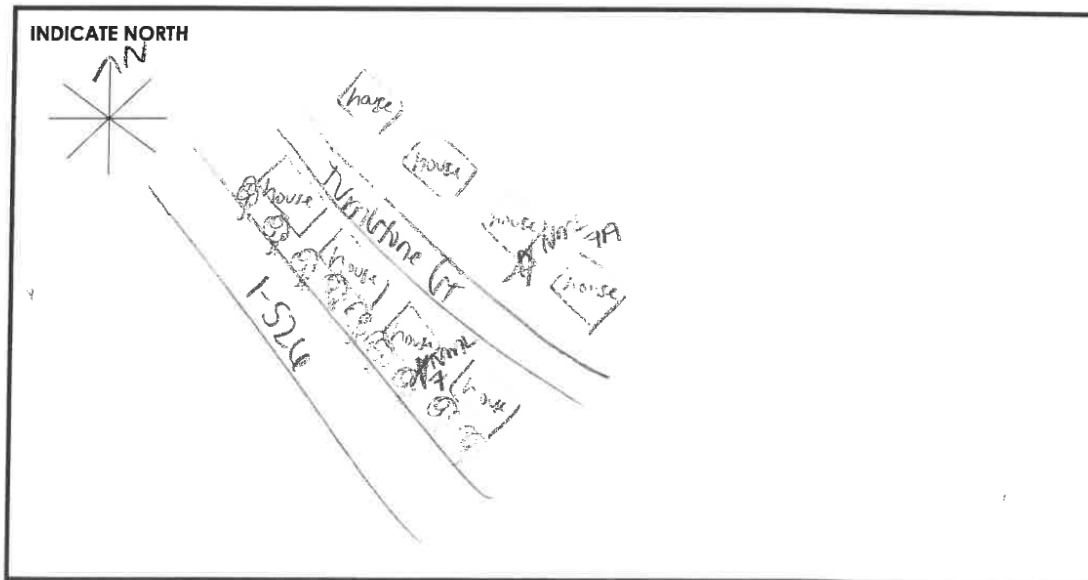
DATE: 08/03/22
 BEGIN: 2:25
 END: 2:55

Leq (A) NOISE LEVEL	
NML- <u>7</u>	<u>70.7</u> dB(A)
NML- <u>7a</u>	<u>61.5</u> dB(A)
NML- <u>—</u>	<u>—</u> dB(A)

TNM	Δ	Val?
<u>70.7</u>	<u>0</u>	<input checked="" type="checkbox"/>
<u>58.4</u>	<u>-2.6</u>	<input checked="" type="checkbox"/>
<u>—</u>	<u>—</u>	<input type="checkbox"/>

TRAFFIC DATA				
ROADWAY	1-526	1-526	Turnstone	Turnstone
DIRECTION	WB	EB	WB	EB
AUTO	<u>759</u>	<u>784</u>	<u>3</u>	<u>5</u>
M-TRUCK	<u>17</u>	<u>8</u>	<u>0</u>	<u>0</u>
H-TRUCK	<u>113</u>	<u>72</u>	<u>0</u>	<u>0</u>
BUS	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>
MC	<u>2</u>	<u>1</u>	<u>0</u>	<u>0</u>

WEATHER DATA	
TEMPERATURE (°F)	<u>96</u>
RELATIVE HUMIDITY (%)	<u>60</u>
DEW POINT (°F)	<u>80</u>
WIND SPEED (MPH)	<u>5.6</u>
WIND DIRECTION	<u>SSE</u>
CLOUD COVER	<u>31%</u>



Site 7

Noise Measurement Location 7 (NML-7)



Noise Measurement Location 7a (NML-7a)



Site 8



NOISE MEASUREMENT DATA SHEET

NML- 8 (F)
 NML- — (M)
 NML- 8A (B)

PROJECT: Long Point Road / 100, 100 Port 7, 900, 1000
 OPERATOR(S): Ray Cooper, Alexa Kennedy
 NOISE METER FILE #'S: Front (F) 008 Middle (M) — Back (B) 007
 NOISE METER SERIAL #'S: Front (F) 00375623 Middle (M) — Back (B) 01021297
 CALIBRATION: — RESPONSE: FAST (SLOW) WEIGHTING: A / C / LIN.
 SITE DESCRIPTION: Windward Long Point Apartments
 POSTED SPEED LIMIT: 45 mph (Primary Rd) — mph (Secondary Rd)
 AVERAGE MEASURED SPEED LIMIT: 65 mph (Primary Rd) — mph (Secondary Rd)
 MAJOR NOISE SOURCES: I-526

SAMPLE PERIOD:

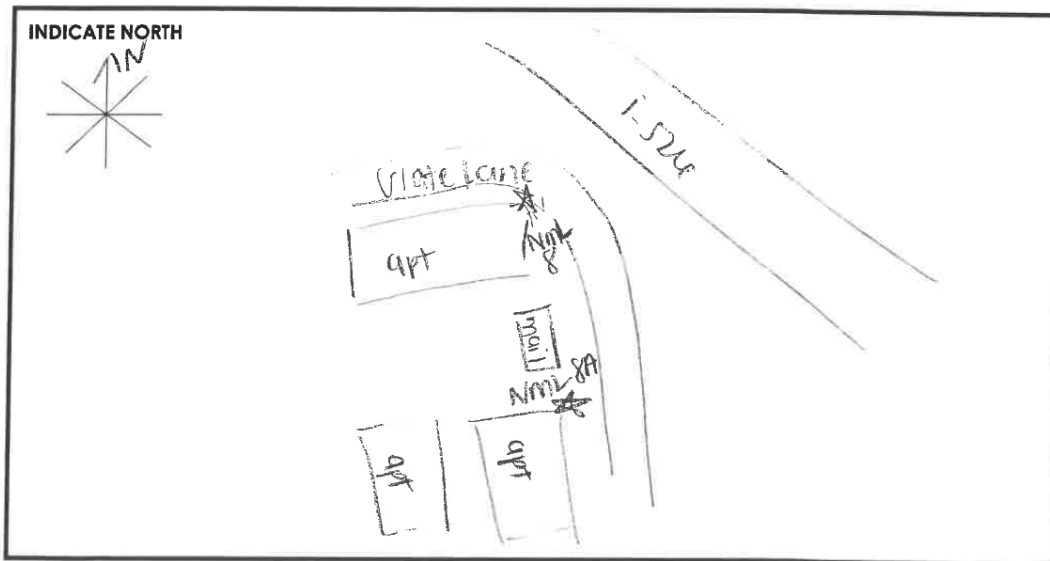
DATE: 08/03/22
 BEGIN: 10:35
 END: 10:55

Leq (A) NOISE LEVEL	
NML- <u>8</u>	<u>64.3</u> dB(A)
NML- <u>8a</u>	<u>58</u> dB(A)
NML- <u>—</u>	<u>—</u> dB(A)

TNM	Δ	Val?
<u>64.2</u>	<u>-0.1</u>	<u>✓</u>
<u>60.4</u>	<u>2.4</u>	<u>✓</u>
<u>—</u>	<u>—</u>	<u>—</u>

TRAFFIC DATA			
ROADWAY	<u>1-526</u>	<u>1-526</u>	
DIRECTION	<u>WB</u>	<u>EB</u>	
AUTO	<u>652</u>	<u>745</u>	
M-TRUCK	<u>17</u>	<u>19</u>	
H-TRUCK	<u>105</u>	<u>117</u>	
BUS	<u>1</u>	<u>1</u>	
MC	<u>1</u>	<u>1</u>	

WEATHER DATA	
TEMPERATURE (°F)	<u>87</u>
RELATIVE HUMIDITY (%)	<u>77</u>
DEW POINT (°F)	<u>79</u>
WIND SPEED (MPH)	<u>3.3</u>
WIND DIRECTION	<u>WNW</u>
CLOUD COVER	<u>70%</u>



Site 8

Noise Measurement Location 8 (NML-8)



Noise Measurement Location 8a (NML-8a)



Site 9



NOISE MEASUREMENT DATA SHEET

NML- 9 (F)
 NML- — (M)
 NML- 9A (B)

PROJECT: Long Point Road/Vivando Port Interchange
 OPERATOR(S): Rex Cooper, Alexa Kennedy
 NOISE METER FILE #'S: Front (F) 013 Middle (M) — Back (B) 017
 NOISE METER SERIAL #'S: Front (F) 00375623 Middle (M) — Back (B) 01021297
 CALIBRATION: RESPONSE: FAST / SLOW WEIGHTING: A / C / LIN.
 SITE DESCRIPTION: Beik Hall Plantation
 POSTED SPEED LIMIT: 45 mph (Primary Rd) 35 mph (Secondary Rd)
 AVERAGE MEASURED SPEED LIMIT: 65 mph (Primary Rd) 40 mph (Secondary Rd)
 MAJOR NOISE SOURCES: I-526, Seacoast Pkwy

SAMPLE PERIOD:

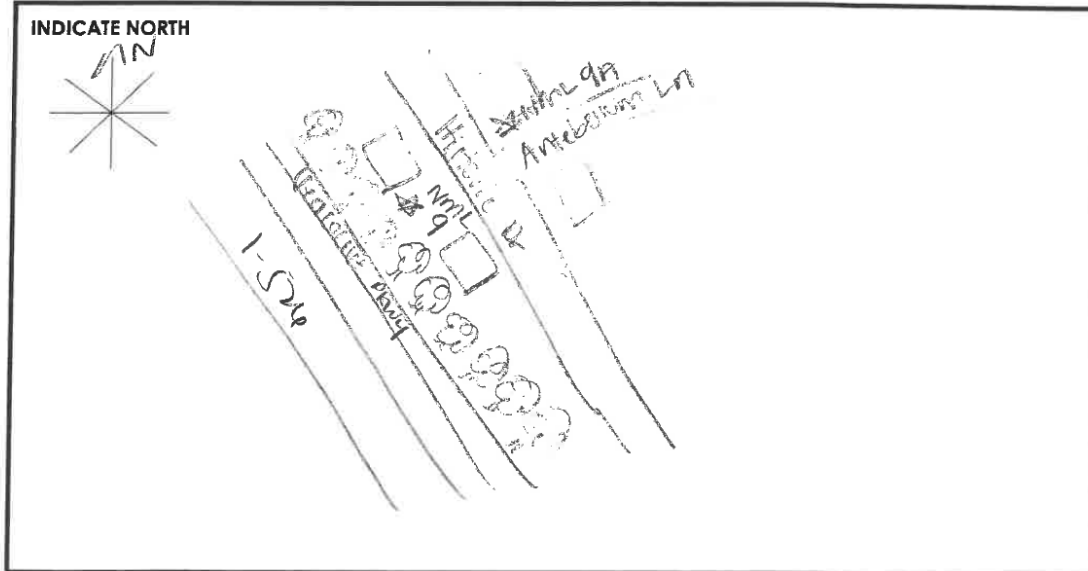
DATE: 08/02/13
 BEGIN: 3:10
 END: 3:30

Leq (A) NOISE LEVEL	
NML- <u>9</u>	<u>61.1</u> dB(A)
NML- <u>9a</u>	<u>58.7</u> dB(A)
NML- <u>—</u>	<u>—</u> dB(A)

TNM	Δ	Val?
<u>64</u>	<u>2.9</u>	<input checked="" type="checkbox"/>
<u>56.9</u>	<u>-1.8</u>	<input checked="" type="checkbox"/>
<u>—</u>	<u>—</u>	<input type="checkbox"/>

TRAFFIC DATA				
ROADWAY	I-526	I-526	Seacoast	Seacoast
DIRECTION	WB	EB	WB	EB
AUTO	<u>771</u>	<u>792</u>	<u>26</u>	<u>40</u>
M-TRUCK	<u>10</u>	<u>7</u>	<u>0</u>	<u>0</u>
H-TRUCK	<u>103</u>	<u>62</u>	<u>0</u>	<u>0</u>
BUS	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
MC	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

WEATHER DATA	
TEMPERATURE (°F)	<u>92</u>
RELATIVE HUMIDITY (%)	<u>107</u>
DEW POINT (°F)	<u>80</u>
WIND SPEED (MPH)	<u>7.2</u>
WIND DIRECTION	<u>SSE</u>
CLOUD COVER	<u>10%</u>



Site 9

Noise Measurement Location 9 (NML-9)



Noise Measurement Location 9a (NML-9a)



Site 10



NOISE MEASUREMENT DATA SHEET

NML- 10 (F)
 NML- (M)
 NML- 10A (B)

PROJECT: Woods Point Road/Wando Port Interchange
 OPERATOR(S): Dex Couper Alexa Kennedy
 NOISE METER FILE #'S: Front (F) 014 Middle (M) --- Back (B) 013
 NOISE METER SERIAL #'S: Front (F) 00375623 Middle (M) --- Back (B) 01021297
 CALIBRATION: RESPONSE: FAST / (SLOW) WEIGHTING: A / C / LIN.
 SITE DESCRIPTION: Little Hill Intersection
 POSTED SPEED LIMIT: 65 mph (Primary Rd) 35 mph (Secondary Rd)
 AVERAGE MEASURED SPEED LIMIT: 65 mph (Primary Rd) 40 mph (Secondary Rd)
 MAJOR NOISE SOURCES: I-526, Seacoast Pkwy

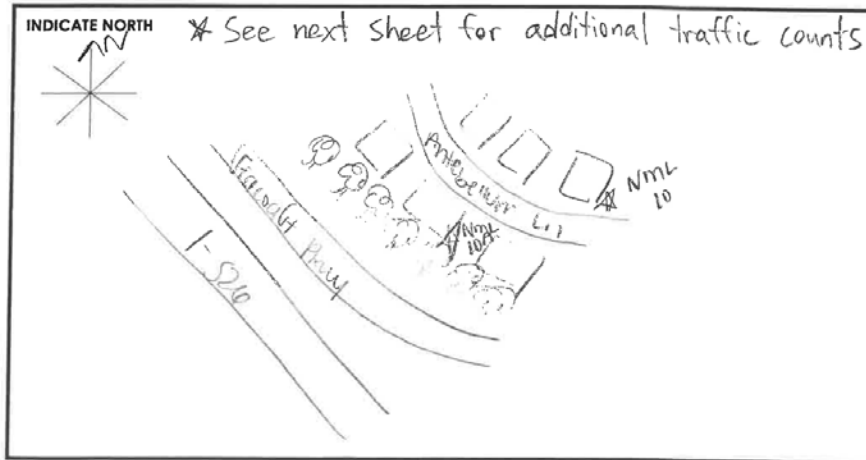
SAMPLE PERIOD:
 DATE: 03/22
 BEGIN: 3:45
 END: 4:05

Leq (A) NOISE LEVEL	
NML- 10	61.5 dB(A)
NML- 10a	56.4 dB(A)
NML- ---	--- dB(A)

TNM	Δ	Val?
64.3	2.8	✓
58.6	2.2	✓
---	---	---

TRAFFIC DATA				
ROADWAY	I-526	I-526	Seacoast	Seacoast
DIRECTION	WB	EB	WB	EB
AUTO	764	852	22	41
M-TRUCK	14	7	0	0
H-TRUCK	62	38	0	0
BUS	0	1	0	0
MC	0	1	0	0

WEATHER DATA	
TEMPERATURE (°F)	92
RELATIVE HUMIDITY (%)	17
DEW POINT (°F)	81
WIND SPEED (MPH)	7.9
WIND DIRECTION	SSE
CLOUD COVER	10%



Average measured speed along on-ramps was 55 mph.
 Average measured speed along off-ramps was 60 mph.

TRAFFIC DATA			
ROADWAY	On Ramp	On Ramp Loop	Off Ramp
DIRECTION	WB	WB	EB
AUTO	255	120	276
M-TRUCK	5	2	2
H-TRUCK	21	10	12
BUS			
MC			

Site 10

Noise Measurement Location 10 (NML-10)



Noise Measurement Location 10a (NML-10a)



Site 11
Site 11 dropped

Site 12



NOISE MEASUREMENT DATA SHEET

NML- 12 (F)
NML- — (M)
NML- — (B)

PROJECT: Long Point Road/Wanda Port Interchange
 OPERATOR(S): Rex Cooper
 NOISE METER FILE #'S: Front (F) 003 Middle (M) — Back (B) —
 NOISE METER SERIAL #'S: Front (F) 00375623 Middle (M) — Back (B) —
 CALIBRATION: ✓ RESPONSE: FAST / SLOW WEIGHTING: A / C / LIN.
 SITE DESCRIPTION: retirement complex
 POSTED SPEED LIMIT: 65 mph (Primary Rd) 40 mph (Secondary Rd)
 AVERAGE MEASURED SPEED LIMIT: — mph (Primary Rd) — mph (Secondary Rd)
 MAJOR NOISE SOURCES: Long Point Rd, I-576 interchange & ramp

SAMPLE PERIOD:

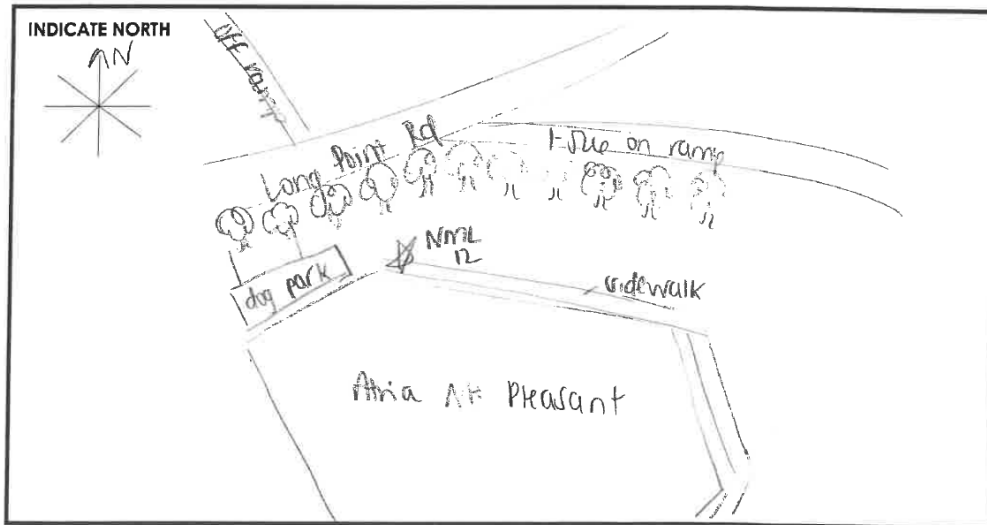
DATE: 10/12
 BEGIN: 11:28
 END: 11:58

Leq (A) NOISE LEVEL		
NML- <u>12</u>	<u>63</u>	dB(A)
NML- <u>—</u>	<u>—</u>	dB(A)
NML- <u>—</u>	<u>—</u>	dB(A)

TNM	Δ	Val?
<u>—</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>—</u>

TRAFFIC DATA				
ROADWAY				
DIRECTION	<u>Ambient</u>			
AUTO				
M-TRUCK				
H-TRUCK	<u>Only</u>			
BUS				
MC				

WEATHER DATA	
TEMPERATURE (°F)	<u>87</u>
RELATIVE HUMIDITY (%)	<u>68</u>
DEW POINT (°F)	<u>75</u>
WIND SPEED (MPH)	<u>5.8</u>
WIND DIRECTION	<u>W</u>
CLOUD COVER	<u>45%</u>



Site 12

Noise Measurement Location 12 (NML-12) – Ambient Only



Site 13



NOISE MEASUREMENT DATA SHEET

NML- 13 (F)
 NML- (M)
 NML- 13A (B)

PROJECT: Long Point Road/Wanda East Interchange
 OPERATOR(S): Ray Cooper, Alexa Kennedy
 NOISE METER FILE #'S: Front (F) 010 Middle (M) Back (B) 009
 NOISE METER SERIAL #'S: Front (F) 00375623 Middle (M) Back (B) 01021297
 CALIBRATION: RESPONSE: FAST / SLOW WEIGHTING: A / C / LIN.
 SITE DESCRIPTION: Belle Hall Apartments
 POSTED SPEED LIMIT: 45 mph (Primary Rd) mph (Secondary Rd)
 AVERAGE MEASURED SPEED LIMIT: 65 mph (Primary Rd) 60 mph (Off-Ramps)
 MAJOR NOISE SOURCES: 1-526

SAMPLE PERIOD:

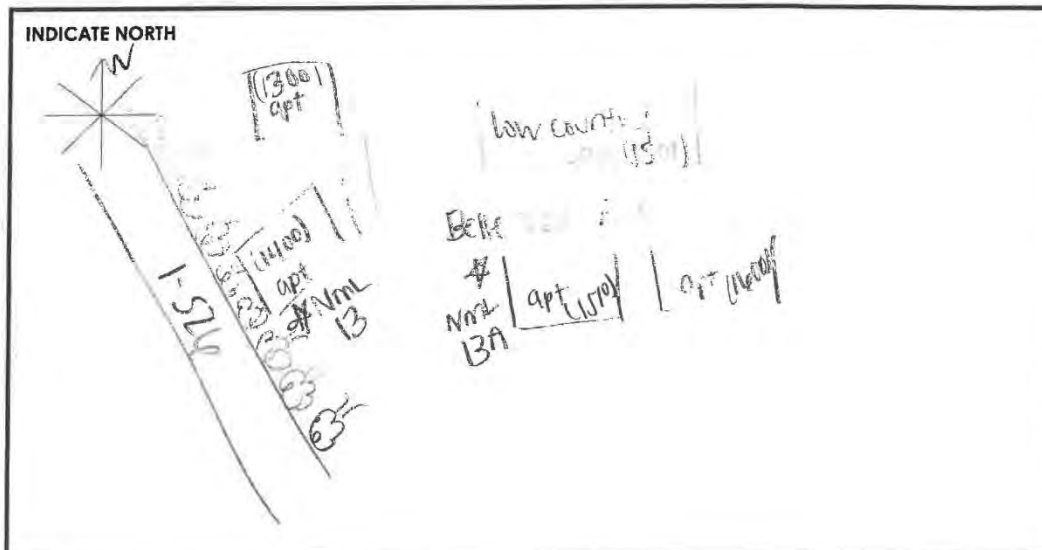
DATE: 10/03/22
 BEGIN: 11:15
 END: 5:45

Leq (A) NOISE LEVEL	
NML- <u>13</u>	<u>66.1</u> dB(A)
NML- <u>13a</u>	<u>61.7</u> dB(A)
NML- <u> </u>	<u> </u> dB(A)

TNM	Δ	Val?
<u>66.2</u>	<u>0.1</u>	<input checked="" type="checkbox"/>
<u>62.2</u>	<u>0.5</u>	<input checked="" type="checkbox"/>
<u> </u>	<u> </u>	<u> </u>

TRAFFIC DATA			
ROADWAY	1-526	1-526	Off Ramp
DIRECTION	WB	EB	WB
AUTO	<u>750</u>	<u>754</u>	<u>250</u>
M-TRUCK	<u>12</u>	<u>10</u>	<u>3</u>
H-TRUCK	<u>23</u>	<u>15</u>	<u>6</u>
BUS	<u>0</u>	<u>2</u>	<u>0</u>
MC	<u>0</u>	<u>2</u>	<u>0</u>

WEATHER DATA	
TEMPERATURE (°F)	<u>90</u>
RELATIVE HUMIDITY (%)	<u>75</u>
DEW POINT (°F)	<u>81</u>
WIND SPEED (MPH)	<u>2.5</u>
WIND DIRECTION	<u>S</u>
CLOUD COVER	<u>41%</u>



Site 13

Noise Measurement Location 13 (NML-13)



Noise Measurement Location 13a (NML-13a)



Site 14



NOISE MEASUREMENT DATA SHEET

NML- 14 (F)
 NML- --- (M)
 NML- 14A (B)

PROJECT: Long Point Road/Warren Port Interchange
 OPERATOR(S): Ray Cooper, Alysa Kennedy
 NOISE METER FILE #'S: Front (F) 009 Middle (M) --- Back (B) 008
 NOISE METER SERIAL #'S: Front (F) 00375623 Middle (M) --- Back (B) 01021297
 CALIBRATION: RESPONSE: FAST / SLOW WEIGHTING: A / C / LIN.
 SITE DESCRIPTION: residential neighborhood, Hobbs Creek Park
 POSTED SPEED LIMIT: 65 mph (Primary Rd) --- mph (Secondary Rd)
 AVERAGE MEASURED SPEED LIMIT: 65 mph (Primary Rd) --- mph (Secondary Rd)
 MAJOR NOISE SOURCES: 1-526

SAMPLE PERIOD:

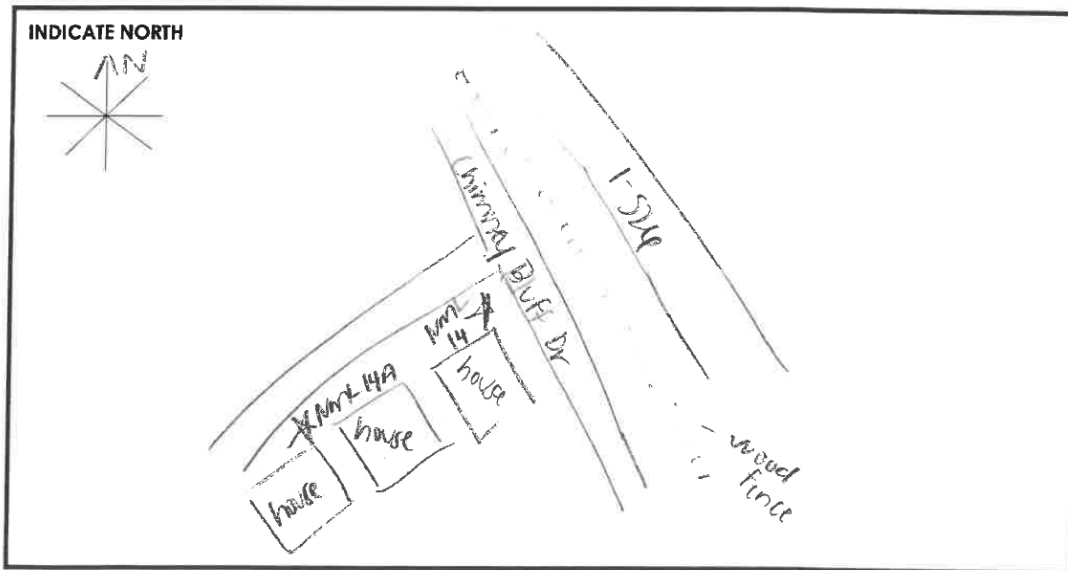
DATE: 11/03/12
 BEGIN: 11:30
 END: 1:55

Leq (A) NOISE LEVEL	
NML- <u>14</u>	<u>65.1</u> dB(A)
NML- <u>14a</u>	<u>56.3</u> dB(A)
NML- <u>---</u>	<u>---</u> dB(A)

TNM	Δ	Val?
<u>66</u>	<u>0.9</u>	<input checked="" type="checkbox"/>
<u>58.1</u>	<u>1.8</u>	<input checked="" type="checkbox"/>
<u>---</u>	<u>---</u>	<input type="checkbox"/>

TRAFFIC DATA			
ROADWAY	<u>1-526</u>	<u>1-526</u>	
DIRECTION	<u>WB</u>	<u>EB</u>	
AUTO	<u>706</u>	<u>808</u>	
M-TRUCK	<u>13</u>	<u>16</u>	
H-TRUCK	<u>24</u>	<u>25</u>	
BUS	<u>1</u>	<u>0</u>	
MC	<u>1</u>	<u>2</u>	

WEATHER DATA	
TEMPERATURE (°F)	<u>40</u>
RELATIVE HUMIDITY (%)	<u>71</u>
DEW POINT (°F)	<u>74</u>
WIND SPEED (MPH)	<u>5.8</u>
WIND DIRECTION	<u>SSW</u>
CLOUD COVER	<u>7/10</u>



Site 14

Noise Measurement Location 14 (NML-14)



Noise Measurement Location 14a (NML-14a)



Site 15



NOISE MEASUREMENT DATA SHEET

NML- 15 (F)
 NML- (M)
 NML- 15A (B)

PROJECT: Long Point Road/Woods Port Interchange
 OPERATOR(S): Max Cooper, Alexa Kennedy
 NOISE METER FILE #'S: Front (F) 002 Middle (M) Back (B) 007
 NOISE METER SERIAL #'S: Front (F) 00375623 Middle (M) Back (B) 01021297
 CALIBRATION: RESPONSE: FAST / SLOW WEIGHTING: (A) / C / LIN.
 SITE DESCRIPTION: residential neighborhood
 POSTED SPEED LIMIT: 35 mph (Primary Rd) mph (Secondary Rd)
 AVERAGE MEASURED SPEED LIMIT: 35 mph (Primary Rd) mph (Secondary Rd)
 MAJOR NOISE SOURCES: Long Point Road

SAMPLE PERIOD:

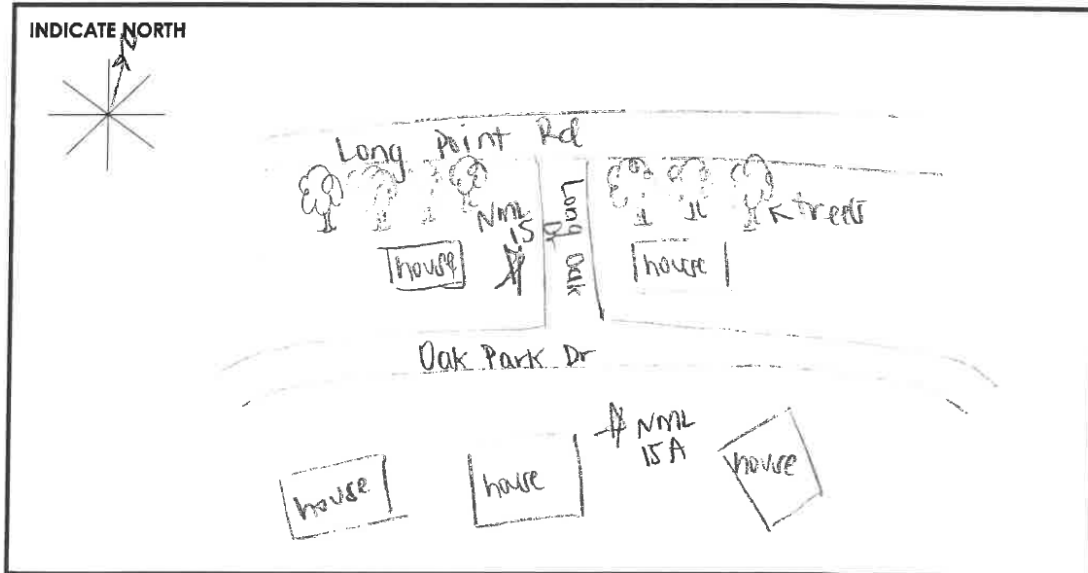
DATE: 08/10/12
 BEGIN: 10:55
 END: 11:15

Leq (A) NOISE LEVEL	
NML- <u>15</u>	<u>62.6</u> dB(A)
NML- <u>15a</u>	<u>56.5</u> dB(A)
NML- <u> </u>	<u> </u> dB(A)

TNM	Δ	Val?
<u>65.5</u>	<u>2.9</u>	<input checked="" type="checkbox"/>
<u>59.3</u>	<u>2.8</u>	<input checked="" type="checkbox"/>
<u> </u>	<u> </u>	<u> </u>

TRAFFIC DATA			
ROADWAY	<u>LONG PT</u>	<u>LONG PT</u>	
DIRECTION	<u>WB</u>	<u>EB</u>	
AUTO	<u>93</u>	<u>111</u>	
M-TRUCK	<u>3</u>	<u>2</u>	
H-TRUCK	<u>126</u>	<u>89</u>	
BUS	<u>0</u>	<u>1</u>	
MC	<u>0</u>	<u>0</u>	

WEATHER DATA	
TEMPERATURE (°F)	<u>86</u>
RELATIVE HUMIDITY (%)	<u>71</u>
DEW POINT (°F)	<u>75</u>
WIND SPEED (MPH)	<u>4.2</u>
WIND DIRECTION	<u>F</u>
CLOUD COVER	<u>42%</u>



Site 15

Noise Measurement Location 15 (NML-15)



Noise Measurement Location 15a (NML-15a)



CERTIFICATES

Calibration Certificate No.47542

Instrument: Sound Level Meter
Model: NL52
Manufacturer: Rion
Serial number: 00375623
Tested with: Microphone UC-59 s/n 11098
Preamplifier NH25 s/n 65750
Type (class): 1
Customer: Scantek, Inc.
Tel/Fax: 410-290-7726 / 410-290-9167

Date Calibrated: 2/14/2022 **Cal Due:** 2/14/2023
Status:

Received	Sent
X	X

In tolerance:

X	X
---	---

Out of tolerance:

--	--

See comments:
Contains non-accredited tests: Yes No
Calibration service: Basic Standard
Address: 6430 Dobbin Road, Suite C,
Columbia, MD 21045

Tested in accordance with the following procedures and standards:
Calibration of Sound Level Meters, Scantek Inc., Rev. 6/26/2015
SLM & Dosimeters – Acoustical Tests, Scantek Inc., Rev. 7/6/2011

Instrumentation used for calibration: Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence	Cal. Due
				Cal. Lab / Accreditation	
483B-Norsonic	SME Cal Unit	31052	Nov 8, 2021	Scantek, Inc./ NVLAP	Nov 8, 2022
DS-360-SRS	Function Generator	88077	Dec 3, 2020	ACR Env./ A2LA	Dec 3, 2022
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	Feb 4, 2021	ACR Env. / A2LA	Mar 4, 2022
PTU300-Vaisala	Environmental Monitor	P5011262	Sept 10, 2021	ACR Env./ A2LA	Sept 10, 2022
PC Program 1019 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
1251-Norsonic	Calibrator	30878	Oct 27, 2021	Scantek, Inc./ NVLAP	Oct 27, 2022

Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK).

Environmental conditions:

Temperature (°C)	Barometric pressure (kPa)	Relative Humidity (%)
22.9	101.06	42.3

Calibrated by:	Bailey Partoza	Authorized signatory:	William Gallagher
Signature		Signature	
Date	2/14/22	Date	2/16/2022

Results summary: Device complies with following clauses of mentioned specifications:

CLAUSES ¹ FROM IEC/ANSI STANDARDS REFERENCED IN PROCEDURES:	RESULT ^{2,3}	EXPANDED UNCERTAINTY (coverage factor 2) [dB]
INDICATION AT THE CALIBRATION CHECK FREQUENCY - IEC61672-3 ED.2 CLAUSE 10	Passed	0.15
SELF-GENERATED NOISE - IEC 61672-3 ED.2 CLAUSE 11	Passed	0.30
FREQUENCY WEIGHTINGS: A NETWORK - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	0.20
FREQUENCY WEIGHTINGS: C NETWORK - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	0.20
FREQUENCY WEIGHTINGS: Z NETWORK - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	0.20
FREQUENCY AND TIME WEIGHTINGS AT 1 KHZ IEC 61672-3 ED.2.0 CLAUSE 14	Passed	0.20
LEVEL LINEARITY ON THE REFERENCE LEVEL RANGE - IEC 61672-3 ED.2 CLAUSE 16	Passed	0.25
TONEBURST RESPONSE - IEC 61672-3 ED.2.0 CLAUSE 18	Passed	0.30
PEAK C SOUND LEVEL - IEC 61672-3 ED.2.0 CLAUSE 19	Passed	0.35
OVERLOAD INDICATION - IEC 61672-3 ED.2.0 CLAUSE 20	Passed	0.25
HIGH LEVEL STABILITY TEST - IEC 61672-3 ED.2.0 CLAUSE 21	Passed	0.1
LONG TERM STABILITY TEST - IEC 61672-3 ED.2.0 CLAUSE 15	Passed	0.1
COMBINED ELECTRICAL AND ACOUSTICAL TEST - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	See test report

¹ The results of this calibration apply only to the instrument type with serial number identified in this report.

² Parameters are certified at actual environmental conditions.

³ The tests marked with (*) are not covered by the current NVLAP accreditation.

Comments: The sound level meter submitted for testing has successfully completed the class 1 periodic tests of IEC 61672-3, for the environmental conditions under which the tests were performed. As public evidence was available, from an independent testing organization responsible for approving the results of pattern evaluation tests performed in accordance with IEC 61672-2, to demonstrate that the model of sound level meter fully conforms to the requirements in the IEC 61672-2, the sound level meter submitted for testing conforms to the class 1 requirements of IEC 61672-1.

Note: The instrument was tested for the parameters listed in the table above, using the test methods described in the listed standards. All tests were performed around the reference conditions. The test results were compared with the manufacturer's or with the standard's specifications, whichever are larger. The measurement results are reported as Pass / Fail simple acceptance; measured values are in the tolerance interval.

Tests made with the following attachments to the instrument:

Microphone:	Rion UC-59 s/n 11098 for acoustical test
Pre-amplifier:	Rion NH25 s/n 65750 for all tests
Other:	line adaptor ADP005 (18pF) for electrical tests
Accompanying acoustical calibrator:	none
Windscreens:	Rion WS-10

Measured Data: in Test Report # 47542 of 7 +1 pages.

Place of Calibration: Scantek, Inc.
6430 Dobbin Road, Suite C
Columbia, MD 21045 USA

Ph/Fax: 410-290-7726/ -9167
callab@scantekinc.com

Calibration Certificates or Test Reports shall not be reproduced, except in full, without written approval of the laboratory. This Calibration Certificate or Test Reports shall not be used to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the federal government.

Document stored Y:\Calibration Lab\SLM 2022\RIONL52_00375623_M1.doc

Page 2 of 2

Calibration Certificate No.47543

Instrument: Microphone
Model: UC-59
Manufacturer: Rion
Serial number: 11098
Composed of:

Date Calibrated: 2/11/2022 **Cal Due:** 2/11/2023
Status:

Received	Sent
X	X

In tolerance: _____
Out of tolerance: _____
See comments: _____
Contains non-accredited tests: Yes No

Customer: Scantek, Inc.
Tel/Fax: 410-290-7726/410-290-9167

Address: 6430 Dobbin Road, Suite C,
Columbia, MD 21045

Tested in accordance with the following procedures and standards:
Calibration of Measurement Microphones, Scantek, Inc., Rev. 2/25/2015

Instrumentation used for calibration: N-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence	Cal. Due
				Cal. Lab / Accreditation	
483B-Norsonic	SME Cal Unit	31052	Nov 8, 2021	Scantek, Inc./ NVLAP	Nov 8, 2022
DS-360-SRS	Function Generator	88077	Dec 3, 2020	ACR Env./ A2LA	Dec 3, 2022
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	Feb 4, 2021	ACR Env. / A2LA	Mar 4, 2022
PTU300-Vaisala	EnvironmentalMonitor	P5011262	Sept 10, 2021	ACR Env./ A2LA	Sept 10, 2022
PC Program 1017 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
1253-Norsonic	Calibrator	28326	Oct 27, 2021	Scantek, Inc./ NVLAP	Oct 27, 2022
1203-Norsonic	Preamplifier	14059	March 3, 2021	Scantek, Inc./ NVLAP	March 3, 2022
4180-Brüel&Kjær	Microphone	2246115	Oct 6, 2021	DPLA / DANAK	Oct 6, 2023

Instrumentation and test results are traceable to SI - BIPM through standards maintained by NPL (UK) and NIST (USA)

Calibrated by:	Bailey Partoza	Authorized signatory:	William Gallagher
Signature		Signature	
Date	2 / 11 / 22	Date	2/11/2022

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Document stored as: Y:\Calibration Lab\Mic 2022\Rion59_11098_M1.doc

Results summary: Device was tested and complies with following clauses of mentioned specifications:

CLAUSES / METHODS ¹ FROM PROCEDURES		MET ^{2,3}	NOT MET	NOT TESTED	MEASUREMENT EXPANDED UNCERTAINTY (coverage factor 2)
Open circuit sensitivity (insert voltage method, 250 Hz)		X			See below
Frequency response	Actuator response	X			63 – 200Hz: 0.3 dB 200 – 8000 Hz: 0.2 dB 8 – 10 kHz: 0.5 dB 10 – 20 kHz: 0.7 dB 20 – 50 kHz: 0.9 dB 50 – 100 kHz: 1.2 dB
	FF/Diffuse field responses	X			63 – 200Hz: 0.3 dB 200 – 4000 Hz: 0.2 dB 4 – 10 kHz: 0.6 dB 10 – 20 kHz: 0.9 dB 20 – 50 kHz: 2.2 dB 50 – 100 kHz: 4.4 dB
	Scantek, Inc. acoustical method			X	31.5 – 125 Hz: 0.16 dB 250, 1000 Hz: 0.12 dB 2 – 8 kHz: 0.8 dB 12.5 – 16 kHz: 2.4 dB

¹ The results of this calibration apply only to the instrument type with serial number identified in this report.

² Parameters are certified at actual environmental conditions.

³ The tests marked with (*) are not covered by the current NVLAP accreditation.

Note: The free field/diffuse field characteristics were calculated based on the measured actuator response and adjustment coefficients as provided by the manufacturer. The measurement results are reported as Pass / Fail simple acceptance; measured values are in the tolerance interval.

Comments: The instrument was tested and met all specifications found in the referenced procedures.

Environmental conditions:

Temperature (°C)	Barometric pressure (kPa)	Relative Humidity (%)
22.1 ± 1.0	100.28 ± 0.020	50.4 ± 2.8

Main measured parameters:

Tone frequency (Hz)	Measured ⁴ /Acceptable Open circuit sensitivity (dB re 1V/Pa)	Sensitivity (mV/Pa)
250	-26.46 ± 0.12/ -27.0 ± 2.0	47.54

⁴ The reported expanded uncertainty is calculated with a coverage factor k=2.00

Tests made with following attachments to instrument and auxiliary devices:

Protection grid mounted for sensitivity measurements
Actuator type: G.R.A.S. RA0014

Measured Data: Found on Microphone Test Report # 47543 of one page.

Place of Calibration: Scantek, Inc.

6430 Dobbin Road, Suite C
Columbia, MD 21045 USA

Ph/Fax: 410-290-7726/ -9167
callab@scantekinc.com

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Calibration Certificate No.48081

Instrument: Acoustical Calibrator
Model: NC-74
Manufacturer: Rion
Serial number: 35078717
Class (IEC 60942): 1
Barometer type:
Barometer s/n:

Date Calibrated: 5/9/2022 **Cal Due:** 5/9/2023
Status:

	Received	Sent
In tolerance:	X	X
Out of tolerance:		
See comments:		

Contains non-accredited tests: ___Yes X No

Customer: Scantek, Inc.
Tel/Fax: 410-290-7726 / 410-290-9167

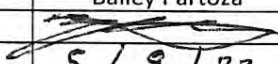
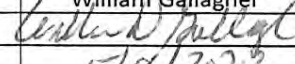
Address: 6430 Dobbin Road, Suite C,
Columbia, MD 21045

Tested in accordance with the following procedures and standards:
Calibration of Acoustical Calibrators, Scantek Inc., Rev. 10/1/2010

Instrumentation used for calibration: Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence	Cal. Due
				Cal. Lab / Accreditation	
483B-Norsonic	SME Cal Unit	31052	Nov 8, 2021	Scantek, Inc./ NVLAP	Nov 8, 2022
DS-360-SRS	Function Generator	88077	Dec 3, 2020	ACR Env./ A2LA	Dec 3, 2022
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	Mar 10, 2022	ACR Env. / A2LA	Mar 10, 2023
PTU300-Vaisala	Environmental Monitor	P5011262	Sept 10, 2021	ACR Env./ A2LA	Sept 10, 2022
140-Norsonic	Real Time Analyzer	1406423	Nov 8, 2021	Scantek / NVLAP	Nov 8, 2022
PC Program 1018 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
4134-Brüel&Kjær	Microphone	173368	Nov 8, 2021	Scantek, Inc. / NVLAP	Nov 8, 2022
1203-Norsonic	Preamplifier	14059	Mar 7, 2021	Scantek, Inc./ NVLAP	Mar 7, 2023

Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK)

Calibrated by:	Bailey Partoza	Authorized signatory:	William Gallagher
Signature		Signature	
Date	5/9/22	Date	5/9/2022

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Results summary: Device was tested and complies with following clauses of mentioned specifications:

CLAUSES ¹ FROM STANDARDS REFERENCED IN PROCEDURES:	MET ²	NOT MET	COMMENTS
Manufacturer specifications			
Manufacturer specifications: Sound pressure level	X		
Manufacturer specifications: Frequency	X		
Manufacturer specifications: Total harmonic distortion	X		
Current standards			
ANSI S1.40:2006 B.3 / IEC 60942: 2003 B.2 - Preliminary inspection	X		
ANSI S1.40:2006 B.4.4 / IEC 60942: 2003 B.3.4 - Sound pressure level	X		
ANSI S1.40:2006 A.5.4 / IEC 60942: 2003 A.4.4 - Sound pressure level stability	-	-	
ANSI S1.40:2006 B.4.5 / IEC 60942: 2003 B.3.5 - Frequency	X		
ANSI S1.40:2006 B.4.6 / IEC 60942: 2003 B.3.6 - Total harmonic distortion	X		

¹ The results of this calibration apply only to the instrument type with serial number identified in this report.

² The tests marked with (*) are not covered by the current NVLAP accreditation.

Main measured parameters ³:

Measured ⁴ /Acceptable ⁵ Tone frequency (Hz):	Measured ⁴ /Acceptable ⁵ Total Harmonic Distortion (%):	Measured ⁴ /Acceptable Level ⁵ (dB):
1001.09 ± 1.0/1000.0 ± 10.0	1.15 ± 0.10/ < 3	94.13 ± 0.12/94.0 ± 0.4

³ The stated level is valid at measurement conditions.

⁴ The above expanded uncertainties for frequency and distortion are calculated with a coverage factor k=2; for level k=2.00

⁵ Acceptable parameters values are from the current standards

Environmental conditions:

Temperature (°C)	Barometric pressure (kPa)	Relative Humidity (%)
22.8 ± 1.0	101.05 ± 0.000	44.1 ± 2.0

Tests made with following attachments to instrument:

Calibrator ½" Adaptor Type: NC-74-002
Other:

Adjustments: Unit was not adjusted.

Comments: The instrument was tested and met all specifications found in the referenced procedures.

Note: The instrument was tested for the parameters listed in the table above, using the test methods described in the listed standards. All tests were performed around the reference conditions. The test results were compared with the manufacturer's or with the standard's specifications, whichever are larger. The measurement results are reported as Pass / Fail simple acceptance; measured values are in the tolerance interval.

Measured Data: in Acoustical Calibrator Test Report # 48081 of one page.

Place of Calibration: Scantek, Inc.

6430 Dobbin Road, Suite C
Columbia, MD 21045 USA

Ph/Fax: 410-290-7726/ -9167
callab@scantekinc.com

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Page 2 of 2

Calibration Certificate No.48096

Instrument: Sound Level Meter
Model: NL52
Manufacturer: Rion
Serial number: 01021297
Tested with: Microphone UC-59 s/n 04427
Preamplifier NH25 s/n 21339
Type (class): 1
Customer: Scantek, Inc.
Tel/Fax: 410-290-7726 / 410-290-9167

Date Calibrated: 5/12/2022 **Cal Due:** 5/12/2023
Status:

Received	Sent
X	X

In tolerance:

X	X
---	---

Out of tolerance:

--	--

See comments:
Contains non-accredited tests: Yes No
Calibration service: Basic Standard
Address: 6430 Dobbin Road, Suite C,
Columbia, MD 21045

Tested in accordance with the following procedures and standards:
Calibration of Sound Level Meters, Scantek Inc., Rev. 6/26/2015
SLM & Dosimeters – Acoustical Tests, Scantek Inc., Rev. 7/6/2011


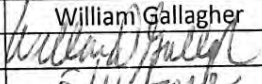
Instrumentation used for calibration: Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence	Cal. Due
				Cal. Lab / Accreditation	
483B-Norsonic	SME Cal Unit	31052	Nov 8, 2021	Scantek, Inc./ NVLAP	Nov 8, 2022
DS-360-SRS	Function Generator	88077	Dec 3, 2020	ACR Env./ A2LA	Dec 3, 2022
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	Mar 10, 2022	ACR Env. / A2LA	Mar 10, 2023
PTU300-Vaisala	Environmental Monitor	P5011262	Sept 10, 2021	ACR Env./ A2LA	Sept 10, 2022
PC Program 1019 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
1251-Norsonic	Calibrator	30878	Oct 27, 2021	Scantek, Inc./ NVLAP	Oct 27, 2022

Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK).

Environmental conditions:

Temperature (°C)	Barometric pressure (kPa)	Relative Humidity (%)
22.9	101.13	42.7

Calibrated by:	Bailey Partoza	Authorized signatory:	William Gallagher
Signature		Signature	
Date	5/12/22	Date	5/16/2022

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Results summary: Device complies with following clauses of mentioned specifications:

CLAUSES ¹ FROM IEC/ANSI STANDARDS REFERENCED IN PROCEDURES:	RESULT ^{2,3}	EXPANDED UNCERTAINTY (coverage factor 2) [dB]
INDICATION AT THE CALIBRATION CHECK FREQUENCY - IEC61672-3 ED.2 CLAUSE 10	Passed	0.15
SELF-GENERATED NOISE - IEC 61672-3 ED.2 CLAUSE 11	Passed	0.30
FREQUENCY WEIGHTINGS: A NETWORK - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	0.20
FREQUENCY WEIGHTINGS: C NETWORK - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	0.20
FREQUENCY WEIGHTINGS: Z NETWORK - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	0.20
FREQUENCY AND TIME WEIGHTINGS AT 1 KHZ IEC 61672-3 ED.2.0 CLAUSE 14	Passed	0.20
LEVEL LINEARITY ON THE REFERENCE LEVEL RANGE - IEC 61672-3 ED.2 CLAUSE 16	Passed	0.25
TONEBURST RESPONSE - IEC 61672-3 ED.2.0 CLAUSE 18	Passed	0.30
PEAK C SOUND LEVEL - IEC 61672-3 ED.2.0 CLAUSE 19	Passed	0.35
OVERLOAD INDICATION - IEC 61672-3 ED.2.0 CLAUSE 20	Passed	0.25
HIGH LEVEL STABILITY TEST - IEC 61672-3 ED.2.0 CLAUSE 21	Passed	0.1
LONG TERM STABILITY TEST - IEC 61672-3 ED.2.0 CLAUSE 15	Passed	0.1
COMBINED ELECTRICAL AND ACOUSTICAL TEST - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	See test report

¹ The results of this calibration apply only to the instrument type with serial number identified in this report.

² Parameters are certified at actual environmental conditions.

³ The tests marked with (*) are not covered by the current NVLAP accreditation.

Comments: The sound level meter submitted for testing has successfully completed the class 1 periodic tests of IEC 61672-3, for the environmental conditions under which the tests were performed. As public evidence was available, from an independent testing organization responsible for approving the results of pattern evaluation tests performed in accordance with IEC 61672-2, to demonstrate that the model of sound level meter fully conforms to the requirements in the IEC 61672-2, the sound level meter submitted for testing conforms to the class 1 requirements of IEC 61672-1.

Note: The instrument was tested for the parameters listed in the table above, using the test methods described in the listed standards. All tests were performed around the reference conditions. The test results were compared with the manufacturer's or with the standard's specifications, whichever are larger. The measurement results are reported as Pass / Fail simple acceptance; measured values are in the tolerance interval.

Tests made with the following attachments to the instrument:

Microphone: Rion UC-59 s/n 04427 for acoustical test
Preamplifier: Rion NH25 s/n 21339 for all tests
Other: line adaptor ADP005 (18pF) for electrical tests
Accompanying acoustical calibrator: Norsonic 1251 s/n 30829
Windscreen: Rion WS-10

Measured Data: in Test Report # 48096 of 7 +1 pages.

Place of Calibration: Scantek, Inc.

6430 Dobbin Road, Suite C
Columbia, MD 21045 USA

Ph/Fax: 410-290-7726/ -9167
callab@scantekinc.com

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Calibration Certificate No.48097

Instrument: **Microphone**
Model: **UC-59**
Manufacturer: **Rion**
Serial number: **04427**
Composed of:

Date Calibrated: **5/12/2022** Cal Due: **5/12/2023**
Status:

Received	Sent
X	X

In tolerance:

X	X
---	---

Out of tolerance:

--	--

See comments:

--	--

Contains non-accredited tests: Yes X No

Customer: **Scantek, Inc.**
Tel/Fax: **410-290-7726/410-290-9167**

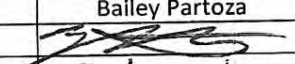
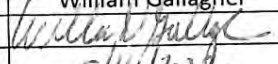
Address: **6430 Dobbin Road, Suite C,
Columbia, MD 21045**

Tested in accordance with the following procedures and standards:
Calibration of Measurement Microphones, Scantek, Inc., Rev. 2/25/2015

Instrumentation used for calibration: N-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence	Cal. Due
				Cal. Lab / Accreditation	
483B-Norsonic	SME Cal Unit	31052	Nov 8, 2021	Scantek, Inc./ NVLAP	Nov 8, 2022
DS-360-SRS	Function Generator	88077	Dec 3, 2020	ACR Env./ A2LA	Dec 3, 2022
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	Mar 10, 2022	ACR Env. / A2LA	Mar 10, 2023
PTU300-Vaisala	EnvironmentalMonitor	P5011262	Sept 10, 2021	ACR Env./ A2LA	Sept 10, 2022
PC Program 1017 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
1253-Norsonic	Calibrator	28326	Oct 27, 2021	Scantek, Inc./ NVLAP	Oct 27, 2022
1203-Norsonic	Preamplifier	14059	Mar 7, 2022	Scantek, Inc./ NVLAP	Mar 7, 2023
4180-Brüel&Kjær	Microphone	2246115	Oct 6, 2021	DPLA / DANAK	Oct 6, 2023

Instrumentation and test results are traceable to SI - BIPM through standards maintained by NPL (UK) and NIST (USA)

Calibrated by:	Bailey Partoza	Authorized signatory:	William Gallagher
Signature		Signature	
Date	5/12/22	Date	5/16/2022

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Results summary: Device was tested and complies with following clauses of mentioned specifications:

CLAUSES / METHODS ¹ FROM PROCEDURES		MET ^{2,3}	NOT MET	NOT TESTED	MEASUREMENT EXPANDED UNCERTAINTY (coverage factor 2)
Open circuit sensitivity (insert voltage method, 250 Hz)		X			See below
Frequency response	Actuator response	X			63 – 200Hz: 0.3 dB 200 – 8000 Hz: 0.2 dB 8 – 10 kHz: 0.5 dB 10 – 20 kHz: 0.7 dB 20 – 50 kHz: 0.9 dB 50 – 100 kHz: 1.2 dB
	FF/Diffuse field responses	X			63 – 200Hz: 0.3 dB 200 – 4000 Hz: 0.2 dB 4 – 10 kHz: 0.6 dB 10 – 20 kHz: 0.9 dB 20 – 50 kHz: 2.2 dB 50 – 100 kHz: 4.4 dB
	Scantek, Inc. acoustical method			X	31.5 – 125 Hz: 0.16 dB 250, 1000 Hz: 0.12 dB 2 – 8 kHz: 0.8 dB 12.5 – 16 kHz: 2.4 dB

¹ The results of this calibration apply only to the instrument type with serial number identified in this report.

² Parameters are certified at actual environmental conditions.

³ The tests marked with (*) are not covered by the current NVLAP accreditation.

Note: The free field/diffuse field characteristics were calculated based on the measured actuator response and adjustment coefficients as provided by the manufacturer. The measurement results are reported as Pass / Fail simple acceptance; measured values are in the tolerance interval.

Comments: The instrument was tested and met all specifications found in the referenced procedures.

Environmental conditions:

Temperature (°C)	Barometric pressure (kPa)	Relative Humidity (%)
22.9 ± 1.0	101.13 ± 0.020	42.7 ± 2.0

Main measured parameters:

Tone frequency (Hz)	Measured ⁴ /Acceptable Open circuit sensitivity (dB re 1V/Pa)	Sensitivity (mV/Pa)
250	-27.49 ± 0.12/ -27.0 ± 2.0	42.22

⁴ The reported expanded uncertainty is calculated with a coverage factor k=2.00

Tests made with following attachments to instrument and auxiliary devices:

Protection grid mounted for sensitivity measurements
Actuator type: G.R.A.S. RA0014

Measured Data: Found on Microphone Test Report # 48097 of one page.

Place of Calibration: Scantek, Inc.

6430 Dobbin Road, Suite C
Columbia, MD 21045 USA

Ph/Fax: 410-290-7726/ -9167
callab@scantekinc.com

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APPENDIX B

HOURLY EQUIVALENT TRAFFIC NOISE LEVEL TABLES AND EQUIVALENT RECEPTOR WORKSHEETS

Table B-1 I-526 LCC EAST – Long Point Road Interchange
Noise-Sensitive Receptors and Hourly Equivalent Noise Levels

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R1-1	100 SALTY TIDE CV	Residential	B	2	1	69	69	70	1
R1-2	96 SALTY TIDE CV	Residential	B	2	1	66	66	68	2
R1-3	92 SALTY TIDE CV	Residential	B	2	1	66	66	67	1
R1-4	88 SALTY TIDE CV	Residential	B	2	1	66	66	67	1
R1-5	84 SALTY TIDE CV	Residential	B	2	1	66	66	67	1
R1-6	80 SALTY TIDE CV	Residential	B	2	1	65	65	67	2
R1-7	76 SALTY TIDE CV	Residential	B	2	1	65	65	66	1
R1-8	72 SALTY TIDE CV	Residential	B	2	1	65	65	66	1
R1-9	68 SALTY TIDE CV	Residential	B	2	1	65	65	66	1
R1-10	64 SALTY TIDE CV	Residential	B	2	1	64	64	65	1
R1-11	60 SALTY TIDE CV	Residential	B	2	1	63	63	65	2
R1-12	56 SALTY TIDE CV	Residential	B	2	1	63	63	65	2
R1-13	52 SALTY TIDE CV	Residential	B	2	1	63	63	65	2
R1-14	48 SALTY TIDE CV	Residential	B	2	1	63	63	65	2
R1-15	44 SALTY TIDE CV	Residential	B	2	1	63	63	64	1
R1-16	40 SALTY TIDE CV	Residential	B	2	1	63	63	65	2
R1-17	36 SALTY TIDE CV	Residential	B	2	1	61	61	63	2
R1-18	32 SALTY TIDE CV	Residential	B	2	1	61	61	63	2
R1-19	28 SALTY TIDE CV	Residential	B	2	1	62	62	63	1
R1-20	24 SALTY TIDE CV	Residential	B	2	1	61	61	63	2
R1-21	101 SALTY TIDE CV	Residential	B	2	1	66	66	67	1
R1-22	105 ETIWAN POINTE DR	Residential	B	2	1	66	66	68	2
R1-23	109 ETIWAN POINTE DR	Residential	B	2	1	66	66	68	2
R1-24	113 ETIWAN POINTE DR	Residential	B	2	1	66	66	67	1
R1-25	117 ETIWAN POINTE DR	Residential	B	2	1	66	66	67	1
R1-26	121 ETIWAN POINTE DR	Residential	B	2	1	66	66	67	1
R1-27	125 MARSH WALK CIR	Residential	B	2	1	62	62	64	2
R1-28	129 MARSH WALK CIR	Residential	B	2	1	62	62	64	2
R1-29	133 MARSH WALK CIR	Residential	B	2	1	63	63	64	1
R1-30	137 MARSH WALK CIR	Residential	B	2	1	64	64	65	1
R1-31	141 MARSH WALK CIR	Residential	B	2	1	64	64	66	2
R1-32	145 MARSH WALK CIR	Residential	B	2	1	63	63	65	2
R1-33	149 ETIWAN POINTE DR	Residential	B	2	1	66	66	67	1
R1-34	153 ETIWAN POINTE DR	Residential	B	2	1	66	66	67	1
R1-35	157 ETIWAN POINTE DR	Residential	B	2	1	66	66	67	1
R1-36	161 ETIWAN POINTE DR	Residential	B	2	1	66	66	67	1
R1-37	165 ETIWAN POINTE DR	Residential	B	2	1	66	66	67	1
R1-38	169 ETIWAN POINTE DR	Residential	B	2	1	66	66	67	1
R1-39	220 ETIWAN POINTE DR	Residential	B	2	1	65	65	67	2
R1-40	220 ETIWAN POINTE DR	Residential	B	2	1	65	65	66	1

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R1-41	220 ETIWAN POINTE DR	Residential	B	2	1	64	64	66	2
R1-42	220 ETIWAN POINTE DR	Residential	B	2	1	64	64	66	2
R1-43	220 ETIWAN POINTE DR	Residential	B	2	1	63	63	65	2
R1-44	220 ETIWAN POINTE DR	Residential	B	2	1	58	58	60	2
R1-45	220 ETIWAN POINTE DR	Residential	B	2	1	59	59	61	2
R1-46	220 ETIWAN POINTE DR	Residential	B	2	1	59	59	61	2
R1-47	220 ETIWAN POINTE DR	Residential	B	2	1	60	60	61	1
R1-48	220 ETIWAN POINTE DR	Residential	B	2	1	60	60	62	2
R1-49	220 ETIWAN POINTE DR	Residential	B	2	1	60	60	62	2
R1-50	220 ETIWAN POINTE DR	Residential	B	2	1	60	60	62	2
R1-51	220 ETIWAN POINTE DR	Residential	B	2	1	60	60	62	2
R1-52	220 ETIWAN POINTE DR	Residential	B	2	1	60	60	62	2
R1-53	121 WINDING CREEK CT	Residential	B	2	1	58	58	59	1
R1-54	113 WINDING CREEK CT	Residential	B	2	1	58	58	60	2
R1-55	220 ETIWAN POINTE DR	Residential	B	2	1	55	55	57	2
R1-56	220 ETIWAN POINTE DR	Residential	B	2	1	57	57	58	1
R1-57	220 ETIWAN POINTE DR	Residential	B	2	1	59	59	61	2
R1-58	220 ETIWAN POINTE DR	Residential	B	2	1	66	66	67	1
R1-59	220 ETIWAN POINTE DR	Residential	B	2	1	66	66	68	2
R1-60	220 ETIWAN POINTE DR	Residential	B	2	1	66	66	68	2
R1-61	220 ETIWAN POINTE DR	Residential	B	2	1	67	67	69	2
R1-62	220 ETIWAN POINTE DR	Residential	B	2	1	68	68	69	1
R1-63	220 ETIWAN POINTE DR	Residential	B	2	1	69	69	70	1
R1-64	220 ETIWAN POINTE DR	Residential	B	2	1	68	68	70	2
R1-65	220 ETIWAN POINTE DR	Residential	B	2	1	68	68	72	4
R1-66	220 ETIWAN POINTE DR	Residential	B	2	1	67	67	69	2
R1-67	220 ETIWAN POINTE DR	Residential	B	2	1	68	68	70	2
R1-68	220 ETIWAN POINTE DR	Residential	B	2	1	69	69	71	2
R1-69	220 ETIWAN POINTE DR	Residential	B	2	1	69	69	71	2
R1-70	220 ETIWAN POINTE DR	Residential	B	2	1	70	70	72	2
R1-71	220 ETIWAN POINTE DR	Residential	B	2	1	70	70	73	3
R1-72	220 ETIWAN POINTE DR	Residential	B	2	1	71	71	73	2
R1-73	220 ETIWAN POINTE DR	Residential	B	2	1	72	72	74	2
R1-74	220 ETIWAN POINTE DR	Residential	B	2	1	65	65	66	1
R1-75	220 ETIWAN POINTE DR	Residential	B	2	1	66	66	67	1
R1-76	220 ETIWAN POINTE DR	Residential	B	2	1	67	67	68	1
R1-77	220 ETIWAN POINTE DR	Residential	B	2	1	67	67	69	2
R1-78	220 ETIWAN POINTE DR	Residential	B	2	1	68	68	70	2
R1-79	220 ETIWAN POINTE DR	Residential	B	2	1	70	70	71	1
R1-80	220 ETIWAN POINTE DR	Residential	B	2	1	70	70	72	2
R1-81	220 ETIWAN POINTE DR	Residential	B	2	1	70	70	72	2
R1-82	220 ETIWAN POINTE DR	Residential	B	2	1	71	71	73	2
R1-83	220 ETIWAN POINTE DR	Residential	B	2	1	71	71	73	2

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R1-84	220 ETIWAN POINTE DR	Residential	B	2	1	72	72	73	1
R1-85	220 ETIWAN POINTE DR	Residential	B	2	1	72	72	74	2
R1-86	220 ETIWAN POINTE DR	Residential	B	2	1	73	73	74	1
R1-87	220 ETIWAN POINTE DR	Community Pool	C	2	1	68	68	69	1
R1a-1	261 SLIPPER SHELL CT	Residential	B	2	1	70	70	72	2
R1a-2	257 SLIPPER SHELL CT	Residential	B	2	1	69	69	71	2
R1a-3	253 SLIPPER SHELL CT	Residential	B	2	1	68	68	70	2
R1a-4	249 SLIPPER SHELL CT	Residential	B	2	1	67	67	69	2
R1a-5	245 SLIPPER SHELL CT	Residential	B	2	1	62	62	65	3
R1a-6	241 SLIPPER SHELL CT	Residential	B	2	1	60	60	63	3
R1a-7	237 SLIPPER SHELL CT	Residential	B	2	1	59	59	62	3
R1a-8	233 SLIPPER SHELL CT	Residential	B	2	1	59	59	61	2
R1a-9	229 SLIPPER SHELL CT	Residential	B	2	1	58	58	60	2
R1a-10	225 SLIPPER SHELL CT	Residential	B	2	1	58	58	60	2
R1a-11	221 SLIPPER SHELL CT	Residential	B	2	1	58	58	60	2
R1a-12	217 SLIPPER SHELL CT	Residential	B	2	1	58	58	61	3
R1a-13	213 SLIPPER SHELL CT	Residential	B	2	1	58	58	60	2
R1a-14	209 SLIPPER SHELL CT	Residential	B	2	1	57	57	59	2
R1a-15	205 SLIPPER SHELL CT	Residential	B	2	1	56	56	58	2
R1a-16	201 SLIPPER SHELL CT	Residential	B	2	1	55	55	57	2
R1a-17	197 SLIPPER SHELL CT	Residential	B	2	1	54	54	56	2
R1a-18	193 SLIPPER SHELL CT	Residential	B	2	1	53	53	55	2
R1a-19	189 SLIPPER SHELL CT	Residential	B	2	1	53	53	55	2
R1a-20	185 SLIPPER SHELL CT	Residential	B	2	1	53	53	55	2
R1a-21	181 SLIPPER SHELL CT	Residential	B	2	1	53	53	55	2
R1a-22	177 SLIPPER SHELL CT	Residential	B	2	1	56	56	57	1
R1a-23	173 SLIPPER SHELL CT	Residential	B	2	1	58	58	59	1
R1a-24	169 SLIPPER SHELL CT	Residential	B	2	1	58	58	59	1
R1a-25	165 SLIPPER SHELL CT	Residential	B	2	1	58	58	59	1
R1a-26	161 COWRIE CT	Residential	B	2	1	57	57	58	1
R1a-27	157 COWRIE CT	Residential	B	2	1	56	56	58	2
R1a-28	153 COWRIE CT	Residential	B	2	1	56	56	57	1
R1a-29	144 COWRIE CT	Residential	B	2	1	64	64	65	1
R1a-30	148 COWRIE CT	Residential	B	2	1	64	64	65	1
R1a-31	152 COWRIE CT	Residential	B	2	1	64	64	65	1
R1a-32	156 COWRIE CT	Residential	B	2	1	64	64	65	1
R1a-33	160 COWRIE CT	Residential	B	2	1	64	64	65	1
R1a-34	164 COWRIE CT	Residential	B	2	1	63	63	64	1
R1a-35	159 SLIPPER SHELL CT	Residential	B	2	1	66	66	67	1
R1a-36	155 SLIPPER SHELL CT	Residential	B	2	1	66	66	68	2
R1a-37	151 SLIPPER SHELL CT	Residential	B	2	1	67	67	68	1
R1a-38	147 SLIPPER SHELL CT	Residential	B	2	1	67	67	69	2
R1a-39	116 SLIPPER SHELL CT	Residential	B	2	1	69	69	71	2

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R1a-40	120 SLIPPER SHELL CT	Residential	B	2	1	65	65	67	2
R1a-41	124 SLIPPER SHELL CT	Residential	B	2	1	64	64	66	2
R1a-42	128 SLIPPER SHELL CT	Residential	B	2	1	63	63	65	2
R1a-43	132 SLIPPER SHELL CT	Residential	B	2	1	64	64	66	2
R1a-44	136 SLIPPER SHELL CT	Residential	B	2	1	65	65	67	2
R1a-45	140 SLIPPER SHELL CT	Residential	B	2	1	65	65	67	2
R1a-46	172 SLIPPER SHELL CT	Residential	B	2	1	63	63	65	2
R1a-47	176 SLIPPER SHELL CT	Residential	B	2	1	63	63	65	2
R1a-48	180 SLIPPER SHELL CT	Residential	B	2	1	62	62	64	2
R1a-49	184 SLIPPER SHELL CT	Residential	B	2	1	62	62	63	1
R1a-50	188 SLIPPER SHELL CT	Residential	B	2	1	60	60	62	2
R1a-51	192 SLIPPER SHELL CT	Residential	B	2	1	53	53	55	2
R1a-52	196 SLIPPER SHELL CT	Residential	B	2	1	54	54	56	2
R1a-53	208 SLIPPER SHELL CT	Residential	B	2	1	59	59	61	2
R1a-54	212 SLIPPER SHELL CT	Residential	B	2	1	61	61	63	2
R1a-55	216 SLIPPER SHELL CT	Residential	B	2	1	63	63	65	2
R1a-56	220 SLIPPER SHELL CT	Residential	B	2	1	63	63	66	3
R1a-57	238 SLIPPER SHELL CT	Residential	B	2	1	65	65	67	2
R1a-58	242 SLIPPER SHELL CT	Residential	B	2	1	65	65	67	2
R1a-59	246 SLIPPER SHELL CT	Residential	B	2	1	66	66	68	2
R1a-60	250 SLIPPER SHELL CT	Residential	B	2	1	67	67	69	2
R1a-61	254 SLIPPER SHELL CT	Residential	B	2	1	68	68	70	2
R1a-62	258 SLIPPER SHELL CT	Residential	B	2	1	69	69	71	2
R1a-63	301 ETIWAN POINT DR	Residential	B	2	1	75	75	77	2
R1a-64	305 ETIWAN POINT DR	Residential	B	2	1	75	75	77	2
R1a-65	309 ETIWAN POINT DR	Residential	B	2	1	75	75	77	2
R1a-66	313 ETIWAN POINT DR	Residential	B	2	1	75	75	77	2
R1a-67	317 ETIWAN POINT DR	Residential	B	2	1	75	75	77	2
R1a-68	320 ETIWAN POINT DR	Residential	B	2	1	77	77	78	1
R1a-69	SLIPPER SHELL CT	Residential	B	2	1	74	74	76	2
R2-1	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	68	68	70	2
R2-2	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	69	69	71	2
R2-3	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	70	70	72	2
R2-4	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	68	68	69	1
R2-5	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	69	69	70	1
R2-6	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	68	68	70	2
R2-7	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	67	67	69	2
R2-8	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	67	67	69	2
R2-9	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	67	67	68	1
R2-10	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	66	66	68	2
R2-11	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	67	67	68	1
R2-12	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	68	68	69	1
R2-13	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	69	69	70	1

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R2-14	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	69	69	71	2
R2-15	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	71	71	73	2
R2-16	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	70	70	71	1
R2-17	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	68	68	70	2
R2-18	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	69	69	70	1
R2-19	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	70	70	72	2
R2-20	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	70	70	72	2
R2-21	100 WANDO PARK BLVD	Kearns Park Trail	C	2	0.29 ⁴	72	72	74	2
R2a-1	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	64	2
R2a-1a	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	66	2
R2a-1b	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	66	1
R2a-2	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	64	1
R2a-2a	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	66	1
R2a-2b	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	67	2
R2a-3	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	65	2
R2a-3a	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	67	2
R2a-3b	100 EIGHTY OAK AVE	Residential	B	2	1	66	66	67	1
R2a-4	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	66	2
R2a-4a	100 EIGHTY OAK AVE	Residential	B	2	1	66	66	68	2
R2a-4b	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	68	1
R2a-5	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	66	2
R2a-5a	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	69	2
R2a-5b	100 EIGHTY OAK AVE	Residential	B	2	1	68	68	69	1
R2a-6	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	64	1
R2a-6a	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	69	2
R2a-6b	100 EIGHTY OAK AVE	Residential	B	2	1	68	68	69	1
R2a-7	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	65	2
R2a-7a	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	68	1
R2a-7b	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	69	2
R2a-8	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	66	2
R2a-8a	100 EIGHTY OAK AVE	Residential	B	2	1	66	66	68	2
R2a-8b	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	68	1
R2a-9	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	66	2
R2a-9a	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	67	2
R2a-10	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	64	2
R2a-10a	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	65	2
R2a-10b	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	66	2
R2a-11	100 EIGHTY OAK AVE	Residential	B	2	1	61	61	62	1
R2a-11a	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	64	2
R2a-11b	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	65	2
R2a-12	100 EIGHTY OAK AVE	Residential	B	2	1	60	60	61	1
R2a-12a	100 EIGHTY OAK AVE	Residential	B	2	1	61	61	63	2
R2a-13	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	68	1

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R2a-13a	100 EIGHTY OAK AVE	Residential	B	2	1	68	68	69	1
R2a-13b	100 EIGHTY OAK AVE	Residential	B	2	1	69	69	70	1
R2a-14	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	69	2
R2a-14a	100 EIGHTY OAK AVE	Residential	B	2	1	69	69	70	1
R2a-14b	100 EIGHTY OAK AVE	Residential	B	2	1	69	69	71	2
R2a-15	100 EIGHTY OAK AVE	Residential	B	2	1	68	68	69	1
R2a-15a	100 EIGHTY OAK AVE	Residential	B	2	1	70	70	71	1
R2a-15b	100 EIGHTY OAK AVE	Residential	B	2	1	70	70	71	1
R2a-16	100 EIGHTY OAK AVE	Residential	B	2	1	69	69	71	2
R2a-16a	100 EIGHTY OAK AVE	Residential	B	2	1	71	71	72	1
R2a-16b	100 EIGHTY OAK AVE	Residential	B	2	1	72	72	73	1
R2a-17	100 EIGHTY OAK AVE	Residential	B	2	1	59	59	61	2
R2a-17a	100 EIGHTY OAK AVE	Residential	B	2	1	59	59	61	2
R2a-17b	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	64	2
R2a-18	100 EIGHTY OAK AVE	Residential	B	2	1	60	60	62	2
R2a-18a	100 EIGHTY OAK AVE	Residential	B	2	1	60	60	62	2
R2a-18b	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	65	2
R2a-19	100 EIGHTY OAK AVE	Residential	B	2	1	60	60	62	2
R2a-19a	100 EIGHTY OAK AVE	Residential	B	2	1	60	60	62	2
R2a-19b	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	65	1
R2a-20	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	66	3
R2a-20a	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	67	2
R2a-20b	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	68	1
R2a-21	100 EIGHTY OAK AVE	Residential	B	2	1	72	72	74	2
R2a-21a	100 EIGHTY OAK AVE	Residential	B	2	1	74	74	75	1
R2a-21b	100 EIGHTY OAK AVE	Residential	B	2	1	74	74	75	1
R2a-22	100 EIGHTY OAK AVE	Residential	B	2	1	73	73	74	1
R2a-22a	100 EIGHTY OAK AVE	Residential	B	2	1	74	74	75	1
R2a-22b	100 EIGHTY OAK AVE	Residential	B	2	1	75	75	76	1
R2a-23	100 EIGHTY OAK AVE	Residential	B	2	1	73	73	75	2
R2a-23a	100 EIGHTY OAK AVE	Residential	B	2	1	75	75	76	1
R2a-23b	100 EIGHTY OAK AVE	Residential	B	2	1	76	76	77	1
R2a-24	100 EIGHTY OAK AVE	Residential	B	2	1	75	75	76	1
R2a-24a	100 EIGHTY OAK AVE	Residential	B	2	1	76	76	77	1
R2a-24b	100 EIGHTY OAK AVE	Residential	B	2	1	77	77	78	1
R2a-25	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	64	2
R2a-25a	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	65	2
R2a-25b	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	67	2
R2a-26	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	64	2
R2a-26a	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	65	1
R2a-26b	100 EIGHTY OAK AVE	Residential	B	2	1	66	66	67	1
R2a-27	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	64	2
R2a-27a	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	66	1

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R2a-27b	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	68	1
R2a-28	100 EIGHTY OAK AVE	Residential	B	2	1	66	66	68	2
R2a-28a	100 EIGHTY OAK AVE	Residential	B	2	1	69	69	71	2
R2a-28b	100 EIGHTY OAK AVE	Residential	B	2	1	71	71	72	1
R2a-29	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	65	2
R2a-29a	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	66	1
R2a-29b	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	68	1
R2a-30	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	64	2
R2a-30a	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	66	2
R2a-30b	100 EIGHTY OAK AVE	Residential	B	2	1	66	66	67	1
R2a-31	100 EIGHTY OAK AVE	Residential	B	2	1	61	61	63	2
R2a-31a	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	66	2
R2a-31b	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	67	2
R2a-32	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	65	1
R2a-32a	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	66	2
R2a-32b	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	66	1
R2a-33	100 EIGHTY OAK AVE	Residential	B	2	1	57	57	59	2
R2a-33a	100 EIGHTY OAK AVE	Residential	B	2	1	59	59	61	2
R2a-33b	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	64	1
R2a-34	100 EIGHTY OAK AVE	Residential	B	2	1	54	54	56	2
R2a-34a	100 EIGHTY OAK AVE	Residential	B	2	1	56	56	58	2
R2a-34b	100 EIGHTY OAK AVE	Residential	B	2	1	61	61	63	2
R2a-35	100 EIGHTY OAK AVE	Residential	B	2	1	55	55	57	2
R2a-35a	100 EIGHTY OAK AVE	Residential	B	2	1	57	57	58	1
R2a-35b	100 EIGHTY OAK AVE	Residential	B	2	1	61	61	62	1
R2a-36	100 EIGHTY OAK AVE	Residential	B	2	1	56	56	57	1
R2a-36a	100 EIGHTY OAK AVE	Residential	B	2	1	58	58	59	1
R2a-36b	100 EIGHTY OAK AVE	Residential	B	2	1	61	61	62	1
R2a-37	100 EIGHTY OAK AVE	Residential	B	2	1	60	60	61	1
R2a-37a	100 EIGHTY OAK AVE	Residential	B	2	1	60	60	62	2
R2a-37b	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	64	2
R2a-38	100 EIGHTY OAK AVE	Residential	B	2	1	61	61	63	2
R2a-38a	100 EIGHTY OAK AVE	Residential	B	2	1	61	61	63	2
R2a-38b	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	64	1
R2a-39	100 EIGHTY OAK AVE	Residential	B	2	1	61	61	62	1
R2a-39a	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	63	1
R2a-39b	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	65	2
R2a-40	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	64	2
R2a-40a	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	65	2
R2a-40b	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	66	1
R2a-41	100 EIGHTY OAK AVE	Residential	B	2	1	51	51	52	1
R2a-41a	100 EIGHTY OAK AVE	Residential	B	2	1	54	54	55	1
R2a-41b	100 EIGHTY OAK AVE	Residential	B	2	1	57	57	58	1

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R2a-42	100 EIGHTY OAK AVE	Residential	B	2	1	51	51	53	2
R2a-42a	100 EIGHTY OAK AVE	Residential	B	2	1	54	54	55	1
R2a-42b	100 EIGHTY OAK AVE	Residential	B	2	1	57	57	59	2
R2a-43	100 EIGHTY OAK AVE	Residential	B	2	1	52	52	53	1
R2a-43a	100 EIGHTY OAK AVE	Residential	B	2	1	54	54	56	2
R2a-43b	100 EIGHTY OAK AVE	Residential	B	2	1	58	58	59	1
R2a-44	100 EIGHTY OAK AVE	Residential	B	2	1	57	57	59	2
R2a-44a	100 EIGHTY OAK AVE	Residential	B	2	1	60	60	62	2
R2a-44b	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	64	1
R2a-45	100 EIGHTY OAK AVE	Community Pool	C	2	1	62	62	64	2
R2a-46	100 EIGHTY OAK AVE	Residential	B	2	1	57	57	59	2
R2a-46a	100 EIGHTY OAK AVE	Residential	B	2	1	59	59	61	2
R2a-47	100 EIGHTY OAK AVE	Residential	B	2	1	58	58	60	2
R2a-47a	100 EIGHTY OAK AVE	Residential	B	2	1	59	59	61	2
R2a-47b	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	64	2
R2a-48	100 EIGHTY OAK AVE	Residential	B	2	1	60	60	62	2
R2a-48a	100 EIGHTY OAK AVE	Residential	B	2	1	61	61	63	2
R2a-48b	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	65	1
R2a-49	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	67	3
R2a-49a	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	68	1
R2a-50	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	68	3
R2a-50a	100 EIGHTY OAK AVE	Residential	B	2	1	70	70	71	1
R2a-51	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	69	2
R2a-51a	100 EIGHTY OAK AVE	Residential	B	2	1	71	71	72	1
R2a-51b	100 EIGHTY OAK AVE	Residential	B	2	1	72	72	73	1
R2a-52	100 EIGHTY OAK AVE	Residential	B	2	1	68	68	70	2
R2a-52a	100 EIGHTY OAK AVE	Residential	B	2	1	72	72	73	1
R2a-52b	100 EIGHTY OAK AVE	Residential	B	2	1	73	73	74	1
R2a-53	100 EIGHTY OAK AVE	Residential	B	2	1	69	69	71	2
R2a-53a	100 EIGHTY OAK AVE	Residential	B	2	1	73	73	74	1
R2a-54	100 EIGHTY OAK AVE	Residential	B	2	1	71	71	74	3
R2a-54a	100 EIGHTY OAK AVE	Residential	B	2	1	74	74	75	1
R2a-55	100 EIGHTY OAK AVE	Residential	B	2	1	71	71	73	2
R2a-55a	100 EIGHTY OAK AVE	Residential	B	2	1	73	73	75	2
R2a-55b	100 EIGHTY OAK AVE	Residential	B	2	1	74	74	75	1
R2a-56	100 EIGHTY OAK AVE	Residential	B	2	1	71	71	73	2
R2a-56a	100 EIGHTY OAK AVE	Residential	B	2	1	73	73	74	1
R2a-56b	100 EIGHTY OAK AVE	Residential	B	2	1	74	74	75	1
R2a-57	100 EIGHTY OAK AVE	Residential	B	2	1	70	70	72	2
R2a-57a	100 EIGHTY OAK AVE	Residential	B	2	1	73	73	74	1
R2a-58	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	66	2
R2a-58a	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	68	1
R2a-59	100 EIGHTY OAK AVE	Residential	B	2	1	57	57	59	2

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R2a-59a	100 EIGHTY OAK AVE	Residential	B	2	1	58	58	59	1
R2a-59b	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	64	2
R2a-60	100 EIGHTY OAK AVE	Residential	B	2	1	56	56	58	2
R2a-60a	100 EIGHTY OAK AVE	Residential	B	2	1	57	57	58	1
R2a-60b	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	63	1
R2a-61	100 EIGHTY OAK AVE	Residential	B	2	1	61	61	62	1
R2a-61a	100 EIGHTY OAK AVE	Residential	B	2	1	64	64	65	1
R2a-62	100 EIGHTY OAK AVE	Residential	B	2	1	56	56	58	2
R2a-62a	100 EIGHTY OAK AVE	Residential	B	2	1	60	60	61	1
R2a-62b	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	63	1
R2a-63	100 EIGHTY OAK AVE	Residential	B	2	1	58	58	60	2
R2a-63a	100 EIGHTY OAK AVE	Residential	B	2	1	58	58	60	2
R2a-63b	100 EIGHTY OAK AVE	Residential	B	2	1	60	60	62	2
R2a-64	100 EIGHTY OAK AVE	Residential	B	2	1	54	54	55	1
R2a-64a	100 EIGHTY OAK AVE	Residential	B	2	1	55	55	57	2
R2a-64b	100 EIGHTY OAK AVE	Residential	B	2	1	59	59	61	2
R2a-65	100 EIGHTY OAK AVE	Residential	B	2	1	59	59	60	1
R2a-65a	100 EIGHTY OAK AVE	Residential	B	2	1	59	59	61	2
R2a-65b	100 EIGHTY OAK AVE	Residential	B	2	1	62	62	62	0
R2a-66	100 EIGHTY OAK AVE	Residential	B	2	1	66	66	68	2
R2a-66a	100 EIGHTY OAK AVE	Residential	B	2	1	70	70	71	1
R2a-66b	100 EIGHTY OAK AVE	Residential	B	2	1	71	71	72	1
R2a-67	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	67	2
R2a-67a	100 EIGHTY OAK AVE	Residential	B	2	1	70	70	71	1
R2a-67b	100 EIGHTY OAK AVE	Residential	B	2	1	71	71	72	1
R2a-68	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	67	2
R2a-68a	100 EIGHTY OAK AVE	Residential	B	2	1	70	70	71	1
R2a-68b	100 EIGHTY OAK AVE	Residential	B	2	1	71	71	72	1
R2a-69	100 EIGHTY OAK AVE	Residential	B	2	1	63	63	65	2
R2a-69a	100 EIGHTY OAK AVE	Residential	B	2	1	69	69	71	2
R2a-69b	100 EIGHTY OAK AVE	Residential	B	2	1	71	71	72	1
R2a-70	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	67	2
R2a-70a	100 EIGHTY OAK AVE	Residential	B	2	1	70	70	72	2
R2a-71	100 EIGHTY OAK AVE	Residential	B	2	1	66	66	68	2
R2a-71a	100 EIGHTY OAK AVE	Residential	B	2	1	72	72	73	1
R2a-71b	100 EIGHTY OAK AVE	Residential	B	2	1	72	72	73	1
R2a-72	100 EIGHTY OAK AVE	Residential	B	2	1	66	66	68	2
R2a-72a	100 EIGHTY OAK AVE	Residential	B	2	1	72	72	74	2
R2a-72b	100 EIGHTY OAK AVE	Residential	B	2	1	73	73	74	1
R2a-73	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	69	2
R2a-73a	100 EIGHTY OAK AVE	Residential	B	2	1	74	74	75	1
R2a-74	100 EIGHTY OAK AVE	Residential	B	2	1	65	65	67	2
R2a-74a	100 EIGHTY OAK AVE	Residential	B	2	1	70	70	71	1

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R2a-75	100 EIGHTY OAK AVE	Residential	B	2	1	66	66	68	2
R2a-75a	100 EIGHTY OAK AVE	Residential	B	2	1	72	72	73	1
R2a-75b	100 EIGHTY OAK AVE	Residential	B	2	1	72	72	73	1
R2a-76	100 EIGHTY OAK AVE	Residential	B	2	1	67	67	69	2
R2a-76a	100 EIGHTY OAK AVE	Residential	B	2	1	72	72	74	2
R2a-76b	100 EIGHTY OAK AVE	Residential	B	2	1	73	73	74	1
R2a-77	100 EIGHTY OAK AVE	Residential	B	2	1	70	70	72	2
R2a-77a	100 EIGHTY OAK AVE	Residential	B	2	1	74	74	75	1
R3-1	201 RIVER OAK DR	Residential	B	3	1	67	67	69	2
R3-2	205 RIVER OAK DR	Residential	B	3	1	56	56	57	1
R3-3	209 RIVER OAK DR	Residential	B	3	1	61	61	63	2
R3-4	213 RIVER OAK DR	Residential	B	3	1	55	55	57	2
R3-5	217 RIVER OAK DR	Residential	B	3	1	57	57	59	2
R3-6	221 RIVER OAK DR	Residential	B	3	1	56	56	58	2
R3-7	225 RIVER OAK DR	Residential	B	3	1	54	54	56	2
R3-8	226 RIVER OAK DR	Residential	B	3	1	51	51	54	3
R3-9	208 RIVER OAK DR	Residential	B	3	1	56	56	58	2
R3-10	204 RIVER OAK DR	Residential	B	3	1	59	59	61	2
R3-11	200 RIVER OAK DR	Residential	B	3	1	62	62	64	2
R3-12	298 TURNSTONE ST	Residential	B	3	1	73	73	75	2
R3-13	302 TURNSTONE ST	Residential	B	3	1	71	71	73	2
R3-14	306 TURNSTONE ST	Residential	B	3	1	72	72	73	1
R3-15	310 TURNSTONE ST	Residential	B	3	1	72	72	73	1
R3-16	314 TURNSTONE ST	Residential	B	3	1	67	67	68	1
R3-17	318 TURNSTONE ST	Residential	B	3	1	66	66	68	2
R3-18	322 TURNSTONE ST	Residential	B	3	1	63	63	65	2
R3-19	326 TURNSTONE ST	Residential	B	3	1	60	60	62	2
R3-20	330 TURNSTONE ST	Residential	B	3	1	58	58	59	1
R3-21	334 TURNSTONE ST	Residential	B	3	1	56	56	58	2
R3-22	338 TURNSTONE ST	Residential	B	3	1	56	56	57	1
R3-23	342 TURNSTONE ST	Residential	B	3	1	54	54	56	2
R3-24	346 TURNSTONE ST	Residential	B	3	1	53	53	55	2
R3-25	350 TURNSTONE ST	Residential	B	3	1	53	53	55	2
R3-26	354 TURNSTONE ST	Residential	B	3	1	52	52	54	2
R3-27	358 TURNSTONE ST	Residential	B	3	1	52	52	54	2
R3-28	360 TURNSTONE ST	Residential	B	3	1	50	50	53	3
R3-29	364 TURNSTONE ST	Residential	B	3	1	52	52	54	2
R3-30	368 TURNSTONE ST	Residential	B	3	1	52	52	54	2
R3-31	372 TURNSTONE ST	Residential	B	3	1	52	52	55	3
R3-32	376 TURNSTONE ST	Residential	B	3	1	53	53	55	2
R3-33	291 SHOALS DR	Residential	B	3	1	50	50	53	3
R3-34	295 SHOALS DR	Residential	B	3	1	50	50	53	3
R3-35	299 SHOALS DR	Residential	B	3	1	50	50	53	3

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R3-36	303 SHOALS DR	Residential	B	3	1	51	51	54	3
R3-37	307 SHOALS DR	Residential	B	3	1	52	53	55	3
R3-38	311 SHOALS DR	Residential	B	3	1	51	51	53	2
R3-39	315 SHOALS DR	Residential	B	3	1	53	53	55	2
R3-40	223 KILLDEER CIR	Residential	B	3	1	53	53	56	3
R3-41	227 KILLDEER CIR	Residential	B	3	1	53	53	55	2
R3-42	231 KILLDEER CIR	Residential	B	3	1	54	54	56	2
R3-43	235 KILLDEER CIR	Residential	B	3	1	54	54	55	1
R3-44	232 KILLDEER CIR	Residential	B	3	1	59	59	60	1
R3-45	228 KILLDEER CIR	Residential	B	3	1	61	61	62	1
R3-46	224 KILLDEER CIR	Residential	B	3	1	61	61	62	1
R3-47	381 TURNSTONE ST	Residential	B	3	1	58	58	59	1
R3-48	377 TURNSTONE ST	Residential	B	3	1	57	57	58	1
R3-49	373 TURNSTONE ST	Residential	B	3	1	57	57	59	2
R3-50	369 TURNSTONE ST	Residential	B	3	1	58	58	59	1
R3-51	365 TURNSTONE ST	Residential	B	3	1	57	57	58	1
R3-52	361 TURNSTONE ST	Residential	B	3	1	56	56	57	1
R3-53	345 TURNSTONE ST	Residential	B	3	1	54	54	56	2
R3-54	341 TURNSTONE ST	Residential	B	3	1	53	53	55	2
R3-55	337 TURNSTONE ST	Residential	B	3	1	54	54	56	2
R3-56	333 TURNSTONE ST	Residential	B	3	1	56	56	58	2
R3-57	167 RED KNOT LN	Residential	B	3	1	60	60	61	1
R3-58	171 RED KNOT LN	Residential	B	3	1	60	60	62	2
R3-59	175 RED KNOT LN	Residential	B	3	1	60	60	61	1
R3-60	179 RED KNOT LN	Residential	B	3	1	59	59	60	1
R3-61	183 RED KNOT LN	Residential	B	3	1	59	59	61	2
R3-62	187 RED KNOT LN	Residential	B	3	1	59	59	60	1
R3-63	191 RED KNOT LN	Residential	B	3	1	59	59	61	2
R3-64	195 RED KNOT LN	Residential	B	3	1	59	60	61	2
R3-65	199 RED KNOT LN	Residential	B	3	1	61	61	62	1
R3-66	160 RED KNOT LN	Residential	B	3	1	71	71	72	1
R3-67	164 RED KNOT LN	Residential	B	3	1	73	73	74	1
R3-68	168 RED KNOT LN	Residential	B	3	1	74	74	74	0
R3-69	172 RED KNOT LN	Residential	B	3	1	74	74	74	0
R3-70	176 RED KNOT LN	Residential	B	3	1	75	75	75	0
R3-71	180 RED KNOT LN	Residential	B	3	1	75	75	75	0
R3-72	184 RED KNOT LN	Residential	B	3	1	73	73	74	1
R3-73	188 RED KNOT LN	Residential	B	3	1	74	74	75	1
R3-74	192 RED KNOT LN	Residential	B	3	1	75	75	75	0
R3-75	196 RED KNOT LN	Residential	B	3	1	74	74	74	0
R3-76	200 RED KNOT LN	Residential	B	3	1	74	74	75	1
R3-77	204 RED KNOT LN	Residential	B	3	1	74	74	74	0
R3-78	208 RED KNOT LN	Residential	B	3	1	73	73	73	0

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R3-79	212 RED KNOT LN	Residential	B	3	1	73	73	73	0
R3-80	216 RED KNOT LN	Residential	B	3	1	68	68	68	0
R3-81	220 RED KNOT LN	Residential	B	3	1	68	68	68	0
R3-82	389 TURNSTONE ST	Residential	B	3	1	72	72	71	-1
R3-83	393 TURNSTONE ST	Residential	B	3	1	72	72	72	0
R3-84	397 TURNSTONE ST	Residential	B	3	1	73	73	73	0
R3-85	401 TURNSTONE ST	Residential	B	3	1	73	73	73	0
R3-86	405 TURNSTONE ST	Residential	B	3	1	73	73	73	0
R3-87	409 TURNSTONE ST	Residential	B	3	1	73	73	74	1
R3-88	413 TURNSTONE ST	Residential	B	3	1	73	73	74	1
R3-89	417 TURNSTONE ST	Residential	B	3	1	73	73	73	0
R3-90	421 TURNSTONE ST	Residential	B	3	1	73	73	73	0
R3-91	425 TURNSTONE ST	Residential	B	3	1	73	73	74	1
R3-92	429 TURNSTONE ST	Residential	B	3	1	73	73	74	1
R3-93	433 TURNSTONE ST	Residential	B	3	1	73	73	74	1
R3-94	437 TURNSTONE ST	Residential	B	3	1	73	73	73	0
R3-95	441 TURNSTONE ST	Residential	B	3	1	74	74	74	0
R3-96	445 TURNSTONE ST	Residential	B	3	1	73	73	74	1
R3-97	449 TURNSTONE ST	Residential	B	3	1	73	73	74	1
R3-98	453 TURNSTONE ST	Residential	B	3	1	72	72	73	1
R3-99	457 TURNSTONE ST	Residential	B	3	1	72	72	73	1
R3-100	461 TURNSTONE ST	Residential	B	3	1	71	71	72	1
R3-101	418 TURNSTONE ST	Residential	B	3	1	60	60	61	1
R3-102	422 TURNSTONE ST	Residential	B	3	1	58	58	59	1
R3-103	426 TURNSTONE ST	Residential	B	3	1	57	57	59	2
R3-104	430 TURNSTONE ST	Residential	B	3	1	59	59	60	1
R3-105	434 TURNSTONE ST	Residential	B	3	1	59	59	60	1
R3-106	438 TURNSTONE ST	Residential	B	3	1	58	58	59	1
R3-107	442 TURNSTONE ST	Residential	B	3	1	60	60	61	1
R3-108	446 TURNSTONE ST	Residential	B	3	1	60	60	61	1
R3-109	450 TURNSTONE ST	Residential	B	3	1	61	61	62	1
R3-110	223 SWALLOWTAIL CT	Residential	B	3	1	59	59	60	1
R3-111	229 SWALLOWTAIL CT	Residential	B	3	1	52	52	55	3
R3-112	235 SWALLOWTAIL CT	Residential	B	3	1	56	56	58	2
R3-113	239 SWALLOWTAIL CT	Residential	B	3	1	53	53	55	2
R3-114	243 SWALLOWTAIL CT	Residential	B	3	1	55	55	57	2
R3-115	247 SWALLOWTAIL CT	Residential	B	3	1	54	54	56	2
R3-116	251 SWALLOWTAIL CT	Residential	B	3	1	51	51	54	3
R3-117	255 SWALLOWTAIL CT	Residential	B	3	1	54	54	56	2
R3-118	259 SWALLOWTAIL CT	Residential	B	3	1	55	55	56	1
R3-119	264 SWALLOWTAIL CT	Residential	B	3	1	54	54	56	2
R3-120	260 SWALLOWTAIL CT	Residential	B	3	1	53	53	55	2
R3-121	256 SWALLOWTAIL CT	Residential	B	3	1	51	51	54	3

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R3-122	252 SWALLOWTAIL CT	Residential	B	3	1	52	52	54	2
R3-123	248 SWALLOWTAIL CT	Residential	B	3	1	53	53	55	2
R3-124	337 SHOALS DR	Residential	B	3	1	49	49	53	4
R3-125	341 SHOALS DR	Residential	B	3	1	51	51	54	3
R3-126	244 SWALLOWTAIL CT	Residential	B	3	1	52	52	55	3
R3-127	240 SWALLOWTAIL CT	Residential	B	3	1	53	53	56	3
R3-128	236 SWALLOWTAIL CT	Residential	B	3	1	56	57	59	3
R3-129	232 SWALLOWTAIL CT	Residential	B	3	1	58	58	60	2
R3-130	228 SWALLOWTAIL CT	Residential	B	3	1	59	59	60	1
R3-131	224 SWALLOWTAIL CT	Residential	B	3	1	60	60	62	2
R3-132	220 SWALLOWTAIL CT	Residential	B	3	1	63	63	65	2
R3-133	TURNSTONE ST	Community Pool	C	3	1	73	73	74	1
R3-134	468 TURNSTONE ST	Residential	B	3	1	65	65	67	2
R3-135	472 TURNSTONE ST	Residential	B	3	1	67	67	68	1
R3-136	476 TURNSTONE ST	Residential	B	3	1	68	68	70	2
R3-137	480 TURNSTONE ST	Residential	B	3	1	70	70	71	1
R3-138	484 TURNSTONE ST	Residential	B	3	1	72	72	73	1
R3-139	488 TURNSTONE ST	Residential	B	3	1	75	75	76	1
R3-140	385 SHOALS DR	Residential	B	3	1	64	64	65	1
R3-141	381 SHOALS DR	Residential	B	3	1	62	62	63	1
R3-142	377 SHOALS DR	Residential	B	3	1	60	60	63	3
R3-143	373 SHOALS DR	Residential	B	3	1	59	59	61	2
R3-144	369 SHOALS DR	Residential	B	3	1	57	57	58	1
R3-145	365 SHOALS DR	Residential	B	3	1	53	53	55	2
R3-146	361 SHOALS DR	Residential	B	3	1	52	52	55	3
R3-147	357 SHOALS DR	Residential	B	3	1	53	53	56	3
R3-148	372 TIDAL TERRACE CT	Residential	B	3	1	55	55	58	3
R3-149	368 TIDAL TERRACE CT	Residential	B	3	1	56	56	58	2
R3-150	376 TIDAL REEF CIR	Residential	B	3	1	60	60	62	2
R3-151	380 TIDAL REEF CIR	Residential	B	3	1	59	59	62	3
R3-152	384 TIDAL REEF CIR	Residential	B	3	1	58	58	60	2
R3-153	388 TIDAL REEF CIR	Residential	B	3	1	59	59	61	2
R3-154	392 TIDAL REEF CIR	Residential	B	3	1	62	62	65	3
R3-155	396 TIDAL REEF CIR	Residential	B	3	1	67	67	68	1
R3-156	400 TIDAL REEF CIR	Residential	B	3	1	68	68	69	1
R4-1	335 STONEWALL CT	Residential	B	3	1	63	63	65	2
R4-1a	335 STONEWALL CT	Residential	B	3	1	67	67	68	1
R4-1b	335 STONEWALL CT	Residential	B	3	1	68	68	69	1
R4-1c	335 STONEWALL CT	Residential	B	3	1	68	68	69	1
R4-2	335 STONEWALL CT	Residential	B	3	1	67	67	69	2
R4-2a	335 STONEWALL CT	Residential	B	3	1	72	72	72	0
R4-2b	335 STONEWALL CT	Residential	B	3	1	73	73	73	0
R4-2c	335 STONEWALL CT	Residential	B	3	1	73	73	74	1

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R4-3	335 STONEWALL CT	Residential	B	3	1	67	67	69	2
R4-3a	335 STONEWALL CT	Residential	B	3	1	72	72	73	1
R4-3b	335 STONEWALL CT	Residential	B	3	1	73	73	74	1
R4-3c	335 STONEWALL CT	Residential	B	3	1	74	74	74	0
R4-4	335 STONEWALL CT	Residential	B	3	1	68	68	69	1
R4-4a	335 STONEWALL CT	Residential	B	3	1	72	72	73	1
R4-4b	335 STONEWALL CT	Residential	B	3	1	73	73	74	1
R4-4c	335 STONEWALL CT	Residential	B	3	1	74	74	74	0
R4-5	335 STONEWALL CT	Residential	B	3	1	68	68	70	2
R4-5a	335 STONEWALL CT	Residential	B	3	1	73	73	73	0
R4-5b	335 STONEWALL CT	Residential	B	3	1	74	74	74	0
R4-5c	335 STONEWALL CT	Residential	B	3	1	74	74	75	1
R4-6	335 STONEWALL CT	Residential	B	3	1	68	68	69	1
R4-6a	335 STONEWALL CT	Residential	B	3	1	73	73	74	1
R4-6b	335 STONEWALL CT	Residential	B	3	1	74	74	74	0
R4-6c	335 STONEWALL CT	Residential	B	3	1	74	74	75	1
R4-7	335 STONEWALL CT	Residential	B	3	1	65	65	67	2
R4-7a	335 STONEWALL CT	Residential	B	3	1	70	70	70	0
R4-7b	335 STONEWALL CT	Residential	B	3	1	71	71	71	0
R4-7c	335 STONEWALL CT	Residential	B	3	1	72	72	72	0
R4-8	335 STONEWALL CT	Residential	B	3	1	63	63	65	2
R4-8a	335 STONEWALL CT	Residential	B	3	1	67	67	67	0
R4-9	335 STONEWALL CT	Residential	B	3	1	69	69	71	2
R4-9a	335 STONEWALL CT	Residential	B	3	1	72	72	73	1
R4-10	335 STONEWALL CT	Residential	B	3	1	70	70	71	1
R4-10a	335 STONEWALL CT	Residential	B	3	1	73	73	73	0
R4-11	335 STONEWALL CT	Residential	B	3	1	64	64	66	2
R4-11a	335 STONEWALL CT	Residential	B	3	1	68	68	68	0
R4-12	335 STONEWALL CT	Residential	B	3	1	64	64	64	0
R4-12a	335 STONEWALL CT	Residential	B	3	1	65	65	65	0
R4-12b	335 STONEWALL CT	Residential	B	3	1	66	66	67	1
R4-13	335 STONEWALL CT	Residential	B	3	1	63	63	64	1
R4-13a	335 STONEWALL CT	Residential	B	3	1	64	64	65	1
R4-13b	335 STONEWALL CT	Residential	B	3	1	66	66	67	1
R4-14	335 STONEWALL CT	Residential	B	3	1	63	63	64	1
R4-14a	335 STONEWALL CT	Residential	B	3	1	64	64	65	1
R4-14b	335 STONEWALL CT	Residential	B	3	1	67	67	67	0
R4-15	335 STONEWALL CT	Residential	B	3	1	63	63	64	1
R4-15a	335 STONEWALL CT	Residential	B	3	1	64	64	65	1
R4-15b	335 STONEWALL CT	Residential	B	3	1	67	67	67	0
R4-16	335 STONEWALL CT	Residential	B	3	1	63	63	64	1
R4-16a	335 STONEWALL CT	Residential	B	3	1	65	65	66	1
R4-16b	335 STONEWALL CT	Residential	B	3	1	67	67	68	1

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R4-17	335 STONEWALL CT	Residential	B	3	1	63	63	65	2
R4-17a	335 STONEWALL CT	Residential	B	3	1	66	66	66	0
R4-17b	335 STONEWALL CT	Residential	B	3	1	68	68	68	0
R4-18	335 STONEWALL CT	Residential	B	3	1	63	63	65	2
R4-18a	335 STONEWALL CT	Residential	B	3	1	66	66	67	1
R4-18b	335 STONEWALL CT	Residential	B	3	1	68	68	68	0
R4-19	335 STONEWALL CT	Residential	B	3	1	62	62	63	1
R4-19a	335 STONEWALL CT	Residential	B	3	1	65	65	65	0
R4-19b	335 STONEWALL CT	Residential	B	3	1	66	66	67	1
R4-20	335 STONEWALL CT	Residential	B	3	1	54	54	55	1
R4-20a	335 STONEWALL CT	Residential	B	3	1	56	56	58	2
R4-20b	335 STONEWALL CT	Residential	B	3	1	58	58	59	1
R4-21	335 STONEWALL CT	Residential	B	3	1	54	54	56	2
R4-21a	335 STONEWALL CT	Residential	B	3	1	57	57	59	2
R4-21b	335 STONEWALL CT	Residential	B	3	1	59	59	60	1
R4-22	335 STONEWALL CT	Residential	B	3	1	55	55	56	1
R4-22a	335 STONEWALL CT	Residential	B	3	1	58	58	59	1
R4-22b	335 STONEWALL CT	Residential	B	3	1	59	59	60	1
R4-23	335 STONEWALL CT	Residential	B	3	1	55	55	56	1
R4-23a	335 STONEWALL CT	Residential	B	3	1	58	58	59	1
R4-23b	335 STONEWALL CT	Residential	B	3	1	59	59	59	0
R4-24	335 STONEWALL CT	Residential	B	3	1	56	56	57	1
R4-24a	335 STONEWALL CT	Residential	B	3	1	59	59	59	0
R4-24b	335 STONEWALL CT	Residential	B	3	1	59	59	59	0
R4-25	335 STONEWALL CT	Residential	B	3	1	60	60	60	0
R4-25a	335 STONEWALL CT	Residential	B	3	1	61	61	61	0
R4-25b	335 STONEWALL CT	Residential	B	3	1	61	61	61	0
R4-26	335 STONEWALL CT	Residential	B	3	1	60	60	60	0
R4-26a	335 STONEWALL CT	Residential	B	3	1	61	61	61	0
R4-26b	335 STONEWALL CT	Residential	B	3	1	61	61	61	0
R4-27	335 STONEWALL CT	Residential	B	3	1	56	56	56	0
R4-27a	335 STONEWALL CT	Residential	B	3	1	59	59	59	0
R4-27b	335 STONEWALL CT	Residential	B	3	1	59	59	59	0
R4-28	335 STONEWALL CT	Residential	B	3	1	55	55	56	1
R4-28a	335 STONEWALL CT	Residential	B	3	1	58	58	59	1
R4-28b	335 STONEWALL CT	Residential	B	3	1	59	59	59	0
R4-29	335 STONEWALL CT	Residential	B	3	1	56	56	57	1
R4-29a	335 STONEWALL CT	Residential	B	3	1	59	59	60	1
R4-29b	335 STONEWALL CT	Residential	B	3	1	60	60	60	0
R4-30	335 STONEWALL CT	Residential	B	3	1	57	57	59	2
R4-30a	335 STONEWALL CT	Residential	B	3	1	60	60	61	1
R4-30b	335 STONEWALL CT	Residential	B	3	1	62	62	62	0
R4-31	335 STONEWALL CT	Residential	B	3	1	58	58	59	1

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R4-31a	335 STONEWALL CT	Residential	B	3	1	61	61	61	0
R4-31b	335 STONEWALL CT	Residential	B	3	1	62	62	62	0
R4-32	335 STONEWALL CT	Residential	B	3	1	60	60	62	2
R4-32a	335 STONEWALL CT	Residential	B	3	1	63	63	65	2
R4-32b	335 STONEWALL CT	Residential	B	3	1	65	65	66	1
R4-33	335 STONEWALL CT	Residential	B	3	1	62	62	64	2
R4-33a	335 STONEWALL CT	Residential	B	3	1	65	65	66	1
R4-33b	335 STONEWALL CT	Residential	B	3	1	66	66	67	1
R4-34	335 STONEWALL CT	Residential	B	3	1	61	61	63	2
R4-34a	335 STONEWALL CT	Residential	B	3	1	65	65	66	1
R4-34b	335 STONEWALL CT	Residential	B	3	1	66	66	67	1
R4-35	335 STONEWALL CT	Residential	B	3	1	61	61	62	1
R4-35a	335 STONEWALL CT	Residential	B	3	1	65	65	66	1
R4-35b	335 STONEWALL CT	Residential	B	3	1	66	66	67	1
R4-36	335 STONEWALL CT	Residential	B	3	1	61	61	62	1
R4-36a	335 STONEWALL CT	Residential	B	3	1	64	64	66	2
R4-36b	335 STONEWALL CT	Residential	B	3	1	66	66	67	1
R4-37	335 STONEWALL CT	Residential	B	3	1	61	61	62	1
R4-37a	335 STONEWALL CT	Residential	B	3	1	64	64	66	2
R4-37b	335 STONEWALL CT	Residential	B	3	1	66	66	67	1
R4-38	335 STONEWALL CT	Residential	B	3	1	61	61	62	1
R4-38a	335 STONEWALL CT	Residential	B	3	1	64	64	66	2
R4-38b	335 STONEWALL CT	Residential	B	3	1	66	66	66	0
R4-39	335 STONEWALL CT	Residential	B	3	1	62	62	63	1
R4-39a	335 STONEWALL CT	Residential	B	3	1	65	65	66	1
R4-39b	335 STONEWALL CT	Residential	B	3	1	66	66	66	0
R5-1	510 RIDGE RD	Restaurant Outdoor Seating	E	3	1	69	69	70	1
R6-1	109 HISTORIC DR	Residential	B	4	1	58	58	60	2
R6-2	113 HISTORIC DR	Residential	B	4	1	59	59	60	1
R6-3	117 HISTORIC DR	Residential	B	4	1	59	59	61	2
R6-4	121 HISTORIC DR	Residential	B	4	1	57	57	59	2
R6-5	125 HISTORIC DR	Residential	B	4	1	63	63	65	2
R6-6	129 HISTORIC DR	Residential	B	4	1	64	64	66	2
R6-7	133 HISTORIC DR	Residential	B	4	1	65	65	67	2
R6-8	137 HISTORIC DR	Residential	B	4	1	68	68	69	1
R6-9	141 HISTORIC DR	Residential	B	4	1	67	68	69	2
R6-10	145 HISTORIC DR	Residential	B	4	1	67	67	69	2
R6-11	149 HISTORIC DR	Residential	B	4	1	67	67	69	2
R6-12	153 HISTORIC DR	Residential	B	4	1	66	66	68	2
R6-13	157 HISTORIC DR	Residential	B	4	1	66	66	68	2
R6-14	161 HISTORIC DR	Residential	B	4	1	66	66	68	2
R6-15	165 HISTORIC DR	Residential	B	4	1	67	67	69	2

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R6-16	169 HISTORIC DR	Residential	B	4	1	66	67	68	2
R6-17	173 HISTORIC DR	Residential	B	4	1	66	67	68	2
R6-18	183 HISTORIC DR	Residential	B	4	1	66	67	68	2
R6-19	187 HISTORIC DR	Residential	B	4	1	67	67	68	1
R6-20	191 HISTORIC DR	Residential	B	4	1	66	67	68	2
R6-21	195 HISTORIC DR	Residential	B	4	1	67	67	68	1
R6-22	199 HISTORIC DR	Residential	B	4	1	66	67	68	2
R6-23	203 HISTORIC DR	Residential	B	4	1	66	67	68	2
R6-24	207 HISTORIC DR	Residential	B	4	1	65	66	67	2
R6-25	211 HISTORIC DR	Residential	B	4	1	63	64	65	2
R6-26	215 HISTORIC DR	Residential	B	4	1	63	63	65	2
R6-27	219 HISTORIC DR	Residential	B	4	1	61	62	64	3
R6-28	223 HISTORIC DR	Residential	B	4	1	60	61	62	2
R6-29	227 HISTORIC DR	Residential	B	4	1	59	60	61	2
R6-30	231 HISTORIC DR	Residential	B	4	1	58	59	60	2
R6-31	235 HISTORIC DR	Residential	B	4	1	57	58	60	3
R6-32	230 HISTORIC DR	Residential	B	4	1	52	52	54	2
R6-33	226 HISTORIC DR	Residential	B	4	1	52	53	54	2
R6-34	222 HISTORIC DR	Residential	B	4	1	53	53	55	2
R6-35	218 HISTORIC DR	Residential	B	4	1	53	54	55	2
R6-36	214 HISTORIC DR	Residential	B	4	1	54	55	56	2
R6-37	206 HISTORIC DR	Residential	B	4	1	56	57	58	2
R6-38	202 HISTORIC DR	Residential	B	4	1	58	59	60	2
R6-39	196 HISTORIC DR	Residential	B	4	1	57	58	59	2
R6-40	192 HISTORIC DR	Residential	B	4	1	56	56	58	2
R6-41	188 HISTORIC DR	Residential	B	4	1	58	58	60	2
R6-42	184 HISTORIC DR	Residential	B	4	1	60	60	62	2
R6-43	180 HISTORIC DR	Residential	B	4	1	61	61	64	3
R6-44	176 HISTORIC DR	Residential	B	4	1	61	61	63	2
R6-45	172 HISTORIC DR	Residential	B	4	1	59	60	61	2
R6-46	168 HISTORIC DR	Residential	B	4	1	58	58	60	2
R6-47	164 HISTORIC DR	Residential	B	4	1	58	58	60	2
R6-48	160 HISTORIC DR	Residential	B	4	1	57	58	59	2
R6-49	156 HISTORIC DR	Residential	B	4	1	59	59	61	2
R6-50	152 HISTORIC DR	Residential	B	4	1	58	58	60	2
R6-51	148 HISTORIC DR	Residential	B	4	1	57	57	59	2
R6-52	144 HISTORIC DR	Residential	B	4	1	56	56	58	2
R6-53	134 HISTORIC DR	Residential	B	4	1	58	58	60	2
R6-54	124 HISTORIC DR	Residential	B	4	1	56	56	59	3
R6-55	120 HISTORIC DR	Residential	B	4	1	54	54	57	3
R6-56	111 REVOLUTION DR	Residential	B	4	1	52	52	56	4
R6-57	115 REVOLUTION DR	Residential	B	4	1	50	51	55	5
R6-58	119 REVOLUTION DR	Residential	B	4	1	56	56	58	2

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R6-59	123 REVOLUTION DR	Residential	B	4	1	56	56	58	2
R6-60	127 HISTORIC DR	Residential	B	4	1	50	50	53	3
R6-61	131 REVOLUTION DR	Residential	B	4	1	52	52	55	3
R6-62	135 REVOLUTION DR	Residential	B	4	1	52	52	55	3
R6-63	139 REVOLUTION DR	Residential	B	4	1	53	54	56	3
R6-64	143 REVOLUTION DR	Residential	B	4	1	53	53	55	2
R6-65	147 REVOLUTION DR	Residential	B	4	1	54	54	56	2
R6-66	151 REVOLUTION DR	Residential	B	4	1	52	52	54	2
R6-67	155 REVOLUTION DR	Residential	B	4	1	52	52	54	2
R6-68	159 REVOLUTION DR	Residential	B	4	1	53	53	55	2
R6-69	163 REVOLUTION DR	Residential	B	4	1	54	55	56	2
R6-70	167 REVOLUTION DR	Residential	B	4	1	55	56	57	2
R6-71	171 REVOLUTION DR	Residential	B	4	1	56	56	56	0
R6-72	175 REVOLUTION DR	Residential	B	4	1	52	53	54	2
R6-73	179 REVOLUTION DR	Residential	B	4	1	52	53	54	2
R6-74	170 REVOLUTION DR	Residential	B	4	1	53	54	56	3
R6-75	162 REVOLUTION DR	Residential	B	4	1	54	55	56	2
R6-76	154 REVOLUTION DR	Residential	B	4	1	54	54	56	2
R6-77	150 REVOLUTION DR	Residential	B	4	1	54	54	57	3
R6-78	146 REVOLUTION DR	Residential	B	4	1	54	54	57	3
R6-79	142 REVOLUTION DR	Residential	B	4	1	54	54	57	3
R6-80	307 OLD SOUTH WAY	Residential	B	4	1	53	53	57	4
R6-81	365 ANTEBELLUM LN	Residential	B	4	1	52	52	55	3
R6-82	118 REVOLUTION DR	Residential	B	4	1	51	51	55	4
R6-83	114 REVOLUTION DR	Residential	B	4	1	52	52	56	4
R6-84	110 REVOLUTION DR	Residential	B	4	1	52	52	56	4
R6-85	106 REVOLUTION DR	Residential	B	4	1	51	51	55	4
R6-86	102 REVOLUTION DR	Residential	B	4	1	52	52	55	3
R6-87	305 RICE BAY DR	Residential	B	4	1	59	60	61	2
R6-88	309 RICE BAY DR	Residential	B	4	1	60	61	62	2
R6-89	313 RICE BAY DR	Residential	B	4	1	60	61	62	2
R6-90	317 RICE BAY DR	Residential	B	4	1	61	62	63	2
R6-91	321 RICE BAY DR	Residential	B	4	1	61	62	63	2
R6-92	325 RICE BAY DR	Residential	B	4	1	62	63	63	1
R6-93	329 RICE BAY DR	Residential	B	4	1	62	63	64	2
R6-94	333 RICE BAY DR	Residential	B	4	1	62	63	64	2
R6-95	337 RICE BAY DR	Residential	B	4	1	63	64	64	1
R6-96	341 RICE BAY DR	Residential	B	4	1	63	64	64	1
R6-97	345 RICE BAY DR	Residential	B	4	1	63	64	64	1
R6-98	349 RICE BAY DR	Residential	B	4	1	63	64	64	1
R6-99	353 RICE BAY DR	Residential	B	4	1	62	63	63	1
R6-100	352 RICE BAY DR	Residential	B	4	1	57	58	58	1
R6-101	348 RICE BAY DR	Residential	B	4	1	54	55	55	1

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R6-102	344 RICE BAY DR	Residential	B	4	1	56	57	57	1
R6-103	340 RICE BAY DR	Residential	B	4	1	57	58	58	1
R6-104	336 RICE BAY DR	Residential	B	4	1	57	58	58	1
R6-105	332 RICE BAY DR	Residential	B	4	1	56	57	57	1
R6-106	328 RICE BAY DR	Residential	B	4	1	56	57	58	2
R6-107	324 RICE BAY DR	Residential	B	4	1	56	57	58	2
R6-108	320 RICE BAY DR	Residential	B	4	1	55	56	56	1
R6-109	316 RICE BAY DR	Residential	B	4	1	54	55	55	1
R6-110	312 RICE BAY DR	Residential	B	4	1	54	55	56	2
R6-111	308 RICE BAY DR	Residential	B	4	1	54	55	56	2
R6-112	533 PRITCHARDS POINT DR	Residential	B	4	1	51	52	52	1
R6-113	537 PRITCHARDS POINT DR	Residential	B	4	1	52	53	53	1
R6-114	541 PRITCHARDS POINT DR	Residential	B	4	1	53	54	55	2
R6-115	545 PRITCHARDS POINT DR	Residential	B	4	1	54	55	55	1
R6-116	549 PRITCHARDS POINT DR	Residential	B	4	1	54	55	56	2
R6-117	553 PRITCHARDS POINT DR	Residential	B	4	1	54	55	55	1
R6-118	557 PRITCHARDS POINT DR	Residential	B	4	1	53	54	54	1
R6-119	561 PRITCHARDS POINT DR	Residential	B	4	1	53	54	54	1
R6-120	514 ANTEBELLUM LN	Residential	B	4	1	54	55	55	1
R6-121	518 ANTEBELLUM LN	Residential	B	4	1	55	56	56	1
R6-122	522 ANTEBELLUM LN	Residential	B	4	1	56	58	57	1
R6-123	526 ANTEBELLUM LN	Residential	B	4	1	58	59	59	1
R6-124	530 ANTEBELLUM LN	Residential	B	4	1	61	62	61	0
R6-125	538 ANTEBELLUM LN	Residential	B	4	1	62	63	62	0
R6-126	627 ROBYNS GLEN DR	Residential	B	4	1	58	60	59	1
R6-127	623 ROBYNS GLEN DR	Residential	B	4	1	59	61	60	1
R6-128	619 ROBYNS GLEN DR	Residential	B	4	1	52	53	53	1
R6-129	615 ROBYNS GLEN DR	Residential	B	4	1	55	56	55	0
R6-130	611 ROBYNS GLEN DR	Residential	B	4	1	55	56	55	0
R6-131	607 ROBYNS GLEN DR	Residential	B	4	1	55	56	56	1
R6-132	610 ROBYNS GLEN DR	Residential	B	4	1	54	56	55	1
R6-133	614 ROBYNS GLEN DR	Residential	B	4	1	54	56	55	1
R6-134	618 ROBYNS GLEN DR	Residential	B	4	1	54	56	55	1
R6-135	622 ROBYNS GLEN DR	Residential	B	4	1	56	57	56	0
R6-136	626 ROBYNS GLEN DR	Residential	B	4	1	57	58	57	0
R6-137	533 ANTEBELLUM LN	Residential	B	4	1	67	68	68	1
R6-138	537 ANTEBELLUM LN	Residential	B	4	1	68	69	69	1
R6-139	541 ANTEBELLUM LN	Residential	B	4	1	68	70	69	1
R6-140	545 ANTEBELLUM LN	Residential	B	4	1	67	69	68	1
R6-141	549 ANTEBELLUM LN	Residential	B	4	1	66	67	66	0
R6-142	553 ANTEBELLUM LN	Residential	B	4	1	65	67	65	0
R6-143	557 ANTEBELLUM LN	Residential	B	4	1	64	66	65	1
R6-144	561 ANTEBELLUM LN	Residential	B	4	1	64	65	64	0

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R6-145	565 ANTEBELLUM LN	Residential	B	4	1	63	64	63	0
R6-146	569 ANTEBELLUM LN	Residential	B	4	1	62	64	63	1
R6-147	573 ANTEBELLUM LN	Residential	B	4	1	61	63	62	1
R6-148	577 ANTEBELLUM LN	Residential	B	4	1	61	62	62	1
R6-149	581 ANTEBELLUM LN	Residential	B	4	1	61	62	61	0
R6-150	585 ANTEBELLUM LN	Residential	B	4	1	59	61	60	1
R6-151	589 ANTEBELLUM LN	Residential	B	4	1	61	62	61	0
R6-152	593 ANTEBELLUM LN	Residential	B	4	1	59	60	60	1
R6-153	597 ANTEBELLUM LN	Residential	B	4	1	57	58	58	1
R6-154	588 ANTEBELLUM LN	Residential	B	4	1	55	57	56	1
R6-155	600 ANTEBELLUM LN	Residential	B	4	1	54	55	54	0
R7-1	486 WANDO PARK BLVD	Place of Worship	D ⁵	4	1	49	49	48	-1
R8-1	573 LONG POINT RD	Residential	B	4	1	65	67	66	1
R8-2	571 LONG POINT RD	Residential	B	4	1	68	70	70	2
R9-1	601 SOLANA WAY	Residential	B	5	1	57	57	54	-3
R9-1a	601 SOLANA WAY	Residential	B	5	1	60	60	58	-2
R9-1b	601 SOLANA WAY	Residential	B	5	1	62	62	60	-2
R9-2	601 SOLANA WAY	Residential	B	5	1	58	59	55	-3
R9-2a	601 SOLANA WAY	Residential	B	5	1	61	62	59	-2
R9-2b	601 SOLANA WAY	Residential	B	5	1	63	63	61	-2
R9-3	601 SOLANA WAY	Residential	B	5	1	59	59	55	-4
R9-3a	601 SOLANA WAY	Residential	B	5	1	62	62	60	-2
R9-3b	601 SOLANA WAY	Residential	B	5	1	63	64	62	-1
R9-4	601 SOLANA WAY	Residential	B	5	1	59	60	56	-3
R9-4a	601 SOLANA WAY	Residential	B	5	1	62	63	60	-2
R9-4b	601 SOLANA WAY	Residential	B	5	1	64	64	62	-2
R9-5	601 SOLANA WAY	Residential	B	5	1	60	60	57	-3
R9-5a	601 SOLANA WAY	Residential	B	5	1	63	63	61	-2
R9-5b	601 SOLANA WAY	Residential	B	5	1	64	65	63	-1
R9-6	601 SOLANA WAY	Residential	B	5	1	65	66	64	-1
R9-6a	601 SOLANA WAY	Residential	B	5	1	68	69	67	-1
R9-6b	601 SOLANA WAY	Residential	B	5	1	69	70	68	-1
R9-7	601 SOLANA WAY	Residential	B	5	1	65	66	64	-1
R9-7a	601 SOLANA WAY	Residential	B	5	1	68	69	67	-1
R9-7b	601 SOLANA WAY	Residential	B	5	1	69	70	69	0
R9-8	601 SOLANA WAY	Residential	B	5	1	66	66	65	-1
R9-8a	601 SOLANA WAY	Residential	B	5	1	68	69	67	-1
R9-8b	601 SOLANA WAY	Residential	B	5	1	69	70	69	0
R9-9	601 SOLANA WAY	Residential	B	5	1	66	67	65	-1
R9-9a	601 SOLANA WAY	Residential	B	5	1	68	69	68	0
R9-9b	601 SOLANA WAY	Residential	B	5	1	69	70	69	0
R9-10	601 SOLANA WAY	Residential	B	5	1	66	67	66	0
R9-10a	601 SOLANA WAY	Residential	B	5	1	68	69	68	0

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R9-10b	601 SOLANA WAY	Residential	B	5	1	69	71	70	1
R9-11	601 SOLANA WAY	Residential	B	5	1	67	68	67	0
R9-11a	601 SOLANA WAY	Residential	B	5	1	69	70	69	0
R9-11b	601 SOLANA WAY	Residential	B	5	1	70	71	71	1
R9-12	601 SOLANA WAY	Residential	B	5	1	67	68	67	0
R9-12a	601 SOLANA WAY	Residential	B	5	1	68	70	69	1
R9-12b	601 SOLANA WAY	Residential	B	5	1	70	71	71	1
R9-13	601 SOLANA WAY	Residential	B	5	1	67	69	69	2
R9-14	601 SOLANA WAY	Residential	B	5	1	68	70	70	2
R9-15	508 CHIMNEY BLUFF DR	Residential	B	5	1	56	57	55	-1
R9-16	512 CHIMNEY BLUFF DR	Residential	B	5	1	56	58	57	1
R9-17	516 CHIMNEY BLUFF DR	Residential	B	5	1	57	59	58	1
R9-18	520 CHIMNEY BLUFF DR	Residential	B	5	1	59	61	60	1
R9-19	524 CHIMNEY BLUFF DR	Residential	B	5	1	61	63	62	1
R9-20	528 CHIMNEY BLUFF DR	Residential	B	5	1	63	64	63	0
R9-21	532 CHIMNEY BLUFF DR	Residential	B	5	1	64	66	65	1
R9-22	536 CHIMNEY BLUFF DR	Residential	B	5	1	66	68	67	1
R9-23	541 CHIMNEY BLUFF DR	Residential	B	5	1	65	67	66	1
R9-24	537 CHIMNEY BLUFF DR	Residential	B	5	1	61	62	62	1
R9-25	533 CHIMNEY BLUFF DR	Residential	B	5	1	61	62	61	0
R9-26	529 CHIMNEY BLUFF DR	Residential	B	5	1	60	62	61	1
R9-27	525 CHIMNEY BLUFF DR	Residential	B	5	1	59	61	60	1
R9-28	521 CHIMNEY BLUFF DR	Residential	B	5	1	56	58	57	1
R9-29	517 CHIMNEY BLUFF DR	Residential	B	5	1	55	57	56	1
R9-30	513 CHIMNEY BLUFF DR	Residential	B	5	1	55	56	56	1
R9-31	512 WILLOW BRANCH WAY	Residential	B	5	1	54	55	55	1
R9-32	516 WILLOW BRANCH WAY	Residential	B	5	1	56	57	56	0
R9-33	520 WILLOW BRANCH WAY	Residential	B	5	1	56	57	57	1
R9-34	521 WILLOW BRANCH WAY	Residential	B	5	1	55	57	57	2
R9-35	1537 STRATHMORE LN	Residential	B	5	1	52	53	53	1
R9-36	1533 STRATHMORE LN	Residential	B	5	1	51	51	52	1
R9-37	1529 STRATHMORE LN	Residential	B	5	1	54	55	55	1
R9-38	1525 STRATHMORE LN	Residential	B	5	1	55	56	57	2
R9-39	1521 STRATHMORE LN	Residential	B	5	1	54	55	55	1
R9-40	1517 STRATHMORE LN	Residential	B	5	1	57	58	59	2
R9-41	1513 STRATHMORE LN	Residential	B	5	1	58	59	60	2
R9-42	1509 STRATHMORE LN	Residential	B	5	1	60	61	62	2
R9-43	545 CHIMNEY BLUFF RD	Residential	B	5	1	66	67	67	1
R9-44	549 CHIMNEY BLUFF RD	Residential	B	5	1	65	66	67	2
R9-45	1505 STRATHMORE LN	Residential	B	5	1	63	64	65	2
R9-46	1501 STRATHMORE LN	Residential	B	5	1	65	66	67	2
R9-47	1500 STRATHMORE LN	Residential	B	5	1	65	66	66	1
R9-48	1504 STRATHMORE LN	Residential	B	5	1	60	61	62	2

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R9-49	1508 STRATHMORE LN	Residential	B	5	1	58	59	60	2
R9-50	1512 STRATHMORE LN	Residential	B	5	1	56	57	57	1
R9-51	1516 STRATHMORE LN	Residential	B	5	1	56	57	57	1
R9-52	1520 STRATHMORE LN	Residential	B	5	1	53	54	55	2
R9-53	1524 STRATHMORE LN	Residential	B	5	1	53	54	54	1
R9-54	1528 STRATHMORE LN	Residential	B	5	1	53	54	54	1
R9-55	1532 STRATHMORE LN	Residential	B	5	1	53	54	54	1
R9-56	569 CHIMNEY BLUFF RD	Residential	B	5	1	64	65	66	2
R9-57	1505 WHITSUN CT	Residential	B	5	1	61	62	63	2
R9-58	1509 WHITSUN CT	Residential	B	5	1	60	61	62	2
R9-59	1508 WHITSUN CT	Residential	B	5	1	59	60	61	2
R9-60	1504 WHITSUN CT	Residential	B	5	1	61	62	62	1
R9-61	1500 WHITSUN CT	Residential	B	5	1	65	66	66	1
R9-62	571 CHIMNEY BLUFF RD	Residential	B	5	1	66	67	67	1
R9-63	622 CHIMNEY BLUFF RD	Residential	B	5	1	61	62	62	1
R9-64	618 CHIMNEY BLUFF DR	Residential	B	5	1	59	60	60	1
R9-65	614 CHIMNEY BLUFF RD	Residential	B	5	1	57	58	58	1
R9-66	610 CHIMNEY BLUFF RD	Residential	B	5	1	56	56	57	1
R9-67	606 CHIMNEY BLUFF RD	Residential	B	5	1	53	54	54	1
R9-68	602 CHIMNEY BLUFF RD	Residential	B	5	1	54	54	55	1
R9-69	598 CHIMNEY BLUFF RD	Residential	B	5	1	53	54	54	1
R9-70	594 CHIMNEY BLUFF RD	Residential	B	5	1	52	53	53	1
R9-71	590 CHIMNEY BLUFF RD	Residential	B	5	1	52	53	53	1
R9-72	586 CHIMNEY BLUFF RD	Residential	B	5	1	55	56	56	1
R9-73	582 CHIMNEY BLUFF DR	Residential	B	5	1	57	58	58	1
R9-74	578 CHIMNEY BLUFF RD	Residential	B	5	1	59	59	59	0
R9-75	574 CHIMNEY BLUFF RD	Residential	B	5	1	64	64	64	0
R9-76	570 CHIMNEY BLUFF RD	Residential	B	5	1	66	67	67	1
R9-77	566 CHIMNEY BLUFF RD	Residential	B	5	1	71	72	72	1
R9-78	573 CHIMNEY BLUFF RD	Residential	B	5	1	67	68	68	1
R9-79	615 CHIMNEY BLUFF RD	Residential	B	5	1	62	62	62	0
R9-80	609 CHIMNEY BLUFF RD	Residential	B	5	1	59	59	60	1
R9-81	605 CHIMNEY BLUFF DR	Residential	B	5	1	57	58	58	1
R9-82	601 CHIMNEY BLUFF RD	Residential	B	5	1	56	56	56	0
R9-83	597 CHIMNEY BLUFF RD	Residential	B	5	1	57	57	57	0
R9-84	593 CHIMNEY BLUFF RD	Residential	B	5	1	58	59	59	1
R9-85	589 CHIMNEY BLUFF RD	Residential	B	5	1	60	60	60	0
R9-86	585 CHIMNEY BLUFF RD	Residential	B	5	1	59	60	60	1
R9-87	581 CHIMNEY BLUFF RD	Residential	B	5	1	64	64	64	0
R9-88	577 CHIMNEY BLUFF RD	Residential	B	5	1	66	67	67	1
R10-1	623 LONG POINT RD	Residential	B	5	1	74	74	74	0
R10-2	623 LONG POINT RD	Residential	B	5	1	73	73	73	0
R10-3	LONG POINT RD	Residential	B	5	1	70	70	70	0

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R10-4	653 LONG POINT RD	Restaurant Outdoor Seating	E	5	1	67	68	68	1
R11-1	628 LONG POINT RD	Restaurant Outdoor Seating	E	5	1	61	62	62	1
R11-2	628 LONG POINT RD	Restaurant Outdoor Seating	E	5	1	59	59	59	0
R11-3	628 LONG POINT RD	Restaurant Outdoor Seating	E	5	1	62	63	63	1
R11-4	628 LONG POINT RD	Restaurant Outdoor Seating	E	5	1	66	67	67	1
R12-1	600 LONG POINT RD	Residential	B	5	1	64	65	65	1
R12-1a	600 LONG POINT RD	Residential	B	5	1	66	67	68	2
R12-1b	600 LONG POINT RD	Residential	B	5	1	67	68	69	2
R12-2	600 LONG POINT RD	Residential	B	5	1	61	62	62	1
R12-2a	600 LONG POINT RD	Residential	B	5	1	62	64	64	2
R12-2b	600 LONG POINT RD	Residential	B	5	1	64	65	66	2
R12-3	600 LONG POINT RD	Residential	B	5	1	60	61	62	2
R12-3a	600 LONG POINT RD	Residential	B	5	1	62	64	64	2
R12-4	1400 Belle Isle AVE	Residential	B	5	1	67	69	69	2
R12-4a	1400 Belle Isle AVE	Residential	B	5	1	70	71	71	1
R12-4b	1400 Belle Isle AVE	Residential	B	5	1	70	72	72	2
R12-5	1400 Belle Isle AVE	Residential	B	5	1	65	66	66	1
R12-5a	1400 Belle Isle AVE	Residential	B	5	1	67	68	69	2
R12-5b	1400 Belle Isle AVE	Residential	B	5	1	68	69	70	2
R12-6	1400 Belle Isle AVE	Residential	B	5	1	63	64	65	2
R12-6a	1400 Belle Isle AVE	Residential	B	5	1	66	67	67	1
R12-7	1400 Belle Isle AVE	Residential	B	5	1	67	68	68	1
R12-7a	1400 Belle Isle AVE	Residential	B	5	1	69	70	71	2
R12-7b	1400 Belle Isle AVE	Residential	B	5	1	70	71	72	2
R12-8	1400 Belle Isle AVE	Residential	B	5	1	70	72	72	2
R12-8a	1400 Belle Isle AVE	Residential	B	5	1	72	73	74	2
R12-8b	1400 Belle Isle AVE	Residential	B	5	1	72	74	74	2
R12-9	1400 Belle Isle AVE	Residential	B	5	1	71	72	73	2
R12-9a	1400 Belle Isle AVE	Residential	B	5	1	73	74	75	2
R12-9b	1400 Belle Isle AVE	Residential	B	5	1	73	75	75	2
R12-10	1400 Belle Isle AVE	Residential	B	5	1	68	69	70	2
R12-10a	1400 Belle Isle AVE	Residential	B	5	1	70	71	72	2
R12-10b	1400 Belle Isle AVE	Residential	B	5	1	71	72	73	2
R12-11	1400 Belle Isle AVE	Picnic Area	C	5	1	72	73	74	2
R12-12	1400 Belle Isle AVE	Residential	B	5	1	64	66	67	3
R12-12a	1400 Belle Isle AVE	Residential	B	5	1	67	68	68	1
R12-13	1400 Belle Isle AVE	Residential	B	5	1	60	62	62	2
R12-13a	1400 Belle Isle AVE	Residential	B	5	1	62	63	64	2

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R12-13b	1400 Belle Isle AVE	Residential	B	5	1	64	65	65	1
R12-14	1400 Belle Isle AVE	Residential	B	5	1	59	60	61	2
R12-14a	1400 Belle Isle AVE	Residential	B	5	1	61	62	62	1
R12-14b	1400 Belle Isle AVE	Residential	B	5	1	63	64	64	1
R12-15	1400 Belle Isle AVE	Residential	B	5	1	58	59	60	2
R12-15a	1400 Belle Isle AVE	Residential	B	5	1	60	61	61	1
R12-16	1400 Belle Isle AVE	Residential	B	5	1	68	69	71	3
R12-16a	1400 Belle Isle AVE	Residential	B	5	1	73	74	74	1
R12-17	1400 Belle Isle AVE	Community Pool	C	5	1	70	71	72	2
R12-18	1400 Belle Isle AVE	Residential	B	5	1	67	68	70	3
R12-18a	1400 Belle Isle AVE	Residential	B	5	1	71	72	73	2
R12-18b	1400 Belle Isle AVE	Residential	B	5	1	72	73	73	1
R12-19	1400 Belle Isle AVE	Residential	B	5	1	66	66	68	2
R12-19a	1400 Belle Isle AVE	Residential	B	5	1	70	71	72	2
R12-19b	1400 Belle Isle AVE	Residential	B	5	1	71	72	72	1
R12-20	1400 Belle Isle AVE	Residential	B	5	1	64	65	67	3
R12-20a	1400 Belle Isle AVE	Residential	B	5	1	69	70	71	2
R12-21	1400 Belle Isle AVE	Residential	B	5	1	57	58	59	2
R12-21a	1400 Belle Isle AVE	Residential	B	5	1	59	60	60	1
R12-21b	1400 Belle Isle AVE	Residential	B	5	1	61	62	62	1
R12-22	1400 Belle Isle AVE	Residential	B	5	1	56	57	58	2
R12-22a	1400 Belle Isle AVE	Residential	B	5	1	58	59	59	1
R12-22b	1400 Belle Isle AVE	Residential	B	5	1	60	61	61	1
R12-23	1400 Belle Isle AVE	Residential	B	5	1	56	57	58	2
R12-23a	1400 Belle Isle AVE	Residential	B	5	1	59	59	60	1
R12-24	1400 Belle Isle AVE	Residential	B	5	1	63	63	65	2
R12-24a	1400 Belle Isle AVE	Residential	B	5	1	68	69	70	2
R12-24b	1400 Belle Isle AVE	Residential	B	5	1	70	70	71	1
R12-25	1400 Belle Isle AVE	Residential	B	5	1	62	63	64	2
R12-25a	1400 Belle Isle AVE	Residential	B	5	1	68	68	69	1
R12-25b	1400 Belle Isle AVE	Residential	B	5	1	69	69	70	1
R12-26	1400 Belle Isle AVE	Residential	B	5	1	61	62	63	2
R12-26a	1400 Belle Isle AVE	Residential	B	5	1	66	67	67	1
R12-27	1600 BELLE POINT DR	Residential	B	5	1	62	63	64	2
R12-27a	1600 BELLE POINT DR	Residential	B	5	1	67	68	69	2
R12-28	1600 BELLE POINT DR	Residential	B	5	1	63	64	65	2
R12-28a	1600 BELLE POINT DR	Residential	B	5	1	68	69	70	2
R12-28b	1600 BELLE POINT DR	Residential	B	5	1	70	70	71	1
R12-29	1600 BELLE POINT DR	Residential	B	5	1	65	65	66	1
R12-29a	1600 BELLE POINT DR	Residential	B	5	1	69	70	71	2
R12-29b	1600 BELLE POINT DR	Residential	B	5	1	71	71	72	1
R12-30	1600 BELLE POINT DR	Residential	B	5	1	65	66	67	2
R12-30a	1600 BELLE POINT DR	Residential	B	5	1	71	72	72	1

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R12-31	1600 BELLE POINT DR	Residential	B	5	1	56	57	57	1
R12-31a	1600 BELLE POINT DR	Residential	B	5	1	60	60	60	0
R12-32	1600 BELLE POINT DR	Residential	B	5	1	56	57	57	1
R12-32a	1600 BELLE POINT DR	Residential	B	5	1	60	61	61	1
R12-32b	1600 BELLE POINT DR	Residential	B	5	1	63	63	63	0
R12-33	1600 BELLE POINT DR	Residential	B	5	1	57	57	58	1
R12-33a	1600 BELLE POINT DR	Residential	B	5	1	62	62	63	1
R12-33b	1600 BELLE POINT DR	Residential	B	5	1	64	64	65	1
R12-34	1600 BELLE POINT DR	Residential	B	5	1	58	59	60	2
R12-34a	1600 BELLE POINT DR	Residential	B	5	1	65	66	66	1
R12-35	1600 BELLE POINT DR	Residential	B	5	1	58	59	60	2
R12-35a	1600 BELLE POINT DR	Residential	B	5	1	64	64	65	1
R12-36	1600 BELLE POINT DR	Residential	B	5	1	61	61	62	1
R12-36a	1600 BELLE POINT DR	Residential	B	5	1	67	67	68	1
R12-36b	1600 BELLE POINT DR	Residential	B	5	1	68	69	69	1
R12-37	1600 BELLE POINT DR	Residential	B	5	1	63	63	65	2
R12-37a	1600 BELLE POINT DR	Residential	B	5	1	69	69	70	1
R12-37b	1600 BELLE POINT DR	Residential	B	5	1	70	70	71	1
R12-38	1600 BELLE POINT DR	Residential	B	5	1	64	65	66	2
R12-38a	1600 BELLE POINT DR	Residential	B	5	1	70	70	71	1
R12-39	1600 BELLE POINT DR	Residential	B	5	1	52	52	53	1
R12-39a	1600 BELLE POINT DR	Residential	B	5	1	54	54	55	1
R12-40	1600 BELLE POINT DR	Residential	B	5	1	53	53	53	0
R12-40a	1600 BELLE POINT DR	Residential	B	5	1	55	55	55	0
R12-40b	1600 BELLE POINT DR	Residential	B	5	1	58	59	59	1
R12-41	1600 BELLE POINT DR	Residential	B	5	1	54	54	55	1
R12-41a	1600 BELLE POINT DR	Residential	B	5	1	56	57	57	1
R12-41b	1600 BELLE POINT DR	Residential	B	5	1	60	61	61	1
R12-42	1600 BELLE POINT DR	Residential	B	5	1	56	57	57	1
R12-42a	1600 BELLE POINT DR	Residential	B	5	1	61	61	61	0
R12-43	1600 BELLE POINT DR	Residential	B	5	1	58	59	60	2
R12-43a	1600 BELLE POINT DR	Residential	B	5	1	64	65	65	1
R12-44	1600 BELLE POINT DR	Residential	B	5	1	54	55	55	1
R12-44a	1600 BELLE POINT DR	Residential	B	5	1	58	59	60	2
R12-44b	1600 BELLE POINT DR	Residential	B	5	1	60	61	61	1
R12-45	1600 BELLE POINT DR	Residential	B	5	1	53	54	54	1
R12-45a	1600 BELLE POINT DR	Residential	B	5	1	55	56	57	2
R12-45b	1600 BELLE POINT DR	Residential	B	5	1	58	59	59	1
R12-46	1600 BELLE POINT DR	Residential	B	5	1	52	53	53	1
R12-46a	1600 BELLE POINT DR	Residential	B	5	1	54	55	55	1
R12-47	1600 BELLE POINT DR	Residential	B	5	1	62	63	63	1
R12-47a	1600 BELLE POINT DR	Residential	B	5	1	68	69	69	1
R12-48	1600 BELLE POINT DR	Residential	B	5	1	59	59	59	0

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R12-48a	1600 BELLE POINT DR	Residential	B	5	1	65	66	66	1
R12-48b	1600 BELLE POINT DR	Residential	B	5	1	67	68	68	1
R12-49	1600 BELLE POINT DR	Residential	B	5	1	57	57	58	1
R12-49a	1600 BELLE POINT DR	Residential	B	5	1	62	63	63	1
R12-49b	1600 BELLE POINT DR	Residential	B	5	1	65	65	66	1
R12-50	1600 BELLE POINT DR	Residential	B	5	1	56	56	56	0
R12-50a	1600 BELLE POINT DR	Residential	B	5	1	60	60	61	1
R12-51	1600 BELLE POINT DR	Residential	B	5	1	60	61	61	1
R12-51a	1600 BELLE POINT DR	Residential	B	5	1	68	69	69	1
R12-52	1600 BELLE POINT DR	Residential	B	5	1	58	58	59	1
R12-52a	1600 BELLE POINT DR	Residential	B	5	1	65	66	66	1
R12-52b	1600 BELLE POINT DR	Residential	B	5	1	66	67	68	2
R12-53	1600 BELLE POINT DR	Residential	B	5	1	57	58	58	1
R12-53a	1600 BELLE POINT DR	Residential	B	5	1	63	64	64	1
R12-53b	1600 BELLE POINT DR	Residential	B	5	1	65	66	66	1
R12-54	1600 BELLE POINT DR	Residential	B	5	1	56	56	57	1
R12-54a	1600 BELLE POINT DR	Residential	B	5	1	61	62	62	1
R12-55	1600 BELLE POINT DR	Residential	B	5	1	65	66	66	1
R12-55a	1600 BELLE POINT DR	Residential	B	5	1	72	73	73	1
R12-56	1600 BELLE POINT DR	Residential	B	5	1	64	65	65	1
R12-56a	1600 BELLE POINT DR	Residential	B	5	1	70	71	71	1
R12-56b	1600 BELLE POINT DR	Residential	B	5	1	71	71	72	1
R12-57	1600 BELLE POINT DR	Residential	B	5	1	63	64	64	1
R12-57a	1600 BELLE POINT DR	Residential	B	5	1	69	69	69	0
R12-57b	1600 BELLE POINT DR	Residential	B	5	1	70	70	70	0
R12-58	1600 BELLE POINT DR	Residential	B	5	1	62	63	63	1
R12-58a	1600 BELLE POINT DR	Residential	B	5	1	67	67	68	1
R12-59	1600 BELLE POINT DR	Residential	B	5	1	55	55	56	1
R12-59a	1600 BELLE POINT DR	Residential	B	5	1	59	59	60	1
R12-60	1600 BELLE POINT DR	Residential	B	5	1	55	55	56	1
R12-60a	1600 BELLE POINT DR	Residential	B	5	1	58	58	59	1
R12-60b	1600 BELLE POINT DR	Residential	B	5	1	61	61	62	1
R12-61	1600 BELLE POINT DR	Residential	B	5	1	54	55	55	1
R12-61a	1600 BELLE POINT DR	Residential	B	5	1	57	57	58	1
R12-61b	1600 BELLE POINT DR	Residential	B	5	1	60	60	61	1
R12-62	1600 BELLE POINT DR	Residential	B	5	1	54	55	55	1
R12-62a	1600 BELLE POINT DR	Residential	B	5	1	56	56	57	1
R12-63	1600 BELLE POINT DR	Residential	B	5	1	61	61	62	1
R12-63a	1600 BELLE POINT DR	Residential	B	5	1	66	66	66	0
R12-64	1600 BELLE POINT DR	Residential	B	5	1	61	61	61	0
R12-64a	1600 BELLE POINT DR	Residential	B	5	1	65	65	65	0
R12-64b	1600 BELLE POINT DR	Residential	B	5	1	67	67	68	1
R12-65	1600 BELLE POINT DR	Residential	B	5	1	60	61	61	1

Receptors						Predicted Noise Levels, Leq(h) (dB(A))			
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)
R12-65a	1600 BELLE POINT DR	Residential	B	5	1	64	64	64	0
R12-65b	1600 BELLE POINT DR	Residential	B	5	1	66	67	67	1
R12-66	1600 BELLE POINT DR	Residential	B	5	1	60	60	60	0
R12-66a	1600 BELLE POINT DR	Residential	B	5	1	63	64	64	1
R13-1	532 OAK PARK DR	Residential	B	6	1	53	55	54	1
R13-2	528 OAK PARK DR	Residential	B	6	1	54	55	54	0
R13-3	524 OAK PARK DR	Residential	B	6	1	54	55	54	0
R13-4	520 OAK PARK DR	Residential	B	6	1	54	55	54	0
R13-5	516 OAK PARK DR	Residential	B	6	1	55	57	54	-1
R13-6	512 OAK PARK DR	Residential	B	6	1	58	59	57	-1
R13-7	508 OAK PARK DR	Residential	B	6	1	62	63	60	-2
R13-8	504 OAK PARK DR	Residential	B	6	1	62	63	60	-2
R13-9	500 OAK PARK DR	Residential	B	6	1	62	62	60	-2
R13-10	596 OAK PARK DR	Residential	B	6	1	62	62	60	-2
R13-11	592 OAK PARK DR	Residential	B	6	1	61	62	60	-1
R13-12	588 OAK PARK DR	Residential	B	6	1	60	61	59	-1
R13-13	584 OAK PARK DR	Residential	B	6	1	56	57	55	-1
R13-14	580 OAK PARK DR	Residential	B	6	1	57	58	56	-1
R13-15	576 OAK PARK DR	Residential	B	6	1	56	57	55	-1
R13-16	572 OAK PARK DR	Residential	B	6	1	55	56	54	-1
R13-17	568 OAK PARK DR	Residential	B	6	1	54	55	53	-1
R13-18	573 OAK PARK DR	Residential	B	6	1	53	54	52	-1
R13-19	577 OAK PARK DR	Residential	B	6	1	53	54	52	-1
R13-20	581 OAK PARK DR	Residential	B	6	1	54	55	53	-1
R13-21	589 OAK PARK DR	Residential	B	6	1	56	57	55	-1
R13-22	507 OAK PARK DR	Residential	B	6	1	56	57	55	-1
R13-23	515 OAK PARK DR	Residential	B	6	1	55	56	54	-1
R13-24	523 OAK PARK DR	Residential	B	6	1	53	53	51	-2
R13-25	527 OAK PARK DR	Residential	B	6	1	51	52	50	-1
R13-26	531 OAK PARK DR	Residential	B	6	1	51	52	50	-1
R14-1	547 LONG POINT RD	Restaurant Outdoor Seating	E	6	1	59	60	59	0
Predicted "No-Build" Alternative Design Year 2050 Traffic Noise Impacts						NA	NA	456 ^{2,4}	0 ³

Receptors						Predicted Noise Levels, Leq(h) (dB(A))				
Rec. No.	Address ⁶	Land Use	NAC	Figure #	ERs	Existing (2022)	No Build (2050)	Build (2050)	Build - Existing (Change)	
<ol style="list-style-type: none"> 1. The number of predicted impacts is not duplicated if receptors are predicted to be impacted by more than one criterion (e.g., if a receptor is impacted by NAC "C" and NAC "D", it is counted as only one impact). 2. Predicted traffic noise level impact due to approaching or exceeding NAC. 3. Predicted "substantial increase" traffic noise level impact. 4. Impacted Equivalent Receptors at the Kearns Park Trail were rounded up to six (6) impacts. 5. The receptor at Christ Church Presbyterian (R7-1) is designated as NAC D and evaluated for interior sound levels because there are no outdoor areas of frequent human use. A Building Noise Reduction Factor of -25 dB(A) was applied to be conservative (light frame with storm windows or masonry with single-glazed windows). See Section 9.5. 6. Unit numbers of any benefited receptors in apartment complexes will be field verified prior to sending ballots. 										
Impact =		456	Right-of-Way Acquisition =			ROW				

Equivalent Receptor Calculations for the trail at Kearns Park (NSA-2)

A conversation was held with Steve Gergick, Recreation Director for Mount Pleasant, SC. On December 8, 2022. He stated that there are no records of usage at the park, but he would estimate between 30-40 visitors per day. For purposes of this analysis, we used 35 visitors per day. Kearns Park is considered a “Passive Park”, which is typically less developed than an active park, but may contain features such as walking tracks, gardens, seating, barbecues, picnic areas, etc. As the name suggests, they do not usually contain sports infrastructure or encourage strenuous physical activity, although they may contain playground equipment. The Kearns Park incorporates history, natural beauty, and environmental awareness. Located off Wando Park Boulevard just before Etiwan Pointe, Kearns Park Trail meanders through a maritime forest along the Wando River giving stunning views of the harbor, bridges, and marshes. Benches are located along the trail at scenic spots and interpretive signage provides information about the various sights. Parking is available on site and pets are welcome.

Although the park is available 24 hours a day the usage is typically between dusk and dawn (12 hours – 6:00 am – 6:00 pm) when daylight is available, as there is no lighting in the park.

35 visitors to a park per day

12 hours per day

- Equivalent # Residents = $35/3*(12/24)$
- Equivalent # Residents = $11.66667*0.5$
- Equivalent # Residents = 5.8333
- Equivalent # Residents = 6 (Rounded up)

Equivalent # Residents / Number of Modeling Receptors = Per modeling receptor equivalent residential value.

$6/21 = 0.29$ per receptor. $0.29*21 = 6$ impacts for NSA-2

APPENDIX C

TRAFFIC NOISE MODELS (TNM) AND VALIDATION

GENERAL

This appendix documents the TNM Model Input used in this traffic noise analysis. The TNM Models utilized six (6) TNM object types to approximate the traffic noise environment for the I-526 Lowcountry Corridor East – Long Point Road Interchange Traffic Noise Report:

Roadways

Receptors (Receivers)

Barriers

Terrain Lines

Ground Zones

Tree Zones (Validation Only)

COORDINATE SYSTEM

Each of the TNM Objects was modeled using the North American Datum 1983 (NAD83) horizontal coordinate system, and North American Vertical Datum 1988 (NAVD88).

MODELING PROCEDURE

Roadways

TNM Roadway Element widths were selected based upon representation of one (1) lane of traffic for all elements which will have traffic applied to the element or two (2) lanes of traffic for neighborhood roads which will not have traffic applied. For the proposed highway facility, TNM Roadway vertices were selected to represent interval lengths that appropriately represent fluctuations in the horizontal and vertical roadway geometry. For the I-526 project 100-foot segments or less were used to model roadways. For highways in which more than one parallel TNM roadway element were modeled, the modeled roadway lane widths were set to ensure horizontal overlapping of adjacent modeled roadway elements. Paved shoulders were modeled. Overlapping TNM roadway elements is necessary to accurately represent the contiguous paved surface. TNM roadway elements of various widths were also modeled to represent the existing local roadways.

Receivers (Receptors)

TNM Receiver Elements were modeled by assigning a point location to the most sensitive likely 'area of frequent human use' for each residence, school, church, and noise-sensitive commercial land use within the project limits. All receivers in the TNM models were assigned a height of 5.0 feet. For apartments the receptor heights will be 5.0, 15.0, 25.0, etc. for the individual stories. Given the non-homogeneous terrain and resulting inconsistent intervening source-to-receptor topography throughout the project vicinity, noise levels at each discrete receptor were determined by means of modeling an individual TNM receiver at all representative locations for 'loudest-condition' existing, Design Year 2050 No-build, and Design Year 2050 Build condition predicted traffic.

Barriers

Buildings throughout the project corridor that provide shielding of receptors from the roadway were modeled as barriers. Roadway medians and bridge parapets were modeled as barriers. Noise Barriers are discussed in **Appendix E**.

Terrain Lines (Elevation Contours)

Elevations (vertical, “Z” coordinates) were input into TNM by hand (typing) the English coordinate values of vertices that define significant changes in grades and/or slopes throughout the study areas.

Tree Zones

Tree zones were used when necessary for validation. They were not used for the existing, no-build and build models.

TNM MODEL TRAFFIC NOISE LEVEL ASSESSMENT

The TNM model traffic noise level assessment is divided into four tasks:

1. Creation of Validated TNM Computer Model(s)
2. Assessment of Existing Loudest-Hour Traffic Noise Levels
3. Assessment of Predicted Loudest-Hour Design Year No-Build and Build Condition Without-Barrier Levels
4. Assessment of Predicted Loudest-Hour Design Year Build-Condition With-Barrier Levels (if applicable)

Validation Models

In accordance with the SCDOT Traffic Noise Abatement Policy (effective October 10, 2019), computer models using the FHWA TNM 2.5[®] were created to predict traffic noise in the project study area, and these models have been validated to local conditions through comparison between measured and predicted noise levels. For each measurement location where the predicted noise level is within ± 3 dB(A) of the measured noise level, that measurement site is considered validated. Refer to Table C1 for a summary of the TNM validation results.

For the purposes of validating the models, tree zones were used for measurement sites 8, 10 and 13. The tree zones are for validation only and were not used in the existing, no-build or build models.

Table C1. TNM Validation Table

Measurement Site	Date and Time Period	Measurement ID#	Measured L_{eq} , dB(A) ¹	TNM Predicted $L_{eq(h)}$, dB(A) ¹	Validation Delta (Predicted-Measured), dB(A) ¹
1	8/3/22 9:30-9:50 am	NML-1	66.7	66.3	-0.4
		NML-1a	64.4	65.9	1.5
2	8/3/22 9:00-9:20 am	NML-2	71.6	72.5	0.9
		NML-2a	67.1	66.8	-0.3
3	8/2/22 9:10-9:40 am	NML-3	70.2	Ambient Only	N/A
4	8/2/22 9:25-9:55 am	NML-4	62.3	Ambient Only	N/A
5	8/2/22 10:00-10:20 am	NML-5	71.9	72.1	0.2
		NML-5a	65.2	67.0	1.8
6	8/3/22 2:00-2:20 pm	NML-6	71.4	70.8	-0.6
		NML-6a	64.5	64.8	0.3
7	8/3/22 2:35-2:55 pm	NML-7	70.7	70.7	0
		NML-7a	61.5	58.9	-2.6
8	8/3/22 10:35-10:55 am	NML-8	64.3	64.2	-0.1
		NML-8a	58.0	60.4	2.4
9	8/3/22 3:10-3:30 pm	NML-9	61.1	64.0	2.9
		NML-9a	58.7	56.9	-1.8
10	8/3/22 3:45-4:05 pm	NML-10	61.5	64.3	2.8
		NML-10a	56.4	58.6	2.2
11 ²	N/A	N/A	N/A	N/A	N/A
12 ³	8/2/22 11:28-11:58 am	NML-12	63.0	Ambient Only	N/A
13	8/3/22 12:15-12:35 pm	NML-13	66.1	66.2	0.1
		NML-13a	61.7	62.2	0.5
14	8/3/22 11:35-11:55 am	NML-14	65.1	66	0.9
		NML-14a	56.3	58.1	1.8
15	8/2/22 10:55-11:15 am	NML-15	62.6	65.5	2.9
		NML-15a	56.5	59.3	2.8

- Hourly equivalent noise levels, $L_{eq}(h)$, are expressed to the nearest one-tenth decibels to ensure that TNM-predicted noise levels validate to within ± 3.0 dB(A) of measured noise levels without the benefits of rounding.
- Location 11 was dropped due to traffic conditions that were unfavorable for validation (slowed and stopped traffic) and residences that no longer exist.
- Location 12 is Ambient only due to traffic conditions that were unfavorable for validation (slowed and stopped traffic).

APPENDIX D

TRAFFIC VOLUMES

EXISTING YEAR 2022 ESTIMATED AADT

DESIGN YEAR 2050 NO-BUILD ESTIMATED AADT

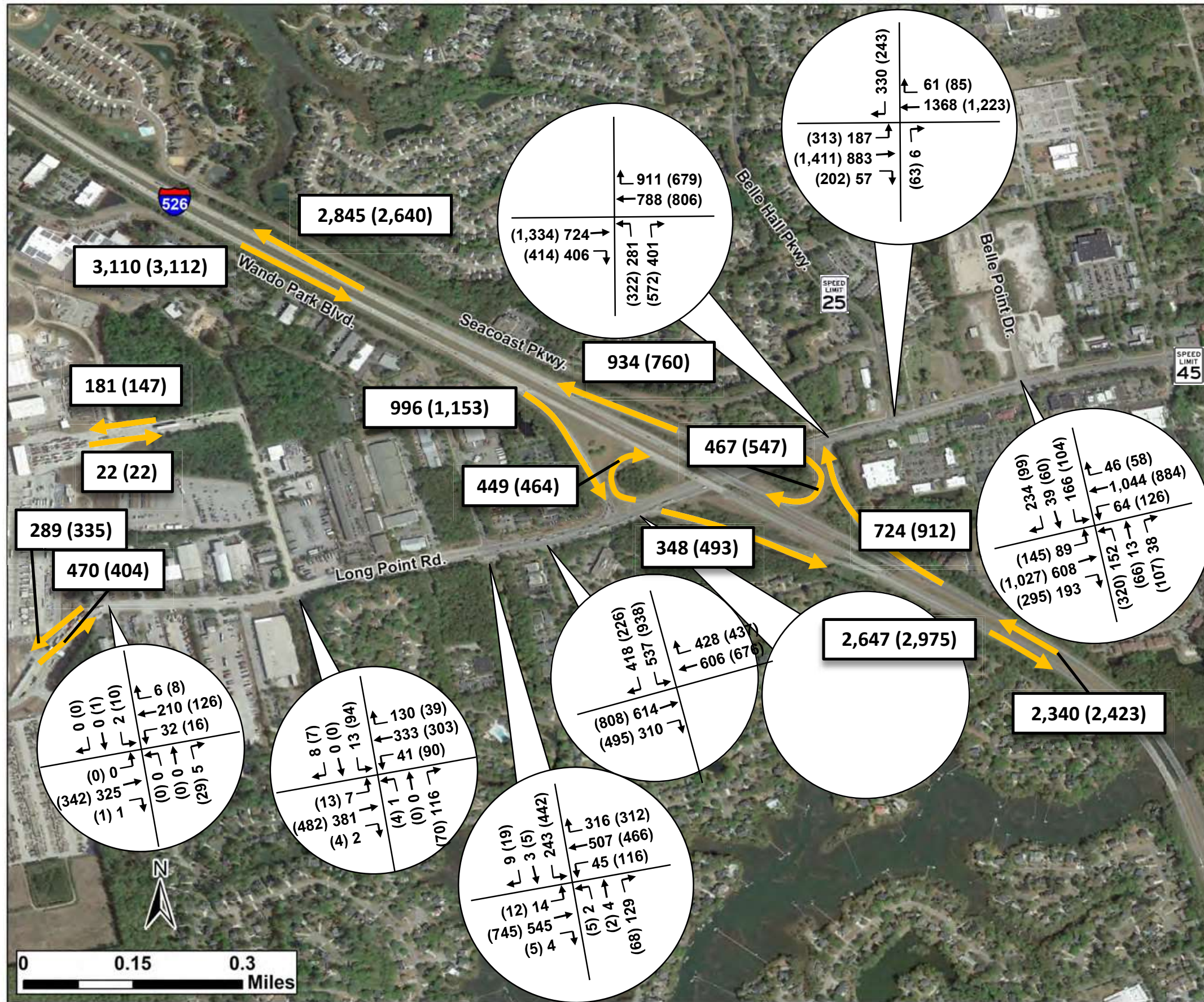
DESIGN YEAR 2050 BUILD ALTERNATIVE ESTIMATED AADT

I-526 & Long Point Road Noise Study Traffic Calculations	Peak Hour Volumes		# of lanes (ONE direction) - BUILD	LOS C Capacity - NO BUILD	K factor	D factor (peak)	% Cars	% Duals	% TTST	2022 No Build	2050 No Build/Build	2022 No Build			2050 No Build			Speed (mph)
	2022 No Build	2050 No Build/Build										Each Direction			Each Direction			
	Autos	Duals	TTST	Autos	Duals	TTST												
Long Point Road																		
Long Point Road east of Belle Point Drive	2,723	3,988	2	1815	0.09	0.5	96%	3%	1%	1361	1994	1307	41	14	1742	54	18	45
Long Point Road between Belle Point Drive and Belle Hall Parkway	3,162	4,697	2	1719	0.09	0.5	96%	3%	1%	1581	2349	1518	47	16	1650	52	17	45
EB Long Point Road between Lone Tree Drive and I-526 EB On-Ramp	1,221	1,976	3	878	0.09	1	81%	3%	16%	1221	1976	711	26	140	711	26	140	45
EB Long Point Road between I-526 EB On-Ramp and I-526 WB On-Ramp	1,753	2,805	3	1386	0.09	1	81%	3%	16%	1753	2805	1123	42	222	1123	42	222	45
EB Long Point Road between I-526 WB On-Ramp and I-526 WB Off-Ramp	1,263	1,836	2	990	0.09	1	97%	3%	0%	1263	1836	960	30	0	960	30	0	45
EB Long Point Road between I-526 WB Off-Ramp and Belle Hall Parkway	1,763	2,616	2	2006	0.09	1	97%	3%	0%	1763	2616	1710	53	0	1946	60	0	45
WB Long Point Road between Belle Hall Parkway and I-526 WB Off-Ramp	1,988	2,979	2	1386	0.09	1	96%	3%	1%	1988	2979	1331	42	14	1331	42	14	45
WB Long Point Road between I-526 WB Off-Ramp and I-526 EB On-Ramp	1,205	1,757	2	2006	0.09	1	94%	3%	3%	1205	1757	1133	36	36	1652	53	53	45
WB Long Point Road between I-526 EB On-Ramp and I-526 EB Off-Ramp	740	1,031	2	990	0.09	1	92%	3%	5%	740	1031	681	22	37	911	30	50	45
WB Long Point Road between I-526 EB Off-Ramp and Lone Tree Drive	1,206	1,952	3	1112	0.09	1	81%	3%	16%	1206	1952	901	33	178	901	33	178	45
Long Point Road between Lone Tree Drive and Wando Park Boulevard	2,386	3,865	2.5	830	0.09	0.5	81%	3%	16%	1193	1932	672	25	133	672	25	133	45
Long Point Road between Wando Park Boulevard and Hidden Boulevard	1,247	2,235	2	694	0.09	0.5	81%	3%	16%	624	1117	505	19	100	562	21	111	40
Long Point Road west of Hidden Boulevard	709	1,441	2	694	0.09	0.5	81%	3%	16%	354	720	287	11	57	562	21	111	40
I-526																		
I-526 EB north of Long Point Road Off-Ramp	3,518	5,682	2	3020	0.09	1	82%	3%	15%	3518	5682	2476	91	453	2476	91	453	70
I-526 EB between Long Point Road Off-Ramp and Long Point Road On-Ramp	2,118	3,304	2	3020	0.09	1	98%	1%	1%	2118	3304	2076	21	21	2960	30	30	70
I-526 EB between Long Point Road On-Ramps	2,584	4,030	2	3020	0.09	1	98%	1%	1%	2584	4030	2532	26	26	2960	30	30	70
I-526 EB south of Long Point Road On-Ramp	2,988	4,659	2	3020	0.09	1	97%	1%	2%	2988	4659	2898	30	60	2929	30	60	70
I-526 WB south of Long Point Road Off-Ramp	2,574	4,014	2	3020	0.09	1	97%	1%	2%	2574	4014	2497	26	51	2929	30	60	70
I-526 WB between Long Point Road Off-Ramp and Long Point Road On-Ramp	1,728	2,694	2	3020	0.09	1	97%	1%	2%	1728	2694	1676	17	35	2613	27	54	70
I-526 WB between Long Point Road On-Ramps	2,218	3,663	2	3020	0.09	1	97%	1%	2%	2218	3663	2151	22	44	2929	30	60	70
I-526 WB north of WB Long Point Road On-Ramp	3,349	5,426	2	3020	0.09	1	82%	3%	15%	3349	5426	2476	91	453	2476	91	453	70
MAJOR -Y- LINES																		
I-526 EB - Long Point Road Off-Ramp	1,400	2,379	1	872	0.09	1	67%	4%	29%	1400	2379	584	35	253	584	35	253	20-60
I-526 EB - WB Long Point Road On-Ramp (Loop)	466	726	1	840	0.09	1	95%	4%	1%	466	726	443	19	5	690	29	7	30-70
I-526 EB - EB Long Point Road On-Ramp	404	629	1	840	0.09	1	86%	9%	5%	404	629	347	36	20	541	57	31	30-70
I-526 WB - Long Point Road Off-Ramp	846	1,320	1	872	0.09	1	90%	6%	4%	846	1320	761	51	34	785	52	35	20-60
I-526 WB - EB Long Point Road On-Ramp (Loop)	490	969	1	840	0.09	1	62%	9%	29%	490	969	304	44	142	521	76	244	30-70
I-526 WB - WB Long Point Road On-Ramp	1,131	1,763	2	840	0.09	1	96%	2%	2%	1131	1763	806	17	17	806	17	17	30-70
Belle Point Drive - north of Long Point Road	564	797	1	389	0.09	0.5	97%	2%	1%	282	398	274	6	3	377	8	4	40
Belle Point Drive - south of Long Point Road	753	1,072	1	389	0.09	0.5	97%	2%	1%	377	536	366	8	4	377	8	4	30
Belle Hall Parkway - north of Long Point Road	654	959	1	370	0.09	0.5	98%	2%	0%	327	480	320	7	0	363	7	0	30
Lone Tree Drive - south of Long Point Road	182	260	1	296	0.09	0.5	97%	2%	1%	91	130	88	2	1	126	3	1	30
Wando Park Boulevard - north of Long Point Road	822	1,190	1	370	0.09	0.5	97%	2%	1%	411	595	359	7	4	359	7	4	40
Hobcaw Bluff Drive - south of Long Point Road	276	398	1	389	0.09	0.5	98%	2%	0%	138	199	135	3	0	195	4	0	30
Shipping Lane - north of Long Point Road	172	296	1	296	0.09	0.5	49%	16%	35%	86	148	42	14	30	73	24	52	30
Hidden Boulevard - south of Long Point Road	179	251	1	296	0.09	0.5	98%	2%	0%	90	126	88	2	0	123	3	0	30

Used LOS C Capacity

I-526 & Long Point Road Noise Study Traffic Calculations	2050 Build	# of lanes (ONE direction) - BUILD	LOS C Capacity - BUILD	K factor	D factor (peak)	% Cars	% Duals	% TTST	2050 No Build/Build	2050 Build			Speed (mph)
										Each Direction			
										Autos	Duals	TTST	
Long Point Road													
Long Point Road east of Belle Point Drive	4,866	2	1815	0.09	0.5	96%	3%	1%	2433	1742	54	18	45
Long Point Road between Belle Point Drive and Belle Hall Parkway	5,220	2	1719	0.09	0.5	96%	3%	1%	2610	1650	52	17	45
EB Long Point Road between Lone Tree Drive and I-526 EB On-Ramp	1,397	3	878	0.09	1	94%	3%	3%	1397	825	26	26	45
EB Long Point Road between I-526 EB On-Ramp and I-526 WB On-Ramp	2,226	3	2158	0.09	1	97%	3%	0%	2226	2093	65	0	45
EB Long Point Road between I-526 WB On-Ramp and I-526 WB Off-Ramp	1,835	3	2205	0.09	1	97%	3%	0%	1835	1780	55	0	45
EB Long Point Road between I-526 WB Off-Ramp and Belle Hall Parkway	2,615	3	3087	0.09	1	97%	3%	0%	2615	2537	78	0	45
WB Long Point Road between Belle Hall Parkway and I-526 WB Off-Ramp	2,979	3	2940	0.09	1	96%	3%	1%	2979	2822	88	29	45
WB Long Point Road between I-526 WB Off-Ramp and I-526 EB On-Ramp	1,757	2	2006	0.09	1	94%	3%	3%	1757	1652	53	53	45
WB Long Point Road between I-526 EB On-Ramp and I-526 EB Off-Ramp	1,031	2	990	0.09	1	92%	3%	5%	1031	911	30	50	45
WB Long Point Road between I-526 EB Off-Ramp and Lone Tree Drive	1,457	3	1112	0.09	1	92%	3%	5%	1457	1023	33	56	45
Long Point Road between Lone Tree Drive and Wando Park Boulevard	2,910	2.5	830	0.09	0.5	90%	3%	7%	1455	747	25	58	45
Long Point Road between Wando Park Boulevard and Hidden Boulevard	1,408	2	694	0.09	0.5	89%	3%	8%	704	618	21	56	40
Long Point Road between Hidden Boulevard and Wando Lane	826	2	694	0.09	0.5	84%	3%	13%	413	347	12	54	40
I-526													
I-526 EB north of New 526 Connector Off-Ramp/Long Point Road Off-Ramp	6,044	3	4580	0.09	1	82%	3%	15%	6044	3756	137	687	70
I-526 EB between Long Point Road Off-Ramp and WB Long Point Road On-Ramp	3,666	2	3020	0.09	1	98%	1%	1%	3666	2960	30	30	70
I-526 EB between Long Point Road On-Ramps	4,392	2	3020	0.09	1	98%	1%	1%	4392	2960	30	30	70
I-526 EB south of Long Point Road On-Ramp	4,295	2	3020	0.09	1	97%	1%	2%	4295	2929	30	60	70
I-526 WB south of Long Point Road Off-Ramp	4,499	2	3020	0.09	1	97%	1%	2%	4499	2929	30	60	70
I-526 WB between Long Point Road Off-Ramp and Long Point Road On-Ramp	3,179	2	3020	0.09	1	97%	1%	2%	3179	2929	30	60	70
I-526 WB between Long Point Road On-Ramp and New 526 Connector On-Ramp	5,333	2	3020	0.09	1	97%	1%	2%	5333	2929	30	60	70
I-526 WB north of New 526 Connector On-Ramp	5,912	3	4580	0.09	1	82%	3%	15%	5912	3756	137	687	70
MAJOR -Y- LINES													
I-526 EB - Combined Long Point Road/New 526 Connector Off-Ramp	2,378	2	2560	0.09	1	67%	4%	29%	2378	1593	95	690	20-60
I-526 EB - Long Point Road Off-Ramp	1,884	2	2006	0.09	1	89%	5%	0%	1884	1677	94	0	20-60
I-526 EB - WB Long Point Road On-Ramp (Loop)	726	1	840	0.09	1	95%	4%	1%	726	690	29	7	25-70
I-526 EB - EB Long Point Road On-Ramp	629	1	840	0.09	1	86%	9%	5%	629	541	57	31	30-70
I-526 WB - Long Point Road Off-Ramp	1,320	2	2006	0.09	1	91%	6%	4%	1320	1195	73	53	20-60
I-526 WB - EB Long Point Road On-Ramp (Loop)	391	1	840	0.09	1	91%	9%	0%	391	356	35	0	25-70
I-526 WB - WB Long Point Road On-Ramp	1,763	2	1920	0.09	1	96%	2%	2%	1763	1692	35	35	30-70
I-526 WB - Combined EB/WB Long Point Road On-Ramps	2,154	2	2560	0.09	1	96%	2%	2%	2154	2068	43	43	70
Belle Point Drive - north of Long Point Road	729	1	389	0.09	0.5	97%	2%	1%	365	354	7	4	40
Belle Point Drive - south of Long Point Road	1,032	1	389	0.09	0.5	97%	2%	1%	516	377	8	4	30
Belle Hall Parkway - north of Long Point Road	623	1	370	0.09	0.5	98%	2%	0%	312	306	6	0	30
Lone Tree Drive - south of Long Point Road	51	1	296	0.09	0.5	97%	2%	1%	26	25	1	0	30
Wando Park Boulevard - north of Long Point Road	1,264	1	370	0.09	0.5	97%	2%	1%	632	359	7	4	40
Hobcaw Bluff Drive - south of Long Point Road	494	1	389	0.09	0.5	98%	2%	0%	247	242	5	0	30
Shipping Lane - between Long Point Road and New 526 Connector	111	1	296	0.09	0.5	49%	16%	35%	56	27	9	20	30
Hidden Boulevard - south of Long Point Road	297	1	296	0.09	0.5	98%	2%	0%	149	146	3	0	30
I-526 EB Off-Ramp to New 526 Connector	494	2	1910	0.09	1	0%	0%	100%	494	0	0	494	45
I-526 WB On-Ramp From New 526 Connector	579	1	840	0.09	1	0%	0%	100%	579	0	0	579	40-70

Used LOS C Capacity



Long Point Rd. Interchange

**2022 RAW UNFACTORED
Design Hour Traffic Volumes**

Interchange Name: Long Point Rd.

Eastbound Exit Number: 28
Westbound Exit Number: 28

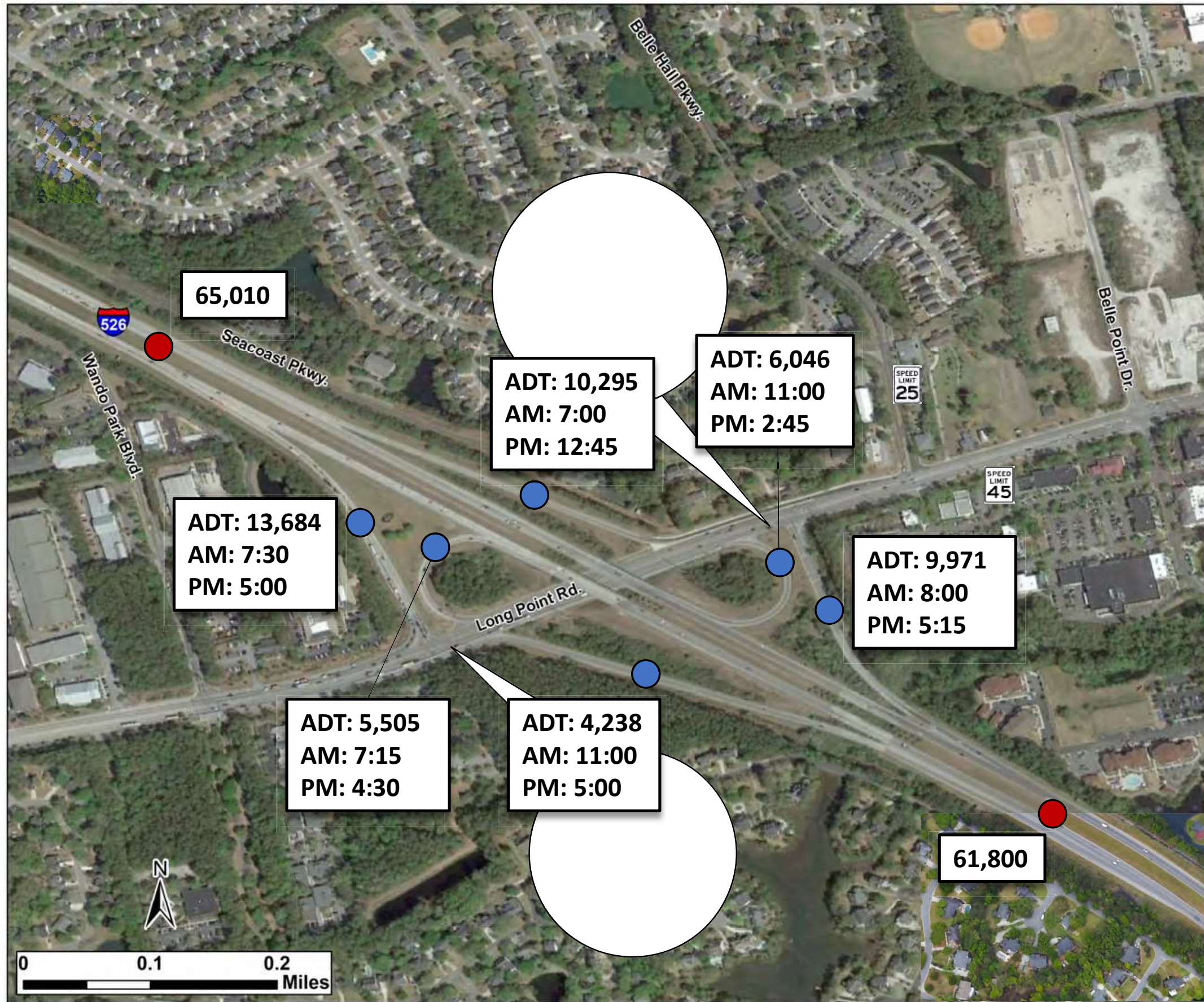
Interchange Immediately West:
Seven Farms Dr. Exit 24

Interchange Immediately East:
U.S. 17 N. Exit 29
U.S. 17 S. Exit 30

Legend

- Ramp or Mainline Volume
- XX AM Peak Intersection Volume
- (XX) PM Peak Intersection Volume

7:00 – 8:30	Long Point Rd. Peak Hours
9:30 – 10:30	Shipping Ln. Peak Hours
11:00 – 12:00	Port Access Peak Hours
12:00 – 1:00	



Long Point Rd. Interchange

Mainline and Ramp Daily Traffic & Ramp Peak Hours

Interchange Name: Long Point Rd.

Eastbound Exit Number: 28

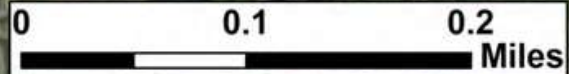
Westbound Exit Number: 28

Interchange Immediately West:
Seven Farms Dr. Exit 24

Interchange Immediately East:
U.S. 17 N. Exit 29
U.S. 17 S. Exit 30

Legend

- I-526 East Segment Number
- Ramp Count Location
- ADT:** Average Daily Traffic
AM: AM Peak Hour Beginning
PM: PM Peak Hour Beginning
- Average Daily Traffic



Long Point Rd. Interchange

2050 Design Hour Traffic Volumes With Tractor Trailer Trucks

Interchange Name: Long Point Rd.

Eastbound Exit Number: 28




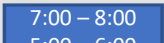
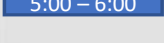
Westbound Exit Number: 28

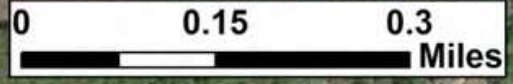
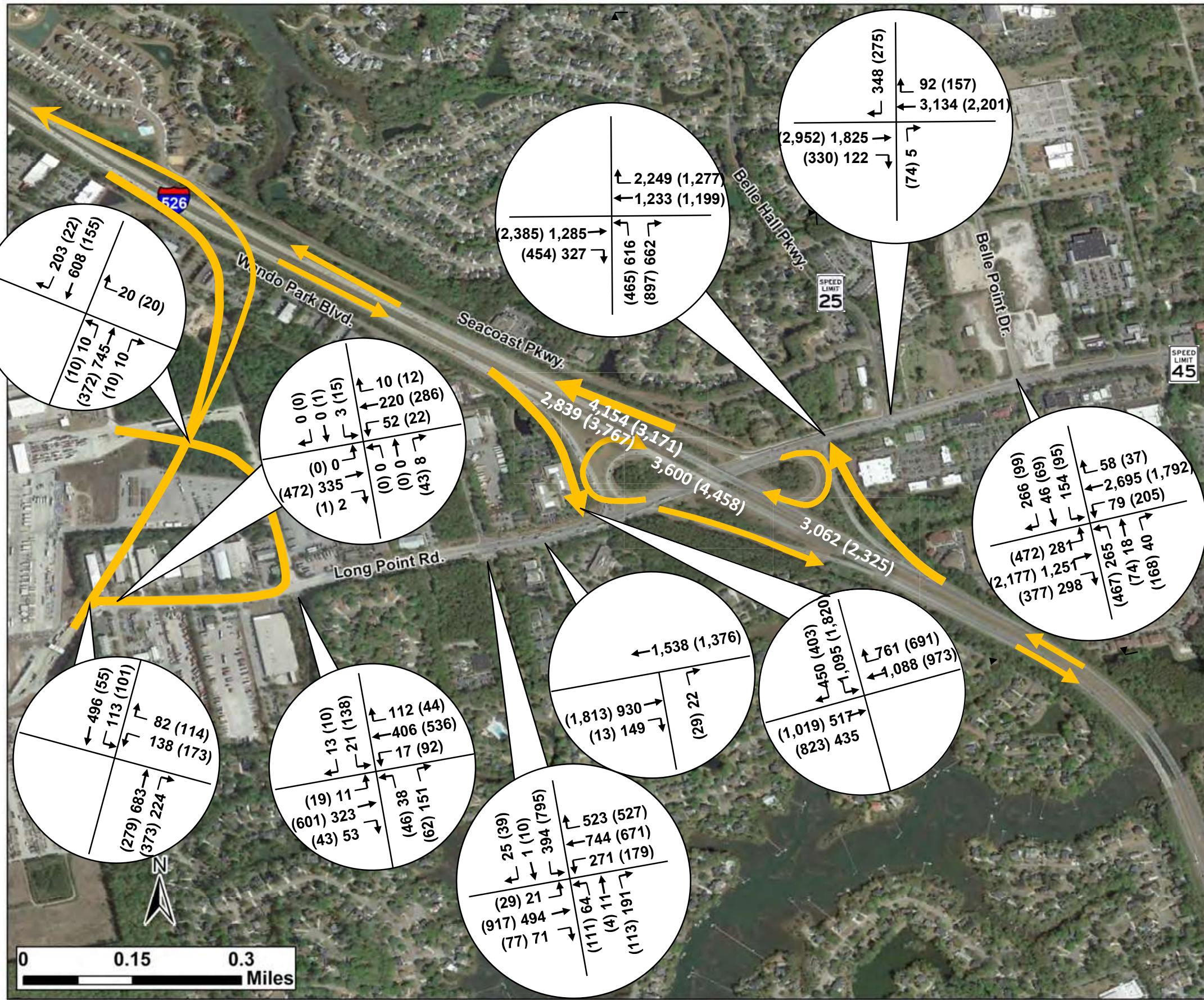
Interchange Immediately West:
Seven Farms Dr. Exit 24

Interchange Immediately East:
U.S. 17 N. Exit 29
U.S. 17 S. Exit 30

U.S. 17 N. Exit 29
U.S. 17 S. Exit 30

Legend

-  Ramp or Mainline Volume
-  XX AM Peak Intersection Volume
-  (XX) PM Peak Intersection Volume
-  7:00 - 8:00 Intersection & Ramp Peak Hours
-  5:00 - 6:00 Intersection & Ramp Peak Hours



APPENDIX E

NOISE BARRIER ANALYSIS

Noise barriers were evaluated to provide abatement to the impacted receptors in each NSA. Results of this study were evaluated with proposed criteria for reasonableness included in the 2023 policy. The Noise Reduction Design Goal (NRDG) requires 1 receptor to meet the 7 dB(a) NRDG and a square footage-based formula (1,500 square feet/benefited receptor) to be used. The following noise barriers are presently considered to be feasible and reasonable, and are preliminarily recommended for construction:

- NW 1a/3/6/8 - NSA-1a, NSA-3, NSA-6 and NSA-8 (Figures 2, 3 and 4) - North of I-526 and west of Long Point Road between the Wando River bridge and Belle Hall Parkway. NW 1a/3/6/8 was evaluated to provide abatement for 105 impacted receptors in the Marsh Pointe, Grassy Creek, Tidal Walk and Belle Hall Plantation communities. A 9,094-foot-long barrier system with 221,769 square feet was found to be effective. The barriers have an average height of 24 feet. The area per benefit is 798 sq. ft. which is within the allowable area per benefit of 1,500 sq. ft. and the 7 dB(A) noise reduction goal was met for 169 receptors, meeting the criteria for reasonableness. NW 1a/3/6/8, to provide noise abatement for NSAs 1a/3/6/8, is preliminarily recommended for construction.

Based on the studies completed to date, the State intends to install a noise abatement measure in the form of a barrier along Marsh Pointe, Grassy Creek, Tidal Walk and Belle Hall Plantations. These preliminary indications of a likely abatement measure are based upon preliminary design for a barrier that will reduce the noise level by 5 to 14 dB(A) for 278 residences and community pool. If during final design these conditions substantially change, the abatement measure might not be provided. A final decision on the installation of the abatement measure will be made upon completion of the project design and the public involvement process.

- NW 2a/4 - NSA-2a and NSA-4 (Figure 2) – South of I-526 between the Wando River bridge and Ridge Road (near Westbrook Brewing Company – NSA-5). NW 2a/4 was evaluated to provide abatement for 180 impacted receptors in the Avana Long Point Apartments and the Windward Long Point Apartments. A 2,820-foot-long barrier with an area of 67,146 square feet was found to be effective. The barriers have an average height of 24 feet. The area per benefit is 339 sq. ft. which is within the allowable area per benefit of 1,500 sq. ft. and the 7 dB(A) noise reduction goal was met for 121 benefited receptors, meeting the criteria for reasonableness. NW 2a/4, to provide noise abatement for NSAs 2a/4 is preliminarily recommended for construction.

Based on the studies completed to date, the State intends to install a noise abatement measure in the form of a barrier at the Avana Long Point Apartments and the Windward Long Point Apartments. These preliminary indications of a likely abatement measure are based upon preliminary design for a barrier 2,820 feet long and will reduce the noise level by 5 to 13 dB(A) for 198 residences and pool. If during final design these conditions substantially change, the abatement measure might not be provided. A final decision on the installation of the abatement measure will be made upon completion of the project design and the public involvement process.

- NW 9 – NSA-9 (Figure 5) – South of I-526 and east of Long Point Road between Lone Tree Drive and the bridge at Hobcaw Creek. NW 9 was evaluated to provide abatement for 32 impacted receptors in the Atria Mount Pleasant assisted living facility and the Hobcaw Creek Plantation

community. A 3,620-foot-long barrier with an area of 87,461 square feet was found to be effective. The barriers have an average height of 24 feet. The area per benefit is 1,080 sq. ft. which is within the allowable area per benefit of 1,500 sq. ft. and the 7 dB(A) noise reduction goal was met for 54 receptors, meeting the criteria for reasonableness. NW 9, to provide noise abatement for NSA-9 is preliminarily recommended for construction.

Based on the studies completed to date, the State intends to install a noise abatement measure in the form of a barrier at Atria Mount Pleasant and Hobcaw Creek Plantation. These preliminary indications of a likely abatement measure are based upon preliminary design for a barrier 3,620 feet long and will reduce the noise level by 5 to 12 dB(A) for 81 residences. If during final design these conditions substantially change, the abatement measure might not be provided. A final decision on the installation of the abatement measure will be made upon completion of the project design and the public involvement process.

NW 12 – NSA-12 (Figure 5) – North of I-526 and east of Long Point Road between Long Point Road and the bridge at Hobcaw Creek. NW 12 was evaluated to provide abatement for 74 impacted receptors in the Belle Hall Apartments. A 2,040-foot-long barrier with an area of 48,481 square feet was found to be effective. The barriers have an average height of 24 feet. The area per benefit is 313 sq. ft. which is within the allowable area per benefit of 1,500 sq. ft. and the 7 dB(A) noise reduction goal was met for 128 receptors, meeting the criteria for reasonableness. NW 12, to provide noise abatement for NSA-12 is preliminarily recommended for construction.

Based on the studies completed to date, the State intends to install a noise abatement measure in the form of a barrier at the Belle Hall Apartments. These preliminary indications of a likely abatement measure are based upon preliminary design for a barrier 2,040 feet long and will reduce the noise level by 5 to 18 dB(A) for 155 residences, picnic area and pool. If during final design these conditions substantially change, the abatement measure might not be provided. A final decision on the installation of the abatement measure will be made upon completion of the project design and the public involvement process.

Table E-1 provides a summary of all noise barrier analyzed for the I-526 LCC EAST-Long Point Road Interchange Project.

**Table E-1: I-526 LCC EAST-Long Point Road Interchange
Noise Wall Analysis Summary**

Noise Wall Analysis / (NSA).	Noise Analysis Summary ¹			Abatement Analysis Summary			
	Impacts	Benefits		Length ³ (ft)	Area ³ (ft ²)	Area per Benefit /Allowable Area per Benefit (ft ²)	Recommended For Construction
		Total Number of Benefits	Number of Benefits ≥7 dB(A)				
NW 1a/3/6/8 (NSAs 1a, 3, 6 and 8)	105	278	169	9,094	221,769	798/1,500	YES ²
NW 2a/4 (NSAs 2a and 4)	180	198	121	2,820	67,146	339/1,500	YES ²
NW 9 (NSA-9)	32	81	54	3,620	87,461	1,080/1,500	YES ²
NW 12 (NSA-12)	74	155	128	2,040	48,481	313/1,500	YES ²

- Noise abatement was considered for all predicted traffic noise impacts.
- This abatement measure meets the SCDOT Policy feasibility and reasonableness criteria. A final decision on noise wall construction will be made after completion of the project final design and the public involvement process.
- Length and area shown are for ground mounted barriers only. I-526 will be widened in the future and placing noise barriers on structures will be evaluated at that time.

Four (4) traffic noise abatement measures, NW 1a/3/6/8, NW 2a/4, NW 9 and NW 12 are presently considered to meet feasibility and reasonableness criteria for the benefit of impacted receptors within the I-526 LCC EAST – Long Point Road Interchange project study area. Figures 2-6 show the relationship of the noise walls to the receptors. The heights, lengths, areas, locations, noise level reductions, and benefits cited in this Detailed Noise Analysis represent a detailed assessment of noise barrier feasibility and reasonableness, and subject to completion of final project designs and the public involvement process, constitutes a recommendation for construction.

The summary of the noise barriers preliminarily recommended for construction is as follows:

NW 1A/3/6/8

Location: North of I-526 and west of Long Point Road between the Wando River bridge and Belle Hall Parkway

Dimensions: Length = 9,094 ft., Average Height = 24 ft., Area = 221,769 ft²

Impacts: 105

Benefits: 278

Area / Benefit: 798 ft²

Allowable Area per Benefit: 1,500 ft²

NLR \geq 7 dB(A): 169

NW 2A/4

Location: South of I-526 between the Wando River bridge and Ridge Road (near Westbrook Brewing Company NSA-5)

Dimensions: Length = 2,820 ft., Average Height = 24 ft., Area = 67,146 ft².

Impacts: 180

Benefits: 198

Area / Benefit: 339 ft²

Allowable Area per Benefit: 1,500 ft²

NLR \geq 7 dB(A): 121

NW 9

Location: South of I-526 and east of Long Point Road between Lone Tree Drive and the bridge at Hobcaw Creek

Dimensions: Length = 3,620 ft., Average Height = 24 ft., Area = 87,461 ft²

Impacts: 32

Benefits: 81

Area / Benefit: 1080 ft²

Allowable Area per Benefit: 1,500 ft²

NLR \geq 7 dB(A): 54

NW 12

Location: North of I-526 and east of Long Point Road between Long Point Road and bridge at Hobcaw Creek.

Dimensions: Length = 2,040 ft., Average Height = 24 ft., Area = 48,481 ft²

Impacts: 74

Benefits: 155

Area / Benefit: 313 ft²

Allowable Area per Benefit: 1,500 ft²

NLR \geq 7 dB(A): 128

The following tables include the Performance Without-Barrier and With-Barrier for all analyzed noise barriers that preliminarily met feasibility criteria and indicate whether the barrier is “Recommended” or “Not-Recommended”.

Table E-2: I-526 LCC EAST-Long Point Road Interchange
 Project Noise Barrier NW 1a/3/6/8
 NSA-1a, NSA-3, NSA-6 and NSA-8, North of I-526 and west of Long Point Road between the Wando River
 bridge and Belle Hall Parkway

Recommended

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R1a-1	Residential	B	1	261 SLIPPER SHELL CT	72	65	7
R1a-2	Residential	B	1	257 SLIPPER SHELL CT	71	62	9
R1a-3	Residential	B	1	253 SLIPPER SHELL CT	70	59	11
R1a-4	Residential	B	1	249 SLIPPER SHELL CT	69	57	12
R1a-5	Residential	B	1	245 SLIPPER SHELL CT	65	54	11
R1a-6	Residential	B	1	241 SLIPPER SHELL CT	63	51	12
R1a-7	Residential	B	1	237 SLIPPER SHELL CT	62	51	11
R1a-8	Residential	B	1	233 SLIPPER SHELL CT	61	50	11
R1a-9	Residential	B	1	229 SLIPPER SHELL CT	60	50	10
R1a-10	Residential	B	1	225 SLIPPER SHELL CT	60	50	10
R1a-11	Residential	B	1	221 SLIPPER SHELL CT	60	52	8
R1a-12	Residential	B	1	217 SLIPPER SHELL CT	61	52	9
R1a-13	Residential	B	1	213 SLIPPER SHELL CT	60	54	6
R1a-14	Residential	B	1	209 SLIPPER SHELL CT	59	53	6
R1a-15	Residential	B	1	205 SLIPPER SHELL CT	58	52	6
R1a-16	Residential	B	1	201 SLIPPER SHELL CT	57	53	4
R1a-17	Residential	B	1	197 SLIPPER SHELL CT	56	53	3
R1a-18	Residential	B	1	193 SLIPPER SHELL CT	55	52	3
R1a-19	Residential	B	1	189 SLIPPER SHELL CT	55	53	2
R1a-20	Residential	B	1	185 SLIPPER SHELL CT	55	53	2
R1a-21	Residential	B	1	181 SLIPPER SHELL CT	55	53	2
R1a-22	Residential	B	1	177 SLIPPER SHELL CT	57	53	4
R1a-23	Residential	B	1	173 SLIPPER SHELL CT	59	54	5
R1a-24	Residential	B	1	169 SLIPPER SHELL CT	59	54	5
R1a-25	Residential	B	1	165 SLIPPER SHELL CT	59	54	5
R1a-26	Residential	B	1	161 COWRIE CT	58	52	6
R1a-27	Residential	B	1	157 COWRIE CT	58	51	7
R1a-28	Residential	B	1	153 COWRIE CT	57	51	6
R1a-29	Residential	B	1	144 COWRIE CT	65	61	4
R1a-30	Residential	B	1	148 COWRIE CT	65	61	4
R1a-31	Residential	B	1	152 COWRIE CT	65	61	4
R1a-32	Residential	B	1	156 COWRIE CT	65	61	4

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With-Barrier	Noise Level Reduction
R1a-33	Residential	B	1	160 COWRIE CT	65	61	4
R1a-34	Residential	B	1	164 COWRIE CT	64	61	3
R1a-35	Residential	B	1	159 SLIPPER SHELL CT	67	62	5
R1a-36	Residential	B	1	155 SLIPPER SHELL CT	68	62	6
R1a-37	Residential	B	1	151 SLIPPER SHELL CT	68	62	6
R1a-38	Residential	B	1	147 SLIPPER SHELL CT	69	63	6
R1a-39	Residential	B	1	116 SLIPPER SHELL CT	71	61	10
R1a-40	Residential	B	1	120 SLIPPER SHELL CT	67	60	7
R1a-41	Residential	B	1	124 SLIPPER SHELL CT	66	60	6
R1a-42	Residential	B	1	128 SLIPPER SHELL CT	65	59	6
R1a-43	Residential	B	1	132 SLIPPER SHELL CT	66	59	7
R1a-44	Residential	B	1	136 SLIPPER SHELL CT	67	59	8
R1a-45	Residential	B	1	140 SLIPPER SHELL CT	67	59	8
R1a-46	Residential	B	1	172 SLIPPER SHELL CT	65	56	9
R1a-47	Residential	B	1	176 SLIPPER SHELL CT	65	58	7
R1a-48	Residential	B	1	180 SLIPPER SHELL CT	64	59	5
R1a-49	Residential	B	1	184 SLIPPER SHELL CT	63	59	4
R1a-50	Residential	B	1	188 SLIPPER SHELL CT	62	58	4
R1a-51	Residential	B	1	192 SLIPPER SHELL CT	55	52	3
R1a-52	Residential	B	1	196 SLIPPER SHELL CT	56	55	1
R1a-53	Residential	B	1	208 SLIPPER SHELL CT	61	59	2
R1a-54	Residential	B	1	212 SLIPPER SHELL CT	63	59	4
R1a-55	Residential	B	1	216 SLIPPER SHELL CT	65	60	5
R1a-56	Residential	B	1	220 SLIPPER SHELL CT	66	60	6
R1a-57	Residential	B	1	238 SLIPPER SHELL CT	67	61	6
R1a-58	Residential	B	1	242 SLIPPER SHELL CT	67	62	5
R1a-59	Residential	B	1	246 SLIPPER SHELL CT	68	62	6
R1a-60	Residential	B	1	250 SLIPPER SHELL CT	69	63	6
R1a-61	Residential	B	1	254 SLIPPER SHELL CT	70	64	6
R1a-62	Residential	B	1	258 SLIPPER SHELL CT	71	64	7
R1a-63	Residential	B	1	301 ETIWAN POINT DR	77	66	11
R1a-64	Residential	B	1	305 ETIWAN POINT DR	77	67	10
R1a-65	Residential	B	1	309 ETIWAN POINT DR	77	66	11
R1a-66	Residential	B	1	313 ETIWAN POINT DR	77	66	11
R1a-67	Residential	B	1	317 ETIWAN POINT DR	77	65	12
R1a-68	Residential	B	1	320 ETIWAN POINT DR	78	66	12
R1a-69	Residential	B	1	SLIPPER SHELL CT	76	62	14
R3-1	Residential	B	1	201 RIVER OAK DR	69	65	4

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R3-2	Residential	B	1	205 RIVER OAK DR	57	51	6
R3-3	Residential	B	1	209 RIVER OAK DR	63	61	2
R3-4	Residential	B	1	213 RIVER OAK DR	57	50	7
R3-5	Residential	B	1	217 RIVER OAK DR	59	56	3
R3-6	Residential	B	1	221 RIVER OAK DR	58	56	2
R3-7	Residential	B	1	225 RIVER OAK DR	56	54	2
R3-8	Residential	B	1	226 RIVER OAK DR	54	49	5
R3-9	Residential	B	1	208 RIVER OAK DR	58	50	8
R3-10	Residential	B	1	204 RIVER OAK DR	61	52	9
R3-11	Residential	B	1	200 RIVER OAK DR	64	54	10
R3-12	Residential	B	1	298 TURNSTONE ST	75	68	7
R3-13	Residential	B	1	302 TURNSTONE ST	73	65	8
R3-14	Residential	B	1	306 TURNSTONE ST	73	65	8
R3-15	Residential	B	1	310 TURNSTONE ST	73	63	10
R3-16	Residential	B	1	314 TURNSTONE ST	68	56	12
R3-17	Residential	B	1	318 TURNSTONE ST	68	56	12
R3-18	Residential	B	1	322 TURNSTONE ST	65	54	11
R3-19	Residential	B	1	326 TURNSTONE ST	62	52	10
R3-20	Residential	B	1	330 TURNSTONE ST	59	51	8
R3-21	Residential	B	1	334 TURNSTONE ST	58	50	8
R3-22	Residential	B	1	338 TURNSTONE ST	57	50	7
R3-23	Residential	B	1	342 TURNSTONE ST	56	49	7
R3-24	Residential	B	1	346 TURNSTONE ST	55	49	6
R3-25	Residential	B	1	350 TURNSTONE ST	55	50	5
R3-26	Residential	B	1	354 TURNSTONE ST	54	50	4
R3-27	Residential	B	1	358 TURNSTONE ST	54	50	4
R3-28	Residential	B	1	360 TURNSTONE ST	53	48	5
R3-29	Residential	B	1	364 TURNSTONE ST	54	51	3
R3-30	Residential	B	1	368 TURNSTONE ST	54	50	4
R3-31	Residential	B	1	372 TURNSTONE ST	55	51	4
R3-32	Residential	B	1	376 TURNSTONE ST	55	51	4
R3-33	Residential	B	1	291 SHOALS DR	53	50	3
R3-34	Residential	B	1	295 SHOALS DR	53	50	3
R3-35	Residential	B	1	299 SHOALS DR	53	50	3
R3-36	Residential	B	1	303 SHOALS DR	54	51	3
R3-37	Residential	B	1	307 SHOALS DR	55	51	4
R3-38	Residential	B	1	311 SHOALS DR	53	51	2
R3-39	Residential	B	1	315 SHOALS DR	55	51	4

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With-Barrier	Noise Level Reduction
R3-40	Residential	B	1	223 KILLDEER CIR	56	51	5
R3-41	Residential	B	1	227 KILLDEER CIR	55	51	4
R3-42	Residential	B	1	231 KILLDEER CIR	56	52	4
R3-43	Residential	B	1	235 KILLDEER CIR	55	50	5
R3-44	Residential	B	1	232 KILLDEER CIR	60	55	5
R3-45	Residential	B	1	228 KILLDEER CIR	62	54	8
R3-46	Residential	B	1	224 KILLDEER CIR	62	53	9
R3-47	Residential	B	1	381 TURNSTONE ST	59	52	7
R3-48	Residential	B	1	377 TURNSTONE ST	58	51	7
R3-49	Residential	B	1	373 TURNSTONE ST	59	53	6
R3-50	Residential	B	1	369 TURNSTONE ST	59	54	5
R3-51	Residential	B	1	365 TURNSTONE ST	58	53	5
R3-52	Residential	B	1	361 TURNSTONE ST	57	53	4
R3-53	Residential	B	1	345 TURNSTONE ST	56	52	4
R3-54	Residential	B	1	341 TURNSTONE ST	55	50	5
R3-55	Residential	B	1	337 TURNSTONE ST	56	50	6
R3-56	Residential	B	1	333 TURNSTONE ST	58	51	7
R3-57	Residential	B	1	167 RED KNOT LN	61	52	9
R3-58	Residential	B	1	171 RED KNOT LN	62	53	9
R3-59	Residential	B	1	175 RED KNOT LN	61	53	8
R3-60	Residential	B	1	179 RED KNOT LN	60	52	8
R3-61	Residential	B	1	183 RED KNOT LN	61	53	8
R3-62	Residential	B	1	187 RED KNOT LN	60	53	7
R3-63	Residential	B	1	191 RED KNOT LN	61	53	8
R3-64	Residential	B	1	195 RED KNOT LN	61	53	8
R3-65	Residential	B	1	199 RED KNOT LN	62	53	9
R3-66	Residential	B	1	160 RED KNOT LN	72	61	11
R3-67	Residential	B	1	164 RED KNOT LN	74	62	12
R3-68	Residential	B	1	168 RED KNOT LN	74	62	12
R3-69	Residential	B	1	172 RED KNOT LN	74	61	13
R3-70	Residential	B	1	176 RED KNOT LN	75	62	13
R3-71	Residential	B	1	180 RED KNOT LN	75	62	13
R3-72	Residential	B	1	184 RED KNOT LN	74	60	14
R3-73	Residential	B	1	188 RED KNOT LN	75	62	13
R3-74	Residential	B	1	192 RED KNOT LN	75	62	13
R3-75	Residential	B	1	196 RED KNOT LN	74	61	13
R3-76	Residential	B	1	200 RED KNOT LN	75	62	13
R3-77	Residential	B	1	204 RED KNOT LN	74	61	13

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R3-78	Residential	B	1	208 RED KNOT LN	73	61	12
R3-79	Residential	B	1	212 RED KNOT LN	73	60	13
R3-80	Residential	B	1	216 RED KNOT LN	68	56	12
R3-81	Residential	B	1	220 RED KNOT LN	68	56	12
R3-82	Residential	B	1	389 TURNSTONE ST	71	59	12
R3-83	Residential	B	1	393 TURNSTONE ST	72	60	12
R3-84	Residential	B	1	397 TURNSTONE ST	73	61	12
R3-85	Residential	B	1	401 TURNSTONE ST	73	67	6
R3-86	Residential	B	1	405 TURNSTONE ST	73	61	12
R3-87	Residential	B	1	409 TURNSTONE ST	74	61	13
R3-88	Residential	B	1	413 TURNSTONE ST	74	61	13
R3-89	Residential	B	1	417 TURNSTONE ST	73	61	12
R3-90	Residential	B	1	421 TURNSTONE ST	73	61	12
R3-91	Residential	B	1	425 TURNSTONE ST	74	61	13
R3-92	Residential	B	1	429 TURNSTONE ST	74	61	13
R3-93	Residential	B	1	433 TURNSTONE ST	74	61	13
R3-94	Residential	B	1	437 TURNSTONE ST	73	60	13
R3-95	Residential	B	1	441 TURNSTONE ST	74	61	13
R3-96	Residential	B	1	445 TURNSTONE ST	74	61	13
R3-97	Residential	B	1	449 TURNSTONE ST	74	61	13
R3-98	Residential	B	1	453 TURNSTONE ST	73	60	13
R3-99	Residential	B	1	457 TURNSTONE ST	73	60	13
R3-100	Residential	B	1	461 TURNSTONE ST	72	59	13
R3-101	Residential	B	1	418 TURNSTONE ST	61	54	7
R3-102	Residential	B	1	422 TURNSTONE ST	59	53	6
R3-103	Residential	B	1	426 TURNSTONE ST	59	52	7
R3-104	Residential	B	1	430 TURNSTONE ST	60	53	7
R3-105	Residential	B	1	434 TURNSTONE ST	60	53	7
R3-106	Residential	B	1	438 TURNSTONE ST	59	52	7
R3-107	Residential	B	1	442 TURNSTONE ST	61	53	8
R3-108	Residential	B	1	446 TURNSTONE ST	61	52	9
R3-109	Residential	B	1	450 TURNSTONE ST	62	53	9
R3-110	Residential	B	1	223 SWALLOWTAIL CT	60	53	7
R3-111	Residential	B	1	229 SWALLOWTAIL CT	55	50	5
R3-112	Residential	B	1	235 SWALLOWTAIL CT	58	52	6
R3-113	Residential	B	1	239 SWALLOWTAIL CT	55	51	4
R3-114	Residential	B	1	243 SWALLOWTAIL CT	57	53	4
R3-115	Residential	B	1	247 SWALLOWTAIL CT	56	52	4

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R3-116	Residential	B	1	251 SWALLOWTAIL CT	54	50	4
R3-117	Residential	B	1	255 SWALLOWTAIL CT	56	51	5
R3-118	Residential	B	1	259 SWALLOWTAIL CT	56	51	5
R3-119	Residential	B	1	264 SWALLOWTAIL CT	56	51	5
R3-120	Residential	B	1	260 SWALLOWTAIL CT	55	50	5
R3-121	Residential	B	1	256 SWALLOWTAIL CT	54	50	4
R3-122	Residential	B	1	252 SWALLOWTAIL CT	54	50	4
R3-123	Residential	B	1	248 SWALLOWTAIL CT	55	51	4
R3-124	Residential	B	1	337 SHOALS DR	53	50	3
R3-125	Residential	B	1	341 SHOALS DR	54	51	3
R3-126	Residential	B	1	244 SWALLOWTAIL CT	55	51	4
R3-127	Residential	B	1	240 SWALLOWTAIL CT	56	51	5
R3-128	Residential	B	1	236 SWALLOWTAIL CT	59	52	7
R3-129	Residential	B	1	232 SWALLOWTAIL CT	60	52	8
R3-130	Residential	B	1	228 SWALLOWTAIL CT	60	52	8
R3-131	Residential	B	1	224 SWALLOWTAIL CT	62	53	9
R3-132	Residential	B	1	220 SWALLOWTAIL CT	65	56	9
R3-133	Pool	C	1	TURNSTONE ST	74	60	14
R3-134	Residential	B	1	468 TURNSTONE ST	67	56	11
R3-135	Residential	B	1	472 TURNSTONE ST	68	57	11
R3-136	Residential	B	1	476 TURNSTONE ST	70	58	12
R3-137	Residential	B	1	480 TURNSTONE ST	71	58	13
R3-138	Residential	B	1	484 TURNSTONE ST	73	59	14
R3-139	Residential	B	1	488 TURNSTONE ST	76	62	14
R3-140	Residential	B	1	385 SHOALS DR	65	59	6
R3-141	Residential	B	1	381 SHOALS DR	63	57	6
R3-142	Residential	B	1	377 SHOALS DR	63	56	7
R3-143	Residential	B	1	373 SHOALS DR	61	56	5
R3-144	Residential	B	1	369 SHOALS DR	58	51	7
R3-145	Residential	B	1	365 SHOALS DR	55	50	5
R3-146	Residential	B	1	361 SHOALS DR	55	50	5
R3-147	Residential	B	1	357 SHOALS DR	56	52	4
R3-148	Residential	B	1	372 TIDAL TERRACE CT	58	53	5
R3-149	Residential	B	1	368 TIDAL TERRACE CT	58	53	5
R3-150	Residential	B	1	376 TIDAL REEF CIR	62	55	7
R3-151	Residential	B	1	380 TIDAL REEF CIR	62	56	6
R3-152	Residential	B	1	384 TIDAL REEF CIR	60	54	6
R3-153	Residential	B	1	388 TIDAL REEF CIR	61	55	6

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R3-154	Residential	B	1	392 TIDAL REEF CIR	65	60	5
R3-155	Residential	B	1	396 TIDAL REEF CIR	68	62	6
R3-156	Residential	B	1	400 TIDAL REEF CIR	69	62	7
R6-1	Residential	B	1	109 HISTORIC DR	60	56	4
R6-2	Residential	B	1	113 HISTORIC DR	60	56	4
R6-3	Residential	B	1	117 HISTORIC DR	61	56	5
R6-4	Residential	B	1	121 HISTORIC DR	59	53	6
R6-5	Residential	B	1	125 HISTORIC DR	65	60	5
R6-6	Residential	B	1	129 HISTORIC DR	66	61	5
R6-7	Residential	B	1	133 HISTORIC DR	67	62	5
R6-8	Residential	B	1	137 HISTORIC DR	69	64	5
R6-9	Residential	B	1	141 HISTORIC DR	69	63	6
R6-10	Residential	B	1	145 HISTORIC DR	69	63	6
R6-11	Residential	B	1	149 HISTORIC DR	69	63	6
R6-12	Residential	B	1	153 HISTORIC DR	68	63	5
R6-13	Residential	B	1	157 HISTORIC DR	68	62	6
R6-14	Residential	B	1	161 HISTORIC DR	68	62	6
R6-15	Residential	B	1	165 HISTORIC DR	69	62	7
R6-16	Residential	B	1	169 HISTORIC DR	68	61	7
R6-17	Residential	B	1	173 HISTORIC DR	68	60	8
R6-18	Residential	B	1	183 HISTORIC DR	68	59	9
R6-19	Residential	B	1	187 HISTORIC DR	68	59	9
R6-20	Residential	B	1	191 HISTORIC DR	68	59	9
R6-21	Residential	B	1	195 HISTORIC DR	68	59	9
R6-22	Residential	B	1	199 HISTORIC DR	68	58	10
R6-23	Residential	B	1	203 HISTORIC DR	68	58	10
R6-24	Residential	B	1	207 HISTORIC DR	67	57	10
R6-25	Residential	B	1	211 HISTORIC DR	65	54	11
R6-26	Residential	B	1	215 HISTORIC DR	65	55	10
R6-27	Residential	B	1	219 HISTORIC DR	64	53	11
R6-28	Residential	B	1	223 HISTORIC DR	62	52	10
R6-29	Residential	B	1	227 HISTORIC DR	61	52	9
R6-30	Residential	B	1	231 HISTORIC DR	60	51	9
R6-31	Residential	B	1	235 HISTORIC DR	60	51	9
R6-32	Residential	B	1	230 HISTORIC DR	54	51	3
R6-33	Residential	B	1	226 HISTORIC DR	54	51	3
R6-34	Residential	B	1	222 HISTORIC DR	55	51	4
R6-35	Residential	B	1	218 HISTORIC DR	55	51	4

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With-Barrier	Noise Level Reduction
R6-36	Residential	B	1	214 HISTORIC DR	56	52	4
R6-37	Residential	B	1	206 HISTORIC DR	58	52	6
R6-38	Residential	B	1	202 HISTORIC DR	60	53	7
R6-39	Residential	B	1	196 HISTORIC DR	59	53	6
R6-40	Residential	B	1	192 HISTORIC DR	58	53	5
R6-41	Residential	B	1	188 HISTORIC DR	60	55	5
R6-42	Residential	B	1	184 HISTORIC DR	62	56	6
R6-43	Residential	B	1	180 HISTORIC DR	64	56	8
R6-44	Residential	B	1	176 HISTORIC DR	63	55	8
R6-45	Residential	B	1	172 HISTORIC DR	61	54	7
R6-46	Residential	B	1	168 HISTORIC DR	60	54	6
R6-47	Residential	B	1	164 HISTORIC DR	60	55	5
R6-48	Residential	B	1	160 HISTORIC DR	59	55	4
R6-49	Residential	B	1	156 HISTORIC DR	61	56	5
R6-50	Residential	B	1	152 HISTORIC DR	60	56	4
R6-51	Residential	B	1	148 HISTORIC DR	59	55	4
R6-52	Residential	B	1	144 HISTORIC DR	58	54	4
R6-53	Residential	B	1	134 HISTORIC DR	60	56	4
R6-54	Residential	B	1	124 HISTORIC DR	59	57	2
R6-55	Residential	B	1	120 HISTORIC DR	57	55	2
R6-56	Residential	B	1	111 REVOLUTION DR	56	54	2
R6-57	Residential	B	1	115 REVOLUTION DR	55	53	2
R6-58	Residential	B	1	119 REVOLUTION DR	58	55	3
R6-59	Residential	B	1	123 REVOLUTION DR	58	55	3
R6-60	Residential	B	1	127 HISTORIC DR	53	52	1
R6-61	Residential	B	1	131 REVOLUTION DR	55	52	3
R6-62	Residential	B	1	135 REVOLUTION DR	55	52	3
R6-63	Residential	B	1	139 REVOLUTION DR	56	52	4
R6-64	Residential	B	1	143 REVOLUTION DR	55	52	3
R6-65	Residential	B	1	147 REVOLUTION DR	56	52	4
R6-66	Residential	B	1	151 REVOLUTION DR	54	51	3
R6-67	Residential	B	1	155 REVOLUTION DR	54	51	3
R6-68	Residential	B	1	159 REVOLUTION DR	55	51	4
R6-69	Residential	B	1	163 REVOLUTION DR	56	51	5
R6-70	Residential	B	1	167 REVOLUTION DR	57	51	6
R6-71	Residential	B	1	171 REVOLUTION DR	56	51	5
R6-72	Residential	B	1	175 REVOLUTION DR	54	50	4
R6-73	Residential	B	1	179 REVOLUTION DR	54	50	4

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R6-74	Residential	B	1	170 REVOLUTION DR	56	53	3
R6-75	Residential	B	1	162 REVOLUTION DR	56	53	3
R6-76	Residential	B	1	154 REVOLUTION DR	56	54	2
R6-77	Residential	B	1	150 REVOLUTION DR	57	54	3
R6-78	Residential	B	1	146 REVOLUTION DR	57	54	3
R6-79	Residential	B	1	142 REVOLUTION DR	57	54	3
R6-80	Residential	B	1	307 OLD SOUTH WAY	57	55	2
R6-81	Residential	B	1	365 ANTEBELLUM LN	55	54	1
R6-82	Residential	B	1	118 REVOLUTION DR	55	54	1
R6-83	Residential	B	1	114 REVOLUTION DR	56	54	2
R6-84	Residential	B	1	110 REVOLUTION DR	56	54	2
R6-85	Residential	B	1	106 REVOLUTION DR	55	53	2
R6-86	Residential	B	1	102 REVOLUTION DR	55	53	2
R6-87	Residential	B	1	305 RICE BAY DR	61	53	8
R6-88	Residential	B	1	309 RICE BAY DR	62	53	9
R6-89	Residential	B	1	313 RICE BAY DR	62	54	8
R6-90	Residential	B	1	317 RICE BAY DR	63	54	9
R6-91	Residential	B	1	321 RICE BAY DR	63	54	9
R6-92	Residential	B	1	325 RICE BAY DR	63	55	8
R6-93	Residential	B	1	329 RICE BAY DR	64	55	9
R6-94	Residential	B	1	333 RICE BAY DR	64	57	7
R6-95	Residential	B	1	337 RICE BAY DR	64	54	10
R6-96	Residential	B	1	341 RICE BAY DR	64	54	10
R6-97	Residential	B	1	345 RICE BAY DR	64	54	10
R6-98	Residential	B	1	349 RICE BAY DR	64	54	10
R6-99	Residential	B	1	353 RICE BAY DR	63	53	10
R6-100	Residential	B	1	352 RICE BAY DR	58	51	7
R6-101	Residential	B	1	348 RICE BAY DR	55	50	5
R6-102	Residential	B	1	344 RICE BAY DR	57	51	6
R6-103	Residential	B	1	340 RICE BAY DR	58	52	6
R6-104	Residential	B	1	336 RICE BAY DR	58	52	6
R6-105	Residential	B	1	332 RICE BAY DR	57	51	6
R6-106	Residential	B	1	328 RICE BAY DR	58	52	6
R6-107	Residential	B	1	324 RICE BAY DR	58	52	6
R6-108	Residential	B	1	320 RICE BAY DR	56	51	5
R6-109	Residential	B	1	316 RICE BAY DR	55	50	5
R6-110	Residential	B	1	312 RICE BAY DR	56	50	6
R6-111	Residential	B	1	308 RICE BAY DR	56	50	6

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R6-112	Residential	B	1	533 PRITCHARDS POINT DR	52	49	3
R6-113	Residential	B	1	537 PRITCHARDS POINT DR	53	49	4
R6-114	Residential	B	1	541 PRITCHARDS POINT DR	55	50	5
R6-115	Residential	B	1	545 PRITCHARDS POINT DR	55	50	5
R6-116	Residential	B	1	549 PRITCHARDS POINT DR	56	51	5
R6-117	Residential	B	1	553 PRITCHARDS POINT DR	55	51	4
R6-118	Residential	B	1	557 PRITCHARDS POINT DR	54	50	4
R6-119	Residential	B	1	561 PRITCHARDS POINT DR	54	50	4
R6-120	Residential	B	1	514 ANTEBELLUM LN	55	51	4
R6-121	Residential	B	1	518 ANTEBELLUM LN	56	51	5
R6-122	Residential	B	1	522 ANTEBELLUM LN	57	51	6
R6-123	Residential	B	1	526 ANTEBELLUM LN	59	51	8
R6-124	Residential	B	1	530 ANTEBELLUM LN	61	53	8
R6-125	Residential	B	1	538 ANTEBELLUM LN	62	54	8
R6-126	Residential	B	1	627 ROBYNS GLEN DR	59	52	7
R6-127	Residential	B	1	623 ROBYNS GLEN DR	60	52	8
R6-128	Residential	B	1	619 ROBYNS GLEN DR	53	49	4
R6-129	Residential	B	1	615 ROBYNS GLEN DR	55	50	5
R6-130	Residential	B	1	611 ROBYNS GLEN DR	55	50	5
R6-131	Residential	B	1	607 ROBYNS GLEN DR	56	51	5
R6-132	Residential	B	1	610 ROBYNS GLEN DR	55	51	4
R6-133	Residential	B	1	614 ROBYNS GLEN DR	55	51	4
R6-134	Residential	B	1	618 ROBYNS GLEN DR	55	50	5
R6-135	Residential	B	1	622 ROBYNS GLEN DR	56	51	5
R6-136	Residential	B	1	626 ROBYNS GLEN DR	57	51	6
R6-137	Residential	B	1	533 ANTEBELLUM LN	68	56	12
R6-138	Residential	B	1	537 ANTEBELLUM LN	69	56	13
R6-139	Residential	B	1	541 ANTEBELLUM LN	69	57	12
R6-140	Residential	B	1	545 ANTEBELLUM LN	68	57	11
R6-141	Residential	B	1	549 ANTEBELLUM LN	66	55	11
R6-142	Residential	B	1	553 ANTEBELLUM LN	65	55	10
R6-143	Residential	B	1	557 ANTEBELLUM LN	65	55	10
R6-144	Residential	B	1	561 ANTEBELLUM LN	64	55	9
R6-145	Residential	B	1	565 ANTEBELLUM LN	63	55	8
R6-146	Residential	B	1	569 ANTEBELLUM LN	63	56	7
R6-147	Residential	B	1	573 ANTEBELLUM LN	62	56	6
R6-148	Residential	B	1	577 ANTEBELLUM LN	62	56	6
R6-149	Residential	B	1	581 ANTEBELLUM LN	61	56	5

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R6-150	Residential	B	1	585 ANTEBELLUM LN	60	55	5
R6-151	Residential	B	1	589 ANTEBELLUM LN	61	56	5
R6-152	Residential	B	1	593 ANTEBELLUM LN	60	55	5
R6-153	Residential	B	1	597 ANTEBELLUM LN	58	53	5
R6-154	Residential	B	1	588 ANTEBELLUM LN	56	51	5
R6-155	Residential	B	1	600 ANTEBELLUM LN	54	51	3
R8-1	Residential	B	1	573 LONG POINT RD	66	57	9
R8-2	Residential	B	1	571 LONG POINT RD	70	58	12
Predicted "Build-Condition" With-Barrier Benefits: ²							278 ²

Approaching or Exceeding NAC **105** Provides 5-6 dB(A) NLR **109** Provides 7 dB(A) NLR **169**

1. Predicted traffic noise level impacts 105 receptors due to approaching or exceeding NAC (refer to Table 2). Predicted impacts to 0 receptors are due to a predicted "substantial increase" in noise levels.
2. The optimized I-526 LCC EAST noise barrier NW 1a/3/6/8 is predicted to provide at least 5 decibels (5 dB(A)) in noise level reduction (NLR) to 104 impacted receptors.
3. The optimized I-526 LCC EAST noise barrier NW 1a/3/6/8 is predicted to provide at least 7 decibels (7 dB(A)) in noise level reduction (NLR) to 169 receptors.

Table E-3: I-526 LCC EAST-Long Point Road Interchange
 Project Noise Barrier NW 2a/4
 NSA-2a and NSA-4, South of I-526 between the Wando River bridge and Ridge Road (near Westbrook
 Brewing Company – NSA-5)

Recommended

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R2a-1	Residential	B	1	100 EIGHTY OAK AVE	64	64	0
R2a-1a	Residential	B	1	100 EIGHTY OAK AVE	66	65	1
R2a-1b	Residential	B	1	100 EIGHTY OAK AVE	66	66	0
R2a-2	Residential	B	1	100 EIGHTY OAK AVE	64	64	0
R2a-2a	Residential	B	1	100 EIGHTY OAK AVE	66	66	0
R2a-2b	Residential	B	1	100 EIGHTY OAK AVE	67	66	1
R2a-3	Residential	B	1	100 EIGHTY OAK AVE	65	64	1
R2a-3a	Residential	B	1	100 EIGHTY OAK AVE	67	66	1
R2a-3b	Residential	B	1	100 EIGHTY OAK AVE	67	66	1
R2a-4	Residential	B	1	100 EIGHTY OAK AVE	66	65	1
R2a-4a	Residential	B	1	100 EIGHTY OAK AVE	68	67	1
R2a-4b	Residential	B	1	100 EIGHTY OAK AVE	68	67	1
R2a-5	Residential	B	1	100 EIGHTY OAK AVE	66	65	1
R2a-5a	Residential	B	1	100 EIGHTY OAK AVE	69	67	2
R2a-5b	Residential	B	1	100 EIGHTY OAK AVE	69	67	2
R2a-6	Residential	B	1	100 EIGHTY OAK AVE	64	63	1
R2a-6a	Residential	B	1	100 EIGHTY OAK AVE	69	67	2
R2a-6b	Residential	B	1	100 EIGHTY OAK AVE	69	67	2
R2a-7	Residential	B	1	100 EIGHTY OAK AVE	65	63	2
R2a-7a	Residential	B	1	100 EIGHTY OAK AVE	68	67	1
R2a-7b	Residential	B	1	100 EIGHTY OAK AVE	69	67	2
R2a-8	Residential	B	1	100 EIGHTY OAK AVE	66	65	1
R2a-8a	Residential	B	1	100 EIGHTY OAK AVE	68	66	2
R2a-8b	Residential	B	1	100 EIGHTY OAK AVE	68	67	1
R2a-9	Residential	B	1	100 EIGHTY OAK AVE	66	65	1
R2a-9a	Residential	B	1	100 EIGHTY OAK AVE	67	66	1
R2a-10	Residential	B	1	100 EIGHTY OAK AVE	64	63	1
R2a-10a	Residential	B	1	100 EIGHTY OAK AVE	65	64	1
R2a-10b	Residential	B	1	100 EIGHTY OAK AVE	66	65	1
R2a-11	Residential	B	1	100 EIGHTY OAK AVE	62	61	1
R2a-11a	Residential	B	1	100 EIGHTY OAK AVE	64	63	1
R2a-11b	Residential	B	1	100 EIGHTY OAK AVE	65	64	1

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R2a-12	Residential	B	1	100 EIGHTY OAK AVE	61	60	1
R2a-12a	Residential	B	1	100 EIGHTY OAK AVE	63	62	1
R2a-13	Residential	B	1	100 EIGHTY OAK AVE	68	67	1
R2a-13a	Residential	B	1	100 EIGHTY OAK AVE	69	67	2
R2a-13b	Residential	B	1	100 EIGHTY OAK AVE	70	68	2
R2a-14	Residential	B	1	100 EIGHTY OAK AVE	69	67	2
R2a-14a	Residential	B	1	100 EIGHTY OAK AVE	70	68	2
R2a-14b	Residential	B	1	100 EIGHTY OAK AVE	71	68	3
R2a-15	Residential	B	1	100 EIGHTY OAK AVE	69	67	2
R2a-15a	Residential	B	1	100 EIGHTY OAK AVE	71	68	3
R2a-15b	Residential	B	1	100 EIGHTY OAK AVE	71	68	3
R2a-16	Residential	B	1	100 EIGHTY OAK AVE	71	67	4
R2a-16a	Residential	B	1	100 EIGHTY OAK AVE	72	68	4
R2a-16b	Residential	B	1	100 EIGHTY OAK AVE	73	69	4
R2a-17	Residential	B	1	100 EIGHTY OAK AVE	61	54	7
R2a-17a	Residential	B	1	100 EIGHTY OAK AVE	61	55	6
R2a-17b	Residential	B	1	100 EIGHTY OAK AVE	64	60	4
R2a-18	Residential	B	1	100 EIGHTY OAK AVE	62	55	7
R2a-18a	Residential	B	1	100 EIGHTY OAK AVE	62	55	7
R2a-18b	Residential	B	1	100 EIGHTY OAK AVE	65	60	5
R2a-19	Residential	B	1	100 EIGHTY OAK AVE	62	56	6
R2a-19a	Residential	B	1	100 EIGHTY OAK AVE	62	56	6
R2a-19b	Residential	B	1	100 EIGHTY OAK AVE	65	61	4
R2a-20	Residential	B	1	100 EIGHTY OAK AVE	66	58	8
R2a-20a	Residential	B	1	100 EIGHTY OAK AVE	67	58	9
R2a-20b	Residential	B	1	100 EIGHTY OAK AVE	68	62	6
R2a-21	Residential	B	1	100 EIGHTY OAK AVE	74	67	7
R2a-21a	Residential	B	1	100 EIGHTY OAK AVE	75	68	7
R2a-21b	Residential	B	1	100 EIGHTY OAK AVE	75	69	6
R2a-22	Residential	B	1	100 EIGHTY OAK AVE	74	67	7
R2a-22a	Residential	B	1	100 EIGHTY OAK AVE	75	68	7
R2a-22b	Residential	B	1	100 EIGHTY OAK AVE	76	69	7
R2a-23	Residential	B	1	100 EIGHTY OAK AVE	75	67	8
R2a-23a	Residential	B	1	100 EIGHTY OAK AVE	76	68	8
R2a-23b	Residential	B	1	100 EIGHTY OAK AVE	77	69	8
R2a-24	Residential	B	1	100 EIGHTY OAK AVE	76	68	8
R2a-24a	Residential	B	1	100 EIGHTY OAK AVE	77	69	8
R2a-24b	Residential	B	1	100 EIGHTY OAK AVE	78	69	9

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With-Barrier	Noise Level Reduction
R2a-25	Residential	B	1	100 EIGHTY OAK AVE	64	60	4
R2a-25a	Residential	B	1	100 EIGHTY OAK AVE	65	60	5
R2a-25b	Residential	B	1	100 EIGHTY OAK AVE	67	62	5
R2a-26	Residential	B	1	100 EIGHTY OAK AVE	64	59	5
R2a-26a	Residential	B	1	100 EIGHTY OAK AVE	65	59	6
R2a-26b	Residential	B	1	100 EIGHTY OAK AVE	67	62	5
R2a-27	Residential	B	1	100 EIGHTY OAK AVE	64	60	4
R2a-27a	Residential	B	1	100 EIGHTY OAK AVE	66	59	7
R2a-27b	Residential	B	1	100 EIGHTY OAK AVE	68	62	6
R2a-28	Residential	B	1	100 EIGHTY OAK AVE	68	61	7
R2a-28a	Residential	B	1	100 EIGHTY OAK AVE	71	61	10
R2a-28b	Residential	B	1	100 EIGHTY OAK AVE	72	63	9
R2a-29	Residential	B	1	100 EIGHTY OAK AVE	65	57	8
R2a-29a	Residential	B	1	100 EIGHTY OAK AVE	66	58	8
R2a-29b	Residential	B	1	100 EIGHTY OAK AVE	68	63	5
R2a-30	Residential	B	1	100 EIGHTY OAK AVE	64	59	5
R2a-30a	Residential	B	1	100 EIGHTY OAK AVE	66	60	6
R2a-30b	Residential	B	1	100 EIGHTY OAK AVE	67	62	5
R2a-31	Residential	B	1	100 EIGHTY OAK AVE	63	59	4
R2a-31a	Residential	B	1	100 EIGHTY OAK AVE	66	60	6
R2a-31b	Residential	B	1	100 EIGHTY OAK AVE	67	62	5
R2a-32	Residential	B	1	100 EIGHTY OAK AVE	65	60	5
R2a-32a	Residential	B	1	100 EIGHTY OAK AVE	66	60	6
R2a-32b	Residential	B	1	100 EIGHTY OAK AVE	66	62	4
R2a-33	Residential	B	1	100 EIGHTY OAK AVE	59	55	4
R2a-33a	Residential	B	1	100 EIGHTY OAK AVE	61	57	4
R2a-33b	Residential	B	1	100 EIGHTY OAK AVE	64	62	2
R2a-34	Residential	B	1	100 EIGHTY OAK AVE	56	55	1
R2a-34a	Residential	B	1	100 EIGHTY OAK AVE	58	57	1
R2a-34b	Residential	B	1	100 EIGHTY OAK AVE	63	62	1
R2a-35	Residential	B	1	100 EIGHTY OAK AVE	57	56	1
R2a-35a	Residential	B	1	100 EIGHTY OAK AVE	58	58	0
R2a-35b	Residential	B	1	100 EIGHTY OAK AVE	62	62	0
R2a-36	Residential	B	1	100 EIGHTY OAK AVE	57	57	0
R2a-36a	Residential	B	1	100 EIGHTY OAK AVE	59	58	1
R2a-36b	Residential	B	1	100 EIGHTY OAK AVE	62	62	0
R2a-37	Residential	B	1	100 EIGHTY OAK AVE	61	57	4
R2a-37a	Residential	B	1	100 EIGHTY OAK AVE	62	58	4

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R2a-37b	Residential	B	1	100 EIGHTY OAK AVE	64	61	3
R2a-38	Residential	B	1	100 EIGHTY OAK AVE	63	58	5
R2a-38a	Residential	B	1	100 EIGHTY OAK AVE	63	58	5
R2a-38b	Residential	B	1	100 EIGHTY OAK AVE	64	60	4
R2a-39	Residential	B	1	100 EIGHTY OAK AVE	62	58	4
R2a-39a	Residential	B	1	100 EIGHTY OAK AVE	63	59	4
R2a-39b	Residential	B	1	100 EIGHTY OAK AVE	65	62	3
R2a-40	Residential	B	1	100 EIGHTY OAK AVE	64	59	5
R2a-40a	Residential	B	1	100 EIGHTY OAK AVE	65	60	5
R2a-40b	Residential	B	1	100 EIGHTY OAK AVE	66	63	3
R2a-41	Residential	B	1	100 EIGHTY OAK AVE	52	50	2
R2a-41a	Residential	B	1	100 EIGHTY OAK AVE	55	53	2
R2a-41b	Residential	B	1	100 EIGHTY OAK AVE	58	55	3
R2a-42	Residential	B	1	100 EIGHTY OAK AVE	53	51	2
R2a-42a	Residential	B	1	100 EIGHTY OAK AVE	55	53	2
R2a-42b	Residential	B	1	100 EIGHTY OAK AVE	59	56	3
R2a-43	Residential	B	1	100 EIGHTY OAK AVE	53	51	2
R2a-43a	Residential	B	1	100 EIGHTY OAK AVE	56	53	3
R2a-43b	Residential	B	1	100 EIGHTY OAK AVE	59	56	3
R2a-44	Residential	B	1	100 EIGHTY OAK AVE	59	53	6
R2a-44a	Residential	B	1	100 EIGHTY OAK AVE	62	55	7
R2a-44b	Residential	B	1	100 EIGHTY OAK AVE	64	58	6
R2a-45	Pool	C	1	100 EIGHTY OAK AVE	64	59	5
R2a-46	Residential	B	1	100 EIGHTY OAK AVE	59	56	3
R2a-46a	Residential	B	1	100 EIGHTY OAK AVE	61	58	3
R2a-47	Residential	B	1	100 EIGHTY OAK AVE	60	55	5
R2a-47a	Residential	B	1	100 EIGHTY OAK AVE	61	56	5
R2a-47b	Residential	B	1	100 EIGHTY OAK AVE	64	59	5
R2a-48	Residential	B	1	100 EIGHTY OAK AVE	62	56	6
R2a-48a	Residential	B	1	100 EIGHTY OAK AVE	63	57	6
R2a-48b	Residential	B	1	100 EIGHTY OAK AVE	65	59	6
R2a-49	Residential	B	1	100 EIGHTY OAK AVE	67	58	9
R2a-49a	Residential	B	1	100 EIGHTY OAK AVE	68	59	9
R2a-50	Residential	B	1	100 EIGHTY OAK AVE	68	58	10
R2a-50a	Residential	B	1	100 EIGHTY OAK AVE	71	59	12
R2a-51	Residential	B	1	100 EIGHTY OAK AVE	69	59	10
R2a-51a	Residential	B	1	100 EIGHTY OAK AVE	72	61	11
R2a-51b	Residential	B	1	100 EIGHTY OAK AVE	73	64	9

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With-Barrier	Noise Level Reduction
R2a-52	Residential	B	1	100 EIGHTY OAK AVE	70	60	10
R2a-52a	Residential	B	1	100 EIGHTY OAK AVE	73	62	11
R2a-52b	Residential	B	1	100 EIGHTY OAK AVE	74	65	9
R2a-53	Residential	B	1	100 EIGHTY OAK AVE	71	62	9
R2a-53a	Residential	B	1	100 EIGHTY OAK AVE	74	63	11
R2a-54	Residential	B	1	100 EIGHTY OAK AVE	74	65	9
R2a-54a	Residential	B	1	100 EIGHTY OAK AVE	75	66	9
R2a-55	Residential	B	1	100 EIGHTY OAK AVE	73	64	9
R2a-55a	Residential	B	1	100 EIGHTY OAK AVE	75	66	9
R2a-55b	Residential	B	1	100 EIGHTY OAK AVE	75	67	8
R2a-56	Residential	B	1	100 EIGHTY OAK AVE	73	63	10
R2a-56a	Residential	B	1	100 EIGHTY OAK AVE	74	66	8
R2a-56b	Residential	B	1	100 EIGHTY OAK AVE	75	67	8
R2a-57	Residential	B	1	100 EIGHTY OAK AVE	72	63	9
R2a-57a	Residential	B	1	100 EIGHTY OAK AVE	74	66	8
R2a-58	Residential	B	1	100 EIGHTY OAK AVE	66	57	9
R2a-58a	Residential	B	1	100 EIGHTY OAK AVE	68	58	10
R2a-59	Residential	B	1	100 EIGHTY OAK AVE	59	56	3
R2a-59a	Residential	B	1	100 EIGHTY OAK AVE	59	56	3
R2a-59b	Residential	B	1	100 EIGHTY OAK AVE	64	60	4
R2a-60	Residential	B	1	100 EIGHTY OAK AVE	58	53	5
R2a-60a	Residential	B	1	100 EIGHTY OAK AVE	58	54	4
R2a-60b	Residential	B	1	100 EIGHTY OAK AVE	63	59	4
R2a-61	Residential	B	1	100 EIGHTY OAK AVE	62	61	1
R2a-61a	Residential	B	1	100 EIGHTY OAK AVE	65	62	3
R2a-62	Residential	B	1	100 EIGHTY OAK AVE	58	54	4
R2a-62a	Residential	B	1	100 EIGHTY OAK AVE	61	57	4
R2a-62b	Residential	B	1	100 EIGHTY OAK AVE	63	59	4
R2a-63	Residential	B	1	100 EIGHTY OAK AVE	60	58	2
R2a-63a	Residential	B	1	100 EIGHTY OAK AVE	60	57	3
R2a-63b	Residential	B	1	100 EIGHTY OAK AVE	62	59	3
R2a-64	Residential	B	1	100 EIGHTY OAK AVE	55	52	3
R2a-64a	Residential	B	1	100 EIGHTY OAK AVE	57	54	3
R2a-64b	Residential	B	1	100 EIGHTY OAK AVE	61	58	3
R2a-65	Residential	B	1	100 EIGHTY OAK AVE	60	58	2
R2a-65a	Residential	B	1	100 EIGHTY OAK AVE	61	58	3
R2a-65b	Residential	B	1	100 EIGHTY OAK AVE	62	59	3
R2a-66	Residential	B	1	100 EIGHTY OAK AVE	68	60	8

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R2a-66a	Residential	B	1	100 EIGHTY OAK AVE	71	64	7
R2a-66b	Residential	B	1	100 EIGHTY OAK AVE	72	66	6
R2a-67	Residential	B	1	100 EIGHTY OAK AVE	67	59	8
R2a-67a	Residential	B	1	100 EIGHTY OAK AVE	71	65	6
R2a-67b	Residential	B	1	100 EIGHTY OAK AVE	72	66	6
R2a-68	Residential	B	1	100 EIGHTY OAK AVE	67	58	9
R2a-68a	Residential	B	1	100 EIGHTY OAK AVE	71	65	6
R2a-68b	Residential	B	1	100 EIGHTY OAK AVE	72	66	6
R2a-69	Residential	B	1	100 EIGHTY OAK AVE	65	60	5
R2a-69a	Residential	B	1	100 EIGHTY OAK AVE	71	65	6
R2a-69b	Residential	B	1	100 EIGHTY OAK AVE	72	66	6
R2a-70	Residential	B	1	100 EIGHTY OAK AVE	67	58	9
R2a-70a	Residential	B	1	100 EIGHTY OAK AVE	72	66	6
R2a-71	Residential	B	1	100 EIGHTY OAK AVE	68	61	7
R2a-71a	Residential	B	1	100 EIGHTY OAK AVE	73	67	6
R2a-71b	Residential	B	1	100 EIGHTY OAK AVE	73	67	6
R2a-72	Residential	B	1	100 EIGHTY OAK AVE	68	61	7
R2a-72a	Residential	B	1	100 EIGHTY OAK AVE	74	67	7
R2a-72b	Residential	B	1	100 EIGHTY OAK AVE	74	69	5
R2a-73	Residential	B	1	100 EIGHTY OAK AVE	69	61	8
R2a-73a	Residential	B	1	100 EIGHTY OAK AVE	75	69	6
R2a-74	Residential	B	1	100 EIGHTY OAK AVE	67	64	3
R2a-74a	Residential	B	1	100 EIGHTY OAK AVE	71	66	5
R2a-75	Residential	B	1	100 EIGHTY OAK AVE	68	66	2
R2a-75a	Residential	B	1	100 EIGHTY OAK AVE	73	68	5
R2a-75b	Residential	B	1	100 EIGHTY OAK AVE	73	68	5
R2a-76	Residential	B	1	100 EIGHTY OAK AVE	69	67	2
R2a-76a	Residential	B	1	100 EIGHTY OAK AVE	74	69	5
R2a-76b	Residential	B	1	100 EIGHTY OAK AVE	74	70	4
R2a-77	Residential	B	1	100 EIGHTY OAK AVE	72	68	4
R2a-77a	Residential	B	1	100 EIGHTY OAK AVE	75	70	5
R4-1	Residential	B	1	335 STONEWALL CT	65	57	8
R4-1a	Residential	B	1	335 STONEWALL CT	68	59	9
R4-1b	Residential	B	1	335 STONEWALL CT	69	60	9
R4-1c	Residential	B	1	335 STONEWALL CT	69	61	8
R4-2	Residential	B	1	335 STONEWALL CT	69	60	9
R4-2a	Residential	B	1	335 STONEWALL CT	72	61	11
R4-2b	Residential	B	1	335 STONEWALL CT	73	62	11

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R4-2c	Residential	B	1	335 STONEWALL CT	74	63	11
R4-3	Residential	B	1	335 STONEWALL CT	69	60	9
R4-3a	Residential	B	1	335 STONEWALL CT	73	61	12
R4-3b	Residential	B	1	335 STONEWALL CT	74	62	12
R4-3c	Residential	B	1	335 STONEWALL CT	74	63	11
R4-4	Residential	B	1	335 STONEWALL CT	69	59	10
R4-4a	Residential	B	1	335 STONEWALL CT	73	61	12
R4-4b	Residential	B	1	335 STONEWALL CT	74	62	12
R4-4c	Residential	B	1	335 STONEWALL CT	74	63	11
R4-5	Residential	B	1	335 STONEWALL CT	70	59	11
R4-5a	Residential	B	1	335 STONEWALL CT	73	61	12
R4-5b	Residential	B	1	335 STONEWALL CT	74	62	12
R4-5c	Residential	B	1	335 STONEWALL CT	75	64	11
R4-6	Residential	B	1	335 STONEWALL CT	69	60	9
R4-6a	Residential	B	1	335 STONEWALL CT	74	61	13
R4-6b	Residential	B	1	335 STONEWALL CT	74	63	11
R4-6c	Residential	B	1	335 STONEWALL CT	75	64	11
R4-7	Residential	B	1	335 STONEWALL CT	67	57	10
R4-7a	Residential	B	1	335 STONEWALL CT	70	58	12
R4-7b	Residential	B	1	335 STONEWALL CT	71	60	11
R4-7c	Residential	B	1	335 STONEWALL CT	72	62	10
R4-8	Residential	B	1	335 STONEWALL CT	65	55	10
R4-8a	Residential	B	1	335 STONEWALL CT	67	57	10
R4-9	Residential	B	1	335 STONEWALL CT	71	60	11
R4-9a	Residential	B	1	335 STONEWALL CT	73	60	13
R4-10	Residential	B	1	335 STONEWALL CT	71	59	12
R4-10a	Residential	B	1	335 STONEWALL CT	73	60	13
R4-11	Residential	B	1	335 STONEWALL CT	66	56	10
R4-11a	Residential	B	1	335 STONEWALL CT	68	58	10
R4-12	Residential	B	1	335 STONEWALL CT	64	61	3
R4-12a	Residential	B	1	335 STONEWALL CT	65	62	3
R4-12b	Residential	B	1	335 STONEWALL CT	67	62	5
R4-13	Residential	B	1	335 STONEWALL CT	64	59	5
R4-13a	Residential	B	1	335 STONEWALL CT	65	60	5
R4-13b	Residential	B	1	335 STONEWALL CT	67	61	6
R4-14	Residential	B	1	335 STONEWALL CT	64	58	6
R4-14a	Residential	B	1	335 STONEWALL CT	65	59	6
R4-14b	Residential	B	1	335 STONEWALL CT	67	61	6

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R4-15	Residential	B	1	335 STONEWALL CT	64	57	7
R4-15a	Residential	B	1	335 STONEWALL CT	65	59	6
R4-15b	Residential	B	1	335 STONEWALL CT	67	60	7
R4-16	Residential	B	1	335 STONEWALL CT	64	56	8
R4-16a	Residential	B	1	335 STONEWALL CT	66	58	8
R4-16b	Residential	B	1	335 STONEWALL CT	68	60	8
R4-17	Residential	B	1	335 STONEWALL CT	65	56	9
R4-17a	Residential	B	1	335 STONEWALL CT	66	58	8
R4-17b	Residential	B	1	335 STONEWALL CT	68	60	8
R4-18	Residential	B	1	335 STONEWALL CT	65	54	11
R4-18a	Residential	B	1	335 STONEWALL CT	67	55	12
R4-18b	Residential	B	1	335 STONEWALL CT	68	58	10
R4-19	Residential	B	1	335 STONEWALL CT	63	53	10
R4-19a	Residential	B	1	335 STONEWALL CT	65	54	11
R4-19b	Residential	B	1	335 STONEWALL CT	67	57	10
R4-20	Residential	B	1	335 STONEWALL CT	55	50	5
R4-20a	Residential	B	1	335 STONEWALL CT	58	53	5
R4-20b	Residential	B	1	335 STONEWALL CT	59	54	5
R4-21	Residential	B	1	335 STONEWALL CT	56	52	4
R4-21a	Residential	B	1	335 STONEWALL CT	59	56	3
R4-21b	Residential	B	1	335 STONEWALL CT	60	57	3
R4-22	Residential	B	1	335 STONEWALL CT	56	54	2
R4-22a	Residential	B	1	335 STONEWALL CT	59	57	2
R4-22b	Residential	B	1	335 STONEWALL CT	60	58	2
R4-23	Residential	B	1	335 STONEWALL CT	56	53	3
R4-23a	Residential	B	1	335 STONEWALL CT	59	56	3
R4-23b	Residential	B	1	335 STONEWALL CT	59	57	2
R4-24	Residential	B	1	335 STONEWALL CT	57	55	2
R4-24a	Residential	B	1	335 STONEWALL CT	59	58	1
R4-24b	Residential	B	1	335 STONEWALL CT	59	58	1
R4-25	Residential	B	1	335 STONEWALL CT	60	59	1
R4-25a	Residential	B	1	335 STONEWALL CT	61	61	0
R4-25b	Residential	B	1	335 STONEWALL CT	61	60	1
R4-26	Residential	B	1	335 STONEWALL CT	60	59	1
R4-26a	Residential	B	1	335 STONEWALL CT	61	61	0
R4-26b	Residential	B	1	335 STONEWALL CT	61	61	0
R4-27	Residential	B	1	335 STONEWALL CT	56	55	1
R4-27a	Residential	B	1	335 STONEWALL CT	59	58	1

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With-Barrier	Noise Level Reduction
R4-27b	Residential	B	1	335 STONEWALL CT	59	58	1
R4-28	Residential	B	1	335 STONEWALL CT	56	53	3
R4-28a	Residential	B	1	335 STONEWALL CT	59	56	3
R4-28b	Residential	B	1	335 STONEWALL CT	59	56	3
R4-29	Residential	B	1	335 STONEWALL CT	57	51	6
R4-29a	Residential	B	1	335 STONEWALL CT	60	55	5
R4-29b	Residential	B	1	335 STONEWALL CT	60	55	5
R4-30	Residential	B	1	335 STONEWALL CT	59	51	8
R4-30a	Residential	B	1	335 STONEWALL CT	61	54	7
R4-30b	Residential	B	1	335 STONEWALL CT	62	55	7
R4-31	Residential	B	1	335 STONEWALL CT	59	51	8
R4-31a	Residential	B	1	335 STONEWALL CT	61	53	8
R4-31b	Residential	B	1	335 STONEWALL CT	62	55	7
R4-32	Residential	B	1	335 STONEWALL CT	62	55	7
R4-32a	Residential	B	1	335 STONEWALL CT	65	58	7
R4-32b	Residential	B	1	335 STONEWALL CT	66	59	7
R4-33	Residential	B	1	335 STONEWALL CT	64	55	9
R4-33a	Residential	B	1	335 STONEWALL CT	66	59	7
R4-33b	Residential	B	1	335 STONEWALL CT	67	60	7
R4-34	Residential	B	1	335 STONEWALL CT	63	55	8
R4-34a	Residential	B	1	335 STONEWALL CT	66	60	6
R4-34b	Residential	B	1	335 STONEWALL CT	67	60	7
R4-35	Residential	B	1	335 STONEWALL CT	62	55	7
R4-35a	Residential	B	1	335 STONEWALL CT	66	60	6
R4-35b	Residential	B	1	335 STONEWALL CT	67	61	6
R4-36	Residential	B	1	335 STONEWALL CT	62	56	6
R4-36a	Residential	B	1	335 STONEWALL CT	66	60	6
R4-36b	Residential	B	1	335 STONEWALL CT	67	61	6
R4-37	Residential	B	1	335 STONEWALL CT	62	57	5
R4-37a	Residential	B	1	335 STONEWALL CT	66	61	5
R4-37b	Residential	B	1	335 STONEWALL CT	67	61	6
R4-38	Residential	B	1	335 STONEWALL CT	62	58	4
R4-38a	Residential	B	1	335 STONEWALL CT	66	61	5
R4-38b	Residential	B	1	335 STONEWALL CT	66	61	5
R4-39	Residential	B	1	335 STONEWALL CT	63	61	2
R4-39a	Residential	B	1	335 STONEWALL CT	66	63	3
R4-39b	Residential	B	1	335 STONEWALL CT	66	62	4
Predicted "Build-Condition" With-Barrier Benefits: ²							198 ²

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction

Approaching or Exceeding NAC **180** Provides 5-6 dB(A) NLR **77** Provides 7 dB(A) NLR **121**

1. Predicted traffic noise level impacts 180 receptors due to approaching or exceeding NAC (refer to Table 2). Predicted impacts to 0 receptors are due to a predicted "substantial increase" in noise levels.
2. The optimized I-526 LCC EAST noise barrier NW 2a/4 is predicted to provide at least 5 decibels (5 dB(A)) in noise level reduction (NLR) to 137 impacted receptors.
3. The optimized I-526 LCC East noise barrier NW 2a/4 is predicted to provide at least 7 decibels (7 dB(A)) in noise level reduction (NLR) to 121 receptors.

Table E-4: I-526 LCC EAST-Long Point Road Interchange
 Project Noise Barrier NW 9
 NSA-9, South of I-526 and east of Long Point Road between Lone Tree Drive and Wakendaw Road
 Recommended

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R9-1	Residential	B	1	601 SOLANA WAY	54	49	5
R9-1a	Residential	B	1	601 SOLANA WAY	58	51	7
R9-1b	Residential	B	1	601 SOLANA WAY	60	54	6
R9-2	Residential	B	1	601 SOLANA WAY	55	49	6
R9-2a	Residential	B	1	601 SOLANA WAY	59	51	8
R9-2b	Residential	B	1	601 SOLANA WAY	61	55	6
R9-3	Residential	B	1	601 SOLANA WAY	55	49	6
R9-3a	Residential	B	1	601 SOLANA WAY	60	51	9
R9-3b	Residential	B	1	601 SOLANA WAY	62	55	7
R9-4	Residential	B	1	601 SOLANA WAY	56	50	6
R9-4a	Residential	B	1	601 SOLANA WAY	60	51	9
R9-4b	Residential	B	1	601 SOLANA WAY	62	55	7
R9-5	Residential	B	1	601 SOLANA WAY	57	50	7
R9-5a	Residential	B	1	601 SOLANA WAY	61	52	9
R9-5b	Residential	B	1	601 SOLANA WAY	63	56	7
R9-6	Residential	B	1	601 SOLANA WAY	64	56	8
R9-6a	Residential	B	1	601 SOLANA WAY	67	58	9
R9-6b	Residential	B	1	601 SOLANA WAY	68	62	6
R9-7	Residential	B	1	601 SOLANA WAY	64	56	8
R9-7a	Residential	B	1	601 SOLANA WAY	67	59	8
R9-7b	Residential	B	1	601 SOLANA WAY	69	63	6
R9-8	Residential	B	1	601 SOLANA WAY	65	56	9
R9-8a	Residential	B	1	601 SOLANA WAY	67	59	8
R9-8b	Residential	B	1	601 SOLANA WAY	69	63	6
R9-9	Residential	B	1	601 SOLANA WAY	65	56	9
R9-9a	Residential	B	1	601 SOLANA WAY	68	59	9
R9-9b	Residential	B	1	601 SOLANA WAY	69	63	6
R9-10	Residential	B	1	601 SOLANA WAY	66	56	10
R9-10a	Residential	B	1	601 SOLANA WAY	68	58	10
R9-10b	Residential	B	1	601 SOLANA WAY	70	63	7
R9-11	Residential	B	1	601 SOLANA WAY	67	56	11
R9-11a	Residential	B	1	601 SOLANA WAY	69	59	10
R9-11b	Residential	B	1	601 SOLANA WAY	71	64	7

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R9-12	Residential	B	1	601 SOLANA WAY	67	56	11
R9-12a	Residential	B	1	601 SOLANA WAY	69	59	10
R9-12b	Residential	B	1	601 SOLANA WAY	71	64	7
R9-13	Residential	B	1	601 SOLANA WAY	69	57	12
R9-14	Residential	B	1	601 SOLANA WAY	70	58	12
R9-15	Residential	B	1	508 CHIMNEY BLUFF DR	55	53	2
R9-16	Residential	B	1	512 CHIMNEY BLUFF DR	57	54	3
R9-17	Residential	B	1	516 CHIMNEY BLUFF DR	58	54	4
R9-18	Residential	B	1	520 CHIMNEY BLUFF DR	60	56	4
R9-19	Residential	B	1	524 CHIMNEY BLUFF DR	62	57	5
R9-20	Residential	B	1	528 CHIMNEY BLUFF DR	63	58	5
R9-21	Residential	B	1	532 CHIMNEY BLUFF DR	65	59	6
R9-22	Residential	B	1	536 CHIMNEY BLUFF DR	67	61	6
R9-23	Residential	B	1	541 CHIMNEY BLUFF DR	66	64	2
R9-24	Residential	B	1	537 CHIMNEY BLUFF DR	62	58	4
R9-25	Residential	B	1	533 CHIMNEY BLUFF DR	61	58	3
R9-26	Residential	B	1	529 CHIMNEY BLUFF DR	61	58	3
R9-27	Residential	B	1	525 CHIMNEY BLUFF DR	60	57	3
R9-28	Residential	B	1	521 CHIMNEY BLUFF DR	57	54	3
R9-29	Residential	B	1	517 CHIMNEY BLUFF DR	56	54	2
R9-30	Residential	B	1	513 CHIMNEY BLUFF DR	56	53	3
R9-31	Residential	B	1	512 WILLOW BRANCH WAY	55	53	2
R9-32	Residential	B	1	516 WILLOW BRANCH WAY	56	54	2
R9-33	Residential	B	1	520 WILLOW BRANCH WAY	57	54	3
R9-34	Residential	B	1	521 WILLOW BRANCH WAY	57	54	3
R9-35	Residential	B	1	1537 STRATHMORE LN	53	51	2
R9-36	Residential	B	1	1533 STRATHMORE LN	52	48	4
R9-37	Residential	B	1	1529 STRATHMORE LN	55	49	6
R9-38	Residential	B	1	1525 STRATHMORE LN	57	52	5
R9-39	Residential	B	1	1521 STRATHMORE LN	55	51	4
R9-40	Residential	B	1	1517 STRATHMORE LN	59	54	5
R9-41	Residential	B	1	1513 STRATHMORE LN	60	53	7
R9-42	Residential	B	1	1509 STRATHMORE LN	62	56	6
R9-43	Residential	B	1	545 CHIMNEY BLUFF RD	67	63	4
R9-44	Residential	B	1	549 CHIMNEY BLUFF RD	67	61	6
R9-45	Residential	B	1	1505 STRATHMORE LN	65	59	6
R9-46	Residential	B	1	1501 STRATHMORE LN	67	60	7
R9-47	Residential	B	1	1500 STRATHMORE LN	66	59	7

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With-Barrier	Noise Level Reduction
R9-48	Residential	B	1	1504 STRATHMORE LN	62	55	7
R9-49	Residential	B	1	1508 STRATHMORE LN	60	53	7
R9-50	Residential	B	1	1512 STRATHMORE LN	57	50	7
R9-51	Residential	B	1	1516 STRATHMORE LN	57	50	7
R9-52	Residential	B	1	1520 STRATHMORE LN	55	48	7
R9-53	Residential	B	1	1524 STRATHMORE LN	54	49	5
R9-54	Residential	B	1	1528 STRATHMORE LN	54	51	3
R9-55	Residential	B	1	1532 STRATHMORE LN	54	51	3
R9-56	Residential	B	1	569 CHIMNEY BLUFF RD	66	58	8
R9-57	Residential	B	1	1505 WHITSUN CT	63	54	9
R9-58	Residential	B	1	1509 WHITSUN CT	62	53	9
R9-59	Residential	B	1	1508 WHITSUN CT	61	52	9
R9-60	Residential	B	1	1504 WHITSUN CT	62	53	9
R9-61	Residential	B	1	1500 WHITSUN CT	66	58	8
R9-62	Residential	B	1	571 CHIMNEY BLUFF RD	67	58	9
R9-63	Residential	B	1	622 CHIMNEY BLUFF RD	62	54	8
R9-64	Residential	B	1	618 CHIMNEY BLUFF DR	60	52	8
R9-65	Residential	B	1	614 CHIMNEY BLUFF RD	58	51	7
R9-66	Residential	B	1	610 CHIMNEY BLUFF RD	57	51	6
R9-67	Residential	B	1	606 CHIMNEY BLUFF RD	54	48	6
R9-68	Residential	B	1	602 CHIMNEY BLUFF RD	55	50	5
R9-69	Residential	B	1	598 CHIMNEY BLUFF RD	54	52	2
R9-70	Residential	B	1	594 CHIMNEY BLUFF RD	53	52	1
R9-71	Residential	B	1	590 CHIMNEY BLUFF RD	53	51	2
R9-72	Residential	B	1	586 CHIMNEY BLUFF RD	56	53	3
R9-73	Residential	B	1	582 CHIMNEY BLUFF DR	58	55	3
R9-74	Residential	B	1	578 CHIMNEY BLUFF RD	59	56	3
R9-75	Residential	B	1	574 CHIMNEY BLUFF RD	64	64	0
R9-76	Residential	B	1	570 CHIMNEY BLUFF RD	67	66	1
R9-77	Residential	B	1	566 CHIMNEY BLUFF RD	72	69	3
R9-78	Residential	B	1	573 CHIMNEY BLUFF RD	68	58	10
R9-79	Residential	B	1	615 CHIMNEY BLUFF RD	62	54	8
R9-80	Residential	B	1	609 CHIMNEY BLUFF RD	60	53	7
R9-81	Residential	B	1	605 CHIMNEY BLUFF DR	58	51	7
R9-82	Residential	B	1	601 CHIMNEY BLUFF RD	56	50	6
R9-83	Residential	B	1	597 CHIMNEY BLUFF RD	57	49	8
R9-84	Residential	B	1	593 CHIMNEY BLUFF RD	59	51	8
R9-85	Residential	B	1	589 CHIMNEY BLUFF RD	60	52	8

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R9-86	Residential	B	1	585 CHIMNEY BLUFF RD	60	54	6
R9-87	Residential	B	1	581 CHIMNEY BLUFF RD	64	59	5
R9-88	Residential	B	1	577 CHIMNEY BLUFF RD	67	60	7
Predicted "Build-Condition" With-Barrier Benefits: ²							81 ²

Approaching or Exceeding NAC **32** Provides 5-6 dB(A) NLR **27** Provides 7 dB(A) NLR **54**

1. Predicted traffic noise level impacts 32 receptors due to approaching or exceeding NAC (refer to Table 2). Predicted impacts to 0 receptors are due to a predicted "substantial increase" in noise levels.
2. The optimized I-526 LCC EAST noise barrier NW 9 is predicted to provide at least 5 decibels (5 dB(A)) in noise level reduction (NLR) to 28 impacted receptors.
3. The optimized I-526 LCC EAST noise barrier NW 9 is predicted to provide at least 7 decibels (7 dB(A)) in noise level reduction (NLR) to 54 receptors.

Table E-5: I-526 LCC EAST-Long Point Road Interchange
 Project Noise Barrier NW 12
 NSA-12, North of I-526 and east of Long Point Road between Long Point Road and bridge at Hobcaw
 Creek

Recommended

Performance Without-Barrier and With-Barrier Noise Levels								
Receptors					Predicted Noise Levels, Leq(h) (dB(A))			
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction	
R12-1	Residential	B	1	600 LONG POINT RD	65	63	2	
R12-1a	Residential	B	1	600 LONG POINT RD	68	65	3	
R12-1b	Residential	B	1	600 LONG POINT RD	69	66	3	
R12-2	Residential	B	1	600 LONG POINT RD	62	62	0	
R12-2a	Residential	B	1	600 LONG POINT RD	64	64	0	
R12-2b	Residential	B	1	600 LONG POINT RD	66	65	1	
R12-3	Residential	B	1	600 LONG POINT RD	62	61	1	
R12-3a	Residential	B	1	600 LONG POINT RD	64	63	1	
R12-4	Residential	B	1	1400 Belle Isle AVE	69	62	7	
R12-4a	Residential	B	1	1400 Belle Isle AVE	71	64	7	
R12-4b	Residential	B	1	1400 Belle Isle AVE	72	65	7	
R12-5	Residential	B	1	1400 Belle Isle AVE	66	53	13	
R12-5a	Residential	B	1	1400 Belle Isle AVE	69	55	14	
R12-5b	Residential	B	1	1400 Belle Isle AVE	70	58	12	
R12-6	Residential	B	1	1400 Belle Isle AVE	65	53	12	
R12-6a	Residential	B	1	1400 Belle Isle AVE	67	55	12	
R12-7	Residential	B	1	1400 Belle Isle AVE	68	60	8	
R12-7a	Residential	B	1	1400 Belle Isle AVE	71	63	8	
R12-7b	Residential	B	1	1400 Belle Isle AVE	72	64	8	
R12-8	Residential	B	1	1400 Belle Isle AVE	72	59	13	
R12-8a	Residential	B	1	1400 Belle Isle AVE	74	62	12	
R12-8b	Residential	B	1	1400 Belle Isle AVE	74	65	9	
R12-9	Residential	B	1	1400 Belle Isle AVE	73	56	17	
R12-9a	Residential	B	1	1400 Belle Isle AVE	75	57	18	
R12-9b	Residential	B	1	1400 Belle Isle AVE	75	60	15	
R12-10	Residential	B	1	1400 Belle Isle AVE	70	55	15	
R12-10a	Residential	B	1	1400 Belle Isle AVE	72	56	16	
R12-10b	Residential	B	1	1400 Belle Isle AVE	73	58	15	
R12-11	Picnic Area	C	1	1400 Belle Isle AVE	74	58	16	
R12-12	Residential	B	1	1400 Belle Isle AVE	67	54	13	
R12-12a	Residential	B	1	1400 Belle Isle AVE	68	54	14	
R12-13	Residential	B	1	1400 Belle Isle AVE	62	53	9	

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R12-13a	Residential	B	1	1400 Belle Isle AVE	64	52	12
R12-13b	Residential	B	1	1400 Belle Isle AVE	65	55	10
R12-14	Residential	B	1	1400 Belle Isle AVE	61	52	9
R12-14a	Residential	B	1	1400 Belle Isle AVE	62	51	11
R12-14b	Residential	B	1	1400 Belle Isle AVE	64	56	8
R12-15	Residential	B	1	1400 Belle Isle AVE	60	51	9
R12-15a	Residential	B	1	1400 Belle Isle AVE	61	51	10
R12-16	Residential	B	1	1400 Belle Isle AVE	71	56	15
R12-16a	Residential	B	1	1400 Belle Isle AVE	74	58	16
R12-17	Pool	C	1	1400 Belle Isle AVE	72	56	16
R12-18	Residential	B	1	1400 Belle Isle AVE	70	54	16
R12-18a	Residential	B	1	1400 Belle Isle AVE	73	55	18
R12-18b	Residential	B	1	1400 Belle Isle AVE	73	57	16
R12-19	Residential	B	1	1400 Belle Isle AVE	68	54	14
R12-19a	Residential	B	1	1400 Belle Isle AVE	72	55	17
R12-19b	Residential	B	1	1400 Belle Isle AVE	72	56	16
R12-20	Residential	B	1	1400 Belle Isle AVE	67	53	14
R12-20a	Residential	B	1	1400 Belle Isle AVE	71	55	16
R12-21	Residential	B	1	1400 Belle Isle AVE	59	52	7
R12-21a	Residential	B	1	1400 Belle Isle AVE	60	53	7
R12-21b	Residential	B	1	1400 Belle Isle AVE	62	56	6
R12-22	Residential	B	1	1400 Belle Isle AVE	58	52	6
R12-22a	Residential	B	1	1400 Belle Isle AVE	59	53	6
R12-22b	Residential	B	1	1400 Belle Isle AVE	61	56	5
R12-23	Residential	B	1	1400 Belle Isle AVE	58	52	6
R12-23a	Residential	B	1	1400 Belle Isle AVE	60	54	6
R12-24	Residential	B	1	1400 Belle Isle AVE	65	54	11
R12-24a	Residential	B	1	1400 Belle Isle AVE	70	54	16
R12-24b	Residential	B	1	1400 Belle Isle AVE	71	55	16
R12-25	Residential	B	1	1400 Belle Isle AVE	64	53	11
R12-25a	Residential	B	1	1400 Belle Isle AVE	69	54	15
R12-25b	Residential	B	1	1400 Belle Isle AVE	70	55	15
R12-26	Residential	B	1	1400 Belle Isle AVE	63	54	9
R12-26a	Residential	B	1	1400 Belle Isle AVE	67	54	13
R12-27	Residential	B	1	1600 BELLE POINT DR	64	53	11
R12-27a	Residential	B	1	1600 BELLE POINT DR	69	54	15
R12-28	Residential	B	1	1600 BELLE POINT DR	65	54	11
R12-28a	Residential	B	1	1600 BELLE POINT DR	70	55	15

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With-Barrier	Noise Level Reduction
R12-28b	Residential	B	1	1600 BELLE POINT DR	71	55	16
R12-29	Residential	B	1	1600 BELLE POINT DR	66	54	12
R12-29a	Residential	B	1	1600 BELLE POINT DR	71	55	16
R12-29b	Residential	B	1	1600 BELLE POINT DR	72	56	16
R12-30	Residential	B	1	1600 BELLE POINT DR	67	55	12
R12-30a	Residential	B	1	1600 BELLE POINT DR	72	57	15
R12-31	Residential	B	1	1600 BELLE POINT DR	57	51	6
R12-31a	Residential	B	1	1600 BELLE POINT DR	60	53	7
R12-32	Residential	B	1	1600 BELLE POINT DR	57	51	6
R12-32a	Residential	B	1	1600 BELLE POINT DR	61	52	9
R12-32b	Residential	B	1	1600 BELLE POINT DR	63	54	9
R12-33	Residential	B	1	1600 BELLE POINT DR	58	51	7
R12-33a	Residential	B	1	1600 BELLE POINT DR	63	52	11
R12-33b	Residential	B	1	1600 BELLE POINT DR	65	54	11
R12-34	Residential	B	1	1600 BELLE POINT DR	60	52	8
R12-34a	Residential	B	1	1600 BELLE POINT DR	66	53	13
R12-35	Residential	B	1	1600 BELLE POINT DR	60	52	8
R12-35a	Residential	B	1	1600 BELLE POINT DR	65	52	13
R12-36	Residential	B	1	1600 BELLE POINT DR	62	52	10
R12-36a	Residential	B	1	1600 BELLE POINT DR	68	53	15
R12-36b	Residential	B	1	1600 BELLE POINT DR	69	54	15
R12-37	Residential	B	1	1600 BELLE POINT DR	65	54	11
R12-37a	Residential	B	1	1600 BELLE POINT DR	70	55	15
R12-37b	Residential	B	1	1600 BELLE POINT DR	71	55	16
R12-38	Residential	B	1	1600 BELLE POINT DR	66	56	10
R12-38a	Residential	B	1	1600 BELLE POINT DR	71	57	14
R12-39	Residential	B	1	1600 BELLE POINT DR	53	48	5
R12-39a	Residential	B	1	1600 BELLE POINT DR	55	50	5
R12-40	Residential	B	1	1600 BELLE POINT DR	53	48	5
R12-40a	Residential	B	1	1600 BELLE POINT DR	55	49	6
R12-40b	Residential	B	1	1600 BELLE POINT DR	59	52	7
R12-41	Residential	B	1	1600 BELLE POINT DR	55	48	7
R12-41a	Residential	B	1	1600 BELLE POINT DR	57	48	9
R12-41b	Residential	B	1	1600 BELLE POINT DR	61	51	10
R12-42	Residential	B	1	1600 BELLE POINT DR	57	49	8
R12-42a	Residential	B	1	1600 BELLE POINT DR	61	49	12
R12-43	Residential	B	1	1600 BELLE POINT DR	60	50	10
R12-43a	Residential	B	1	1600 BELLE POINT DR	65	50	15

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With- Bar	Noise Level Reduction
R12-44	Residential	B	1	1600 BELLE POINT DR	55	49	6
R12-44a	Residential	B	1	1600 BELLE POINT DR	60	49	11
R12-44b	Residential	B	1	1600 BELLE POINT DR	61	52	9
R12-45	Residential	B	1	1600 BELLE POINT DR	54	49	5
R12-45a	Residential	B	1	1600 BELLE POINT DR	57	49	8
R12-45b	Residential	B	1	1600 BELLE POINT DR	59	52	7
R12-46	Residential	B	1	1600 BELLE POINT DR	53	49	4
R12-46a	Residential	B	1	1600 BELLE POINT DR	55	49	6
R12-47	Residential	B	1	1600 BELLE POINT DR	63	53	10
R12-47a	Residential	B	1	1600 BELLE POINT DR	69	55	14
R12-48	Residential	B	1	1600 BELLE POINT DR	59	50	9
R12-48a	Residential	B	1	1600 BELLE POINT DR	66	51	15
R12-48b	Residential	B	1	1600 BELLE POINT DR	68	53	15
R12-49	Residential	B	1	1600 BELLE POINT DR	58	48	10
R12-49a	Residential	B	1	1600 BELLE POINT DR	63	50	13
R12-49b	Residential	B	1	1600 BELLE POINT DR	66	53	13
R12-50	Residential	B	1	1600 BELLE POINT DR	56	48	8
R12-50a	Residential	B	1	1600 BELLE POINT DR	61	49	12
R12-51	Residential	B	1	1600 BELLE POINT DR	61	54	7
R12-51a	Residential	B	1	1600 BELLE POINT DR	69	55	14
R12-52	Residential	B	1	1600 BELLE POINT DR	59	54	5
R12-52a	Residential	B	1	1600 BELLE POINT DR	66	54	12
R12-52b	Residential	B	1	1600 BELLE POINT DR	68	56	12
R12-53	Residential	B	1	1600 BELLE POINT DR	58	53	5
R12-53a	Residential	B	1	1600 BELLE POINT DR	64	53	11
R12-53b	Residential	B	1	1600 BELLE POINT DR	66	55	11
R12-54	Residential	B	1	1600 BELLE POINT DR	57	50	7
R12-54a	Residential	B	1	1600 BELLE POINT DR	62	51	11
R12-55	Residential	B	1	1600 BELLE POINT DR	66	57	9
R12-55a	Residential	B	1	1600 BELLE POINT DR	73	58	15
R12-56	Residential	B	1	1600 BELLE POINT DR	65	56	9
R12-56a	Residential	B	1	1600 BELLE POINT DR	71	58	13
R12-56b	Residential	B	1	1600 BELLE POINT DR	72	59	13
R12-57	Residential	B	1	1600 BELLE POINT DR	64	57	7
R12-57a	Residential	B	1	1600 BELLE POINT DR	69	60	9
R12-57b	Residential	B	1	1600 BELLE POINT DR	70	60	10
R12-58	Residential	B	1	1600 BELLE POINT DR	63	57	6
R12-58a	Residential	B	1	1600 BELLE POINT DR	68	60	8

Performance Without-Barrier and With-Barrier Noise Levels							
Receptors					Predicted Noise Levels, Leq(h) (dB(A))		
ID. No.	Use	NAC	ERs	Address	Build ¹	With-Barrier	Noise Level Reduction
R12-59	Residential	B	1	1600 BELLE POINT DR	56	50	6
R12-59a	Residential	B	1	1600 BELLE POINT DR	60	51	9
R12-60	Residential	B	1	1600 BELLE POINT DR	56	50	6
R12-60a	Residential	B	1	1600 BELLE POINT DR	59	51	8
R12-60b	Residential	B	1	1600 BELLE POINT DR	62	53	9
R12-61	Residential	B	1	1600 BELLE POINT DR	55	49	6
R12-61a	Residential	B	1	1600 BELLE POINT DR	58	50	8
R12-61b	Residential	B	1	1600 BELLE POINT DR	61	53	8
R12-62	Residential	B	1	1600 BELLE POINT DR	55	49	6
R12-62a	Residential	B	1	1600 BELLE POINT DR	57	50	7
R12-63	Residential	B	1	1600 BELLE POINT DR	62	57	5
R12-63a	Residential	B	1	1600 BELLE POINT DR	66	59	7
R12-64	Residential	B	1	1600 BELLE POINT DR	61	57	4
R12-64a	Residential	B	1	1600 BELLE POINT DR	65	59	6
R12-64b	Residential	B	1	1600 BELLE POINT DR	68	60	8
R12-65	Residential	B	1	1600 BELLE POINT DR	61	56	5
R12-65a	Residential	B	1	1600 BELLE POINT DR	64	59	5
R12-65b	Residential	B	1	1600 BELLE POINT DR	67	60	7
R12-66	Residential	B	1	1600 BELLE POINT DR	60	56	4
R12-66a	Residential	B	1	1600 BELLE POINT DR	64	59	5
Predicted "Build-Condition" With-Barrier Benefits: ²							155 ²

Approaching or Exceeding NAC **74** Provides 5-6 dB(A) NLR **27** Provides 7 dB(A) NLR **128**

1. Predicted traffic noise level impacts 74 receptors due to approaching or exceeding NAC (refer to Table 2). Predicted impacts to 0 receptors are due to a predicted "substantial increase" in noise levels.
2. The optimized I-526 LCC EAST noise barrier NW 12 is predicted to provide at least 5 decibels (5 dB(A)) in noise level reduction (NLR) to 71 impacted receptors.
3. The optimized I-526 LCC EAST noise barrier NW 12 is predicted to provide at least 7 decibels (7 dB(A)) in noise level reduction (NLR) to 128 receptors.

SCDOT Feasibility and Reasonableness Worksheet

Date: 02/10/2023

Project Name **I-526 LCC East - Long Point Road Interchange**

Highway Traffic Noise Abatement Measure **NW 1a/3/6/8**

Feasibility

Number of Impacted Receivers **105**

Number of Benefited Receivers **278**

Number of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

104

Is the proposed noise abatement measure acoustically feasible?

NOTE: SCDOT Policy indicates that 3 impacted receptors must

achieve at least a 5 dBA reduction for it to be acoustically feasible.

Yes

No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

Topography

Yes

No

Safety

Yes

No

Drainage

Yes

No

Utilities

Yes

No

Maintenance

Yes

No

Access

Yes

No

Exposed Height of Wall

Yes

No

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

#1: Noise Reduction Design Goal

Number of Benefited Receivers

278

Number of Benefited Receivers that achieve at least an 7 dBA reduction

169

Number of benefited receptors that would achieve at least a 7 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT noise policy states that at least one (1) benefited receptor must achieve a 7dBA reduction from the noise abatement measure.

169

Does the proposed noise abatement measure meet the noise reduction design goal? Yes No

If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.

#2: Cost Effectiveness

Estimated area of noise abatement measure.

221,769

Number of Benefited Receivers

278

Estimated area per Benefited Receiver

798

Based on the SCDOT policy of 1,500 sq. ft. per Benefited Receiver, would the abatement measure be reasonable?

Yes No

If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.

#3: Viewpoints of the property owners and residents of the benefited receivers

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in support of noise abatement measure

Percentage of Benefited Receivers in support of noise abatement measure

Number of Benefited Receivers opposed to noise abatement measure

Percentage of Benefited Receivers opposed to noise abatement measure

Number of Benefited Receivers that did not respond to solicitation on noise abatement measure

Percentage of Benefited Receivers that did not respond to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.

Yes No

Final Determination for Noise Abatement Measure

SCDOT Feasibility and Reasonableness Worksheet

Date: 02/10/2023

Project Name I-526 LCC East - Long Point Road Interchange

Highway Traffic Noise Abatement Measure NW 2a/4

Feasibility

Number of Impacted Receivers 180

Number of Benefited Receivers 198

Number of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure 137

Is the proposed noise abatement measure acoustically feasible?

NOTE: SCDOT Policy indicates that 3 impacted receptors must achieve at least a 5 dBA reduction for it to be acoustically feasible.

Yes No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- | | | |
|------------------------|------------------------------|--|
| Topography | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

#1: Noise Reduction Design Goal

Number of Benefited Receivers

198

Number of Benefited Receivers that achieve at least an 7 dBA reduction

121

Number of benefited receptors that would achieve at least a 7 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT noise policy states that at least one (1) benefited receptor must achieve a 7dBA reduction from the noise abatement measure.

121

Does the proposed noise abatement measure meet the noise reduction design goal? Yes No

If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.

#2: Cost Effectiveness

Estimated area of noise abatement measure.

67,146

Number of Benefited Receivers

198

Estimated area per Benefited Receiver

339

Based on the SCDOT policy of 1,500 sq. ft. per Benefited Receiver, would the abatement measure be reasonable?

Yes No

If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.

#3: Viewpoints of the property owners and residents of the benefited receivers

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure

Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure

Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.

Yes No

Final Determination for Noise Abatement Measure

SCDOT Feasibility and Reasonableness Worksheet

Date: 02/10/2023

Project Name **I-526 LCC East - Long Point Road Interchange**

Highway Traffic Noise Abatement Measure **NW 9**

Feasibility

Number of Impacted Receivers **32**

Number of Benefited Receivers **81**

Number of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

28

Is the proposed noise abatement measure acoustically feasible?

NOTE: SCDOT Policy indicates that 3 impacted receptors must

achieve at least a 5 dBA reduction for it to be acoustically feasible.

Yes

No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

Topography	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Safety	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Drainage	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Utilities	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Maintenance	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Access	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Exposed Height of Wall	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

#1: Noise Reduction Design Goal

Number of Benefited Receivers

81

Number of Benefited Receivers that achieve at least an 7 dBA reduction

54

Number of benefited receptors that would achieve at least a 7 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT noise policy states that at least one (1) benefited receptor must achieve a 7dBA reduction from the noise abatement measure.

54

Does the proposed noise abatement measure meet the noise reduction design goal? Yes No

If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.

#2: Cost Effectiveness

Estimated area of noise abatement measure.

87,461

Number of Benefited Receivers

81

Estimated area per Benefited Receiver

1,080

Based on the SCDOT policy of 1,500 sq. ft. per Benefited Receiver, would the abatement measure be reasonable?

Yes No

If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.

#3: Viewpoints of the property owners and residents of the benefited receivers

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure

Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure

Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.

Yes No

Final Determination for Noise Abatement Measure

SCDOT Feasibility and Reasonableness Worksheet

Date: 02/10/2023

Project Name **I-526 LCC East - Long Point Road Interchange**

Highway Traffic Noise Abatement Measure **NW 12**

Feasibility

Number of Impacted Receivers **74**

Number of Benefited Receivers **155**

Number of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

71

Is the proposed noise abatement measure acoustically feasible?

NOTE: SCDOT Policy indicates that 3 impacted receptors must

achieve at least a 5 dBA reduction for it to be acoustically feasible.

Yes

No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

Topography

Yes

No

Safety

Yes

No

Drainage

Yes

No

Utilities

Yes

No

Maintenance

Yes

No

Access

Yes

No

Exposed Height of Wall

Yes

No

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

#1: Noise Reduction Design Goal

Number of Benefited Receivers

155

Number of Benefited Receivers that achieve at least an 7 dBA reduction

128

Number of benefited receptors that would achieve at least a 7 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT noise policy states that at least one (1) benefited receptor must achieve a 7dBA reduction from the noise abatement measure.

128

Does the proposed noise abatement measure meet the noise reduction design goal? Yes No

If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.

#2: Cost Effectiveness

Estimated area of noise abatement measure.

48,481

Number of Benefited Receivers

155

Estimated area per Benefited Receiver

313

Based on the SCDOT policy of 1,500 sq. ft. per Benefited Receiver, would the abatement measure be reasonable?

Yes No

If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.

#3: Viewpoints of the property owners and residents of the benefited receivers

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure

Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure

Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.

Yes No

Final Determination for Noise Abatement Measure

APPENDIX F

VIEWPOINTS OF PROPERTY OWNERS AND RESIDENTS OF THE BENEFITED RECEPTORS