

# **EVERHOME SUITES** (CUP22-18)

NOISE IMPACT ANALYSIS
CITY OF SAN BERNARDINO

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## **LIST OF ABBREVIATED TERMS**

(1) Reference ADT Average Daily Traffic California Vehicle Noise Calveno **CEQA** California Environmental Quality Act **CNEL** Community Noise Equivalent Level dBA A-weighted decibels EPA **Environmental Protection Agency FHWA** Federal Highway Administration FTA **Federal Transit Administration INCE** Institute of Noise Control Engineering Equivalent continuous (average) sound level  $\mathsf{L}_{\mathsf{eq}}$ Maximum level measured over the time interval  $L_{\text{max}}$ Minimum level measured over the time interval  $L_{min}$ mph Miles per hour NR**Noise Reduction EVERHOME SUITES (CUP22-18)** Project **REMEL** Reference Energy Mean Emission Level STC **Sound Transmission Class** 



## **EXECUTIVE SUMMARY**

Urban Crossroads, Inc. has prepared this noise study to evaluate the future noise exposure of the EVERHOME SUITES (CUP22-18) ("Project"). The Project site is located at 898 E. Harriman Place (APN 028-136-127), north of Harriman Place, in the City of San Bernardino. The Project consists of the development of a 121-room hotel. This noise impact analysis was prepared to satisfy the City of San Bernardino noise level standards.

#### **EXTERIOR NOISE LEVELS**

The primary noise source affecting the Project site is traffic on Harriman Place. Based on a traffic noise analysis noise levels at the building façades will reach noise levels of up to 63.5 dBA CNEL.

#### **INTERIOR NOISE LEVELS**

Based on the analysis herein, assuming standard construction with windows in a closed position, interior noise level will range from 29 to 38.3 dBA CNEL at first-floor locations, 33.7 to 38.2 dBA CNEL at second-floor locations, 36.6 to 38.2 dBA CNEL at third-floor locations, 36.5 to 38.1 dBA CNEL at fourth-floor locations with in comply with the City of San Bernardino 45 dBA CNEL standard with windows in a closed position and mechanical ventilation, using standard construction. An interior noise analysis is provided in this noise study to demonstrate the Project satisfies the State of California and City of San Bernardino interior noise level standards (1) (2).

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## 1 INTRODUCTION

This noise analysis has been completed to assess noise exposure of the proposed EVERHOME SUITES (CUP22-18) ("Project"). This noise study briefly describes the proposed Project, provides information regarding noise and vibration fundamentals, describes the applicable regulatory setting, provides the study methods and procedures for the traffic noise analysis, and evaluates the future exterior noise environment.

## 1.1 SITE LOCATION

The Project site is located at 898 E. Harriman Place (APN 028-136-127). The Project is located on a vacant parcel between an existing Best Buy and Residence Inn, and north of Harriman Place, in the City of San Bernardino, as shown on Exhibit 1-A.

## 1.2 PROJECT DESCRIPTION

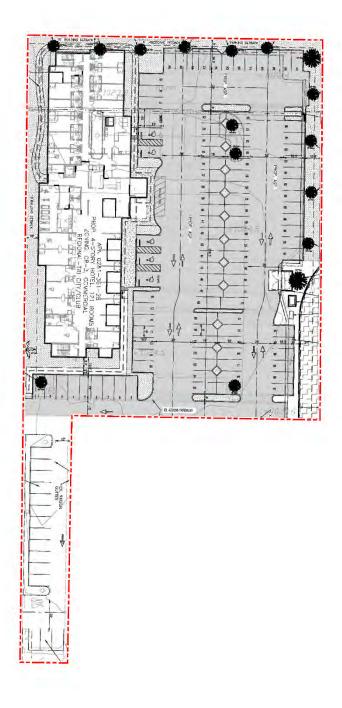
The proposed Project consists of the development of 121-room hotel. The Project is shown on Exhibit 1-B.





**EXHIBIT 1-A: LOCATION MAP** 

## EXHIBIT 1-B: SITE PLAN





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## 2 FUNDAMENTALS

Noise has been simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

**EXHIBIT 2-A: TYPICAL NOISE LEVELS** 

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140		
NEAR JET ENGINE		130	INTOLERABLE OR	
		120	DEAFENING	HEARING LOCK
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100		
GAS LAWN MOWER AT 1m (3 ft)		90	VERY NOISY	
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80	Tani noisi	
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	1000	SPEECH INTERFERENCE SLEEP DISTURBANCE
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60	LOUD	
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40	MODERATE	
QUIET SUBURBAN NIGHTTIME	LIBRARY	30		
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20	FAINT	NO EFFECT
	BROADCAST/RECORDING STUDIO	10		
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0.0	VERY FAINT	

Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974.

## 2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (3) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA

at approximately 100 feet, which can cause serious discomfort. (4) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

## 2.2 Noise Descriptors

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most commonly used figure is the equivalent level ( $L_{eq}$ ). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in Aweighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than the peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA Leq sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA Leq sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise-sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The City of San Bernardino relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

## 2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors.

#### 2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (5)

### 2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a

reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source and 7.5 dB per doubling of distance from a stationary source. (6)

#### 2.3.3 ATMOSPHERIC EFFECTS

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (5)

#### 2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby resident. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The FHWA does not consider the planting of vegetation to be a noise abatement measure. (6)

#### 2.4 TRAFFIC NOISE PREDICTION

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway. Per the *Highway Traffic Noise Analysis and Abatement Policy and Guidance*, provided by the Federal Highway Administration (FHWA), the level of traffic noise depends on three primary factors: the volume of the traffic, the speed of the traffic, and the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. (6) A doubling of the traffic volume, assuming that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also influence community noise levels. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise level impacts will increase.

## 2.5 Noise Control

Noise control is the process of obtaining an acceptable noise environment for an observation point or receiver by controlling the noise source, transmission path, receiver, or all three. This concept is known as the source-path-receiver concept. In general, noise control measures can be applied to these three elements.

## 2.6 Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (6)

#### 2.7 LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (7)

## 2.8 COMMUNITY RESPONSE TO NOISE

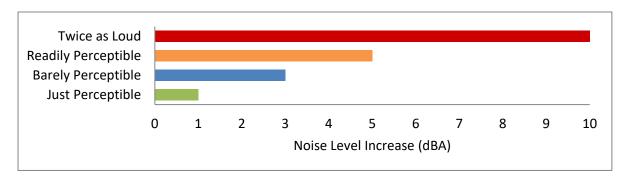
Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon everyone's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

- Fear associated with noise producing activities;
- Socio-economic status and educational level;
- Perception that those affected are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Belief that the noise source can be controlled.

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. (8) Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of

one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. (8)

Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3 dBA is considered *barely perceptible*, and a change of 5 dBA is considered *readily perceptible*. (6)



**EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION** 

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## 3 REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

## 3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research. (9) The purpose of the Noise Element is to *limit the exposure of the community to excessive noise levels*. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

#### 3.2 STATE OF CALIFORNIA BUILDING CODE

The State of California's noise insulation standards for all residential units are codified in the California Code of Regulations (CCR), Title 24, Building Standards Administrative Code, Chapter 12, Section 1206.4, Allowable interior noise level. These noise standards are applied to new construction that contains dwelling units or sleeping units, such as residential and hotel or motel uses, in California for controlling interior noise levels resulting from exterior noise sources. For new buildings, the acceptable interior noise limit is 45 dBA CNEL in habitable rooms (10).

## 3.3 CITY OF SAN BERNARDINO GENERAL PLAN NOISE ELEMENT

The City of San Bernardino General Plan Noise Element identifies several policies to minimize the impacts of excessive noise levels throughout the community. (11) The Noise Element provides policy guidance which addresses the generation, mitigation, avoidance, and the control of excessive noise. To protect City of San Bernardino residents from excessive noise levels, the Noise Element contains the following three goals:

- 14.1 Ensure that residents are protected from excessive noise through careful land planning.
- 14.2 Encourage the reduction of noise from transportation-related noise sources such as motor vehicles, aircraft operations, and railroad movements.
- 14.3 Protect residents from the negative effects of "spill over" or nuisance noise.

The noise policies specified in the City of San Bernardino Noise Element provide the guidelines necessary to satisfy these goals. To ensure that residents are not exposed to excessive noise levels (Goal 14.1), Policies 14.1.1 to 14.1.4 indicate that sensitive land uses such as housing, health care facilities, schools, libraries, and religious facilities should not experience exterior noise levels greater than 65 dBA LDN for exterior areas and 45 dBA LDN for interior areas. As discussed in Section 2.2 the more conservative CNEL descriptor is used in this analysis, and therefore, the exterior noise level criteria of 65 dBA CNEL and interior noise level criteria of 45 dBA CNEL shall apply to sensitive land uses. Policies 14.2.1 to 14.2.19 outline the transportation-related guidelines and mitigation strategies the City uses to satisfy Goal 14.2. To protect residents from sources of operational and construction noise (Goal 14.3), the Noise Element includes Policies 14.3.1 to 14.3.8 to adopt a Noise Ordinance and ensure noise issues between land uses are reduced. (11)

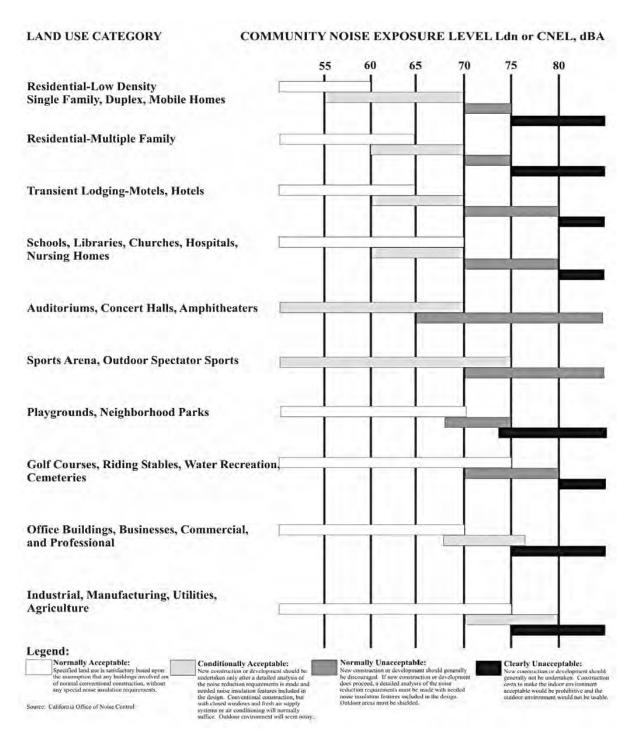
#### 3.2.1 LAND USE COMPATIBILITY

The noise criteria identified in the City of San Bernardino Noise Element (Figure N-1) are guidelines to evaluate the land use compatibility of transportation-related noise. The compatibility criteria, shown on Exhibit 3-A, provides the City with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels. The Land Use Compatibility for Community Noise Exposure guidelines indicate that industrial land uses, such as the Project, are considered normally acceptable with noise levels below 75 dBA CNEL and conditionally acceptable with noise levels of less than 80 dBA CNEL.

#### **3.2.2** Transportation Noise Standards

To encourage the reduction of noise from transportation-related noise sources such as motor vehicles, aircraft operations and railroad movements (Goal 14.2), Table N-3 of the City of San Bernardino General Plan Noise Element, shown on Exhibit 3-B, identifies a maximum allowable exterior noise level of 65 dBA CNEL and an interior noise level limit of 45 dBA CNEL for new residential developments.

**EXHIBIT 3-A: LAND USE COMPATIBILITY FOR COMMUNITY NOISE EXPOSURE** 



**EXHIBIT 3-B: INTERIOR AND EXTERIOR NOISE STANDARDS** 

	Land Use	CNEL	(dBA)
Categories	Uses	Interior <sup>1</sup>	Exterior <sup>2</sup>
Residential	Single and multi-family, duplex	45 <sup>3</sup>	65
	Mobile homes		65 <sup>4</sup>
	Hotel, motel, transient housing	45	
	Commercial retail, bank, restaurant	55	
	Office building, research and	50	
	development, professional offices		
	Amphitheater, concert hall, auditorium,	45	
Commercial	movie theater		
	Gymnasium (Multipurpose)	50	
	Sports Club	55	
	Manufacturing, warehousing, wholesale,	65	
	utilities		
	Movie Theaters	45	
Institutional/	Hospital, school classrooms/playgrounds	45	65
Public	Church, library	45	
Open Space	Parks		65

<sup>&</sup>lt;sup>1</sup> Indoor environment excluding: bathrooms, kitchens, toilets, closets, and corridors

- Private yard of single-family dwellings
- Multi-family private patios or balconies accessed from within the dwelling (Balconies 6 feet deep or less are exempt)
- Mobile home parks
- Park picnic areas
- School playgrounds
- Hospital patios

Source: City of San Bernardino General Plan Noise Element, Table N-3.

<sup>&</sup>lt;sup>2</sup> Outdoor environment limited to:

<sup>&</sup>lt;sup>3</sup> Noise level requirement with closed windows, mechanical ventilation or other means of natural ventilation shall be provided as per Chapter 12, Section 1205 of the Uniform Building Code.

<sup>&</sup>lt;sup>4</sup> Exterior noise levels should be such that interior noise levels will not exceed 45 dBA CNEL.

## 3.3 Construction Noise Standards

To control noise impacts associated with the construction of the proposed Project, the City of San Bernardino Municipal Code has established limits to the hours of operation. Section 8.54.070 the City of San Bernardino Municipal Code, provided in Appendix 3.1, indicates that construction activity is restricted to the hours within 7:00 a.m. and 8:00 p.m. However, neither the General Plan nor Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a *substantial temporary or periodic noise increase*. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* is used for analysis of daytime construction impacts, as discussed below.

According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA Leg as a reasonable threshold for noise sensitive residential land use (12 p. 179).

### 3.4 VIBRATION STANDARDS

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration (12).

To analyze vibration impacts originating from the operation and construction of the EVERHOME SUITES (CUP22-18), vibration-generating activities are appropriately evaluated against standards established under a City's Municipal Code, if such standards exist. However, the City of San Bernardino does not identify specific vibration level limits. Therefore, for analysis purposes, the Caltrans *Transportation and Construction Vibration Guidance Manual*, (13 p. 38) Table 19, vibration damage are used in this noise study to assess potential temporary construction-related impacts at adjacent building locations. The nearest noise sensitive buildings adjacent to the Project site can best be described as "older residential structures" with a maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec).

## 3.5 SAN BERNARDINO INTERNATIONAL AIRPORT (SBIA)

The San Bernardino International Airport (SBIA) is located approximately 1.6 miles southeast of the Project site. This places the Project site within the SBIA Influence Area. The SBIA was initially built as Norton Air Force Base by the United States Air Force (USAF). Under the Base Realignment

and Closure Act of 1990, Norton Air Force base was closed and disposed of by the USAF for a civilian aviation reuse in 1994 and transferred to the San Bernardino International Airport Authority (SBIAA). The SBIAA operates the facility as a public-use general aviation airport that accommodates aircraft ranging from piston-powered propeller aircraft to multi-engine jet aircraft including large air cargo aircraft (14). The latest aircraft noise contour boundaries for the SBIA were published by the SBIAA on July 2, 2019, as part of the Eastgate Air Cargo Facility Final Environmental Assessment (14). Figure 4-6 of the Final Environmental Assessment describes the Proposed Project CNEL Contours for the SBIA. The future SBIA noise level contours boundaries representing approximately 87,500 annual aircraft operations are shown on Exhibit 3-C.

As shown on Exhibit 3-C the Project land uses are generally located outside the 60 dBA CNEL noise level contours of the SBIA. Therefore, the Project land use is considered *normally acceptable* according to the City of San Bernardino *Community Noise and Land Use Compatibility* guidelines as shown on Exhibit 3-A.

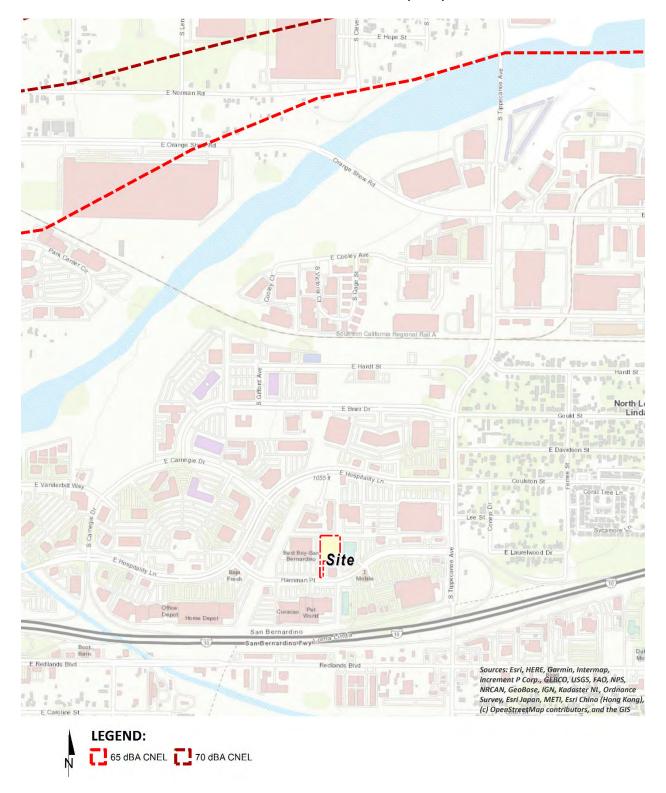


EXHIBIT 3-C: SAN BERNARDINO INTERNATIONAL AIRPORT (SBIA) NOISE LEVEL CONTOURS

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## 4 METHODS AND PROCEDURES

The following section outlines the methods and procedures used to model and analyze the future traffic noise environment.

## 4.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The estimated roadway noise impacts from vehicular traffic were calculated using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (15) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (16) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period.

## 4.2 ON-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

The primary roadways of concern affecting the Project site is Harriman Place. While Interstate 10 (I-10) is south of the Project site, I-10 is over 500 feet away and is a only secondary noise source at this location. The roadway traffic noise parameters including the average daily traffic (ADT) volumes used for this study are presented on Table 4-1. Based on the City of San Bernardino Circulation Plan, Harriman Place is classified as a 4-lane Secondary Arterial. (17) To predict the future on-site noise environment at the Project site including the daily volume thresholds were developed based on the methodologies in FHWA simplified capacity highway manual. (18) For the purposes of this analysis, soft site conditions were used to analyze the onsite traffic noise impacts for the Project. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (19)

**TABLE 4-1: ON-SITE ROADWAY PARAMETERS** 

Roadway	Lanes	Classification <sup>1</sup>	Maximum Daily Traffic Volume <sup>2</sup>	Posted Speed Limit (mph) <sup>3</sup>	Site Conditions
Harriman Pl.	4	Secondary Arterial	30,000	35	Soft

<sup>&</sup>lt;sup>1</sup> Source: FHWA Simplified Capacity Highway Manual.

Table 4-2 presents the time-of-day vehicle splits by vehicle type, and Table 4-3 presents the total traffic flow distributions (vehicle mixes) used for this analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA Model based on roadway types.

**TABLE 4-2: TIME OF DAY VEHICLE SPLITS** 

Time Devied	Vehicle Type				
Time Period	Autos	Medium Trucks	Heavy Trucks		
Daytime (7am-7pm)	77.5%	84.8%	86.5%		
Evening (7pm-10pm)	12.9%	4.9%	2.7%		
Nighttime (10pm-7am)	9.6%	10.3%	10.8%		
Total:	100.0%	100.0%	100.0%		

Source: Typical Southern California vehicle mix.

TABLE 4-3: DISTRIBUTION OF TRAFFIC FLOW BY VEHICLE TYPE (VEHICLE MIX)

Roadway	1	Total		
Classification	Autos	Medium Trucks	Heavy Trucks	Total
All Roadways	97.42%	1.84%	0.74%	100.00%

<sup>&</sup>lt;sup>1</sup> Source: Typical Southern California vehicle mix.

To predict the future noise environment within the Project site, coordinate information was collected to identify the noise transmission path between the noise source and receiver. The coordinate information is based on the site plan showing the plotting of each building in relationship to adjacent analyzed roadways, as shown in Appendix 4.1. The plans are used to identify the relationship between the roadway centerline elevation, the pad elevation and the centerline distance to the noise barrier, and the building façade. The first floor and exterior receivers were placed five feet above the existing ground elevation.

<sup>&</sup>lt;sup>2</sup> Source: City of San Bernardino General Plan.

<sup>&</sup>lt;sup>3</sup> Posted speed limit.

## 5 ON-SITE TRAFFIC NOISE IMPACTS

An on-site exterior noise impact analysis has been completed to determine the traffic noise levels and to identify if any noise abatement measures are necessary for the proposed EVERHOME SUITES (CUP22-18) Project to comply with the zoning and General Plan land use designation. The primary source of noise impacting the Project site is traffic noise from Harriman Place. Additionally, the proposed hotel use does not include an exterior uses areas, thus this analysis presents the exterior analysis to provide noise levels at the building façades for evaluating interior noise levels.

## 5.1 ON-SITE EXTERIOR NOISE ANALYSIS

Using the FHWA Traffic Noise Model (TNM) noise model and the parameters outlined in Section 4, the expected future exterior noise levels were calculated. Table 5-1 presents a summary of future exterior noise levels. The on-site traffic noise level impacts indicate that the unmitigated exterior noise levels will range from 60.5 to 63.5 dBA CNEL. The on-site exterior traffic noise calculations are included in Appendix 5.1.

**TABLE 5-1: EXTERIOR NOISE LEVELS** 

Room	Roadway	Unabated Exterior Noise Level (dBA CNEL)
132	Harriman Pl.	63.5
232	Harriman Pl.	63.5
219	Harriman Pl.	63.5
332	Harriman Pl.	63.5
319	Harriman Pl.	63.5
432	Harriman Pl.	63.5
419	Harriman Pl.	60.5

<sup>&</sup>lt;sup>1</sup> Exterior noise level calculations are included Appendix 5.1.

According to the *Noise Levels and Land Use Compatibility Guidelines* (shown on Exhibit 3-A) in the City of San Bernardino Noise Element, the proposed Project hotel land use are normally compatible with exterior noise levels up to 65 dBA CNEL and interior noise level of 45 dBA CNEL. Based on the exterior noise levels the following analysis demonstrates the Project will comply with the City's interior noise level standard of 45 dBA CNEL.

## 5.2 ON-SITE INTERIOR NOISE ANALYSIS

To ensure that the interior noise levels comply with the City of San Bernardino 45 dBA CNEL interior noise level standards, future noise levels were calculated at the first, second, third, and forth floor building façades.

#### **5.2.1** Noise Reduction Methodology

The interior noise level is the difference between the predicted exterior noise level at the building façade and the noise reduction of the structure. Typical building construction will provide a Noise Reduction (NR) of approximately 12 dBA with "windows open" and a minimum 25 dBA noise reduction with "windows closed" (20). However, to maintain a windows closed position, mechanical ventilation, that provides heating and cooling is necessary.

#### **5.2.2** Interior Noise Level Assessment

Based on Table 5-1, the future unmitigated noise levels at the first-floor building façade are expected to range from 60.5 to 63.5 CNEL. The first-floor interior noise level analysis, shown in Table 5-2, demonstrates that with windows in the closed position, interior noise levels would range from 29.0 to 38.3 CNEL. The Project is capable of using the windows closed position for analysis as the units currently have mechanical ventilation with heating and cooling. Therefore, the City of San Bernardino 45 CNEL interior noise standards can be satisfied using standard windows in a closed position.

TABLE 5-2: FIRST-FLOOR INTERIOR NOISE IMPACTS

Room	Noise Level at Façade <sup>1</sup>	Required Interior Noise Reduction <sup>2</sup>	Interior Noise Reduction <sup>3</sup>	Upgraded Windows <sup>4</sup>	Interior Noise Level <sup>5</sup>	Threshold	Threshold Exceeded?
132	63.3	18.3	25.0	No	38.3	45	No
232	63.3	18.3	25.0	No	38.3	45	No
219	60.0	15.0	25.0	No	35.0	45	No
332	63.2	18.2	25.0	No	38.2	45	No
319	56.0	11.0	25.0	No	31.0	45	No
432	63.3	18.3	25.0	No	38.3	45	No
419	54.0	9.0	25.0	No	29.0	45	No

<sup>&</sup>lt;sup>1</sup> Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).

 $<sup>^{\</sup>rm 2}$  Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.

<sup>&</sup>lt;sup>3</sup> Minimum interior noise reduction based upon 25 dBA CNEL reduction from standard construction.

<sup>&</sup>lt;sup>4</sup> Does the required interior noise reduction trigger upgraded windows with a minimum STC rating of greater than 27?

<sup>&</sup>lt;sup>5</sup> Estimated interior noise level with minimum STC rating for all windows.

Based on Table 5-3, the future unmitigated noise levels at the second-floor building façade are expected to range from 58.7 to 63.2 CNEL. The second-floor interior noise level analysis, shown in Table 5-3, demonstrates that with windows in the closed position, interior noise levels would range from 33.7 to 38.2 CNEL. The Project is capable of using the windows closed position for analysis as the units currently have mechanical ventilation with heating and cooling. Therefore, the City of San Bernardino 45 CNEL interior noise standards can be satisfied using standard windows in a closed position.

TABLE 5-3: SECOND-FLOOR INTERIOR NOISE IMPACTS

Room	Noise Level at Façade <sup>1</sup>	Required Interior Noise Reduction <sup>2</sup>	Interior Noise Reduction <sup>3</sup>	Upgraded Windows <sup>4</sup>	Interior Noise Level <sup>5</sup>	Threshold	Threshold Exceeded?
132	63.2	18.2	25.0	No	38.2	45	No
232	63.2	18.2	25.0	No	38.2	45	No
219	61.7	16.7	25.0	No	36.7	45	No
332	63.2	18.2	25.0	No	38.2	45	No
319	61.7	16.7	25.0	No	36.7	45	No
432	63.2	18.2	25.0	No	38.2	45	No
419	58.7	13.7	25.0	No	33.7	45	No

<sup>&</sup>lt;sup>1</sup> Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).

Based on Table 5-4, the future unmitigated noise levels at the third-floor building façade are expected to range from 61.6 to 63.2 CNEL. The third-floor interior noise level analysis, shown in Table 5-4, demonstrates that with windows in the closed position, interior noise levels would range from 36.6 to 38.2 CNEL. The Project is capable of using the windows closed position for analysis as the units currently have mechanical ventilation with heating and cooling. Therefore, the City of San Bernardino 45 CNEL interior noise standards can be satisfied using standard windows in a closed position.

<sup>&</sup>lt;sup>2</sup> Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.

<sup>&</sup>lt;sup>3</sup> Minimum interior noise reduction based upon 25 dBA CNEL reduction from standard construction.

<sup>&</sup>lt;sup>4</sup> Does the required interior noise reduction trigger upgraded windows with a minimum STC rating of greater than 27?

<sup>&</sup>lt;sup>5</sup> Estimated interior noise level with minimum STC rating for all windows.

**TABLE 5-4: THIRD-FLOOR INTERIOR NOISE IMPACTS** 

Room	Noise Level at Façade <sup>1</sup>	Required Interior Noise Reduction <sup>2</sup>	Interior Noise Reduction <sup>3</sup>	Upgraded Windows <sup>4</sup>	Interior Noise Level <sup>5</sup>	Threshold	Threshold Exceeded?
132	63.2	18.2	25.0	No	38.2	45	No
232	63.2	18.2	25.0	No	38.2	45	No
219	61.7	16.7	25.0	No	36.7	45	No
332	63.1	18.1	25.0	No	38.1	45	No
319	61.6	16.6	25.0	No	36.6	45	No
432	63.2	18.2	25.0	No	38.2	45	No
419	61.6	16.6	25.0	No	36.6	45	No

<sup>&</sup>lt;sup>1</sup> Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).

Based on Table 5-5, the future unmitigated noise levels at the fourth-floor building façade are expected to range from 61.5 to 63.1 CNEL. The fourth-floor interior noise level analysis, shown in Table 5-4, demonstrates that with windows in the closed position, interior noise levels would range from 36.5 to 38.1 CNEL. The Project is capable of using the windows closed position for analysis as the units currently have mechanical ventilation with heating and cooling. Therefore, the City of San Bernardino 45 CNEL interior noise standards can be satisfied using standard windows in a closed position.

**TABLE 5-5: FOURTH-FLOOR INTERIOR NOISE IMPACTS** 

Room	Noise Level at Façade <sup>1</sup>	Required Interior Noise Reduction <sup>2</sup>	Interior Noise Reduction <sup>3</sup>	Upgraded Windows <sup>4</sup>	Interior Noise Level <sup>5</sup>	Threshold	Threshold Exceeded?
132	63.1	18.1	25.0	No	38.1	45	No
232	63.1	18.1	25.0	No	38.1	45	No
219	61.6	16.6	25.0	No	36.6	45	No
332	63.0	18.0	25.0	No	38.0	45	No
319	61.6	16.6	25.0	No	36.6	45	No
432	63.1	18.1	25.0	No	38.1	45	No
419	61.5	16.5	25.0	No	36.5	45	No

<sup>&</sup>lt;sup>1</sup> Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).

<sup>&</sup>lt;sup>2</sup> Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.

<sup>&</sup>lt;sup>3</sup> Minimum interior noise reduction based upon 25 dBA CNEL reduction from standard construction.

<sup>&</sup>lt;sup>4</sup> Does the required interior noise reduction trigger upgraded windows with a minimum STC rating of greater than 27?

<sup>&</sup>lt;sup>5</sup> Estimated interior noise level with minimum STC rating for all windows.

<sup>&</sup>lt;sup>2</sup> Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.

<sup>&</sup>lt;sup>3</sup> Minimum interior noise reduction based upon 25 dBA CNEL reduction from standard construction.

<sup>&</sup>lt;sup>4</sup> Does the required interior noise reduction trigger upgraded windows with a minimum STC rating of greater than 27?

<sup>&</sup>lt;sup>5</sup> Estimated interior noise level with minimum STC rating for all windows.

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- 2. County of San Bernardino. Noise Ordinance 83.01.080.
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- 4. Environmental Protection Agency Office of Noise Abatement and Control. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. March, 1974. EPA/ONAC 550/9/74-004.
- 5. California Department of Transportation Environmental Program. *Technical Noise Supplement A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA: s.n., September 2013.
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- 8. **U.S. Environmental Protection Agency Office of Noise Abatement and Control.** *Noise Effects Handbook-A Desk Reference to Health and Welfare Effects of Noise.* October 1979 (revised July 1981). EPA 550/9/82/106.
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- State of California. California Code of Regulations, Title 24, Part 2, Volume 1, Chapter 12, Section 1206.4, Allowable Interior Noise Level. *ICC Digital Coes*. [Online] 2022. [Cited: January 23, 2023.] https://codes.iccsafe.org/content/CABC2022P1/chapter-12-interior-environment#CABC2022P1\_Ch12\_Sec1206.
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- 13. **California Department of Transportation.** *Transportation and Construction Vibration Guidance Manual.* April 2020.
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- 17. County of San Bernardino . TM-1 Roadway Network. October 2020.
- 18. **Federal Highway Administration.** *Simplified Highway Capacity Calculation Method for the Highway Performance Monitoring System.* 2017.

- 19. **California Department of Transportation.** *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report.* June 1995. FHWA/CA/TL-95/23.
- 20. U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch. Highway Traffic Noise Analysis and Abatement Policy and Guidance. December 2011.

## 7 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed EVERHOME SUITES (CUP22-18) Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (619) 778-1971.

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## **EDUCATION**

Bachelor of Science in Urban and Regional Planning California Polytechnic State University, Pomona • June 2000

## **PROFESSIONAL AFFILIATIONS**

ASA – Acoustical Society of America APA – American Planning Association AWMA – Air and Waste Management Association

## **PROFESSIONAL CERTIFICATIONS**

Approved Acoustical Consultant • County of San Diego FHWA Traffic Noise Model of Training • November 2004 CadnaA Basic and Advanced Training Certificate • October 2008 This page intentionally left blank.

# APPENDIX 3.1:

**CITY OF SAN BERNARDINO NOISE ORDINANCE** 



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# Chapter 8.54 NOISE CONTROL

#### Sections:

8.54.010	Purpose and Intent
8.54.020	Prohibited Acts
8.54.030	Issuance of Written Notice and Impoundment
8.54.040	Cost Recovery for Second Response
8.54.050	Controlled Hours of Operation
8.54.060	Exemptions
8.54.070	Disturbances From Construction Activity
8.54.080	Violation - Penalty
8.54.090	Severability

#### 8.54.010 Purpose and Intent

- A. It is the purpose and intent of these regulations to establish community-wide noise standards. It is further the purpose of these regulations to recognize that the existence of excessive noise within the City is a condition which is detrimental to the health, safety, welfare, and quality of life of the citizens and shall be regulated in the public interest.
- B. In furtherance of the foregoing purpose, it is found and declared as follows:
  - The making, creation, or maintenance of such loud, unnecessary, unnatural, or unusual noises that are prolonged, unusual, annoying, disturbing and unnatural in their time, place, and use are a detriment to public health, comfort, convenience, safety, general welfare, and the peace and quiet of the City and its inhabitants; and
  - 2. The public interest and necessity of the provisions and prohibitions hereinafter contained and enacted is declared as a matter of legislative determination and public policy, and it is further declared that the provisions and prohibitions hereinafter contained and enacted are in pursuance of, and for thepurpose of, securing and promoting the public health, comfort, convenience, safety, general welfare and property, and the peace and quiet of the City and its inhabitants.

(Ord. MC-1246, 5-23-07; Ord. 1925, 11-06-51)





#### 8.54.020 Prohibited Acts

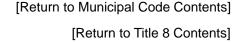
It shall be unlawful for any person to engage in the following activities:

- A. Sounding any horn or signal device on any automobile, motorcycle, bus, or other motor vehicle in any other manner or circumstances or for any other purpose than required or permitted by the California Vehicle Code, or other laws, for an unnecessary or unreasonable period of time;
- B. Racing the engine of any motor vehicle while the vehicle is not in motion, except when necessary to do so in the course of repairing, adjusting, or testing the same.
- C. Operating or permitting the use of any motor vehicle on any public right-of-way or public place or on private property within a residential zone for which the exhaust muffler, intake muffler, or any other noise abatement device has been modified or changed in a manner such that the noise emitted by the motor vehicle is increased above that emitted by the vehicle as originally manufactured.
- D. Using, operating, or permitting to be played, used or operated any radio receiving set, musical instrument, phonograph, or other sound amplification or production equipment for producing or reproducing sound in such a manner as to disturb the peace, quiet, or comfort of neighboring persons, or at any time with louder volume than is necessary for the convenient hearing of the person or persons who are in the room, vehicle, or other enclosure in which such machine or device is operated, and who are voluntary listeners thereto and that is:
  - 1. Plainly audible across property boundaries;
  - 2. Plainly audible through partitions common to two residences within a building;
  - 3. Plainly audible at a distance of 50 feet in any direction from the source of the music or sound between the hours of 8:00 a.m. and 10:00 p.m.; or
  - 4. Plainly audible at a distance of 25 feet in any direction from the source of the music or sound between the hours of 10:00 p.m. and 8:00 a.m.
- E. The intentional sounding or permitting the sounding outdoors of any fire, burglar, or civil defense alarm, siren, whistle, or any motor vehicle burglar alarm, except for emergency purposes or for testing, unless such alarm is terminated within fifteen minutes of activation.



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- F. Yelling, shouting, whistling, or singing in a loud and boisterous manner on the public streets so as to disturb the quiet, comfort, or repose of persons in any office, dwelling, hotel, or other type of residence, or neighborhood.
- G. The keeping of any animal, fowl, or bird which by causing frequent or long continued noise disturbs the comfort, quiet, or repose of any person or neighborhood.
- H. The unnecessary or excessive blowing of whistles, sounding of horns, ringing of bells, or use of signaling devices by operators of trains, motor trucks, and other transportation equipment.
- I. The creation of loud and excessive noise in connection with the loading or unloading of motor trucks and other vehicles.
- J. The shouting and crying of peddlers, hawkers, and vendors which disturbs the peace and quiet of any considerable number of persons or neighborhood.
- K. The doing of automobile, automotive body or fender repair work, or other work on metal objects and metal parts in a residential district so as to cause loud and excessive noise which disturbs the peace, quiet, and repose of any person occupying adjoining or closely situated property or neighborhood.
- L. The operation or use between the hours of 10:00 p.m. and 8:00 a.m. of any pile driver, steam shovel, pneumatic hammers, derrick, steam or electric hoist, power driven saw, or any other tool or apparatus, the use of which is attended by loud and excessive noise, except with the approval of the City.
- M. Creating excessive noise adjacent to any school, church, court, or library while the same is in use, or adjacent to any hospital or care facility, which unreasonably interferes with the workings of such institution, or which disturbs or unduly annoys patients in the hospital, provided conspicuous signs are displayed in such streets indicating the presence of a school, institution of learning, church, court, or hospital.
- N. Making or knowingly and unreasonably permitting to be made any unreasonably loud, unnecessary, or unusual noise that disturbs the comfort, repose, health, peace and quiet, or which causes discomfort or annoyance to any reasonable person of normal sensitivity. The characteristics and conditions that may be considered in determining whether this section has been violated include, but are not limited to, the following:
  - 1. The level of noise:





- 2. The level of background noise;
- 3. The proximity of the noise to sleeping facilities;
- 4. The nature and zoning of the areas within which the noise emanates;
- 5. The density of the inhabitation of the area within which the noise emanates;
- 6. The time of day or night the noise occurs;
- 7. The duration of the noise;
- 8. Whether the noise is recurrent, intermittent, or constant; and
- 9. Whether the noise is produced by a commercial or noncommercial activity.

(Ord. MC-1246, 5-23-07; Ord. 2102, 4-03-56; Ord. 1925, 11-06-51)

#### 8.54.030 Issuance of Written Notice and Impoundment

- A. Any officer who encounters a violation of this section may issue a written notice to the Responsible Person demanding immediate abatement of the violation. The written notice shall inform the recipient that a second violation of the same provision within a seventy two (72) hour period may result in the issuance of a criminal citation, the imposition of criminal and civil penalties, and confiscation and impoundment, as evidence, of the components that are amplifying or transmitting the prohibited noise.
  - 1. Responsible Person means (a) any person who owns, leases, or is lawfully in charge of the property or motor vehicle where the noise violation takes place, or (b) any person who owns or controls the source of the noise or violation. If the Responsible Person is a minor, then the parent or guardian who has custody of the child at the time of the violation shall be the Responsible Person who is liable under this chapter.
- B. Any officer who encounters a second violation of this chapter within a seventy two (72) hour period following the issuance of a written notice is empowered to confiscate and impound, as evidence, any or all of the components amplifying or transmitting the sound. The immediate confiscation of a motor vehicle to which a component is attached may be made if the same may not be removed without causing harm to the vehicle or component.



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C. Any person claiming legal ownership of the items confiscated and impounded under this chapter may request the return of the item by filing a written request with the police department within seven (7) calendar days of the confiscation. Such requests shall be processed in accordance with the procedures adopted by the department.

(Ord. MC-1246, 5-23-07; Ord. MC-649, 1-04-89; Ord. 1925, 11-06-51)

#### 8.54.040 Cost Recovery for Second Response

- A. Whenever any officer issues a written notice to a responsible person to discontinue a noise violation, the Responsible Person shall be liable for the actual cost of each subsequent response required to abate the violation within seventy two (72) hours of the issuance of the written warning.
- B. The bill for the response charge shall be served upon the Responsible Person within thirty (30) days after the violation. If the Responsible Person has no last known business or residence address, the location of the violation shall be deemed to be the proper address for service. The bill shall include a notice of the right of the person being charged to request a hearing to dispute the imposition of the response charge or the amount of the charge.
- C. The response charge shall be deemed to be a civil debt to the City.

(Ord. MC-1246, 5-23-07; Ord. MC-460, 5-15-85; Ord. 1925, 11-06-51)

#### 8.54.050 Controlled Hours of Operation

It shall be unlawful for any person to engage in the following activities other than between the hours of 8:00 a.m. and 8:00 p.m. in residential zones and other than between the hours of 7:00 a.m. and 8:00 p.m. in all other zones:

- A. Operate or permit the use of powered model vehicles and planes.
- B. Load or unload any vehicle, or operate or permit the use of dollies, carts, forklifts, or other wheeled equipment that causes any impulsive sound, raucous, or unnecessary noise within one thousand (1,000) feet of a residence.
- C. Operate or permit the use of domestic power tools, or machinery or any other equipment or tool in any garage, workshop, house, or any other structure.
- D. Operate or permit the use of gasoline or electric powered leaf blowers, such as commonly used by gardeners and other persons for cleaning lawns, yards, driveways, gutters, and other property.

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- E. Operate or permit the use of privately operated street/parking lot sweepers or vacuums, except that emergency work and/or work necessitated by unusual conditions may be performed with the written consent of the City Manager.
- F. Operate or permit the use of electrically operated compressor, fan, and other similar devices.
- Operate or permit the use of any motor vehicle with a gross vehicle weight rating in excess of ten thousand (10,000) pounds, or of any auxiliary equipment attached to such a vehicle, including, but not limited to, refrigerated truck compressors for a period longer than fifteen (15) minutes in any hour while the vehicle is stationary and on a public right-of-way or public space except when movement of said vehicle is restricted by other traffic.
- H. Repair, rebuild, reconstruct, or dismantle any motor vehicle or other mechanical equipment or devices in a manner so as to be plainly audible across property lines.

(Ord. MC-1246, 5-23-07)

#### **8.54.060 Exemptions**

The following activities and noise sources shall be exempt from the provisions of this chapter:

- A. The use of horns, sirens, or other signaling or warning devices by persons vested with legal authority to use the same, and in pursuit of their lawful duties, such as on ambulances, fire, police, or other governmental or official equipment.
- B. Such noises as are an accompaniment and effect of a lawful business, commercial or industrial enterprise carried on in an area zoned for that purpose, except where there is evidence that such noise is a nuisance and that such a nuisance is a result of the employment of unnecessary and injurious methods of operation.
- C. Activities conducted on the grounds of any public or private school during regular hours of operation.
- D. Outdoor gatherings, public dances, shows, and sporting and entertainment events provided said events are authorized by the City.
- E. Activities conducted at public spaces during regular hours of operation.
- F. Any mechanical devices, apparatus, or equipment used, related to, or connected with emergency machinery, vehicle, or work.

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- G. Construction, repair, or excavation necessary for the immediate preservation of life or property.
- H. Construction, operation, maintenance, and repairs of equipment, apparatus, or facilities of park and recreation departments, public work projects, or essential public services and facilities, including, but not limited to, trash collection and those of public utilities subject to the regulatory jurisdiction of the California Public Utilities Commission.
- I. Construction, repair, or excavation work performed pursuant to a valid written agreement with the City, or any of its political subdivisions, which provides for noise mitigation measures.
- J. Any activity to the extent that regulation thereof has been preempted by State or Federal law.
- K. Sounds generated in connection with speech or communication protected by the United States Constitution or the California Constitution, except to the extent such sounds are subject to permissible time, place, and manner restrictions.

(Ord. MC-1246, 5-23-07)

## 8.54.070 Disturbances from Construction Activity

No person shall be engaged or employed, or cause any other person to be engaged or employed, in any work of construction, erection, alteration, repair, addition, movement, demolition, or improvement to any building or structure except within the hours of 7:00 a.m. and 8:00 p.m.

(Ord. MC-1246, 5-23-07)

#### 8.54.080 Violation - Penalty

Any person violating any of the provisions of this Chapter is guilty of an infraction or a misdemeanor, which upon conviction thereof is punishable in accordance with the provisions of Section 1.12.010 of this code.

(Ord. MC-1246, 5-23-07)

#### 8.54.090 Severability

The provisions of this Chapter are severable, and, if any sentence, section or other part of this Chapter should be found to be invalid, such invalidity shall not affect the remaining provisions, and the remaining provisions shall continue in full force and effect.

(Ord. MC-1246, 5-23-07)

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[Rev. June 2022]

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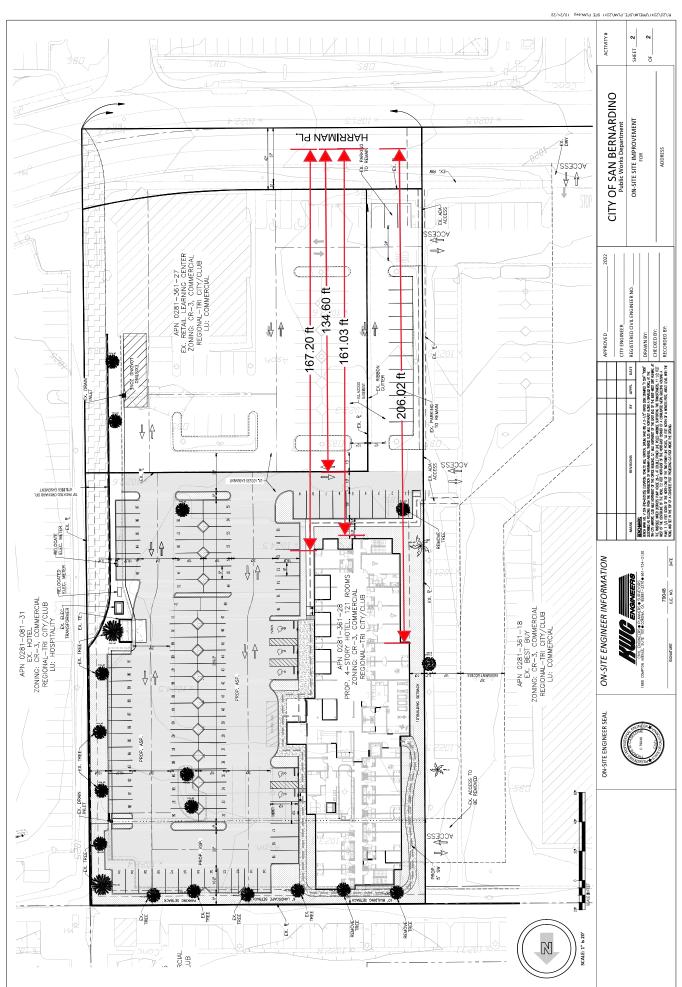
**APPENDIX 4.1:** 

**SITE PLAN** 



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## APPENDIX 5.1:

**ON-SITE TRAFFIC NOISE CALCULATIONS** 



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Scenario: Backyard No Wall Project Name: Everhome Suites Job Number: 15215 Road Name: Harriman Pl.

Lot No: 132					Analyst: A.Shami						
SITE	SPECIFIC INF	PUT DATA			NOISE MODEL INPUTS						
Highway Data				S	ite Con	ditions (F	Hard = 10, S	Soft = 15)			
Average Daily	Traffic (Adt): 5	5,800 vehicles	6				Auto	s <i>:</i> 15			
Peak Hour	Percentage:	10%			Me	dium Truc	ks (2 Axles	): 15			
Peak F	lour Volume:	580 vehicles	6		He	avy Truck	s (3+ Axles	): 15			
Ve	ehicle Speed:	35 mph		V	ehicle l	Mix					
Near/Far La	ne Distance:	32 feet				icleType	Day	Evening	Night	Daily	
Site Data							utos: 75.5			97.42%	
Ba	rrier Height:	0.0 feet			М	edium Tru	icks: 48.9	% 2.2%	48.9%	1.84%	
Barrier Type (0-V	•	0.0			ı	Heavy Tru	icks: 47.3	% 5.4%	47.3%	0.74%	
• • •	ist. to Barrier:	135.0 feet		<u> </u>	laica Sa	ource Ele	vations (in	foot)			
Centerline Dist.	to Observer:	161.0 feet			ioise sc	Autos:	•				
Barrier Distance	to Observer:	26.0 feet			Modiu	Autos. m Trucks:	*				
Observer Height	(Above Pad):	5.0 feet				ni Trucks. /y Trucks:	•		liustmen:	<i>t</i> · 0 0	
P	ad Elevation: 1	,024.0 feet			Tical	y Trucks.	1,030.01	0/440/10	ijadimom	0.0	
Ro	ad Elevation: 1	,022.0 feet		L	ane Eq		Distance (ir	r feet)			
Barr	ier Elevation: 1	,024.0 feet				Autos:					
	Road Grade: 1.0%					m Trucks:					
					Heav	y Trucks:	144.118				
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresnel	Barrier At	ten Bei	rm Atten	
Autos:	65.11	-3.23		-7.01		-1.20	-0.32	2 0.	000	0.000	
Medium Trucks:		-20.46		-7.00	)	-1.20	-0.3	9 0.	000	0.000	
Heavy Trucks:	80.05	-24.42		-7.00	)	-1.20	-0.6	1 0.	000	0.000	
Unmitigated Noise	e Levels (withou	ut Topo and I	barri	er attent	uation)						
VehicleType	Leq Peak Hour			Leq Ev	rening	Leq N	ight	Ldn	С	NEL	
Autos:	53.7	7	51.7		50.4		44.3	52.	8	53.4	
Medium Trucks:			42.3		34.8		43.5	49.		49.7	
Heavy Trucks:		1 .	43.4		40.0		44.6	50.	8	50.9	
Vehicle Noise:	55.2	2	52.7		50.8		49.0	56.	1	56.4	
Mitigated Noise L	evels (with Top	o and barrier	atte	nuation)							
VehicleType	Leq Peak Hour	Leq Day		Leq Ev	rening	Leq N	ight	Ldn	С	NEL	
Autos:			51.7		50.4		44.3	52.	8	53.4	
Medium Trucks:			42.3		34.8		43.5	49.		49.7	
Heavy Trucks:		1 .	43.4		40.0		44.6	50.	8	50.9	
Vehicle Noise:	55.2	2	52.7		50.8		49.0	56.	1	56.4	

Project Name: Everhome Suites Scenario: Backyard No Wall Road Name: Harriman Pl. Job Number: 15215

Lot No: 232					Analyst: A.Shami						
SITE	SPECIFIC INP	UT DATA				NC	ISE MOD	EL INF	PUTS		
Highway Data				Si	Site Conditions (Hard = 10, Soft = 15)						
Average Daily	Traffic (Adt): 5	,800 vehicles					Auto	s: 15			
Peak Hour	Percentage:	10%			Me	edium Truc	ks (2 Axles	<i>):</i> 15			
Peak F	Hour Volume:	580 vehicles			He	avy Truck	s (3+ Axles	): 15			
Ve	ehicle Speed:	35 mph		Ve	ehicle l	Mix					
Near/Far La	ne Distance:	32 feet			Veh	icleType	Day	Ever	ning N	light	Daily
Site Data						Au	utos: 75.5	% 14	.0%	10.5%	97.42%
Ва	rrier Height:	0.0 feet			М	ledium Tru	icks: 48.9	% 2	.2%	48.9%	1.84%
Barrier Type (0-W	_	0.0			ı	Heavy Tru	icks: 47.3	% 5	.4%	47.3%	0.74%
Centerline Di	ist. to Barrier:	135.0 feet		N	Noise Source Elevations (in feet)						
Centerline Dist.	to Observer:	161.0 feet		17.	0,50 00	Autos:	•				
Barrier Distance	to Observer:	26.0 feet			Mediu	m Trucks:	•				
Observer Height		5.0 feet				/y Trucks:	•		e Adjus	tment:	0.0
	ad Elevation: 1,0			_							
	ad Elevation: 1,0			Lâ	ane Eq		Distance (ir	teet)			
	ier Elevation: 1,0				Maril	Autos:					
	Road Grade: 1.0%					m Trucks:					
					пеач	ly Trucks.	144.170				
FHWA Noise Mod	el Calculations										
VehicleType	REMEL T	raffic Flow	Dis	stance	Finite	Road	Fresnel	Barrie	r Atten	Berr	n Atten
Autos:	65.11	-3.23		-7.02		-1.20	-0.18	3	0.000	)	0.000
Medium Trucks:		-20.46		-7.01		-1.20	-0.24		0.000		0.000
Heavy Trucks:	80.05	-24.42		-7.00		-1.20	-0.42	2	0.000	)	0.000
Unmitigated Noise	e Levels (withou	t Topo and I	barrie	er attenu	ation)						
VehicleType	Leq Peak Hour	Leq Day		Leq Eve	ening	Leq N	ight	Ldn		C٨	IEL
Autos:	53.7		51.7		50.3		44.3		52.7		53.4
Medium Trucks:	_		12.3		34.8		43.5		49.7		49.7
Heavy Trucks:			13.4		40.0		44.6		50.8		50.9
Vehicle Noise:	55.2	ţ	52.7		50.8		49.0		56.0		56.4
Mitigated Noise L	evels (with Topo	and barrier	attei	nuation)							
VehicleType	Leq Peak Hour	Leq Day		Leq Eve	ening	Leq N	ight	Ldn		C٨	IEL
Autos:			51.7		50.3		44.3		52.7		53.4
Medium Trucks:			12.3		34.8		43.5		49.7		49.7
Heavy Trucks:			13.4		40.0		44.6		50.8		50.9
Vehicle Noise:	55.2	į	52.7		50.8		49.0		56.0		56.4

Scenario: Backyard No Wall Road Name: Harriman Pl.

Lot No: 219

Project Name: Everhome Suites

Job Number: 15215 Analyst: A.Shami

SITE	SPECIFIC II	NPUT DATA		NOISE MODEL INPUTS							
Highway Data				Site Conditions	(Hard = 10, Sc)	oft = 15)					
Average Daily	Traffic (Adt):	5,800 vehicles			Autos:	15					
Peak Houl	r Percentage:	10%		Medium Tr	ucks (2 Axles):	15					
Peak H	Hour Volume:	580 vehicles		Heavy Tru	cks (3+ Axles):	15					
Ve	ehicle Speed:	35 mph	-	Vehicle Mix							
Near/Far La	ane Distance:	32 feet		VehicleType	e Day	Evening	Night	Daily			
Site Data					Autos: 75.5%	_	10.5%	97.42%			
Ba	arrier Height:	0.0 feet		Medium T	rucks: 48.9%	2.2%	48.9%	1.84%			
Barrier Type (0-V	•	0.0		Heavy T	rucks: 47.3%	5.4%	47.3%	0.74%			
Centerline D	ist. to Barrier:	135.0 feet	<del>,</del>	Noise Source El	levations (in fa	not)					
Centerline Dist.	to Observer:	161.0 feet		Auto	-	,					
Barrier Distance	to Observer:	26.0 feet		Medium Truck	•						
Observer Height	(Above Pad):	5.0 feet		Heavy Truck	,	Grade Adju	stment	. 0 0			
F	Pad Elevation:	1,029.5 feet		Tieavy Truck	3. 1,029.01	Orado riaja	Ott 11011t.	. 0.0			
Ro	ad Elevation:	1,021.0 feet	I	Lane Equivalent	t Distance (in i	feet)					
Barı	rier Elevation:	1,029.5 feet		Auto	s: 144.745						
	Road Grade:	1.0%		Medium Truck	s: 144.549						
				Heavy Truck	s: 144.219						
FHWA Noise Mod	lel Calculation	IS									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atte	n Ber	m Atten			
Autos:	65.11	-3.23	-7.03	3 -1.20	-0.15	0.00	00	0.000			
Medium Trucks:	74.83	-20.46	-7.02	2 -1.20	-0.20	0.00	00	0.000			
Heavy Trucks:	80.05	-24.42	-7.00	0 -1.20	-0.37	0.00	00	0.000			
Unmitigated Nois	e Levels (with	out Topo and I	parrier atten	uation)							
	1 5 1 11				N. 1.						

Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos	53.7	51.6	50.3	44.3	52.7	53.4					
Medium Trucks	46.1	42.2	34.7	43.5	49.7	49.7					
Heavy Trucks.	47.4	43.4	40.0	44.6	50.8	50.9					
Vehicle Noise	55.2	52.7	50.8	48.9	56.0	56.4					

Mitigated Noise Lo	Mitigated Noise Levels (with Topo and barrier attenuation)												
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL							
Autos:	53.7	51.6	50.3	44.3	52.7	53.4							
Medium Trucks:	46.1	42.2	34.7	43.5	49.7	49.7							
Heavy Trucks:	47.4	43.4	40.0	44.6	50.8	50.9							
Vehicle Noise:	55.2	52.7	50.8	48.9	56.0	56.4							

Scenario: Backyard No Wall

Road Name: Harriman Pl.

Project Name: Everhome Suites

Job Number: 15215

Lot No: 332 Analyst: A.Shami

Lot N	Lot No: 332					Analyst: A.Shami						
SITE	SPECIFIC INP	UT DATA			NO	ISE N	10DE	L INPUTS	5			
Highway Data			,	Site Con	ditions (H	lard =	10, So	ft = 15)				
Average Daily	Traffic (Adt): 5	,800 vehicles				,	Autos:	15				
Peak Hour	Percentage:	10%		Me	dium Truc	ks (2 A	(xles	15				
Peak F	lour Volume:	580 vehicles		He	avy Truck	s (3+ A	(xles	15				
Ve	ehicle Speed:	35 mph		Vehicle l	Vix							
Near/Far La	nne Distance:	32 feet			icleType		Day	Evening	Night	Daily		
Site Data						itos:	75.5%	14.0%	10.5%	97.42%		
Ва	rrier Height:	0.0 feet		М	edium Tru	cks:	48.9%	2.2%	48.9%	1.84%		
Barrier Type (0-W	_	0.0		I	Heavy Tru	cks:	47.3%	5.4%	47.3%	0.74%		
Centerline Di	ist. to Barrier:	135.0 feet		Noise Sc	ource Elev	ations	: (in fe	nat)				
Centerline Dist.	to Observer:	161.0 feet	_	10/30 00	Autos:		2.00					
Barrier Distance	to Observer:	26.0 feet		Mediu	m Trucks:		4.30					
Observer Height	(Above Pad):	5.0 feet			y Trucks:		0.01	Grade Adj	iustment	: 0.0		
P	ad Elevation: 1,	038.0 feet										
	ad Elevation: 1,			Lane Eq	uivalent D			eet)				
	ier Elevation: 1,				Autos:	145.6						
	Road Grade:	1.0%			m Trucks:	145.3						
				Heav	y Trucks:	144.6	599					
FHWA Noise Mode	el Calculations											
VehicleType	REMEL	Traffic Flow Di	istance	Finite	Road	Fresn	el	Barrier Atte	en Ber	m Atten		
Autos:	65.11	-3.23	-7.0	7	-1.20		-0.03	0.0	000	0.000		
Medium Trucks:	74.83	-20.46	-7.0	5	-1.20		-0.06	0.0	000	0.000		
Heavy Trucks:	80.05	-24.42	-7.0	3	-1.20		-0.16	0.0	000	0.000		
Unmitigated Noise	e Levels (withou	ıt Topo and barrı	ier atten	uation)								
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq Ni	ght		Ldn	CI	VEL		
Autos:		51.6		50.3		44.3	}	52.7	7	53.3		
Medium Trucks:				34.7		43.5		49.6		49.7		
Heavy Trucks:				40.0		44.6		50.8		50.9		
Vehicle Noise:	55.1	52.6		50.8		48.9	)	56.0	)	56.3		
Mitigated Noise Lo	evels (with Topo	o and barrier atte	enuation	ı)								
VehicleType	Leq Peak Hour	Leq Day	Leq E	vening	Leq Ni	ght		Ldn	CI	VEL		
Autos:		51.6		50.3		44.3		52.7	7	53.3		
Medium Trucks:				34.7		43.5		49.6		49.7		
Heavy Trucks:	47.4	43.4		40.0		44.6	i	50.8	3	50.9		

Vehicle Noise:

55.1

50.8

48.9

56.0

56.3

52.6

Project Name: Everhome Suites Scenario: Backyard No Wall Road Name: Harriman Pl. Job Number: 15215

Lot No: 319					Analyst: A.Shami						
SITE	SPECIFIC INP	UT DATA			NOISE MODEL INPUTS						
Highway Data				Si	Site Conditions (Hard = 10, Soft = 15)						
Average Daily	Traffic (Adt): 5	,800 vehicles	5				Auto	os:	15		
Peak Hour	Percentage:	10%			Me	edium Truc	ks (2 Axle	es):	15		
Peak F	Hour Volume:	580 vehicles	6		He	avy Truck	s (3+ Axle	es):	15		
Ve	ehicle Speed:	35 mph		Ve	ehicle l	Mix					
Near/Far La	ne Distance:	32 feet			Veh	icleType	Day	y E	vening	Night	Daily
Site Data						Αι	utos: 75.	5%	14.0%	10.5%	97.42%
Ва	rrier Height:	0.0 feet			М	edium Tru	icks: 48.	9%	2.2%	48.9%	1.84%
Barrier Type (0-W	_	0.0			ı	Heavy Tru	icks: 47.	3%	5.4%	47.3%	0.74%
	*	135.0 feet		N	nisa Sr	ource Flev	vations (ir	n foot	)		
Centerline Dist.	to Observer:	161.0 feet		74	orse sc	Autos:	•		<u> </u>		
Barrier Distance	to Observer:	26.0 feet			Mediu	m Trucks:	•				
Observer Height	(Above Pad):	5.0 feet				/y Trucks:	•		rade Ad	justment.	: 0.0
P	ad Elevation: 1,0	038.5 feet		_							
	ad Elevation: 1,0			Lá	ane Eq		Distance (		t)		
	ier Elevation: 1,0					Autos:					
	Road Grade: 1.0%					m Trucks:					
					neav	y Trucks:	144.842				
FHWA Noise Mode	el Calculations										
VehicleType	REMEL 7	raffic Flow	Dis	stance	Finite	Road	Fresnel	Ba	rrier Atte	en Ber	m Atten
Autos:	65.11	-3.23		-7.08		-1.20	-0.0	02	0.0	000	0.000
Medium Trucks:	74.83	-20.46		-7.06		-1.20	-0.0	04	0.0	000	0.000
Heavy Trucks:	80.05	-24.42		-7.03		-1.20	-0.1	13	0.0	000	0.000
Unmitigated Noise	e Levels (withou	t Topo and I	barrie	er attenu	ation)						
VehicleType	Leq Peak Hour	Leq Day		Leq Eve	ening	Leq N	ight	Lo	dn	CI	VEL
Autos:	53.6	;	51.6		50.3		44.3		52.7	7	53.3
Medium Trucks:	46.1	•	42.2		34.7		43.5		49.6	6	49.7
Heavy Trucks:	47.4		43.4		40.0		44.6		50.8	3	50.9
Vehicle Noise:	55.1	;	52.6		50.8		48.9		56.0	)	56.3
Mitigated Noise Lo	evels (with Topo	and barrier	attei	nuation)							
VehicleType	Leq Peak Hour	Leq Day		Leq Eve	ening	Leq N	ight	Lo	dn	CI	VEL
Autos:	53.6	:	51.6		50.3		44.3		52.7	7	53.3
Medium Trucks:			42.2		34.7		43.5		49.6		49.7
Heavy Trucks:			43.4		40.0		44.6		50.8		50.9
Vehicle Noise:	55.1		52.6		50.8		48.9		56.0	)	56.3

Scenario: Backyard No Wall Project Name: Everhome Suites Job Number: 15215 Road Name: Harriman Pl.

Lot No: 432					Analyst: A.Shami							
SITE	SPECIFIC INF	PUT DATA				NC	ISE MOD	EL INPUT	S			
Highway Data				5	Site Conditions (Hard = 10, Soft = 15)							
Average Daily	Traffic (Adt): 5	5,800 vehicles	6				Autos	s: 15				
Peak Hour	Percentage:	10%			Me	dium Truc	ks (2 Axles	) <i>:</i> 15				
Peak F	lour Volume:	580 vehicles	6		He	avy Truck	s (3+ Axles	) <i>:</i> 15				
Ve	ehicle Speed:	35 mph		V	/ehicle l	Vix						
Near/Far La	ane Distance:	32 feet				icleType	Day	Evening	Night	Daily		
Site Data							itos: 75.5			97.42%		
Ba	rrier Height:	0.0 feet			М	edium Tru	cks: 48.9	% 2.2%	48.9%	1.84%		
Barrier Type (0-V	_	0.0			ı	Heavy Tru	cks: 47.3	% 5.4%	47.3%	0.74%		
• • •	ist. to Barrier:	135.0 feet			Joiso Sa	vurco Elov	vations (in	foot)				
Centerline Dist.	to Observer:	161.0 feet		•	VOISE SC	Autos:	•	ieei)				
Barrier Distance	to Observer:	26.0 feet			Modiu	Autos. m Trucks:	,					
Observer Height	(Above Pad):	5.0 feet				n Trucks. vy Trucks:	•	Grade Ad	liustment	<i>t</i> · 0.0		
P	Pad Elevation: 1	,047.0 feet							Jaournoriu	. 0.0		
Ro	ad Elevation: 1	,045.0 feet		L	ane Eq		Distance (in	feet)				
Barr	rier Elevation: 1	,047.0 feet				Autos:						
	Road Grade: 1.0%					m Trucks:						
					Heav	y Trucks:	144.118					
FHWA Noise Mod	el Calculations											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresnel	Barrier Att	en Ber	rm Atten		
Autos:	65.11	-3.23		-7.01	1	-1.20	-0.32	? 0.0	000	0.000		
Medium Trucks:	74.83	-20.46		-7.00	)	-1.20	-0.39	0.0	000	0.000		
Heavy Trucks:	80.05	-24.42		-7.00	)	-1.20	-0.6	0.0	000	0.000		
Unmitigated Noise	e Levels (withou	ut Topo and	barrio	er atteni	uation)							
VehicleType	Leq Peak Hour			Leq Ev	rening	Leq N	ight	Ldn	C	NEL		
Autos:	53.7	7	51.7		50.4		44.3	52.8	8	53.4		
Medium Trucks:	46.2	2 .	42.3		34.8		43.5	49.	7	49.7		
Heavy Trucks:			43.4		40.0		44.6	50.8	8	50.9		
Vehicle Noise:	55.2	2	52.7		50.8		49.0	56.	1	56.4		
Mitigated Noise L	evels (with Top	o and barrier	atte	nuation)	)							
VehicleType	Leq Peak Hour	Leq Day		Leq Ev	rening	Leq N	ight	Ldn	C	NEL		
Autos:	53.7	7	51.7		50.4		44.3	52.8	8	53.4		
Medium Trucks:	46.2	2	42.3		34.8		43.5	49.7	7	49.7		
Heavy Trucks:	47.4	1 .	43.4		40.0		44.6	50.8	8	50.9		
Vehicle Noise:	55.2	2	52.7		50.8		49.0	56.	1	56.4		

Project Name: Everhome Suites Scenario: Backyard No Wall Road Name: Harriman Pl. Job Number: 15215
Analyst: A Shami

Lot N	Vo: 419		Analyst: A.Shami										
SITE	SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS							
Highway Data			9	Site Con	ditions (F	lard =	10, So	ft = 15)					
Average Daily	Traffic (Adt):	5,800 vehicles				,	Autos:	15					
Peak Hour	Percentage:	10%		Me	dium Trud	ks (2 A	(xles	15					
Peak F	lour Volume:	580 vehicles		He	avy Truck	is (3+ A	(xles	15					
Ve	ehicle Speed:	35 mph	1	/ehicle l	Wix								
Near/Far La	ane Distance:	32 feet			icleType		Day	Evening	Night	Daily			
Site Data							75.5%		10.5%	_			
Ra	rrier Height:	0.0 feet		М	edium Tru	icks:	48.9%	2.2%	48.9%	1.84%			
Barrier Type (0-W	•	0.0		ı	Heavy Tru	icks:	47.3%	5.4%	47.3%	0.74%			
• • •	ist. to Barrier:	135.0 feet		Vaina Ca	ourse Ele	rations	/in fo						
Centerline Dist.	to Observer:	161.0 feet	,	voise sc	ource Ele Autos:			et)					
Barrier Distance	to Observer:	26.0 feet		Modiu		,							
Observer Height	(Above Pad):	5.0 feet			m Trucks:	•		Grade Ad	iustmant	. 0 0			
P	ad Elevation: 1	,047.5 feet		Heat	/y Trucks:	1,02	9.01	Grade Au	usimeni	. 0.0			
Ro	ad Elevation: 1	,021.0 feet	L	ane Eq	uivalent L	Distanc	e (in f	eet)					
Barr	rier Elevation: 1	,047.5 feet			Autos:	147.3	337						
	Road Grade:	1.0%		Mediu	m Trucks:	146.8	354						
				Heav	y Trucks:	146.0	017						
FHWA Noise Mod	el Calculations												
VehicleType	REMEL	Traffic Flow D	istance	Finite	Road	Fresn	el	Barrier Att	en Ber	m Atten			
Autos:	65.11	-3.23	-7.1	4	-1.20		0.01	-5.1	100	-8.100			
Medium Trucks:	74.83	-20.46	-7.12	2	-1.20		0.00	-4.9	900	-7.900			
Heavy Trucks:	80.05	-24.42	-7.08	3	-1.20		-0.01	0.0	000	0.000			
Unmitigated Noise	•	<u> </u>	ier atten	uation)									
VehicleType	Leq Peak Hour		Leq E		Leq N			Ldn		NEL			
Autos:				50.2		44.2		52.6		53.3			
Medium Trucks:	_			34.6		43.4		49.6		49.6			
Heavy Trucks:				39.9		44.5		50.7		50.8			
Vehicle Noise:	55.	1 52.6	;	50.7		48.8		55.9	9	56.3			
Mitigated Noise L	evels (with Top	o and barrier atte	enuation	)									
VehicleType	Leq Peak Hour	Leq Day	Leq E	ening	Leq N	ight		Ldn	CI	NEL			
Autos:				45.1		39.1		47.5	5	48.2			
Medium Trucks:				29.7		38.5		44.7		44.7			
Heavy Trucks:	47.3	3 43.3	<u> </u>	39.9		44.5		50.7	7	50.8			
\/a =!= =  \ \/ = != =		4 40.5		40.4		40.4				<u> </u>			

Vehicle Noise:

51.4

46.4

46.4

53.1

53.4

48.5

Scenario: Backyard With Wall Road Name: Harriman Pl.

Lot No: 132

Project Name: Everhome Suites

Job Number: 15215 Analyst: A.Shami

SITE SPECIFIC	SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data			Site Conditions	(Hard	= 10, So	ft = 15)						
Average Daily Traffic (Adt)	5,800 vehicles	3	Autos: 15									
Peak Hour Percentage	10%		Medium Trucks (2 Axles): 15									
Peak Hour Volume	580 vehicles	3	Heavy Tru	icks (3+	- Axles):	15						
Vehicle Speed	35 mph		Vehicle Mix									
Near/Far Lane Distance	32 feet		VehicleType	е	Day	Evening	Night	Daily				
Site Data				Autos:	75.5%	14.0%	10.5%	97.42%				
Barrier Height	eight: 0.0 feet		Medium 7	Trucks:	48.9%	2.2%	48.9%	1.84%				
Barrier Type (0-Wall, 1-Berm)			Heavy T	Trucks:	47.3%	5.4%	47.3%	0.74%				
Centerline Dist. to Barrier	Centerline Dist. to Barrier: 135.0 feet		Noise Source E	levatio	ns (in fe	et)						
Centerline Dist. to Observer	161.0 feet		Autos: 1,022.00									
Barrier Distance to Observer	26.0 feet		Medium Truck	•	024.30							
Observer Height (Above Pad)	5.0 feet		Heavy Truck	-	030.01	Grade Ad	iustment:	0.0				
Pad Elevation	1,024.0 feet		Ticavy Traci		000.01	Orado riaj	40111101111	0.0				
Road Elevation	1,022.0 feet		Lane Equivalen	t Distai	nce (in f	eet)						
Barrier Elevation	1,024.0 feet		Auto	os: 144	4.284							
Road Grade	1.0%		Medium Truck	ks: 144	4.191							
			Heavy Trucks: 144.118									
FHWA Noise Model Calculation	ons											
VehicleType REMEL	Traffic Flow	Distance	Finite Road	Fres	snel	Barrier Atte	en Beri	m Atten				

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	65.11	-3.23	-7.01	-1.20	-0.32	0.000	0.000
Medium Trucks:	74.83	-20.46	-7.00	-1.20	-0.39	0.000	0.000

 Medium Trucks:
 74.83
 -20.46
 -7.00
 -1.20
 -0.39
 0.000
 0.000

 Heavy Trucks:
 80.05
 -24.42
 -7.00
 -1.20
 -0.61
 0.000
 0.000

<b>Unmitigated Nois</b>	Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL						
Autos:	53.7	51.7	50.4	44.3	52.8	53.4						
Medium Trucks:	46.2	42.3	34.8	43.5	49.7	49.7						
Heavy Trucks:	47.4	43.4	40.0	44.6	50.8	50.9						
Vehicle Noise:	55.2	52.7	50.8	49.0	56.1	56.4						

Mitigated Noise Lo	Mitigated Noise Levels (with Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL						
Autos:	53.7	51.7	50.4	44.3	52.8	53.4						
Medium Trucks:	46.2	42.3	34.8	43.5	49.7	49.7						
Heavy Trucks:	47.4	43.4	40.0	44.6	50.8	50.9						
Vehicle Noise:	55.2	52.7	50.8	49.0	56.1	56.4						

Scenario: Backyard With Wall Project Name: Everhome Suites Road Name: Harriman Pl. Job Number: 15215

Rarrier Height:   0.0 feet   Medium Trucks:   48.9%   2.2%   48.9%   1.84		Vo: 232					alyst: A.Sha			
Average Daily Traffic (Adt): 5,800 vehicles	SITE	SPECIFIC INF	PUT DATA			NC	ISE MODE	EL INPUT:	S	
Peak Hour Percentage: 10%	Highway Data				Site Con	ditions (H	lard = 10, S	oft = 15)		
Peak Hour Volume: Vehicle Speed: 35 mph Near/Far Lane Distance: 32 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Daily   Daily   Night   Daily   Daily   Night   Nigh	Average Daily	Traffic (Adt):	5,800 vehicles				Autos	: 15		
Vehicle   Speed: Near/Far Lane Distance:   32 feet   Site   Daty   Vehicle   Trype   Day   Evening   Night   Daily   Night	Peak Hour	Percentage:	10%		Me	dium Truc	ks (2 Axles)	: 15		
Near/Far Lane Distance	Peak H	lour Volume:	580 vehicles		He	avy Truck	s (3+ Axles)	: 15		
Near/Far Lane Distance:   32 feet   VehicleType   Day   Evening   Night   Daily	Ve	ehicle Speed:	35 mph		Vehicle I	Лix				
Autos: 75.5%   14.0%   10.5%   97.42	Near/Far La	ane Distance:	32 feet				Day	Evening	Night	Daily
Barrier Type (0-Wall, 1-Berm): 0.0   Centerline Dist. to Barrier: 135.0 feet   Centerline Dist. to Observer: 161.0 feet   Barrier Distance to Observer: 26.0 feet   Centerline Dist. to Observer: 26	Site Data						-			
Barrier Type (0-Wall, 1-Berm): 0.0   Centerline Dist. to Barrier: 135.0 feet   Centerline Dist. to Observer: 161.0 feet   Barrier Distance to Observer: 26.0 feet   Comment	Ra	rrier Heiaht:	0.0 feet		М	edium Tru	cks: 48.9°	% 2.2%	48.9%	1.84%
Noise Source Elevations (in feet)   Noise Source Elevations (in feet)		_			I	Heavy Tru	cks: 47.3°	% 5.4%	47.3%	0.74%
Centerline Dist. to Observer: 26.0 feet   Barrier Distance to Observer: 26.0 feet   Doserver Height (Above Pad): 5.0 feet   Pad Elevation: 1,029.0 feet   Road Elevation: 1,022.0 feet   Barrier Elevation: 1,029.0 feet   Barrier Elevation: 1,029.0 feet   Road Grade: 1.0%	• • •	•			Noise So	urce Flex	rations (in t	foot)		
Medium Trucks:   1,024.30   Grade Adjustment: 0.0   Heavy Trucks:   1,024.30   Grade Adjustment: 0.0   Heavy Trucks:   1,030.01   Grade Adjustment: 0.0   Heavy Trucks:   1,030.01   Grade Adjustment: 0.0   Heavy Trucks:   1,030.01   Grade Adjustment: 0.0   Heavy Trucks:   144.613   Medium Trucks:   144.441   Heavy Trucks:   144.441   Heavy Trucks:   144.170   Heavy Trucks:   140	Centerline Dist.	to Observer:	161.0 feet		110/30 00		-	ccij		
District Height (Above Pad): 5.0 feet	Barrier Distance	to Observer:	26.0 feet		Modiu		•			
Pad Elevation: 1,029.0 feet   Road Elevation: 1,022.0 feet   Road Elevation: 1,022.0 feet   Road Elevation: 1,029.0 feet   Road Grade: 1.0%   Medium Trucks: 144.441   Heavy Trucks: 144.441   Heavy Trucks: 144.441   Heavy Trucks: 144.470   Heavy Trucks: 144.170	Observer Height	(Above Pad):	5.0 feet				•	Grade Ad	iustment	. 0 0
Barrier Elevation: 1,029.0 feet   Road Grade: 1.0%   Medium Trucks: 144.441   Heavy Trucks: 144.441   Heavy Trucks: 144.170	P	ad Elevation: 1	,029.0 feet		i ieav	y Trucks.	1,030.01	Orado Au	jastiriorit.	0.0
Road Grade: 1.0%   Medium Trucks: 144.441   Heavy Trucks: 144.170   Heavy Trucks: 65.11   Grade	Ro	ad Elevation: 1	,022.0 feet		Lane Equ	ıivalent D		feet)		
Heavy Trucks: 144.170   Heavy Trucks: 1483   -20.46   -7.01   -1.20   -0.24   0.000   0.00   Heavy Trucks: 80.05   -24.42   -7.00   -1.20   -0.42   0.000   0.00   Heavy Trucks: 80.05   -24.42   -7.00   -1.20   -0.42   0.000   0.00   Heavy Trucks: 80.05   -24.42   -7.00   -1.20   -0.42   0.000   0.00   Heavy Trucks: 80.05   -24.42   -7.00   -1.20   -0.42   0.000   0.00   Heavy Trucks: 80.05   -24.42   -7.00   -1.20   -0.42   0.000   0.00   Heavy Trucks: 80.05   -24.42   -7.00   -1.20   -0.42   0.000   0.00   Heavy Trucks: 80.05   -24.42   -7.00   -1.20   -0.42   0.000   0.00   Heavy Trucks: 80.05   -24.42   -7.00   -1.20   -0.42   0.000   0.00   Heavy Trucks: 80.05   -24.42   -7.00   -1.20   -0.42   0.000   0.00   0.00   Heavy Trucks: 80.05   -24.42   -7.00   -1.20   -0.42   0.000   0.00	Barr	rier Elevation: 1	,029.0 feet				144.613			
FHWA Noise Model Calculations   VehicleType   REMEL   Traffic Flow   Distance   Finite Road   Fresnel   Barrier Atten   Berm Atten   Autos:   65.11   -3.23   -7.02   -1.20   -0.18   0.000   0.00   Medium Trucks:   74.83   -20.46   -7.01   -1.20   -0.42   0.000   0.00   Meavy Trucks:   80.05   -24.42   -7.00   -1.20   -0.42   0.000   0.00   Meavy Trucks:   80.05   -24.42   -7.00   -1.20   -0.42   0.000   0.00   Medium Trucks:   46.2   42.3   34.8   43.5   49.7   49.8   Medium Trucks:   47.4   43.4   40.0   44.6   50.8   50.8   50.8   Mitigated Noise Levels (with Topo and barrier attenuation)   Vehicle Type   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL   Medium Trucks:   46.2   42.3   34.8   43.5   49.7   49.8   Medium Trucks:   47.4   43.4   40.0   44.6   50.8   50.8   50.8   Mitigated Noise Levels (with Topo and barrier attenuation)   Vehicle Type   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn   CNEL   Autos:   53.7   51.7   50.3   44.3   52.7   53.8   Medium Trucks:   46.2   42.3   34.8   43.5   49.7   49.8   Medium Trucks:   47.4   43.4   40.0   44.6   50.8   50.8   50.8   50.8   Medium Trucks:   47.4   43.4   40.0   44.6   50.8   50.8   50.8   50.8   Medium Trucks:   47.4   43.4   40.0   44.6   50.8   50.8   50.8   50.8   Medium Trucks:   47.4   43.4   40.0   44.6   50.8		Road Grade:	1.0%							
VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Berm Atten           Autos:         65.11         -3.23         -7.02         -1.20         -0.18         0.000         0.00           Medium Trucks:         74.83         -20.46         -7.01         -1.20         -0.24         0.000         0.00           Heavy Trucks:         80.05         -24.42         -7.00         -1.20         -0.42         0.000         0.00           Unmitigated Noise Levels (without Topo and barrier attenuation)         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5         49.7         49           Heavy Trucks:         47.4         43.4         40.0         44.6         50.8         50           Mitigated Noise Levels (with Topo and barrier attenuation)         Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53					Heav	y Trucks:	144.170			
Autos:         65.11         -3.23         -7.02         -1.20         -0.18         0.000         0.00           Medium Trucks:         74.83         -20.46         -7.01         -1.20         -0.24         0.000         0.00           Heavy Trucks:         80.05         -24.42         -7.00         -1.20         -0.42         0.000         0.00           Unmitigated Noise Levels (without Topo and barrier attenuation)         Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5         49.7         49           Heavy Trucks:         47.4         43.4         40.0         44.6         50.8         50           Mitigated Noise Levels (with Topo and barrier attenuation)         Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5	FHWA Noise Mod	el Calculations								
Medium Trucks:         74.83         -20.46         -7.01         -1.20         -0.24         0.000         0.00           Heavy Trucks:         80.05         -24.42         -7.00         -1.20         -0.42         0.000         0.00           Unmitigated Noise Levels (without Topo and barrier attenuation)           Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5         49.7         49           Heavy Trucks:         47.4         43.4         40.0         44.6         50.8         50           Mitigated Noise Levels (with Topo and barrier attenuation)         Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5         49.7         49           Heavy Trucks:         46.2         42.3         34.8         43.5         <	VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresnel	Barrier Att	en Ber	m Atten
Heavy Trucks:         80.05         -24.42         -7.00         -1.20         -0.42         0.000         0.00           Unmitigated Noise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5         49.7         49           Heavy Trucks:         47.4         43.4         40.0         44.6         50.8         50           Vehicle Noise:         55.2         52.7         50.8         49.0         56.0         56           Mitigated Noise Levels (with Topo and barrier attenuation)         VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5         49.7         49           Heavy Trucks:         47.4         43.4         40.0         44.6         50.8         50 </td <td>Autos:</td> <td>65.11</td> <td>-3.23</td> <td>-7</td> <td>.02</td> <td>-1.20</td> <td>-0.18</td> <td>0.0</td> <td>000</td> <td>0.000</td>	Autos:	65.11	-3.23	-7	.02	-1.20	-0.18	0.0	000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5         49.7         49           Heavy Trucks:         47.4         43.4         40.0         44.6         50.8         50           Vehicle Noise:         55.2         52.7         50.8         49.0         56.0         56           Mitigated Noise Levels (with Topo and barrier attenuation)         Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5         49.7         49           Heavy Trucks:         47.4         43.4         40.0         44.6         50.8         50	Medium Trucks:	74.83	-20.46	-7	.01	-1.20	-0.24	0.0	000	0.000
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5         49.7         49           Heavy Trucks:         47.4         43.4         40.0         44.6         50.8         50           Vehicle Noise:         55.2         52.7         50.8         49.0         56.0         56           Mitigated Noise Levels (with Topo and barrier attenuation)         Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5         49.7         49           Heavy Trucks:         47.4         43.4         40.0         44.6         50.8         50	Heavy Trucks:	80.05	-24.42	-7	.00	-1.20	-0.42	0.0	)00	0.000
Autos:       53.7       51.7       50.3       44.3       52.7       53         Medium Trucks:       46.2       42.3       34.8       43.5       49.7       49         Heavy Trucks:       47.4       43.4       40.0       44.6       50.8       50         Vehicle Noise:       55.2       52.7       50.8       49.0       56.0       56         Mitigated Noise Levels (with Topo and barrier attenuation)       Vehicle Type       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn       CNEL         Autos:       53.7       51.7       50.3       44.3       52.7       53         Medium Trucks:       46.2       42.3       34.8       43.5       49.7       49         Heavy Trucks:       47.4       43.4       40.0       44.6       50.8       50	Unmitigated Nois	e Levels (withou	ut Topo and ba	rrier atte	enuation)					
Medium Trucks:       46.2       42.3       34.8       43.5       49.7       49.7         Heavy Trucks:       47.4       43.4       40.0       44.6       50.8       50.8         Vehicle Noise:       55.2       52.7       50.8       49.0       56.0       56.0         Mitigated Noise Levels (with Topo and barrier attenuation)         VehicleType       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn       CNEL         Autos:       53.7       51.7       50.3       44.3       52.7       53         Medium Trucks:       46.2       42.3       34.8       43.5       49.7       49         Heavy Trucks:       47.4       43.4       40.0       44.6       50.8       50	VehicleType	Leq Peak Hour			Evening	Leq Ni	ght	Ldn	CI	VEL
Heavy Trucks:         47.4         43.4         40.0         44.6         50.8         50.8           Vehicle Noise:         55.2         52.7         50.8         49.0         56.0         56.0           Mitigated Noise Levels (with Topo and barrier attenuation)         VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5         49.7         49           Heavy Trucks:         47.4         43.4         40.0         44.6         50.8         50			7 51	.7	50.3		44.3	52.7	7	53.4
Vehicle Noise:         55.2         52.7         50.8         49.0         56.0         56.0           Mitigated Noise Levels (with Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5         49.7         49           Heavy Trucks:         47.4         43.4         40.0         44.6         50.8         50										49.7
Mitigated Noise Levels (with Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5         49.7         49           Heavy Trucks:         47.4         43.4         40.0         44.6         50.8         50	· .									50.9
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn         CNEL           Autos:         53.7         51.7         50.3         44.3         52.7         53           Medium Trucks:         46.2         42.3         34.8         43.5         49.7         49           Heavy Trucks:         47.4         43.4         40.0         44.6         50.8         50	Vehicle Noise:	55.2	2 52	.7	50.8		49.0	56.0	)	56.4
Autos:       53.7       51.7       50.3       44.3       52.7       53         Medium Trucks:       46.2       42.3       34.8       43.5       49.7       49         Heavy Trucks:       47.4       43.4       40.0       44.6       50.8       50	Mitigated Noise L	evels (with Top	o and barrier at	tenuatio	on)					
Medium Trucks:       46.2       42.3       34.8       43.5       49.7       49.7         Heavy Trucks:       47.4       43.4       40.0       44.6       50.8       50.8	VehicleType	Leq Peak Hour			Evening	Leq Ni	ght	Ldn	CI	VEL
Heavy Trucks: 47.4 43.4 40.0 44.6 50.8 50								52.7	7	53.4
										49.7
Vehicle Noise:         55.2         52.7         50.8         49.0         56.0         56			43	.4	40.0		44.6	50.8	3	50.9
	Vehicle Noise:	55.2	2 52	.7	50.8		49.0	56.0	)	56.4

Scenario: Backyard With Wall Road Name: Harriman Pl.

Mitigated Noise Levels (with Topo and barrier attenuation)

53.7

46.1

47.4

55.2

Leq Day

51.6

42.2

43.4

52.7

Leq Peak Hour

Lot No: 219

Project Name: Everhome Suites

CNEL

53.4

49.7

50.9

56.4

Ldn

52.7

49.7

50.8

56.0

Job Number: 15215 Analyst: A.Shami

	II VI	JT DATA				<u> </u>	<u> ЛЭЕ</u> І	<u>VIODE</u>	L INPUT	5	
Highway Data				Si	te Con	ditions (F	lard =	10, Sc	ft = 15)		
Average Daily Traffic (Adt)	: 5,	800 vehicles						Autos:	15		
Peak Hour Percentage	:	10%			Me	dium Truc	ks (2 .	Axles):	15		
Peak Hour Volume	: :	580 vehicles			He	avy Truck	s (3+ .	Axles):	15		
Vehicle Speed	l:	35 mph		Ve	ehicle N	/lix					
Near/Far Lane Distance	:	32 feet				cleType		Day	Evening	Night	Daily
Site Data							ıtos:	75.5%	Ū	10.5%	
Barrier Heigh		0.0 feet			Me	edium Tru	icks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-Wall, 1-Berm		0.0			ŀ	leavy Tru	icks:	47.3%	5.4%	47.3%	0.74%
Centerline Dist. to Barrie		35.0 feet		No	oise So	urce Elev	vation	s (in fe	eet)		
Centerline Dist. to Observe	r: 1	61.0 feet		74	,,,,,,	Autos:		21.00	,,,,		
Barrier Distance to Observe	r:	26.0 feet			Modium	n Trucks:		23.30			
Observer Height (Above Pad	) <i>:</i>	5.0 feet					,		Grade Ad	liustmant	0.0
Pad Elevation	i: 1,0	29.5 feet			neav	y Trucks:	1,02	29.01	Graue Au	justin <del>e</del> nt.	0.0
Road Elevation	i: 1.0	21.0 feet		La	ne Equ	ıivalent E	Distan	ce (in i	feet)		
Barrier Elevatior						Autos:	144.	745			
Road Grade		1.0%			Mediur	n Trucks:	144.	549			
					Heav	y Trucks:	144.	219			
FHWA Noise Model Calculati	ons										
VehicleType REMEL	Ti	raffic Flow	Dis	stance	Finite	Road	Fresi	nel	Barrier Att	en Ber	n Atten
Autos: 65.	11	-3.23		-7.03		-1.20		-0.15	0.0	000	0.000
Medium Trucks: 74.	83	-20.46		-7.02		-1.20		-0.20	0.0	000	0.000
Heavy Trucks: 80.	05	-24.42		-7.00		-1.20		-0.37	0.0	000	0.000
Unmitigated Noise Levels (w	ithout	Topo and b	arri	er attenua	ation)						
VehicleType Leq Peak F	lour	Leq Day		Leq Eve	ening	Leq N	ight		Ldn	CI	IEL
Autos:	53.7	5	1.6		50.3		44.3	3	52.	7	53.4
Medium Trucks:	46.1	4:	2.2		34.7		43.	5	49.	7	49.7
Heavy Trucks:	47.4	4:	3.4		40.0		44.0	6	50.	8	50.9
Vehicle Noise:	55.2	_	2.7		50.8		48.	_	56.	•	56.4

VehicleType

Medium Trucks:

Heavy Trucks:

Vehicle Noise:

Autos:

Leq Evening

50.3

34.7

40.0

50.8

Leq Night

44.3

43.5

44.6

48.9

Scenario: Backyard With Wall Project Name: Everhome Suites Road Name: Harriman Pl. Job Number: 15215

Lot N	Vo: 332					Ar	<i>alyst:</i> A.Sha	ımi		
SITE	SPECIFIC INF	PUT DATA				NC	DISE MODI	EL INPUTS	S	
Highway Data					Site Con	ditions (F	<i>lard</i> = 10, S	oft = 15)		
Average Daily	Traffic (Adt):	5,800 vehicles	S				Autos	: 15		
Peak Hour	Percentage:	10%			Me	dium Trud	ks (2 Axles)	): 15		
Peak H	lour Volume:	580 vehicles	5		He	avy Truck	s (3+ Axles)	): 15		
	ehicle Speed:	35 mph		1	Vehicle I	Vix				
Near/Far La	ane Distance:	32 feet			Veh	icleType	Day	Evening	Night	Daily
Site Data						A	utos: 75.5°	% 14.0%	10.5%	97.42%
Ва	rrier Height:	0.0 feet			M	edium Tru	icks: 48.9°	% 2.2%	48.9%	1.84%
Barrier Type (0-V	•	0.0			ı	Heavy Tru	icks: 47.3°	% 5.4%	47.3%	0.74%
Centerline Di	ist. to Barrier:	135.0 feet		,	Voise Sc	ource Ele	vations (in 1	feet)		
Centerline Dist.	to Observer:	161.0 feet		•	10.00	Autos:	•			
Barrier Distance	to Observer:	26.0 feet			Mediu	m Trucks:	· ·			
Observer Height	. ,	5.0 feet				y Trucks:	•	Grade Ad	justment	t: 0.0
	Pad Elevation: 1	•						f= -4\		
	ad Elevation: 1	•			_ane ⊑q		Distance (in	reet)		
	rier Elevation: 1				Modiu	Autos:				
	Road Grade:	1.0%				m Trucks: w Trucks:	145.323 144.699			
					Heav	y Trucks.	144.099			
FHWA Noise Mod	el Calculations			l						
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresnel	Barrier Atte	en Bei	rm Atten
Autos:		-3.23		-7.0	7	-1.20	-0.03	0.0	000	0.000
Medium Trucks:	74.83	-20.46		-7.0	5	-1.20	-0.06	0.0	000	0.000
Heavy Trucks:	80.05	-24.42		-7.03	3	-1.20	-0.16	0.0	000	0.000
Unmitigated Nois	e Levels (withou	ut Topo and	barrie	er atten	uation)					
VehicleType	Leq Peak Hour	Leq Day	′	Leq E	vening	Leq N	ight	Ldn	C	NEL
Autos:			51.6		50.3		44.3	52.7		53.3
Medium Trucks:	_		42.2		34.7		43.5	49.6		49.7
Heavy Trucks:			43.4		40.0		44.6	50.8		50.9
Vehicle Noise:	55.1		52.6		50.8		48.9	56.0	)	56.3
Mitigated Noise L	evels (with Top	o and barrie	r atter	nuation	)					
VehicleType	Leq Peak Hour	, ,		Leq E	vening	Leq N	ight	Ldn		NEL
Autos:			51.6		50.3		44.3	52.7	7	53.3
Medium Trucks:			42.2		34.7		43.5	49.6		49.7
Heavy Trucks:			43.4		40.0		44.6	50.8		50.9
Vehicle Noise:	55.1		52.6		50.8		48.9	56.0	)	56.3

Scenario: Backyard With Wall Road Name: Harriman Pl.

Lot No: 319

Project Name: Everhome Suites

49.6

50.8

56.0

49.7

50.9

56.3

Job Number: 15215 Analyst: A.Shami

						,				
SITE SPECIF	C INPL	JT DATA			NO	ISE N	/IODEI	L INPUT:	S	
Highway Data			9	Site Con	ditions (H	ard =	10, So	ft = 15)		
Average Daily Traffic (A Peak Hour Percenta Peak Hour Volui	ge:	300 vehicles 10% 580 vehicles			dium Truci avy Trucks	ks (2 A	,	15 15 15		
Vehicle Spe	ed:	35 mph	1	/ehicle l	Mix					
Near/Far Lane Distar	ice:	32 feet		Veh	icleType		Day	Evening	Night	Daily
Site Data					Au	tos:	75.5%	14.0%	10.5%	97.42%
<b>Barrier Heig</b> Barrier Type (0-Wall, 1-Ber	•	<b>0.0 feet</b> 0.0			edium Trud Heavy Trud		48.9% 47.3%		48.9% 47.3%	
Centerline Dist. to Barr Centerline Dist. to Obser Barrier Distance to Obser Observer Height (Above Pa Pad Elevat Road Elevat Barrier Elevat Road Gra		Noise Source Elevations (in feet)  Autos: 1,021.00  Medium Trucks: 1,023.30  Heavy Trucks: 1,029.01 Grade Adjustment: 0.0  Lane Equivalent Distance (in feet)  Autos: 145.860  Medium Trucks: 145.524								
FHWA Noise Model Calcula VehicleType REME		affic Flow	Distance		ry Trucks: Road	Fresn		Barrier Att	en Ber	m Atten
Autos: 6	55.11	-3.23	-7.08	3	-1.20		-0.02	0.0	000	0.000
Medium Trucks:	4.83	-20.46	-7.06	3	-1.20		-0.04	0.0	000	0.000
Heavy Trucks: 8	80.05	-24.42	-7.03	3	-1.20		-0.13	0.0	000	0.000
Unmitigated Noise Levels	without	Topo and	barrier atteni	uation)						
VehicleType Leq Pea	k Hour	Leq Day	Leq Ev	ening	Leq Ni	ght		Ldn	CI	VEL
Autos:	53.6		51.6	50.3 44.3			3	52.7	7	53.3

Mitigated Noise L	Mitigated Noise Levels (with Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL						
Autos:	53.6	51.6	50.3	44.3	52.7	53.3						
Medium Trucks:	46.1	42.2	34.7	43.5	49.6	49.7						
Heavy Trucks:	47.4	43.4	40.0	44.6	50.8	50.9						
Vehicle Noise:	55.1	52.6	50.8	48.9	56.0	56.3						

34.7

40.0

50.8

43.5

44.6

48.9

42.2

43.4

52.6

46.1

47.4

55.1

Medium Trucks:

Heavy Trucks:

Vehicle Noise:

Project Name: Everhome Suites Scenario: Backyard With Wall Road Name: Harriman Pl. Job Number: 15215

Lot N	lo: 432					An	alyst: A.Sh	ami			
SITE	SPECIFIC INP	UT DATA				NC	ISE MOD	EL INPU	JTS		
Highway Data				Si	ite Con	ditions (F	lard = 10, S	Soft = 15)	)		
Average Daily	Traffic (Adt): 5	,800 vehicles					Auto	s: 15			
Peak Hour	Percentage:	10%			Me	edium Truc	ks (2 Axles	): 15			
Peak H	Hour Volume:	580 vehicles			He	avy Truck	s (3+ Axles	): 15			
Ve	ehicle Speed:	35 mph		Ve	ehicle l	Mix					
Near/Far La	ne Distance:	32 feet			Veh	icleType	Day	Evenir	ng Nig	ht [	Daily
Site Data						Αι	itos: 75.5	% 14.0	0% 10	.5% 9	7.42%
Ва	rrier Height:	0.0 feet			М	edium Tru	cks: 48.9	% 2.2	2% 48	.9%	1.84%
Barrier Type (0-W	_	0.0			ı	Heavy Tru	cks: 47.3	% 5.4	l% 47	.3%	0.74%
Centerline Di	st. to Barrier:	135.0 feet		N	nise Sc	ource Flev	ations (in	feet)			
Centerline Dist.	to Observer:	161.0 feet		744	0100 00	Autos:	•				
Barrier Distance	to Observer:	26.0 feet			Mediu	m Trucks:	•				
Observer Height		5.0 feet				/y Trucks:	-		Adjustm	nent: 0.	.0
	ad Elevation: 1,0			_							
	ad Elevation: 1,0			Lá	ane Eq		Distance (in	i feet)			
	ier Elevation: 1,0				N / = =!!	Autos:					
	Road Grade:	1.0%				m Trucks:					
					пеач	ly Trucks.	144.118				
FHWA Noise Mode	el Calculations			l							
VehicleType	REMEL 7	raffic Flow	Dis	tance	Finite	Road	Fresnel	Barrier	Atten	Berm A	Atten
Autos:	65.11	-3.23		-7.01		-1.20	-0.32	2	0.000		0.000
Medium Trucks:		-20.46		-7.00		-1.20	-0.39		0.000		0.000
Heavy Trucks:	80.05	-24.42		-7.00		-1.20	-0.6	1	0.000		0.000
Unmitigated Noise	e Levels (withou	t Topo and b	arrie	er attenu	ation)						
VehicleType	Leq Peak Hour	Leq Day		Leq Eve	ening	Leq N	ight	Ldn		CNE	L
Autos:	53.7	5	51.7		50.4		44.3	5	52.8		53.4
Medium Trucks:	46.2		2.3		34.8		43.5		49.7		49.7
Heavy Trucks:			3.4		40.0		44.6		50.8		50.9
Vehicle Noise:	55.2	5	52.7		50.8		49.0	Ę	56.1		56.4
Mitigated Noise Lo	evels (with Topo	and barrier	atter	nuation)							
VehicleType	Leq Peak Hour	Leq Day		Leq Eve	ening	Leq N	ight	Ldn		CNE	L
Autos:	53.7	5	51.7		50.4		44.3		52.8		53.4
Medium Trucks:			12.3		34.8		43.5		9.7		49.7
Heavy Trucks:			3.4		40.0		44.6		50.8		50.9
Vehicle Noise:	55.2	5	52.7		50.8		49.0	Ę	56.1		56.4

Scenario: Backyard With Wall Road Name: Harriman Pl.

Lot No: 419

Project Name: Everhome Suites

Job Number: 15215 Analyst: A.Shami

Highway Data	-				L INPUTS			
	Si	ite Conditions (	(Hard =	10, So	ft = 15)			
Average Daily Traffic (Adt): 5,800 vehicles				Autos:	15			
Peak Hour Percentage: 10%		Medium Tru	ucks (2 )	Axles):	15			
Peak Hour Volume: 580 vehicles		Heavy Truc	cks (3+ )	Axles):	15			
Vehicle Speed: 35 mph	Vehicle Mix							
Near/Far Lane Distance: 32 feet	76	VehicleType	,	Day	Evening	Night	Daily	
Site Data			Autos:	75.5%		10.5%		
		Medium Ti		48.9%		48.9%		
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Ti		47.3%		47.3%		
Centerline Dist. to Barrier: 135.0 feet	N	oise Source Ele	ovation	s (in fo	not)			
Centerline Dist. to Observer: 161.0 feet	/40	Autos		21.00	et)			
Barrier Distance to Observer: 26.0 feet		Medium Trucks	•	23.30				
Observer Height (Above Pad): 5.0 feet			•		Grade Adju	ıctmont	. 0 0	
Pad Elevation: 1,047.5 feet		Heavy Trucks	S. 1,U <sub>2</sub>	29.01	Grade Auju	istilielit.	. 0.0	
Road Elevation: 1,021.0 feet	Lá	ane Equivalent	Distan	ce (in f	eet)			
Barrier Elevation: 1,047.5 feet		Autos	s: 147.	337				
Road Grade: 1.0%		Medium Trucks	s: 146.	854				
		Heavy Trucks	s: 146.	017				
FHWA Noise Model Calculations								
VehicleType REMEL Traffic Flow Dista	nce	Finite Road	Fresr	nel	Barrier Atte	n Ber	m Atten	
Autos: 65.11 -3.23	-7.14	-1.20		0.01	-5.10	00	-8.100	
Medium Trucks: 74.83 -20.46	-7.12	-1.20		0.00	-4.90	00	-7.900	
Heavy Trucks: 80.05 -24.42	-7.08	-1.20		-0.01	0.00	00	0.000	

<b>Unmitigated Noise</b>	Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL						
Autos:	53.5	51.5	50.2	44.2	52.6	53.3						
Medium Trucks:	46.0	42.1	34.6	43.4	49.6	49.6						
Heavy Trucks:	47.3	43.3	39.9	44.5	50.7	50.8						
Vehicle Noise:	55.1	52.6	50.7	48.8	55.9	56.3						

Mitigated Noise Lo	Mitigated Noise Levels (with Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL						
Autos:	48.4	46.4	45.1	39.1	47.5	48.2						
Medium Trucks:	41.1	37.2	29.7	38.5	44.7	44.7						
Heavy Trucks:	47.3	43.3	39.9	44.5	50.7	50.8						
Vehicle Noise:	51.4	48.5	46.4	46.4	53.1	53.4						

Project Name: Everhome Suites Job Number: 15215 Scenario: First Floor With Wall Road Name: Harriman Pl.

Lot N	Vo: 132		Analyst: A.Shami								
SITE	SPECIFIC INF	PUT DATA				Ν	NOISE N	ИODE	L INPUTS	S	
Highway Data				Si	ite Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt):	5,800 vehicle	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tr	ucks (2 )	Axles):	15		
Peak H	Hour Volume:	580 vehicles	s		He	avy Tru	cks (3+ /	Axles):	15		
	ehicle Speed:	35 mph		Ve	ehicle l	Vix					
Near/Far La	ane Distance:	32 feet			Veh	icleType	)	Day	Evening	Night	Daily
Site Data						,	Autos:	75.5%	6 14.0%	10.5%	97.42%
Ва	rrier Height:	0.0 feet			М	edium T	rucks:	48.9%	2.2%	48.9%	6 1.84%
Barrier Type (0-V	-	0.0				Heavy T	rucks:	47.3%	5.4%	47.3%	6 0.74%
Centerline Di	ist. to Barrier:	135.0 feet		No	oise So	ource Fl	evation	s (in fe	eet)		
Centerline Dist.	to Observer:	167.0 feet			<u> </u>	Auto		22.00			
Barrier Distance		32.0 feet			Mediu	m Truck	•	24.30			
Observer Height		5.0 feet				y Truck	•	30.01	Grade Adj	justmen	t: 0.0
	Pad Elevation: 1			1.				oo (in i	foot)		
	ad Elevation: 1	•		Là	arie Eq		t <b>Distan</b> d s: 150.	•	ieet)		
	rier Elevation: 1 Road Grade:	,024.0 feet 1.0%			Madiu	Auto m Truck					
	Noau Graue.	1.0 /0				y Truck					
					77041	y mach	0. 100.	100			
FHWA Noise Mod	el Calculations										
VehicleType		Traffic Flow		stance	Finite	Road	Fresr		Barrier Atte		rm Atten
Autos:		-3.23		-7.27		-1.20		-0.24		000	0.000
Medium Trucks:		-20.46		-7.27		-1.20		-0.31		000	0.000
Heavy Trucks:	80.05	-24.42		-7.27		-1.20		-0.52	0.0	000	0.000
Unmitigated Noise	•	<u> </u>	barri	er attenua	ation)						
VehicleType	Leq Peak Hour			Leq Eve		Leq	Night		Ldn		NEL
Autos:			51.4		50.1		44.1		52.5		53.1
Medium Trucks:	_		42.0		34.5		43.2		49.4		49.5
Heavy Trucks:			43.1		39.7		44.4		50.6		50.7
Vehicle Noise:	54.9	9	52.4		50.6		48.7	/	55.8	3	56.1
Mitigated Noise L	· · · · · · · · · · · · · · · · · · ·							1		1	
VehicleType	Leq Peak Hour			Leq Eve		Leq	Night		Ldn		NEL
Autos:			51.4		50.1		44.1		52.5		53.1
Medium Trucks:			42.0		34.5 39.7		43.2		49.4		49.5
Heavy Trucks:			43.1				44.4		50.6		50.7
Vehicle Noise:	54.9	9	52.4		50.6		48.7	1	55.8	)	56.1

Project Name: Everhome Suites Scenario: First Floor With Wall Road Name: Harriman Pl. Job Number: 15215

	Vo: 232						alyst: A.Sh					
SITE	SPECIFIC INF	PUT DATA				NC	ISE MOD	EL INPU	TS			
Highway Data				S	Site Con	ditions (F	lard = 10, S	Soft = 15)				
Average Daily	Traffic (Adt): 5	5,800 vehicles	6				Auto	s: 15				
Peak Hour	Percentage:	10%			Me	dium Truc	ks (2 Axles	s): 15				
Peak F	lour Volume:	580 vehicles	6		Heavy Trucks (3+ Axles): 15							
Ve	ehicle Speed:	35 mph		V	/ehicle l	Mix						
Near/Far La	ane Distance:	32 feet				icleType	Day	Evening	g Nigh	t Daily		
Site Data							itos: 75.5					
Ba	rrier Height:	0.0 feet			М	edium Tru	cks: 48.9	9% 2.29	% 48.9	9% 1.84%		
Barrier Type (0-V	_	0.0			1	Heavy Tru	cks: 47.3	5.49	% 47.3	3% 0.74%		
• • •	ist. to Barrier:	135.0 feet			loiso Sa	ource Elev	ations (in	foot)				
Centerline Dist.	to Observer:	167.0 feet			10/36 30	Autos:	•					
Barrier Distance	to Observer:	32.0 feet			Modiu	m Trucks:	•					
Observer Height	(Above Pad):	5.0 feet				n Trucks. /y Trucks:	*		Adjustme	<i>nt</i> ∙ 0 0		
P	Pad Elevation: 1	,029.0 feet							ши			
Ro	ad Elevation: 1	,022.0 feet		L	ane Eq	uivalent E	Distance (ii	ı feet)				
Barr	Barrier Elevation: 1,029.0 feet					Autos:						
	Road Grade:	1.0%				m Trucks:						
					Heav	y Trucks:	150.203					
FHWA Noise Mod	el Calculations											
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresnel	Barrier A	Atten E	Berm Atten		
Autos:	65.11	-3.23		-7.29	)	-1.20	-0.12	2 (	0.000	0.000		
Medium Trucks:	74.83	-20.46		-7.28	3	-1.20	-0.1	7 (	0.000	0.000		
Heavy Trucks:	80.05	-24.42		-7.27	7	-1.20	-0.3	3 (	0.000	0.000		
Unmitigated Noise	e Levels (withou	ut Topo and	barri	er atteni	uation)							
VehicleType	Leq Peak Hour	Leq Day		Leq Ev	rening	Leq N	ight	Ldn		CNEL		
Autos:	53.4	1	51.4		50.1		44.1	52	2.5	53.1		
Medium Trucks:	45.9		42.0		34.5		43.2	49	9.4	49.4		
Heavy Trucks:		2	43.1		39.7		44.4	50	0.6	50.7		
Vehicle Noise:	54.9	)	52.4		50.6		48.7	5	5.8	56.1		
Mitigated Noise L	evels (with Top	o and barrier	atte	nuation)	)							
VehicleType	Leq Peak Hour	Leq Day	,	Leq Ev	rening	Leq N	ight	Ldn		CNEL		
Autos:	53.4	1	51.4		50.1		44.1	52	2.5	53.1		
Medium Trucks:			42.0		34.5		43.2		9.4	49.4		
Heavy Trucks:		2	43.1		39.7		44.4	50	0.6	50.7		
Vehicle Noise:	54.9	)	52.4		50.6		48.7	5	5.8	56.1		

Scenario: First Floor With Wall Road Name: Harriman Pl.

Lot No: 219

Project Name: Everhome Suites

Job Number: 15215 Analyst: A.Shami

SITE	SITE SPECIFIC INPUT DATA NOISE MODEL INPUTS									
Highway Data			;	Site Conditions	(Hard = 10, S	oft = 15)				
Average Daily	Traffic (Adt):	5,800 vehicles	3		Autos	: 15				
Peak Hou	r Percentage:	10%		Medium Tr	ucks (2 Axles)	: 15				
Peak I	Hour Volume:	580 vehicles	S	Heavy True	cks (3+ Axles)	: 15				
	ehicle Speed:	35 mph	,	Vehicle Mix						
Near/Far La	ane Distance:	32 feet		VehicleType	Day	Evening	Night	Daily		
Site Data				Autos: 75.5% 14.0% 10.5%						
Ba	arrier Height:	0.0 feet		Medium T	rucks: 48.9°	% 2.2%	48.9%	1.84%		
Barrier Type (0-V	•	0.0		Heavy T	rucks: 47.39	% 5.4%	47.3%	0.74%		
	ist. to Barrier:	135.0 feet		Noise Source El	ovations (in t	inat)				
Centerline Dist.	to Observer:	206.0 feet	•	Auto		eei)				
Barrier Distance	to Observer:	71.0 feet		Medium Truck	•					
Observer Height	(Above Pad):	5.0 feet			-	Grade Adj	ustmant	0 0		
F	Pad Elevation:	1,029.5 feet		Heavy Truck	5. 1,029.01	Grade Adj	ustinent	. 0.0		
Ro	ad Elevation:	1,021.0 feet	1	Lane Equivalent	Distance (in	feet)				
Barı	rier Elevation:	1,029.5 feet		Auto	s: 189.401					
	Road Grade:	1.0%		Medium Truck	s: 189.656					
				Heavy Truck	s: 189.405					
FHWA Noise Mod	lel Calculation	าร								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atte	en Ber	m Atten		
Autos	65.11	1 -3 23	-8.7	8 -1 20	0.00	-4 °	00	-7 900		

I TIVVA NOISE MOU	ei Calculation.	3					
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	65.11	-3.23	-8.78	-1.20	0.00	-4.900	-7.900
Medium Trucks:	74.83	-20.46	-8.79	-1.20	-0.01	0.000	0.000
Heavy Trucks:	80.05	-24.42	-8.78	-1.20	-0.10	0.000	0.000

Unmitigated Noise	Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL						
Autos:	51.9	49.9	48.6	42.6	51.0	51.6						
Medium Trucks:	44.4	40.5	33.0	41.7	47.9	47.9						
Heavy Trucks:	45.6	41.6	38.2	42.9	49.1	49.1						
Vehicle Noise:	53.4	50.9	49.1	47.2	54.3	54.6						

Mitigated Noise Lo	Mitigated Noise Levels (with Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL						
Autos:	47.0	45.0	43.7	37.7	46.1	46.7						
Medium Trucks:	44.4	40.5	33.0	41.7	47.9	47.9						
Heavy Trucks:	45.6	41.6	38.2	42.9	49.1	49.1						
Vehicle Noise:	50.6	47.6	45.0	46.0	52.6	52.8						

Project Name: Everhome Suites Scenario: First Floor With Wall Road Name: Harriman Pl. Job Number: 15215

	Vo: 332						umber. \nalyst: /		ni		
SITE	SPECIFIC INP	UT DATA				Ν	IOISE N	ЛОDE	L INPUTS	5	
Highway Data				Site	e Cond		(Hard =				
Average Daily	Traffic (Adt): 5	,800 vehicles						Autos:	15		
	Percentage:	10%			Med	lium Tro	ucks (2 A	Axles):	15		
Peak H	lour Volume:	580 vehicles		Heavy Trucks (3+ Axles): 15							
Ve	ehicle Speed:	35 mph		Vehicle Mix							
Near/Far La	ane Distance:	32 feet				cleType		Day	Evening	Night	Daily
Site Data							Autos:	75.5%	_	10.5%	· -
Ba	rrier Height:	0.0 feet			Ме	dium T	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	•	0.0			H	leavy T	rucks:	47.3%	5.4%	47.3%	0.74%
•••	,	135.0 feet		Noise Source Elevations (in feet)							
Centerline Dist.	to Observer:	167.0 feet		NO	15e 50				et)		
Barrier Distance	to Observer:	32.0 feet			مر بالم ما ا	Auto: Truck:		22.00 24.30			
Observer Height	(Above Pad):	5.0 feet		<i>'</i>			-	30.01	Grade Adj	iustman:	<i>t</i> · 0 0
P	ad Elevation: 1,	038.0 feet			neav	/ Truck	S. 1,03	0.01	Grade Auj	usimem	<i></i> 0.0
Ro	ad Elevation: 1,	022.0 feet		Lar	ne Equ	ivalent	Distanc	e (in f	feet)		
Barr	Barrier Elevation: 1,038.0 feet					Auto	s: 151.	611			
	Road Grade: 1.0%				Mediun	n Truck	s: 151.	310			
					Heav	/ Truck	s: 150.	711			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Distan	ce	Finite I	Road	Fresn	el	Barrier Atte	en Bei	rm Atten
Autos:	65.11	-3.23		-7.33		-1.20		-0.01	0.0	000	0.000
Medium Trucks:	74.83	-20.46		-7.32		-1.20		-0.02	0.0	000	0.000
Heavy Trucks:	80.05	-24.42		-7.29		-1.20		-0.10	0.0	000	0.000
Unmitigated Noise	e Levels (withou	ıt Topo and b	arrier a	ttenua	tion)						
VehicleType	Leq Peak Hour	Leq Day	Le	q Ever	ning	Leq	Night		Ldn	С	NEL
Autos:	53.4	5	1.3		50.0		44.0	)	52.4	ļ	53.1
Medium Trucks:	45.8	4	2.0		34.4		43.2	=	49.4		49.4
Heavy Trucks:	47.1		3.1		39.7		44.3		50.5		50.6
Vehicle Noise:	54.9	5	2.4		50.5		48.7	7	55.7	7	56.1
Mitigated Noise Lo	evels (with Topo	and barrier	attenua	tion)							
VehicleType	Leq Peak Hour	Leq Day	Le	q Ever	ning	Leq	Night		Ldn	C	NEL
Autos:		5	1.3		50.0		44.0		52.4	ļ	53.1
Medium Trucks:			2.0		34.4		43.2		49.4		49.4
Heavy Trucks:		4	3.1		39.7		44.3	3	50.5	5	50.6
Vehicle Noise:	54.9	5	2.4		50.5		48.7	7	55.7	7	56.1

Scenario: First Floor With Wall Road Name: Harriman Pl.

Lot No: 319

Project Name: Everhome Suites

Job Number: 15215 Analyst: A.Shami

SITE SPECIFIC	INPUT DATA		NOISE MODEL INPUTS								
Highway Data			Site Conditions	(Hard	= 10, So	ft = 15)					
Average Daily Traffic (Adt). Peak Hour Percentage. Peak Hour Volume:	10%		Medium Ti Heavy Tru								
Vehicle Speed:	•	· Veriicie iviix									
Near/Far Lane Distance:	32 feet		VehicleType Day Evening Night								
Site Data			Autos: 75.5% 14.0% 10								
Barrier Height: Barrier Type (0-Wall, 1-Berm): Centerline Dist. to Barrier: Centerline Dist. to Observer: Barrier Distance to Observer:	0.0 135.0 feet 206.0 feet 71.0 feet		Medium Trucks: 48.9% 2.2% 48.9% 1.8 Heavy Trucks: 47.3% 5.4% 47.3% 0.7  Noise Source Elevations (in feet)  Autos: 1,021.00 Medium Trucks: 1,023.30 Heavy Trucks: 1,029.01 Grade Adjustment: 0.0  Lane Equivalent Distance (in feet)  Autos: 190.387 Medium Trucks: 190.071 Heavy Trucks: 189.477								
Observer Height (Above Pad). Pad Elevation. Road Elevation. Barrier Elevation. Road Grade.	1,038.5 feet 1,021.0 feet 1,038.5 feet	-									
FHWA Noise Model Calculation	ns										
VehicleType REMEL	Traffic Flow	Distance	Finite Road	Fre	snel	Barrier Atte	en Ber	m Atten			
Autos: 65.1	1 -3.23	-8.8	31 -1.20		0.13	-6.2	240	-9.240			

I IIIIA Noise mou	ci oaioaiation						
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	65.11	-3.23	-8.81	-1.20	0.13	-6.240	-9.240
Medium Trucks:	74.83	-20.46	-8.80	-1.20	0.07	-5.700	-8.700
Heavy Trucks:	80.05	-24.42	-8.78	-1.20	0.00	-4.900	-7.900

Unmitigated Noise	Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL						
Autos:	51.9	49.9	48.5	42.5	51.0	51.6						
Medium Trucks:	44.4	40.5	33.0	41.7	47.9	47.9						
Heavy Trucks:	45.6	41.6	38.2	42.9	49.0	49.1						
Vehicle Noise:	53.4	50.9	49.0	47.2	54.3	54.6						

Mitigated Noise Lo	Mitigated Noise Levels (with Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:	45.6	43.6	42.3	36.3	44.7	45.3					
Medium Trucks:	38.7	34.8	27.3	36.0	42.2	42.2					
Heavy Trucks:	40.7	36.7	33.3	38.0	44.1	44.2					
Vehicle Noise:	47.5	44.9	42.9	41.6	48.6	48.9					

Project Name: Everhome Suites Scenario: First Floor With Wall Road Name: Harriman Pl. Job Number: 15215

	Vo: 432					J J	Analyst: A	\.Shar	ni		
SITE	SPECIFIC INF	PUT DATA							L INPUT	S	
Highway Data				S	ite Con	ditions	(Hard =	10, Sc	oft = 15)		
Average Daily	Traffic (Adt): 5	5,800 vehicles	6				,	Autos:	15		
Peak Hour	Percentage:	10%			Ме	dium Tri	ucks (2 A	(xles	15		
Peak F	lour Volume:	580 vehicles	3		He	avy Truc	cks (3+ A	(xles	15		
Ve	ehicle Speed:	35 mph		V	ehicle l	Wix					
Near/Far La	ne Distance:	32 feet				icleType	)	Day	Evening	Night	Daily
Site Data								75.5%		10.5%	
Ba	rrier Height:	0.0 feet			М	edium T	rucks:	48.9%	2.2%	48.9%	6 1.84%
Barrier Type (0-W	•	0.0				Heavy T	rucks:	47.3%	5.4%	47.3%	6 0.74%
	,	135.0 feet		A.	oico Sa	ourco El	evations	· (in fo	no+1		
Centerline Dist.	to Observer:	167.0 feet		N	UISE SC	Auto.		5.00	et)		
Barrier Distance	to Observer:	32.0 feet			Modiu	ب m Truck	•				
Observer Height	(Above Pad):	5.0 feet				m muck. ∕y Truck.	•		Grade Ad	liustmen	t: 0 0
P	ad Elevation: 1,	,047.0 feet			Heat	y ITUCK	s. 1,00	3.01	Orade Ad	justinori	2. 0.0
Ro	ad Elevation: 1,	,045.0 feet		L	ane Eq	uivalent	Distanc		eet)		
Barr	ier Elevation: 1,	047.0 feet				Auto.					
	Road Grade:	1.0%				m Truck					
					Heav	y Truck	s: 150. <sup>2</sup>	153			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresn	el	Barrier Att	en Be	rm Atten
Autos:	65.11	-3.23		-7.27		-1.20		-0.24	0.0	000	0.000
Medium Trucks:	74.83	-20.46		-7.27		-1.20		-0.31	0.0	000	0.000
Heavy Trucks:	80.05	-24.42		-7.27		-1.20		-0.52	0.0	000	0.000
Unmitigated Noise	e Levels (withou	ut Topo and	barri	er attenu	ation)						
VehicleType	Leq Peak Hour	Leq Day	,	Leq Ev	ening	Leq	Night		Ldn	C	NEL
Autos:	53.4	ļ	51.4		50.1		44.1		52.	5	53.1
Medium Trucks:	45.9		42.0		34.5		43.2		49.4		49.5
Heavy Trucks:			43.1		39.7		44.4		50.0	6	50.7
Vehicle Noise:	54.9	)	52.4		50.6		48.7		55.	8	56.1
Mitigated Noise Lo	evels (with Tope	o and barrie	atte	nuation)							
VehicleType	Leq Peak Hour	Leq Day	,	Leq Ev	ening	Leq	Night		Ldn	C	NEL
Autos:			51.4		50.1		44.1		52.	5	53.1
Medium Trucks:			42.0		34.5		43.2		49.4		49.5
Heavy Trucks:			43.1		39.7		44.4		50.0		50.7
Vehicle Noise:	54.9	)	52.4		50.6		48.7		55.8	3	56.1

Project Name: Everhome Suites Scenario: First Floor With Wall Job Number: 15215 Road Name: Harriman Pl.

	Vo: 419						alyst: A.S		i		
SITE	SPECIFIC INF	PUT DATA				NC	ISE MO	DEL	INPUTS	ò	
Highway Data				S	ite Con	ditions (F	dard = 10	, Sof	t = 15)		
Average Daily	Traffic (Adt): 5	5,800 vehicles	3				Aut	tos:	15		
Peak Hour	Percentage:	10%			Me	dium Truc	ks (2 Axle	es):	15		
Peak F	lour Volume:	580 vehicles	<b>3</b>		He	avy Truck	s (3+ Axle	es):	15		
Ve	ehicle Speed:	35 mph		V	/ehicle l	Mix					
Near/Far La	ane Distance:	32 feet				icleType	Da	ay l	Evening	Night	Daily
Site Data								5.5%	14.0%	10.5%	97.42%
Ba	rrier Height:	0.0 feet			М	edium Tru	cks: 48	3.9%	2.2%	48.9%	1.84%
Barrier Type (0-V	-	0.0			1	Heavy Tru	cks: 47	'.3%	5.4%	47.3%	0.74%
• • •	,	135.0 feet		^	loisa Sc	ource Elev	ıstions (i	in foo	n+)		
Centerline Dist.	to Observer:	206.0 feet			10/36 30	Autos:			• • • • • • • • • • • • • • • • • • • •		
Barrier Distance	to Observer:	71.0 feet			Modiu	m Trucks:	•				
Observer Height	(Above Pad):	5.0 feet				ry Trucks:	·		Grade Adj	ustment	. 0 0
P	Pad Elevation: 1,	,047.5 feet								dott i orit.	. 0.0
Ro	ad Elevation: 1,	,021.0 feet		L	ane Eq	uivalent E		•	et)		
	Barrier Elevation: 1,047.5 feet					Autos:					
	Road Grade:	1.0%				m Trucks:					
					Heav	y Trucks:	190.537	7			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresnel	В	Barrier Atte	en Ber	m Atten
Autos:	65.11	-3.23		-8.87	7	-1.20	0.	49	-8.4	50	-11.450
Medium Trucks:		-20.46		-8.85	5	-1.20	0.	.37	-7.8	50	-10.850
Heavy Trucks:	80.05	-24.42		-8.82	<u> </u>	-1.20	0.	15	-6.4	00	-9.400
Unmitigated Noise	e Levels (withou	ut Topo and	barrie	er attent	uation)						
VehicleType	Leq Peak Hour	Leq Day		Leq Ev	rening	Leq N	ight	L	Ldn	CI	VEL
Autos:		3	49.8		48.5		42.5		50.9		51.5
Medium Trucks:			40.4		32.9		41.7		47.8		47.9
Heavy Trucks:		6	41.6		38.2		42.8		49.0	l	49.1
Vehicle Noise:	53.3	3	50.8		49.0		47.1		54.2		54.5
Mitigated Noise L	evels (with Tope	o and barrier	attei	nuation)							
VehicleType	Leq Peak Hour	Leq Day		Leq Ev	rening	Leq N	ight	L	Ldn	CI	VEL
Autos:			41.4		40.0		34.0		42.4		43.1
Medium Trucks:			32.6		25.1		33.8		40.0		40.0
Heavy Trucks:		2	35.2		31.8		36.4		42.6		42.7
Vehicle Noise:	45.4		42.7		40.8		39.7		46.6		46.9

Scenario: Fourth Floor With Wall

Project Name: Everhome Suites

Road Name: Harriman Pl.

Lot No: 132

Job Number: 15215

Analyst: A.Shami

Lot No: 132  SITE SPECIFIC INPUT DATA  Highway Data					Analyst: A.Shami  NOISE MODEL INPUTS  Site Conditions (Hard = 10, Soft = 15)																	
												Average Daily	Traffic (Adt):	5,800 vehicles				,	Autos:	15		
												Peak Hour Percentage: 10%				Medium Trucks (2 Axles): 15						
Peak Hour Volume: 580 vehicles				Heavy Trucks (3+ Axles): 15																		
Vehicle Speed: 35 mph				Vehicle Mix																		
Near/Far La	32 feet		Veh	icleType		Day	Evening	Night	Daily													
Site Data					Au	tos:	75.5%	14.0%	10.5%	97.42%												
Ba	rrier Height:	0.0 feet		М	edium Tru	cks:	48.9%	2.2%	48.9%	1.84%												
Barrier Type (0-W	•	0.0		Heavy Trucks: 47.3			47.3%	5.4%	47.3%	0.74%												
Centerline Dist. to Barrier: 135.0 feet				Noise Source Elevations (in feet)																		
Centerline Dist. to Observer: 167.0 feet				Autos: 1,022.00																		
Barrier Distance to Observer: 32.0 feet				Mediu	m Trucks:	-	4.30															
Observer Height (Above Pad): 32.0 feet					y Trucks:	1,03		Grade Adj	iustment.	: 0.0												
	ad Elevation: 1							· · 4\														
Road Elevation: 1,022.0 feet					Lane Equivalent Distance (in feet)  Autos: 153.951																	
Barrier Elevation: 1,024.0 feet					Autos:																	
	Road Grade:	1.0%			m Trucks: /y Trucks:	153.4																
				пеач	y Trucks.	152.3	000															
FHWA Noise Mod	el Calculations	1																				
VehicleType	REMEL	Traffic Flow Di	istance	Finite	Road	Fresn	el	Barrier Atte	en Ber	m Atten												
Autos:		-3.23	-7.4		-1.20		-9.29	0.0	000	0.000												
Medium Trucks:		-20.46	-7.4		-1.20	-9.75		0.0		0.000												
Heavy Trucks:	80.05	-24.42	-7.3	36 -1.20		-10.94		0.0	000	0.000												
Unmitigated Noise	e Levels (witho	out Topo and barr	ier atten	uation)																		
VehicleType	Leq Peak Hou		-	vening	Leq Ni	ght		Ldn		VEL												
Autos:				49.9	43.9			52.3		53.0												
Medium Trucks:	_			34.4		43.1		49.3		49.3												
Heavy Trucks:				39.6		44.3		50.5		50.6												
Vehicle Noise:	54.	8 52.3		50.4		48.6	i	55.7	7	56.0												
Mitigated Noise L	evels (with Top	oo and barrier atte	enuation	)																		
VehicleType	Leq Peak Hou	r Leq Day	Leq E	vening	Leq Ni	Leq Night		Ldn	CI	CNEL												
Autos:	53.			49.9		43.9		52.3	3	53.0												
Medium Trucks:				34.4		43.1		49.3		49.3												
Heavy Trucks:	47.	1 43.0		39.6		44.3		50.5	5	50.6												
								_														

Vehicle Noise:

54.8

50.4

48.6

55.7

56.0

52.3

Scenario: Fourth Floor With Wall Project Name: Everhome Suites

Road Name: Harriman Pl.

Lot No: 232

Job Number: 15215

Analyst: A.Shami

2017	10. 202					many ou. 7					
SITE	SPECIFIC IN	PUT DATA			Ν	IOISE N	10DE	L INPUTS	S		
Highway Data				Site Conditions (Hard = 10, Soft = 15)							
Average Daily	/ Traffic (Adt):	5,800 vehicles				,	Autos:	15			
Peak Hou	r Percentage:	10%		Medium Trucks (2 Axles): 15							
Peak I	Hour Volume:	580 vehicles		He	eavy Tru	cks (3+ A	(xles	15			
Ve	ehicle Speed:	35 mph		Vehicle	Miy						
Near/Far La	ane Distance:	32 feet	_		nicleType	)	Day	Evening	Night	Daily	
Site Data						Autos:	75.5%	14.0%	10.5%	97.42%	
Bá	arrier Height:	0.0 feet		$\lambda$	ledium T	rucks:	48.9%	2.2%	48.9%	1.84%	
Barrier Type (0-V	•	0.0			Heavy T	rucks:	47.3%	5.4%	47.3%	0.74%	
	ist. to Barrier:	135.0 feet		Noise S	ourco El	lovations	(in fo	not)			
Centerline Dist	. to Observer:	167.0 feet		NOISE S	Auto		2.00	: <del>C</del> ()			
Barrier Distance	e to Observer:	32.0 feet		Modiu	Auto ım Truck	,					
Observer Height	(Above Pad):	32.0 feet			vy Truck	,	0.01	Grade Ad	iustment	. 0 0	
F	Pad Elevation: 1	,029.0 feet		1164	vy Truck	3. 1,03	0.01	Orado riaj	dournorn.	0.0	
Ro	oad Elevation: 1	,022.0 feet		Lane Eq	uivalent	Distanc	e (in f	eet)			
Bari	rier Elevation: 1	,029.0 feet			Auto	s: 155.′	132				
	Road Grade:	1.0%		Mediu	ım Truck	s: 154.5	571				
				Hea	vy Truck	s: 153.3	315				
FHWA Noise Mod	lel Calculations	}									
VehicleType	REMEL	Traffic Flow	Distance	Finite	Road	Fresn	el	Barrier Atte	en Ber	m Atten	
Autos	: 65.11	-3.23	-7.4	18	-1.20		-8.32	0.0	000	0.000	
Medium Trucks	74.83	-20.46	-7.4	-7.46 -1.20 <i>-8.76</i> 0.000					000	0.000	
Heavy Trucks.	: 80.05	-24.42	-7.4	-7.40 -1.20 -9.89 0.000 0.						0.000	
<b>Unmitigated Nois</b>	e Levels (witho	out Topo and L	parrier atter	nuation)							
VehicleType	Leq Peak Hou	r Leq Day	Leq E	vening	Leq	Night		Ldn	CI	VEL	

Unmitigated Nois	Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:	53.2	51.2	49.9	43.9	52.3	52.9					
Medium Trucks:	45.7	41.8	34.3	43.1	49.2	49.3					
Heavy Trucks:	47.0	43.0	39.6	44.2	50.4	50.5					
Vehicle Noise:	54.7	52.2	50.4	48.5	55.6	55.9					

Mitigated Noise Levels (with Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	53.2	51.2	49.9	43.9	52.3	52.9				
Medium Trucks:	45.7	41.8	34.3	43.1	49.2	49.3				
Heavy Trucks:	47.0	43.0	39.6	44.2	50.4	50.5				
Vehicle Noise:	54.7	52.2	50.4	48.5	55.6	55.9				

Scenario: Fourth Floor With Wall

Road Name: Harriman Pl. Lot No: 219

Project Name: Everhome Suites

Job Number: 15215 Analyst: A.Shami

SITE SPECIFIC I	NPUT DATA		1	VOISE	MODE	L INPUTS	5	
Highway Data		5	Site Conditions	(Hard =	= 10, So	ft = 15)		
Average Daily Traffic (Adt): Peak Hour Percentage: Peak Hour Volume: Vehicle Speed: Near/Far Lane Distance:	5,800 vehicles 10% 580 vehicles 35 mph 32 feet		Medium Ti Heavy Tru <b>/ehicle Mix</b>	icks (3+	Axles):	15		
	32 loct		VehicleType	е	Day	Evening	Night	Daily
Barrier Height: Barrier Type (0-Wall, 1-Berm): Centerline Dist. to Barrier: Centerline Dist. to Observer: Barrier Distance to Observer: Observer Height (Above Pad):	0.0 feet 0.0 135.0 feet 206.0 feet 71.0 feet 32.0 feet	1	Medium T Heavy T Ioise Source E Auto Medium Truck Heavy Truck	Trucks: Elevation os: 1,0 ks: 1,0	75.5% 48.9% 47.3% <b>as (in fe</b> 21.00 23.30 29.01	2.2%	48.9% 47.3%	0.74%
Pad Elevation: Road Elevation: Barrier Elevation: Road Grade:	1,021.0 feet	L	ane Equivalen Auto Medium Truck Heavy Truck	os: 193 ks: 193	ace (in f 3.608 3.141 3.093	eet)		
FHWA Noise Model Calculation	15							
VehicleType REMEL	Traffic Flow	Distance	Finite Road	Fres	nel	Barrier Atte	en Ber	m Atten

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	65.11	-3.23	-8.92	-1.20	-2.85	0.000	0.000
Medium Trucks:	74.83	-20.46	-8.91	-1.20	-3.17	0.000	0.000
Heavy Trucks:	80.05	-24.42	-8.87	-1.20	-4.03	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	51.8	49.8	48.4	42.4	50.8	51.5				
Medium Trucks:	44.3	40.4	32.9	41.6	47.8	47.8				
Heavy Trucks:	45.6	41.5	38.1	42.8	49.0	49.1				
Vehicle Noise:	53.3	50.8	48.9	47.1	54.2	54.5				

Mitigated Noise Levels (with Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	51.8	49.8	48.4	42.4	50.8	51.5				
Medium Trucks:	44.3	40.4	32.9	41.6	47.8	47.8				
Heavy Trucks:	45.6	41.5	38.1	42.8	49.0	49.1				
Vehicle Noise:	53.3	50.8	48.9	47.1	54.2	54.5				

Scenario: Fourth Floor With Wall

Project Name: Everhome Suites

Road Name: Harriman Pl.

Lot No: 332

Job Number: 15215

Analyst: A.Shami

	lo: 332					<i>alyst:</i> A.Sh	-			
SITE	SPECIFIC INP	UT DATA			NC	DISE MOD	EL INPUT	S		
Highway Data				Site Conditions (Hard = 10, Soft = 15)						
Average Daily	Traffic (Adt): 5	,800 vehicles				Auto	s: 15			
Peak Hour	Percentage:	10%		Medium Trucks (2 Axles): 15						
Peak H	lour Volume:	580 vehicles		Heavy Trucks (3+ Axles): 15						
Ve	hicle Speed:	35 mph		Vehicle II	Лix					
Near/Far La	ne Distance:	32 feet			icleType	Day	Evening	Night	Daily	
Site Data						utos: 75.5		10.5%		
Ra	rrier Height:	0.0 feet		М	edium Tru			48.9%		
Barrier Type (0-W	•	0.0		ŀ	Heavy Tru	icks: 47.3	5.4%	47.3%	0.74%	
Centerline Di	•	135.0 feet		Naina Ca	[12		f4\			
Centerline Dist.		167.0 feet		Noise So		vations (in				
Barrier Distance		32.0 feet			Autos:	•				
Observer Height	(Above Pad):	32.0 feet			n Trucks:	•		li a 4 ma a m 4	. 0 0	
=		038.0 feet		Heav	y Trucks:	1,030.01	Grade Ad	justment.	0.0	
Road Elevation: 1,022.0 feet				Lane Equ	uivalent L	Distance (ii	ı feet)			
Barrier Elevation: 1,038.0 feet					Autos:	157.636				
Road Grade: 1.0%				Mediui	m Trucks:	156.951				
				Heav	y Trucks:	155.385				
FHWA Noise Mode	el Calculations									
VehicleType	REMEL	Traffic Flow	Distance	e Finite	Road	Fresnel	Barrier Att	en Ber	m Atten	
Autos:	65.11	-3.23	-7	7.58	-1.20	-6.7	3 0.0	000	0.000	
Medium Trucks:	74.83	-20.46	-7	'.56	-1.20	-7.1	2 0.0	000	0.000	
Heavy Trucks:	80.05	-24.42	-7	'.49	-1.20	-8.1	4 0.0	000	0.000	
Unmitigated Noise	e Levels (withou	ıt Topo and ba	rrier att	enuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq N	ight	Ldn	CI	VEL	
Autos:	53.1	51	.1	49.8		43.8	52.2	2	52.8	
Medium Trucks:	45.6	41	.7	34.2		43.0	49.	1	49.2	
Heavy Trucks:	46.9	42	.9	39.5		44.1	50.3	3	50.4	
Vehicle Noise:	54.6	52	.1	50.3		48.4	55.	5	55.8	
Mitigated Noise Le	evels (with Topo	o and barrier a	tenuati	on)						
VehicleType	Leq Peak Hour	Leq Day	Leq	Evening	Leq N	ight	Ldn	CI	VEL	
Autos:	53.1	51	.1	49.8		43.8	52.2	2	52.8	
Medium Trucks:		41	.7	34.2		43.0	49.1	l	49.2	
Heavy Trucks:	46.9	42	.9	39.5		44.1	50.3	3	50.4	

Scenario: Fourth Floor With Wall

Road Name: Harriman Pl. Lot No: 319

Project Name: Everhome Suites

Job Number: 15215 Analyst: A.Shami

SITE SPECIFIC I	NPUT DATA		1	NOISE	MODE	L INPUTS	5	
Highway Data			Site Conditions	(Hard =	= 10, So	ft = 15)		
Average Daily Traffic (Adt): Peak Hour Percentage: Peak Hour Volume: Vehicle Speed: Near/Far Lane Distance:	5,800 vehicles 10% 580 vehicles 35 mph 32 feet	6	Medium Tr Heavy Tru <b>Vehicle Mix</b> VehicleType	rucks (2 rcks (3+	Autos: Axles): Axles):	15 15 15	Night	Doily
Site Data				autos:	<i>Day</i> 75.5%	Evening 14.0%	Night	<i>Daily</i> 97.42%
Barrier Height: Barrier Type (0-Wall, 1-Berm): Centerline Dist. to Barrier: Centerline Dist. to Observer: Barrier Distance to Observer:	0.0 feet 0.0 135.0 feet 206.0 feet 71.0 feet		Medium 1 Heavy 1 <b>Noise Source E</b> Auto Medium Truck	rucks: levation ps: 1,0	48.9% 47.3% ns (in fe 021.00 023.30	5.4%	48.9% 47.3%	1.84% 0.74%
Observer Height (Above Pad): Pad Elevation: Road Elevation:	32.0 feet 1,038.5 feet		Heavy Truck		)29.01 nce (in f	Grade Adj	iustment.	0.0
Barrier Elevation: Road Grade:	,		Auto Medium Truck Heavy Truck	s: 195 (s: 195	5.689 5.121			
FHWA Noise Model Calculation	18							
VehicleType REMEL	Traffic Flow	Distance	Finite Road	Fres	snel	Barrier Atte	en Ber	m Atten

I TIVVA NOISE MOU	ei Calculation.	3					
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	65.11	-3.23	-8.99	-1.20	-1.78	0.000	0.000
Medium Trucks:	74.83	-20.46	-8.97	-1.20	-2.02	0.000	0.000
Heavy Trucks:	80.05	-24.42	-8.93	-1.20	-2.72	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	51.7	49.7	48.4	42.4	50.8	51.4				
Medium Trucks:	44.2	40.3	32.8	41.5	47.7	47.8				
Heavy Trucks:	45.5	41.5	38.1	42.7	48.9	49.0				
Vehicle Noise:	53.2	50.7	48.9	47.0	54.1	54.4				

Mitigated Noise Levels (with Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	51.7	49.7	48.4	42.4	50.8	51.4				
Medium Trucks:	44.2	40.3	32.8	41.5	47.7	47.8				
Heavy Trucks:	45.5	41.5	38.1	42.7	48.9	49.0				
Vehicle Noise:	53.2	50.7	48.9	47.0	54.1	54.4				

Project Name: Everhome Suites Scenario: Fourth Floor With Wall Job Number: 15215 Road Name: Harriman Pl.

	ne: Harriman Pl. Vo: 432						umber: 152 nalyst: A.S	-		
SITE	SPECIFIC INP	UT DATA				N	OISE MO	DEL INPUT	S	
Highway Data		-		S	ite Con		Hard = 10,			
Average Daily	Traffic (Adt): 5	5,800 vehicles	3				Aut	os: 15		
•	Percentage:	10%			Me	dium Tru	icks (2 Axle	es): 15		
	lour Volume:	580 vehicles	6		He	avy Truc	ks (3+ Axle	es): 15		
Ve	ehicle Speed:	35 mph		V	ehicle II	/liv				
Near/Far La	ane Distance:	32 feet		•		icleType	Da	y Evening	Night	Daily
Site Data								.5% 14.0%		_
Ba	rrier Height:	0.0 feet			Me	edium Tı	rucks: 48	.9% 2.2%	48.9	% 1.84%
Barrier Type (0-V	•	0.0			ŀ	Heavy Ti	rucks: 47	.3% 5.4%	47.3	% 0.74%
	•	135.0 feet			loiso Sa	urco Ele	evations (i	n foot)		
Centerline Dist.	to Observer:	167.0 feet			ioise so	Autos				
Barrier Distance	to Observer:	32.0 feet			Modiuu	Autos n Trucks	•			
Observer Height	(Above Pad):	32.0 feet				y Trucks	•		diustmei	nt: 0 0
P	Pad Elevation: 1,	047.0 feet				-			gaotimo	11. 0.0
Ro	ad Elevation: 1,	045.0 feet		L	ane Equ	uivalent	Distance (			
	rier Elevation: 1,					Autos				
	Road Grade:	1.0%				n Trucks				
					Heav	y Trucks	3: 152.383	}		
FHWA Noise Mod	el Calculations									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresnel	Barrier Att	ten Be	erm Atten
Autos:	65.11	-3.23		-7.43	3	-1.20	-9.	29 0.	000	0.000
Medium Trucks:	74.83	-20.46		-7.41		-1.20	-9.	<i>7</i> 5 0.	000	0.000
Heavy Trucks:	80.05	-24.42		-7.36	6	-1.20	-10.	94 0.	000	0.000
Unmitigated Noise	e Levels (withoເ	ıt Topo and	barrie	er attenu	uation)					
VehicleType	Leq Peak Hour	Leq Day		Leq Ev	rening	Leq I	Vight	Ldn	(	CNEL
Autos:			51.2		49.9		43.9	52.		53.0
Medium Trucks:			41.9		34.4		43.1	49.		49.3
Heavy Trucks:			43.0		39.6		44.3	50.		50.6
Vehicle Noise:	54.8		52.3		50.4		48.6	55.	7	56.0
Mitigated Noise L	evels (with Topo	and barrier	atter	nuation)	)					
VehicleType	Leq Peak Hour	Leq Day		Leq Ev	rening	Leq I	Vight	Ldn	(	CNEL
Autos:			51.2		49.9		43.9	52.	3	53.0
Medium Trucks:			41.9		34.4		43.1	49.3		49.3
Heavy Trucks:			43.0		39.6		44.3	50.		50.6
Vehicle Noise:	54.8		52.3		50.4		48.6	55.	7	56.0

Project Name: Everhome Suites Job Number: 15215 Scenario: Fourth Floor With Wall Road Name: Harriman Pl.

	Vo: 419					JOD 14	Analyst: A	.Shan	ni		
SITE	SPECIFIC INF	PUT DATA							L INPUTS	5	
Highway Data				S	ite Con	ditions	(Hard =	10, So	ft = 15)		
Average Daily	Traffic (Adt): 5	5,800 vehicles	3				A	Autos:	15		
Peak Hour	r Percentage:	10%			Me	dium Tr	ucks (2 A	xles):	15		
Peak H	Hour Volume:	580 vehicles	3		He	avy Trud	cks (3+ A	xles):	15		
	ehicle Speed:	35 mph		V	ehicle l	Vix					
Near/Far La	ane Distance:	32 feet			Veh	icleType	,	Day	Evening	Night	Daily
Site Data							Autos:	75.5%	14.0%	10.5%	97.42%
Ba	nrrier Height:	0.0 feet			М	edium T	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-V	•	0.0			ı	Heavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline D	ist. to Barrier:	135.0 feet		N	nise Sc	ource Fl	evations	(in fe	net)		
Centerline Dist.	to Observer:	206.0 feet		-	0/30 00	Auto.					
Barrier Distance	to Observer:	71.0 feet			Mediu	m Truck					
Observer Height	(Above Pad):	32.0 feet				y Truck	•		Grade Adj	ustment	: 0.0
P	Pad Elevation: 1,	047.5 feet									. 0.0
Ro	oad Elevation: 1,	021.0 feet		L	ane Eq		Distanc	•	eet)		
	rier Elevation: 1,					Auto					
	Road Grade:	1.0%				m Truck					
					Heav	y Truck	s: 195.9	943			
FHWA Noise Mod	lel Calculations										
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresn	el .	Barrier Atte	en Ber	m Atten
Autos:	65.11	-3.23		-9.07		-1.20		-0.97	0.0	000	0.000
Medium Trucks:		-20.46		-9.05		-1.20		-1.15	0.0		0.000
Heavy Trucks:	80.05	-24.42		-9.00		-1.20		-1.67	0.0	000	0.000
<b>Unmitigated Nois</b>	e Levels (withou	ut Topo and	barrie	er attenu	ation)						
VehicleType	Leq Peak Hour			Leq Eve	ening	Leq	Night		Ldn	CI	VEL
Autos:		3	49.6		48.3		42.3		50.7	•	51.3
Medium Trucks:			40.2		32.7		41.5		47.6		47.7
Heavy Trucks:			41.4		38.0		42.6		48.8		48.9
Vehicle Noise:	53.1		50.6		48.8		46.9		54.0	)	54.3
Mitigated Noise L	evels (with Tope	o and barrie	atter	nuation)							
VehicleType	Leq Peak Hour			Leq Eve			Night		Ldn		VEL
Autos:			49.6		48.3		42.3		50.7	•	51.3
Medium Trucks:			40.2		32.7		41.5		47.6		47.7
Heavy Trucks:			41.4		38.0		42.6		48.8		48.9
Vehicle Noise:	53.1		50.6		48.8		46.9		54.0	)	54.3

Project Name: Everhome Suites Scenario: Second Floor With Wall Job Number: 15215 Road Name: Harriman Pl.

	ne: Harriman Pi. Vo: 132						imber: 152 nalyst: A.S			
SITE	SPECIFIC INF	PUT DATA				N	OISE MOI	DEL INPUT	S	
Highway Data		-		S	ite Con		Hard = 10,			
Average Daily	Traffic (Adt):	5,800 vehicles	3				Aut	os: 15		
	Percentage:	10%			Ме	dium Tru	cks (2 Axle	s): 15		
Peak H	lour Volume:	580 vehicles	3		He	avy Truc	ks (3+ Axle	s): 15		
Ve	ehicle Speed:	35 mph		V	ehicle l	/lix				
Near/Far La	ane Distance:	32 feet				icleType	Da	/ Evening	Night	Daily
Site Data								5% 14.0%		6 97.42%
	rrier Height:	0.0 feet			М	edium Tr		9% 2.2%	48.9%	
Barrier Type (0-W	•	0.0 1661			ı	Heavy Tr	ucks: 47.	3% 5.4%	47.3%	
• • •	ist. to Barrier:	135.0 feet								
Centerline Dist.		167.0 feet		N	oise Sc		vations (ii			
Barrier Distance		32.0 feet				Autos	•			
Observer Height		14.0 feet				n Trucks	· ·			
•	Pad Elevation: 1				Heav	y Trucks	: 1,030.0	1 Grade Ad	justmen	t: 0.0
	ad Elevation: 1	•		L	ane Eq	uivalent	Distance (	in feet)		
Barr	rier Elevation: 1	,024.0 feet				Autos	: 151.000			
	Road Grade:	1.0%			Mediu	n Trucks	: 150.774			
					Heav	y Trucks	: 150.363			
FHWA Noise Mod	el Calculations									
VehicleType	REMEL	Traffic Flow	Dis	tance	Finite	Road	Fresnel	Barrier Att	en Be	rm Atten
Autos:		-3.23		-7.30		-1.20	-2.0		000	0.000
Medium Trucks:		-20.46		-7.29		-1.20	-2.2		000	0.000
Heavy Trucks:	80.05	-24.42		-7.28		-1.20	-2.8	31 0.0	000	0.000
Unmitigated Noise	e Levels (witho	ut Topo and	barrie	er attenu	ation)					
VehicleType	Leq Peak Hour	Leq Day	,	Leq Eve	ening	Leq N	light	Ldn	C	NEL
Autos:			51.4		50.1		44.0	52.	5	53.1
Medium Trucks:	45.9	9	42.0		34.5		43.2	49.4	4	49.4
Heavy Trucks:	47.2	2	43.1		39.7		44.4	50.0	6	50.7
Vehicle Noise:	54.9	9	52.4		50.6		48.7	55.3	3	56.1
Mitigated Noise L	evels (with Top	o and barrie	atter	nuation)						
VehicleType	Leq Peak Hour			Leq Eve		Leq N	0	Ldn		NEL
Autos:			51.4		50.1		44.0	52.	5	53.1
Medium Trucks:			42.0		34.5		43.2	49.4		49.4
Heavy Trucks:			43.1		39.7		44.4	50.0		50.7
Vehicle Noise:	54.9	9	52.4		50.6		48.7	55.8	8	56.1

Scenario: Second Floor With Wall Programme: Harriman Pl.

Lot No: 232

Project Name: Everhome Suites Job Number: 15215 Analyst: A.Shami

					,				
SITE	SPECIFIC II	NPUT DATA		١	IOISE	MODE	L INPUTS	S	
Highway Data				Site Conditions	(Hard	= 10, So	ft = 15)		
Average Daily	Traffic (Adt):	5,800 vehicles	S			Autos:	15		
Peak Hou	r Percentage:	10%		Medium Tr	ucks (2	2 Axles):	15		
Peak I	Hour Volume:	580 vehicles	S	Heavy Tru	cks (3+	+ Axles):	15		
Ve	ehicle Speed:	35 mph	,	Vehicle Mix					
Near/Far La	ane Distance:	32 feet		VehicleType	9	Day	Evening	Night	Daily
Site Data					Autos:	75.5%		10.5%	
Ba	arrier Height:	0.0 feet		Medium 7	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-V	_	0.0		Heavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline D	ist. to Barrier:	135.0 feet		Noise Source El	levatio	ns (in fa	not)		
Centerline Dist	to Observer:	167.0 feet	<u>'</u>	Auto		022.00	et)		
Barrier Distance	e to Observer:	32.0 feet		Medium Truck	,	024.30			
Observer Height	(Above Pad):	14.0 feet		Heavy Truck	-	030.01	Grade Ad	iustment	. 0 0
F	Pad Elevation:	1,029.0 feet		Tieavy Truck	.s. 1,	030.01	Orado riaj	, aou monte.	0.0
Ro	oad Elevation:	1,022.0 feet	1	Lane Equivalent	t Dista	nce (in f	eet)		
Bari	rier Elevation:	1,029.0 feet		Auto	s: 15	1.611			
	Road Grade:	1.0%		Medium Truck	s: 15	1.310			
				Heavy Truck	s: 15	0.711			
FHWA Noise Mod	lel Calculation	18							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fre	snel	Barrier Atte	en Ber	m Atten
	·								

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	65.11	-3.23	-7.33	-1.20	-1.64	0.000	0.000
Medium Trucks:	74.83	-20.46	-7.32	-1.20	-1.83	0.000	0.000
Heavy Trucks:	80.05	-24.42	-7.29	-1.20	-2.32	0.000	0.000

Unmitigated Noise	Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:	53.4	51.3	50.0	44.0	52.4	53.1					
Medium Trucks:	45.8	42.0	34.4	43.2	49.4	49.4					
Heavy Trucks:	47.1	43.1	39.7	44.3	50.5	50.6					
Vehicle Noise:	54.9	52.4	50.5	48.7	55.7	56.1					

Mitigated Noise L	Mitigated Noise Levels (with Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	53.4	51.3	50.0	44.0	52.4	53.1				
Medium Trucks:	45.8	42.0	34.4	43.2	49.4	49.4				
Heavy Trucks:	47.1	43.1	39.7	44.3	50.5	50.6				
Vehicle Noise:	54.9	52.4	50.5	48.7	55.7	56.1				

Scenario: Second Floor With Wall Road Name: Harriman Pl.

Lot No: 219

Project Name: Everhome Suites

Job Number: 15215 Analyst: A.Shami

SITE	SPECIFIC IN	IPUT DATA		1	NOISE	MODE	L INPUTS	S	
Highway Data			5	Site Conditions	(Hard	= 10, So	ft = 15)		
Average Daily	Traffic (Adt):	5,800 vehicles	3			Autos:	15		
	Percentage:	10%		Medium Ti	rucks (2	? Axles):	15		
Peak H	lour Volume:	580 vehicles	5	Heavy Tru	icks (3+	- Axles):	15		
Ve	hicle Speed:	35 mph	1	/ehicle Mix					
Near/Far La	ne Distance:	32 feet	_	VehicleType	Э	Day	Evening	Night	Daily
Site Data					Autos:	75.5%		10.5%	
Ra	rrier Height:	0.0 feet		Medium 7	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	_	0.0		Heavy T	Trucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	•	135.0 feet		loise Source E	levatio	ns (in fa	not)		
Centerline Dist.	to Observer:	206.0 feet	, , ,	Auto		021.00	cij		
Barrier Distance	to Observer:	71.0 feet				023.30			
Observer Height	(Above Pad):	14.0 feet		Medium Truck	•		Grade Ad	iustmont	
P	ad Elevation:	1,029.5 feet		Heavy Truck	(S. 1,	029.01	Grade Au	justinent	. 0.0
Ro	ad Elevation:	1,021.0 feet	L	ane Equivalen	t Dista	nce (in f	eet)		
Barr	ier Elevation:	1,029.5 feet		Auto	s: 19	0.657			
	Road Grade:	1.0%		Medium Truck	rs: 19	0.400			
				Heavy Truck	rs: 18	9.879			
FHWA Noise Mode	el Calculation	s							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fre	snel	Barrier Atte	en Ber	m Atten
Autos:	65.11	-3.23	-8.82	-1.20		-0.34	0.0	000	0.000
Modium Trucks:	74 92	20.46	0.04	1 20		0.45	0.0	200	0.000

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	65.11	-3.23	-8.82	-1.20	-0.34	0.000	0.000
Medium Trucks:	74.83	-20.46	-8.81	-1.20	<i>-0.4</i> 5	0.000	0.000
Heavy Trucks:	80.05	-24.42	-8.80	-1.20	-0.80	0.000	0.000

Unmitigated Noise	Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:	51.9	49.9	48.5	42.5	50.9	51.6					
Medium Trucks:	44.4	40.5	33.0	41.7	47.9	47.9					
Heavy Trucks:	45.6	41.6	38.2	42.8	49.0	49.1					
Vehicle Noise:	53.4	50.9	49.0	47.2	54.2	54.6					

Mitigated Noise Lo	Mitigated Noise Levels (with Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	51.9	49.9	48.5	42.5	50.9	51.6				
Medium Trucks:	44.4	40.5	33.0	41.7	47.9	47.9				
Heavy Trucks:	45.6	41.6	38.2	42.8	49.0	49.1				
Vehicle Noise:	53.4	50.9	49.0	47.2	54.2	54.6				

Scenario: Second Floor With Wall

Project Name: Everhome Suites

Road Name: Harriman Pl.

Job Number: 15215

Name: Harriman Pl. Job Number: 15215
Lot No: 332 Analyst: A.Shami

SITE SPECIFIC INPUT DATA	
Average Daily Traffic (Adt): 5,800 vehicles   Peak Hour Percentage: 10%   Medium Trucks (2 Axles): 15   Heavy Trucks (3+ Axles): 15   Heavy Trucks (3+ Axles): 15	
Peak Hour Percentage:	
Peak Hour Volume:   S80 vehicles   Vehicle Speed:   35 mph   Near/Far Lane Distance:   32 feet     Vehicle Mix   Vehicle Type   Day   Evening   Night   Nigh	
Vehicle Speed: 35 mph   Near/Far Lane Distance: 32 feet   Vehicle Mix   Vehicle Type   Day   Evening   Night   Night	
Near/Far Lane Distance:   32 feet     VehicleType   Day   Evening   Night	
Near/Far Lane Distance:   32 feet   VehicleType   Day   Evening   Night	
Autos: 75.5%   14.0%   10.1	t Daily
Heavy Trucks: 47.3% 5.4% 47.3	
Heavy Trucks: 47.3% 5.4% 47.3% 5.4% 47.3% Centerline Dist. to Barrier: 135.0 feet   135.0 feet   14.0 feet   14.	1.84%
Noise Source Elevations (in feet)   Autos: 1,022.00   Medium Trucks: 1,038.0 feet   Autos: 1,022.00   Medium Trucks: 1,038.0 feet   Autos: 153.118   Autos: 152.684   Heavy Trucks: 151.752   Medium Trucks: 151.752	0.74%
Centerline Dist. to Observer:	
Medium Trucks: 1,024.30   Heavy Trucks: 1,024.30   Heavy Trucks: 1,030.01   Grade Adjustment	
Observer Height (Above Pad): Pad Elevation: 1,038.0 feet Road Elevation: 1,038.0 feet Road Elevation: 1,022.0 feet Barrier Elevation: 1,038.0 feet Road Grade: 1.0%         Lane Equivalent Distance (in feet)           FHWA Noise Model Calculations           Vehicle Type REMEL Traffic Flow Distance Reavy Trucks: 74.83 -20.46 -7.38 -1.20 -1.03 0.000           Medium Trucks: 74.83 -20.46 -7.38 -1.20 -1.17 0.000           Heavy Trucks: 80.05 -24.42 -7.34 -1.20 -1.57 0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)           Vehicle Type Leq Peak Hour Leq Day Leq Evening Leq Night Ldn           Autos: 53.3 51.3 50.0 44.0 52.4           Medium Trucks: 45.8 41.9 34.4 43.1 49.3           Heavy Trucks: 45.8 52.3 50.5 48.6 55.7           Mitigated Noise Levels (with Topo and barrier attenuation)           Vehicle Noise: 54.8 52.3 50.5 48.6 55.7	
Pad Elevation: 1,038.0 feet   Road Elevation: 1,022.0 feet   Barrier Elevation: 1,038.0 feet   Road Grade: 1.0%   Autos: 153.118   Medium Trucks: 152.684   Heavy Trucks: 151.752   Heavy Trucks: 151.752	nt· 0 0
Barrier Elevation: 1,038.0 feet   Road Grade: 1.0%   Medium Trucks: 152.684   Heavy Trucks: 151.752	
Road Grade:   1.0%     Medium Trucks:   152.684   Heavy Trucks:   151.752	
Heavy Trucks: 151.752   Heavy Trucks: 151.752   Heavy Trucks: 151.752	
FHWA Noise Model Calculations           VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Example Attended Attende	
VehicleType         REMEL         Traffic Flow         Distance         Finite Road         Fresnel         Barrier Atten         Example Autor           Autos:         65.11         -3.23         -7.39         -1.20         -1.03         0.000           Medium Trucks:         74.83         -20.46         -7.38         -1.20         -1.17         0.000           Heavy Trucks:         80.05         -24.42         -7.34         -1.20         -1.57         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn           Autos:         53.3         51.3         50.0         44.0         52.4           Medium Trucks:         45.8         41.9         34.4         43.1         49.3           Heavy Trucks:         47.1         43.0         39.7         44.3         50.5           Vehicle Noise:         54.8         52.3         50.5         48.6         55.7           Mitigated Noise Levels (with Topo and barrier attenuation)           Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn	
Autos:         65.11         -3.23         -7.39         -1.20         -1.03         0.000           Medium Trucks:         74.83         -20.46         -7.38         -1.20         -1.17         0.000           Heavy Trucks:         80.05         -24.42         -7.34         -1.20         -1.57         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)         Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn           Autos:         53.3         51.3         50.0         44.0         52.4           Medium Trucks:         45.8         41.9         34.4         43.1         49.3           Heavy Trucks:         47.1         43.0         39.7         44.3         50.5           Vehicle Noise:         54.8         52.3         50.5         48.6         55.7           Mitigated Noise Levels (with Topo and barrier attenuation)         Leq Night         Ldn           Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn	
Medium Trucks:         74.83         -20.46         -7.38         -1.20         -1.17         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn           Autos:         53.3         51.3         50.0         44.0         52.4           Medium Trucks:         45.8         41.9         34.4         43.1         49.3           Heavy Trucks:         47.1         43.0         39.7         44.3         50.5           Vehicle Noise:         54.8         52.3         50.5         48.6         55.7           Mitigated Noise Levels (with Topo and barrier attenuation)         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn	Berm Atten
Heavy Trucks:         80.05         -24.42         -7.34         -1.20         -1.57         0.000           Unmitigated Noise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn           Autos:         53.3         51.3         50.0         44.0         52.4           Medium Trucks:         45.8         41.9         34.4         43.1         49.3           Heavy Trucks:         47.1         43.0         39.7         44.3         50.5           Vehicle Noise:         54.8         52.3         50.5         48.6         55.7           Mitigated Noise Levels (with Topo and barrier attenuation)         Leq Night         Ldn           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn           Autos:         53.3         51.3         50.0         44.0         52.4           Medium Trucks:         45.8         41.9         34.4         43.1         49.3           Heavy Trucks:         47.1         43.0         39.7         44.3         50.5           Vehicle Noise:         54.8         52.3         50.5         48.6         55.7           Mitigated Noise Levels (with Topo and barrier attenuation)         Vehicle Type         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn	0.000
VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn           Autos:         53.3         51.3         50.0         44.0         52.4           Medium Trucks:         45.8         41.9         34.4         43.1         49.3           Heavy Trucks:         47.1         43.0         39.7         44.3         50.5           Vehicle Noise:         54.8         52.3         50.5         48.6         55.7           Mitigated Noise Levels (with Topo and barrier attenuation)           VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn	0.000
Autos:       53.3       51.3       50.0       44.0       52.4         Medium Trucks:       45.8       41.9       34.4       43.1       49.3         Heavy Trucks:       47.1       43.0       39.7       44.3       50.5         Vehicle Noise:       54.8       52.3       50.5       48.6       55.7         Mitigated Noise Levels (with Topo and barrier attenuation)         VehicleType       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn	
Medium Trucks:       45.8       41.9       34.4       43.1       49.3         Heavy Trucks:       47.1       43.0       39.7       44.3       50.5         Vehicle Noise:       54.8       52.3       50.5       48.6       55.7         Mitigated Noise Levels (with Topo and barrier attenuation)       Vehicle Type       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn	CNEL
Heavy Trucks:         47.1         43.0         39.7         44.3         50.5           Vehicle Noise:         54.8         52.3         50.5         48.6         55.7           Mitigated Noise Levels (with Topo and barrier attenuation)         VehicleType         Leq Peak Hour         Leq Day         Leq Evening         Leq Night         Ldn	53.0
Vehicle Noise:       54.8       52.3       50.5       48.6       55.7         Mitigated Noise Levels (with Topo and barrier attenuation)         VehicleType       Leq Peak Hour       Leq Day       Leq Evening       Leq Night       Ldn	49.3
Mitigated Noise Levels (with Topo and barrier attenuation)  VehicleType   Leq Peak Hour   Leq Day   Leq Evening   Leq Night   Ldn	50.6
VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn	56.0
,, , , , , , , , , , , , , , , , , , , ,	
Autos: 53.3 51.3 50.0 44.0 52.4	CNEL
	53.0
Medium Trucks: 45.8 41.9 34.4 43.1 49.3	49.3
Heavy Trucks: 47.1 43.0 39.7 44.3 50.5	50.6
Vehicle Noise:         54.8         52.3         50.5         48.6         55.7	56.0

Project Name: Everhome Suites Scenario: Second Floor With Wall Job Number: 15215 Road Name: Harriman Pl.

	ле. напшашет. Vo: 319					JOD INUI An	niber. 1 nalyst: A		ni		
SITE	SPECIFIC INF	UT DATA				NC	DISE M	10DE	L INPUT:	S	
Highway Data				Si	ite Con	ditions (F					
Average Daily	Traffic (Adt): 5	5,800 vehicles	5				A	Autos:	15		
	Percentage:	10%			Me	dium Truc	ks (2 A	xles):	15		
Peak H	lour Volume:	580 vehicles	3		He	avy Truck	rs (3+ A	xles):	15		
Ve	ehicle Speed:	35 mph		V	ehicle l	Vix					
Near/Far La	ne Distance:	32 feet				icleType		Day	Evening	Night	Daily
Site Data								75.5%		10.5%	_
Ba	rrier Height:	0.0 feet			М	edium Tru	icks:	48.9%	2.2%	48.9%	6 1.84%
Barrier Type (0-W	•	0.0				Heavy Tru	icks:	47.3%	5.4%	47.3%	6 0.74%
	*	135.0 feet		A/	oico Sa	ource Ele	votions	(in fo	no+1		
Centerline Dist.	to Observer:	206.0 feet		74	uise sc	Autos:			ei)		
Barrier Distance	to Observer:	71.0 feet			Modiu	Autos. m Trucks:					
Observer Height	(Above Pad):	14.0 feet				y Trucks:			Grade Ad	ii istmen	<i>t</i> · 0 0
P	ad Elevation: 1,	038.5 feet			Heav	y Trucks.	1,02	9.01	Orade Ad	justinen	1. 0.0
Ro	ad Elevation: 1,	021.0 feet		Li	ane Eq	uivalent E	Distanc	e (in f	eet)		
Barr	ier Elevation: 1,	038.5 feet				Autos:					
	Road Grade:	1.0%				m Trucks:					
					Heav	y Trucks:	190.7	777			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresne	el	Barrier Att	en Be	rm Atten
Autos:	65.11	-3.23		-8.87		-1.20		-0.05	0.0	000	0.000
Medium Trucks:		-20.46		-8.85		-1.20		-0.10	0.0	000	0.000
Heavy Trucks:	80.05	-24.42		-8.83		-1.20		-0.29	0.0	000	0.000
Unmitigated Noise	e Levels (withou	ut Topo and	barri	er attenu	ation)						-
VehicleType	Leq Peak Hour	Leq Day	′	Leq Eve	ening	Leq N	ight		Ldn	С	NEL
Autos:		3	49.8		48.5		42.5		50.9	9	51.5
Medium Trucks:	44.3	}	40.4		32.9		41.7		47.8	3	47.9
Heavy Trucks:			41.6		38.2		42.8		49.0	)	49.1
Vehicle Noise:	53.3	3	50.8		49.0		47.1		54.2	2	54.5
Mitigated Noise Lo	evels (with Tope	o and barrie	atte	nuation)							
VehicleType	Leq Peak Hour	Leq Day	,	Leq Eve	ening	Leq N	ight		Ldn	С	NEL
Autos:			49.8		48.5		42.5		50.9	9	51.5
Medium Trucks:			40.4		32.9		41.7		47.8		47.9
Heavy Trucks:			41.6		38.2		42.8		49.0		49.1
Vehicle Noise:	53.3	3	50.8		49.0		47.1		54.2	2	54.5

Project Name: Everhome Suites Job Number: 15215 Scenario: Second Floor With Wall Road Name: Harriman Pl.

	ne: Harriman Pi. Vo: 432						nber: 15. alyst: A.S				
SITE	SPECIFIC INP	UT DATA				NC	ISE MC	DEL	INPUTS	3	
Highway Data				Si	te Con	ditions (F					
	Traffic (Adt): 5 Percentage: Hour Volume:	,800 vehicles 10% 580 vehicles				dium Truc avy Truck	ks (2 Axi	,	15 15 15		
Ve	ehicle Speed: ane Distance:	35 mph 32 feet		Ve	ehicle l	Иiх					
Site Data					Veh	icleType		ay 1 5.5%	Evening	Night	Daily
<b>Ba</b> Barrier Type (0-W	•	<b>0.0 feet</b> 0.0				edium Tru Heavy Tru	cks: 48	3.9% 7.3%	14.0% 2.2% 5.4%	48.9% 47.3%	
		135.0 feet 167.0 feet		N	oise So	ource Elev	ations (	in fee	t)		
Ro Barr	to Observer: (Above Pad): lad Elevation: 1, lad Elevation: 1, lier Elevation: 1,	32.0 feet 14.0 feet 047.0 feet 045.0 feet 047.0 feet		Lá	Heav a <b>ne Eq</b>	Autos: m Trucks: yy Trucks: uivalent L Autos:	1,047. 1,053. <i>Distance</i> 151.00	30 01 ( (in fe	Grade Adj <b>et)</b>	iustmen	t: 0.0
FHWA Noise Mod	Road Grade:	1.0%				m Trucks: vy Trucks:					
VehicleType		Traffic Flow	Dis	stance	Finite	Road	Fresnel	В	arrier Atte	en Be	rm Atten
Autos:	65.11	-3.23		-7.30		-1.20	-2	.05	0.0		0.000
Medium Trucks:	74.83	-20.46		-7.29		-1.20	-2	.26	0.0	000	0.000
Heavy Trucks:	80.05	-24.42		-7.28		-1.20	-2	.81	0.0	000	0.000
Unmitigated Noise	e Levels (withou	ıt Topo and l	barri	er attenu	ation)						
VehicleType	Leq Peak Hour	Leq Day		Leq Eve	ening	Leq N	ight	L	_dn	C	NEL
Autos:	53.4	Į	51.4		50.1		44.0		52.5	)	53.1
Medium Trucks:	45.9	4	12.0		34.5		43.2		49.4	ļ	49.4
Heavy Trucks:	47.2	4	13.1		39.7		44.4		50.6	3	50.7
Vehicle Noise:	54.9	Ę	52.4		50.6		48.7		55.8	3	56.1
Mitigated Noise L	evels (with Topo	and barrier	atte	nuation)							
VehicleType	Leq Peak Hour	Leq Day		Leq Eve	ening	Leq N	ight	L	_dn	C	NEL
Autos:	53.4	Ę	51.4		50.1		44.0		52.5	5	53.1
Medium Trucks:	45.9	4	12.0		34.5		43.2		49.4		49.4
Heavy Trucks:	47.2		13.1		39.7		44.4		50.6	<u> </u>	50.7
Vehicle Noise:	54.9	ļ	52.4		50.6		48.7		55.8	3	56.1

Scenario: Second Floor With Wall

Project Name: Everhome Suites

Road Name: Harriman Pl.

Lot No: 419

Job Number: 15215

Analyst: A.Shami

Lot N	<i>lo:</i> 419					A	nalyst: I	4.Shar	NI		
SITE	SPECIFIC IN	IPUT DATA				N	OISEN	ЛОDE	L INPUTS	5	
Highway Data				Si	ite Con	ditions (	Hard =	10, Sc	ft = 15)		
Average Daily	Traffic (Adt):	5,800 vehicles	S					Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tru	icks (2 A	Axles):	15		
Peak H	lour Volume:	580 vehicles	S		He	avy Truc	ks (3+ A	Axles):	15		
Ve	hicle Speed:	35 mph		Ve	ehicle l	Vix					
Near/Far La	ne Distance:	32 feet				icleType		Day	Evening	Night	Daily
Site Data							utos:	75.5%	_	•	97.42%
Ba	rrier Height:	0.0 feet			М	edium Tr	ucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W	•	0.0				Heavy Tr	ucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	•	135.0 feet		N	nisa Sr	ource Ele	vation	s (in fa	of)		
Centerline Dist.	to Observer:	206.0 feet		/40	OI3E 3C	Autos		21.00	et)		
Barrier Distance	to Observer:	71.0 feet			Mediu	m Trucks	•	23.30			
Observer Height	(Above Pad):	14.0 feet				y Trucks		29.01	Grade Ad	iustment.	0.0
	ad Elevation:	,		_							
	ad Elevation:	,		Lá	ane Eq	uivalent			eet)		
	ier Elevation:	·					: 193.				
	Road Grade:	1.0%				m Trucks					
					пеач	y Trucks	. 192.	093			
FHWA Noise Mode	el Calculation	s									
VehicleType	REMEL	Traffic Flow	Distan	ce	Finite	Road	Fresn	el	Barrier Atte	en Ber	m Atten
Autos:	65.11	-3.23		-8.91		-1.20		0.01	-5.1	00	-8.100
Medium Trucks:	74.83			-8.89		-1.20		0.00	-4.9	900	-7.900
Heavy Trucks:	80.05	-24.42		-8.87		-1.20		-0.04	0.0	000	0.000
Unmitigated Noise	e Levels (with	out Topo and	barrier a	ttenu	ation)						
VehicleType	Leq Peak Hou	ır Leq Day	/ Le	eq Eve	ening	Leq N	Vight		Ldn	CI	VEL
Autos:	51	.8	49.8		48.5		42.4	1	50.9	)	51.5
Medium Trucks:			40.4		32.9		41.6		47.8		47.8
Heavy Trucks:	45		41.5		38.1		42.8		49.0		49.1
Vehicle Noise:	53	3.3	50.8		48.9		47.1	l	54.2	2	54.5
Mitigated Noise Le	evels (with To	po and barrie	r attenua	tion)							
VehicleType	Leq Peak Hou			eq Eve	•	Leq N	-		Ldn	1	VEL
Autos:	46	5.7	44.7		43.4		37.3	3	45.8	3	46.4

Medium Trucks:

Heavy Trucks:

Vehicle Noise:

39.4

45.6

49.6

28.0

38.1

44.6

36.7

42.8

44.6

42.9

49.0

51.3

42.9

49.1

51.6

35.5

41.5

46.7

	ле. напшап Fi. Vo: 132					Ari	nalyst: A		ni		
SITE	SPECIFIC INP	UT DATA				NC	DISE M	IODE	L INPUT:	S	
Highway Data				Si	ite Con	ditions (F					
Average Daily	Traffic (Adt): 5	5,800 vehicles	3				A	Autos:	15		
	Percentage:	10%			Me	dium Truc	cks (2 A	xles):	15		
Peak H	lour Volume:	580 vehicles	3		He	avy Truck	rs (3+ A	xles):	15		
Ve	ehicle Speed:	35 mph		V	ehicle l	Vix					
Near/Far La	ane Distance:	32 feet				icleType		Day	Evening	Night	Daily
Site Data								75.5%	•	10.5%	
Ba	rrier Height:	0.0 feet			М	edium Tru	icks:	48.9%	2.2%	48.9%	6 1.84%
Barrier Type (0-W	•	0.0				Heavy Tru	icks:	47.3%	5.4%	47.3%	6 0.74%
	*	135.0 feet		N	nisa Sr	ource Ele	vations	(in fo	not)		
Centerline Dist.	to Observer:	167.0 feet		7	orse sc	Autos:					
Barrier Distance	to Observer:	32.0 feet			Madiu	m Trucks:					
Observer Height	(Above Pad):	23.0 feet				ry Trucks: ry Trucks:			Grade Ad	iustmen	t: 0.0
P	ad Elevation: 1,	024.0 feet									
Ro	ad Elevation: 1,	022.0 feet		Lá	ane Eq	uivalent L		-	feet)		
	ier Elevation: 1,					Autos:	_				
	Road Grade:	1.0%				m Trucks:					
					Heav	y Trucks:	151.1	09			
FHWA Noise Mod	el Calculations										
VehicleType	REMEL	Traffic Flow	Dis	stance	Finite	Road	Fresne	əl	Barrier Att	en Be	rm Atten
Autos:	65.11	-3.23		-7.36		-1.20		-5.25	0.0	000	0.000
Medium Trucks:		-20.46		-7.34		-1.20		-5.59	0.0	000	0.000
Heavy Trucks:	80.05	-24.42		-7.31		-1.20	•	-6.46	0.0	000	0.000
Unmitigated Noise	e Levels (withoເ	ıt Topo and	barri	er attenu	ation)						
VehicleType	Leq Peak Hour	Leq Day		Leq Eve	ening	Leq N	ight		Ldn	С	NEL
Autos:			51.3		50.0		44.0		52.4		53.0
Medium Trucks:			41.9		34.4		43.2		49.3		49.4
Heavy Trucks:			43.1		39.7		44.3		50.5		50.6
Vehicle Noise:	54.8	3	52.3		50.5		48.6		55.7	7	56.1
Mitigated Noise Lo	evels (with Topo	o and barrier	atte	nuation)							
VehicleType	Leq Peak Hour	Leq Day	,	Leq Eve	ening	Leq N	ight		Ldn	С	NEL
Autos:			51.3		50.0		44.0		52.4	4	53.0
Medium Trucks:			41.9		34.4		43.2		49.3		49.4
Heavy Trucks:			43.1		39.7		44.3		50.5		50.6
Vehicle Noise:	54.8	}	52.3		50.5		48.6		55.7	7	56.1

							Analyst: A	v. Or iai			
SITE	SPECIFIC INP	UT DATA				Ν	IOISE N	10DE	L INPUTS	5	
Highway Data				S	ite Con	ditions	(Hard =	10, So	ft = 15)		
Average Daily	Traffic (Adt): 5,	800 vehicles	3				,	Autos:	15		
Peak Hour	Percentage:	10%			Me	dium Tri	ucks (2 A	(xles	15		
Peak H	lour Volume:	580 vehicles	3		He	avy Truc	cks (3+ A	(xles	15		
Ve	hicle Speed:	35 mph		V	ehicle l	Mix					
Near/Far La	ne Distance:	32 feet			Veh	icleType	,	Day	Evening	Night	Daily
Site Data						,	Autos:	75.5%	14.0%	10.5%	97.42%
Bai	rrier Height:	0.0 feet			М	edium T	rucks:	48.9%	2.2%	48.9%	1.84%
Barrier Type (0-W		0.0			ı	Heavy T	rucks:	47.3%	5.4%	47.3%	0.74%
Centerline Di	,	135.0 feet			loise Sc	urce Fl	evations	in fe	not)		
Centerline Dist.	to Observer:	167.0 feet			0/30 00	Auto		2.00			
Barrier Distance	to Observer:	32.0 feet			Mediu	m Truck	,				
Observer Height (	(Above Pad):	23.0 feet				y Truck	-		Grade Adj	ustment	± 0.0
Pa	ad Elevation: 1,0	)29.0 feet									
	ad Elevation: 1,0			L	ane Eq		Distanc		eet)		
	ier Elevation: 1,0					Auto					
1	Road Grade:	1.0%				m Truck					
					Heav	y iruck	s: 151.7	/52			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL T	raffic Flow	Dis	stance	Finite	Road	Fresn	el	Barrier Atte	en Ber	m Atten
Autos:	65.11	-3.23		-7.39		-1.20		<i>-4.5</i> 6	0.0	00	0.000
Medium Trucks:	74.83	-20.46		-7.38		-1.20		-4.87	0.0	00	0.000
Heavy Trucks:	80.05	-24.42		-7.34		-1.20		-5.69	0.0	00	0.000
Unmitigated Noise	e Levels (withou	t Topo and	barri	er attenu	ation)						
VehicleType	Leq Peak Hour	Leq Day		Leq Ev	ening	Leq	Night		Ldn	C	NEL
Autos:	53.3		51.3		50.0		44.0		52.4		53.0
Medium Trucks:	45.8		41.9		34.4		43.1		49.3		49.3
Heavy Trucks:	47.1		43.0		39.7		44.3	1	50.5	j	50.6
Vehicle Noise:	54.8		52.3		50.5		48.6		55.7	•	56.0
Mitigated Noise Le	evels (with Topo	and barrie	atte	nuation)							
VehicleType	Leq Peak Hour	Leq Day	′	Leq Ev	ening	Leq	Night		Ldn	C	NEL
Autos:	53.3		51.3		50.0		44.0		52.4		53.0
Medium Trucks:	45.8		41.9		34.4		43.1		49.3		49.3
Heavy Trucks:	47.1		43.0		39.7		44.3		50.5		50.6
Vehicle Noise:	54.8		52.3		50.5		48.6		55.7	•	56.0

Lot N	Vo: 219		Analyst: A.Shami											
SITE	SPECIFIC INP	UT DATA			NOISE MODEL INPUTS									
Highway Data				S	ite Con	ditions (H	lard = 10,	Soft	= 15)					
Average Daily	Traffic (Adt): 5	,800 vehicles					Auto	os:	15					
Peak Hour	Percentage:	10%			Me	dium Truc	ks (2 Axle	es):	15					
Peak F	lour Volume:	580 vehicles			He	avy Truck	s (3+ Axle	es):	15					
Ve	ehicle Speed:	35 mph		V	ehicle l	Mix								
Near/Far La	ne Distance:	32 feet				icleType	Da	y E	vening	Night	Daily			
Site Data						Αι	itos: 75.	5%	14.0%	10.5%	97.42%			
Ва	rrier Height:	0.0 feet			М	edium Tru	cks: 48.	.9%	2.2%	48.9%	1.84%			
Barrier Type (0-V	_	0.0			ı	Heavy Tru	cks: 47.	.3%	5.4%	47.3%	0.74%			
Centerline Di	st. to Barrier:	135.0 feet		A	loise Sc	ource Elev	vations (ir	n foot	)					
Centerline Dist.	to Observer:	206.0 feet		,,	0/30 00	Autos:	•		<u>,                                      </u>					
Barrier Distance	to Observer:	71.0 feet			Mediu	m Trucks:	1,023.3							
Observer Height	(Above Pad):	23.0 feet				y Trucks:	,		rade Adı	iustment.	: 0.0			
	ad Elevation: 1,0			_										
	ad Elevation: 1,0			L	ane Eq	uivalent D	•		t)					
	ier Elevation: 1,0					Autos:								
	Road Grade:	1.0%				m Trucks:								
					Heav	y Trucks:	190.777							
FHWA Noise Mod	el Calculations													
VehicleType	REMEL 7	raffic Flow	Dis	tance	Finite	Road	Fresnel	Ва	rrier Atte	en Ber	m Atten			
Autos:	65.11	-3.23		-8.87		-1.20	-1.3	31	0.0	000	0.000			
Medium Trucks:	74.83	-20.46		-8.85		-1.20	-1.8	53	0.0	000	0.000			
Heavy Trucks:	80.05	-24.42		-8.83		-1.20	<b>-2</b> .	14	0.0	000	0.000			
Unmitigated Noise	e Levels (withou	it Topo and I	barrie	er attenu	ation)									
VehicleType	Leq Peak Hour	Leq Day		Leq Ev	ening	Leq Ni	ight	Lo	dn	CI	VEL			
Autos:	51.8	4	19.8		48.5		42.5		50.9	)	51.5			
Medium Trucks:	_		10.4		32.9		41.7		47.8		47.9			
Heavy Trucks:			11.6		38.2		42.8		49.0		49.1			
Vehicle Noise:	53.3	Į	50.8		49.0		47.1		54.2	2	54.5			
Mitigated Noise L	evels (with Topo	and barrier	atter	nuation)										
VehicleType	Leq Peak Hour	Leq Day		Leq Ev	ening	Leq Ni	ight	Lo	dn	CI	VEL			
Autos:			19.8		48.5		42.5		50.9	)	51.5			
Medium Trucks:			10.4		32.9		41.7		47.8		47.9			
Heavy Trucks:			11.6		38.2		42.8		49.0		49.1			
Vehicle Noise:	53.3	5	50.8		49.0		47.1		54.2	2	54.5			

Project Name: Everhome Suites Job Number: 15215 Scenario: Third Floor With Wall Road Name: Harriman Pl.

	lo: 332						Analyst: A	-	ni		
SITE	SPECIFIC INP	UT DATA				Λ	IOISE M	ODE	L INPUTS	5	
Highway Data				S	ite Con	ditions	(Hard = 1	10, So	ft = 15)		
Average Daily	Traffic (Adt): 5	,800 vehicles	6				A	lutos:	15		
Peak Hour	Percentage:	10%			Me	dium Tri	ucks (2 A	xles):	15		
Peak H	lour Volume:	580 vehicles	3		He	avy Trud	cks (3+ A	xles):	15		
Ve	hicle Speed:	35 mph		ν	'ehicle l	/lix					
Near/Far La	ne Distance:	32 feet		-		icleType	,	Day	Evening	Night	Daily
Site Data								75.5%	_	10.5%	
	rrier Height:	0.0 feet			M	edium T		48.9%		48.9%	1.84%
Barrier Type (0-W	-	0.0 feet 0.0				Heavy T		47.3%		47.3%	0.74%
Centerline Di	•	135.0 feet		A	loico Sa	uroo El	ovotions	(in fo	2041		
Centerline Dist.		167.0 feet		^	ioise so		evations		et)		
Barrier Distance	to Observer:	32.0 feet				Auto	•				
Observer Height (		23.0 feet				n Truck	•		0 1- 4-1		0.0
= :		038.0 feet			Heav	y Truck	s: 1,030	0.01	Grade Adj	ustment.	0.0
Roa	ad Elevation: 1,0			L	ane Equ	ıivalent	Distanc	e (in f	eet)		
Barri	ier Elevation: 1,0	038.0 feet				Auto	s: 155.1	32			
ı	Road Grade:	1.0%			Mediui	n Truck	s: 154.5	71			
					Heav	y Truck	s: 153.3	15			
FHWA Noise Mode	el Calculations										
VehicleType	REMEL 7	raffic Flow	Dis	tance	Finite	Road	Fresne	e/	Barrier Atte	en Ber	m Atten
Autos:	65.11	-3.23		-7.48	3	-1.20	-	·3.45	0.0	000	0.000
Medium Trucks:	74.83	-20.46		-7.46	6	-1.20	-	3.72	0.0	000	0.000
Heavy Trucks:	80.05	-24.42		-7.40	)	-1.20	-	4.43	0.0	000	0.000
Unmitigated Noise	e Levels (withou	t Topo and	barrie	er attenu	uation)						
VehicleType	Leq Peak Hour	Leq Day		Leq Ev	ening	Leq	Night		Ldn	CI	VEL
Autos:	53.2	;	51.2		49.9		43.9		52.3	3	52.9
Medium Trucks:	45.7		41.8		34.3		43.1		49.2	2	49.3
Heavy Trucks:	47.0		43.0		39.6		44.2		50.4		50.5
Vehicle Noise:	54.7	,	52.2		50.4		48.5		55.6	6	55.9
Mitigated Noise Le	evels (with Topo	and barrier	atter	nuation)							
VehicleType	Leq Peak Hour	Leq Day		Leq Ev	ening	Leq	Night		Ldn	CI	VEL
Autos:	53.2	;	51.2		49.9		43.9		52.3	3	52.9
Medium Trucks:	45.7		41.8		34.3		43.1		49.2		49.3
Heavy Trucks:	47.0		43.0		39.6		44.2		50.4		50.5
Vehicle Noise:	54.7		52.2		50.4		48.5		55.6	<u> </u>	55.9

Lot N	lo: 319		Analyst: A.Shami											
SITE	SPECIFIC INP	UT DATA			NOISE MODEL INPUTS									
Highway Data				Si	te Con	ditions (F	lard = 10,	Soft	= 15)					
Average Daily	Traffic (Adt): 5	,800 vehicles					Aut	os:	15					
Peak Hour	Percentage:	10%			Me	dium Truc	ks (2 Axle	es):	15					
Peak F	lour Volume:	580 vehicles			He	avy Truck	s (3+ Axle	es):	15					
Ve	ehicle Speed:	35 mph		Ve	ehicle l	Mix								
Near/Far La	ne Distance:	32 feet				icleType	Da	y E	vening	Night	Daily			
Site Data							_	.5%	14.0%	10.5%				
Ва	rrier Height:	0.0 feet			М	edium Tru	cks: 48.	.9%	2.2%	48.9%	1.84%			
Barrier Type (0-W	_	0.0			1	Heavy Tru	cks: 47.	.3%	5.4%	47.3%	0.74%			
	•	135.0 feet		N	nisa Sc	ource Elev	ıstions (iı	n fooi	<i>f</i> )					
Centerline Dist.	to Observer:	206.0 feet		740	<i>7136</i> 30	Autos:			.,					
Barrier Distance	to Observer:	71.0 feet			Mediu	m Trucks:	•							
Observer Height	(Above Pad):	23.0 feet				n Trucks: /y Trucks:	•	_	Grade Adj	ustment.	: 0.0			
P	ad Elevation: 1,0	038.5 feet		_										
	ad Elevation: 1,			Lá	ne Eq	uivalent E	•		e <i>t)</i>					
	ier Elevation: 1,					Autos:								
	Road Grade:	1.0%				m Trucks:								
					Heav	y Trucks:	192.093	3						
FHWA Noise Mode	el Calculations													
VehicleType	REMEL 7	raffic Flow	Dis	stance	Finite	Road	Fresnel	Ba	arrier Atte	en Ber	m Atten			
Autos:	65.11	-3.23		-8.92		-1.20	-0.0	63	0.0	000	0.000			
Medium Trucks:	74.83	-20.46		-8.91		-1.20	-0.7	78	0.0	000	0.000			
Heavy Trucks:	80.05	-24.42		-8.87		-1.20	-1.2	22	0.0	000	0.000			
Unmitigated Noise	e Levels (withou	it Topo and I	barrie	er attenua	ation)									
VehicleType	Leq Peak Hour	Leq Day		Leq Eve	ning	Leq N	ight	L	dn	CI	VEL			
Autos:	51.8	4	49.8		48.4		42.4		50.8	3	51.5			
Medium Trucks:	_		40.4		32.9		41.6		47.8		47.8			
Heavy Trucks:			41.5		38.1		42.8		49.0		49.1			
Vehicle Noise:	53.3	į	50.8		48.9		47.1		54.2	) -	54.5			
Mitigated Noise Lo	evels (with Topo	and barrier	attei	nuation)										
VehicleType	Leq Peak Hour	Leq Day		Leq Eve	ening	Leq N	ight	L	dn	CI	VEL			
Autos:			49.8		48.4		42.4		50.8	3	51.5			
Medium Trucks:			40.4		32.9		41.6		47.8		47.8			
Heavy Trucks:		4	41.5		38.1		42.8		49.0		49.1			
Vehicle Noise:	53.3		50.8		48.9		47.1		54.2	2	54.5			

Lot N	Vo: 432		Analyst: A.Shami											
SITE	SPECIFIC INP	UT DATA			NOISE MODEL INPUTS									
Highway Data				Si	te Con	ditions (H	lard = 10,	Soft =	: 15)					
Average Daily	Traffic (Adt): 5	,800 vehicles	;				Auto	os:	15					
Peak Hour	Percentage:	10%			Me	dium Truc	ks (2 Axle	s):	15					
Peak H	Hour Volume:	580 vehicles	;		He	avy Truck	s (3+ <i>Axle</i> .	s):	15					
	ehicle Speed:	35 mph		Ve	hicle l	Vix								
Near/Far La	ane Distance:	32 feet			Veh	icleType	Day	/ Ev	ening	Night	Daily			
Site Data						Αι	itos: 75.	5%	14.0%	10.5%	97.42%			
Ва	rrier Height:	0.0 feet			М	edium Tru	cks: 48.9	9%	2.2%	48.9%	1.84%			
Barrier Type (0-W	-	0.0			ı	Heavy Tru	cks: 47.	3%	5.4%	47.3%	0.74%			
Centerline Di	ist. to Barrier:	135.0 feet		No	oise Sc	ource Elev	ations (in	feet)						
Centerline Dist.	to Observer:	167.0 feet		740	<i>7</i> ,00 <b>0</b> 0	Autos:	1,045.00							
Barrier Distance	to Observer:	32.0 feet			Mediu	m Trucks:	1,047.30							
Observer Height		23.0 feet				y Trucks:	•		ade Ad	justment	t: 0.0			
	ad Elevation: 1,													
	ad Elevation: 1,			La	ine ⊑q		istance (i	п теет	)					
	rier Elevation: 1,				Madiu	Autos: m Trucks:	152.217 151.857							
	Road Grade:	1.0%				y Trucks:								
					77001	y Tracks.	101.100							
FHWA Noise Mod	el Calculations			,										
VehicleType		raffic Flow	Dis	stance	Finite	Road	Fresnel	_	rier Att		rm Atten			
Autos:		-3.23		-7.36		-1.20	-5.2			000	0.000			
Medium Trucks:		-20.46		-7.34		-1.20	-5.5			000	0.000			
Heavy Trucks:	80.05	-24.42		-7.31		-1.20	-6.4	16	0.0	000	0.000			
Unmitigated Noise	e Levels (withou	t Topo and I	barrie	er attenua	ation)									
VehicleType	Leq Peak Hour	Leq Day		Leq Eve	•	Leq Ni	ght	Ld	n	C	NEL			
Autos:			51.3		50.0		44.0		52.4		53.0			
Medium Trucks:			41.9		34.4		43.2		49.3		49.4			
Heavy Trucks:			43.1		39.7		44.3		50.5		50.6			
Vehicle Noise:	54.8	;	52.3		50.5		48.6		55.7	7	56.1			
Mitigated Noise L	evels (with Topo	and barrier	atter											
VehicleType	Leq Peak Hour	Leq Day		Leq Eve		Leq Ni		Ld			NEL			
Autos:			51.3		50.0		44.0		52.4	4	53.0			
Medium Trucks:			41.9		34.4		43.2		49.3		49.4			
Heavy Trucks:			43.1		39.7		44.3		50.5		50.6			
Vehicle Noise:	54.8	!	52.3		50.5		48.6		55.7	7	56.1			

Lot N	Vo: 419		Analyst: A.Shami											
SITE	SPECIFIC INP	UT DATA			NOISE MODEL INPUTS									
Highway Data				Si	Site Conditions (Hard = 10, Soft = 15)									
Average Daily	Traffic (Adt): 5,	800 vehicles	6				,	Autos:	15					
Peak Hour	Percentage:	10%			Me	edium Tri	ucks (2 A	Axles):	15					
Peak F	lour Volume:	580 vehicles	6		He	avy Truc	cks (3+ A	(xles	15					
Ve	ehicle Speed:	35 mph		Ve	ehicle l	Wix								
Near/Far La	ane Distance:	32 feet				icleType	)	Day	Evening	Night	Daily			
Site Data								75.5%			97.42%			
Ba	rrier Height:	0.0 feet			М	edium T	rucks:	48.9%	2.2%	48.9%	1.84%			
Barrier Type (0-V	•	0.0			ı	Heavy T	rucks:	47.3%	5.4%	47.3%	0.74%			
• • •	•	135.0 feet		N	nisa Sa	ourco El	evations	in fa	not)					
Centerline Dist.	to Observer: 2	206.0 feet		740	JISE SC	Auto.		1.00	<del>,e</del> t)					
Barrier Distance	to Observer:	71.0 feet			Madiu	m Truck	•	3.30						
Observer Height	(Above Pad):	23.0 feet				/y Truck	•	9.01	Grade Ad	iustmen	t: 0.0			
P	ad Elevation: 1,0	047.5 feet												
	ad Elevation: 1,0			Lá	ane Eq		Distanc		feet)					
	ier Elevation: 1,0					Auto								
	Road Grade:	1.0%				m Truck								
					Heav	/y Truck	s: 193.8	819						
FHWA Noise Mod	el Calculations													
VehicleType	REMEL T	raffic Flow	Dis	stance	Finite	Road	Fresn	el	Barrier Atte	en Be	rm Atten			
Autos:	65.11	-3.23		-8.99		-1.20		-0.20	0.0	000	0.000			
Medium Trucks:	74.83	-20.46		-8.97		-1.20		-0.29	0.0	000	0.000			
Heavy Trucks:	80.05	-24.42		-8.93		-1.20		-0.57	0.0	000	0.000			
Unmitigated Noise	e Levels (withou	t Topo and	barrie	er attenu	ation)									
VehicleType	Leq Peak Hour	Leq Day	,	Leq Eve	ening	Leq	Night		Ldn	С	NEL			
Autos:	51.7		49.7		48.4		42.4		50.8	3	51.4			
Medium Trucks:			40.3		32.8		41.5		47.7		47.8			
Heavy Trucks:			41.5		38.1		42.7		48.9		49.0			
Vehicle Noise:	53.2	;	50.7		48.9		47.0	)	54.1		54.4			
Mitigated Noise L	evels (with Topo	and barrier	attei	nuation)										
VehicleType	Leq Peak Hour	Leq Day	•	Leq Eve	ening	Leq	Night		Ldn	С	NEL			
Autos:			49.7		48.4		42.4		50.8	3	51.4			
Medium Trucks:			40.3		32.8		41.5		47.7		47.8			
Heavy Trucks:		•	41.5		38.1		42.7		48.9	)	49.0			
Vehicle Noise:	53.2	;	50.7		48.9		47.0	)	54.1		54.4			