

Traffic Noise Analysis Technical Report

**Interstate 10
LA 415 to Essen Lane (I-10/I-12)
East and West Baton Rouge Parishes, Louisiana

State Project No. H.004100**

**Submitted to:
Louisiana Department of Transportation
and Development**

Prepared by:
Bowlby & Associates, Inc. 
2505 21st Avenue South, Suite 300
Nashville, TN 37212

Prepared for:
**Providence Engineering and Environmental
Group LLC**
1201 Main Street
Baton Rouge, LA 70802

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1 INTRODUCTION

This report documents the results of a noise analysis as part of the environmental process for the I-10 widening project in East Baton Rouge and West Baton Rouge Parishes, Louisiana. Figure 1 shows the project area, which extends approximately nine miles from LA 415 in West Baton Rouge Parish to Essen Lane in East Baton Rouge Parish.

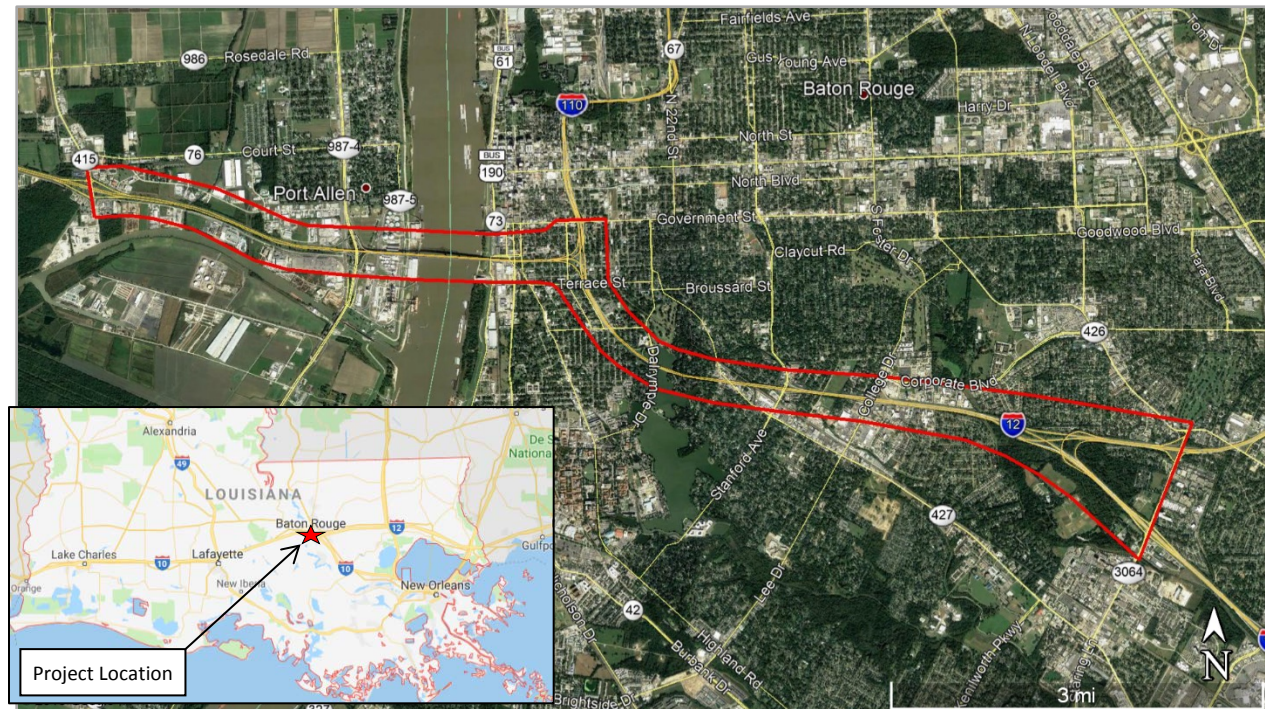


Figure 1. Project Area

The proposed improvements include widening both eastbound and westbound I-10 by one travel lane from LA 415 to the I-10/I-12 split. The project also includes modifications to the I-10 interchanges at LA 1, Washington Street, Dalrymple Drive, Perkins Road, and Acadian Thruway. A flyover ramp is proposed from westbound I-10 to College Drive as well as the replacement of the Nairn Drive overpass bridge. A dedicated right exit is also proposed off the College Drive westbound off-ramp to allow traffic to flow directly to Corporate Boulevard via Trust Drive. Generally, the interchange modifications involve:

- LA 1 - ramp modifications to accommodate shoulder widening and an auxiliary lane to LA 415
- Washington Street/Dalrymple Drive (Washington/Dalrymple)– one consolidated interchange is proposed for Washington/Dalrymple
- Perkins - removal of the Perkins ramps
- Acadian – ramp lengthening and ramp widening of the existing diamond along with at-grade improvements along Acadian Thruway between Perkins Road and I-10

2 TRAFFIC NOISE ANALYSIS

This study has been prepared in accordance with the Federal Highway Administration (FHWA) noise regulation, *Procedures for Abatement of Highway Traffic and Construction Noise*, 23 CFR 772 (FHWA, 2010), and the Louisiana Department of Transportation and Development (DOTD) *Highway Traffic Noise Policy* (DOTD, 2011). The noise analysis included the following tasks:

1. Identification of noise study areas (NSA) and associated receptors (discrete or representative locations in an NSA for the land uses listed in 23 CFR 772) within 500 feet of the project
2. Determination of existing noise levels at selected receptors to characterize the existing noise environment in the project area
3. Prediction of future noise levels with and without the project
4. Determination of impacted receptors
5. Evaluation of noise abatement for impacted areas
6. Discussion of construction noise
7. Information for local officials.

Each of these analysis steps is discussed below, following a discussion of traffic noise terminology and DOTD's criteria for determining noise impacts.

2.1 Traffic Noise Terminology

Traffic noise levels are expressed in terms of the hourly, A-weighted equivalent sound level in decibels (dBA). A sound level represents the level of the rapid air pressure fluctuations caused by sources such as traffic that are heard as noise. A decibel is a unit that relates the sound pressure of a noise to the faintest sound the young human ear can hear. The A-weighting refers to the amplification or attenuation of the different frequencies of the sound (subjectively, the pitch) to correspond to the way the human ear "hears" these frequencies.

Generally, when the sound level exceeds the mid-60 dBA range, outdoor conversation in normal tones at a distance of three feet becomes difficult. A 9-10 dB increase in sound level is typically judged by the listener to be *twice* as loud as the original sound while a 9-10 dB reduction is judged to be *half* as loud. Doubling the number of sources (i.e., vehicles) will increase the hourly equivalent sound level by approximately 3 dBA, which is usually the smallest change in hourly equivalent A-weighted traffic noise levels that people can detect without specifically listening for the change. Figure 2 shows common indoor and outdoor sound levels.

Because most environmental noise fluctuates from moment to moment, it is standard practice to condense data into a single level called the equivalent sound level (L_{eq}). The L_{eq} is a steady sound level that would contain the same amount of sound energy as the actual time-varying sound evaluated over the same time period. The L_{eq} averages the louder and quieter moments but gives much more weight to the louder moments in the averaging. For traffic noise assessment purposes, L_{eq} is typically evaluated over the worst one-hour period and is written as $L_{eq}(h)$.

The term insertion loss (IL) is generally used to describe the reduction in $L_{eq}(h)$ at a location after a noise barrier is constructed. For example, if the $L_{eq}(h)$ at a residence before a barrier is constructed is 75 dBA and the $L_{eq}(h)$ after a barrier constructed is 65 dBA, then the insertion loss would be 10 dB.

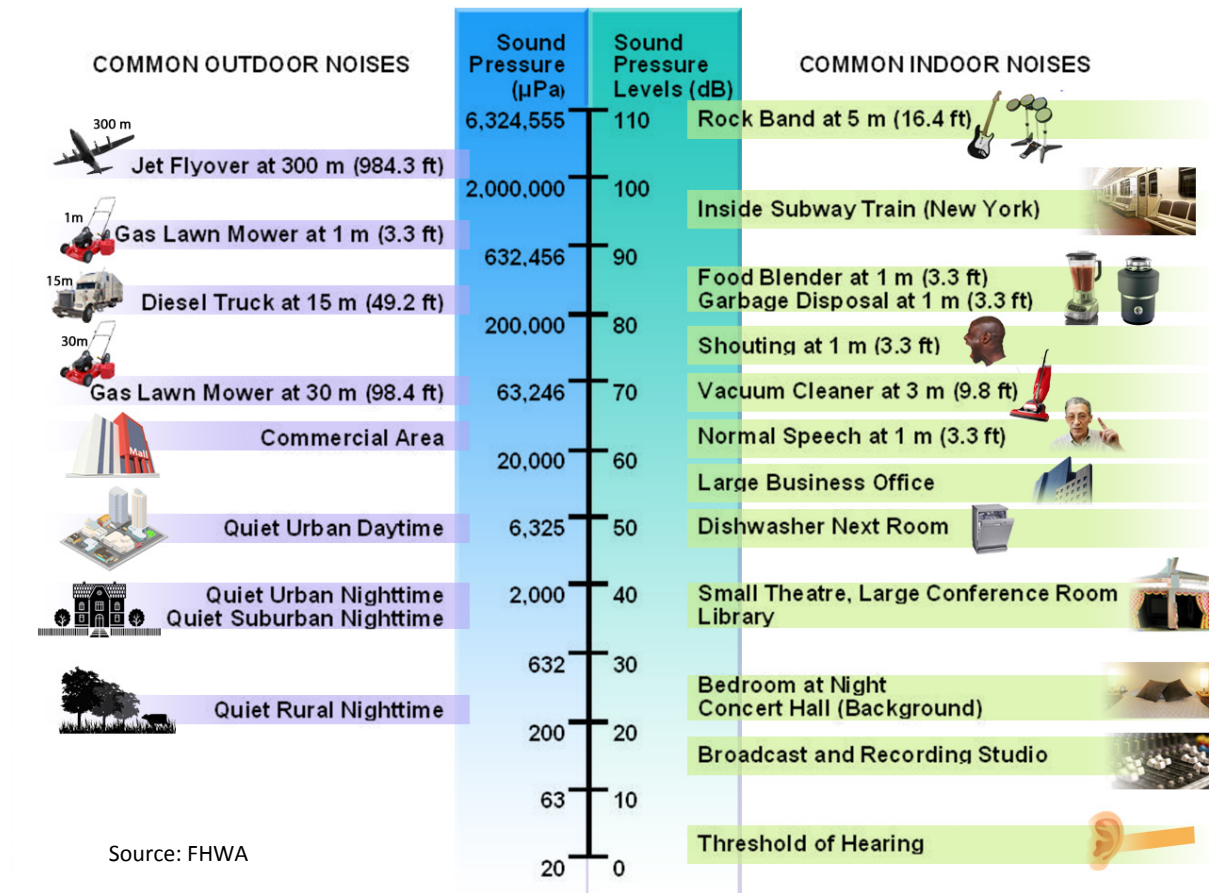


Figure 2. Common Sound Levels

2.2 Criteria for Determining Impacts

Noise impact is determined by comparing future “design year” project worst-hour noise levels at areas of frequent human use to: (1) a set of Noise Abatement Criteria (NAC) for different land use categories, and (2) existing noise levels. The FHWA noise regulation and DOTD noise policy require that noise abatement be considered when traffic noise impacts have been identified. Table 1 shows the land uses that are classified as Activity Categories A - G and the corresponding NAC.

Specifically, a receptor is impacted in either of two ways:

1. The predicted, worst-hour noise level in the design year approaches or exceeds the NAC. DOTD defines “approach” as 1 dB less than the NAC. For example, the NAC for Activity Category B and C land uses is 67 dBA. An impact would occur if the predicted noise level is 66 dBA or higher at an exterior area of frequent exterior human use for either category.
2. The predicted, worst-hour noise level in the design year exceeds the existing noise level by 10 dB or more, even if the NAC is not approached or exceeded.

Table 1. Noise Abatement Criteria

Activity Category	L _{Aeq} (1h) dBA	Evaluation Location	Activity Description
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B ¹	67	Exterior	Residential
C ¹	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care 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	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 ¹	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	---	---	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	---	---	Undeveloped lands that are not permitted.

¹Includes undeveloped lands permitted for this activity category.

2.3 Noise Study Areas

A review of available electronic mapping as well as field reconnaissance identified 16 Noise Study Areas (NSAs) containing noise-sensitive land uses. These NSAs are described in Table 2 and shown in Figure 3. As indicated in Table 2, each NSA includes varying combinations of Activity Category B, C, D, and E land uses. The primary land use along the project corridor is Activity Category B residential (single-family residences and multi-family dwellings). Five (5) NSAs between South Acadian Thruway and the east project limit at Essen Lane currently have noise barriers and one NSA (WB6) does not. The ten (10) NSAs between the west project limit at LA 415 and South Acadian Thruway Avenue do not have noise barriers.

The I-10 corridor is heavily developed; however, some tracts of undeveloped Activity Category G lands exist along the project. These undeveloped lands are not noise-sensitive and have not been included in the noise analysis. However, noise impacts could occur in the future if noise-sensitive land uses are constructed near I-10 or I-12. A discussion of future noise levels and the need for noise-compatible land use planning is provided later in this report.

Table 2. Noise Study Areas

Noise Study Area	Existing Noise Barrier?	Description	
EB1	No	South of I-10, between the Mississippi River and East Washington Street	
		Activity Category B (exterior)	Numerous single-family residences
		Activity Category C (exterior)	Baranco Clark YMCA playground
		Activity Category D (interior)	Fairview Baptist Church, Progressive Baptist Church, New Jerusalem Baptist Church, Neeley United Methodist Church
EB2	No	South of I-10, between East Washington Street and Dalrymple Drive	
		Activity Category B (exterior)	Numerous single-family residences
		Activity Category C (exterior)	East Polk Street Park (basketball court, playground, baseball)
		Activity Category D (interior)	Calvary Third Baptist Church
EB3a	No	South of I-10, between East Lakeshore Drive and Christian Street	
		Activity Category B (exterior)	Numerous single-family residences, including townhomes on Fiero Street
EB3b	No	South of I-10, between Christian Street and South Acadian Thruway	
		Activity Category B (exterior)	Numerous single-family residences, including townhomes on Christian Street, and Hollydale Ave, and some apartments above a commercial restaurant
		Activity Category E (exterior)	Saltgrass Steakhouse patio, Schlitz and Giggles patio
EB4	Yes	South of I-10, between South Acadian Thruway and College Drive	
		Activity Category B (exterior)	Numerous single-family residences
		Activity Category C (exterior)	Nairn Park (playground, ball fields, basketball court, picnic area)
		Activity Category E (exterior)	Courtyard by Marriott (Acadian Centre) pool
EB5	Yes	South of I-10, between College Drive and the I-10/I-12 split	
		Activity Category B (exterior)	Numerous single-family residences
		Activity Category E (exterior)	Hampton Inn pool, Crowne Plaza pool, Holiday Inn pool, and the Doubletree Hotel patio
EB6	Yes	South of I-12, between I-the 10/I-12 split and Essen Lane	
		Activity Category B (exterior)	Numerous single-family residences

Noise Study Area	Existing Noise Barrier?	Description	
WB1	No	North of I-10 and west of I-110, between the Mississippi River and Government Street	
		Activity Category B (exterior)	Numerous single-family residences
		Activity Category C (exterior)	Foreign Language Academic Immersion Magnet (FLAIM) Elementary School playground, Odell Williams Museum of African American History picnic tables
		Activity Category D (interior)	Liberty Chapel Baptist Church, New St. Luke Baptist Church, St. Agnes Catholic Church
WB2	No	East of I-110 and I-10, between Government Street and East Washington Street	
		Activity Category B (exterior)	Numerous single-family residences, some duplexes, and apartments
		Activity Category C (exterior)	St Francis Xavier Church exterior area and courtyard, St Francis Xavier Early Child Development playground, St Francis Xavier Child Care Center playground, Brooks Park swimming pool and playground, Expressway Park playground, picnic area, basketball court and football field
		Activity Category D (interior)	McKowen Missionary Baptist Church, New Prospect Missionary Baptist Church, McKinley Middle Magnet School
WB3	No	North of I-10 between East Washington Street and Dalrymple Drive	
		Activity Category B (exterior)	Numerous single-family residences
		Activity Category C (exterior)	Knock Knock Children's Museum picnic area
		Activity Category D (interior)	Ebenezer Baptist Church
WB4a	No	North of I-10 between East Lakeshore Drive and Perkins Road	
		Activity Category B (exterior)	Numerous single-family residences
		Activity Category E (exterior)	Duvics patio

Noise Study Area	Existing Noise Barrier?	Description	
WB4b	No	North of I-10 between Perkins Road and South Acadian Thruway	
		Activity Category B (exterior)	Numerous single-family residences
		Activity Category C (exterior)	Madera Verde Apartments courtyard
		Activity Category E (exterior)	Digiulio Brothers patio, City Pork patio
WB5	Yes	North of I-10 between South Acadian Thruway and College Drive	
		Activity Category B (exterior)	Numerous single-family residences
		Activity Category D (interior)	Cathedral of Faith Ministry Church
		Activity Category E (exterior)	Radisson Hotel pool
WB6	No	North of I-10 between College Drive and the I-10/I-12 split	
		Activity Category E (exterior)	Tru by Hilton Hotel pool, Baton Rouge Marriott pool, Richmond Inn & Suites pool, Homewood Suites pool
WB7	Yes	North of I-12 between the I-10/I-12 split and Essen Lane	
		Activity Category B (exterior)	Numerous single-family residences, townhomes and apartments
		Activity Category C (exterior)	Jefferson Place Apartments & Condominiums pool
WB8	No	North of I-10 between LA 415 and 2179 Commercial Drive	
		Activity Category B (exterior)	Allen Courts Apartments, Westport Village Apartments, Riverwest Apartments
		Activity Category E (exterior)	Hampton Inn & Suites pool, Comfort Suites pool, La Quinta Inn & Suites pool

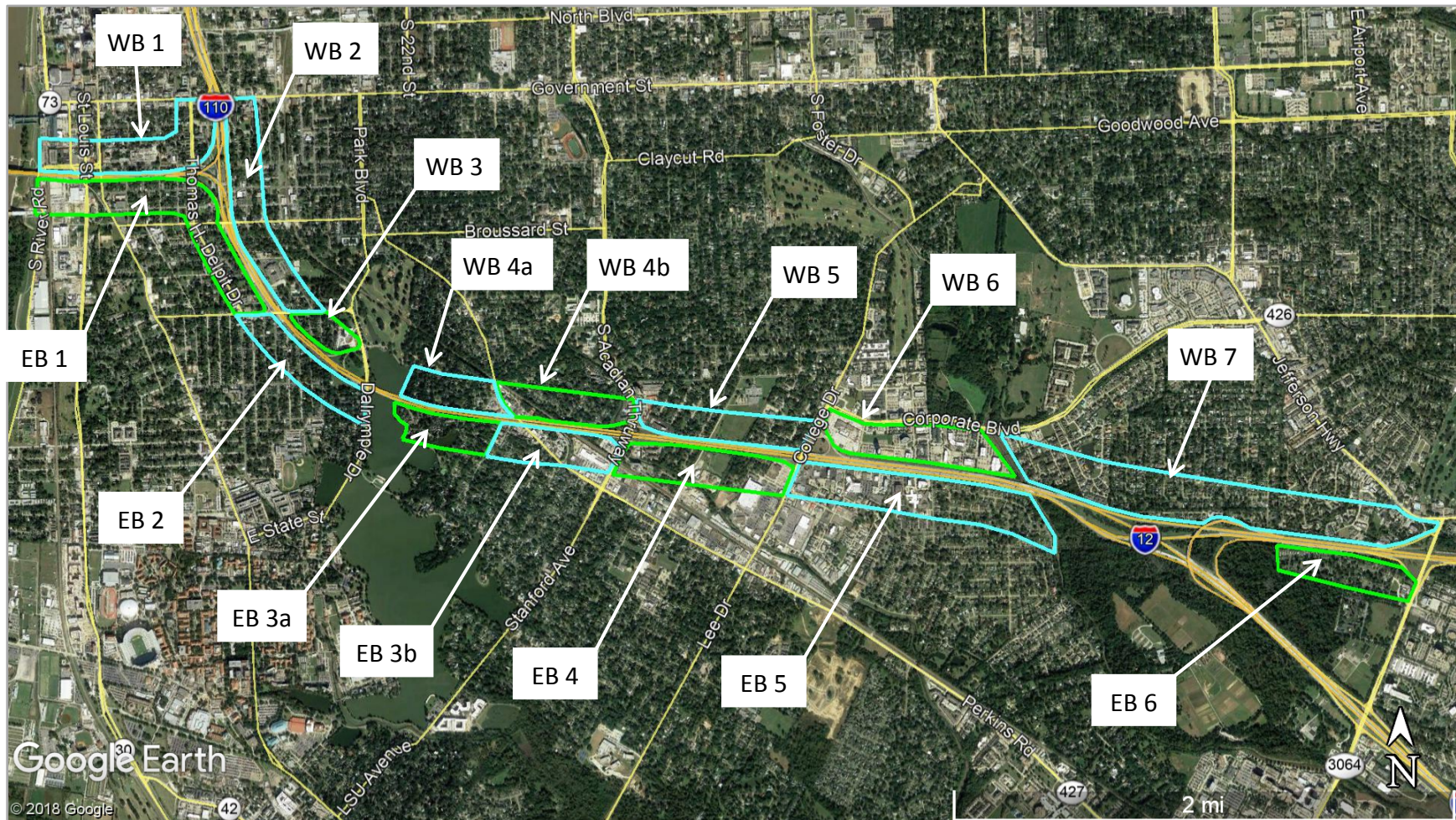


Figure 3. Noise Study Areas



Figure 3: Noise Study Areas (cont'd)

2.4 Noise Measurements

Noise measurements were conducted at several DOTD-approved noise-sensitive land uses in the project area on March 20-22, 2018. Table 3 summarizes the noise levels at each measurement location. Appendix A contains figures showing the measurement locations as well as the noise measurement results.

Table 3. Existing Noise Levels at Measurement Locations

Noise Study Area	Site	Date	Time	Distance to I-10 (ft)	Measured L_{Aeq} (dBA)	Predicted L_{Aeq} (dBA)	Predicted - Measured Difference (dB)
EB2	1926 Maryland St	3/21/2018	10:30 - 10:50	145	70.5	72.4	1.9
		3/21/2018	14:40 - 15:05		66.7	66.8	0.1
		3/22/2018	11:15 - 11:35		70.3	70.4	0.1
	1159 E Harrison St	3/21/2018	10:31 - 10:51	110	73.4	75.3	1.9
		3/21/2018	14:40 - 15:05		69.1	68.7	-0.4
		3/22/2018	11:15 - 11:35		74.2	73.1	-1.1
	East Polk St basketball court	3/21/2018	10:30 - 10:50	130	70.6	72.7	2.1
		3/22/2018	11:15 - 11:35		71.5	70.5	-1.0
EB3a	2226 Estates Rd	3/21/2018	12:25 - 12:51	90	73.2	75.9	2.7
		3/22/2018	10:30 - 10:49		72.9	75.7	2.8
	2808 Fiero St	3/21/2018	12:25 - 12:51	115	74.5	75.0	0.5
		3/22/2018	10:30 - 10:50		74.9	75.4	0.5
	2012 Estates Rd	3/21/2018	12:28 - 12:56	85	74.1	76.0	1.9
		3/22/2018	10:30 - 10:50		74.1	75.5	1.4
EB4	2835 Balis Dr	3/20/2018	13:15 - 13:30	100	67.3	n/a	n/a
	2741 Yazoo St	3/20/2018	13:56 - 14:11	65	72.3	n/a	n/a
EB5	5641 Trenton Ave	3/20/2018	12:41 - 12:56	150	65.9	n/a	n/a
WB3	1853 Virginia St	3/21/2018	09:30 - 09:50	115	74.2	75.4	1.2

Noise Study Area	Site	Date	Time	Distance to I-10 (ft)	Measured L _{Aeq} (dBA)	Predicted L _{Aeq} (dBA)	Predicted - Measured Difference (dB)
		3/21/2018	14:05 - 14:25		72.7	70.5	-2.2
	1417 E Harrison St	3/21/2018	09:30 - 09:50	150	71.6	74.0	2.4
		3/21/2018	14:05 - 14:25		69.1	69.6	0.5
WB4a	2285 Elissalde St	3/21/2018	11:24 - 11:44	160	69.6	72.0	2.4
	2280 Baywood Ave	3/21/2018	11:25 - 11:45	85	74.3	77.2	2.9
		3/22/2018	09:50 - 10:12		73.1	74.7	1.6
	2244 Ebony St	3/22/2018	09:50 - 10:10	75	72.4	74.1	1.7
WB5	2685 Balis Dr	3/21/2018	05:40 - 05:55	125	67.5	n/a	n/a
	2643 Yazoo St	3/21/2018	06:02 - 06:17	125	72.3	n/a	n/a
WB7	7210 Leyland Ct	3/22/2018	06:01 - 06:15	125	64.6	n/a	n/a
	7607 Claret Dr	3/22/2018	06:24 - 06:39	110	65.3	n/a	n/a
WB8	Westport Village Apts	3/21/2018	06:34 - 06:49	780	63.9	n/a	n/a
		3/22/2018	14:22 - 14:45		59.3	n/a	n/a

Short-term noise measurements were conducted by making a series of consecutive one-minute measurements for at least 15 minutes at each site during a peak and an off-peak period. The higher measured noise level is considered to be representative of the worst noise hour. Non-representative noises (i.e., local traffic, dog barking, sirens, etc.) during these measurements were noted, and the corresponding one-minute measurement periods were eliminated from the calculation of the measured noise level.

As indicated in Table 3, existing noise levels at the exterior measurement locations were between 59 and 75 dBA. The lower noise levels were recorded at locations farther from I-10 or at receptors behind existing noise barriers. Noise levels in the upper 60 dBA to low 70 dBA range were recorded at the first-row residences near I-10 and I-12 that are not behind an existing noise barrier.

The noise measurements in NSAs EB2, EB3a, WB3, and WB4a were used for validation purposes as discussed in Section 2.5. NSAs EB4, EB5, WB5, and WB7 are protected by existing noise barriers. Noise measurements in these areas were conducted to better understand existing noise levels in the project area. The measurement location in NSA WB8 is nearly 800 feet from I-10 and not a suitable validation location. The measured levels in EB4, EB5, and WB5 were higher than those measured in WB7 likely due

to parallel barrier reflection effects creating higher levels behind the noise barriers, whereas parallel barriers don't exist in NSA in WB7.

2.5 Model Validation

DOTD noise policy requires validation of the FHWA Traffic Noise Model (TNM 2.5) computer program that is used to calculate worst-hour equivalent noise levels. Validation involves conducting noise measurements at locations near the existing roadway while conducting simultaneous vehicle classification counts of the traffic and estimating travel speed. The traffic counts are factored up to hourly volumes and, along with the speeds, are entered into a TNM 2.5 model that has been created for existing conditions. The predicted noise levels are then compared to the measured noise levels. If the predicted noise level is within 3 dBA of the measured level, the model is considered validated.

Traffic data was collected for I-10 and any significant ramps or local roads during the measurements at the validation locations in NSAs EB2, EB3a, WB3, and WB4a. Appendix A includes the traffic data for the validation measurements. The last two columns of Table 3 presents the validation results. As shown, the TNM predicted noise levels for were within 3 dB of the measured levels at all of the validation locations; therefore, the modeling is considered validated.

2.6 Existing and Future Noise Levels and Impacts

The FHWA TNM 2.5 computer program was used to calculate worst-hour noise levels for the receptors for existing conditions and for the future Build and No-Build Alternatives. Receptors were modeled with TNM "receiver" points at areas of frequent human at noise-sensitive land uses. For single-family residences, that area could be the front or back yard, depending on orientation. Large buildings were modeled as noise barriers to properly account for the shielding provided by those structures. Significant terrain features were also modeled. The default ground surface of lawn grass was used, with large paved areas or bodies of water modeled using ground zones.

Each lane of I-10 and I-12 was modeled as a separate TNM "roadway" and the posted speeds were used with the Level of Service (LOS D) traffic. Urban Systems, Inc. developed LOS D traffic volumes for I-10 and I-12 for year 2020 and Future Year 2040 for the Build and No-Build Alternatives include the hourly volumes. The year 2020 traffic data was used to represent existing conditions. Appendix B includes the traffic data used in the models.

Many noise receptors along the project are affected by structure-borne noise emanating from the underside of the I-10 bridge structures. TNM does not predict structure-borne noise. To estimate the contribution of the structure-borne noise from the bridge decks, measurements were conducted at two sites in close proximity to a bridge deck, at a series of distances back from the structure. That data was used to develop adjustments that were applied to the predicted traffic noise levels to account for structure-borne noise. The adjustments were applied to predicted noise levels for receivers within 150 feet of an I-10 bridge structure. The adjustments for the new structures could be different than for the existing structures; however, those details are not currently available.

Table 4 summarizes the predicted noise levels and impacts for each NSA. The results are discussed in the following sections. Appendix C provides tables of predicted results and figures showing the modeled receiver points, and noise impact designations.

Table 4. Noise Impact Summary

NSA	Description	Existing/No-Build 2040 Noise Levels (dBA)	No-Build 2040 Impacts	Build 2040 Noise Levels (dBA)	Build 2040 Noise Impacts				Existing Barrier?	Abatement Evaluation Needed?
					Substantial Increase		NAC			
					Impacts?	#	Impacts?	#		
EB1	South of I-10, between the Mississippi River and East Washington Street	55-76	144	57-76	No	0	Yes	130	No	Yes
EB2	South of I-10, between East Washington Street and Dalrymple Drive	56-75	75	58-76	No	0	Yes	82	No	Yes
EB3a	South of I-10, between East Lakeshore Drive and Christian Street	61-79	30	61-79	No	0	Yes	29	No	Yes
EB3b	South of I-10, between Christian Street and South Acadian Thruway	58-79	50	57-78	No	0	Yes	48	No	Yes
EB4	South of I-10, between South Acadian Thruway and College Drive	53-65	0	53-64	No	0	No	0 ¹	Yes	No ¹
EB5	South of I-10, between College Drive and the I-10/I-12 split	53-65	0	53-66	No	0	No	0	Yes	No
EB6	South of I-12, between I-the 10/I-12 split and Essen Lane	52-61	0	52-61	No	0	No	0	Yes	No
WB1	North of I-10 and west of I-110, between the Mississippi River and Government Street	52-78	56	51-78	No	0	Yes	43	No	Yes
WB2	East of I-110 and I-10, between Government Street and East Washington Street	51-79	99	50-78	No	0	Yes	64	No	Yes

Table 4. Noise Impact Summary

NSA	Description	Existing/No-Build 2040 Noise Levels (dBA)	No-Build 2040 Impacts	Build 2040 Noise Levels (dBA)	Build 2040 Noise Impacts				Existing Barrier?	Abatement Evaluation Needed?
					Substantial Increase		NAC			
					Impacts?	#	Impacts?	#		
WB3	North of I-10 between East Washington Street and Dalrymple Drive	62-76	36	62-76	No	0	Yes	35	No	Yes
WB4a	North of I-10 between East Lakeshore Drive and Perkins Road	60-78	29	60-78	No	0	Yes	29	No	Yes
WB4b	North of I-10 between Perkins Road and South Acadian Thruway	58-75	61	58-74	No	0	Yes	36	No	Yes
WB5	North of I-10 between South Acadian Thruway and College Drive	53-78	11	53-78	No	0	Yes	10 ²	Yes	Yes
WB6	North of I-10 between College Drive and the I-10/I-12 split	54-67	0	55-69	No	0	No	0	No	No
WB7	North of I-12 between the I-10/I-12 split and Essen Lane	40-68	2	41-67	No	0	Yes	1	Yes	Yes
WB8	North of I-10 between LA 415 and 2179 Commercial Drive	57-62	0	57-62	No	0	No	0	No	No
Total			593					508		

1 No impacts predicted using TNM, however, this NSA is conditionally designated as impacted because of potential parallel barrier effects.

2 Impacts predicted using TNM. Additional conditional impacts possible because of potential parallel barrier effects.

2.6.1 Existing Year 2020

The TNM model developed for the validation process was used to predict worst-hour noise levels for Existing Year 2020 conditions at the noise-sensitive land uses in each NSA. The posted speeds were used for I-10 and I-12.

Predicted exterior worst noise hour noise level for the Existing Year 2020 ranged from 40 to 79 dBA. The highest noise levels are predicted at the receptors closest to I-10 with exposure to the structure-borne noise. The lower noise levels are predicted at the receptors furthest from I-10 and I-12. Predicted noise levels for receptors within NSAs with an existing noise wall are generally lower than those for receivers within NSAs without an existing noise wall.

A total of 593 receptors would be impacted under existing conditions including 572 Activity Category B residences, 16 Activity Category C uses, one Activity Category D use, and four Activity Category E uses.

2.6.2 No-Build Year 2040

When a road is congested and over capacity during peak travel periods, the existing worst-hour noise levels will occur during another time of day when traffic is traveling at or above the posted speed limit. I-10 and I-12 are congested roadways for many hours of the day. Although traffic on I-10 and I-12 will continue to grow without the project, the combination of traffic volume and speed that generates the worst-hour noise levels will not. Therefore, the same LOS D traffic volumes would produce the same worst-hour noise levels under both existing and No-Build conditions although the worst noise hour may shift to another time of day. The length of time that worst-noise hour traffic conditions exist is also likely to increase. As a result, worst-hour noise levels for No-Build Year 2040 will be the same as for existing conditions and the same receptors will be impacted.

2.6.3 Build Year 2040

The noise levels for the Build Year 2040 were determined by modeling the proposed I-10 geometry and traffic using TNM, which predicted the noise level for each modeled receiver. Anticipated future posted speeds were modeled. As discussed previously, five NSAs are protected by existing noise barriers. The project will not affect the existing noise barrier for NSA EB6. However, portions of the existing noise barriers for NSAs EB4, EB5, WB5, and WB7 will need to be relocated to accommodate the widening. DOTD will relocate these barriers to a new location within the right-of-way and maintain the existing barrier height. The noise models for Build Year 2040 include the existing barrier for NSA EB6 and the relocated barriers for NSAs EB4, EB5, WB5 and WB7; therefore, the calculated noise levels include the noise reduction provided by the barriers.

The predicted noise levels for the Build Alternative ranged from 41 to 79 dBA. The highest noise levels are predicted at the closest receptors to I-10 with exposure to the structure-borne noise.

Differences between the predicted existing noise levels and the noise levels for the Build Alternative range from a decrease of 5 dB to an increase of 3 dB. Decreases in noise levels are typically due to additional shielding provided in areas where ramp or mainline profile elevations will change or where additional shielding of traffic will be provided by ramp structures. However, the predicted design year noise levels are approximately the same or slightly higher than the existing worst-hour noise levels at most locations.

Finally, the predicted noise levels at the measurement locations for both existing and future conditions and are generally higher than the measured existing noise levels although the predicted noise levels are

lower than measured at a few locations. These differences may be attributable to higher truck volumes or speeds during the measurements compared to the average modeled conditions, atmospheric effects during the measurements that are not accounted for in the model, and the modeling “average” pavement per the FHWA noise regulation rather than the existing pavement type.

The following sections summarize the predicted noise levels and impacts for each NSA for the Build Alternative.

2.6.3.1 NSA EB1

Predicted noise levels for NSA EB1 (on the south side of I-10 from the Mississippi River to East Washington Street) range from 57 to 76 dBA. The highest predicted noise levels are at the receptors closest to I-10 with exposure to structure-borne noise. Predicted noise levels for Activity Category B residences range from 57 to 76 dBA. The lone Activity Category C use, the playgrounds at the Baranco Clark YMCA, have a predicted noise level of 71 dBA. The Fairview Baptist Church, Progressive Baptist Church, New Jerusalem Baptist Church, and Neeley United Methodist Church do not have exterior uses and qualify as Activity Category D. The predicted interior noise levels for the churches range from 39 to 50 dBA.

Noise levels will increase up to 2 dB over existing levels for some receptors. Decreases in noise levels of 1 to 5 dB are predicted for some receptors due to the additional shielding that will be provided by the raised roadway profile or where new ramp structures will be constructed and block the line-of-sight to mainline traffic (Terrace Street south to Louise Street).

The impacted properties in NSA EB1 include 128 Activity Category B residences and the Baranco Clark YMCA playgrounds (Activity Category C). The project is not predicted to impact the churches.

2.6.3.2 NSA EB2

Predicted noise levels for NSA EB2 (on the south side of I-10 from East Washington Street to Dalrymple Drive) range from 58 to 76 dBA. The highest predicted noise levels are for the first-row receptors closest to I-10. Predicted noise levels for Activity Category B residences range from 58 to 76 dBA. Predicted noise levels for the Activity Category C uses are 71 to 74 dBA and include the basketball court, ball field, and playground at the East Polk Street Park. The Calvary Third Baptist Church is an Activity Category D use (since there is no exterior use) and has a predicted interior noise level of 41 dBA.

Noise levels will increase up to 3 dB over existing levels for some receptors. Decreases in noise levels of 1 to 4 dB are predicted for some receptors with most of those decreases expected in areas where the roadway profile will be raised, partially blocking line-of-sight from some receptors to traffic on I-10.

The impacted properties in NSA EB2 include 79 Activity Category B residences and three Activity Category C receptors (East Polk Street Park basketball court, baseball field, and playground).

2.6.3.3 NSA EB3a

Predicted noise levels for NSA EB3a (on the south side of I-10 from East Lakeshore Drive to Christian Street) range from 61 to 79 dBA. All receptors in this NSA are Activity Category B residences. The highest predicted noise levels are at the first-row receptors closest to I-10.

Noise levels are predicted to increase less than 1 dB for some receptors while noise levels for other receptors are predicted to decrease by 1 to 3 dB. The decreased noise levels are predicted in areas where the roadway profile will be raised, partially blocking line-of-sight from some receptors to traffic on I-10.

The impacted properties in NSA EB3 include 29 Activity Category B residences.

2.6.3.4 NSA EB3b

Predicted noise levels for NSA EB3b (on the south side of I-10 from Christian Street to South Acadian Thruway) range from 57 to 78 dBA. The highest predicted noise levels are for the first-row receptors closest to I-10 with exposure to structure-borne noise. Predicted noise levels for Activity Category B residences range from 57 to 78 dBA. Predicted noise levels for the Activity Category E uses are 69 dBA for the Saltgrass Steakhouse patio and 74 dBA for the Schlitz and Giggles patio.

Noise levels will increase up to 1 dB over existing levels for some receptors. Decreases in noise levels of 1 to 5 dB are predicted for some receptors with the larger decreases predicted for upper floor apartments on Perkins Road where the proposed roadway profile is higher than the existing roadway profile and will partially block the line-of-sight from some receptors to traffic on I-10.

The impacted properties in NSA EB3 include 48 Activity Category B residences and one Activity Category E receptor (Schlitz and Giggles patio).

2.6.3.5 NSA EB4

Predicted noise levels for NSA EB4 (on the south side of I-10 from South Acadian Thruway to College Drive) range from 53 to 64 dBA. NSA EB4 is protected by an existing noise barrier that begins along the I-10 eastbound on-ramp from South Acadian Thruway just east of the Courtyard by Marriott and continues east ending along the I-10 eastbound off-ramp to College Drive. The highest predicted noise levels are located at the receptors closest to the ends of the existing noise barrier.

Predicted noise levels for Activity Category B residences range from 57 to 64 dBA. The Activity Category C playgrounds, ball fields, picnic area and basketball court at Nairn Park have predicted noise levels of 57 to 60 dBA. The lone Activity Category E use is the Courtyard by Marriott pool with a predicted noise level of 53 dBA.

Noise levels will increase up to 1 dB over existing levels for some receptors. Decreases in noise levels of up to 2 dB are predicted for some receptors close to the noise barrier. The decreases are likely a result of the noise wall relocation closer to receptors which will provide additional noise reduction.

Receptors in NSA EB4 (between Yazoo Street and Brownlee Street) are likely exposed to reflections of traffic noise between the two parallel, reflective noise barriers. Noise levels for receptors may be 2 to 4 dB higher than the TNM predicted levels.

Although the TNM predicted noise levels do not approach or exceed the NAC, DOTD has designated this NSA as “conditionally impacted” because of the parallel barrier effect.

2.6.3.6 NSA EB5

Predicted noise levels for NSA EB5 (on the south side of I-10 from College Drive to the I-10/I-12 split) range from 53 to 66 dBA. NSA EB5 is protected by two existing noise barriers. The first begins along on the north side of Constitution Avenue approximately 470 feet west of Bunker Hill Drive and continues east on the north side of the residences and backyards of Trenton Avenue. The second is on the shoulder of I-10 starting approximately 100 feet west of the eastern end of the first noise barrier and continuing east for approximately 1,500 feet.

The predicted noise levels for Activity Category B residences in NSA EB5 range from 53 to 64 dBA. Predicted noise levels for the Activity Category E uses are 55 to 66 dBA and include the pools and patios of the Hampton Inn, Holiday Inn, Crowne Plaza, and Doubletree hotels.

Noise levels will increase up to 3 dB over existing levels for some receptors while small decreases in noise levels of 1 dB are predicted for other receptors. The decreases are likely a result of the noise wall relocation closer to receptors which will provide additional noise reduction.

Noise impacts are not predicted for NSA EB5.

2.6.3.7 NSA EB6

Predicted noise levels for NSA EB6 (on the south side of I-12 from the I-10/I-12 split to Essen Lane) range from 52 to 61 dBA. All receptors in this NSA are Activity Category B land uses. NSA EB6 is protected by an existing noise barrier near the right-of-way that begins approximately 440 feet west of Essen Lane and ends along the exit ramp to Essen Lane.

Noise levels are predicted to increase up to 2 dB over existing levels for receptors in this NSA.

Noise impacts are not predicted for NSA EB6.

2.6.3.8 NSA WB1

Predicted noise levels for NSA WB1 (on the north side of I-10 and West of I-110 from the Mississippi River to Government Street) range from 51 to 78 dBA. The highest noise levels are predicted at the closest receptors to I-10 with exposure to structure-borne noise. Predicted noise levels for Activity Category B residences range from 51 to 78 dBA. The Activity Category C uses in this NSA include the Odell Williams Museum (74 dBA) and the FLAIM Elementary School playgrounds (67 and 65 dBA). The Liberty Chapel Baptist Church, the New St. Luke Baptist Church, and St. Agnes Catholic Church do not have exterior uses and are Activity Category D uses. The predicted interior noise levels for these three churches are 49 dBA, 49 dBA, and 38 dBA, respectively.

Noise levels will increase up to 2 dB over existing levels for some receptors. Predicted decreases in noise levels of up to 3 dB are predicted for some receptors, however, those decreases are likely a result of traffic volume assumptions and modeling differences between the existing and build conditions. Since there are no roadway geometry changes along I-10 and I-110 in this NSA, it is most likely that the future noise levels will be slightly higher than existing noise levels.

The impacted properties in NSA WB1 include 41 Activity Category B residences and two Activity Category C receptors (Odell Williams Museum of African American Art and the FLAIM Elementary Playground).

2.6.3.9 NSA WB2

Predicted noise levels for NSA WB2 (on the east side of I-110 and north side of I-10 from Government Street to East Washington Street) range from 50 to 78 dBA. The highest noise levels are predicted for the first-row receptors closest to I-10 with exposure to structure-borne noise. Predicted noise levels for Activity Category B residences range from 50 to 78 dBA. Predicted noise levels for the Activity Category C receptors are: St. Francis Xavier Church courtyard (75 dBA); St. Francis Xavier Early Childhood Development Center playground (67 dBA); St. Francis Xavier Child Care Center playground (68 dBA); the Expressway Park football field (75 dBA), basketball court (75 dBA), picnic shelter (74 dBA) and playground (74 dBA); and the Brooks Park pool (65 dBA) and playground (65 dBA). McKinley Middle School, McKowen

Missionary Baptist Church and the New Prospect Missionary Baptist Church are Activity Category D uses and have predicted interior noise levels of 41 to 45 dBA.

Noise level increases of less than 1 dB over existing levels are predicted for some receptors. Decreases in noise levels up to 4 dB are predicted for some receptors, however, those decreases are likely a result of traffic volume assumptions and modeling differences between existing and build conditions. Since there are no roadway geometry changes along I-10 and I-110 in this NSA, it is most likely that the future noise levels will be slightly higher than existing noise levels.

The impacted properties in NSA WB2 include 57 Activity Category B impacts residences and seven Activity Category C receptors (St. Francis Xavier Church courtyard, St. Francis Xavier Early Childhood Development Center playground, St. Francis Xavier Child Care Center playground, and the Expressway Park football field, basketball court, picnic shelter and playground).

2.6.3.10 NSA WB3

Predicted noise levels for NSA WB3 (on the north side of I-10 from East Washington Street to Dalrymple Drive) range from 62 to 76 dBA. Most receptors in this NSA are Activity Category B residences. The lone Activity Category D use, the Ebenezer Baptist Church, has a predicted interior noise level of 47 dBA.

Noise levels are predicted to increase up to 2 dB for some receptors while noise levels for other receptors are predicted to decrease by as much as 5 dB. The decreased noise levels are predicted for receptors that will have line-of-sight blockage to I-10 due to the ramps and frontage roads between E Washington Street and Dalrymple Drive.

The impacted properties in NSA WB3 include 35 Activity Category B residences.

2.6.3.11 NSA WB4a

Predicted noise levels for NSA WB4a (on the north side of I-10 from East Lakeshore Drive to Perkins Road) range from 60 to 78 dBA. The highest predicted noise levels are for the first-row receptors closest to I-10 with exposure to structure-borne noise. Predicted noise levels for Activity Category B residences range from 60 to 78 dBA. The predicted noise levels for the Activity Category E patio at Duvics is 72 dBA.

Noise levels will increase up to 1 dB over existing levels for some receptors. Decreases in noise levels up to 3 dB are predicted for some receptors with the larger decreases predicted in areas where the proposed roadway profile will be raised, partially blocking line-of-sight from some receptors to traffic on I-10.

The impacted properties in NSA WB4a include 28 Activity Category B residences and the patio at Duvic's (Activity Category E).

2.6.3.12 NSA WB4b

Predicted noise levels for NSA WB4b (on the north side of I-10 from Perkins Road to South Acadian Thruway) range from 58 to 74 dBA. The highest noise levels are predicted at the receptors closest to I-10 with exposure to structure-borne noise. Predicted noise levels for Activity Category B residences range from 58 to 74 dBA. Predicted noise levels for the Activity Category E uses are 67 and 74 dBA for the patios at Digulio Brothers and City Pork, respectively.

Noise levels will decrease up to 3 dB for some receptors. Most of the predicted decreases are in areas where receptors are close to the existing structure or where the proposed roadway profile will be raised.

The impacted properties in NSA WB4b include 35 Activity Category B residences and the City Park patio (Activity Category E).

2.6.3.13 NSA WB5

Predicted noise levels for NSA WB5 (on the north side of I-10 from South Acadian Thruway to College Drive) range from 53 to 78 dBA. NSA WB5 is protected by an existing noise barrier that begins along the north side of I-10 just east of the Radisson Hotel and continues east to the I-10 westbound on-ramp from College Drive.

The predicted noise levels for Activity Category B residences range from 53 to 78 dBA. The higher noise levels for this NSA are for the receptors along Aldridge Drive and Barber Street that are exposed to structure-borne noise as well as traffic noise from College Drive. The predicted interior noise level for the Activity Category D use, the Cathedral of Faith Ministry, is 34 dBA. The lone Activity Category E use, the Radisson Hotel pool, has a predicted exterior noise level of 55 dBA.

Noise levels will increase up to 2 dB over existing levels for some receptors. Small decreases in noise levels of 1 dB are predicted for some receptors with the decreases likely a result of the relocation of the noise barrier closer to the receptors.

Noise levels at the receptors in NSA WB5 between Yazoo Street and Brownlee Street are likely increased due to reflections of traffic noise between the two parallel, reflective noise barriers. Traffic noise levels for these areas may be 2 to 4 dB higher than the TNM predicted levels.

The impacted properties in NSA WB5 include ten Activity Category B residences.

2.6.3.14 NSA WB6

Predicted noise levels for NSA WB6 (on the north side of I-10 from College Drive to the I-10/I-12 split) range from 55 to 69 dBA. The highest noise levels are predicted for the first-row receptors closest to I-10. NSA WB6 does not include any Activity Category B residential uses. Predicted noise levels for the Activity Category E uses are 55 to 69 dBA for the pools at the Tru by Hilton, Homewood Suites, Richmond Inn, and Baton Rouge Marriott hotels.

Noise levels will increase up to 2 dB over existing levels for the receptors in WB6.

No impacts are predicted in NSA WB6.

2.6.3.15 NSA WB7

Predicted noise levels for NSA WB7 (on the north side of I-10 and I-12 from the I-10/I-12 split to Essen Lane) range from 41 to 67 dBA. NSA WB7 is protected by three existing noise barriers. The first begins along on the north side of I-10 in front of the Citiplace Stadium 11 movie theater and continues east near the right-of-way until it ends on the east end of Bocage Lake Court. The second noise barrier overlaps the first for approximately 80 feet and runs east until the east end of Leyland Court. A third noise barrier begins along the I-12 westbound ramp to I-10 eastbound and ends on the east side of Office Park Boulevard.

The predicted noise levels for Activity Category B residences in NSA WB6 range from 41 to 67 dBA. Predicted noise levels for the Activity Category C uses, the pool and playground at Jefferson Place condominiums, are 58 to 60 dBA.

Noise levels will increase up to 5 dB over existing levels for some receptors. Small decreases in noise levels of 1 dB are predicted for some receptors. The decreases are likely a result of traffic volume differences between existing and future conditions.

The impacted property in NSA WB7 is an Activity Category B residence.

2.6.3.16 NSA WB8

Predicted noise levels for NSA WB8 (on the north side of I-10 from the LA415 to LA1) range from 57 to 62 dBA. The predicted noise level for the Activity Category B residences is 61 dBA. Predicted noise levels for the Activity Category E uses are 57 to 62 dBA and include the pools at the Hampton Inn, Comfort Suites and LaQuinta Inn hotels.

Noise levels will increase up to 2 dB over existing levels for some receptors.

No impacts are predicted in NSA WB8.

2.7 Noise Impact Summary

An impact assessment was completed for the Build and No-Build scenarios. As noted previously, a receptor is impacted in two ways:

1. The predicted, worst-hour, design year noise level approaches or exceeds the NAC. DOTD defines “approach” as 1 dB less than the NAC. These levels apply at areas of frequent human use.
2. The predicted, worst-hour, design year noise level exceeds the existing noise level by 10 dB or more.

As shown in Table 4 (with additional detail provided in Appendix C), the project is predicted to impact a total of 508 receptors (Activity Category B, C, D and E). No receptors are predicted to have a substantial increase of 10 dB over existing noise levels.

DOTD has designated NSAs EB4 and WB5 as “conditionally impacted” because of the potential increase in noise levels behind the existing noise walls due to the parallel barrier effect.

2.8 Noise Abatement Evaluation

In accordance with criteria in the DOTD noise policy, noise abatement must be evaluated for “feasibility” and, if feasible, for “reasonableness.” Noise barriers must be both feasible and reasonable to be deemed “likely” for construction.

As discussed, five NSAs have existing noise barriers (EB4, EB5, EB6, WB5, and WB7). The project will not affect the existing noise barrier for NSA EB6. However, portions of the existing noise barriers for NSAs EB4, EB5, WB5 and WB7 will need to be relocated to accommodate the widening. These five barriers (existing or relocated) were evaluated using FHWA’s guidance document *Consideration of Existing Noise Barrier in a Type I Noise Analysis* (FHWA, 2012) that outlines the analysis process for Type I projects with existing abatement measures (noise barriers or earth berms).

The guidance indicates that the state should conduct the noise analysis for locations with existing noise barriers exactly as for any other location and include the existing noise barrier in the analysis. If noise impacts are not predicted behind the barrier, the process is complete for that NSA. If impacts are predicted behind the existing barrier, then the state must evaluate the barrier to determine if the barrier meets the feasibility and reasonableness criteria in the state’s noise policy. If the barrier meets the criteria, then no action is needed. If the barrier does not meet the criteria, then the state must evaluate whether a new barrier can be designed to satisfy the state’s requirements.

Feasibility includes acoustical and engineering considerations. Acoustical feasibility means that a noise barrier will provide at least a 5 dB reduction in the noise level for at least 75% of the first-row, impacted receptors. If a barrier cannot meet this criterion, abatement is considered to not be acoustically feasible. Additionally, the noise barrier should be feasible from an engineering perspective. Engineering feasibility takes into account topography, drainage, safety, barrier height, utilities, and access and maintenance needs (which may include right-of-way considerations). If a barrier poses engineering issues, it may be judged as not feasible even if it meets the acoustical feasibility criterion, and it will not be recommended for construction.

If feasible, then the barriers are assessed for *reasonableness* in accordance with the criteria in the DOTD noise policy. Noise abatement must meet the following three criteria to be considered reasonable. If any of the criteria is not met, the noise abatement measure will not be constructed.

1. Noise Reduction Design Goal: At a minimum, at least one receptor must receive an 8 dB reduction for the noise abatement system to be reasonable.
2. Cost-Effectiveness: If the estimated cost of constructing a noise barrier (including installation and additional necessary construction such as foundations or guardrails) divided by the number of benefited receptors (those who would receive a reduction of at least 5 dB) is \$35,000 or less per benefited receptor, a barrier is considered to be cost-effective.
3. Consideration of Viewpoints: The viewpoints of the affected property owners and residents are important. For those barriers found to be reasonable by the Cost-Effectiveness and Design Goal criteria above, viewpoints of the benefited receptors and affected property owners will be sought.

In general, noise abatement measures may include noise barriers, alteration of horizontal and vertical alignment, and traffic management measures (such as reducing speed limits or prohibition of heavy trucks). The latter two forms of abatement have already been considered during the planning phases for this project. Noise barriers were determined to be the only available potential abatement measure to reduce noise levels for impacted receptors for this project.

Generally, noise barriers are not effective at reducing noise levels at residences when driveway access requirements necessitate gaps in the noise barrier. Similarly, noise barriers are not cost effective on a per benefited residence basis for isolated residences or low-density groupings of residences.

2.8.1 Noise Study Areas without Existing Noise Barriers

Nine (9) NSAs without existing noise barriers were identified as having impacted land uses and were evaluated for noise barriers. Table 5 summarizes the results of the feasibility evaluation for each NSA. As shown, the investigated noise barriers for four NSAs (EB2, EB3a, WB3, and WB4a) are feasible according to the DOTD noise policy, meaning the noise barrier provides at least 5 dB of noise reduction for at least 75% of the first-row impacted receptors. Noise barriers were determined not to be feasible for NSAs EB1, EB3b, WB1, WB2, and WB4b due to structure-borne noise.

The barrier designs for the NSAs EB2, EB3a, WB3, and WB4a were then evaluated for reasonableness as summarized in Table 6. As shown, all four barrier designs meet the Noise Reduction Design Goal of providing at least 8 dB of noise reduction for at least one receptor. All four barrier designs also meet DOTD's cost-effectiveness criteria by falling below the \$35,000 cost per benefited residence threshold.

As shown in Appendix E, the EB2 barrier design begins just north of Fig Street along the mainline of I-10 and runs east along the mainline for approximately 1,320 feet at heights between 10 and 14 feet, then ends to provide a gap for the on-ramp from the proposed Braddock Street extension. A second section of barrier for EB2 begins along that on-ramp just east of East Harrison Street, runs along the on-ramp and then transitions to the edge of shoulder of mainline I-10. The barrier extends across the City Park Lake bridge at a height of 14 feet and ends on the east side of the bridge.

The EB3a barrier begins on the east side of the City Park Lakes bridge where the EB2 barrier ends and runs east along the edge of shoulder of I-10 for approximately 2,400 feet at a height of 14 feet, ending between Christian Street and Perkins Road.

The WB3 barrier begins just west of the City Park Lakes bridge and continues along the mainline of I-10 for approximately 450 feet where it ends to provide a break for the on-ramp from Dalrymple Drive. A second section of barrier begins along the off-ramp from I-10 to East Washington Street and runs along the edge of shoulder over the on-ramp from Dalrymple Drive and ends after approximately 1,000 feet south of Missouri Street. A third section of barrier begins along the edge of shoulder of the on-ramp from Dalrymple Drive to I-10 south of Carolina Street and extends along the mainline of I-10 approximately 1,100 feet ending just north of East Washington Street. Heights for the WB3 barrier vary between 10 and 14 feet with an average height of 13 feet.

The WB4a barrier begins west of Christian Street and continues for approximately 1,985 feet to the west along the edge of shoulder of I-10. Barrier heights vary between 8 and 14 feet with an average height of 13 feet. The barrier ends at the eastern end of the City Park Lakes bridge and does not extend onto the bridge. Appendix D provides additional details for each investigated barrier design.

Table 5. Feasibility Evaluation for NSAs Without Existing Noise Barriers

Noise Study Area	Description	Total Impacts	First-Row Impacts	First-Row Impacts Benefited	% of First-Row Impacts Benefited	Feasible?
EB1	South of I-10, between the Mississippi River and East Washington Street	130	41	0	0%	No
EB2	South of I-10, between East Washington Street and Dalrymple Drive	82	31	26	84%	Yes
EB3a	South of I-10, between East Lakeshore Drive and Christian Street	29	20	20	100%	Yes
EB3b	South of I-10, between Christian Street and South Acadian Thruway	48	16	2	13%	No
WB1	North of I-10 and west of I-110, between the Mississippi River and Government Street	43	36	11	31%	No
WB2	East of I-110 and I-10, between Government Street and East Washington Street	64	23	2	8%	No
WB3	North of I-10 between East Washington Street and Dalrymple Drive	35	7	7	100%	Yes
WB4a	North of I-10 between East Lakeshore Drive and Perkins Road	29	12	11	92%	Yes
WB4b	North of I-10 between Perkins Road and South Acadian Thruway	36	22	0	0%	No

Table 6. Reasonableness Evaluation for NSAs Without Existing Noise Barriers

Noise Study Area	Description	Meets Noise Reduction Design Goal?	Barrier Area (sf)	Barrier Length (ft)	Avg Height (ft)	Barrier Cost	Benefits	Cost Per Benefited Residence	Reasonable?
EB2	South of I-10, from Fig Street to East Lakeshore Drive	Yes	50,446	3,680	14	\$1,614,272	146	\$11,057	Yes
EB3a	South of I-10, from East Lakeshore Drive to west of Perkins Road	Yes	33,852	2,418	14	\$1,184,820	43	\$27,553	Yes
WB3	North of I-10 from Dalrymple Drive to East Washington Street	Yes	35,120	2,621	13	\$1,194,080	49	\$24,368	Yes
WB4a	North of I-10 from west of Christian Street to East Lakeshore Drive	Yes	25,214	1,985	13	\$907,704	26	\$34,911	Yes

2.8.2 Noise Study Areas with Existing Noise Barriers

The five NSAs with existing noise barriers were evaluated in accordance with FHWA's guidance. Table 7 summarizes the results of the existing noise barrier evaluations. As indicated, none of the receptors in NSAs EB5 and EB6 are predicted to be impacted. Therefore, no further evaluation is needed.

Ten (10) residences in WB5 (South Acadian Thruway to College Drive) and one residence in WB7 (I-10/I-12 split to Essen Lane) are predicted to be impacted. Additionally, DOTD identified NSA EB4 (South Acadian Thruway to College Drive) as "conditionally impacted" due to parallel barrier effects. Therefore, these existing barriers were evaluated in accordance with FHWA's guidance to determine if they meet (1) DOTD's current acoustic feasibility criteria, and (2) DOTD's Noise Reduction Goal, which is part of reasonableness. Barrier modifications do not need to be evaluated if the existing noise barrier meets these criteria.

TNM predicted the noise reduction provided by the existing noise barrier for the receptors in each NSA. The noise reductions were then used to determine if the existing noise barrier meets DOTD's criteria.

The existing noise barriers for EB4 and WB7 provide at least 5 dB of noise reduction for more than 75% of the first-row receptors and thus meets DOTD's feasibility criteria. The existing barriers also meet DOTD's Noise Reduction Design Goal of providing 8 dB of noise reduction to at least one receptor. Therefore, no additional noise barrier evaluation is required for NSAs EB4 and WB7.

Ten (10) residences are predicted to be impacted in NSA WB5 with the existing noise barrier. The existing barrier does not meet the DOTD's feasibility criteria due to structure-borne noise from the bridge near College Drive that reduces the noise reduction for the five first-row residences on Aldrich Drive and Barber Street to below 5 dB. As a result, the barrier provides 5 dB for only 11 of the 17 first-row receptors (65%). Because the noise barrier does not meet the DOTD's feasibility criteria, an evaluation of potential barrier modifications was conducted. The evaluation concluded that, even with barrier modifications, 5 dB noise reduction still cannot be achieved at the first-row residences on Aldrich Drive and Barber Street due to the structure-borne noise. Therefore, a modified barrier is not feasible.

2.9 Statement of Likelihood

Table 8 summarizes the four noise barriers that are likely to be constructed as part of the project. The final decision on the implementation of noise barriers will be made by DOTD during project design. If during final design, conditions substantially change that impact the implementation of likely barriers, DOTD will solicit the viewpoints of the benefited residents and property owners as part of the reevaluation of reasonableness. Only barriers determined to be both feasible and reasonable will be constructed. Barriers that are no longer feasible and reasonable will be removed from the project.

DOTD will also be relocating parts of the existing noise barriers for NSAs EB4, EB5, WB5, and WB7 to accommodate the widening. Appendix E shows the locations of the likely noise barriers.

Table 7. Evaluation for NSAs With Existing Noise Barriers

NSA	Name	Existing Abatement	Impacts?	Feasible?	Meets Noise Reduction Design Goal?	Action?	Abatement Conclusion
EB4	Eastbound: South Acadian Thruway to College Drive	Barrier (portions to be relocated at same height)	No (considered “conditionally impacted” due to parallel barrier effect)	Yes	Yes	No Action	No changes to existing noise barrier.
EB5	Eastbound: College Drive to I-10/I-12 split	Barrier (portions to be relocated at same height)	No	No analysis needed.			No changes to existing noise barrier.
EB6	Eastbound: I-10/I-12 split to Essen Lane	Barrier (no relocation necessary)	No	No analysis needed.			No changes to existing noise barrier.
WB5	Westbound: South Acadian Thruway to College Drive	Barrier (portions to be relocated at same height)	Yes – 10 residences	No	Yes	Evaluate Barrier Modifications	No changes to existing noise barrier. Feasibility not possible because of structure noise for Aldrich Drive and Barber Street receptors
WB7	Westbound: I-10/I-12 split to Essen Lane	Barrier (portions to be relocated at same height)	1 residence	Yes	Yes	No Action	No changes to existing noise barrier.

Table 8. Likely Noise Barriers

Noise Study Area	Likely Barrier Location (begin & end points)	Length (ft)	Average Barrier Height (ft)	Estimated Cost
EB2	South of I-10, from Fig Street to East Lakeshore Drive	3,680	14	\$1,614,272
EB3a	South of I-10, from East Lakeshore Drive to west of Perkins Road	2,418	14	\$1,184,820
WB3	North of I-10 from Dalrymple Drive to East Washington Street	2,621	13	\$1,194,080
WB4a	North of I-10 from west of Christian Street to East Lakeshore Drive	1,985	13	\$907,704

2.10 Construction Noise

The construction of the project would result in temporary noise increases for the residences and noise-sensitive land uses along I-10. Noise-sensitive land uses that are farther from the project area would likely experience little, if any, increase in noise levels because of the background noise of the I-10 traffic, traffic on other roads, and other community noise sources. Construction noise would be generated primarily from heavy equipment used in hauling materials and accomplishing the widening of the roadway.

The construction contractor has the responsibility for protection of the general public in all aspects of construction throughout the life of the project. All construction equipment will be required to comply with OSHA Regulations as they apply to the employees' safety, and in accordance with the DOTD Standard Specifications. All construction equipment used in the construction phase of the project should be properly muffled and all motor panels should be shut during operation. To minimize the potential for impacts of construction noise on the local residents, allowable work times should be specified in construction contracts in consideration of potential construction noise impacts on local residents.

2.11 Information for Local Officials

DOTD encourages local communities and developers to practice noise compatibility planning to avoid future noise impacts. Two guidance documents on noise compatible land use planning are available from FHWA (FHWA 1974; FHWA 2002).

Table 9 presents future predicted noise levels based on an assumed at-grade situation for areas along I-10 and I-12 within the project limits where vacant and possibly developable lands exist. Noise predictions were made at several distances from edge of closest travel lane of I-10 for the design year 2040 LOS D traffic. The results indicate that exterior areas of Activity Category B and C uses would be impacted within a distance of approximately 380 feet from edge of pavement of the nearest travel lane of I-10. These values do not represent predicted levels at every location at a particular distance back from the roadway. Noise levels will vary with changes in terrain and other site conditions. This information is being included to make local officials and planners aware of anticipated highway noise levels so that future development will be compatible with these levels.

Table 9. Design Year 2040 Predicted Noise Levels for Undeveloped Areas

Distance*	L _{Aeq} (1h), dBA
100 feet	74.6
200 feet	70.3
300 feet	67.2
400 feet	65.2
500 feet	63.5
600 feet	61.7

* Perpendicular distance to the centerline of the nearest travel lane of I-10.

2.12 Indirect and Cumulative Effects

The noise analysis is for the design year 2040 and includes projected traffic volumes for the project as well as well as forecasted background traffic growth and other planned and programmed projects in the area. As a result, the predicted noise impacts represent both direct and cumulative noise impacts.

The widening of I-10 could cause a redistribution of traffic on the surrounding roadway network and affect development and land use patterns in the project area. These situations could cause higher traffic volumes at locations near roadways beyond the project limits. However, as described earlier, a doubling of the traffic volume is required to increase the noise level by 3 dB, which is usually the smallest change in sound levels that people can detect without specifically listening for the change. Traffic volumes are not anticipated to double as a result of the redistribution of traffic or changes in development, so any increases in sound levels beyond the project would not be substantial according to DOTD's noise policy.

3 REFERENCES

Federal Highway Administration, November 1974, *The Audible Landscape: A Manual for Highway Noise and Land Use*.

Federal Highway Administration, May 2002, *Entering the Quiet Zone: Noise Compatibility Land Use Planning*.

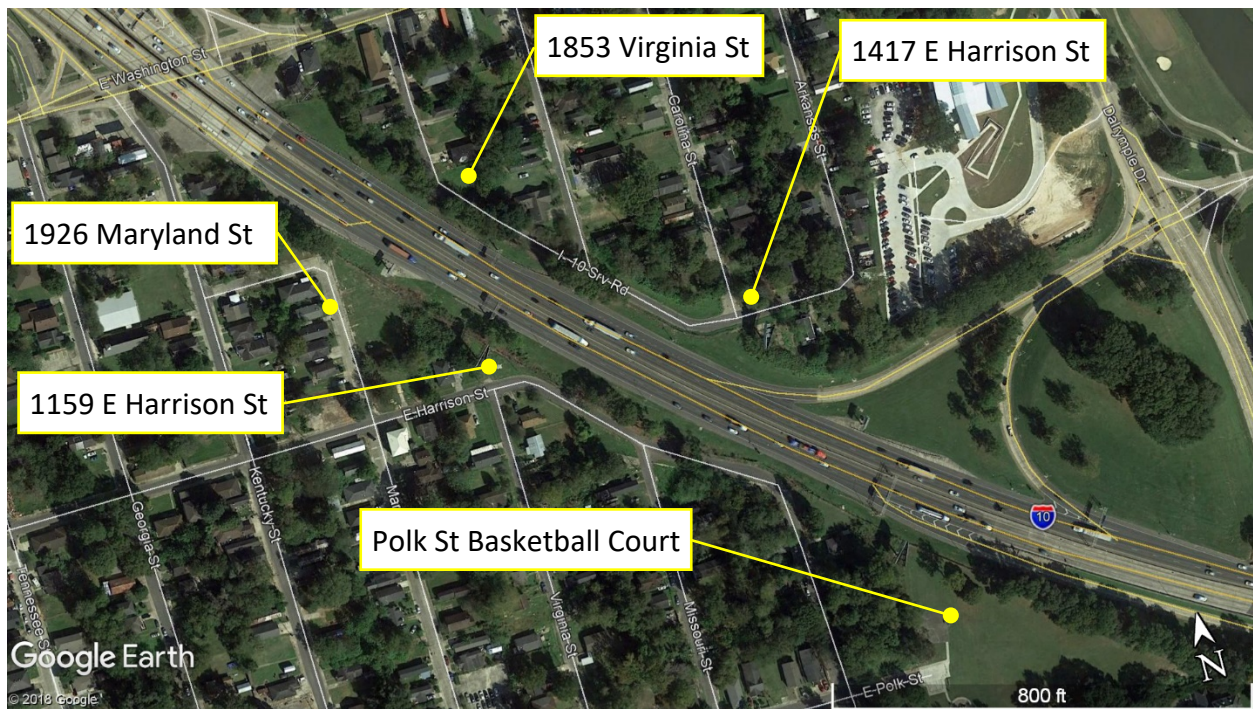
Federal Highway Administration, July 2010, *Procedures for Abatement of Highway Traffic and Construction Noise*, 23 CFR 772.

Federal Highway Administration, August 2012, *Consideration of Existing Noise Barrier in a Type I Noise Analysis (FHWA-HEP-12-051)*.

Louisiana Department of Transportation and Development (DOTD), July 2011, *Highway Traffic Noise Policy*.

Appendix A
Noise Measurement Results and Corresponding Traffic Counts

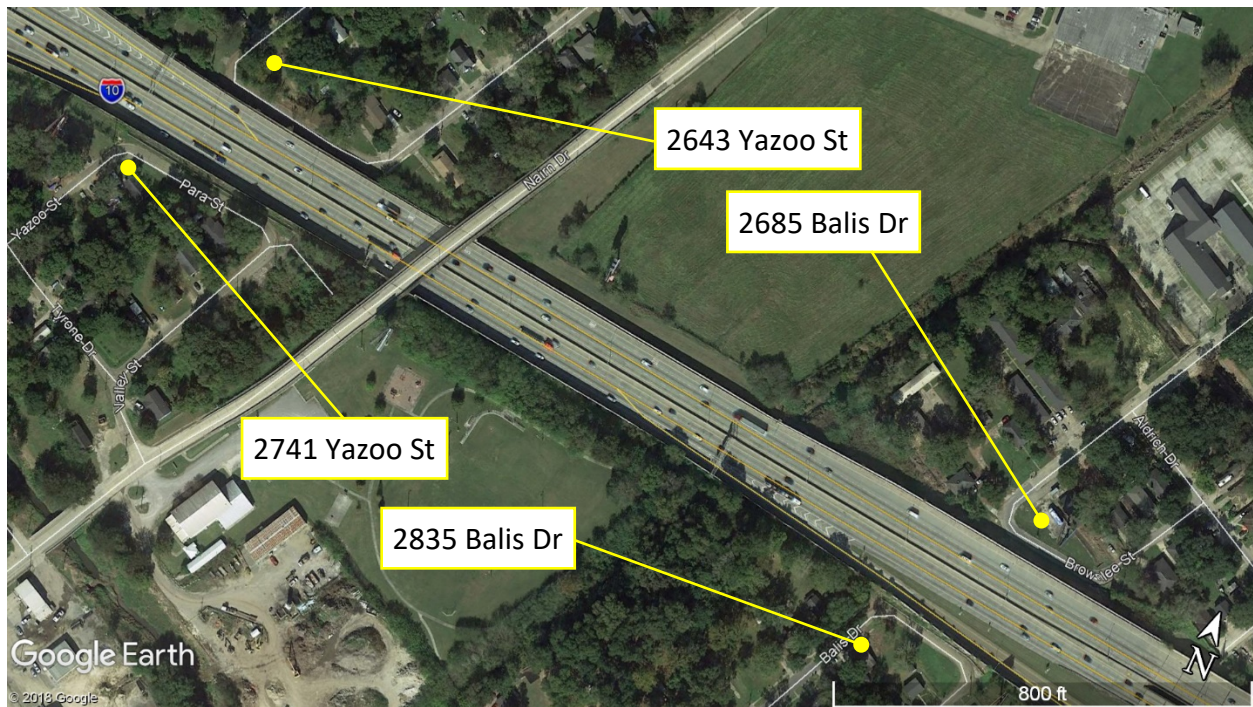
Noise Measurement Locations



Noise Measurement Locations



Noise Measurement Locations



Noise Measurement Locations



Noise Measurement Locations



Noise Measurement Locations

Noise Measurement Notes, Sound Levels, Photos, and Traffic

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	5641 Trenton Ave				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_003.05				
Date:	3/20/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	12:41 PM	64.5	67.2		
2	12:42 PM	67.1	73.4	x	Heli overhead
3	12:43 PM	66.3	69.1		
4	12:44 PM	65.8	67.6		
5	12:45 PM	66.3	67.7		
6	12:46 PM	66.3	67.6		
7	12:47 PM	65.7	67.7		
8	12:48 PM	65.3	66.7		
9	12:49 PM	65.6	67.9		
10	12:50 PM	65.3	66.9		
11	12:51 PM	65.6	67.1		
12	12:52 PM	66.0	67.7		
13	12:53 PM	65.6	67.3		
14	12:54 PM	65.6	67.0		
15	12:55 PM	68.1	70.3		
16	12:56 PM	67.1	67.5	x	End data
Leq		65.9			

Noise Measurement Data Sheet

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/20/18

Site

Area

Address SW1 TRAILOR AVE

Weather

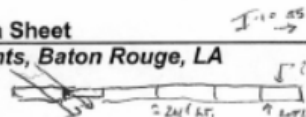
Temp 65° sunny

Wind 4-6 mph in street and on ground

Direction

RION/LD/N 210 1604

Site Sketch



Notes

Other

Cal @ 114.0

Cal Check = 114.0

#	Time Start	Description
1	1241	HT 65-67, M1 I-10 noise
2	42	HT 65-67, M1 I-10 noise
3	43	MULTI HTS = 65-67
4	44	
5	1245	HT 65-67, M1 I-10 noise
6	46	
7	47	
8	48	
9	49	Low HT 65
10	1250	
11	51	
12	52	M1 I-10 noise
13	53	HT 65-67, M1 I-10 noise
14	54	
15	1255	MULTI HTS = 65-67 (noise from HT 65)
16		
17		
18		210 DATA @ 1256
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

Auto = 65-67 on street 4
HT = 64-66
multi HTs = 66-68

LxT 1604.003



5641 Trenton Ave

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	2835 Balis Dr				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_004.04				
Date:	3/20/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	1:15 PM	67.4	69.4		
2	1:16 PM	67.9	68.9		
3	1:17 PM	66.4	68.5		
4	1:18 PM	67.6	68.9		
5	1:19 PM	68.3	70.8		
6	1:20 PM	67.4	68.6		
7	1:21 PM	67.2	68.8		
8	1:22 PM	66.7	68.8		
9	1:23 PM	67.0	68.6		
10	1:24 PM	66.2	68.0		
11	1:25 PM	66.7	68.3		
12	1:26 PM	66.4	67.5		
13	1:27 PM	66.2	67.6		
14	1:28 PM	67.5	69.2		
15	1:29 PM	69.1	70.6		
16	1:30 PM	68.6	69.3	x	End Data
Leq		67.3			

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

$$I_{10} \rightarrow$$

Site Sketch

#	Time Start	Description
1	1315	All 4-10 miles FREE Flow Wind = 6-10 / NW
2	16	Wind F in trees
3	17	
4	18	
5	19	F Vol = 65.70 (V1000)
6	1920	
7	21	
8	22	Low Hrs 67, 102 wind 10 ft 64.45
9	23	
10	24	THAT 6, WINDS CALM = 65.66 Wind = 2-6 / NW
11	1925	
12	26	
13	27	
14	28	Hr 5 start 68 Wind = 6-8 / NW
15	29	Wind = 69.70, Hr start 70 Wind = 8-12 / NW
16		
17		END DATA 1330
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

Let 1604.004



2835 Balis Dr

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	2741 Yazoo St				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_005.03				
Date:	3/20/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	1:56 PM	71.9	73.9		
2	1:57 PM	72.2	73.8		
3	1:58 PM	72.2	74.4		
4	1:59 PM	72.7	73.9		
5	2:00 PM	70.6	72.1		
6	2:01 PM	72.3	73.6		
7	2:02 PM	74.0	76.6		
8	2:03 PM	71.5	73.9		
9	2:04 PM	72.0	74.1		
10	2:05 PM	71.7	75.8		
11	2:06 PM	78.3	83.0	x	Car Alarm Horn = 82
12	2:07 PM	72.5	74.4		
13	2:08 PM	73.4	79.9		
14	2:09 PM	72.0	75.6	x	Car Horn
15	2:10 PM	71.4	73.0		
16	2:11 PM	71.9	72.9	x	End Data
Leq		72.3			

Noise Measurement Data Sheet

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 5/20/18

Site

Area

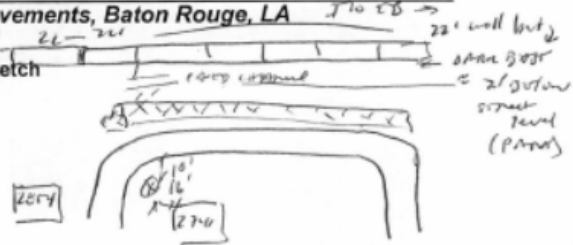
Address 2944 YAZOO St.

Weather

Temp 66°F, sunny

Wind 8-12 / WSW

Site Sketch



Notes

Other

Direction

RION/LD/N121# 1604

Cal@ 114.0

Cal Check=

#	Time Start	Description
1	13:06	14 I-10 noise f Free-flow
2	57	Consistent 70+ dB, point @ Assoc State
3	58	Wind 8-11 / W
4	59	
5	14:00	
6	01	
7	02	Wind 8-12 / WSW
8	03	
9	04	
10	14:05	15 Hr street noise 75-76
11	06	Wind gusty 71-72 X (on Assoc State) = 82 - 140 ft 58
12	07	
13	08	
14	09	on Assoc
15	14:10	
16		END 2nd @ 14:11
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

Wind (6-8 mph) 10: 70-72
Wind 8-14 11 = 74-85

Let 1604, 005



2741 Yazoo St

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	Westport Village Apts				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_008.03				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	6:34 AM	63.1	66.4		
2	6:35 AM	64.3	67.5		
3	6:36 AM	64.2	68.1		
4	6:37 AM	65.5	71.8		
5	6:38 AM	63.2	66.7		
6	6:39 AM	62.3	65.5		
7	6:40 AM	64.6	70.7		
8	6:41 AM	63.6	66.3		
9	6:42 AM	63.7	65.8		
10	6:43 AM	63.5	65.2		
11	6:44 AM	64.8	69.6		
12	6:45 AM	64.3	68.2		
13	6:46 AM	62.8	65.8		
14	6:47 AM	63.0	65.0		
15	6:48 AM	63.9	65.4		
16	6:49 AM	63.3	63.6	x	End Data
Leq		63.9			

Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/21/18
 Site _____

Site Sketch

Area _____

Address Napier Village Apt's

Weather

Temp 46°F
 Wind 21 NNW

Direction

RION/DIN121# 1644



#	Time Start	Description	Cal@ 114.0	Cal Check=
1	634	I-10 = 61-65 local commercial drive = 66		
2	635	HT 405 street 64-45 local = 67 HT 405-65		
3	36	I-10 from PNM HT 405-65		
4	37	HT (local) = 71		
5	38			
6	39	I-10 = 61-62		
7	640	HT (local) = 70?		
8	41	HT 405 street = 65		
9	42			
10	43			
11	44	School bus		
12	645	local HT = 68 local HT = 68		
13	46	autos only on I-10 = 64 local Sch bus = 66-67		
14	47			
15	48	I-10 = 62-67		
16				
17				
18		END DATA 649		
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

I-10 = 62-63 consistency
 local traffic on Commercial Drive = 65-67

LxT/604.008

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	Westport Village Apts				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_021.02				
Date:	3/22/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	2:22 PM	57.5	60.7		
2	2:23 PM	56.0	60.4		
3	2:24 PM	58.2	61.9		
4	2:25 PM	57.2	62.6		
5	2:26 PM	57.9	64.4		
6	2:27 PM	57.4	63.4		
7	2:28 PM	57.3	61.1	x	resident talking nearby
8	2:29 PM	59.3	65.7		
9	2:30 PM	57.2	60.7		
10	2:31 PM	62.3	71.2		
11	2:32 PM	62.1	71.8		
12	2:33 PM	64.2	71.8		
13	2:34 PM	60.7	66.6		
14	2:35 PM	59.1	66.6		
15	2:36 PM	53.9	56.4		
16	2:37 PM	56.0	60.9		
17	2:38 PM	62.1	70.9		
18	2:39 PM	54.4	56.3		
19	2:40 PM	56.5	63.0		
20	2:41 PM	57.2	62.4		
21	2:42 PM	61.2	67.4	x	End Data
22	2:43 PM	58.1	61.3	x	
23	2:44 PM	59.1	65.6	x	
24	2:45 PM	60.8	66.2	x	
Leq		59.3			

Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/22/18

Site Sketch

Site

see previous

Area

Address

Westphar v. Hous. Apts / south end of
9006 J

Weather

Temp 74° sunny clear

Wind 2-3/ESC

Other

Notes

Direction
 RION/DIN121# 1604

Cal@ 114.0

Cal Check=

Comal
 Date

#	Time Start	Description
1	1422	I-10 from below J10 to N-58
2	23	Local auto on Louisiana Ave to
3	24	Auto only = 54 Local = 61
4	1425	HTS truck WB-RT Local Local = 61
5	26	Local Local
6	27	Local Local
7	28	RESIDENT TRUCKY NEARBY
8	29	HT Local = 61-65 Local = 62 Local = 63/65
9	1430	Local = 60-61 Local = 62
10	31	HT EB Street = 61, Local = 62-65 HT Local = 71
11	32	Local = 61-65
12	33	2 Local HTS 71-72
13	34	Local Auto = 61, Local Auto = 65 J10 to N-58
14	1435	Local HTS = 62 Local Auto = 61 HT = 61 Local = 3-65 SE
15	36	Local (station) (slow)
16	37	HT WB Street = 57-58 HT Street = 75-76
17	38	Local Auto = 61, Local HT Local = 71
18	39	WB-10 driving, truck up from LA 415 exit, 35-40 mph
19	1440	HT WB Street / Down Street
20	41	Local
21		
22		
23		END DATA 1442
24		
25		
26		
27		
28		
29		
30		

L4T/604.021



Westport Village Apts

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	1853 Virginia St				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_009.03				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	9:30 AM	73.6	75.6		
2	9:31 AM	74.2	79.5		
3	9:32 AM	74.1	78.1		
4	9:33 AM	74.5	79.8		
5	9:34 AM	75.0	80.8		
6	9:35 AM	73.9	77.2		
7	9:36 AM	74.0	76.7		
8	9:37 AM	75.6	81.4		
9	9:38 AM	74.1	75.5		
10	9:39 AM	73.9	77.4		
11	9:40 AM	74.1	80.6		
12	9:41 AM	73.5	75.3		
13	9:42 AM	73.9	77.2		
14	9:43 AM	74.1	76.5		
15	9:44 AM	74.9	77.8		
16	9:45 AM	74.1	76.3		
17	9:46 AM	72.8	75.1	x	
18	9:47 AM	72.1	74.6	x	
19	9:48 AM	74.9	80.6	x	
20	9:49 AM	73.4	77.8	x	
21	9:50 AM	70.7	71.3	x	End Data
Leq		74.2			

Noise Measurement Data Sheet

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

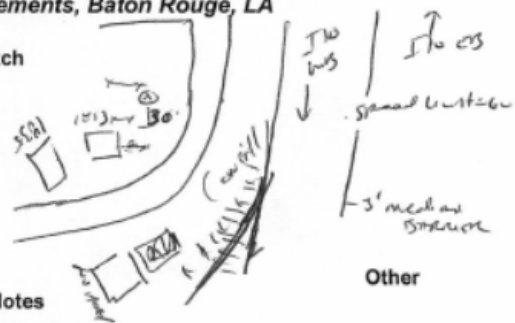
Date 3/21/18
Site _____

Area _____

Address 1853 VIRGINIA ST.

Weather
Temp 58° Sunny
Wind 2-5/ at 4-5 mph

Site Sketch



Notes

Other

Direction

RION/DIN121# 1604

Cal @ 114.0

Cal Check =

#	Time Start	Location	Description
1	930	At I-10 / Essen Lane	WB: EB = 45-50 mph
2	31	HT WB Street / uphill	= 75-80
3	32	HT WB = 75	
4	33	HT WB = 75-80 (Street)	HT EB Street = 75
5	34	HT Low Street WB	
6	935		Wind = 4-6 / mph
7	36	Multi HTs both directions	= 75-77
8	37	HT WB Street = 81	Speeds still 45-50 WB, 50-55 EB
9	38		Wind = 6-8 / mph
10	39		
11	940	Low EB HT Street = 81	Wind 2-5 / mph
12	41		
13	42	Low HT Street EB = 77-78	
14	43		
15	44	HT WB Street = 75	Wind = 2-5 / mph
16	945		
17	46		
18	47		
19	48	Wide WB w/ police event thru WB / WB Street = 25-30 mph	HT EB Street = 77
20	49	WB slow, HT WB accel = 77-78	: 40 WB moving faster
21			
22		End Data @ 950	
23			
24			
25			
26			
27			
28			
29			
30			

I-10 = construction 91-94
HTs up to 78-79 w/ WB Street generally same uphill

Lx 1604.009

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	1853 Virginia St				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_013.02				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	2:05 PM	71.2	74.7		
2	2:06 PM	71.6	75.5		
3	2:07 PM	72.3	80.9		
4	2:08 PM	75.7	86.2		
5	2:09 PM	74.8	83.6		
6	2:10 PM	71.4	76.3		
7	2:11 PM	76.0	83.6		
8	2:12 PM	77.7	86.9	x	HT Stack 86-87
9	2:13 PM	70.3	73.4		
10	2:14 PM	72.7	80.7		
11	2:15 PM	70.9	73.9		
12	2:16 PM	72.6	78.7		
13	2:17 PM	72.3	77.7		
14	2:18 PM	78.3	88.1	x	HT Stack 88 dB (Data Anomaly)
15	2:19 PM	71.7	75.5		
16	2:20 PM	70.2	71.8		
17	2:21 PM	73.8	82.7		
18	2:22 PM	71.1	76.4		
19	2:23 PM	71.9	78.3		
20	2:24 PM	71.4	77.2		
21	2:25 PM	71.8	73.5	x	End Data
Leq		72.7			

Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 5/21/18

Site Sketch

See previous

Site

Area

Address 1853 VIRGINIA ST.

Weather

Temp 66° Sunny

Wind 4.8/NNW

Notes

Other

Direction

RION/CON121# 1604

Cal @ 114.0

Cal Check =

#	Time Start	Description
1	14 05	Low source 1400
2	06	J-10 Horned WB=25 mph EB=40-45 mph >=65-70 mph
3	07	Spends up slowly, 70-72 typical
4	08	Auto only WB=67-48 HR EB Stack=75 HR WB Stack=81 (Accel)
5	09	HR WB Accel=87-86 WB=20-25 CB=45
6	10	HR WB Stack Accel=81, HR WB Stack=83
7	11	WB=25-30 EB=45-50 mph
8	12	HR Stack WB=85
9	13	HR Accel and Stack=86-87
10	14	WB=30-35 EB=45-50
11	15	Low pick up accel WB=80
12	16	WB=20-25 CB=45-50
13	17	WB=5-9/NNW
14	18	Low HR Stack EB
15	19	HR Stack Accel WB (outer lane)=80 HR Stack Accel WB=88
16	20	WB spends 9 slowly (Auto only=67-65) WB=30-35 EB=45-50
17	21	WB=6-9/NNW
18	22	Low WB HR EB, compression between=82 WB=25-30 EB=45-50
19	23	HR EB Stack=75-76 WB=35-40 EB=45-50
20	24	WB Stack WB=15-20 CB=45-50
21		
22		END DATA 1425
23		
24		
25		
26		
27		
28		
29		
30		

inner 2 WB lanes typically v-n slower than outside WB lanes (→ 810)

LxT/1604.013



1853 Virginia St

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	E Polk St BB court				
Description:	East Polk St park basketball court				
SLM Filename:	SLM_0001606_LxT_1606_002.00				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	10:30 AM	71.5	78.3		
2	10:31 AM	71.6	74.3		
3	10:32 AM	70.5	73.2		
4	10:33 AM	70.1	71.9		
5	10:34 AM	70.0	72.4		
6	10:35 AM	69.8	71.3		
7	10:36 AM	70.4	74.5		
8	10:37 AM	70.9	74.1		
9	10:38 AM	70.2	74.9		
10	10:39 AM	69.6	72.0		
11	10:40 AM	70.6	72.7		
12	10:41 AM	73.6	81.4		
13	10:42 AM	70.0	72.8		
14	10:43 AM	70.5	76.1		
15	10:44 AM	70.1	73.5		
16	10:45 AM	70.6	74.7		
17	10:46 AM	70.2	76.5		
18	10:47 AM	68.7	71.3		
19	10:48 AM	70.8	72.7		
20	10:49 AM	70.7	75.5		
21	10:50 AM	70.8	73.2	x	End Data
Leq		70.6			

Noise Measurement Data Sheet

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/21 Site Polk St. Basketball Court

Site Sketch

Area _____

Address _____

Weather

Temp

Wind

Direction

RION/LD/N121#

Notes

Other

Cal@

Cal Check=

#	Time Start	Description
1	10:30 AM	Start
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20	10:50 AM	end. No Abnormal noise
21		during measurement.
22		
23		
24		
25		
26		
27		
28		
29		
30		

LxT-1606.002

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	E Polk St BB court				
Description:	East Polk St park basketball court				
SLM Filename:	SLM_0001606_LxT_1606_005.02				
Date:	3/22/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	11:15 AM	71.0	73.2		
2	11:16 AM	71.3	72.9		
3	11:17 AM	72.0	74.0		
4	11:18 AM	71.1	72.7		
5	11:19 AM	72.3	75.3		
6	11:20 AM	73.5	80.2		
7	11:21 AM	72.5	78.3		
8	11:22 AM	70.6	73.2		
9	11:23 AM	71.9	77.6		
10	11:24 AM	72.2	77.9		
11	11:25 AM	69.6	72.7		
12	11:26 AM	69.3	70.9		
13	11:27 AM	70.5	73.6		
14	11:28 AM	71.9	73.5		
15	11:29 AM	72.1	74.4		
16	11:30 AM	72.1	76.4		
17	11:31 AM	70.7	75.2		
18	11:32 AM	70.2	72.4		
19	11:33 AM	70.5	71.6		
20	11:34 AM	72.8	80.2		
21	11:35 AM	71.3	75.4	x	End Data
Leq		71.5			

Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/22/18
 Site _____
 Area _____
 Address 6 PINE ST. PROFILE
1926 N. WOLF WIND ST.

Site Sketch
 @ JCT PINE ST. PARK (LxR#1606) STATION 1107
 1926 MARSHLAND ST (LxR#1604) STATION 1113
SEE PREVIOUS SECTIONS

Weather
 Temp 65°F. Sunny
 Wind 2-6 / NNE

Notes
 Direction 1604; 1606
 Cal @ 114.0 Cal Check = WB CB

#	Time Start	Description	WB	CB
1	1115	±10 FREE-FLOW HT WB STAKE=79 WIND=2-6/NNE	40-41	45-50
2	16	HT EB STAKE=80?		
3	17		45-50	50-55
4	18			45-50
5	19			
6	1120	MULTIPLE HTS=72-74 WIND=4-6/NNE	35-40	50-55
7	21	AMBULANCES SLOWED=76, Autos only=68-69 WIND=2-4/ESE		
8	22			
9	23	WB HT STAKE=74, EB HT STAKE=75		
10	24	SPEEDS ↓ EB	45-50	48-50
11	1125			
12	26	SPEEDS BACK UP EB	45-50	48-50
13	27			
14	28	ALL ±10 FREE-FLOW TRAFFIC		
15	29	HTS=71-73		
16	1130	LOW VOL SOURCE OF 5-10 REAR=65-67 WIND=2-4/ESE		
17	31			
18	32	HT EB STAKE 216 LONG BACK=73-74		
19	33			
20	34			
21				
22		END DATA 11:35		
23				
24				
25				
26				
27				
28				
29				
30				

trunk flow=69 (autos only) → ~~70-72~~ 70-72 (autos + pt) LxR#1604.019
 LxR#1606.005



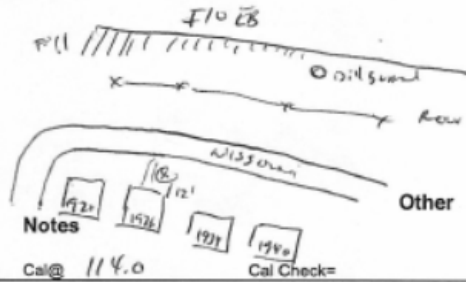
E Polk St BB court

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	1926 Maryland St				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_010.05				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	10:30 AM	72.7	80.9		
2	10:31 AM	71.8	77.1		
3	10:32 AM	71.4	78.1		
4	10:33 AM	69.8	71.9		
5	10:34 AM	69.8	71.0		
6	10:35 AM	69.9	71.4		
7	10:36 AM	70.0	73.2		
8	10:37 AM	70.9	73.1		
9	10:38 AM	70.5	73.0		
10	10:39 AM	68.8	70.4		
11	10:40 AM	72.8	81.5		
12	10:41 AM	69.8	75.9		
13	10:42 AM	68.4	69.9		
14	10:43 AM	69.9	75.2		
15	10:44 AM	70.1	75.5		
16	10:45 AM	71.8	78.5		
17	10:46 AM	69.8	72.1		
18	10:47 AM	69.8	72.5		
19	10:48 AM	69.6	71.4		
20	10:49 AM	69.6	71.8		
21	10:50 AM	71.2	76.6	x	End Data
Leq		70.5			

Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 5/21/18
 Site _____
 Area _____
 Address 1926 Milstone

Site Sketch



Weather
 Temp 58° Sunny
 Wind 2-4 ENE

Direction
 RION/DN121# 1604

#	Time Start	Description
1	1030	All I-10 noise at stake 68-75? I 10 = Freeport Ave
2	31	
3	32	Long the stake up
4	33	
5	34	Lower at ^{500'} penno 46-49 not only
6	1035	
7	36	
8	37	
9	38	
10	39	
11	1040	the stake 69-75, at stake 69-82
12	41	
13	42	
14	43	Local noise / 1 mph - 10 mph effect
15	44	no this 45-49
16	1045	the stake 69-78
17	46	45-49 at the end of the 45-49
18	47	local it's not noise
19	48	the stake 45-49
20	49	
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

typical I 10 = 71-75
 at stake 69-75

COING = 45.5V

1604, 010

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	1926 Maryland St				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_014.02				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	2:40 PM	66.3	69.0		
2	2:41 PM	61.4	64.5		
3	2:42 PM	63.1	65.7		
4	2:43 PM	68.8	82.2		
5	2:44 PM	71.2	81.2		
6	2:45 PM	64.8	67.9		
7	2:46 PM	63.4	65.8		
8	2:47 PM	64.6	66.6		
9	2:48 PM	65.5	73.3		
10	2:49 PM	67.6	73.1		
11	2:50 PM	66.4	69.3		
12	2:51 PM	65.2	68.2		
13	2:52 PM	62.2	64.7		
14	2:53 PM	64.6	68.7		
15	2:54 PM	72.5	81.1		
16	2:55 PM	65.7	69.9		
17	2:56 PM	68.7	75.6		
18	2:57 PM	67.9	72.5		
19	2:58 PM	65.0	69.8		
20	2:59 PM	64.2	67.8		
21	3:00 PM	63.4	66.4		
22	3:01 PM	65.2	71.8		
23	3:02 PM	64.4	70.9		
24	3:03 PM	62.0	65.5	x	EB stopped
25	3:04 PM	62.2	64.3	x	
26	3:05 PM	63.3	70.4	x	End Data
Leq		66.7			

Noise Measurement Data Sheet

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/21/18
Site

Site Sketch see previous

Area

Address 1926 Mississippi Maryland

Weather
Temp 65°F, sunny
Wind 2.5/NNE

Other

Notes
114.0
Cal @ 14.0

Cal Check =

Direction
RION/DIN121# 1604

#	Time Start	Lev Start	Description
1	1440	EB 40-45 mph WB 30-35	EB slows to center
2	41	EB 57-90 WB 30-35 mph	EB 57-60 mph
3	42	EB 57-90 WB 30-35 mph	
4	43	EB HT truck	EB 57-90 WB 30-35 mph
5	44	EB 57-90 WB 30-35 mph	
6	1445	EB 25-30 WB 35-40	> 62-64
7	46	EB 20-25 WB 35-40	> 61-63 EB 57-90
8	47	C:15 EB 15-20 WB 35-40	
9	48	EB 20-25 WB 40-45	
10	49	EB 35-40 WB 40-45	> 67-68
11	1450	EB 40-45 WB 40-45	> 63-64
12	51		
13	52	EB 25 WB 40-45	> 63-64 EB 57-90
14	53	EB 57-90 WB 40-45	
15	54	EB 5-10 mph WB 40-45	HT truck / EB 57-90
16	1455	EB 15-20 mph WB 40	
17	56	EB 25-30-35 WB 40-45	> 67-68
18	57		
19	58	EB 20-25 WB 40-45	> 63
20	59	EB 15-20 WB 40-45	
21	1500	EB 10-15 WB 40-45	
22	01	EB 10-15 WB 40-45	> 62-65 EB WB 70-72
23	02	EB 15-20 WB 40-45	
24	03	EB stopped / 57-90	
25	04		
26			
27		END DATA C1505	
28			
29			
30			

Speeds / over from one user

L217504.014

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	1926 Maryland St				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_019.02				
Date:	3/22/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	11:15 AM	71.4	79.4		
2	11:16 AM	72.2	80.2		
3	11:17 AM	70.6	74.1		
4	11:18 AM	70.3	74.8		
5	11:19 AM	69.7	73.0		
6	11:20 AM	70.5	73.2		
7	11:21 AM	70.5	77.0		
8	11:22 AM	70.2	73.9		
9	11:23 AM	70.4	75.1		
10	11:24 AM	69.3	71.3		
11	11:25 AM	69.8	73.6		
12	11:26 AM	70.4	75.4		
13	11:27 AM	70.1	75.8		
14	11:28 AM	70.4	73.8		
15	11:29 AM	71.5	73.6		
16	11:30 AM	70.1	72.9		
17	11:31 AM	69.2	72.6		
18	11:32 AM	69.3	73.7		
19	11:33 AM	70.1	72.8		
20	11:34 AM	69.2	71.3		
21	11:35 AM	69.9	70.7	x	
Leq		70.3			

Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/22/18
 Site _____
 Area _____
 Address 6000 St. Patrick
1924 N. Maryland St.

Site Sketch
 @ 1st Park St. Park (Lx#1606) station 1107
 1924 Maryland St (Lx#1604) station 1113
SEE PREVIOUS SECTIONS

Weather
 Temp 65°F. Sunny
 Wind 2-6 / NNE

Notes
 Direction 1604; 1606
 Cal @ 114.0 Cal Check = WB CB

#	Time Start	Description	WB	CB
1	1115	±10 FREE-FLOW HT WB STAKE=79 LINDS=2-4/ENE	40-41	45-50
2	16	HT EB STAKE=80?		
3	17		45-50	50-55
4	18			45-50
5	19			
6	1120	multiple HTs = 72-74 LINDS=4-6/ENE	35-50	50-55
7	21	AMBULANCES SLOWED=76 Autos only=68-69 WIND=2-4/ENE		
8	22			
9	23	WB HT STAKE=74, EB HT STAKE=75		
10	24	SPRINKS ↓ EB	45-50	48-50
11	1125			
12	26	SPRINKS BACK UP EB	45-50	48-50
13	27			
14	28	ALL I-10 FREE-FLOW TRAFFIC		
15	29	HTS = 71-73		
16	1130	LOW VOL SOURCE OF 5-10 REAR=65-67 WIND=2-4/ENE		
17	31			
18	32	HT EB STAKE 626 LONG BACK=73-74		
19	33			
20	34			
21				
22		END DATA 11:35		
23				
24				
25				
26				
27				
28				
29				
30				

average I₁₀ = 69 (autos only) → ~~70-72~~ 70-72 (autos + pt) Lx#1604.019
 Lx#1606.005



1926 Maryland St

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	2280 Baywood Ave				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_011.03				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	11:25 AM	73.5	76.9		
2	11:26 AM	74.7	80.2		
3	11:27 AM	74.3	77.2		
4	11:28 AM	76.0	84.0		
5	11:29 AM	74.4	77.6		
6	11:30 AM	73.6	76.2		
7	11:31 AM	74.5	78.9		
8	11:32 AM	76.9	87.5		
9	11:33 AM	75.1	78.9		
10	11:34 AM	74.5	79.6		
11	11:35 AM	73.5	76.8		
12	11:36 AM	73.9	77.6		
13	11:37 AM	73.3	75.5		
14	11:38 AM	73.7	81.9		
15	11:39 AM	74.4	77.6		
16	11:40 AM	73.3	77.3		
17	11:41 AM	73.7	78.0		
18	11:42 AM	74.5	80.3		
19	11:43 AM	74.0	76.0		
20	11:44 AM	72.8	74.7		
21	11:45 AM	72.6	74.5	x	End Data
Leq		74.3			

Noise Measurement Data Sheet

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/21/18
Site _____

Site Sketch

Area _____

Address 2250 Baywood Ave

Weather

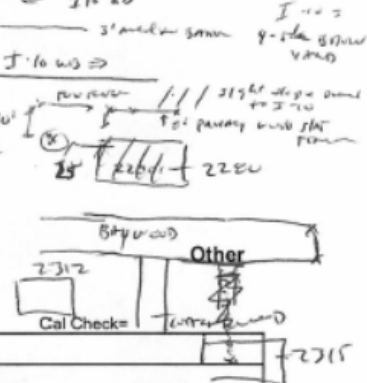
Temp 60°F, sunny
Wind 2-8 mph / variable

Direction

RION/DIN121# 1608

Notes

Cal@ 114.0



#	Time Start	Description
1	1125	Let start @ 1122
2	26	All I-10 free flow traffic
3	27	HT stack WB = 80 HT stack EB = 77
4	28	End ramp exit HT WB = 84
5	29	Wind = 2-5 mph
6	1130	
7	31	Low WB HT
8	32	Low HT stack WB
9	33	Wind = 2-6 mph
10	34	HT stack EB = 78
11	1135	
12	36	All I-10 free flow traffic
13	37	Wind = 7-10 mph
14	38	HT WB = 64.71, HT stack EB = 81.82
15	39	
16	1140	
17	41	Low HT stack WB
18	42	Dump truck stack WB HT stack = 74.75 typically
19	43	
20	44	EB traffic speed 30-35 mph
21		
22		End data @ 1145
23		
24		
25		
26		
27		
28		
29		
30		

Summary I-10 = 73-75 dBA
Avg = 74.72 Hq = 72-75

EB = 55-58 mph
WB = 50-55 mph

Lp = 1604.01

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	2280 Baywood Ave				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_017.02				
Date:	3/22/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	9:50 AM	75.5	86.7	x	HT Horn EB = 86
2	9:51 AM	71.1	72.7		
3	9:52 AM	71.7	74.9		
4	9:53 AM	73.9	81.5		
5	9:54 AM	73.7	76.6		
6	9:55 AM	72.9	76.1		
7	9:56 AM	72.5	74.7		
8	9:57 AM	74.9	83.6	x	HT WB Stack = 83
9	9:58 AM	73.2	75.5		
10	9:59 AM	72.7	76.2		
11	10:00 AM	72.7	75.8		
12	10:01 AM	73.2	75.6		
13	10:02 AM	74.8	83.9	x	Siren EB = 81-82
14	10:03 AM	73.1	74.6		
15	10:04 AM	73.7	78.5		
16	10:05 AM	73.2	75.8		
17	10:06 AM	73.0	75.0		
18	10:07 AM	73.2	76.7		
19	10:08 AM	74.8	82.4		4-5 motos wb = 82
20	10:09 AM	72.7	75.2		
21	10:10 AM	74.6	79.5	x	End Data
Leq		73.1			

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Site Sketch

Site

Area

Address ²⁴⁰ ~~229~~ Brynwood

Weather

Temp 50-52°f, sunny

Wind $C_{\text{mean}} \rightarrow 2.516$

Notes

Other

Sports

Direction
RION/LDN121# 1604

Cal@ 114.0

Cal Check=

८३ ८४

#	Time Start	Description
1	9:50	MT 5-10 miles HT Hikes EB = 82
2	51	WB over limit ↓
3	52	HT WB = 75
4	53	HT Stock WB = 73.74 Autos only = 72
5	54	
6	9:55	HT EB Stock = 76
7	52	
8	57	HT WB Stock = 75, HT WB Stock = 83
9	58	5-10 Stock 72-74
10	59	
11	10:00	
12	01	
13	02	HT Stock = 74.79 Simon EB = 81-82?
14	03	Autos only = 72 Autos HT = 79
15	04	20-30 HT Stock WB = 78
16	10:05	
17	06	HT EB = 75
18	07	
19	08	4-5 mil Autos WB = 82
20	09	
21		
22		END DATA 10/10
23		
24		
25		
26		
27		
28		
29		
30		

Not much HT Accel noise / Pres Flow

 $L_T = 1604.017$



2280 Baywood Ave

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	2808 Fiero St				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_012.02				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	12:25 PM	74.7	76.9		
2	12:26 PM	74.1	76.1		
3	12:27 PM	75.9	81.3		
4	12:28 PM	74.5	83.6		
5	12:29 PM	73.7	83.4		
6	12:30 PM	75.0	80.0		
7	12:31 PM	73.9	77.1		
8	12:32 PM	73.9	76.2		
9	12:33 PM	73.9	75.7		
10	12:34 PM	74.2	77.2	x	
11	12:35 PM	73.7	76.9	x	WB slowed -> stop and go
12	12:36 PM	74.6	79.4	x	WB slowed -> stop and go
13	12:37 PM	74.0	78.2	x	WB slowed -> stop and go
14	12:38 PM	72.0	75.4	x	WB slowed -> stop and go
15	12:39 PM	73.8	75.9	x	WB slowed -> stop and go
16	12:40 PM	73.1	76.0	x	
17	12:41 PM	73.1	76.6	x	
18	12:42 PM	72.5	77.3	x	
19	12:43 PM	72.9	74.8	x	
20	12:44 PM	72.5	75.8	x	WB stop and go
21	12:45 PM	72.3	75.2	x	WB stop and go
22	12:46 PM	72.5	74.6	x	WB stop and go
23	12:47 PM	73.3	80.1	x	WB stop and go
24	12:48 PM	74.1	75.9	x	WB stop and go
25	12:49 PM	73.8	77.0	x	WB stop and go
26	12:50 PM	72.9	76.6	x	
27	12:51 PM	72.2	73.8	x	End Data
Leq		74.5			

Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 8/21/18

Site Sketch

Site _____

Area _____

Address 2808 Fico

Weather

Temp 64°F sunny

Wind 2-6 mph variable

Direction

RION/LD/N121# 1604

Notes

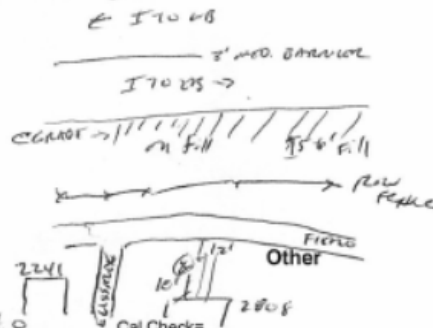
Cal@ 114.0

Cal Check= 2808

#	Time Start	Description
1	1225	All I-10 noise / some Fico traffic
2	22	
3	27	Low AT CB start = 50, bed sound W/S = 81
4	28	Low AT CB
5	29	Low vol period = 68 W/S = 2.5 / mph
6	1230	
7	31	
8	32	
9	33	
10	34	
11	1235	WB slowed → stop: 90
12	36	CB from Fico
13	37	
14	38	
15	39	
16	1240	
17	41	
18	42	
19	43	WB at 10-15 mph
20	44	WB stopped stop: 90
21	1245	
22	46	
23	47	
24	48	
25	49	
26	1250	
27		End @ 1250
28		
29		
30		

EB = 4.5-5.0 mph, W/S = 50-55 mph

L₁₀ 1604.612



Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	2808 Fiero St				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_018.03				
Date:	3/22/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	10:30 AM	75.4	77.3		
2	10:31 AM	74.9	77.8		
3	10:32 AM	73.7	75.1		
4	10:33 AM	74.1	76.5		
5	10:34 AM	75.4	81.3		
6	10:35 AM	74.2	76.1		
7	10:36 AM	77.0	82.6	x	WB ambulance siren 82-83
8	10:37 AM	74.4	76.9		
9	10:38 AM	75.5	80.7		
10	10:39 AM	74.9	76.9		
11	10:40 AM	76.1	81.0		
12	10:41 AM	75.0	81.2		
13	10:42 AM	74.2	81.0		
14	10:43 AM	76.2	82.0		
15	10:44 AM	74.7	76.4		
16	10:45 AM	75.4	80.9		
17	10:46 AM	74.7	78.7		
18	10:47 AM	74.5	76.7		
19	10:48 AM	73.9	78.2		
20	10:49 AM	74.2	77.4		
21	10:50 AM	74.2	75.1	x	End Data
Leq		74.9			

Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/22/18
 Site _____
 Area _____
 Address 2808 FLORENCE RD

Site Sketch

ES 1700 RD
 ↑
 ES 1700 RD ELIMINATION / SE PHOTON
 1606 @ 2012 STATES RD.
 SITE @ 1025
 1604 @ 2808 FLORENCE RD

Weather

Temp 66-86-88°F, SUNNY, 70% CLOUDS
 Wind E-S / ENH

Notes

Other

Direction 1604
 RION/LDN121#

Cal @ 114,0

Cal Check=

NATC
 2808
 FLORENCE RD

#	Time Start	Description
1	1030	I-10 FREE FLOW BOTH DIRECTIONS 50-60 MPH WIND 2-5 / ENH
2	31	I-10 73-75 CONSISTENTLY HT STACK EB = 78
3	32	ATTS ONLY = 71-72
4	33	HT EB = 76
5	34	HT EB STACK = 80-81 @ PINE RD WIND = CALM
6	1035	
7	36	ALL I-10 NB / FREE FLOW TRAFFIC, HT EB = 82-83, WIND ANGLE SHOWN = 82
8	37	
9	38	:50 HT EB WIND WIND = 81
10	39	ES SLOWING DOWN 40-45 (est), STILL WINDY JUST SLOWLY
11	1040	HT EB STACK = 81, ES SLOWED UP AGAIN 50-55
12	41	LOCAL HT = 77-78 HT STACK EB WIND = 2-6 / ENH
13	42	
14	43	LOW HT STACK EB WIND = CALM
15	44	
16	1045	I-10 CONSISTENT 73-75, HT STACK EB = 81
17	46	
18	47	
19	48	
20	49	EB SLOWLY 35-40 MPH
21		
22		END DATA @ 1050 CLK
23		
24		
25		
26		
27		
28		
29		
30		

Y?

LFT 1604 @ 18

LFT 1606 @ 18



2808 Fiero St

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	2012 Estates Rd				
Description:	Single family residence				
SLM Filename:	SLM_0001606_LxT_1606_003.01				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	12:28 PM	74.8	79.4		
2	12:29 PM	73.2	75.6		
3	12:30 PM	75.1	78.0		
4	12:31 PM	74.0	75.6		
5	12:32 PM	74.0	77.4		
6	12:33 PM	73.4	75.1		
7	12:34 PM	74.6	77.7	x	I-10 WB stop & go
8	12:35 PM	73.5	75.8	x	I-10 WB stop & go
9	12:36 PM	73.9	79.8	x	I-10 WB stop & go
10	12:37 PM	73.1	76.4	x	I-10 WB stop & go
11	12:38 PM	72.1	75.5	x	I-10 WB stop & go
12	12:39 PM	73.8	76.9	x	I-10 WB stop & go
13	12:40 PM	73.1	75.8	x	I-10 WB stop & go
14	12:41 PM	72.4	74.7	x	I-10 WB stop & go
15	12:42 PM	74.1	83.8	x	I-10 WB stop & go
16	12:43 PM	73.2	74.7	x	I-10 WB stop & go
17	12:44 PM	72.9	75.7	x	I-10 WB stop & go
18	12:45 PM	72.7	76.3	x	I-10 WB stop & go
19	12:46 PM	73.6	76.3	x	I-10 WB stop & go
20	12:47 PM	73.2	77.2	x	I-10 WB stop & go
21	12:48 PM	74.8	80.7	x	I-10 WB stop & go
22	12:49 PM	72.8	76.2	x	I-10 WB stop & go
23	12:50 PM	74.9	79.1	x	I-10 WB stop & go
24	12:51 PM	72.4	75.5	x	I-10 WB stop & go
25	12:52 PM	74.0	77.1	x	
26	12:53 PM	75.2	86.2	x	
27	12:54 PM	75.6	86.2	x	
28	12:55 PM	72.9	75.5	x	
29	12:56 PM	73.0	76.8	x	
30	12:57 PM			x	End Data
Leq		74.1			

Noise Measurement Data Sheet

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/21/18

Site Sketch

Site _____

Area _____

Address 2012 Estates Rd.

Weather

Temp

Wind

Direction

RION/LD/N121# 1602

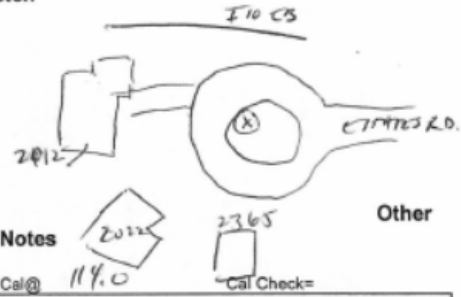
Notes

Cal@

114.0

Cal Check=

Other



#	Time Start	Description
1		1215 start LPT
2		Notes on errors (outliers / misinterpretations)
3		
4		
5		See notes for 2808 F1710
6		
7		
8	1235	WB I-10 stop; 50'
9		
10		
11		
12		
13		
14		
15	1257	end data
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

LPT 1606.003

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	2012 Estates Rd				
Description:	Single family residence				
SLM Filename:	SLM_0001606_LxT_1606_004.01				
Date:	3/22/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	10:30 AM	73.2	75.3		
2	10:31 AM	74.7	80.7		
3	10:32 AM	73.0	75.5		
4	10:33 AM	73.7	76.0		
5	10:34 AM	73.5	75.7		
6	10:35 AM	73.5	76.1		
7	10:36 AM	75.4	82.7	x	Ambulance Siren
8	10:37 AM	73.3	76.5		
9	10:38 AM	73.9	77.9		
10	10:39 AM	74.2	76.7		
11	10:40 AM	74.2	78.1		
12	10:41 AM	74.8	81.1		
13	10:42 AM	73.3	76.9		
14	10:43 AM	74.9	80.1		
15	10:44 AM	74.0	78.7		
16	10:45 AM	73.9	77.9		
17	10:46 AM	73.3	76.3		
18	10:47 AM	73.3	75.2		
19	10:48 AM	77.1	87.8		
20	10:49 AM	73.8	76.7		
21	10:50 AM	73.4	76.5	x	End Data
Leq		74.1			

Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/22/18
 Site _____
 Area _____
 Address 2808 FLOW RD

Site Sketch

ES 1700 RD
 E
 ESSON RD ELISSAHOE / SE PHOTON
 1606 @ 2012 STATES RD.
 STATE 1025
 1604 @ 2808 FLOW RD

Weather

Temp 66-86-88°F, SUNNY, 70% CLOUDS
 Wind E-S / ENH

Notes

Other

Direction 1604
 RION/LDN121#

Cal @ 114,0

Cal Check=

NATC
 2808
 FLOW RD

#	Time Start	Description
1	1030	I-10 FREE FLOW BOTH DIRECTIONS 50-60 MPH WIND 2-5 / ENH
2	31	I-10 73-75 CONSISTENTLY HT STACK EB = 78
3	32	ATTS ONLY = 71-72
4	33	HT EB = 76
5	34	HT EB STACK = 80-81 @ PINE RD WIND = CALM
6	1035	
7	36	ALL I-10 NB / FREE FLOW TRAFFIC, HT EB = 82-83, WIND ANGLE SHOWN = 82
8	37	
9	38	:50 HT EB WIND = 81
10	39	ES SLOWING DOWN 40-45 (est), STILL WINDY JUST SLOWLY
11	1040	HT EB STACK = 81, ES SLOWED UP AGAIN 50-55
12	41	LOCAL HT = 77-78 HT STACK EB WIND = 2-6 / ENH
13	42	
14	43	LOW HT STACK EB WIND = CALM
15	44	
16	1045	I-10 CONSISTENT 73-75, HT STACK EB = 81
17	46	
18	47	
19	48	
20	49	EB SLOWLY 35-40 MPH
21		
22		END DATA @ 1050 CLK
23		
24		
25		
26		
27		
28		
29		
30		

Y?

LFT 1604 @ 18

LFT 1606 @ 18



2012 Estates Rd

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	2226 Estates Rd				
Description:	Single family residence				
SLM Filename:	SLM_0001605_LxT_1605_005.02				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	12:25 PM	73.7	75.9		
2	12:26 PM	73.6	77.4		
3	12:27 PM	74.2	77.9		
4	12:28 PM	73.1	77.8		
5	12:29 PM	72.0	75.0		
6	12:30 PM	74.0	77.4		
7	12:31 PM	73.0	76.1		
8	12:32 PM	72.9	75.6		
9	12:33 PM	72.3	74.0		
10	12:34 PM	72.7	75.7	x	stop traffic on WB lanes (5 mph)
11	12:35 PM	72.0	75.8	x	
12	12:36 PM	72.3	75.7	x	traffic speed up on WB (30 mph)
13	12:37 PM	71.7	74.9	x	slow down/stop traffic on WB (0-5 mph)
14	12:38 PM	70.5	73.2	x	
15	12:39 PM	72.2	74.7	x	
16	12:40 PM	71.5	74.8	x	
17	12:41 PM	71.2	73.8	x	
18	12:42 PM	71.1	75.4	x	
19	12:43 PM	71.4	73.6	x	
20	12:44 PM	71.8	75.1	x	
21	12:45 PM	70.7	73.1	x	
22	12:46 PM	71.6	74.1	x	
23	12:47 PM	71.6	75.4	x	
24	12:48 PM	73.6	77.8	x	
25	12:49 PM	72.2	77.2	x	
26	12:50 PM	72.9	77.0	x	ambulance siren on WB
27	12:51 PM	71.0	73.0	x	End Data
Leq		73.2			

Noise Measurement Data Sheet

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/21/18

Site Sketch

Site Estates Rd.

Area front yard / driveway

Address 2226 Estates Rd.

Weather Sunny
Temp 67°
Wind

Direction

RION/LD/N121# 1605-005

Notes

Cal@



Cal Check= Fico St.

Other

#	Time Start	Description
1	12:24.5 pm	
2	12:26	
3	12:27	
4	12:28	
5	12:29	
6	12:30	
7	12:31	
8	12:32	
9	12:33	
10	12:34	slowdown / stop traffic on WB lanes (5mph)
11	12:35	
12	12:36	traffic speeded up on WB (30 mph)
13	12:37	slowdown / stop traffic on WB (0-5 mph)
14	12:38	
15	12:39	
16	12:40	
17	12:41	
18	12:42	
19	12:43	
20	12:44	
21	12:45	
22	12:46	
23	12:47	
24	12:48	
25	12:49	
26	12:50	ambulance siren on WB
27		
28		
29		
30		

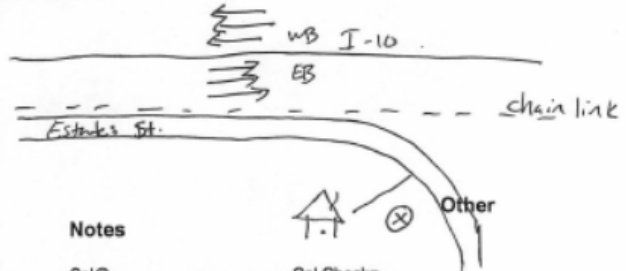


Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	2226 Estates Rd				
Description:	Single family residence				
SLM Filename:	SLM_0001605_LxT_1605_009.02				
Date:	3/22/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	10:30 AM	72.6	74.7		
2	10:31 AM	72.8	75.4		
3	10:32 AM	72.0	74.3		
4	10:33 AM	72.6	75.0		
5	10:34 AM	72.5	74.4		
6	10:35 AM	72.0	74.1		
7	10:36 AM	73.0	77.2		
8	10:37 AM	74.3	81.4	x	ambulance siren on WB
9	10:38 AM	72.9	74.6		
10	10:39 AM	73.0	74.5		
11	10:40 AM	73.5	76.2		
12	10:41 AM	72.7	75.2		
13	10:42 AM	72.1	76.2		
14	10:43 AM	74.4	81.9		
15	10:44 AM	73.2	76.9		
16	10:45 AM	72.8	77.4		
17	10:46 AM	72.9	76.3		
18	10:47 AM	72.7	74.5		
19	10:48 AM	73.5	80.7		
20	10:49 AM	72.7	74.9		
Leq		72.9			

Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/12/18
 Site Estates St.
 Area front yard
 Address 2226 Estates St.

Site Sketch



Weather sunny
 Temp 62°
 Wind

Notes

Direction 1605-009
 RION/LDN121#

Cal@

Cal Check®

#	Time Start	Description
1	10:30 am	
2	10:31	
3	10:32	
4	10:33	
5	10:34	
6	10:35	
7	10:36	ambulance siren on WB
8	10:37	
9	10:38	
10	10:39	
11	10:40	
12	10:41	
13	10:42	
14	10:43	
15	10:44	
16	10:45	
17	10:46	
18	10:47	
19	10:48	
20	10:49	
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		



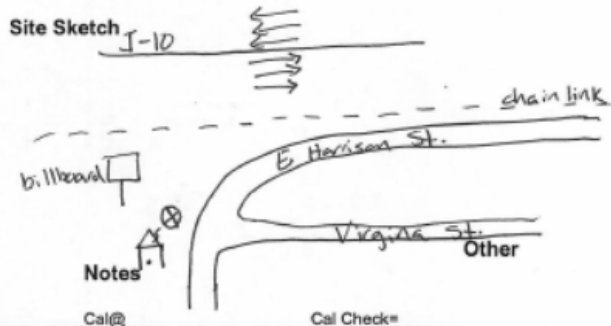
2226 Estates Rd

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	1159 E Harrison St				
Description:	Single family residence				
SLM Filename:	SLM_0001605_LxT_1605_003.03				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	10:31 AM	73.7	76.8		
2	10:32 AM	73.9	77.8		
3	10:33 AM	73.2	75.9		
4	10:34 AM	73.8	75.1		
5	10:35 AM	73.4	75.7		
6	10:36 AM	73.2	75.3		
7	10:37 AM	73.8	75.9		
8	10:38 AM	73.8	77.2		
9	10:39 AM	72.5	74.4		
10	10:40 AM	73.0	75.7		
11	10:41 AM	73.9	78.5		
12	10:42 AM	72.4	75.4		
13	10:43 AM	72.8	76.9		
14	10:44 AM	72.5	74.9		
15	10:45 AM	74.3	81.5		
16	10:46 AM	74.1	79.7		
17	10:47 AM	72.8	74.5		
18	10:48 AM	73.2	75.6		
19	10:49 AM	73.3	75.7		
20	10:50 AM	73.9	77.2		
21	10:51 AM	73.1	74.5	x	End Data
Leq		73.4			

Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/21/18
 Site Virginia St @ Harrison St.
 Area front yard
 Address _____

Weather Sunny
 Temp 57°
 Wind ✓



Direction
 RION/LD/N121# 1605 - 003

#	Time Start	Description
1	10:30 am	
2	10:31	
3	10:32	
4	10:33	
5	10:34	
6	10:35	
7	10:36	
8	10:37	
9	10:38	
10	10:39	
11	10:40	
12	10:41	
13	10:42	
14	10:43	
15	10:44	
16	10:45	
17	10:46	
18	10:47	
19	10:48	
20	10:49	
21	10:50	
22	10:51	
23		
24		
25		
26		
27		
28		
29		
30		

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	1159 E Harrison St				
Description:	Single family residence				
SLM Filename:	SLM_0001605_LxT_1605_007.02				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	2:40 PM	69.6	77.6		
2	2:41 PM	63.7	67.9		
3	2:42 PM	67.3	71.4		
4	2:43 PM	69.5	73.6		
5	2:44 PM	74.2	81.7		
6	2:45 PM	69.3	71.8		
7	2:46 PM	66.7	71.6		
8	2:47 PM	67.9	70.4		
9	2:48 PM	69.2	72.2		
10	2:49 PM	71.3	75.7		
11	2:50 PM	69.5	72.8		
12	2:51 PM	68.5	72.2		
13	2:52 PM	66.2	70.9		
14	2:53 PM	65.0	70.1		
15	2:54 PM	68.6	72.4		
16	2:55 PM	72.8	80.9		
17	2:56 PM	70.7	74.4		
18	2:57 PM	72.4	77.5		
19	2:58 PM	67.4	69.8		
20	2:59 PM	66.9	68.9		
21	3:00 PM	66.9	69.2		
22	3:01 PM	67.4	71.8		
23	3:02 PM	67.8	70.9		
24	3:03 PM	64.4	67.8		
25	3:04 PM	65.6	67.4		
26	3:05 PM	64.4	64.9	x	End Data
Leq		69.1			

Noise Measurement Data Sheet

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/21/18
 Site Virginia St @ Harrison St
 Area front yard
 Address _____

Site Sketch



Weather 69° Sunny
 Temp _____
 Wind _____

Notes

Direction

RION/LDN121# 1605-007

Cal@

Cal Check=

#	Time Start	Description
1	2:40 pm	
2	2:41	EB traffic stopped
3	2:42	EB traffic going (35 mph)
4	2:43	
5	2:44	
6	2:45	
7	2:46	
8	2:47	
9	2:48	
10	2:49	
11	2:50	
12	2:51	
13	2:52	EB traffic stopped
14	2:53	
15	2:54	EB traffic going (30-40 mph)
16	2:55	
17	2:56	
18	2:57	
19	2:58	
20	2:59	
21	3:00	
22	3:01	
23	3:02	
24	3:03	
25	3:04	
26	3:05	
27		
28		
29		
30		

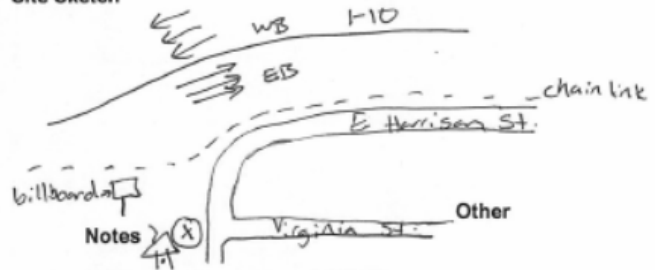
Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	1159 E Harrison St				
Description:	Single family residence				
SLM Filename:	SLM_0001605_LxT_1605_010.00				
Date:	3/22/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	11:15 AM	74.2	79.0		
2	11:16 AM	74.7	79.8		
3	11:17 AM	75.1	77.0		
4	11:18 AM	74.1	77.5		
5	11:19 AM	74.0	76.6		
6	11:20 AM	74.5	76.0		
7	11:21 AM	75.2	81.5	x	ambulance siren on EB
8	11:22 AM	73.6	75.8		
9	11:23 AM	74.6	78.6		
10	11:24 AM	73.9	76.0		
11	11:25 AM	73.8	76.0		
12	11:26 AM	74.8	76.7		
13	11:27 AM	73.9	77.3		
14	11:28 AM	74.1	75.8		
15	11:29 AM	75.4	77.5		
16	11:30 AM	74.0	76.4		
17	11:31 AM	72.9	74.5		
18	11:32 AM	72.5	75.4		
19	11:33 AM	74.0	76.0		
20	11:34 AM	74.1	76.2		
21	11:35 AM	74.6	75.7	x	End Data
Leq		74.2			

Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/22/18
 Site Virginia St + E. Harrison
 Area front yard
 Address 1159 E. Harrison St.

Weather Sunny
 Temp 65°
 Wind

Site Sketch



Direction

RION/LD/N121# 1605-010

Cal@

Cal Check=

#	Time Start	Description
1	11:15 am	
2	11:16	
3	11:17	
4	11:18	
5	11:19	
6	11:20	
7	11:21	ambulance siren on EB
8	11:22	
9	11:23	
10	11:24	
11	11:25	
12	11:26	
13	11:27	
14	11:28	
15	11:29	
16	11:30	
17	11:31	
18	11:32	
19	11:33	
20	11:34	
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		



1159 E Harrison

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	2285 Elissalde St				
Description:	Single family residence				
SLM Filename:	SLM_0001605_LxT_1605_004.03				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	11:24 AM	69.1	73.5		
2	11:25 AM	70.6	77.8		
3	11:26 AM	69.4	72.8		
4	11:27 AM	69.8	73.0		
5	11:28 AM	70.0	77.2		
6	11:29 AM	69.1	72.5		
7	11:30 AM	69.4	72.8		
8	11:31 AM	70.3	75.4		
9	11:32 AM	69.6	71.4		
10	11:33 AM	71.1	77.9		
11	11:34 AM	68.4	70.8		
12	11:35 AM	69.6	73.2		
13	11:36 AM	69.2	72.2		
14	11:37 AM	67.9	69.4		
15	11:38 AM	70.7	77.3		
16	11:39 AM	68.8	71.4		
17	11:40 AM	69.3	73.0		
18	11:41 AM	69.2	74.1		
19	11:42 AM	69.1	71.7		
20	11:43 AM	69.1	72.2	x	Slow down on EB lanes
21	11:44 AM	68.6	71.9	x	End Data
Leq		69.6			

Noise Measurement Data Sheet

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/21/18

Site Elisaville St.

Area Dead End, 2nd driveway

Address _____

Weather Sunny

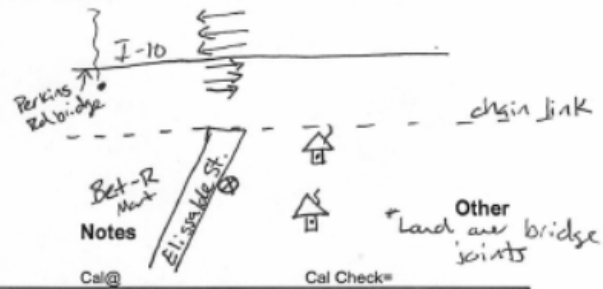
Temp 63°

Wind _____

Direction _____

RION/LD/N121# 1605-004

Site Sketch



Notes

Cal@

Cal Check=

#	Time Start	Description
1	11:24:21 am	
2	11:25	
3	11:26	
4	11:27	
5	11:28	
6	11:29	
7	11:30	
8	11:31	
9	11:32	
10	11:33	
11	11:34	
12	11:35	
13	11:36	
14	11:37	
15	11:38	
16	11:39	
17	11:40	
18	11:41	
19	11:42	
20	11:43	skew down on EB lanes
21	11:44	
22	11:45	
23		
24		
25		
26		
27		
28		
29		
30		



2285 Elissalde St

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	2244 Ebony St				
Description:	Single family residence				
SLM Filename:	SLM_0001605_LxT_1605_008.02				
Date:	3/22/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	9:50 AM	71.1	78.4		
2	9:51 AM	70.6	76.8		
3	9:52 AM	71.0	73.2		
4	9:53 AM	73.5	81.7		
5	9:54 AM	72.6	75.2		
6	9:55 AM	71.8	75.7		
7	9:56 AM	71.7	74.5		
8	9:57 AM	73.1	78.6		
9	9:58 AM	72.0	76.0		
10	9:59 AM	71.8	74.9		
11	10:00 AM	72.2	77.6		
12	10:01 AM	72.3	74.9		
13	10:02 AM	73.4	79.6		
14	10:03 AM	72.4	76.8		
15	10:04 AM	72.3	80.2		
16	10:05 AM	72.4	75.3		
17	10:06 AM	71.9	74.0		
18	10:07 AM	72.3	76.1		
19	10:08 AM	75.4	86.7		
20	10:09 AM	71.6	74.3		
21	10:10 AM	72.2	74.1	x	End Data
Leq		72.4			

* unloading semi
at Elissalde St.
location *

Noise Measurement Data Sheet

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/22/18

Site Sketch

Site Ebony St.

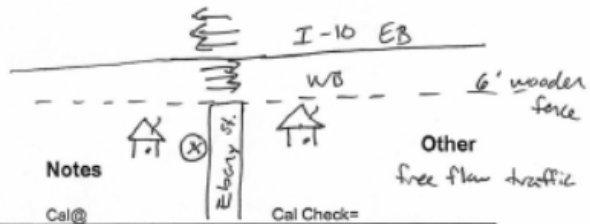
Area decadent residential

Address 2244 Ebony St.

Weather sunny
Temp 60°
Wind

Direction

RION/LD/N121# 1605-008



#	Time Start	Description
1	9:50 am	
2	9:51	
3	9:52	
4	9:53	
5	9:54	
6	9:55	
7	9:56	
8	9:57	
9	9:58	
10	9:59	
11	10:00	
12	10:01	
13	10:02	
14	10:03	
15	10:04	
16	10:05	
17	10:06	
18	10:07	
19	10:08	
20	10:09	
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		



2244 Ebony St

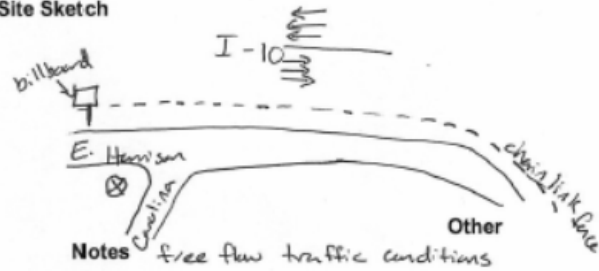
Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	1417 E Harrison St				
Description:	Single family residence				
SLM Filename:	SLM_0001605_LxT_1605_002.03				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	9:30 AM	72.1	77.8		
2	9:31 AM	71.7	76.0		
3	9:32 AM	71.0	72.7		
4	9:33 AM	72.5	78.0		
5	9:34 AM	71.3	75.7		
6	9:35 AM	70.6	72.0		
7	9:36 AM	71.5	75.1		
8	9:37 AM	71.9	74.7		
9	9:38 AM	70.5	72.6		
10	9:39 AM	72.6	80.2		
11	9:40 AM	72.7	79.7		
12	9:41 AM	70.9	73.3		
13	9:42 AM	71.7	77.4		
14	9:43 AM	71.3	75.6		
15	9:44 AM	71.9	74.4		
16	9:45 AM	70.6	73.6		
17	9:46 AM	69.3	71.1	x	
18	9:47 AM	69.7	71.9	x	
19	9:48 AM	70.2	74.4	x	
20	9:49 AM	67.7	71.6	x	traffic slow down to a crawl
21	9:50 AM	68.5	70.4	x	End Data
Leq		71.6			

Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/21/18
 Site Carolina St.
 Area corner lot by picnic table
 Address _____

Weather Sunny 57°
 Temp _____
 Wind _____

Site Sketch



Direction

RION/LD/N121# 1605.002

Cal@

Cal Check=

#	Time Start	Description
1	9:30 am	
2	9:31	
3	9:32	
4	9:33	
5	9:34	
6	9:35	
7	9:36	
8	9:37	
9	9:38	
10	9:39	
11	9:40	
12	9:41	
13	9:42	
14	9:43	
15	9:44	
16	9:45	
17	9:46	
18	9:47	
19	9:48	
20	9:49	slow down to a crawl/stop traffic condition WB I-10
21	9:50	
22		
23		
24		
25		
26		
27		
28		
29		
30		

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	1417 E Harrison St				
Description:	Single family residence				
SLM Filename:	SLM_0001605_LxT_1605_006.01				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	2:05 PM	67.9	72.1		
2	2:06 PM	67.6	70.5		
3	2:07 PM	68.5	72.5		
4	2:08 PM	71.1	78.6		
5	2:09 PM	68.9	76.8		
6	2:10 PM	67.0	71.4		
7	2:11 PM	68.8	74.1		
8	2:12 PM	71.4	77.7		
9	2:13 PM	68.9	75.1		
10	2:14 PM	69.6	75.4		
11	2:15 PM	67.4	69.6		
12	2:16 PM	69.7	75.3		
13	2:17 PM	69.5	74.4		
14	2:18 PM	70.3	76.7		
15	2:19 PM	68.0	70.6		
16	2:20 PM	67.7	71.5		
17	2:21 PM	73.8	84.9	x	(data anomaly)
18	2:22 PM	69.9	80.5		
19	2:23 PM	68.9	73.3		
20	2:24 PM	68.9	74.3		
21	2:25 PM	71.5	77.8	x	train whistle; End Data
Leq		69.1			

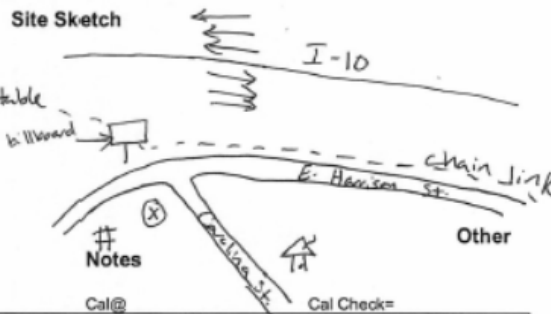
Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/21/18
 Site Carolina St.
 Area vacant lot by the picnic table
 Address _____

Weather sunny
 Temp 67°
 Wind _____

Direction _____

RION/LD/N121# 11605-006



#	Time Start	Description
1	2:05 pm	
2	2:06	
3	2:07	
4	2:08	
5	2:09	
6	2:10	
7	2:11	
8	2:12	
9	2:13	
10	2:14	
11	2:15	
12	2:16	
13	2:17	
14	2:18	
15	2:19	
16	2:20	
17	2:21	
18	2:22	
19	2:23	
20	2:24	
21	2:25	train whistle
22		
23		
24		
25		
26		
27		
28		
29		
30		



1417 E Harrison

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	2643 Yazoo St				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_007.03				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	6:02 AM	72.2	73.2		
2	6:03 AM	72.7	76.6		
3	6:04 AM	72.6	74.4		
4	6:05 AM	72.8	74.7		
5	6:06 AM	73.5	82.3	x	Dog Barking
6	6:07 AM	71.5	72.9		
7	6:08 AM	73.0	73.9		
8	6:09 AM	72.8	73.8		
9	6:10 AM	72.1	73.7		
10	6:11 AM	73.0	75.0		
11	6:12 AM	71.7	73.4		
12	6:13 AM	71.6	73.0		
13	6:14 AM	71.9	73.6		
14	6:15 AM	72.7	80.4		
15	6:16 AM	72.0	73.1		
16	6:17 AM	72.2	73.1	x	End Data
Leq		72.3			

Noise Measurement Data Sheet

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 5/21/18

Site _____

Area _____

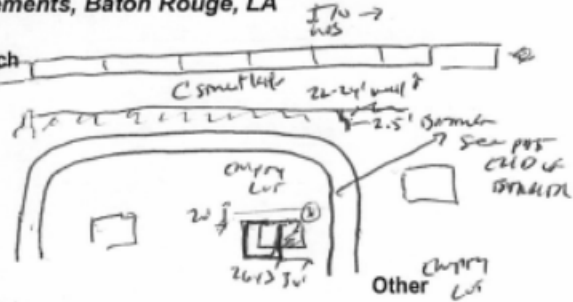
Address 2643 Yazoo St.

Weather

Temp 48°F

Wind calm → E3 / WNW

Site Sketch



Notes

Direction

RIOTED/N121# 1604

Cal @ 1/4.0

Cal Check=

#	Time Start	Description
1	6:02	All I-10 noise
2	03	Auto W.D. = 77 HT EB = 73
3	04	
4	6:05	
5	06	Dist. sampling
6	07	
7	08	
8	09	
9	6:10	Consider 72-73 w/ HTS audible
10	11	
11	12	Sign on I-10 no effect
12	13	
13	14	
14	6:15	Auto W.D. = 80
15	16	
16		
17		Auto W.D. @ 6:17
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

227/60 of 007

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	2685 Balis Dr				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_006.03				
Date:	3/21/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	5:40 AM	67.6	69.3		
2	5:41 AM	68.4	69.7		
3	5:42 AM	67.3	68.6		
4	5:43 AM	68.6	70.1		
5	5:44 AM	67.8	69.3		
6	5:45 AM	67.8	68.9		
7	5:46 AM	67.0	68.7		
8	5:47 AM	66.7	68.0		
9	5:48 AM	67.1	68.5		
10	5:49 AM	67.8	69.5		
11	5:50 AM	66.6	68.1		
12	5:51 AM	67.0	68.0		
13	5:52 AM	67.2	68.7		
14	5:53 AM	67.5	68.7		
15	5:54 AM	68.0	69.1		
16	5:55 AM	68.2	68.5	x	End Data
Leq		67.5			

Noise Measurement Data Sheet

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

I-10 WB →

Date 3/21/18

Site _____

Area _____

Address Barrille (WB Side)

Weather
Temp 40°F, Cloud
Wind 2-4/W

Direction 160°

RION/LDN121#

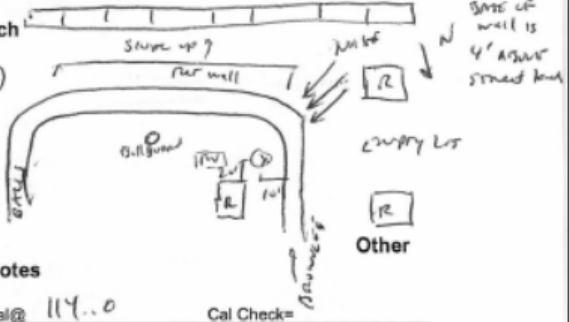
Notes

Cal @ 114...0

Cal Check=

Site Sketch

NO PHOTOS
(NO LIGHT)



#	Time Start	Description
1	540	Free-flow traffic / I-10 HT BD "DATA" = 68
2	41	cons. start 68-68, HTS - 4 to 68-70 HT WB-70
3	42	
4	43	4th I-10 noise
5	44	
6	545	HT BD = 68
7	46	
8	47	
9	48	WTD = 62 / WJW
10	49	cons. start 67-69 from I-10
11	510	
12	51	
13	52	
14	53	Low HT @ WJW BD "DATA"
15	54	HT WB STAGE = 69
16		
17		end data 555
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

LPT 1604.006

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	7210 Leyland Ct				
Description:	Single family residence				
SLM Filename:	SLM_0001604_LxT_1604_015.02				
Date:	3/22/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	6:00 AM	63.8	65.5		
2	6:01 AM	64.2	66.4		
3	6:02 AM	63.7	66.1		
4	6:03 AM	65.4	67.5		
5	6:04 AM	64.6	67.2		
6	6:05 AM	64.3	67.4		
7	6:06 AM	64.3	66.7		
8	6:07 AM	64.2	65.6		
9	6:08 AM	64.8	66.9		
10	6:09 AM	66.1	70.0		
11	6:10 AM	63.6	66.5		
12	6:11 AM	64.6	67.6		
13	6:12 AM	64.2	66.0		
14	6:13 AM	64.9	67.0		
15	6:14 AM	65.6	69.7		
16	6:15 AM	63.3	63.9	x	End Data
Leq		64.6			

Noise Measurement Data Sheet
I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/22/18
 Site _____

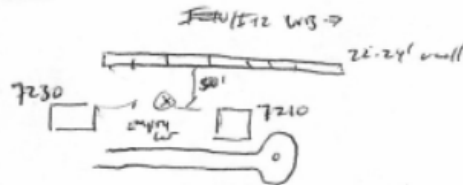
Site Sketch

Area _____

Address 7210 Loyland Ct.

Weather

Temp 45° F, clear
 Wind calm



Notes

Other

Direction 1604
 RION/DIN121#

Cal @ 114.0

Cal Check=

#	Time Start	Description
1	6:00	Final PM I-10 63-64 heavily through HTs 65-66
2	01	
3	02	
4	03	Low vol = 61 HTs, Saw 4 HTs @ once = 66-67
5	04	
6	05	
7	06	All I-12 noise
8	07	
9	08	HT 60 = 66-67
10	09	HT WB Street = 68-69 HT Accel / decel → to South = 68-69 ← to S/SE
11	6:10	
12	11	
13	12	I-12 heavily 63-65 (I-10; trucks on the line times two)
14	13	
15	14	Low vol WB = 68-69
16		
17		
18		HTD DWH @ 6:15
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

weirdest traffic is most audible source

LxT 1604.015

Louisiana Department of Transportation & Development					
Project Name:	I-10 Widening (LA 415 to Essen Lane) Baton Rouge, LA				
Site:	7607 Claret Dr				
Description:	Single Family Residence				
SLM Filename:	SLM_0001604_LxT_1604_016.02				
Date:	3/22/2018				
Period #	Time Start	Leq	Lmax	Delete?	Notes
1	6:24 AM	64.0	64.7		
2	6:25 AM	64.9	67.3		
3	6:26 AM	64.9	66.8		
4	6:27 AM	64.9	66.0		
5	6:28 AM	65.3	69.7		
6	6:29 AM	64.6	66.7		
7	6:30 AM	65.1	67.7		
8	6:31 AM	64.9	66.1		
9	6:32 AM	64.8	65.7		
10	6:33 AM	65.9	67.3		
11	6:34 AM	66.0	67.4		
12	6:35 AM	65.9	67.1		
13	6:36 AM	65.4	66.5		
14	6:37 AM	66.1	67.9		
15	6:38 AM	65.6	67.2		
16	6:39 AM	66.0	66.6	x	End Data
Leq		65.3			

Noise Measurement Data Sheet

I-10: LA415 to Essen Lane Improvements, Baton Rouge, LA

Date 3/22/18

Site _____

Area _____

Address 7607 CLARET DRIVE

Weather

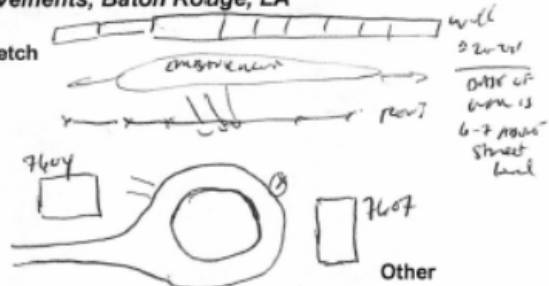
Temp 46°F

Wind Calm

Direction

RION/121# 1604

Site Sketch



Notes

Cal@ 114.0

Cal Check=

#	Time Start	Description
1	624	all 1/2 noise
2	625	
3	26	
4	77	crash 64-65 dB
5	28	
6	29	
7	630	lower 4th = 47-48
8	31	
9	32	
10	33	
11	34	
12	635	
13	36	traffic 64-66
14	37	HT 5/38 - 67
15	38	
16		
17		
18		END DATA 639
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

LFT1604.016

Measurement Time --->	3/21/2018 0930-0950				3/21/2018 1030-1050				3/21/2018 1125-1145			
Receptor location --->	1853 Virginia St 1417 E Harrison St				1926 Maryland St 1159 E Harrison St E Polk BB Court				2285 Elissalde St 2280 Baywood Ave			
Traffic Count Location --->	10-085 I-10 EB btw Washington & Dalrymple				10-085 I-10 WB btw Washington & Dalrymple				10-085 I-10 EB btw Acadian & Dalrymple			
	10-085 I-10 WB btw Washington & Dalrymple				10-085 I-10 WB btw Washington & Dalrymple				10-085 I-10 WB btw Acadian & Dalrymple			
	I-10 WB Off-ramp to McCalop				I-10 EB Off-ramp to Dalrymple				10-085 I-10 WB btw Acadian & Dalrymple			
	Dalrymple On-ramp to I-10 WB				Braddock Street On-ramp to I-10 EB				Perkins Road On-ramp to I-10 WB			
Count during meas. Period	Auto	1267	1326	21	36	1284	1254	29	94	1513	1360	143
	MT	32	34	0	0	47	43	1	1	49	47	0
	HT	203	146	0	2	202	160	0	3	170	151	0
	Bus	11	5	0	0	2	5	0	0	3	2	0
	Motorcycle	2	2	0	0	8	2	0	0	3	2	0
Count extrapolated to 1 hr	Auto	3801	3978	63	108	3852	3762	87	282	4539	4080	429
	MT	96	102	0	0	141	129	3	3	147	141	0
	HT	609	438	0	6	606	480	0	9	510	453	0
	Bus	33	15	0	0	6	15	0	0	9	6	0
	Motorcycle	6	6	0	0	24	6	0	0	9	6	0
# of lanes		3	3	1	1	3	3	1	1	3	3	1
Hourly Count per lane	Auto	1267	1326	63	108	1284	1254	87	282	1513	1360	429
	MT	32	34	0	0	47	43	3	3	49	47	0
	HT	203	146	0	6	202	160	0	9	170	151	0
	Bus	11	5	0	0	2	5	0	0	3	2	0
	Motorcycle	2	2	0	0	8	2	0	0	3	2	0

Measurement Time --->	
Receptor location --->	
Traffic Count Location --->	
Count during meas. Period	Auto
	MT
	HT
	Bus
	Motorcycle
Count extrapolated to 1 hr	Auto
	MT
	HT
	Bus
	Motorcycle
# of lanes	
Hourly Count <i>per lane</i>	Auto
	MT
	HT
	Bus
	Motorcycle

3/21/2018 1225-1250	
2226 Estates Rd 2808 Fiero St 2012 Estates Rd	
10-085 I-10 EB btw Acadian & Dalrymple	10-085 I-10 WB btw Acadian & Dalrymple
1750	1186
56	25
188	143
4	2
2	0
4200	2846
134	60
451	343
10	5
5	0
3	3
1400	949
45	20
150	114
3	2
2	0

3/21/2018 1405-1425		
1854 Virginia St 1418 E Harrison St		
10-085 I-10 EB btw Washington & Dalrymple	10-085 I-10 WB btw Washington & Dalrymple	I-10 WB Off- ramp to McCalop
1505	1268	70
42	40	0
165	155	2
11	6	1
3	1	0
4515	3804	210
126	120	0
495	465	6
33	18	3
9	3	0
3	3	1
1505	1268	210
42	40	0
165	155	6
11	6	3
3	1	0

3/21/2018 1440-1505			
1159 E Harrison St 1926 Maryland St			
10-085 I-10 EB btw Washington & Dalrymple	10-085 I-10 WB btw Washington & Dalrymple	Braddock Street On- ramp to I-10 EB	
1593	1762		187
44	44		1
109	193		5
10	3		5
5	1		0
3823	4229		449
106	106		2
262	463		12
24	7		12
12	2		0
3	3		1
1274	1410		449
35	35		2
87	154		12
8	2		12
4	1		0

Measurement Time --->	
Receptor location --->	
Traffic Count Location ---->	
Count during meas. Period	Auto
	MT
	HT
	Bus
	Motorcycle
Count extrapolated to 1 hr	Auto
	MT
	HT
	Bus
	Motorcycle
# of lanes	
Hourly Count <i>per lane</i>	Auto
	MT
	HT
	Bus
	Motorcycle

3/22/2018 0950-1010		
2280 Baywood Ave 2244 Ebony St		
10-085 I-10 EB btw Acadian & Dalrymple	10-085 I-10 WB btw Acadian & Dalrymple	Perkins Road On-ramp to I-10 WB
1247	1324	116
33	43	4
128	142	1
4	6	0
0	5	0
3741	3972	348
99	129	12
384	426	3
12	18	0
0	15	0
3	3	1
1247	1324	348
33	43	12
128	142	3
4	6	0
0	5	0

3/22/2018 1030-1050		
2226 Estates Rd 2808 Fiero St 2012 Estates Rd		
10-085 I-10 EB btw Acadian & Dalrymple	10-085 I-10 WB btw Acadian & Dalrymple	
1288	1339	
40	45	
173	151	
3	2	
2	0	
3864	4017	
120	135	
519	453	
9	6	
6	0	
3	3	
1288	1339	
40	45	
173	151	
3	2	
2	0	

3/22/2018 1115-1135		
1926 Maryland St 1159 E Harrison St E Polk BB Court		
10-085 I-10 EB btw Washington & Dalrymple	10-085 I-10 WB btw Washington & Dalrymple	Braddock Street On- ramp to I-10 EB
1474	1252	121
33	30	0
189	153	1
2	1	0
2	6	0
4422	3756	363
99	90	0
567	459	3
6	3	0
6	18	0
3	3	1
1474	1252	363
33	30	0
189	153	3
2	1	0
2	6	0